MONITORING REPORT DRAFT
DEW LINE LANDFILL MONITORING PROGRAM
NUNAVUT SETTLEMENT AREA
DYE-M CAPE DYER

Prepared for:

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EXECUTIVE SUMMARY

BLM-KEL-60 (JV-60) was retained by Defence Construction Canada, on behalf of the Department of National Defence, to complete the 2023 Cape Dyer (DYE-M) Distant Early Warning (DEW) Line Sites Landfill Monitoring Program. This report presents the results of the 2023 monitoring event for the former DEW Line site located at Cape Dyer, Baffin Island, Nunavut (DYE-M). 2023 represents Year 10 of the long-term, post-remediation monitoring program at DYE-M.

The monitoring field program took place between August 23 and September 2, 2023, to assess the performance of the 13 landfills and one debris area located at DYE-M. The objective of the program was to collect sufficient information to assess the performance, integrity, and stability of the landfills from a geotechnical and environmental perspective for the protection of human health and the environment. The program included visual inspections, spatial data collection, photographic records, soil and groundwater sampling and chemical analyses, and thermal monitoring of landfills at DYE-M. All field activities were completed in accordance with the Logistics and Work Plan prepared by JV-60 for the DYE-M and FOX-4 sites, dated August 15, 2023.

The main observations, results, conclusions, and recommendations from the visual, thermistor, and soil/groundwater assessments at each landfill are summarized below:

Landfill/Debris Area	Main Observations/Results	Items to be Addressed During Future Monitoring Events	Recommendations For Addition Assessment
Lower Site North Warning System Landfill	All upgradient and downgradient soil samples were below BL+V for all parameters and were comparable to previous monitoring events. Arsenic was elevated relative to past monitoring events at downgradient location DM-10, but not above BL+V. Landfill performance is Acceptable. Based on the results of the visual inspection and soil sampling program, the landfill should continue to be monitored as per the SOW.	Arsenic results should be reviewed in the next monitoring event to determine if concentrations are continuing to increase in downgradient DM-10.	No additional recommendations.
Lower Site Tier II Disposal Facility	MW05-13 had severe damage to the outer casing of the monitoring well that could not be repaired. Upgradient and downgradient soil and groundwater samples were below BL+V for all parameters and were comparable to previous monitoring events. Landfill Performance is Marginal. Slope failures are present along the north and west slopes as evidenced by seepage, sloughing, cracking, and settlement. The failures currently appear surficial however are considered likely to continue and retrogress upslope/towards the liner. Some beads on thermistors VT-2 and VT-BL are showing erratic results. Based on the results of the visual inspection, soil sampling program, and groundwater sampling programs, the landfill should continue to be monitored as per the SOW with additional monitoring efforts along the north and west slopes.	MW05-13 well repair: replace the damaged outer casing. Assessing the actual stability of the north and west slope via a numerical analysis should be considered such that expected results can be compared to field observations. This analysis would further serve to confirm that movements are not likely to extend through the liner. Preliminary conversations regarding potential remedial solutions should be discussed. Remedial options likely consist of regrading the failed area and re-armouring the slope with coarser rock. Thermistor data should be reviewed by Lakewood to assess beads that are not working or beads that are not tracking with the expected thermal regime and provide potential remedial solutions, whether they be field fixes or desktop exercises.	Numerical analysis of failed slope. Thermistor data should be reviewed by Lakewood to assess beads that are not working or beads that are not tracking with the expected thermal regime and provide potential remedial solutions, whether they be field fixes or desktop exercises.
Lower Site Crossroads Landfill	An upgradient soil sampling location, DM-01, had exceedances of BL+V in both the surface and deep samples for copper, lead, zinc, Total PCBs, and PHC F3. These exceedances are not believed to reflect landfill contaminant migration as the exceedances were upgradient from the landfill and are not a concern at this time. All other parameters were below BL+V at upgradient and downgradient locations. Landfill performance is Acceptable. Based on the results of the visual inspection and soil sampling program, the landfill should continue to be monitored as per the SOW.	Concentrations of copper, lead, zinc, and Total PCBs at upgradient location DM-01 should be reviewed in future monitoring events.	No additional recommendations.
Lower Site Foundations Landfill	An upgradient soil sample, DM-04-S, exceeded BL+V for Total PCBs and a downgradient soil sample, DM-05-S, was marginally above BL+V for lead, PHC F3 and PHC F4. All other parameters and samples were below BL+V. The 2023 soil results are generally comparable to the results of previous monitoring events and there is no indication of contaminant migration from the landfill at this time. Landfill performance is Acceptable. Based on the results of the visual inspection, and soil sampling program, the landfill should continue to be monitored as per the SOW.	Concentrations of PHCs, particularly at downgradient location DM-05 should be reviewed at future monitoring events to assess whether concentrations are increasing over time.	No additional recommendations.

Landfill/Debris Area	Main Observations/Results	Items to be Addressed During Future Monitoring Events	Recommendations For Addition Assessment
Lower Site Powerhouse Landfill	Concentrations of PHC F2 and F3 at downgradient location MW05-07 (deep sample) were slightly above BL+V. The PHC F3 concentration represents a new maximum. MW05-08, an upgradient groundwater sample, exceeded BL+V for nickel. All other parameters were below BL+V at upgradient and downgradient monitoring wells. As MW05-08 is an upgradient monitoring well, the elevated nickel concentration is not a concern at this time. Overall, the soil and groundwater from 2023 are comparable to the results from the previous monitoring events and there is no indication of contaminant migration from the landfill at this time. Some beads on thermistors VT-5 and VT-7 are showing erratic results. Landfill performance is Acceptable. Based on the results of the visual inspection, soil sampling, and groundwater sampling programs, the landfill should continue to be monitored as per the SOW.	Concentrations of PHCs, particularly at downgradient location soil sampling location MW05-07, should be reviewed at future monitoring events to assess whether concentrations are increasing over time. Similarly, concentrations of nickel in groundwater at MW05-08 should be reviewed at future monitoring events. Thermistors data should be reviewed by Lakewood to assess beads that are not working or beads that are not tracking with the expected thermal regime and provide potential remedial solutions, whether they be field fixes or desktop exercises.	Thermistor data should be reviewed by Lakewood to assess beads that are not working or beads that are not tracking with the expected thermal regime and provide potential remedial solutions, whether they be field fixes or desktop exercises.
Lower Site Non-Hazardous Waste Landfill	A downgradient soil sampling location, MW05-09, exceeded BL+V criteria in the surface and deep samples for Total PCBs and PHC fraction F2 and exceeded for PHC fraction F1 in the deep sample only. These exceedances of criteria for PHCs could be due to a more recent hydrocarbon release and is not expected to be associated with the landfill. The sample location is in a flat area adjacent to the DYE-M runway and is accessible to vehicles which may be the source of contamination due to an unreported spill of fuel. All other upgradient and downgradient soil parameters and sample locations were below BL+V. The Total PCBs concentration is still well below the DEW line Tier II Cleanup Criteria for Total PCBs. All groundwater sampling results were below BL+V at upgradient and downgradient locations. Along the north slope, cracking is relatively ubiquitous and discerning which cracks corresponding to existing features was not possible. In this regard, the cracking is shown as an area and given the increase in number/length of cracking a severity rating of Marginal was assigned. Similarly, the west and south slopes are visibly wet, approximately 1/3 up the slope. Contaminant migration is not suspected from the landfill currently. Landfill performance is Marginal. Based on the results of the visual inspection, soil sampling, and groundwater sampling programs, the landfill should continue to be monitored as per the SOW.	Concentrations of Total PCBs, F1 and F2 should be reviewed during the next monitoring event. During the next monitoring event particular attention should be paid to cracking along the north slopes, increases in settlement areas and the presence of seepage.	No additional recommendations.
Upper Site Tier II Disposal Facility	Upgradient and downgradient soil samples were below BL+V for all parameters. Downgradient water samples were below BL+V for all parameters while upgradient wells contained insufficient water for sampling. Landfill performance is Acceptable. Based on the results of the visual inspection, soil sampling, and groundwater sampling programs, the landfill should continue to be monitored as per the SOW.	No additional items to be addressed during future monitoring events.	No additional recommendations.

Landfill/Debris Area	Main Observations/Results	Items to be Addressed During Future Monitoring Events	Recommendations For Addition Assessment
Upper Site West Landfill-West Lobe	A downgradient soil sampling location (DM-38, deep sample) had exceedances of BL+V criteria for arsenic, cadmium, cobalt, copper, lead, and nickel. Only one deep soil sample has been successfully collected at DM-38 during past monitoring events, and as such there is not enough information to assess whether the 2023 results are anomalous, reflective of pre-existing conditions at depth, or represent landfill influence downgradient of the West Lobe of the Upper Site West Landfill. Additional data is required to assess whether the elevated concentrations are related to potential impacts from the landfill. Landfill performance is Acceptable. Based on the results of the visual inspection, and soil sampling program, the landfill should continue to be monitored as per the SOW.	Arsenic, cadmium, copper, nickel, and lead results, particularly at DM-38, should be reviewed in the next monitoring event to determine if the 2023 concentrations of these parameters were anomalous or could reflect landfill influence, or pre-remediation impacts at depth.	No additional recommendations.
Upper Site West Landfill-Centre/East Lobes	Parameters exceeding BL+V at downgradient locations, DM-45 and DM-48, were arsenic, chromium, cobalt, nickel and PHC F3. The 2023 results suggest that metals concentrations are stable or decreasing downgradient of the landfill. The exceeding PHC F3 concentrations are not significantly over the BL+V value. Exceedances of BL+V criteria were noted at four upgradient soil sampling locations DM-47, DM-50, DM-51, and DM-52. Based on the results of the 2023 soil sampling program, and in comparison, to results from previous monitoring events, contaminant migration from the landfill is not suspected at this time. Landfill performance is Acceptable. Based on the results of the visual inspection, and soil sampling program, the landfill should continue to be monitored as per the SOW.	Arsenic, chromium, cobalt, nickel, Total PCBs and PHC fractions F2 and F3 should be reviewed at future monitoring events, particularly in upgradient DM-51-D and downgradient DM-47-S.	No additional recommendations.
Upper Site Pallet Line Landfill	BL+V exceedances of chromium and copper were noted in one downgradient sampling location, DM-50, and exceedances of PHC fractions F2 and/or F3 were noted two different downgradient sampling locations, DM-51-D and DM-59-D (PHC F3 only). These BL+V exceedances at downgradient soil sampling locations are consistent with the results from past monitoring events and the landfill contents are not suspected of impacting the surrounding soil at this time. Exposed debris is present outside of the landfill, to the south. The debris has been exposed as a result of overland flow and erosion. The erosion has the potential to migrate upslope, eventually impacting the landfill. Landfill performance is Acceptable. Based on the results of the visual inspection, and soil sampling program, the landfill should continue to be monitored as per the SOW.	Chromium, copper, PHC F2 and PHC F3 results should be reviewed in the next monitoring event. Monitor progression of erosion south of landfill.	No additional recommendations.
Upper Site Non-Hazardous Waste Landfill	Upgradient and downgradient soil samples were below BL+V for all parameters. All results were below BL+V at upgradient and downgradient groundwater locations. Overall, the soil and groundwater results from 2023 are comparable to the results from the previous monitoring events and there is no indication of contaminant migration from the landfill at this time. Landfill Performance is Acceptable. Based on the results of the visual inspection, soil sampling, and groundwater sampling programs, the landfill should continue to be monitored as per the SOW.	No additional items to be addressed during future monitoring events.	No additional recommendations.

Landfill/Debris Area	Main Observations/Results	Items to be Addressed During Future Monitoring Events	Recommendations For Addition Assessment
Upper Site NWS Landfill	DM-18, an upgradient soil sampling location, had an exceedance above BL+V for arsenic in the shallow sample, which are not a concern at this time as it is only marginally above the BL+V and is well below the DYE-M Upper Site Site-Specific Criteria for arsenic. Landfill Performance is Acceptable. Based on the results of the visual inspection, and soil sampling program, the landfill should continue to be monitored as per the SOW.	Arsenic results should be reviewed in the next monitoring event to determine if concentrations are continuing to increase in upgradient DM-18 location.	No additional recommendations.
Upper Site South Landfill - West	All upgradient and downgradient soil samples were below BL+V for all parameters and were comparable to previous monitoring events. Landfill Performance is Acceptable. Based on the results of the visual inspection, and soil sampling program, the landfill should continue to be monitored as per the SOW.	No additional items to be addressed during future monitoring events.	No additional recommendations.
Upper Site Helipad Debris Area	BL+V criteria exceedances were noted at three downgradient soil sampling locations, DM-12, DM-15, and DM-17, for copper, Total PCBs, and PHC fractions F2 and F3. There was no overlap in exceeding parameters between these three locations. The exceeding copper and Total PCB concentrations are below the respective DYE-M Upper Site Site-Specific Criteria and below historical maximums for these parameters at this landfill. PHC F2 and F3 concentrations exceed the BL+V in the deep sample at downgradient location DM-15. In 2015 and 2018, PHC were not detected at this location. It is noted that no depth sampling was completed in 2014, 2016, or 2017 at this location. Additional data is required to assess whether the elevated downgradient PHC results at depth are a result of landfill influence. All other results were at or below the maximum historical long-term monitoring values for this landfill. Landfill performance is Acceptable. Based on the results of the visual inspection, and soil sampling program, the landfill should continue to be monitored as per the SOW.	Downgradient concentrations of PHC F2 and F3 at DM-15 should be reviewed at future monitoring events to assess whether the 2023 results were anomalous or if concentrations of PHC F2 and F3 at depth at this location are increasing over time.	If vehicle traffic results in features that could be detrimental to landfill performance, operations should be adjusted such that traffic on landfills is restricted, or a trafficable surface be maintained. Currently it does not appear vehicle traffic on the Helipad Debris Area is an issue, but conditions should continue to be monitored.

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LIST OF ACRONYMS AND ABBREVIATIONS

BL+V	Baseline Data with Variation
CCME	Canadian Council of Ministers of the Environment
DCC	Defence Construction Canada
DGPS	Differential Global Positioning System
DND	Department of National Defence
DEW	Distant Early Warning
FA	Field Assistant
GPS	Global Positioning System
GW	Groundwater
HPDE	High Density Polyethylene
HSEP	Health, Safety and Environmental Plan
JV-60	BLM-KEL-60 Corporation
LAWP	Logistics and Work Plan
LNAPL	Light Non-Aqueous Phase Liquid
MW	Monitoring Well
NHWL	Non-Hazardous Waste Landfill
NWS	North Warning System
masl	metres above sea level
mbgs	metres below ground surface
PCB	Polychlorinated Biphenyl
PHC	Petroleum Hydrocarbon
QA/QC	Quality Assurance/Quality Control
RMC	Royal Military College of Canada
RMS	Root Mean Square
RPD	Relative Percent Difference
RTK-GPS	Real-Time Kinematic Global Positioning System
SOW	Scope of Work
TREK	TREK Geotechnical Inc
UAV	Unmanned Aerial Vehicle
UTM	Universal Transverse Mercator
WHMIS	Workplace Hazardous Materials Information System
WM	Wildlife Monitor

1 INTRODUCTION

BLM-KEL-60 (JV-60) has been retained by Defence Construction Canada, on behalf of the Department of National Defence to complete the 2023 Cape Dyer (DYE-M) Distant Early Warning (DEW) Line Sites Landfill Monitoring Program. The DEW Line site located at Cape Dyer, Baffin Island, Nunavut, will hereafter be referred to as DYE-MAIN (or DYE-M). This work is being conducted under the Standing Offer Agreement (SOA) No. EW699-220414/012/NCS.

The monitoring field program took place between August 23 and September 2, 2023, to assess the performance of the 13 landfills and one debris area located at DYE-M. The Scope of Work for landfill monitoring (as per **Section 5** of the Statement of Work, dated March 2023) specifies the requirements for visual inspection, spatial data collection, photographic records, soil and groundwater sampling and chemical analyses, and thermal monitoring of landfills at the DEW Line sites.

All field activities were completed in accordance with the Logistics and Work Plan prepared by JV-60 for the DYE-M and FOX-4 sites, dated August 15, 2023.

1.1 OBJECTIVE

The objective of the DEW Line landfill monitoring program was to collect sufficient information to assess the performance, integrity, and stability of the landfills from a geotechnical and environmental perspective for human health and environmental protection. The program collected information, in accordance with the monitoring requirements outlined in the SOW titled “DEW Line Landfill Monitoring program Nunavut Settlement Area: FOX-4 Cape Hooper and DYE-M Cape Dyer” dated March 2023.

1.2 SCOPE OF WORK

The 2023 monitoring year of the DYE-M landfills is considered Year 10 of the long-term monitoring requirements. A summary of the monitoring requirements for DYE-M is presented in **Table 1** below.

Table 1: DYE-M Summary of Landfill Monitoring Requirements

Landfill Name	Landfill Type	Visual Inspection	Soil Sampling Locations x2 depths	Groundwater Monitoring/ Sampling Locations	Thermistor Monitoring and Maintenance	Soil Thermal Property Monitoring Locations x2 depths (One time event)
Lower Site						
NWS Landfill	Regraded	Yes	DM-07 DM-08 DM-09 DM-10	No	No	No
Tier II Disposal Facility	Tier II	Yes	MW05-13 MW05-15 MW05-16 MW12-01	MW05-13 MW05-15 MW05-16 MW12-01	VT-1 VT-2 VT-3 VT-4 VT-BL	DM-TS-01 DM-TS-02 DM-TS-03 DM-TS-04 DM-TS-05
Crossroads Landfill	Regraded	Yes	DM-01 DM-02 DM-03	No	No	No
Foundation Landfill	Regraded	Yes	DM-04 DM-05 DM-06	No	No	No
Powerhouse Landfill	Leachate Contained	Yes	MW05-05 MW05-06 MW05-07 MW05-08	MW05-05 MW05-06 MW05-07 MW05-08	VT-5 VT-6 VT-7	DM-TS-06 DM-TS-07 DM-TS-08 DM-TS-09
NHWL	NHWL	Yes	MW05-09 MW05-12 MW09-26 MW09-27 MW09-28	MW05-09 MW05-12 MW09-26 MW09-27 MW09-28	No	No
Upper Site						
Tier II Disposal Facility	Tier II	Yes	MW07-22 MW07-23 MW08-24 MW08-25 MW12-02	MW07-22 MW07-23 MW08-24 MW08-25 MW12-02	VT-8 VT-9 VT-10 VT-11 VT-BU	DM-TS-10 DM-TS-11 DM-TS-12 DM-TS-13 DM-TS-14
West Landfill – West	Regraded	Yes	DM-31 through DM-39 (9 locations)	No	No	No
West Landfill – Centre/East	Regraded	Yes	DM-40 through DM-52 (13 locations)	No	No	No
Pallet Line	Regraded	Yes	DM-53 through DM-62 (10 locations)	No	No	No

Landfill Name	Landfill Type	Visual Inspection	Soil Sampling Locations x2 depths	Groundwater Monitoring/ Sampling Locations	Thermistor Monitoring and Maintenance	Soil Thermal Property Monitoring Locations x2 depths (One time event)
Upper Site						
NHWL	NHWL	Yes	MW06-18 MW06-19 MW06-20 MW07-21	MW06-18 MW06-19 MW06-20 MW07-21	No	No
NWS Landfill	Regraded	Yes	DM-18 through DM-22 (5 locations)	No	No	No
South Landfill West	Regraded	Yes	DM-23 through DM-30 (8 locations)	No	No	No
Helipad Debris Area	Debris Area	Yes	DM-11 through DM-17 (7 locations)	No	No	No
	Total:	**14**	**168**	**22**	**13**	**28**

Note:

Soil and groundwater sampling locations are provided on Figures DYE-M.2 to DYE-M.15

The following notes and additional maintenance requirements for DYE-M have been summarized from the SOW (Annex B) and are presented as follows:

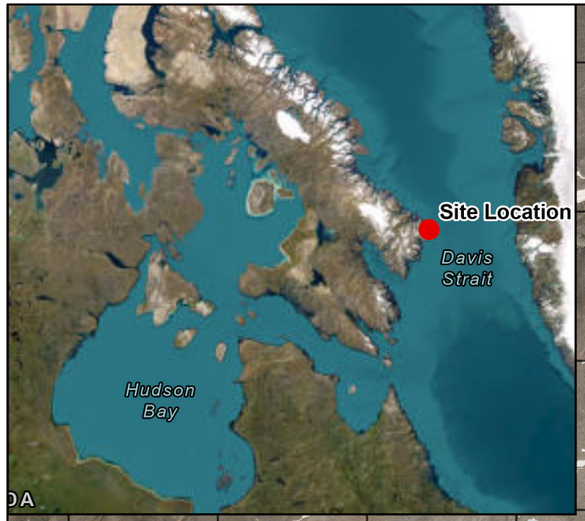
- All monitoring wells have been dry/frozen during at least one previous monitoring event, and the number of groundwater samples that can be successfully collected is variable.
- DYE-M Lower Site Tier II Disposal Facility:
  Remove bentonite from monitoring well MW05-15 and dispose of properly; and conduct maintenance at monitoring wells MW05-15 and MW12-01 so that exterior casing covers can be closed and locked.
- DYE-M Lower Site Powerhouse Landfill:
  Replace or remove the torn gasket at monitoring well MW05-08 if it impacts or impedes sample collection or the ability to successfully lock the well.
- DYE-M Lower Site Non-Hazardous Waste Landfill:
  Remove bentonite from monitoring well MW05-09 and dispose of properly; and remove sand from inside the well pipe of monitoring well MW09-28 and dispose of properly.
- DYE-M Upper Site Tier II Disposal Facility:
  Replace the missing well cap/j-plug at monitoring well MW07-22; and, replace the cover and locking rim on the external casing of monitoring well MW12-02.
- DYE-M Upper Site Non-Hazardous Waste Landfill:
  Remove bentonite from monitoring wells MW06-18 and MW06-19 and dispose of properly.

2 BACKGROUND

2.1 SITE DESCRIPTION

The former DYE-M DEW Line site was built between 1956 and 1957 at Cape Dyer, Nunavut, on the Cumberland Peninsula on the easternmost point of Baffin Island, at 66° 40' N, 61° 21' W. It is bordered by Davis Strait and the Coronation Gulf. The main facility of the station, situated at the Upper Site, is at an elevation of 740 masl. The airstrip is situated at the Lower Site, which is located 13 km from the Upper Site, and 2 km from the shore of Sunneshine Fjord.

The site can be divided into three principal areas: Upper Site, Middle Site and Lower Site. The Upper Site consists of communications, accommodations, maintenance facilities and seven landfills. The Middle Site has no landfills, a switchback in the road, a benchmark, and a small lake. The Lower Site contains a large hangar building, the airstrip, and six landfills. Historically petroleum, oil, and lubricant (POL) storage facilities and vehicle maintenance buildings were located at the Lower Site. A site location plan identifying the three principal areas of work is provided in **Figure 1**.



Upper Site West Landfill (West Lobe, Center Lobe, East Lobe)

Upper Site Non-Hazardous Waste Landfill

Upper Site North Warning System Landfill

Upper Site Tier II Disposal Facility

Upper Site Pallet Line Landfill

Upper Site South Landfill West

Upper Site Helipad Debris Area

Upper Site

Middle Site

Access Road

Lower Site North Warning System Landfill

Lower Site Tier II Disposal Facility

Lower Site

Lower Site Crossroads Landfill

Lower Site Foundation Landfill

Lower Site Powerhouse Landfill

Lower Site Non-Hazardous Waste Landfill

Airstrip

LEGEND

Landfill Outline

Spatial Reference
Name: NAD 1983 UTM Zone 20N
Grid Reference: 1km x 1km

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

PROPRIETARY INFORMATION MAY NOT BE REPRODUCED OR DIVULGED WITHOUT PRIOR WRITTEN CONSENT OF BLUMETRIC ENVIRONMENTAL INC.
DO NOT SCALE DRAWING.
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N W E S

0 500 1,000 Metres

1:40,000

CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Site Location Plan

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*
230394	**March 18, 2024**

DRAWN	*CHECKED*	*FIG NO.*	*REV*
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The following landfills were assessed:

- Lower Site North Warning System Landfill
- Lower Site Tier II Disposal Facility
- Lower Site Crossroads Landfill
- Lower Site Foundation Landfill
- Lower Site Powerhouse Landfill
- Lower Site Non-Hazardous Waste Landfill
- Upper Site Tier II Disposal Facility
- Upper Site West Landfill (West Lobe, Centre Lobe, East Lobe)
- Upper Site Pallet Line Landfill
- Upper Site Non-Hazardous Waste Landfill
- Upper Site North Warning System Landfill
- Upper Site South Landfill West
- Upper Site Helipad Debris Area

In 1993, the site was upgraded to an unmanned long-range radar (LRR) site as part of the NWS and most existing facilities were removed. Only structures required to support the NWS facility and communication systems (Radomes) are still present.

2.2 PAST INVESTIGATIONS

Site investigations at DYE-M identified 15 landfills, some consisting of multiple lobes, that required remediation. Remediation of the DYE-M site began in 2005 and was completed in 2013. Seven landfills — Lower Camp Landfill East, Lower Camp Landfill West, Beach Landfill North, Beach Landfill South, Construction Camp Landfill, DEW Drop Landfill and South Landfill East — were completely excavated. Seven previously existing landfills remain after remediation and require soil monitoring. Two of these, the NWS Landfill–Lower Site and the Upper Site West Landfill were partially excavated and covered with additional granular fill. The other five landfills — the Crossroads Landfill, Foundation Landfill, Pallet Line Landfill, NWS Landfill–Upper Site and South Landfill West — were covered with additional granular fill. One final previously existing landfill, the Powerhouse Landfill, was remediated by the installation of a leachate containment system and the placement of a granular cover layer. This landfill requires thermal, soil, and groundwater monitoring. Four new landfills, two non-hazardous waste landfills and two Tier II Disposal Facilities, one at each of the Lower and Upper Sites, were constructed to contain the

debris and contaminated soil as part of the remediation work. These four landfills require soil and groundwater monitoring, as well as thermal monitoring for the Lower Site and Upper Site Tier II Disposal Facilities. The Helipad Regrade was included as part of the monitoring program during baseline and Year 1 for soil monitoring; however, it had been included in the program by mistake. Due to detectable concentrations of PCBs, monitoring will continue to be conducted at the Helipad Regrade.

Soil and groundwater samples have been collected from specified soil monitoring locations and permanent monitoring well locations during monitoring events. A total of 22 permanent wells were installed at the Non-Hazardous Waste Landfills, Tier II Disposal Facilities, and Powerhouse Landfill between 2005 and 2009. Two new permanent monitoring wells were installed in 2012 to replace one damaged well and to replace existing background wells at the Upper Site Tier II Disposal Facility that did not produce water. A total of 13 thermistors were installed at the Tier II Disposal Facilities and at the Powerhouse Landfill.

First year monitoring was performed in 2014 and subsequent monitoring events were completed for 2015, 2016, 2017, 2018 as part of Phase I monitoring. Phase II landfill monitoring was completed in September 2023, with future monitoring scheduled for 2025 (Year 12), 2028 (Year 15) and 2038 (Year 25). Note the originally scheduled Year 7 event was not completed due to COVID-19 restrictions, but a Year 12 event was added to replace the missing monitoring year.

2.3 SITE GEOLOGY, PERMAFROST, HYDROGEOLOGY AND HYDROLOGY

The site geology, hydrogeology and hydrology are summarized well in the 2019 monitoring report prepared by Golder and is provided below with a brief summary of the permafrost region DYE-M is located in. Golder summarizes the Site Geology, Hydrogeology and Hydrology as follows:

The landscape at DYE-M varies from a shallow marine beach to the southwest, broad glacial U-shaped valleys, broad rounded hills, boulder covered uplands to sheer cliff walls along the eastern coast. Rugged topography and the presence of permafrost at the site have created many small, shallow perched lakes and seasonal streams from drainage of melting snow. Smaller shallow surface water features typically freeze solid during the winter months. Some of the larger, deeper lakes may not freeze solid, which may therefore support fish populations.

The bedrock geology at the site is described in Dyke (2009) as consisting of metasediments. In the area where the Upper and Middle Sites are located, the surficial materials are described as hilly and hummocky scoured rock with ice molded features resulting from glacial scouring and thin surficial layers of till, commonly depleted of matrix material. The Lower Site surficial geology is described as till veneer with a silty sand matrix, 0.5 to 2m thick with boulders commonly present. An earlier report describing the Site geology (UMA, 1991) indicates that the area includes low-lying areas of sand and gravel that have accumulated within the depressions, poorly defined drainage channels and a thin, coarse-grained till over rock at the Lower Site. Based on observations by Golder during recent Site visits, the surface has been altered next to the areas of the landfills and access roads through placement of large, crushed rock, coarse stone and sand. Similar alteration of the pre-existing land surface exists in the area of the Lower Site; in some areas the natural till is observed outside of the immediate area of the landfills. Surficial soils are sparse; the surface materials identified within the immediate vicinity of the landfills typically consist largely of sand and gravel with cobble.

The groundwater flow processes at the Site are expected to be significantly influenced by the presence of continuous permafrost. Annual active thaw layers are typically limited to a few metres below ground surface or less depending on ground cover, soil materials and surface water features. Shallow groundwater representing meltwater (both from surficial sources and sources within the active layer) and infiltration from precipitation during the summer thaw is perched within the active layer during the short summer season. Movement of the groundwater is dictated by soil type, presence of shallow permafrost and hydraulic pressures resulting from topographic differences and distribution (elevation) of the water within the soils.

The use of the terms upgradient and downgradient, as they refer to the locations of monitoring wells relative to the landfills, are used to maintain consistency with previous monitoring reports. Ground surface elevations, rather than water level elevations, were used by others to develop these descriptions and therefore the descriptor may not necessarily be reflective of the actual groundwater flow direction. (Golder, 2018).

DYE-M lies within the continuous permafrost zone of Canada often with negligible ground ice (O'Neil, et al., 2020). The active zone is expected to be on the order of 1 to 2 m, depending on the ground cover, elevation (varies significantly across site), orientation, soil type and drainage.

3 FIELD PROGRAM SUMMARY

Prior to mobilization, JV-60 provided DCC with a Logistics and Work Plan dated August 15, 2023. The LAWP was used as a guide for the 2023 monitoring event completed at the DYE-M landfills and debris area. The workplan included a copy of the Nunavut Water Board water use license to ensure that site activities were in compliance with the provisions of the license.

3.1 FIELD PROGRAM STAFF

The 2023 DEW Line monitoring event at DYE-M was conducted by qualified personnel from JV-60 and TREK with extensive experience in completing geotechnical and environmental programs in remote northern environments. The following JV-60 and TREK project managers and technical leads supported on-site personnel during field work, reviewed the results/outputs of the field team daily to ensure that SOW requirements were being met, and worked to troubleshoot/correct any issues as early as possible prior to demobilization from site. Data collection and interpretation of all field data was overseen, reviewed, and validated by the Senior Geotechnical Engineer and the Senior Environmental Professional.

- Senior Environmental Professional – JV-60 - Heather Wolczanski, P.Geo. (NAPEG)
- Senior Environmental Professional – JV-60 - Andrea Jenney, P.Eng. (NAPEG)
- Senior Geotechnical Engineer – TREK - Nelson Ferreira, P.Eng. (NAPEG)

The on-site project team for DYE-M consisted of the following Key Personnel from JV-60 and TREK Geotechnical as specified in **Section 5.1.4** of the SOW as follows:

- Geotechnical Field Lead – TREK – Brent Hay, P.Eng. (NAPEG)
- Environmental Field Lead – JV-60 – Kimberly Carlton, P.Geo. (NAPEG)
- Environmental Field Assistant – JV-60 – Evan Brown
- Geotechnical Field Assistant – TREK – Tyler Chapko, EIT
- Geomatics Field Staff – JV-60 – Connor McClelland, EIT

The field team was supported by locally hired Inuit Field Assistants and Wildlife Monitors, where possible. These team members were hired through Kitikmeot Environmental as follows:

- Two Field Assistants and three Wildlife Monitors
  - Jeanine Nowdluk (FA)
  - Eric Naulalik (FA)
  - Jason Opnik-Cutten of Kipnik Inc. (WM)*
  - Monica Nuqingaq (WM)
  - Noah Alookie (WM)

**Not a local Inuit Wildlife Monitor. A third local Wildlife Monitor could not be secured for the program, details are provided in JV-60's Inuit Participation Report.*

3.2 WEATHER CONDITIONS

An outline of historical recorded weather conditions is presented in **Table 2**. The 1971-2000 Climate Normal and Averages (temperature and precipitation totals) prepared by Environment Canada and Climate Change for the Cape Dyer site are shown below.

Table 2: Summary of Historical Temperature and Precipitation Conditions (Cape Dyer)

Climate Normals (1971-2000)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Daily Maximum Temp (◦C)	-19.3	-20.8	-17.9	-11.1	-3.1	3.8	8.7	7.5	1.7	-4.2	-10.7	-16.8
Daily Minimum Temp (◦C)	-29.1	-30.2	-27.9	-21.4	-10.5	-2.4	1.9	1.2	-4.0	-11.9	-19.6	-26.4
Precipitation	52.7	32.9	28.8	42.2	49.8	31.2	42.7	45.6	67.2	92.1	65.5	51.9

Canadian Climate Normals 1971-2000 Station Data - Climate - Environment and Climate Change Canada (weather.gc.ca)

Weather conditions encountered during the 2023 field work conducted by JV-60 are provided on the individual landfill Visual Inspection tables, soil sampling sheets, and monitoring log sheets for specific temperatures and weather at the time of the landfill monitoring programs. General site weather conditions were reported on the daily field reports and the ranges of temperature observed each day are summarized in **Table 3** below.

Table 3: Summary of Weather Conditions at DYE-M

Date	Temp.	Weather
Thursday, August 24, 2023	5 to 12 ◦C	Winds 10 km/hr, Sunny
Friday, August 25, 2023	4 to 10 ◦C	Winds 7-27km/hr, partially cloudy
Saturday, August 26, 2023	3 to 8 ◦C	Winds 5-12 km/hr, Light rain
Sunday, August 27, 2023	-1 to 10 ◦C	AM: Snowstorm PM: Winds 24-30km/hr, partially cloudy
Monday, August 28, 2023	2 to 9 ◦C	Winds 50-80km/hr, Sunny and clear skies
Tuesday, August 29, 2023	6 to 12 ◦C	Winds 30km/hr, Sunny
Wednesday, August 30, 2023	6 to 12 ◦C	Winds 30 km/hr, Sunny and clear skies
Thursday, August 31, 2023	7 to 10 ◦C	Winds 5km/hr, partially cloudy
Friday, September 1, 2023	8 to 10 ◦C	Winds 5km/hr, partially cloudy, Light rain
Saturday, September 2, 2023	8 to 12 ◦C	Winds 10km/hr, partially cloudy

3.3 ADDITIONAL WORK IN 2023

No additional work items were conducted as part of the 2023 field program at DYE-M, with the exception of an additional well repair at MW05-13. Summary of this well repair is provided in **Section 4.1.8** below.

3.4 DEVIATIONS FROM TOR, PROPOSAL, WORK PLAN, AND KICK-OFF MEETING

3.4.1 Weather Delays

The schedule prepared in the LAWP assumed the following for DYE-M:

- Two days to mobilize to DYE-M from FOX-4;
- Field work at the DYE-M site would take eight days to complete; and,
- Two contingency days were provided at the end of the overall program to accommodate weather delays if necessary.

Due to weather delays getting into the FOX-4 site, another scheduled landfill monitoring event, the team mobilized to DYE-M from Iqaluit. These weather delays also affected the DYE-M program as field staff waited in Iqaluit for six days (Kim, Brent, and Tyler) and five (5) days (Connor) prior to mobilization to the DYE-M site. The addition of a day trip to FOX-4 in the middle of the DYE-M program and the delay in getting a second environmental team member (Evan Brown) to site resulted in the overall DYE-M program duration of nine days. The geotechnical and geomatics team demobilized from site on September 1 after completion of their programs. The environmental team completed the field program on September 2, 2023, and was weathered in at DYE-M for an additional six days. They demobilized from site on September 8, 2023.

3.4.2 Sample Temperature

Ice, ice packs, and refrigeration space at DYE-M were used to keep the samples at the optimal temperature of 4 °C prior to demobilization of the samples from site. Sarvaq-Matrix expedited shipping of samples from DYE-M to Bureau Veritas in Ottawa on behalf of JV-60. During the first sample shipment sent to Sarvaq-Matrix on August 27, one cooler of the four coolers in the shipment was not repackaged with cooling media and was received above 10 °C at the laboratory. All samples from the remaining shipments were received by Bureau Veritas within the appropriate temperature range. Sample temperatures are noted on the Laboratory Certificates of Analysis included in **Appendix B**. Sample temperature is discussed further in the Quality Assurance (QA) and Quality Control (QC) section in **Appendix C**.

3.4.3 Sample Hold Times

Every effort was made to ensure that analytical hold times were not exceeded. This includes the addition of preservatives at the time of collection, where applicable, and in accordance with relevant guidance, to increase hold times.

Based on an evaluation of hold times for each type of analysis for this program, the shortest hold time for soil is 14 days (PHC F2-F4, no field preservation) and the shortest hold time for groundwater is 14 days (F1, F2-F4, with field preservation).

Twin Otter aircraft stationed out of Iqaluit were utilized for retrieval of sample coolers part-way through the DYE-M sampling program, on August 28, 2023. Once coolers arrived in Iqaluit, fresh ice was placed on the samples, and they were transported to the designated airline for shipping

to Bureau Veritas Laboratories in Ottawa. Sarvaq-Matrix expedited shipping of samples from Iqaluit.

Hold times were exceeded for PHC F1-F4 the following samples:

- Groundwater trip blank (lab provided)
- DM-53-S
- DM-53-D
- MW23-S-30

Hold times are discussed further in the Quality Assurance (QA) and Quality Control (QC) section in **Appendix C**. Results for these samples are included in the Chemistry Tables in **Appendix D**. Results for these samples are compared to historical sampling events and displayed as Trend Graphs in **Appendix D.**

3.4.4 Lock Replacements

Almost all existing locks on monitoring wells and thermistors were found to be heavily corroded and required bolt cutters to remove. A set of two keys for the existing locks was provided to JV-60 prior to the program start. One of these keys broke early in the field program. Due to the severe damage on the existing locks, and only 1 remaining key, all locks on the monitoring wells and thermistors were replaced with ABUS 70/45 winterized locks. Lock replacements are noted on monitoring well and thermistor field sheets included in **Appendix E** and **Appendix F**.

3.4.5 Soil Thermal Properties

Sampling location DM-TS-14 from the Upper Site Tier II Disposal Facility was not tested or sampled during the 2023 field program. This location was observed to consist of large, shattered rock at surface which is not amenable to the testing and sampling procedure specified in the Scope of Work.

3.5 PROJECT REFERENCES

CCME 2016. Guidance Manual for Environmental Site Characterization in Support of Environmental and Human Health Risk Assessment Volume 1.

Environment and Climate Change Canada. 1971-2000 Climate Normal and Averages.
Golder Associates Ltd. 2015 DYE-M Monitoring Report: QIKIQ15 Baffin Region DEW Line Site Monitoring. Prepared for Department of National Defense. July 5, 2016.

Golder Associates Ltd. 2016 DYE-M Monitoring Report: QIKIQ15 Baffin Region DEW Line Site Monitoring. Prepared for Department of National Defense. March 2017.

Golder Associates Ltd. 2017 DYE-M Monitoring Report: QIKIQ15 Baffin Region DEW Line Site Monitoring. Prepared for Department of National Defense. March 29, 2018.

Golder Associates Ltd. 2018 DYE-M Monitoring Report: QIKIQ15 Baffin Region DEW Line Site Monitoring. Prepared for Department of National Defense. April 24, 2019.

O'Neill, H.B., Wolfe, S.A., and Duchesne, C., 2020. Ground ice map of Canada; Geological Survey of Canada, Open File 8713 (version 1).

3.6 REPORT STRUCTURE

The report describes the work completed in August and September 2023 at the following landfill and debris locations:

- Lower Site North Warning System Landfill
- Lower Site Tier II Disposal Facility
- Lower Site Crossroads Landfill
- Lower Site Foundation Landfill
- Lower Site Powerhouse Landfill
- Lower Site Non-Hazardous Waste Landfill
- Upper Site Tier II Disposal Facility
- Upper Site West Landfill (West Lobe, Centre Lobe, and East Lobe)
- Upper Site Pallet Line Landfill
- Upper Site Non-Hazardous Waste Landfill
- Upper Site North Warning System Landfill
- Upper Site South Landfill West
- Upper Site Helipad Debris Area

Results from visual inspections, soil and groundwater sampling, and thermistor monitoring for the respective landfills on site are presented in the formats described in the SOW.

This report has been organized such that results for each landfill are presented in individual sections, with the exception of the Upper Site West Landfill, which is divided into a section for the West Lobe and another section for the Centre and East Lobe. A summary of the report structure and associated tables and figures is shown below in **Table 4.**

Table 4: Report Structure by Landfill at DYE-M

Landfill Identification	Section Number	Analytical Table(s)	Associated Figure Numbers
Lower Site North Warning System Landfill	Section 5	Table D.1 Soil	2a Visual Inspection 2b Photolog Locations 2c Environmental Results
Lower Site Tier II Disposal Facility	Section 6	Table D.2 Soil Table D.3 GW	3a Visual Inspection 3b Visual Inspection Slope Failures 3c Photolog Locations 3d Environmental Results
Lower Site Crossroads Landfill	Section 7	Table D.4 Soil	4a Visual Inspection 4b Photolog Locations 4c Environmental Results
Lower Site Foundation Landfill	Section 8	Table D.5 Soil	5a Visual Inspection 5b Photolog Locations 5c Environmental Results
Lower Site Powerhouse Landfill	Section 9	Table D.6 Soil Table D.7 GW	6a Visual Inspection 6b Photolog Locations 6c Environmental Results
Lower Site Non-Hazardous Waste Landfill	Section 10	Table D.8 Soil Table D.9 GW	7a Visual Inspection 7b Photolog Locations 7c Environmental Results
Upper Site Tier II Disposal Facility	Section 11	Table D.10 Soil Table D.11 GW	8a Visual Inspection 8b Photolog Locations 8c Environmental Results
Upper Site West Landfill (West Lobe)	Section 12	Table D.12 Soil	9a Visual Inspection 9b Photolog Locations 9c Environmental Results
Upper Site West Landfill (Centre Lobe, East Lobe)	Section 13	Table D.13 Soil	10a Visual Inspection 10b Photolog Locations 10c Environmental Results
Upper Site Pallet Line Landfill	Section 14	Table D.14 Soil	11a Visual Inspection 11b Photolog Locations 11c Environmental Results
Upper Site Non-Hazardous Waste Landfill	Section 15	Table D.15 Soil Table D.16 GW	12a Visual Inspection 12b Photolog Locations 12c Environmental Results
Upper Site North Warning System Landfill	Section 16	Table D.17 Soil	13a Visual Inspection 13b Photolog Locations 13c Environmental Results

Landfill Identification	Section Number	Analytical Table(s)	Associated Figure Numbers
Upper Site South Landfill West	Section 17	Table D.18 Soil	14a Visual Inspection 14b Photolog Locations 14c Environmental Results
Upper Site Helipad Debris Area	Section 18	Table D.19 Soil	15a Visual Inspection 15b Photolog Locations 15c Environmental Results

Each landfill section details all relevant information including:

- A brief description of the landfill
- Summary of Landfill monitoring including
  - Completion of the Visual Inspection Checklist
  - A preliminary stability assessment
  - Soil sampling summary
  - Groundwater sampling (where applicable)
  - Thermal monitoring (where applicable)
  - Soil Thermal Property Monitoring (where applicable)
- Results of monitoring program including
  - A discussion of all visual inspection issues
  - A preliminary stability assessment
  - Visual inspection trend analysis
  - Soil sampling results, discussion, and graphed trends
  - Groundwater sampling results, discussion, and graphed trends (where applicable)
  - Thermal monitoring results (where applicable)
  - Overall performance rating of the landfill
- Recommendations and conclusions

Landfills with 'marginal' ranked feature(s) have a photograph sheet (or sheets) with highlighted photos as described in **Section 4.3.3** below and presented in **Appendix G**. Photos of all the landfills are included in the photolog provided to DCC in electronic format (.jpg). An electronic version of the report and its component tables, figures, and data files is included as a separate file share submittal for this report.

A copy of the field notes collected during the 2023 field program at DYE-M are included in **Appendix F**. Details of these field notes are included in **Section 4.3.1** below. Laboratory Certificates of Analysis are attached in **Appendix B** while a discussion on QA/QC analytical findings are attached in **Appendix C**.

4 APPROACH AND METHODOLOGY

4.1 SUMMARY OF WORK

4.1.1 Health and Safety

Prior to mobilization to the site, a site-specific Health, Safety and Environmental Plan dated August 2023 was created. The HSEP states that all persons working on the monitoring site must follow the applicable rules and Regulations:

- Government of Nunavut Occupational Health and Safety Regulations (referenced under R-003-2016) in effect under the *Nunavut Safety Act* (R.S.N.W.T. (Nu) 1988, and its applicable amendments);
- *Workers' Compensation Act*, (SNu 2007, and its applicable amendments);
- *Canada Occupational Health and Safety Regulations*;
- *Canada Labor Code, Part II*; and,
- Workplace Hazardous Materials Information system (WHMIS) legislation.

DYE-M is a remote site, with additional levels of risk associated with travel and work in this location. Travel to the site was via fixed wing charter aircraft. Hazards associated with the work included the potential to encounter wildlife (including polar bears), the presence of firearms on site, and extreme weather conditions. All field staff were required to familiarize themselves with the contents of the HSEP, participate in daily hazard assessments during the tailgate safety meeting, and to sign off on the daily tailgate meeting forms when on site.

Field crews carried appropriate emergency gear and followed health and safety protocol. This included but was not limited to:

- Using topographic maps and photographs to identify dominant and possibly hazardous physical features of the site;
- Carrying emergency communication devices, such as an InReach, to provide clear communication between field team members and project managers. Radios were also used on site for direct communication within the field team as well as with NWS facility staff members;
- Checking the weather prior to travel in the field;
- Utilizing a DYE-M specific Emergency Contact List that provided numbers for emergency services, office contacts, and individual emergency contacts at the site;
- Carrying a handheld Global Positioning System (GPS) unit for precise location coordinates in case of emergency;
- Carrying a Level 3 First Aid Kit appropriate to the scope of work and number of personnel on site;
- Ensuring that an Emergency Field Kit containing provisions (basic shelter, potable water, and a food source) was on site; and,
- Developing an emergency medical evacuation plan specific to the site in the event that someone was injured at the remote site and required transport to the nearest hospital.

JV-60 field personnel completed all relevant corporate Health and Safety training prior to deploying for the field. Orientation training, which covered the rights of the worker and introduced the employee to the JV-60 Corporate Health and Safety Program, was provided onsite. Other internal training courses included as part of the Corporate Health and Safety Program include WHMIS, Prevention of Violence & Harassment in the Workplace, Supervisor Training, Respiratory Protection Training, and the 16-Hour Hazards Identification Course. JV-60 field personnel also held current Bear Safety Awareness training, Wilderness First Aid and/or Standard/Intermediate First Aid and CPR certifications, and ATV safety training. The field team, including local assistants and wildlife monitors, underwent a site safety orientation lead by the JV-60 Field Lead and participated in daily hazard assessments as part of the daily tailgate safety meeting prior to the start of each field day.

4.1.1.1 Summary of Health and Safety Incidents

No health and safety incidents occurred during this field program.

4.1.1.2 Summary of Additional Health and Safety Measures

A consistent site hazard at DYE-M was the presence of polar bears. Additional protocols were put in place to address this hazard. Polar bears were seen near the Upper Site Pallet Line Landfill two days in a row, less than 1 km away. Additional safety measures included the following:

- WM indicated the team needed to wrap up work that day because they did not want to be in the area for a third day with a bear showing interest.
- WM went out each morning to walk about/drive about the station looking for signs of polar bears before team exited the building.
- On-site –At the field work location, WM would mobilize first and move to a higher elevation to scout for the presence of polar bears prior to the start of field work.
- The field team completed a hazard assessment each day and developed daily workplan based on weather conditions to ensure visibility was maintained between the WM and the field teams.

4.1.2 Field Program

Two mobilization and two demobilization flights were utilized during the DYE-M field program. Transportation to and from the DYE-M site was provided via a Twin Otter aircraft operated by Kenn Borek Air Ltd. The initial mobilization occurred on August 23, with a supplementary mobilization day for an additional field member on August 27. Demobilization of part of the team took place on September 1, with the remainder of the team demobilizing on September 8.

On-site transportation was by truck and was provided by Nasittuq Corporation (Nasittuq). Each day Nasittuq provided a truck and driver to allow transportation of the team and the required equipment to the distant site sampling locations. The following landfill monitoring activities were completed and summarized below in **Table 5.**

Table 5: Dates of Monitoring Activities by Location

Landfill	Monitoring Requirements	Dates of Monitoring
DYE-M Cape Dyer		
Lower Site NWS Landfill	Landfill Visual Inspection	August 27, 2023
	Soil Sampling	September 2, 2023
Lower Site Tier II Disposal Facility	Landfill Visual Inspection	August 31, 2023
	Soil Sampling	September 2, 2023
	Groundwater Sampling	September 2, 2023
	Thermistor Monitoring	August 27, 2023
	Soil Thermal Monitoring	August 31, 2023
Lower Site Crossroads Landfill	Landfill Visual Inspection	August 31, 2023
	Soil Sampling	September 1, 2023
Lower Site Foundation Landfill	Landfill Visual Inspection	August 31, 2023
	Soil Sampling	September 1, 2023
Lower Site Powerhouse Landfill	Landfill Visual Inspection	August 27, 2023
	Soil Sampling	September 1, 2023
	Groundwater Sampling	September 1, 2023
	Thermistor Monitoring	August 27, 2023
	Soil Thermal Monitoring	August 31 & September 1, 2023
Lower Site Non-Hazardous Landfill	Landfill Visual Inspection	August 29, 2023
	Soil Sampling	August 27, 2023
	Groundwater Sampling	September 1 & 2, 2023
Upper Site Tier II Disposal Facility	Landfill Visual Inspection	August 24 & 25, 2023
	Soil Sampling	August 25, 2023
	Groundwater Sampling	August 31, 2023
	Thermistor Monitoring	August 24, 2023
	Soil Thermal Monitoring	August 25 & 26, 2023
Upper Site West Landfill-West Lobe	Landfill Visual Inspection	August 25, 2023
	Soil Sampling	August 26 & 30, 2023
Upper Site West Landfill – Centre/East Lobe	Landfill Visual Inspection	August 26, 2023
	Soil Sampling	August 26, 30 and 31, 2023
Upper Site Pallet Line	Landfill Visual Inspection	August 30, 2023
	Soil Sampling	August 31, 2023
Upper Site Non-Hazardous Waste Landfill	Landfill Visual Inspection	August 28, 2023
	Soil Sampling	August 27, 2023
	Groundwater Sampling	August 30, 2023
Upper Site NWS Landfill	Landfill Visual Inspection	August 27, 2023
	Soil Sampling	August 28, 2023
Upper Site South Landfill West	Landfill Visual Inspection	August 28, 2023
	Soil Sampling	August 28, 2023
Upper Site Helipad Debris Area	Landfill Visual Inspection	August 28, 2023
	Soil Sampling	August 29, 2023

4.1.3 Visual Inspection

Visual inspections were completed by Mr. Brent Hay (Geotechnical Field Lead) in accordance with Section 5.3 of the SOW. The Visual Inspection Checklist was completed for each landfill to document new and existing features, record the date, weather, name of inspector, survey Differential Global Positioning System (DGPS) information, and landfill information. Observations were made of existing and new features such as erosion (gullies, rills, etc.), frost action (boils, heaving, etc.), sloughing, cracking, animal burrows, vegetation coverage and distress, soil or surface water staining/sheens/biofilms, seepage or ponded water (depth and extent), surface debris, the condition of any existing instrumentation, and any other features that may compromise the integrity of the sites.

A GPS-equipped cell phone digital camera application was used for photographs – the vantage points, and aspects taken in photographs during previous monitoring events were duplicated as closely as possible. Photographs were obtained for the observed features, where features were no longer present, and general landfill areas. Hand tapes, field books, and colored pylons (approximately 20 cm in diameter) were used to demarcate features and provide scale to the photographs. Aerial photographs were also obtained using an unmanned aerial vehicle (UAV) for all landfills. Photos and visual inspection notes were uploaded to a remote server on a daily basis to ensure information was not lost. Additional satellite imagery was obtained from DND to assist in the generation of figures and to assess any relevant features.

The locations, dimensions, and extents of the noted features were surveyed with a Stonex DGPS (Model S900A). Features which were less than 1 m in dimensions were measured with a hand tape however their location was still recorded with the DGPS.

Instrumentation (thermistors and monitoring wells) were visually inspected for damage and any repairs were documented. Photographs of the instrumentation and repairs (if any) are included in **Appendix G**.

4.1.4 Stability Assessment

The stability assessment was completed using the Severity Rating and Extent as per the SOW. Where clarification was required, discussions were held with DCC and DND to ensure the interpretation was consistent with the Technical Team's understanding. The Stability Assessment rating reference guide provided in the SOW is shown below in **Table 6.**

Table 6: Stability Assessment Rating Reference Guide

Performance / Severity Rating	Description
Acceptable	Noted features are of little consequence. The landfill is performing as designed. Minor deviations in environmental or physical performance may be observed, such as isolated areas of erosion, settlement, etc.
Marginal	Physical/environmental performance appears to be deteriorating with time. Observations may include an increase in size or number of features of note, such as differential settlement, erosion, or cracking. No significant impact on landfill stability to date, but potential for failure is assessed as low or moderate.
Significant	Significant or potentially significant changes affecting landfill stability, such as significant changes in slope geometry, significant erosion or differential settlement, scarp development. The potential for failure is assessed as imminent.
Unacceptable	Stability of landfill is compromised to the extent that ability to contain waste materials is compromised. Examples may include: - Debris exposed in erosion channels or areas of differential settlement - Exposed Liner - Slope Failure
Extent	**Description**
Isolated	Singular feature
Occasional	Features of note occurring at irregular intervals/locations
Numerous	Many features of note impacting less than 50% of the surface area of the landfill
Extensive	Impacting greater than 50% of the surface area of the landfill

4.1.5 Soil Sampling

An intrusive investigation involving the advancement of test pits was used to evaluate the presence and extent of potential soil impacts at the landfill sites at locations listed in Table 8, as shown below, as specified in the SOW (Annex B) and shown on individual landfill figures. Test pits were excavated using a clean shovel, trowel, and/or pickaxe, if necessary, to obtain soil samples. Sample depths were adjusted according to soil conditions. All test pits were backfilled following the collection and logging of samples. Photographs of sample locations were taken to show the area before, during, and after sampling. The Soil Sampling Log provided in the SOW (Annex F)

was used to log soils at each test pit. Completed Soil Sampling Logs are provided in **Appendix F**. These Soil Sampling Logs included the following information:

- Soil sample laboratory IDs;
- Depth of samples;
- GPS coordinates of samples;
- Descriptions of soils using the Unified Soil Classification System (USCS);
- Any odours or additional soil information; and
- Reasons for refusal.

The Unified Soil Classification System uses **Table 7** below to describe soils encountered during monitoring.

Table 7: Unified Soil Classification System

Major Divisions			Group Symbol	Group Name
Coarse grained soils more than 50% 0.075 mm	Gravel > 50% of coarse material larger than 4.75mm	clean gravel <5% fines	**GW**	well-graded gravel, fine to coarse gravel
			GP	poorly graded gravel
		gravel with >12% fines	**GM**	silty gravel
			GC	clayey gravel
	Sand ≥ 50% of coarse material smaller than 4.75mm	clean sand	**SW**	well-graded sand, fine to coarse sand
			SP	poorly graded sand
		sand with >12% fines	**SM**	silty sand
			SC	clayey sand
Fine grained soils 50% or more are smaller than 0.075 mm	silt and clay liquid limit < 50	inorganic	**ML**	silt
			CL	lean clay
		organic	**OL**	organic silt, organic clay
	silt and clay liquid limit ≥ 50	inorganic	**MH**	elastic silt
			CH	fat clay
		organic	**OH**	organic clay, organic silt
Highly organic soils			**PT**	peat

Soil sampling equipment was decontaminated between sample locations using a spray bottle containing laboratory-grade, biodegradable cleaner (Alconox®). The field team used shop towels to wipe off all remaining soil on sampling equipment and rinsed equipment with a spray bottle of commercially bottled water. Field staff used a fresh pair of nitrile gloves for the collection of each sample to avoid cross-contamination. Field staff used clean trowels for each of the shallow and depth samples to avoid cross-contamination.

Soil samples were collected at shallow (0-0.15 mbgs) and depth (0.40-0.50 mbgs). Soil samples were assessed to determine the presence of potential impacts and to log the soil types. The presence or absence of potential contamination (i.e. visual or olfactory evidence) was evaluated. The remainder of the sample was placed in laboratory-supplied sampling containers for analysis. A summary of soil samples collected at DYE-M is shown in **Table 8** below.

Table 8: Summary of Soil Samples Collected at DYE-M

Landfill Name	Landfill Type	Soil Sampling Locations x2 Depths	Soil Samples Not Collected	Reason For Not Collecting
Lower Site NWS Landfill	Regraded	DM-07 DM-08 DM-09 DM-10	All Collected	NA
Lower Site Tier II Disposal Facility	Tier II	MW05-13 MW05-15 MW05-16 MW12-01	All Collected	NA
Lower Site Crossroads Landfill	Regraded	DM-01 DM-02 DM-03	All Collected	NA
Lower Site Foundation Landfill	Regraded	DM-04 DM-05 DM-06	All Collected	NA
Lower Site Powerhouse Landfill	Leachate Contained	MW05-05 MW05-06 MW05-07 MW05-08	All Collected	NA
Lower Site NHWL	NHWL	MW05-09 MW05-12 MW05-26 MW05-27 MW05-28	All Collected	NA

Landfill Name	Landfill Type	Soil Sampling Locations x2 Depths	Soil Samples Not Collected	Reason For Not Collecting
Upper Site Tier II Disposal Facility	Tier II	MW07-22 MW07-23 MW08-24 MW08-25 MW12-02	All Collected	NA
Upper Site West Landfill – West Lobe	Regraded	DM-31 through DM-39 (9 locations)	All Collected	NA
Upper Site West Landfill – Centre/East Lobes	Regraded	DM-40 through DM-52 (13 locations)	All Collected	NA
Upper Site Pallet Line	Regraded	DM-53 through DM-62 (10 locations)	All Collected	NA
Upper Site NHWL	NHWL	MW06-18 MW06-19 MW06-20 MW07-21	MW06-19-SOIL-D	Refusal at 0.30m, Poor sampling matrix.
Upper Site NWS Landfill	Regraded	DM-18 through DM-22 (5 locations)	All Collected	NA
Upper Site South Landfill West	Regraded	DM-23 through DM-30 (8 locations)	All Collected	NA
Upper Site Helipad Debris Area	Debris Area	DM-11 through DM-17 (7 locations)	All Collected	NA
	Total:	**168**	**1**	**NA**

If a soil sample could not be collected for other reasons (e.g. boulders) following a reasonable attempt at several locations in the target sampling area, a sample was collected at or near the zone of refusal, and the sample depths and reason for refusal were reported on the Soil Sampling Log.

Soil samples at monitoring well locations were collected within a 2 to 4 m radius of the well and not adjacent to monitoring wells or within previously disturbed locations. Soil samples were collected prior to purging and sampling monitoring wells. Coordinates were recorded for all soil sample locations, including those near monitoring wells.

Soil samples were collected into clean laboratory-supplied containers. While staying at the DYE--M facility soil samples were stored in an NWS facility provided refrigerator. When shipped, soil samples were placed into a cooler with ice and packing material to prevent breakage. Soil samples for PHC F1 were preserved at the time of collection to increase the hold time. Soil samples were submitted to Bureau Veritas, an accredited laboratory by the International Organization for Standardization/International Electrotechnical Commission Standard 17025 (ISO/IEC 17025), for analysis of total metals, specifically arsenic, cadmium, chromium, copper, lead, nickel, and zinc as well as Total PCBs and Petroleum Hydrocarbons F1 to F4. Chain of Custody (COC) forms were filled out prior to shipping and included with the shipment.

4.1.6 Groundwater Sampling

Groundwater monitoring and the collection of groundwater samples was attempted at all monitoring well locations. A visual inspection of the physical condition and functionality of each monitoring well was conducted, with photographs, measurements, and notes recorded. Depth to Light Non-Aqueous Phase Liquid free product (if present) was measured, as well as depth to water, and all fields of the Monitoring Well Log were filled out. Complete Monitoring Well Logs are included in **Appendix F**. These Monitoring Well Logs include:

- Condition of monitoring well;
- Any ponding water around monitoring well locations;
- Lock details;
- Monitoring well installation details;
- Water elevation(s);
- Depth to bottom of well;
- Height of stick up of well;
- Colour, odour, presence, and thickness of free product if applicable;
- Purge volumes;
- Sampling equipment used; and,
- pH, conductivity, and in-situ temperature at each well during purging and immediately before sampling.

A low-flow technique was used to purge and sample the monitoring wells that follows the Canadian Council of Ministers of the Environment *Guidance Manual for Environmental Site Characterization in Support of Environmental and Human Health Risk Assessment* (2016 or most

recent) and industry best practices (whichever is more stringent). Accepted deviations from this guidance include maintaining the purge rate at 100 mL/min or less, and to not field filter or lab filter any of the samples, which are specific to the DEW Line monitoring protocols and must be followed.

Groundwater sampling was completed following low-flow parameter stabilization groundwater sampling procedures (as per CCME guidance), using a portable peristaltic pump and a Horiba U-52 multimeter. During purging of the monitoring wells, pH, electrical conductivity, turbidity, and temperature were monitored until readings stabilized within approximately +/- 10% over three consecutive readings (as per CCME guidance) with a minimum of three minutes between readings. Parameter readings were recorded on a Monitoring Well Log as provided in **Appendix F**. If a well became dry during the first purging attempt, field staff returned to the well later to confirm well recovery and to attempt to collect a sample. A summary of groundwater samples collected is shown in **Table 9** below.

Table 9: Summary of Groundwater Samples Collected at DYE-M

Landfill Name	Landfill Type	Groundwater Monitoring Sampling Locations	Groundwater Monitoring Locations Not Sampled	Reasons For Not Sampling
Lower Site Tier II Disposal Facility	Tier II	MW05-13 MW05-15 MW05-16 MW12-01	All Collected	N/A
Lower Site Powerhouse Landfill	Leachate Contained	MW05-05 MW05-06 MW05-07 MW05-08	All Collected	N/A
Lower Site NHWL	NHWL	MW05-09 MW05-12 MW09-26 MW09-27 MW09-28	MW05-12 MW09-26 MW09-28	Insufficient water
Upper Site Tier II Disposal Facility	Tier II	MW07-22 MW07-23 MW08-24 MW08-25 MW12-02	MW07-22 MW08-25 MW12-02	Insufficient water
Upper Site NHWL	NHWL	MW06-18 MW06-19 MW06-20 MW07-21	All Collected	N/A
	Total:	**22**	**6**	**Total Sampled: 16**

Groundwater samples were collected into clean laboratory-supplied containers. While staying at the DYE-M site groundwater samples were stored in an NWS facility provided refrigerator. When shipped, groundwater samples were placed into a cooler with ice and packing material to prevent breakage. Any preservatives used were recorded on the Monitoring Well Log. Groundwater samples were submitted to Bureau Veritas for analysis of the following in prioritized order (in the event of limited sample quantities): PHC fraction F1, total metals, specifically arsenic, cadmium, chromium, copper, lead, nickel, and PHC fractions F2 to F4. Total metals samples were not filtered in the field or the laboratory, and this was clearly marked on the sample containers and on the COC documentation.

Dedicated HDPE tubing was used for each well to prevent cross-contamination. Sample materials were not left in wells, and all waste generated during the monitoring program, with the exception of bentonite removed from wells, was recycled, or disposed of at the NWS facility. The bentonite removed from wells was transported off-site to Iqaluit by the field team for disposal at an appropriate facility.

4.1.7 Analysis of Environmental Sampling Results

Analytical results of soil and groundwater samples collected downgradient of landfills were compared to contaminant concentrations of samples collected upgradient of landfills. Upgradient and downgradient soil samples were also compared to the overall site background contaminant levels. In cases where more than 50% of baseline or background results were below detection, the baseline mean was set to the baseline detection limit and the baseline standard deviation is set to zero. Monitoring data can be considered within baseline conditions when it is within three standard deviations (SD) of the baseline mean or three times the baseline detection limit (if there was insufficient detectable baseline values), as described in this report at Baseline Mean Plus Variation (BL+V). These values are landfill specific and vary throughout DYE-M. When this value was exceeded at a landfill the sample results were further examined to determine whether any follow-up action was required.

Soil sampling to establish general site background chemical conditions (not impacted by site activities) for inorganic elements and PCBs was conducted in 1990, 2000 and 2003 by the Environmental Sciences Group and David Love from Queen's University. Baseline conditions refer to existing soil chemistry at the landfill area prior to and during remediation. These results were provided by DND. Baseline samples were collected in areas upgradient and downgradient of each

landfill. Upgradient soil samples were taken in areas near the landfill but not influenced by migration of contaminants through the landfill. Downgradient soil samples were collected at shallow and deep sample depths in areas at the toe of each landfill and from areas of preferential drainage. These soil samples were analyzed for inorganic elements, total PCBs, and total petroleum hydrocarbons to determine whether there had been migration of contaminants, historically or recently, from the landfill area.

Chromatograms are included for all samples with PHC results above laboratory detection limits and include a clear interpretation of hydrocarbon characteristics. Chromatograms are provided in **Appendix B**.

Soil and groundwater chemical results were graphed for each sampling year, as shown in **Appendix D**. Each soil sampling location consists of a shallow (0-0.15 mbgs) and deep (0.4-0.5 mbgs) sampling depth. When chemical results were below the analytical detection limit, half of the detection limit has been used in the charts for the sample points, as per the DND DEW Line approach. Temporal trend analysis of upgradient and downgradient concentrations in monitoring locations can be used to identify change, however a minimum of seven data points are recommended to conclusively establish a trend. Completion of the 2023 monitoring event provides the sixth data point and therefore temporal trend analysis could not be completed. The trend analysis should be completed following the Year 12 monitoring event scheduled for 2025, at all soil and groundwater locations with seven data points. For this report, upgradient and downgradient monitoring results are compared to the baseline arithmetic mean and three times the baseline arithmetic mean with deviation. The baseline arithmetic mean, and the baseline arithmetic mean with deviation are shown on the graphs. The variation is useful as an indicator of natural variability in baseline samples.

Also, of note for the groundwater monitoring program is that groundwater inorganic results are reported as total metals and samples are not filtered prior to analysis. A notation in the chemistry tables identifies filtered groundwater results. Samples that are not preserved or filtered may lead to high variability in chemical concentrations, it also provides a conservative (i.e., high) estimate of concentrations because the analytical results include dissolved concentrations as well as particulate-bound concentrations in water. In some cases, during previous monitoring events at DYE-M, dissolved metals have been reported and results are presented in italics in the tables (2014 and 2017 results). Dissolved metals were not included in the calculation of baseline arithmetic means.

4.1.8 Equipment Maintenance

Monitoring well repair and maintenance was included in the recommendations of the Golder 2018 monitoring report. All recommended well repairs were completed during the 2023 field program and are summarized in **Table 10** below. An additional repair was identified and completed during the field program at MW05-16. Photos of some of the repairs are included in **Appendix G**. A summary table with additional photos is provided in **Appendix F**.

Table 10: Monitoring Well Repair Summary Table

MW ID	Repairs Required	Repair Summary	Equipment/Supplies
MW05-15	Bentonite observed inside well casing during 2018 monitoring event.	Removed bentonite using a gloved hand or a narrow trowel. Bentonite was placed in bucket (with lid) and disposed of in Iqaluit.	Nitrile gloves, narrow (bulb planting) trowel, 5-gallon pail with lid.
	Maintenance on exterior casing cover to close and lock properly.	Removed aluminum collar and used a sledgehammer to drive casing back down into ground.	Allen keys, piece of wood, shovel, sledgehammer
MW05-16 (Added Repair)	Bentonite observed inside well casing during 2018 monitoring event.	Removed bentonite using a gloved hand or a narrow trowel. Bentonite was placed in bucket (with lid) and disposed of in Iqaluit.	Nitrile gloves, narrow (bulb planting) trowel, 5-gallon pail with lid.
MW12-01	Maintenance on exterior casing cover to close and lock properly.	Casing pushed so it is less on an angle. Inside view shows spacing around interior pipe of monitoring well. Casing cover was able to be closed and locked.	Allen keys, piece of wood, shovel, sledgehammer
MW05-08	Replace the torn gasket if it impacts or impedes sample collection or the ability to successfully lock the well; otherwise, remove the torn gasket.	Removed the torn gasket. Threaded fitting not affected by gasket and replaced once gasket removed. Cap was put back on after photo.	1 1/2" gasket (O-ring)
MW05-09	Bentonite observed inside well casing in 2018.	Removed bentonite using a gloved hand or a narrow trowel. Bentonite was placed in bucket (with lid) and disposed of in Iqaluit.	Nitrile gloves, narrow (bulb planting) trowel, 5-gallon pail with lid.
MW09-28	Sand has been observed inside the well pipe in 2018.	A 1.25" wide flighted hand auger was used to remove sand from the bottom of well pipe.	1.25" flighted auger with extensions
MW07-22	Replace missing well caps/j-plugs.	Installed new J-plug	1 1/2" J-plugs
MW12-02	Replace the cover and locking rim on the external casing.	Replaced with new 6" well cap.	6" well aluminum cap and collar, screwdriver.

MW ID	Repairs Required	Repair Summary	Equipment/Supplies
MW06-18	Bentonite observed inside well casing in 2018.	Removed bentonite using a gloved hand or a narrow trowel. Bentonite was placed in bucket (with lid) and disposed of in Iqaluit.	Nitrile gloves, narrow (bulb planting) trowel, 5-gallon pail with lid.
MW06-19	Bentonite observed inside well casing in 2018.	Removed bentonite using a gloved hand or a narrow trowel. Bentonite was placed in bucket (with lid) and disposed of in Iqaluit.	Nitrile gloves, narrow (bulb planting) trowel, 5-gallon pail with lid.

During the 2023 monitoring program, a damaged exterior well casing at monitoring well MW05-13 was identified and could not be repaired. Details of the damage to this well is provided in **Section 20.1**

4.1.9 Thermal Monitoring

Thermistor monitoring was completed at the Upper Site Tier II Disposal Facility, Lower Site Tier II Disposal Facility, and the Lower Site Powerhouse Landfill. The Tier II and Leachate Contained landfills contents, containment berms, and key trenches were designed to be continuously frozen using permafrost as the primary containment barrier. The purpose of the thermistors is to monitor the freeze back and the long-term geothermal regime of the permafrost ensuring that landfill contents remain frozen as designed. Each thermistor had an inspection completed (as per the field inspection log provided by DND) that included the following steps:

- Inspection of the physical condition of the thermistor installations including the protective casing, casing locks, thermistor cables and connections, and existing RX16 dataloggers looking for any sign of damage or wearing in the thermistor cables;
- Retrieving thermistor temperature data from the existing RX16 dataloggers using Prolog4 as provided by Lakewood Systems Ltd. before disconnecting the dataloggers from the thermistor cable;
- Collection of manual thermistor bead readings using a switchbox and multi-meter;
- Install of new TSR16 datalogger programmed with thermistor names and set to Lakewood factory settings to collect readings every hour (as directed by DND);
- Each TSR16 was installed with four Lithium Energizer L91 batteries (estimated by DND to last 8 years) and two desiccant packets (3 grams each, all that would fit within the installation); and,

- Monitoring of the newly installed TSR16 datalogger in the following days to ensure datalogger functionality before demobilization from site.

A total of 13 thermistors were inspected with five from the Upper Site Tier II Disposal Facility, five from the Lower Site Tier II Disposal Facility, and three from the Lower Site Powerhouse Landfill.

Soil Thermal Property sampling was completed using a TEMPOS Thermal Properties Analyzer at the Upper Site Tier II Disposal Facility, Lower Site Tier II Disposal Facility, and the Lower Site Powerhouse Landfill. The purpose of the soil thermal property monitoring was to collect data and soil samples for the Royal Military College of Canada to assist them with the ongoing study of permafrost conditions at the DEW Line sites. Rough sampling locations were provided by DND, and samples were collected and tested following the steps below:

- Rough testing locations were determined using the drawings and coordinates provided by DND, and final locations were selected in the field to be representative of surrounding environment.
- Shallow tests were completed at roughly 0.1 mbgs while deep samples were completed at 0.5 mbgs in landfill cover locations and 0.5 to 1.0 mbgs in native ground.
- In most cases for the deep samples in native ground, practical refusal was encountered around 0.6 mbgs. This was due to the presence of shattered rock, large cobbles, and gravels indicative of the surrounding environment. Manual excavation techniques being used to get past 0.5 to 0.6 mbgs required excessive effort and time and therefore this was considered practical refusal.
- Readings at each depth were taken with the TEMPOS in triplicate to ensure reliability. The use of the SH-3 probe was prioritized over the TR-3 probe as per **Section 5.9.10** of the SOW, but in most areas was not practical due to the presence of gravel and boulders which only allowed for the insertion of the larger, single pronged TR-3 probe (compared to the smaller SH-3 probe).
- Following testing using the TEMPOS at each depth, soil samples were collected using a clean shovel and were labelled and double bagged to ensure no moisture was lost from the samples.
- Upon completion of sampling at each location, the holes were backfilled using excavated materials and were foot-packed back to surface grade.

A total of 14 soil thermal property locations were provided by DND with five from the Upper Site Tier II Disposal Facility, five from the Lower Site Tier II Disposal Facility, and four from the Lower Site Powerhouse Landfill.

4.2 QUALITY ASSURANCE AND QUALITY CONTROL

Quality assurance and quality control was carried out in accordance with the LAWP. This plan includes landfill locations for duplicate sampling, unique nomenclature for each QA/QC sample, trip blank specifications, field blank specifications, and equipment blank sampling. QA/QC protocols were implemented in both soil and groundwater sampling programs. Blind duplicates were obtained for at least 10% of the soil and groundwater samples collected.

The specific location in the landfill where the blind duplicate was taken was determined in the field. The QA/QC for this program included blind duplicates of both soil and groundwater, groundwater trip blanks, groundwater field blanks, trowel blanks (water sample), and water sampling equipment blanks. Unique nomenclature was used for blind samples and documented by the field team; however, sample duplicate association information was not provided to the lab as per SOW E.1.3. Field personal used standard QA/QC protocols including appropriate decontamination of equipment between samples, appropriate techniques for sampling soil and groundwater, sample storage, shipping and handling and collection of the correct number of blind duplicates.

4.2.1 Field QA/QC

Field duplicate samples were collected to achieve a frequency of 10% of all soil and groundwater samples collected. A unique sample ID was used to clearly identify the blind duplicate sample. The location of the duplicate soil and groundwater sample was clearly identified on the Soil Sampling Log or Monitoring Well Log to ensure correlation between the regular and duplicate sample while ensuring that the duplicate was blind to the analytical laboratory. The same equipment was used to sample both the original sample as well as the duplicate sample.

A laboratory-prepared and -labelled trip blank was included in the sample bottle shipment and remained in the cooler during the collection of the groundwater samples.

A field blank was prepared at site using clean de-ionized water provided in sterile sealed containers by the laboratory. It was prepared by following regular groundwater sampling techniques. The field blank was packed in a cooler and shipped with other samples. The field blank provided a measure of how "clean" the water sampling techniques are, and whether cross-contamination or contamination from exposure to the air has occurred. The field blank was analyzed for the analytes of concern.

Equipment blanks are used to check for cross contamination from improper cleaning of equipment. Two equipment blanks were collected by the field team; one from the groundwater sampling equipment and the other from a trowel used during the soil sampling program. These samples were prepared following cleaning of equipment (peristaltic pump and shovel/ trowel) by rinsing the equipment with deionized water, collecting the rinse water into the appropriate sample containers. Equipment blanks were packed in coolers and shipped with other samples. Equipment blanks were analyzed for the analytes of concern.

An appropriate sample naming convention was used so that duplicates and blanks were submitted completely blind to the laboratory. A chain of custody document was used to trace the movement and handling of duplicate and blank samples from the field to the laboratory without indicating the location of collection, duplicate or blank status or nature of the matrix, if the matrix would identify the blank status (i.e. deionized water). The nomenclature for duplicates and blanks is as follows in **Table 11.**

Table 11: QA/QC Field Sampling Nomenclature

QA/QC Type	Name	Location
Groundwater		
Duplicate	MW23-00	MW05-06
	MW23-10	MW05-12
Field Blank	MW23-01	MW06-20
Equipment Blanks	MW23-03	Peristaltic Pump/Tubing
Soil Sampling		
Duplicate	MW23-S-00	DM-10-S
	MW23-S-10	MW05-16-SOIL-D
	MW23-S-15	DM-03
	MW23-S-20	DM-04-D
	MW23-S-25	MW09-28-SOIL-S
	MW23-S-30	MW05-08-SOIL-S
	MW23-S-40	MW09-26-SOIL-D
	MW23-S-50	MW08-24-SOIL-D
	MW23-S-60	DM-33-D
	MW23-S-70	DM-51-D
	MW23-S-80	DM-50-D
	MW23-S-90	DM-54-S
	MW23-S-100	DM-62-S
	MW23-S-110	MW07-21-SOIL-D
	MW23-S-120	DM-18-S
	MW23-S-130	DM27-S
	MW23-S-135	DM-29-S
	MW23-S-140	DM-15-D
	MW23-S-150	DM-11-S
	MW23-S-160	DM-45-D
Equipment Blank	MW23-S-13	Soil Sampling Trowel

Field personnel recorded the sample location of all duplicates and blanks on the associated field form to ensure that duplicates were paired appropriately upon receipt of analytical results.

4.2.2 Laboratory QA/QC

The laboratory that was used for analyses of soil and water samples is Bureau Veritas, which is an accredited laboratory by the International Organization for Standardization/International Electrotechnical Commission Standard 17025 (ISO/IEC 17025).

The following Internal Laboratory QA/QC assessments were used to evaluate the acceptability (or lack thereof) of the laboratory's QA/QC procedures and results, including any possible impacts to the reliability of, or the interpretation of, the data. The types of internal laboratory QA/QC assessments are summarized in **Table 12**.

Table 12: Internal Laboratory QA/QC Assessments

Type of Assessment	Description
Analytical duplicates	These blanks provide a measure of the precision and repeatability of the analytical method. Precision is often evaluated by calculating an RPD
Control spikes	These are used to identify analytical interference associated with the sample matrix
Method blanks	These are processed through the same digestions and extraction steps as a site sample but using a known clean aliquot of the appropriate matrix. Method blanks give a measure of any contamination that may be introduced during sample handing and processing and can indicate whether results are falsely inflated.

The internal laboratory QA/QC was assessed using the CCME document *Guidance Manual for Environmental Site Characterization in Support of Environmental and Human Health Risk Assessment, Volume 4, Analytical Methods* (CCME, 2016, Volume I) for each parameter group analyzed.

Sample Condition/Integrity Reporting on Laboratory Certificates of Analysis

The laboratory certificates of analysis indicate the following:

- The condition/integrity of the samples when they were received at the laboratory (e.g. cooler temperature, excessive moisture content, spills/leaks, broken containers, legibility of labels, etc.);
- Use of inappropriate containers;
- Inappropriate head space in sample containers for volatile analysis;
- Whether hold times for all parameters were met or exceeded;
- Whether water samples for metals analysis were preserved in the field or in the laboratory;
- Whether water samples for metals analysis that were preserved in the laboratory were held for 16 hours before being subsampled;
- Confirmation that water samples were not filtered by the laboratory;
- Whether or not the minimum detection limits outlined in Annex I were achieved; and,
- Any other relevant observations that could impact interpretation of the results.

The Laboratory QA/QC is discussed further in **Appendix C**.

4.3 FIELD NOTES AND DATA COLLECTION

Field data collected was scanned and uploaded at the end of each day to ensure raw data, documents and photos would not be misplaced. During the field program field data was reviewed to ensure completeness and to allow any errors to be addressed while the team was on site.

4.3.1 Field Notes

Digital copies of all field forms are provided in **Appendix F**.

4.3.2 Spatial Data Collection

All spatial data was collected using a Stonex S900A Real-Time Kinematic Global Positioning System with geodetic precision of 2-3 cm in XYZ. All surveyed points were recorded in UTM NAD83 CSRS Zone 20 for the DYE-M site and used the CGVD2013 vertical datum. Survey points were only collected when the RTK-GPS solution type is “fixed” meaning that it is receiving signals from at least 6 satellites and has a good radio connection to the reference station for real-time corrections.

The location of the base station was recorded continuously during the survey and stored as an O type File (.23o) within a rinex binary (.BIN) file for each of the surveys completed. The .23o file was run through the NRCan-PPP (Precise Point Positioning) tool, and the report from that was used to verify the location of control monument upon which the base is set up, as well as any other survey control monuments surveyed. Nearby survey control monuments were surveyed during each survey to confirm an effective reference station setup.

At the end of each day, the exported data was sent to the JV-60 Geographic Information Systems Department for processing and verification. All data and metadata were tabulated in the report, including the Point Number, Easting, Northing, Elevation, Description, Horizontal RMS, Vertical RMS, Correction Status, Satellite Coverage, Position Dilution of Precision, Date and Time of Collection, Total Recorded Points (for a multipoint average).

4.3.3 Photographic Records

A detailed photographic record is provided for the monitoring event, consisting of high-resolution digital photographs to see details clearly. Detailed methodology and specifications for photograph collection as per **Section 5.11** of the SOW are provided below:

- A detailed photographic record of each monitoring event has been provided;
- High resolution cameras were used, and photograph resolution was not reduced to save storage space (suggested minimum file size is 1.5 megabytes);
- File naming convention for photographs was approved by DCC and DND and is included below in **Section 4.3.3.1**
- Photographs of the landfills were taken from the aircraft before landing and after taking off;
- All photographs taken on the ground included an appropriate object for a measure of scale, such as a pylon or survey rod, and the dimensions of these objects are reported;
- Pylons were used to clearly demarcate the locations, beginning/end, extents, contours, etc., of all landfill features;
- A photograph of each monitoring well was taken to record the condition (exterior and interior);
- A photograph of each thermistor was taken to record the condition (exterior and interior) to document the location/position and condition of the cables within the casings;
- A photograph of each thermistor data logger and the replacement was taken, clearly identifying the serial numbers;
- Photographs of all maintenance requirements and activities conducted at monitoring wells and thermistors was taken to document their completion;
- Photographs of each soil sampling location was taken before sampling, after sampling, and upon completion of backfilling the test pit;
- For soil thermal monitoring samples, the following photographs were taken:
    - Ground conditions to the north, east, south, and west of the sample location (wide angle photographs showing where the cover material samples are located, relative to the landfill's thermistors (where possible) and showing where the native soil samples are located, relative to the landfill (where possible));

- Cover material/native soil before sample collection;
- Cover material/native soil at shallow and deep sampling depths;
- Sampling locations once the cover material/native soil has been replaced.

4.3.3.1 Photo File Naming Conventions

For simplicity of photograph filenames in the photo sheets provided in **Appendix G**, photos were renamed using abbreviations for the landfill names and landfill programs. The photo naming approach was discussed with DND prior to relabelling. Abbreviations are summarized in **Table 13** below.

Table 13: Summary of Abbreviations in Photographic File Names

Landfill Location Abbreviations	
Lower Site North Warning System Landfill	LSNWSL
Lower Site Tier II Disposal Facility	LST2DF
Lower Site Crossroads Landfill	LSCL
Lower Site Foundation Landfill	LSFL
Lower Site Powerhouse Landfill	LSPL
Lower Site Non-Hazardous Waste Landfill	LSNHWL
Upper Site Tier II Disposal Facility	UST2DF
Upper Site West Landfill	USWLWL, USWLCE
Upper Site Pallet Line Landfill	USPLL
Upper Site North Warning System Landfill	USNWSL
Upper Site Non-Hazardous Waste Landfill	USNHWL
Upper Site South Landfill West	USSLW
Upper Site Helipad Debris Area	USHL
Landfill Program Abbreviations:	
Landfill Visual Inspection Program	VI
Soil Sampling Program	SS
Groundwater Sampling	GW
Thermistor Monitoring and Downloads	TH
Soil Thermal Property Sampling (TEMPOS)	ST
Drone-based Aerial Photos	AP

The photo file naming convention follows the following format:

Landfillname_LandfillProgram_###.jpg.

For example, photos of soil sampling in the Upper Site Helipad Debris Area would have the following file name: USHL_SS_###.jpg.

5 LOWER SITE NORTH WARNING SYSTEM LANDFILL

5.1 LANDFILL DESCRIPTION

The Lower Site North Warning System (NWS) Landfill has an approximate footprint of 3,300 m^2 and is located 1.5 km northwest from lower site facilities and 100 m west of the lower camp road. The overall gradient of the landfill slopes towards the south, but locally to the east in the direction of a river. This slope is also directed towards Exeter Bay. This landfill was completed in 2008, with a landfill cover of clean fill, underlain by the landfill, followed by sand and gravel with boulders over bedrock.

5.2 SUMMARY OF WORK CONDUCTED

A visual inspection and environmental soil sampling were completed at the Lower Site NWS Landfill. A total of nine soil samples, including one duplicate for QA/QC.

5.2.1 Visual Inspection

A visual inspection was completed on the Lower Site NWS Landfill with no issues or deviations from the SOW, with inspection details shown in **Table 14** below. Features identified during the visual inspection are shown in **Figure 2a**.

Table 14: Lower Site NWS Landfill Visual Inspection Checklist

Site Name	DYE-M
Landfill Designation / Type	Lower Site NWS Landfill / Regraded
Date of Inspection	August 27, 2023
Date of Previous Inspection	August 13, 2018
Weather	6 to 10 ^{o}C, winds 24-30 km/hr, partly cloudy
Inspected by	Brent Hay
DGPS Information (Make/model, accuracy, UTM zone)	Stonex S900-A, H=8mm, V=15mm, UTM Zone 20N
Landfill Surface Area (m^2)	3,300 m^2

5.2.2 Soil Sampling

A total of four test pits were advanced consisting of the collection of nine soil samples including one duplicate sample. Photos taken before, during and after soil samples are provided on the photolog, with their locations shown in **Figure 2b**. Sample locations are shown on the site plan presented on **Figure 2c**.

A summary of the test pits is provided in **Table 15** below:

Table 15: Lower Site NWS Landfill Test Pitting Details

Soil Sampling Location	Sample ID	Sample Depth (mbgs)	Soil Notes
DM-07	DM-07-S	0.10-0.15	SP: Medium brown sand, <10% gravel
	DM-07-D	0.45-0.55	GW: Range of gravel, <20% medium brown sand
DM-08	DM-08-S	0.10-0.15	SP: Medium brown sand, <10% gravel
	DM-08-D	0.45-0.50	SP: Medium brown sand
DM-09	DM-09-S	0.10-0.15	SP: Medium brown sand, <10% gravel
	DM-09-D	0.45-0.55	GW: 20% medium brown sand, range of gravel sizes
DM-10	DM-10-S	0.10-0.15	GW: Medium brown sand 20%, range of gravel sizes
	MW23-S-00		
	DM-10-D	0.45-0.55	GC: Medium brown sand with > 5 cm gravel

5.2.3 Groundwater Sampling

Groundwater monitoring wells were not installed as part of the remediation program at the Lower Site NWS Landfill; therefore, no groundwater sampling was required during the 2023 monitoring program.

5.2.4 Thermal Monitoring

Thermistors were not installed as part of the remediation program at the Lower Site NWS Landfill; therefore, no thermistor monitoring was required during the 2023 monitoring program. Soil thermal property monitoring with the TEMPOS was not a requirement for this landfill and therefore was not completed during the 2023 monitoring program.

5.3 RESULTS OF THE MONITORING PROGRAM

5.3.1 Visual Inspection Results

Results of the visual inspection are summarized in the Visual Inspection Checklist, provided in **Table 16**, below.

Table 16: Lower Site North Warning System Visual Inspection Table

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
Settlement	Y	E	Northeast slope	561,406	7,388,954	1	0.5	0.01-0.02	<1	Minor settlement (Acceptable)	Unchanged since previous observation	(2018)
	Y	E	Northeast slope	561,406	7,388,952	2	0.6	0.08	<1	Minor settlement (Acceptable)	Longer and deeper in 2023	1475, 1476
Erosion	N	-	-	-	-	-	-	-	-	-	-	-
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
Cracking	Y	A	Cover surface	561,450	7,388,931	3	Hairline	-	<1	Hairline crack 1 m above crest of southeast slope (Acceptable)	Increased length (2 m long in 2017)	(2018)
	N	A	Cover surface	-	-	-	-	-	-	Hairline crack 1 m above crest of southeast slope	Not observed in 2023	1480, 1481
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation	Y	B1+ B2+ B3+ B4+ D	Cover surface	561,415	7,388,933	75 (entire cover)	48 (entire cover)	-	100	Moderate vegetation over entire landfill cover surface (Acceptable)	Vegetation expanded on the northwest and northeast slopes and now covers the entire landfill surface (NW slope in 2017: 29 x 5 m; NE slope in 2017: 37 x 5 m)	(2018)
	Y	B1+ B2+ B3+ B4+ D	Cover surface and slopes	561,417	7,388,928	73	46	-	100	Moderate vegetation over entire landfill cover surface and slopes (Acceptable)	Increase in vegetation density since 2018. Dimensions provided are for footprint of landfill given ubiquitous nature of the vegetation.	1422-1424, 1479
Staining	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
Ponded Water	N	-	-	-	-	-	-	-	-	-	-	-
Seepage	N	-	-	-	-	-	-	-	-	-	-	-
Debris and/or Liner Exposed	N	-	-	-	-	-	-	-	-	-	-	-
Presence / Condition of Monitoring Instruments	N	-	-	-	-	-	-	-	-	-	-	-
Features of Note / Other Observations	N	C	Cover surface	-	-	-	-	-	-	Tire tracks	No longer a feature	(2018)
	N	C	Cover surface	-	-	-	-	-	-	Tire tracks	No longer a feature	-

Landfill Area ~ 3,300 m^2.

General Comments: Landfill is in excellent (Acceptable) condition

Note 1 - Rows with grey text are features from the 2018 DYE-M report and are also identified with (2018) in the photo column.

5.3.2 Preliminary Stability Assessment

Based on the results of the visual assessment the Lower Site NWS Landfill has been given an overall performance of Acceptable. The preliminary stability assessment is summarized in **Table 17.**

Table 17: Lower Site NWS Landfill Preliminary Stability Assessment

Feature	Severity Rating	Extent
Settlement	Acceptable	Isolated
Erosion	Not Observed	None
Lateral Movement	Not Observed	None
Frost Action	Not Observed	None
Sloughing	Not Observed	None
Cracking	Not Observed	None
Animal Burrows	Not Observed	None
Ponded Water	Not Observed	None
Seepage	Not Observed	None
Staining	Not Observed	None
Vegetation Establishment	Acceptable	Extensive
Vegetation Stress	Not Observed	None
Debris and/or Liner Exposure	Not Observed	None
Other	Not Observed	None
Overall Landfill Performance	**Acceptable**	

Photographs obtained during the visual inspection provided electronically in the photolog. Feature locations and photographic locations are shown on **Figure 2a** and **Figure 2b**, respectively.

5.3.3 Visual Inspection Trend Analysis

A comparison of the visual inspection results from the current and previous program(s) was completed to assess if any trends are present. The results of this assessment are provided in **Table 18**.

Table 18: Lower Site NWS Landfill Historical Inspection Comparison

Feature	Feature ID(s)	Comparison with Previous Inspection
Settlement	E	The feature is longer and deeper than in 2018
Erosion	none	N/A
Lateral Movement	none	N/A
Frost Action	none	N/A
Sloughing	none	N/A
Cracking	A	Not observed in 2023
Animal Burrows	none	N/A
Ponded Water	none	N/A
Seepage	none	N/A
Staining	none	N/A
Vegetation Establishment	B1+B2+B3+B4+D	Vegetation is relatively evenly spaced over the surface of the landfill, increased in 2023
Vegetation Stress	none	N/A
Debris and/or Liner Exposure	none	N/A
Other	C	N/A

Based on the visual inspection settlement is ongoing in one discrete area (Feature E). Feature A is no longer present, and no new features were observed. There has been an increase in vegetation since the last inspection. Based on this comparison, a landfill performance of Acceptable is still considered appropriate.

5.3.4 Soil Sampling Results

Soil results were compared to the baseline with variation for the discussion provided in **Table 19** below. Background and baseline arithmetic means are included for information purposes. Analytical tables and graphs can be found in **Appendix D**. **Figure 2c** shows soil sampling locations.

Table 19: Lower Site NWS Landfill Soil Sampling Results

Parameter	Background Data (mg/kg)	Baseline Data (mg/kg)	Baseline Data with Variation (mg/kg)	Discussion
Arsenic	1.0	1.0	3.0	All results were below BL+V at upgradient and downgradient locations.
Cadmium	1.0	1.0	3.0	All results were below BL+V at upgradient and downgradient locations.
Chromium	93.8	64.4	125.4	All results were below BL+V at upgradient and downgradient locations.
Cobalt	12.1	12.4	22.5	All results were below BL+V at upgradient and downgradient locations.
Copper	42.6	26.0	47.8	All results were below BL+V at upgradient and downgradient locations.
Lead	10.0	10.0	30.0	All results were below BL+V at upgradient and downgradient locations.
Nickel	37.8	34.4	64.1	All results were below BL+V at upgradient and downgradient locations.
Zinc	83.6	48.7	81.9	All results were below BL+V at upgradient and downgradient locations.
Total PCB	0.0002	0.1	0.3	All results were below BL+V at upgradient and downgradient locations.
F1 (C_6-C_{10})	N/A	10.0	30.0	All results were below BL+V at upgradient and downgradient locations.
F2 (C_{10}-C_{16})	N/A	10.0	30.0	All results were below BL+V at upgradient and downgradient locations.
F3 (C_{16}-C_{34})	N/A	50.0	150.0	All results were below BL+V at upgradient and downgradient locations.
F4 (C_{34}-C_{50})	N/A	50.0	150.0	All results were below BL+V at upgradient and downgradient locations.

Note:
Baseline Data with Variation = [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]

Upgradient and downgradient samples at surface (0-0.15 mbgs) and deep (0.4-0.5 mbgs) were below BL+V for all parameters. Arsenic concentrations at downgradient location DM-10 at depth were elevated with respect to previous sampling events at 2.82 mg/kg, but still below BL+V; this represents a new maximum for arsenic concentrations at this landfill. Deep samples at DM-10 were unable to be collected in 2015, 2016, 2017, and 2018, and as such, there are insufficient data points to assess whether this increase in arsenic concentrations at DM-10 is a recent occurrence. All other results were at or below the maximum historical long-term monitoring values for this landfill. Overall, the downgradient soil results from 2023 are comparable to the results from the previous monitoring events and there is no indication of contaminant migration from the landfill at this time.

5.4 CONCLUSIONS AND OVERALL LANDFILL PERFORMANCE

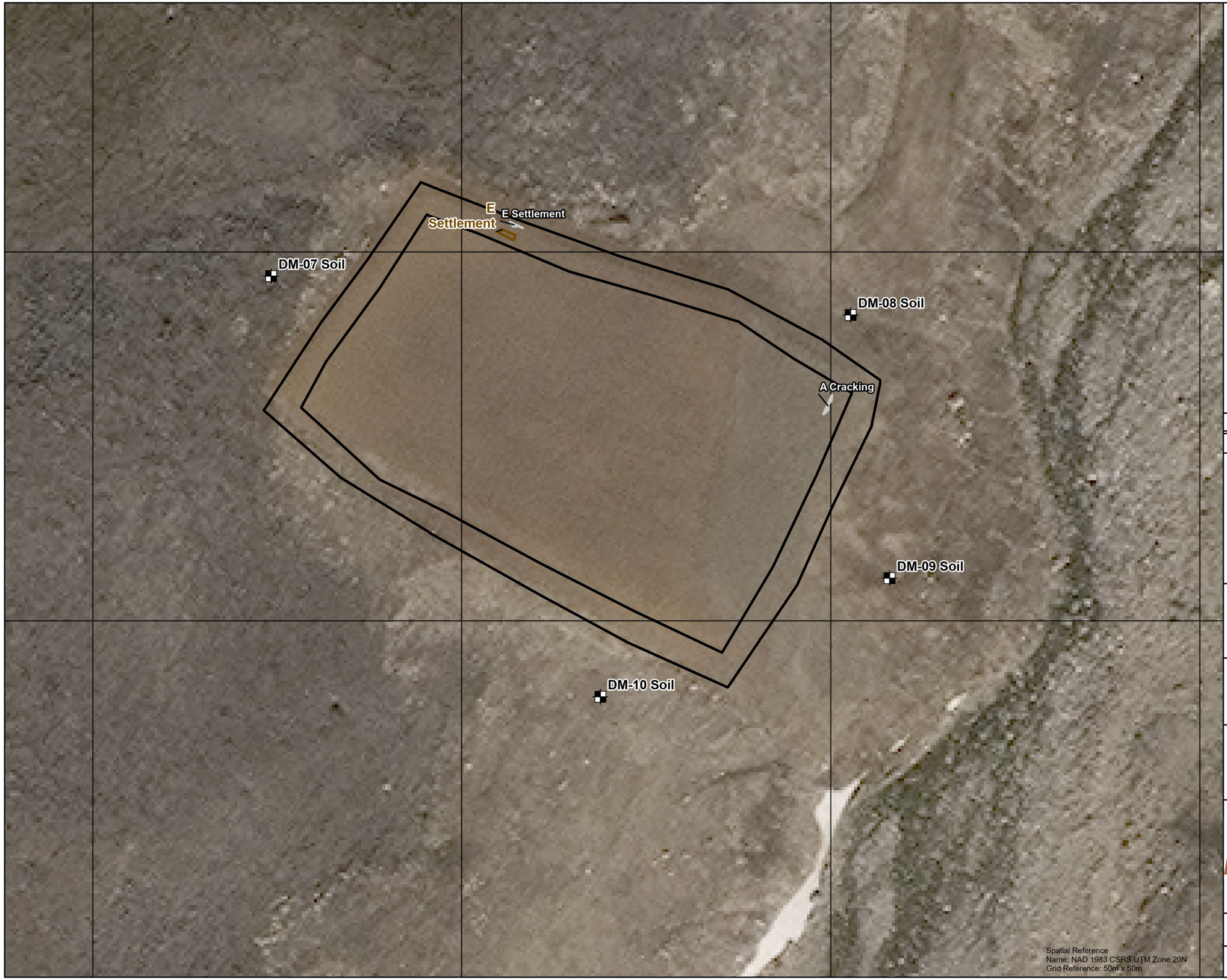
Based on the data presented above, a landfill performance of Acceptable is considered appropriate. Soil samples were collected at all five scheduled locations at shallow and deep depths. All upgradient and downgradient soil samples were below BL+V for all parameters and were comparable to previous monitoring events. Arsenic results should be reviewed in the next monitoring event to determine if concentrations are continuing to increase in downgradient DM-10 at depth.

The preliminary stability assessment resulted in a rating of Acceptable. Based on the above information, an overall landfill performance of Acceptable is still considered appropriate. There is no indication of contaminant migration from the landfill based on the review and assessment of the 2023 and historical analytical data and the landfill does not appear to be impacting the surrounding environment.

5.5 RECOMMENDATIONS

Arsenic results should be reviewed in the next monitoring event to determine if concentrations are continuing to increase in downgradient DM-10.

Based on the results of the visual inspection and soil sampling program, the landfill should continue to be monitored as per the SOW.



LEGEND

- Soil Sample
- Landfill Crest / Toe
- 2018 Features (Golder)
- Settlement

Note:
Feature B1-B4, D - Moderate vegetation over entire landfill cover surface and slopes, increase in density since 2018

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

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N W E S

0 10 20 Metres

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CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

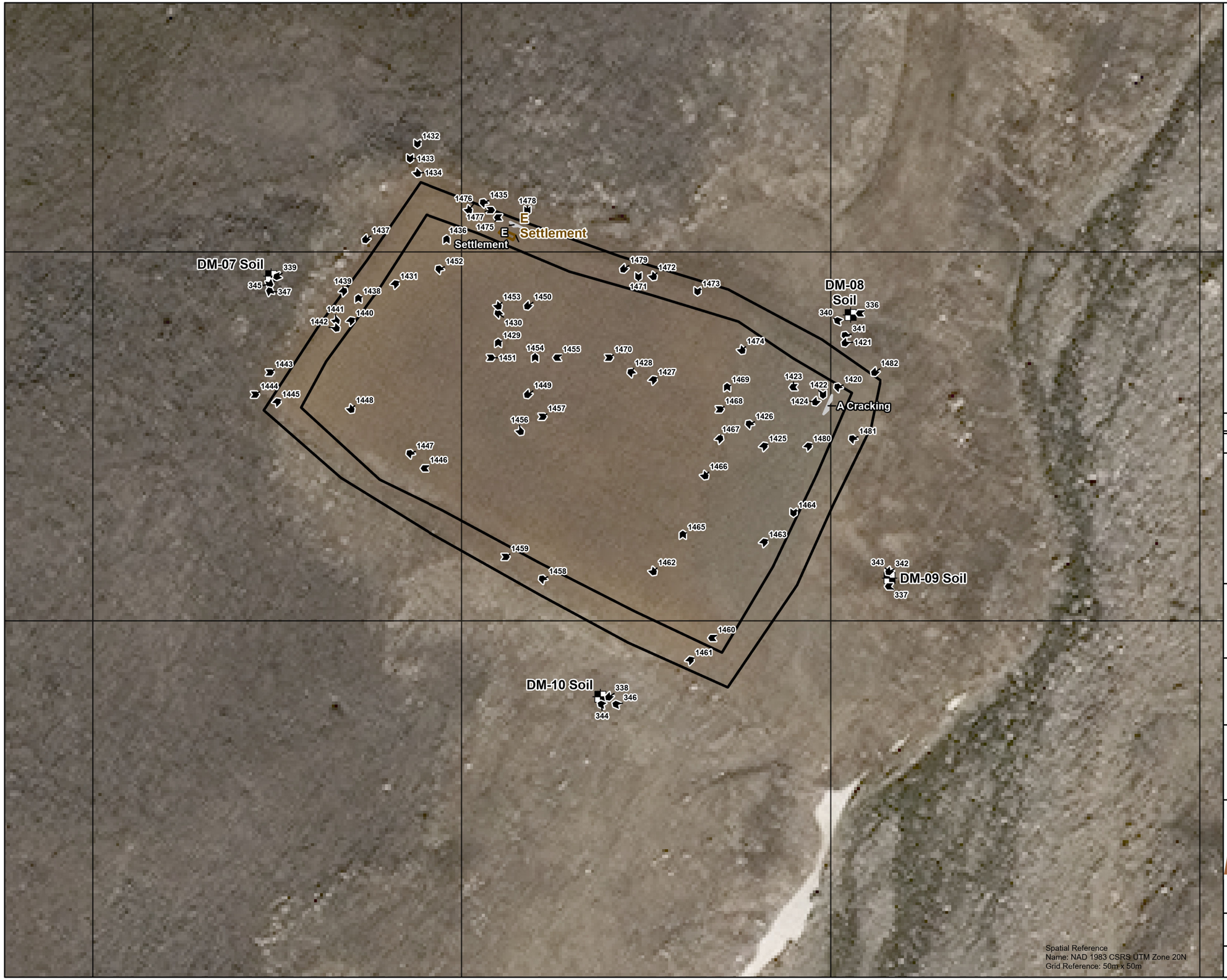
Lower Site North Warning System Landfill - Visual Inspection

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*
230394	**March 16, 2024**

DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**02a**	**0**

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LEGEND

- Soil Sample
- Photolog Locations
- Landfill Crest / Toe
- 2018 Features (Golder)
- Settlement

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

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Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Lower Site North Warning System Landfill - Photolog Locations

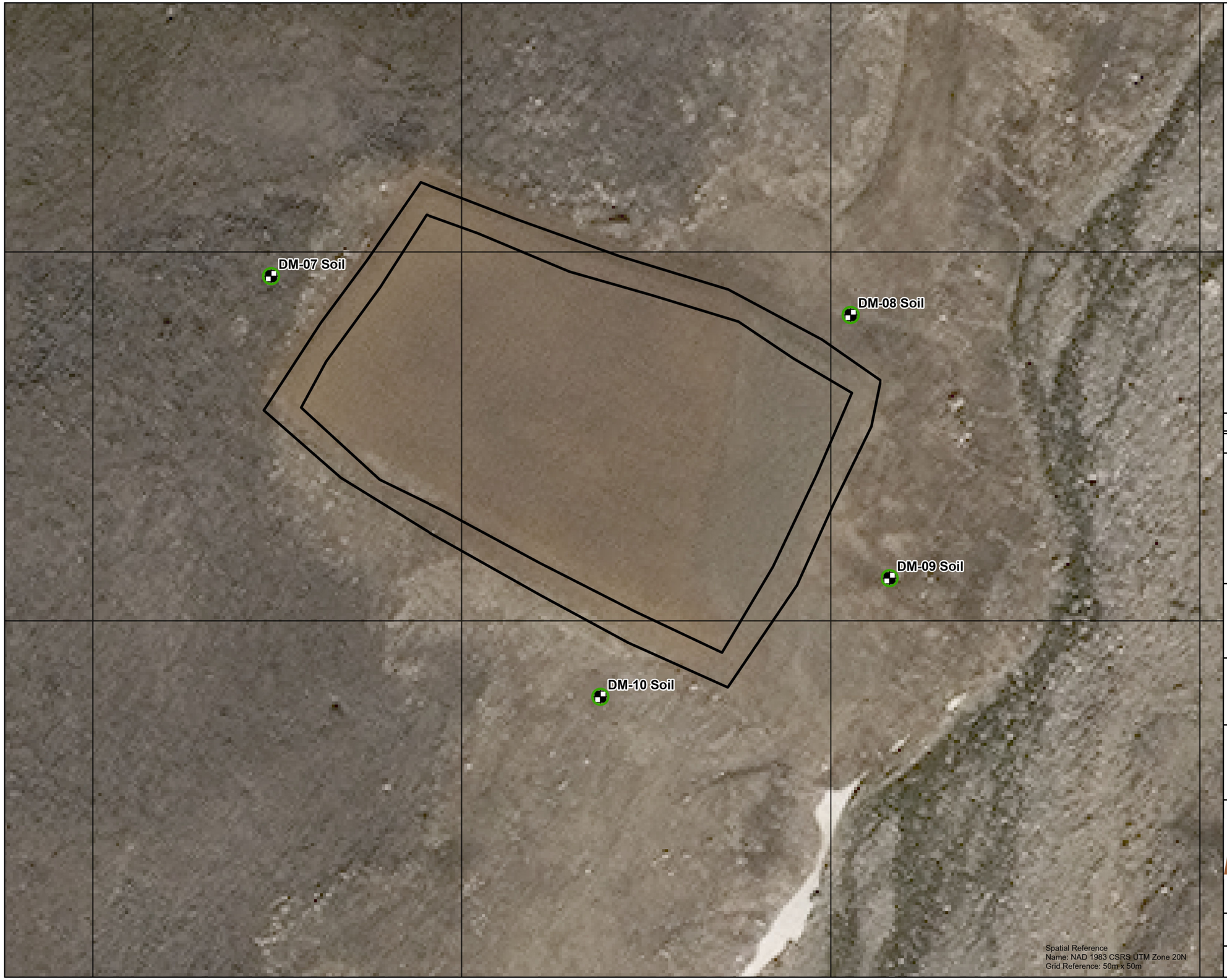
BLM-KEL-60
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P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*
230394	**March 16, 2024**

DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**02b**	**0**

Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

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LEGEND

- Soil Sample
- Sample Does Not Exceed Baseline + Variation
- Landfill Crest / Toe

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

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N W E S

0 10 20 Metres

1:500

CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Lower Site North Warning System Landfill - Environmental Results

BLM-KEL-60
A Kitikmeot JV Corporation
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P.O. Box 6
Cambridge Bay, NU
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PROJECT #	*DATE*		
230394	**March 16, 2024**		
DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**02c**	**0**

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6 LOWER SITE TIER II DISPOSAL FACILITY

6.1 LANDFILL DESCRIPTION

The Lower Site Tier II Disposal Facility has an approximate footprint of 29,100 m^2 and is located northwest of the airstrip, approximately 1,500 m northwest of the hangar. The facility contains contaminated soil exceeding the Tier II criteria excavated during the DEW Line Clean-Up program. The design of this facility was based on the characteristics of the contaminants, geothermal properties of the area and the local permafrost regime. The Lower Site Tier II Disposal Facility has several long-term monitoring instruments including groundwater monitoring wells and thermistors.

6.2 SUMMARY OF WORK CONDUCTED

A visual inspection, thermistor monitoring, soil thermal monitoring and sampling, environmental soil sampling, and groundwater sampling was completed at the Lower Site Tier II Disposal Facility. A total of nine soil samples from four test pits, including one duplicate sample, were collected as well as four groundwater samples.

6.2.1 Visual Inspection

A visual inspection on the Lower Site Lower Site Tier II Disposal Facility was completed with no issues or deviations from the SOW, with inspection details shown in **Table 20** below. Features identified during the visual inspection are shown in **Figure 3a**. Slope failures identified in the visual inspection are shown in **Figure 3b**.

Table 20: Lower Site Tier II Disposal Facility Visual Inspection Checklist

Site Name	DYE-M
Landfill Designation / Type	Lower Site Tier II Disposal Facility / Tier II
Date of Inspection	August 31, 2023
Date of Previous Inspection	August 9, 2018
Weather	10 °C, winds 5 km/hr, sunny
Inspected by	Brent Hay
DGPS Information (Make/model, accuracy, UTM zone)	Stonex S900-A, H=8mm, V=15mm, UTM Zone 20N
Landfill Surface Area (m^2)	29,100 m^2

6.2.2 Soil Sampling

A total of four test pits were advanced consisting of the collection of nine soil samples including one duplicate for QA/QC purposes. Photos taken before, during and after soil samples are provided in the electronic photolog, with their locations shown in **Figure 3c**. Sample locations are shown on the site plan presented on **Figure 3d**. A summary of the test pits is provided in **Table 21** below.

Table 21: Lower Site Tier II Disposal Facility Test Pitting Details

Soil Sampling Location	Sample ID	Sample Depth (mbgs)	Soil Notes
MW05-13	MW05-13-SOIL-S	0.10-0.15	SP: Medium brown sand with 10% gravel
	MW05-13-SOIL-D	0.45-0.50	SP: Same as above
MW05-15	MW05-15-SOIL-S	0.10-0.15	SW: Well graded sand with 20% gravel, some organic 0-0.05
	MW05-15-SOIL-D	0.45-0.55	SP: Medium brown sand
MW05-16	MW05-16-SOIL-S	0.10-0.15	SP: Large gravel (20%) with brown medium sand, organics ~10%
	MW05-16-SOIL-D	0.45-0.55	SP: Large gravel with medium brown sand
	MW23-S-10		
MW12-01	MW12-01-SOIL-S	0.10-0.15	SP: Medium brown sand with 20% gravel
	MW12-01-SOIL-D	0.45-0.50	SP: Medium brown sand with 10% gravel

6.2.3 Groundwater Sampling

A total of four monitoring wells were monitored as per the SOW. Photos of the monitoring wells and well repairs are in the photo sheets in **Appendix G**. A summary of the monitoring activities is summarized below in **Table 22.**

Table 22: Lower Site Tier II Disposal Facility Monitoring Well Details

Well ID	Water Level (mbgs)	LNAPL*	Calculated Water in Water Column (m)	Sampled	Additional Notes
MW12-01	0.15	ND	3.6	Yes	Conducted maintenance so that the exterior casing cover could be closed and locked properly. The water was clear during sampling.
MW05-13	0.38	ND	3.14	Yes	The water was clear during sampling. **Damage was noted on the well casing and will need repair.**
MW05-15	0.47	ND	2.98	Yes	Bentonite was observed inside well casing and was removed and properly disposed of. Maintenance was conducted so that the exterior casing cover could close and locked properly. The water was clear during sampling.
MW05-16	0.5	ND	2.7	Yes	Bentonite was observed inside well casing and was removed and properly disposed of. The water was clear during sampling.

Note:
*ND= Not Detected

MW05-13 had severe damage to the outer casing of the monitoring well that could not be repaired. Details are discussed in **Section 20.1**.

6.2.4 Thermistor Monitoring

Five thermistors (VT-1, VT-2, VT-3, VT-4, and VT-BL) are present at the Lower Site Tier II Disposal Facility with two of the thermistors installed within the berm, two installed within the main landfill cover, and one installed to the south in the native soil as a background reference. Each thermistor had an inspection completed on August 27, 2023, to confirm both the functionality of the thermistor beads using a manual switchbox and ohm meter, and the overall condition of the protective casing and thermistor string by visual inspection. The data was downloaded from the existing RX16 dataloggers before they were removed and replaced with new TSR16 dataloggers. The new TSR16 dataloggers were equipped with new Energizer L91 lithium batteries and new desiccant packs, with the battery life estimated to last until August 2031. The TSR16 dataloggers were left in factory programming to secure readings every hour as directed to JV-60 by DND prior to the field program. The TSR16 dataloggers were then checked at the end of the field program to confirm datalogger functionality and data consistency, prior to demobilizing from site. **Table 23** below outlines observed issues with thermistor functionality for this site.

Table 23: Lower Site Tier II Disposal Facility Thermistor Inspection Observations

Thermistor	Observations
VT-1	No issues observed
VT-2	Bead 3 reading low temperature
VT-3	No issues observed
VT-4	No issues observed
VT-BL	Beads 3, 4, & 5 not working, beads 8 and 12 reading low temperatures

Review of the temperature profiles revealed that beads 3 in VT-2, and beads 8 and 12 in VT-BL exhibit similar trends to the surrounding beads, however at an offset temperature (lower) which is not consistent with the expected thermal regime. The offset is present before and after switching the RX16s with TSR16s, indicating the issue is likely within the thermistor, not the data logger(s). This offset may have developed due to a potential wiring issue, although no damage was observed to the visible portion of the thermistor string above ground. Thermistor inspection logs were completed for each thermistor during the field program and are provided in **Appendix F**.

6.2.5 Soil Thermal Property Monitoring

Soil thermal property testing was completed at five locations as per Section 5.9 of the SOW using a TEMPOS thermal conductivity properties analyzer. The use of the SH-3 probe was prioritized over the TR-3 probe for testing per Section 5.9.10 of the SOW, but in most areas was not practical due to the presence of gravel and boulders which only allowed for the insertion of the larger, single pronged TR-3 probe (compared to the smaller, double pronged SH-3 probe). Sampling depths for the deep samples in the native soil locations were limited to roughly 0.5 to 0.6 m due to the presence of gravel and cobbles. This was considered practical refusal per Section 5.9.5 of the SOW, as excessive effort and time was required to manually excavate any further. Photos of the excavated material from the thermal properties sampling locations can be referenced in **Appendix G**.

6.3 RESULTS OF THE MONITORING PROGRAM

6.3.1 Visual Inspection Results

Results of the visual inspection are summarized in the Visual Inspection Checklist, provided in **Table 24**, and the slope failure is summarized in **Table 25** below.

Table 24: Lower Site Tier II Disposal Facility Visual Inspection Table Excluding Slope Failure Features

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
Settlement	N	-	-	-	-	-	-	-	-	Note there are areas of the landfill cover that exhibit an uneven surface as a result of rough grading (Acceptable)	-	-
Erosion	N	P	Cover surface/ north slope	-	-	-	-	-	-	Self-armouring erosion channel	Not observed in 2018	(2018)
	N	P	Cover surface/ north slope	-	-	-	-	-	-	Self-armouring erosion channel	Not observed in 2023	-
	Y	Q	Cover surface	561,860	7,388,253	15	2	0.1	<1	Self-armouring erosion channel (Acceptable)	Reduced length (20 x 2 m in 2017)	(2018)
	N	Q	Cover surface	-	-	-	-	-	-	Self-armouring erosion channel	Not observed in 2023	1577
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
Sloughing	Y	Y	South slope near crest	561,948	7,388,229	20	0.02	0.02	<1	Tension crack near crest (Acceptable)	New (in line with Feature L; but separate/disconnected) in 2018	(2018)
	Y	Y	South slope near crest	561,948	7,388,229	9.39	1.88	0.04	<1	Healed tension crack near crest now resulting in slight slump (Acceptable)	Reclassified from cracking Feature	1523, 1525
	Y	H	West slope	561,798	7,388,237	5	1	0.3	<1	Minor sloughing (Acceptable)	Longer and narrower in 2018 (2 x 2 m in 2017), not wet in 2018 or 2017	(2018)
	N	H	West slope	-	-	-	-	-	-	Minor sloughing	Not observed in 2023	-
Cracking	N	I	Along west slope near toe	-	-	-	-	-	-	Minor crack	Not observed in 2018 due to snow cover	(2018)
	N	I	Along west slope near toe	-	-	-	-	-	-	Minor crack	Not observed in 2023	-
	Y	J	Near crest on west slope	561,825	7,388,194	11	0.15	0.1	<1	Tension crack (Acceptable)	Not observed in 2017; but observed in 2018	(2018)
	Y	J	Near crest on west slope	561,825	7,388,194	17.88	0.10	0.05	<1	Tension crack (Acceptable)	Larger in 2023, mostly healed	1585, 1587
	Y	J1	Near crest on west slope	561,814	7,388,214	19.56	0.20	0.075	<1	Appears slightly lower on slope, west of J (Acceptable)	New in 2023	1589, 1591
	Y	L	South slope near crest	561,937	7,388,223	38	0.05	-	<1	Minor crack with thin parallel crack at west end (Acceptable)	Unchanged since previous inspection (40 x 0.05 m in 2017)	(2018)
	Y	L	South slope near crest	561,937	7,388,223	4.79	nil	nil	<1	Healed, barely visible (Acceptable)	Smaller in length in 2023, healed	1529, 1532
	Y	L1	South slope near crest	561,937	7,388,223	10.57	nil	nil	<1	Likely historical end of Feature L, which is now healed between L and L1, vegetation in healed crack (Acceptable) (31.5 m from edge of L to L1)	L was previously measured as 38 m long. It appears the feature is only present at the east and west extents (the middle 31.5 m is no longer visible)	1536, 1537
	N	M	South slope	-	-	-	-	-	-	Minor tension crack on slope	Not observed in 2018 due to snow cover	(2018)

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
	N	M	South slope	-	-	-	-	-	-	Minor tension crack on slope (Acceptable)	Not observed in 2023	-
	Y	AC1	South slope	561,853	7,388,178	4.47	0.075	0.04	<1	Minor tension crack on slope (Acceptable)	New in 2023	1567-1570
	Y	AC2	South slope	561,849	7,388,179	4.83	0.075	0.04	<1	Minor tension crack on slope (Acceptable)	New in 2023	1567-1570
	Y	AF	North slope	561,829	7,388,241	16.66	0.05	0.03	<1	Tension crack above AD and AA (Acceptable)	New in 2023	1624, 1626
	Y	R/S	Cover surface	561,867	7,388,264	72	0.25	0.1	<1	Cracking on cover surface (Acceptable)	Longer and slightly wider in 2018 (R: 30 x 0.2 m; S: 30 x 0.1 m in 2017)	(2018)
	Y	R/S	Cover surface	561,867	7,388,264	72.28	0.10	0.05	<1	Cracking on cover surface, joins AB perpendicular where AB turns east (Acceptable)	Longer, shallower in depth and smaller in width in 2023	1540-1556
	N	T	East slope	-	-	-	-	-	-	Tension crack near toe	Not observed in 2018	(2018)
	N	T	East slope	-	-	-	-	-	-	Tension crack near toe	Not observed in 2023	-
	N	U	South slope	-	-	-	-	-	-	Tension crack near toe	Not observed in 2018	(2018)
	N	U	South slope	-	-	-	-	-	-	Tension crack near toe	Not observed in 2023	-
	Y	V	East slope	561,951	7,388,297	6	0.02		<1	Tension crack near crest (Acceptable)	Reduced length in 2018 (8 x 0.02 m in 2017)	(2018)
	Y	V	East slope	561,941	7,388,315	56.95	0.1-0.25	0.01-0.07	<1	Tension crack near crest (Acceptable)	Larger in 2023	1643-1648, 1650
	Y	AB	Cover surface	561,862	7,388,284	24	0.1	0.02	<1	Cracking on cover surface (Acceptable)	New in 2018	(2018)
	Y	AB	Cover surface	561,872	7,388,277	80	0.05	0.02	<1	Cracking on cover surface, extends to the east at the location where AB joins with R/S (Acceptable)	Longer in 2023, now extends to the east from the south end. Notation on photograph is mislabeled as 'AG'	1657-1661
	Y	X	East slope	561,960	7,388,280	1.5	0.02	0.05	<1	Tension crack near crest (Acceptable)	New in 2018	(2018)
	Y	X	East slope	561,966	7,388,265	26.94	0.15	0.05	<1	Tension crack near crest (Acceptable)	Longer in 2023	1651, 1652, 1655
	Y	B	Cover surface	561,856	7,388,208	39	0.15	0.05	<1	Minor self-armouring erosion (Acceptable)	Reduced length (45 x 0.15 m in 2017)	(2018)
	Y	B	Cover surface	561,847	7,388,219	24.5	0.15	0.05	<1	Cracking (Acceptable)	Reduced length in 2023. Reclassified from erosion	1572, 1573, 1576
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation	Y	D1	North slope	561,785	7,388,286	75	6	-	1.5	Sparse vegetation (Acceptable)	Expanded area in 2018 (40 x 5 m in 2017)	(2018)
	Y	D2	West slope	561,814	7,388,208	100	3	-	1.0	Sparse vegetation (Acceptable)	Longer in 2018 and slightly denser vegetation. (40 x 5 m in 2017)	(2018)
	Y	D3	South slope	561,972	7,388,236	40	1	-	<1	Sparse vegetation (Acceptable)	Slope could not be completely observed in 2018 due to snow cover but vegetation assumed to be unchanged since 2017 (70 x 5 m in 2017)	(2018)
	Y	D1+D2+D3	Cover Surface and slopes	561,879	7,388,263	193	146	-	100	Sparse vegetation throughout the cover surface and slopes of the landfill (Acceptable)	Increase in vegetation density and over surface of landfill, see photos. Dimensions provided are for footprint of landfill given ubiquitous nature of the vegetation.	1565, 1566, 1662, 1667
Staining	N	N	West slope	-	-	-	-	-	-	Band of white discoloration along entire west slope	Not observed in 2018	(2018)

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
	N	N	West slope	-	-	-	-	-	-	Band of white discoloration along entire west slope	Not observed in 2023	-
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
Seepage	N	W	East toe	-	-	-	-	-	-	Wet area	Could not be observed in 2018 due to snow cover	(2018)
	N	W	East toe	-	-	-	-	-	-	Wet area	Not observed in 2023	-
	Y	AG	East slope	561,957	7,388,309	33.1	14.1	N/A	1.6	Wet area in slope (Acceptable)	New in 2023, unclear if this is seepage or result of recent snow falls. Mislabeled AH in photos	1669-1672
Ponded Water	N	-	-	-	-	-	-	-	-	-	-	-
Debris and/or Liner Exposed	N	-	-	-	-	-	-	-	-	-	-	-
Presence / Condition of Monitoring Instruments	Y	MW12-01, MW05-13, 15, 16	See Figure DYE-M.3	-	-	-	-	-	-	All wells in good physical condition with the exception of MW05-13. Exterior casing is severely damaged.	-	(2018)
	Y	MW12-01, MW05-13, 15, 16	See Figure 3c	-	-	-	-	-	-	All locks removed and replaced, either very difficult to turn key or could not open locks. MW05-15: Bentonite removed from inside well casing. Conducted maintenance to close exterior casing. MW05-16: Bentonite removed from inside well casing. MW12-01: Conducted maintenance to close exterior casing. MW05-13: Exterior casing severely damaged.	No significant change except locks replaced	26-48
	Y	VT-1, 2, 3, 4, BL	See Figure DYE-M.3	-	-	-	-	-	-	All thermistors in good physical condition	Data logger at VT-4 replace	(2018)
	Y	VT-1, 2, 3, 4, BL	See Figure 3a	-	-	-	-	-	-	All locks removed and replaced, either very difficult to turn key or could not open lock. Thermistors in good condition, VT-BL had settlement at bottom of casing (loose) that was replaced with material and foot packed.	RX16 dataloggers replaced with TSR16's	483-507
Features of Note / Other Observations	N	A	Cover surface	-	-	-	-	-	-	Tire tracks	No longer considered a feature	(2018)
	N	A	Cover surface	-	-	-	-	-	-	Tire tracks	No longer considered a feature	-
	Y	G1	West slope	561,792	7,388,255	10 (area)	3 (area)	0.1	1.0	Self-armouring erosion area with 0.3-0.4 m wide channels (Acceptable)	Narrower since previous observation (10 x 15 m in 2017), weathered and stabilized	(2018)

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
	Y	G1	West slope	561,821	7,388,182	10	3	0.1	1.0	These are not erosion channels; they are track marks from the original track packing of the slope. There has been some self-armouring in the channel during rain events or spring melt. (Acceptable)	Reclassified from erosion	1579-1583
	Y	G2	West slope	561,818	7,388,192	15 (area)	10 (area)	0.1	<1	Self-armouring erosion area with 0.3-0.4 m wide channels (Acceptable)	Narrower since previous observation (15 x 15 m in 2017), weathered and stabilized	(2018)
	Y	G2	West slope	561,788	7,388,244	15	10	0.1	<1	These are not erosion channels; they are track marks from the original track packing of the slope. There has been some self-armouring in the channel during rain events or spring melt. (Acceptable)	Reclassified from erosion	1597, 1601
	Y	K	South slope	561,960	7,388,242	120 (area)	15 (area)	0.1	7.7	Self-armouring erosion area with 0.3-0.4 m wide channels (Acceptable)	Unchanged since previous observation, weathered and stabilized	(2018)
	Y	K	South slope	561,912	7,388,202	120	15	0.1	7.7	These are not erosion channels; they are track marks from the original track packing of the slope. There has been some self-armouring in the channel during rain events or spring melt. (Acceptable)	Reclassified from erosion	1559-1564

Landfill Area ~ 29,100 m^2

General Comments: The landfill cover, east, south and 2/3 of the western slope are in acceptable condition. The northern 1/3 of the west slope and majority of the north slope have a severity rating of marginal which is expected to progress to unacceptable.

Note 1 - Features Z,O,AD,E,F,AE,AA and potentially AF and C - The northern third of the west slope and west half of the north slope are all experiencing sloughing, erosion, cracking, seepage and lateral movement (i.e. an active slope failure). This appears to be a result of internal drainage through the facility as the surface is graded towards the northwest. It is expected that spring melt and rain seeps through the relatively permeable cover material, encounters either the impermeable liner and/or permafrost and daylights along the north and west slopes. The seepage is not expected to be leachate. Overland flow from the crest of the slope is also apparent as evidenced by self-armoured erosion upslope of the failures, wet ground at the toe, and accumulation of fines at the toe. The seepage has resulted in a continuous wet/soft soil condition approximately half way up the slope, multiple tension cracks and active movements. The movement is expected to continue. Given the failure has manifested since the last inspection, accurately identifying previous features and providing a comparison was not possible or deemed impractical.

Note 2 - Rows with grey text are features from the 2018 DYE-M report and are also identified with (2018) in the photos column.

Table 25: Lower Site Tier II Disposal Facility Slope Failure Visual Inspection Table

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
Erosion	Y	C	North slope	561,793	7,388,274	150 (area)	20 (area)	0.1	10.3	Self-armouring erosion area with 0.3-0.4 m wide channels (Acceptable)	Unchanged since previous observation, weathered and stabilized	(2018)
	Y	C	North slope	561,866	7,388,324	177	5.6 to 21.1	nil to 0.05	8.1	Varying degrees of self-armouring erosion, multiple rilling channels (Marginal) the number of channels is well over 100. The channels are present along the entire slope and likely a result of overland drainage during spring runoff. The length and width noted are for the entire slope, individually the channels can be 20 mm to 100 mm wide, with depths of nil to 50 mm.	Increased area in 2023, more erosion likely to occur with spring melt, although not a mechanism of the slope failure, erosion may serve to further destabilize the slope.	1607-1610, 1627-1629, 1631-1634, 1637-1640
Lateral Movement	Y	AE	North crest	561,811	7,388,284	12.96	0.2	0.12	<1	Slump at North crest, west side (Marginal)	New in 2023, see note 1	1621, 1623
Sloughing	Y	F	North slope	561,824	7,388,296	5	2	0.2	<1	Minor sloughing (Acceptable)	Increased length in 2018 (2 x 1 m in 2017)	(2018)
	Y	F	North slope	561,824	7,388,296	5	2	0.2	<1	Minor sloughing (Marginal), may be representative of slope retrogressing upslope	No significant change in size from 2018, however Feature is now part of north slope failure, See Note 1	1616
	Y	Z	West slope	561,790	7,388,255	5	3	-	<1	Soft ground with some minor cracks and potential sloughing (Acceptable)	New in 2018	(2018)
	Y	Z	West slope	561,785	7,388,258	25.63	6.35	Nil to 0.2	<1	Sloughed at seepage line AD, ground is very soft, cracked and slope has moved. Distinct scarp and toe area is soft and wet, 1" to 8" tension cracks above head scrap (Marginal). Z is the upper most crack and represents the head scarp.	This feature is representative of the slope failure as a slough within the overall failure, may be difficult to track over coming years as failure progresses, Includes O, see Note 1	1596-1604
	Y	AA	North slope	561,838	7,388,305	7	4	-	<1	Soft ground with some minor cracks and potential sloughing (Acceptable)	New in 2018	(2018)
	Y	AA	North slope	561,838	7,388,305	172.78	8.3	Nil to 0.3	<1	Soft ground and cracking/sloughing (Marginal)	Feature length is representative of scarp observed along north and west slopes, see Note 1	1605-1617
Cracking	Y	O	West slope	561,801	7,388,241	10	0.1	-	<1	Minor tension crack on slope (Acceptable)	Unchanged since previous inspection	(2018)
	Y	O	West slope	561,801	7,388,241	25.63	6.35	nil	<1	Tension cracking within overall slope failure. (Marginal)	Larger in size in 2023. Forms part of overall slope failure, difficult to assess previous location due to slope movement, includes Z, see note 1	1596-1604
Seepage	Y	E	West side, north slope	561,800	7,388,286	75	6	-	<1	Wet and soft area (Acceptable)	Expanded area (65 x 2 m in 2017)	(2018)
	Y	E	West side of north slope	561,800	7,388,286	50.9	3.5 to 7.0	N/A	<1	Seepage resulting in sloughing, ground is very soft, cracked and slope has moved (Marginal). Not expected to be leachate.	Area is smaller based on comparison to 2018. See Note 1	1604-1609, 1614-1617

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
	Y	AD	North and West slope	561,798	7,388,237	172	12 to 14 m on average from toe of slope	0.1-0.3	<1	Seepage out of Tier II, not leachate (Marginal)	New in 2023, see Note 1	1605-1617

Landfill Area ~ 29,100 m^2.

General Comments: The landfill cover, east, south and 2/3 of the western slope are in acceptable condition. The northern 1/3 of the west slope and majority of the north slope have a severity rating of marginal which is expected to progress to unacceptable.

Note 1 – Features Z,O,AD,E,F,AE,AA and potentially AF and C - The northern third of the west slope and west half of the north slope are all experiencing sloughing, erosion, cracking, seepage and lateral movement (i.e. an active slope failure). This appears to be a result of internal drainage through the facility as the surface is graded towards the northwest. It is expected that spring melt and rain seeps through the relatively permeable cover material, encountering either the impermeable liner and/or permafrost and daylights along the north and west slopes. The seepage is not expected to be leachate. Overland flow from the crest of the slope is also apparent as evidenced by self-armoured erosion upslope of the failures, wet ground at the toe, and accumulation of fines at the toe. The seepage has resulted in a continuous wet/soft soil condition approximately halfway up the slope, multiple tension cracks and active movements. The movement is expected to continue. Given the failure has manifested since the last inspection, accurately identifying previous features, and providing a comparison was not possible or deemed impractical.

Note 2 - Rows with grey text are features from the 2018 DYE-M report and are also identified with (2018) in the photos column.

6.3.2 Preliminary Stability Assessment

Based on the results of the visual assessment the Lower Site Tier II Disposal Facility has been given an overall performance of Marginal. The preliminary stability assessment is summarized in **Table 26.**

Table 26: Lower Site Tier II Disposal Facility Preliminary Stability Assessment

Feature	Severity Rating	Extent
Settlement	Not observed	None
Erosion	Marginal	Occasional to Numerous
Lateral Movement	Marginal	Occasional to Numerous
Frost Action	Not Observed	None
Sloughing	Marginal	Occasional to Numerous
Cracking	Marginal	Occasional to Numerous
Animal Burrows	Not Observed	None
Ponded Water	Not Observed	None
Seepage	Marginal	Occasional to Numerous
Staining	Not Observed	None
Vegetation Establishment	Acceptable	Extensive
Vegetation Stress	Not Observed	None
Debris and/or Liner Exposure	Not Observed	None
Other	Not Observed	None
Overall Landfill Performance	**Marginal**	

Select photographic records are included in **Appendix G** with all photographs obtained during the visual inspection provided electronically. Photograph and feature locations are shown on **Figure 3c**.

6.3.3 Visual Inspection Trend Analysis

A comparison of the visual inspection results from the current and previous program(s) was completed to assess if any trends are present. The results of this assessment are provided in **Table 27.**

Table 27: Lower Site Tier II Disposal Facility Historical Inspection Comparison

Feature	Feature ID(s)	Comparison with Previous Inspection
Settlement	none	N/A
Erosion	C *P, Q*	Increased from 2018 *Not observed in 2023*
Lateral Movement	AE	New in 2023
Frost Action	none	N/A
Sloughing	F, Z, AA *Y* **H**	Observed sloughing is generally larger than 2018 and associated with slope failure *Healed crack, now slump in crest that is smaller in length but wider than 2018* **Not observed in 2023**
Cracking	O *J, R/S, AB, V, X* **J1, AC1, AC2, AF** L/L1, B *I, M, T, U*	Larger from 2018 associated with slope failure *Larger than in 2018* **New in 2023** Smaller than in 2018 *Not observed in 2023*
Animal Burrows	none	N/A
Ponded Water	none	N/A
Seepage	E *W* **AD, AG**	Area is smaller than 2018. *Not observed in 2023* **New in 2023**
Staining	N	Not observed in 2023
Vegetation Establishment	D1+D2+D3	Vegetation is relatively evenly spaced over the surface of the landfill, increased in 2023
Vegetation Stress	none	N/A
Debris and/or Liner Exposure	none	N/A
Other	G1, G2, K	Reclassified to equipment tracks

The most significant change identified is the presence of a slope failure along the northern third of the west slope and west half of the north slope as evidenced by sloughing, cracking, erosion, seepage, and lateral movement, shown in **Figure 3b**. Several features have been denoted as part of this slope movement to be Marginal as they appear to be deteriorating with time, getting larger or more prevalent. These include Features Z, O, AD, E, F, AE, AA and potentially AF and C. Feature AF is a crack at the top of slope, so it is uncertain if it is part of the overall movement or has developed independently. Feature C is erosion and although it may not be a mechanism of the slope failure, continued erosion has the potential to further destabilize the slope. Feature AE is likely the onset of the slope retrogressing in that area. Regarding the grouping of features, slope movements are generally characterized by several elements which are difficult to separate given their prevalence and transient nature throughout the failure (e.g. it is not practical nor meaningful to assess the location of cracks that are too numerous to count within the body of a

moving slope). Exceptions to this would be the head scarp (upper most crack) as this defines the extent of the failure, areas of seepage as this defines where the water table daylights out of the slope and location of any toe bulges as this help assess the nature of the movement. In this regard, Features Z and F are representative of the head scarp and AD of the seepage. Numerous cross sections were also surveyed to allow for a slope assessment (e.g. a numerical analysis as described below). Feature O is denoted as cracking however it was not possible to determine which crack they previously referred to in the area outlined on **Figure 03a** and **Figure 03b** by 'Z/O.

The failure appears to be a result of internal drainage through the facility as the surface is graded towards the northwest. It is expected that spring melt and seasonal rain seeps through the relatively permeable cover material, encounters either the impermeable liner and/or permafrost and daylights along the north and west slopes. Overland flow from the crest of the slope is also apparent as evidenced by self-armoured erosion upslope of the failures (e.g. Feature C), wet ground at the toe and accumulation of fines at the toe. The seepage has resulted in a continuous wet/soft soil condition approximately halfway up the slope, coincident with the features noted above. The seepage is not expected to be leachate from the landfill. The movements are expected to be surficial, i.e. not through the liner and landfill contents. The movement is expected to continue with freeze/thaw cycles as erosion and downslope movements progress and eventually expose the underlying liner. Several new features have also been noted outside of the slope movement area, whereas some are no longer present (e.g. Feature N). The features noted as erosion along the south and west slopes (K, G1 and G2) are a result of track packing during construction and have been reclassified as 'Other'.

Some features noted as erosion or settlement are not considered to be a result of processes that would indicate a detriment to landfill performance. For example, settlement as a result of consolidation of landfill materials or erosion from natural processes such as overland flow would be suitable to note as features. Rather, these observations are considered to be resultant of the techniques and materials used (e.g. rough grading, use of coarser stone in select areas) during landfill construction. These features have been noted and are often indicated with a comment 'close loop' in the inspection forms and have been reclassified under 'Other' where deemed appropriate. There has been an increase in vegetation since the last inspection. Based on these results, a landfill performance of Marginal is still considered appropriate.

6.3.4 Soil Sampling Results

Soil results were compared to the baseline with variation for the discussion provided in **Table 28** below. Background and baseline arithmetic means are included for information purposes. Analytical tables and graphs can be found in **Appendix D**. **Figure 3d** shows monitoring well and soil locations.

Table 28: Lower Site Tier II Disposal Facility Soil Sampling Results

Parameter	Background Data (mg/kg)	Baseline Data (mg/kg)	Baseline Data with Variation (mg/kg)	Discussion
Arsenic	1.0	1.0	3.0	All results were below BL+V at upgradient and downgradient locations.
Cadmium	1.0	1.0	3.0	All results were below BL+V at upgradient and downgradient locations.
Chromium	93.8	73.4	124.9	All results were below BL+V at upgradient and downgradient locations.
Cobalt	12.1	11.9	20.3	All results were below BL+V at upgradient and downgradient locations.
Copper	42.6	28.5	54.9	All results were below BL+V at upgradient and downgradient locations.
Lead	10.0	10.0	30.0	All results were below BL+V at upgradient and downgradient locations.
Nickel	37.8	39.1	66.0	All results were below BL+V at upgradient and downgradient locations.
Zinc	83.6	48.2	80.5	All results were below BL+V at upgradient and downgradient locations.
Total PCB	0.0002	0.1	0.3	All results were below BL+V at upgradient and downgradient locations.
F1 (C_6-C_{10})	N/A	10.0	30.0	All results were below BL+V at upgradient and downgradient locations.
F2 (C_{10}-C_{16})	N/A	10.0	30.0	All results were below BL+V at upgradient and downgradient locations.
F3 (C_{16}-C_{34})	N/A	50.0	150.0	All results were below BL+V at upgradient and downgradient locations.
F4 (C_{34}-C_{50})	N/A	50.0	150.0	All results were below BL+V at upgradient and downgradient locations.

Note:
Baseline Data with Variation = [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]

Upgradient and downgradient samples at surface (0-0.15 mbgs) and deep (0.4-0.5 mbgs) were below BL+V for all parameters. All results were at or below the maximum historical long term monitoring values for this landfill and is no indication of contaminant migration from the landfill at this time.

6.3.5 Groundwater Sampling Results

Four (4) groundwater samples were collected at Lower Site Tier II Disposal Facility. Groundwater results were compared to the baseline data with variation for the discussion provided in **Table 29** below, and analytical tables and graphs can be found in **Appendix D**.

Table 29: Lower Site Tier II Disposal Facility Groundwater Sampling Results

Parameter	Baseline Data (mg/L)	Baseline Data with Variation (mg/L)	Discussion
Arsenic	0.003	0.009	All results were below BL+V at upgradient and downgradient locations.
Cadmium	0.001	0.003	All results were below BL+V at upgradient and downgradient locations.
Chromium	0.281	0.904	All results were below BL+V at upgradient and downgradient locations.
Cobalt	0.016	0.056	All results were below BL+V at upgradient and downgradient locations.
Copper	0.064	0.224	All results were below BL+V at upgradient and downgradient locations.
Lead	0.010	0.030	All results were below BL+V at upgradient and downgradient locations.
Nickel	0.180	0.519	All results were below BL+V at upgradient and downgradient locations.
Zinc	3.114	14.173	All results were below BL+V at upgradient and downgradient locations.
F1 (C_6-C_{10})	0.05	0.15	All results were below BL+V at upgradient and downgradient locations
F2 (C_{10}-C_{16})	0.5	1.5	All results were below BL+V at upgradient and downgradient locations.
F3 (C_{16}-C_{34})	1.0	3.0	All results were below BL+V at upgradient and downgradient locations.
F4 (C_{34}-C_{50})	1.0	3.0	All results were below BL+V at upgradient and downgradient locations.

Note:
Baseline Data with Variation = [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]

Upgradient and downgradient water samples were below BL+V for all parameters. Cobalt concentrations at downgradient well MW12-01 at (0.00550 mg/L) represent a new maximum for cobalt at this location, but the value is still well below the BL+V for cobalt. Zinc concentrations at upgradient well MW05-16 (6.180 mg/L) and downgradient well MW05-13 (4.740 mg/L) represent new maximums for zinc at these two locations, but the values are still below the BL+V for zinc. The 2023 groundwater results are comparable to the results from the previous monitoring events and there is no indication of contaminant migration from the landfill at this time.

6.3.6 Thermal Monitoring Results

The thermistor data indicates almost all thermistor beads are still functioning as intended. The thermal data shows a thermal regime consistent with the locale and subsurface conditions, which indicate the landfill contents, containment berms and key trenches remained frozen since the last monitoring event. The soil thermal property monitoring results and soil samples have also been sent to the RMC as per the SOW.

6.4 CONCLUSIONS AND OVERALL LANDFILL PERFORMANCE

MW05-13 had severe damage to the outer casing of the monitoring well that could not be repaired.

Soil samples were collected at all four scheduled locations at shallow and deep depths. All upgradient and downgradient soil samples. Groundwater samples were collected from four (4) monitoring wells at this landfill. Upgradient and downgradient soil and groundwater samples were below BL+V for all parameters and were comparable to previous monitoring events.

The preliminary stability assessment resulted in a rating of Marginal. Based on the above information, an overall landfill performance of Marginal is still considered appropriate. There is no indication of contaminant migration from the landfill based on the review and assessment of the 2023 and historical analytical data and the landfill does not appear to be impacting the surrounding environment.

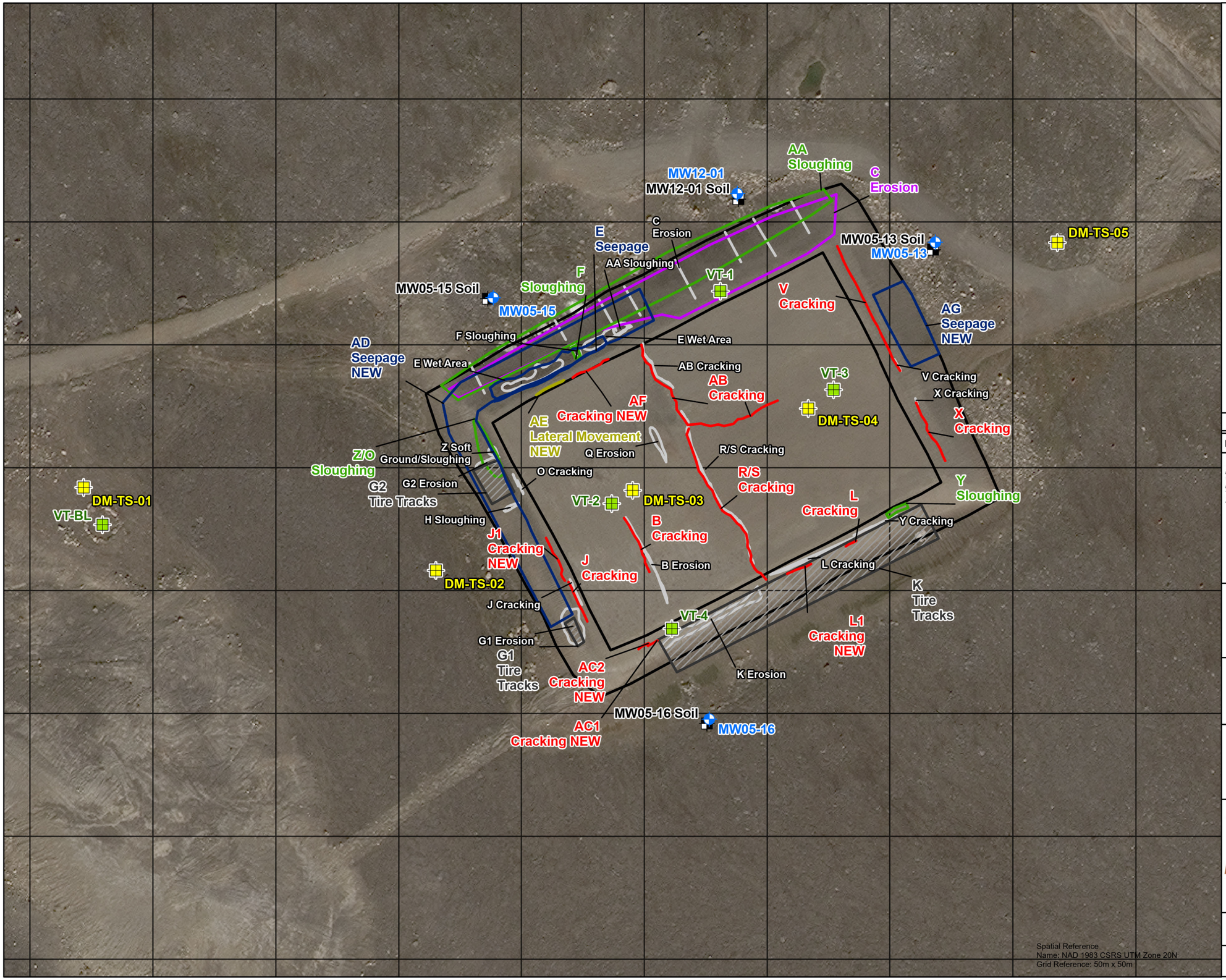
6.5 RECOMMENDATIONS

The outer casing on MW05-13 should be replaced during the next monitoring event.

Based on the results of the visual inspection and soil and groundwater sampling programs, the landfill should continue to be monitored as per the SOW. Assessing the stability of the north and west slope via a numerical analysis should be considered such that numerical results can be compared to field observations. This analysis would further serve to confirm that movements are not likely to extend through the liner. The analysis should consist of incorporating as-built and recent survey data, as-built construction records on soil types used in the Tier II construction, groundwater monitoring results and the use of numerical modelling software (e.g. GeoStudio's Slope/W package) to assess the Factor of Safety of the slope as compared to industry standards.

Preliminary conversations regarding potential remedial solutions should be discussed and informed based on the results of the analysis. The numerical model can be used to develop potential remedial options. Remedial options likely consist of regrading of the failed area and re-armouring the slope with coarser rock.

Thermistor data should be reviewed by Lakewood to assess beads that are not working or beads that are not tracking with the expected thermal regime and provide potential remedial solutions, whether they be field fixes or desktop exercises.



LEGEND

- Monitoring Well
- Soil Thermal Property Monitoring Location
- Soil Sample
- Thermistor
- 2018 Features (Golder)
- Cracking
- Landfill Crest / Toe
- Erosion
- Lateral Movement
- Sloughing
- Vehicle Rut
- Water

Note:

Feature D1-D3 - Sparse vegetation over cover surface and slopes of landfill, increase in density on cover surface

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

PROPRIETARY INFORMATION MAY NOT BE REPRODUCED OR DIVULGED WITHOUT PRIOR WRITTEN CONSENT OF BLUMETRIC ENVIRONMENTAL INC. DO NOT SCALE DRAWING. THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS.

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CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

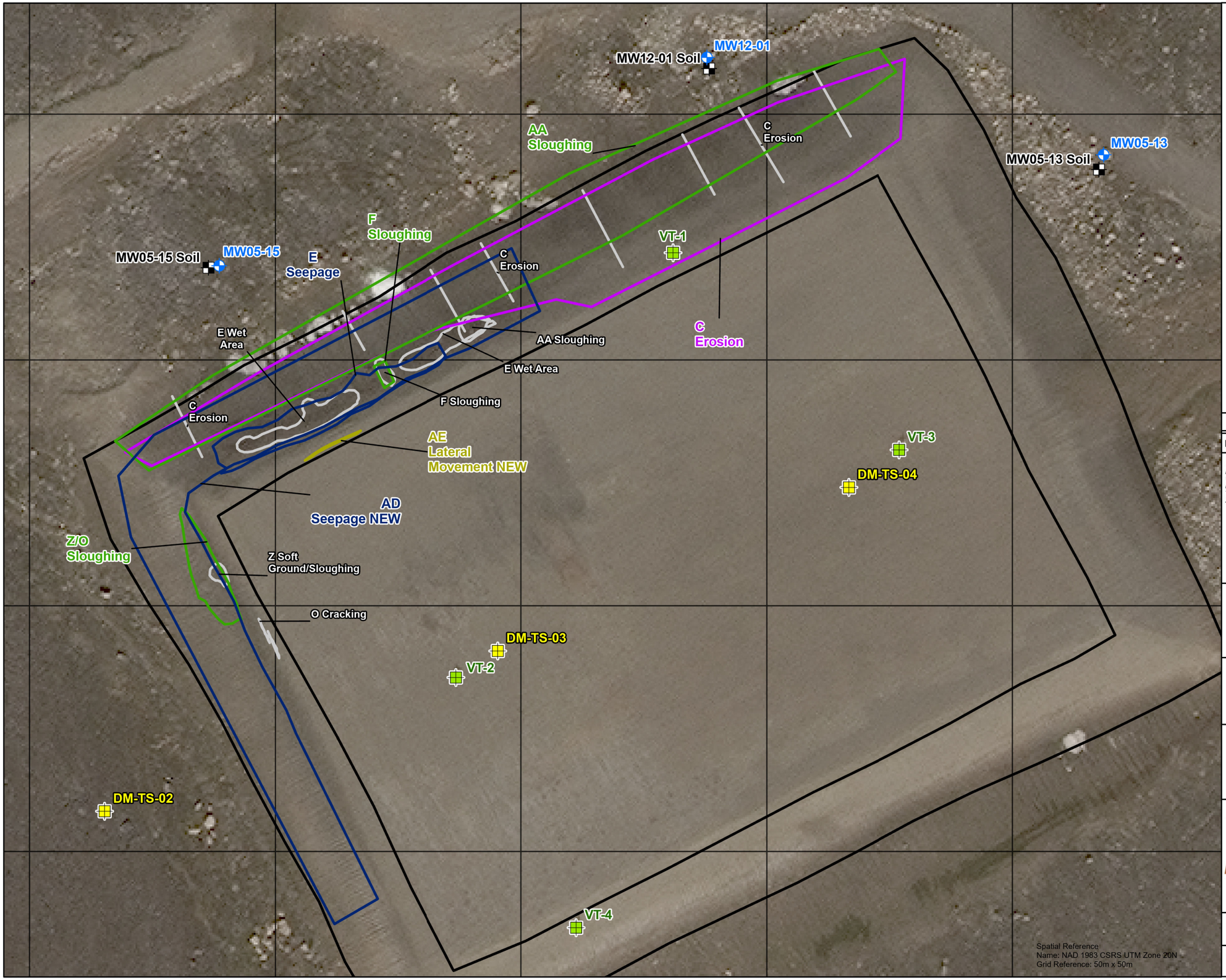
Lower Site Tier II Disposal Facility - Visual Inspection

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*		
230394	**March 27, 2024**		
DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**03a**	**0**

Spatial Reference
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Grid Reference: 50m x 50m

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Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

LEGEND

- Monitoring Well
- Soil Thermal Property Monitoring Location
- Soil Sample
- Thermistor
- 2018 Features (Golder)
- Landfill Crest / Toe
- Erosion
- Lateral Movement
- Sloughing
- Water

Note:
Feature D1-D3 - Sparse vegetation over cover surface and slopes of landfill, increase in density on cover surface

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

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N W E S

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Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

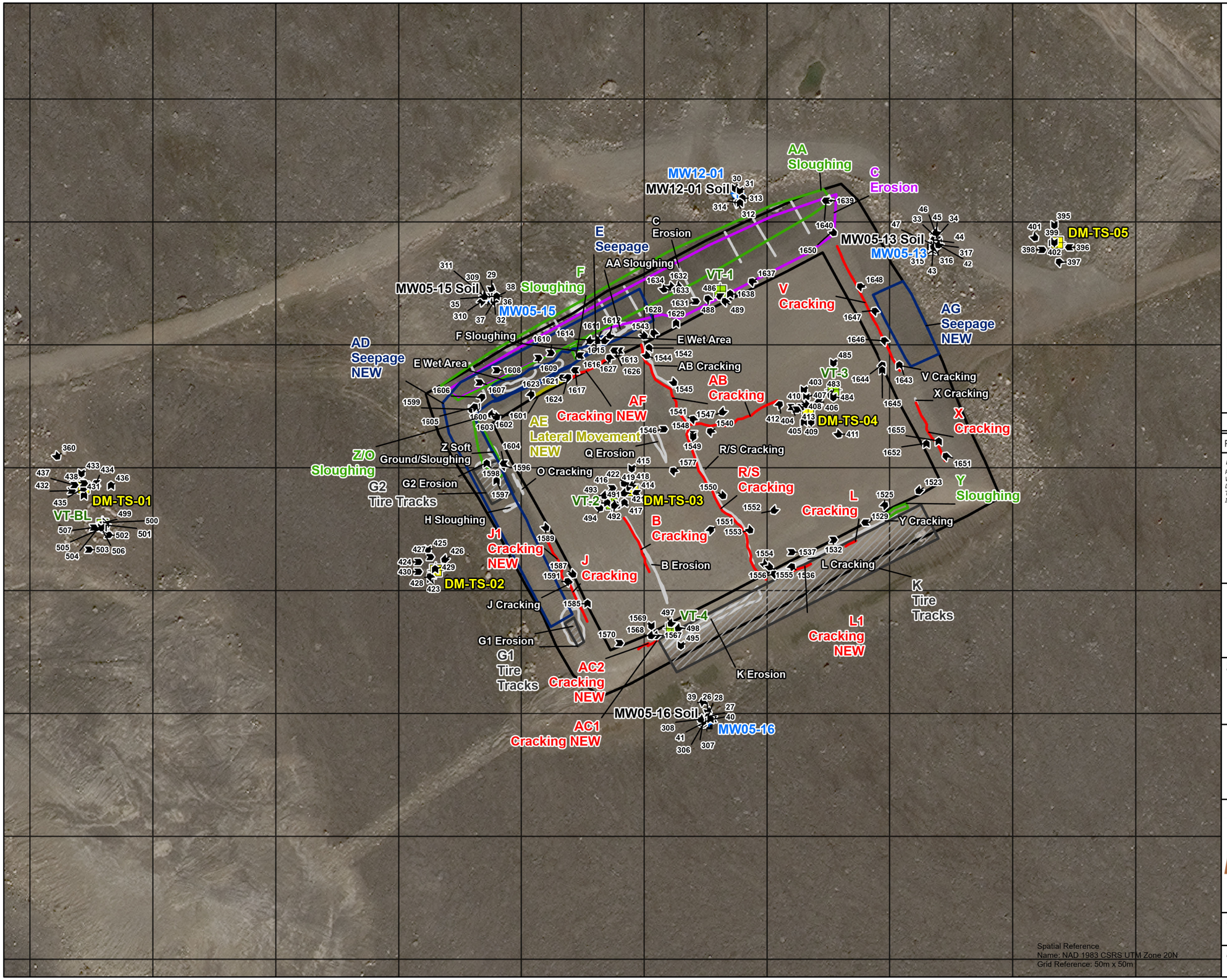
TITLE

Lower Site Tier II Disposal Facility - Visual Inspection (North and West Slope Failures)

BLM-KEL-60
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BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*		
230394	**March 27, 2024**		
DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**03b**	**0**

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LEGEND

- Monitoring Well
- Soil Thermal Property Monitoring Location
- Soil Sample
- Thermistor
- Photolog Locations
- 2018 Features (Golder)
- Cracking
- Erosion
- Lateral Movement
- Sloughing
- Vehicle Rut
- Water
- Landfill Crest / Toe

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
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2023 DYE-M Landfill Monitoring Program

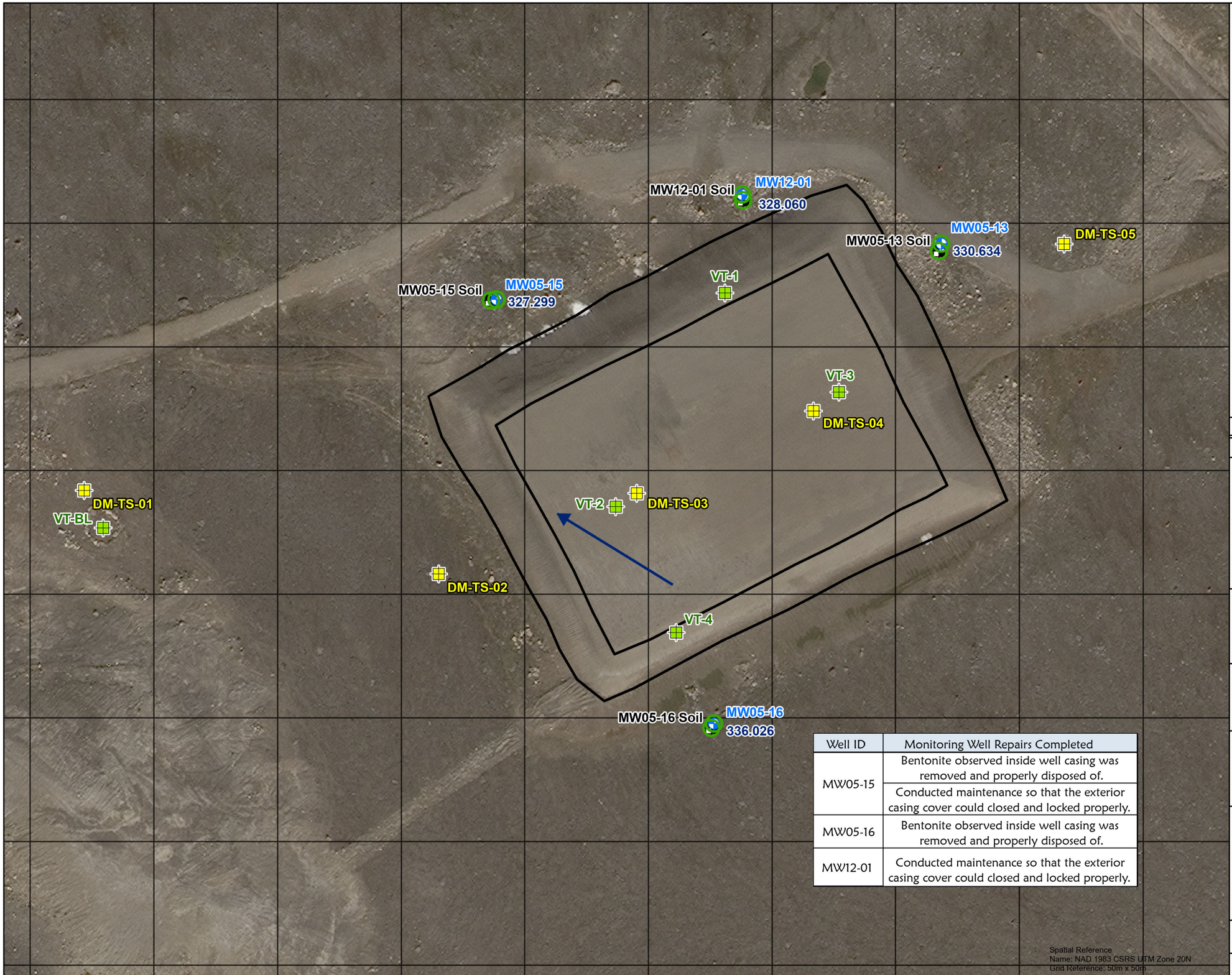
TITLE

Lower Site Tier II Disposal Facility - Photolog Locations

BLM-KEL-60
A Kitikmeot JV Corporation
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P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*		
230394	**March 27, 2024**		
DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**03c**	**0**

Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m



Well ID	Monitoring Well Repairs Completed
MW05-15	Bentonite observed inside well casing was removed and properly disposed of.
	Conducted maintenance so that the exterior casing cover could closed and locked properly.
MW05-16	Bentonite observed inside well casing was removed and properly disposed of.
MW12-01	Conducted maintenance so that the exterior casing cover could closed and locked properly.

Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

LEGEND

- Monitoring Well
- Soil Thermal Property Monitoring Location
- Soil Sample
- Thermistor
- Sample Does Not Exceed Baseline + Variation
- Landfill Crest / Toe
- Inferred Groundwater Flow Direction
- 330.634 Water Level (masl)

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

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2023 DYE-M Landfill Monitoring Program

TITLE

Lower Site Tier II Disposal Facility - Environmental Results

BLM-KEL-60
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P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*		
230394	**March 28, 2024**		
DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**03d**	**0**

7 LOWER SITE CROSSROADS LANDFILL

7.1 LANDFILL DESCRIPTION

The Lower Site Crossroads Landfill is a small landfill with an approximate footprint of 2,140 m^2 and is located northwest of the Lower Site hangar, southeast of the former land farm, and east of the Lower Site access road. This landfill is located 85 m northwest and downslope from the Lower Site Foundations Landfill.

7.2 SUMMARY OF WORK CONDUCTED

A visual inspection and environmental soil sampling were completed at the Lower Site Crossroads Landfill. A total of seven environmental soil samples, including one duplicate sample were collected.

7.2.1 Visual Inspection

A visual inspection of the Lower Site Crossroads Landfill was completed with no issues or deviations from the SOW, with inspection details shown in **Table 30** below. Features identified during the visual inspection are shown in **Figure 4a**.

Table 30: Lower Site Crossroads Landfill Visual Inspection Checklist

Site Name	DYE-M
Landfill Designation / Type	Lower Site Crossroads Landfill / Regraded
Date of Inspection	August 31, 2023
Date of Previous Inspection	August 13, 2018
Weather	7 ° C, winds 5 km/hr, partly cloudy
Inspected by	Brent Hay
DGPS Information (Make/model, accuracy, UTM zone)	Stonex S900-A, H=8mm, V=15mm, UTM Zone 20N
Landfill Surface Area (m^2)	2,140 m^2

7.2.2 Soil Sampling

A total of three test pits were advanced and consisted of the collection of seven soil samples at the three sampling locations, including one duplicate for QA/QC purposes. Photos taken before, during and after soil samples are provided on the photo, with their locations shown in **Figure 4b**. Sample locations are shown on the site plan presented on **Figure 4c**. A summary of the test pits is provided in **Table 31** below:

Table 31: Lower Site Crossroads Landfill Test Pitting Details

Soil Sampling Location	Sample ID	Sample Depth (mbgs)	Soil Notes
DM-01	DM-01 -S	0.10-0.15	GP: Small gravel, medium brown sand matrix, brown
	DM-01-D	0.45-0.55	GW: Range of gravel sizes, range of sand coarseness, brown
DM-02	DM-02-S	0.10-0.15	GP: Small gravel, medium brown sand, some organics
	DM-02-D	0.5-0.55	GW: Range of gravel sizes, range of sand coarseness, brown
DM-03	DM-03-S	0.10-0.15	GP: Small gravel, range of sand coarseness, brown
	MW23-S-15		
	DM-03-D	0.5-0.55	Large boulder. GW: Range of gravel sizes, range of sand, brown, wet

7.2.3 Groundwater Sampling

Groundwater monitoring wells were not installed as part of the remediation program at the Lower Site Crossroads Landfill; therefore, no groundwater sampling was required during the 2023 monitoring program.

7.2.4 Thermal Monitoring

Thermistors were not installed as part of the remediation program at the Lower Site Crossroads Landfill; therefore, no thermistor monitoring was required during the 2023 monitoring program. Soil thermal property monitoring with the TEMPOS was not a requirement for this landfill and therefore was not completed during the 2023 monitoring program.

7.3 RESULTS OF THE MONITORING PROGRAM

7.3.1 Visual Inspection Results

Results of the visual inspection are summarized in the Visual Inspection Checklist, provided in **Table 32**, below.

Table 32: Lower Site Crossroads Landfill Visual Inspection Table

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
Settlement	Y	K	Cover surface	562,581	7,387,664	1.3	0.5	0.2	<1	Area of minor settlement (Acceptable)	Unchanged since previous observation	(2018)
	Y	K	Cover surface	562,581	7,387,664	0.70	0.91	0.1	<1	Area of minor settlement (Acceptable)	No significant change since 2018	1167, 1168
	Y	N	Cover surface	562,638	7,387,644	0.4	0.4	0.2	<1	Minor settlement (Acceptable)	New in 2018	(2018)
	Y	N	SE crest	562,635	7,387,648	0.35	0.35	0.05	<1	Minor settlement (Acceptable)	Shallower depth in 2023	1148, 1149
	Y	O	NW crest	562,584	7,387,648	3.99	0.50	0.05	<1	Slump at crest (Acceptable)	New in 2023 (Named Feature R in notes originally)	1173, 1175
Erosion	N	-	-	-	-	-	-	-	-	-	-	-
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
Cracking	Y	L	West slope crest	562,584	7,387,653	3	0.02	-	<1	Tension crack (Acceptable)	Becoming weathered, reduced length (5m long in 2017)	(2018)
	Y	L	West slope crest	562,584	7,387,653	3.21	0.02	Nil	<1	Tension crack (Acceptable)	Barely visible (Healed) in 2023	1169, 1171
	N	G, H and I	-	-	-	-	-	-	-	Tension cracks	Not observed in 2018	(2018)
	N	G, H and I	-	-	-	-	-	-	-	Tension cracks	Not observed in 2023	-
	Y	M	East slope	562,640	7,387,642	2	0.1	0.05	<1	Weathered tension crack (Acceptable)	New in 2018	(2018)
	Y	M	East slope	562,640	7,387,642	6.99	<0.01	Nil	<1	Weathered tension crack (Acceptable)	Longer than in 2018, barely visible	1159, 1161
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation	Y	B	Cover surface	562,608	7,387,650	75 (entire cover)	35 (entire cover)	-	100	Sparse vegetation (Acceptable)	Expanded to entire cover in 2018 (60 x 25 m in 2017)	(2018)
	Y	B	Cover surface and slopes	562,609	7,387,648	79	37	-	100	Sparse vegetation over entire cover surface and slopes (Acceptable)	Increase in vegetation density from 2018. Dimensions provided are for footprint of landfill given ubiquitous nature of the vegetation.	1162, 1172
Staining	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
Ponded Water	N	F	-	-	-	-	-	-	-	Ponded water	Not observed in 2018	(2018)
	N	F	-	-	-	-	-	-	-	Ponded water	Not observed in 2023	-
Seepage	N	-	-	-	-	-	-	-	-	-	-	-
Debris and/or Liner Exposed	N	-	-	-	-	-	-	-	-	-	-	-
Presence / Condition of Monitoring Instruments	N	-	-	-	-	-	-	-	-	-	-	-
Features of Note / Other Observations	N	J	-	-	-	-	-	-	-	Tire tracks	No longer a feature	(2018)
	N	J	-	-	-	-	-	-	-	Tire tracks	No longer a feature	-

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
	N	A, C, D and E	-	-	-	-	-	-	-	Not assigned	Not assigned	(2018)
	N	A, C, D and E	-	-	-	-	-	-	-	Not assigned	Not assigned	-

Landfill Area ~ 2,140 m^2
General Comments: Landfill is in excellent (Acceptable) condition.
Note 1 - Rows with grey text are features from the 2018 DYE-M report and are also identified with (2018) in the photos column.

7.3.2 Preliminary Stability Assessment

Based on the results of the visual assessment the Lower Site Crossroads Landfill has been given an overall performance of Acceptable. The preliminary stability assessment is summarized in **Table 33.**

Table 33: Lower Site Crossroads Landfill Preliminary Stability Assessment

Feature	Severity Rating	Extent
Settlement	Acceptable	Occasional
Erosion	Not Observed	None
Lateral Movement	Not Observed	None
Frost Action	Not Observed	None
Sloughing	Not Observed	None
Cracking	Acceptable	Occasional
Animal Burrows	Not Observed	None
Ponded Water	Not Observed	None
Seepage	Not Observed	None
Staining	Not Observed	None
Vegetation Establishment	Acceptable	Extensive
Vegetation Stress	Not Observed	None
Debris and/or Liner Exposure	Not Observed	None
Other	Not Observed	None
Overall Landfill Performance	**Acceptable**	

Photographs obtained during the visual inspection provided electronically in the photolog. Feature locations and photographic locations are shown on **Figure 4a** and **Figure 4b**, respectively.

7.3.3 Visual Inspection Trend Analysis

A comparison of the visual inspection results from the current and previous program(s) was completed to assess if any trends are present. The results of this assessment are provided in **Table 34.**

Table 34: Lower Site Crossroads Landfill Historical Inspection Comparison

Feature	Feature ID(s)	Comparison with Previous Inspection
Settlement	K *N* **O**	No significant change *Shallower in 2023* **New in 2023**
Erosion	none	N/A
Lateral Movement	none	N/A
Frost Action	none	N/A
Sloughing	none	N/A
Cracking	L, M	Now barely visible, healing
Animal Burrows	none	N/A
Ponded Water	F	Not observed in 2023
Seepage	none	N/A
Staining	none	N/A
Vegetation Establishment	B	Vegetation is relatively evenly spaced over the surface of the landfill, increased since 2018
Vegetation Stress	none	N/A
Debris and/or Liner Exposure	none	N/A
Other	none	N/A

No significant changes have been noted in comparison to previous inspections. One new feature that was noted in 2023 was settlement Feature O which was noted as a slump near the northwest crest of the landfill. There has been an increase in vegetation since the last inspection. Based on this comparison, a landfill performance of Acceptable is still considered appropriate.

7.3.4 Soil Sampling Results

Soil results were compared to the baseline with variation for the discussion provided in **Table 35** below. Background and baseline arithmetic means are included for information purposes. Analytical tables and graphs can be found in **Appendix D**. **Figure 4c** shows monitoring well and soil locations.

Table 35: Lower Site Crossroads Landfill Soil Sampling Results

Parameter	Background Data (mg/kg)	Baseline Data (mg/kg)	Baseline Data with Variation (mg/kg)	Discussion
Arsenic	1.0	1.0	3.0	All results were below BL+V at upgradient and downgradient locations.
Cadmium	1.0	1.0	3.0	All results were below BL+V at upgradient and downgradient locations.
Chromium	93.8	69.1	105.2	All results were below BL+V at upgradient and downgradient locations.
Cobalt	12.1	11.1	18.2	All results were below BL+V at upgradient and downgradient locations.
Copper	42.6	29.7	51.7	Upgradient DM-01 exceeded BL+V. Other results were below BL+V at downgradient locations.
Lead	10.0	10.0	30.0	Upgradient DM-01 exceeded BL+V. Other results were below BL+V at downgradient locations.
Nickel	37.8	37.3	59.3	All results were below BL+V at upgradient and downgradient locations.
Zinc	83.6	47.0	71.1	Upgradient DM-01 exceeded BL+V. All other results were below BL+V at downgradient locations.
Total PCB	0.0002	0.1	0.3	Upgradient DM-01 exceeded BL+V. Other results were below BL+V at downgradient locations.
F1 (C_6-C_{10})	N/A	10.0	30.0	All results were below BL+V at upgradient and downgradient locations.
F2 (C_{10}-C_{16})	N/A	13.8	75.7	All results were below BL+V at upgradient and downgradient locations.
F3 (C_{16}-C_{34})	N/A	50.0	150.0	Upgradient DM-01 exceeded BL+V. Other results were below BL+V at downgradient locations.
F4 (C_{34}-C_{50})	N/A	50.0	150.0	All results were below BL+V at upgradient and downgradient locations.

Note:
Baseline Data with Variation = [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]

DM-01, the upgradient soil sampling location, had exceedances of BL+V values in both the surface (0.10-0.15 mbgs) and deep (0.45-0.55 mbgs) samples. Exceedances are shown in **Table 36**, below.

Table 36: Lower Site Crossroads Landfill Soil Sampling – Results Above BL+V

Parameter	Baseline Data with Variation (mg/kg)	DEW Line Cleanup Tier II Criteria	DM-01-S (mg/kg)	DM-01-D (mg/kg)
Copper	51.7	100	**71.8**	**71.8**
Lead	30.0	500	**112.0**	**140.0**
Zinc	71.1	500	**138.0**	**140.0**
Total PCB	0.3	5	**3.3**	**2.6**
F3 (C_{16}-C_{34})	150.0	--	**180**	**200**

Note:
bold = exceeds BL+V

2023 analytical results from both the shallow and deep soil samples at upgradient location DM-01 indicate that concentrations of copper, lead, zinc, Total PCBs, and PHC F3 are all above the respective BL+V values. These values represent new maximum concentrations for copper, lead, zinc, Total PCBs, and PHC F3 at this landfill, and this is the first time that concentrations of these parameters have been recorded above BL+V for this landfill in the long-term monitoring program. These values are anomalous when compared to other soil samples collected at this landfill (both historical and from 2023). It should be noted that the concentrations of copper, lead, zinc and Total PBCs at DM-01 are all below the applicable DEW Line Cleanup Tier II Criteria (included in **Table 36** above, for reference). The PHC F3 concentrations of 180 and 200 mg/kg at DM-01 are only slightly elevated above the BL+V criteria. Organic material was not noted in the test pit log and biogenic interference is not believed to be influencing the PHC concentrations. The PHC F3 concentration in soil at upgradient location DM-01 is not a concern at this time.

Considering the details noted above, and the fact that these exceedances occurred at an upgradient location, the elevated concentrations of copper, lead, zinc, and Total PCBs are not a concern at this time. The concentrations of these parameters should still be reviewed in future monitoring events to determine if these results are anomalous.

All remaining analytical results for upgradient and downgradient locations were below BL+V for all other parameters.

7.4 CONCLUSIONS AND OVERALL LANDFILL PERFORMANCE

Three soil sampling locations were assessed locations at shallow and deep depths, and DM-01, the upgradient soil sampling location, had exceedances in both the surface and deep samples for copper, lead, zinc, Total PCBs, and PHC F3. All other parameters were below BL+V at upgradient and downgradient locations.

The preliminary stability assessment resulted in a rating of Acceptable. Based on the above information, an overall landfill performance of Acceptable is still considered appropriate. The landfill does not appear to be impacting the surrounding environment.

7.5 RECOMMENDATIONS

Based on the results of the visual inspection and soil sampling program, the landfill should continue to be monitored as per the SOW.

Concentrations of copper, lead, zinc, and Total PCBs at upgradient location DM-01 should be reviewed in future monitoring events.



LEGEND

- Soil Sample
- 2018 Features (Golder)
- Cracking
- Settlement
- Landfill Crest / Toe

Note:
Feature B - Sparse vegetation over entire cover surface and slopes, increase in density from 2018

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REFERENCES

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2023 DYE-M Landfill Monitoring Program

TITLE

Lower Site Crossroads Landfill - Visual Inspection

BLM-KEL-60
A Kitikmeot JV Corporation
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Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*
230394	**March 19, 2024**

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EB	**HW**	**04a**	**0**

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LEGEND

- Soil Sample
- Photolog Locations
- 2018 Features (Golder)
- Cracking
- Settlement
- Landfill Crest / Toe

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
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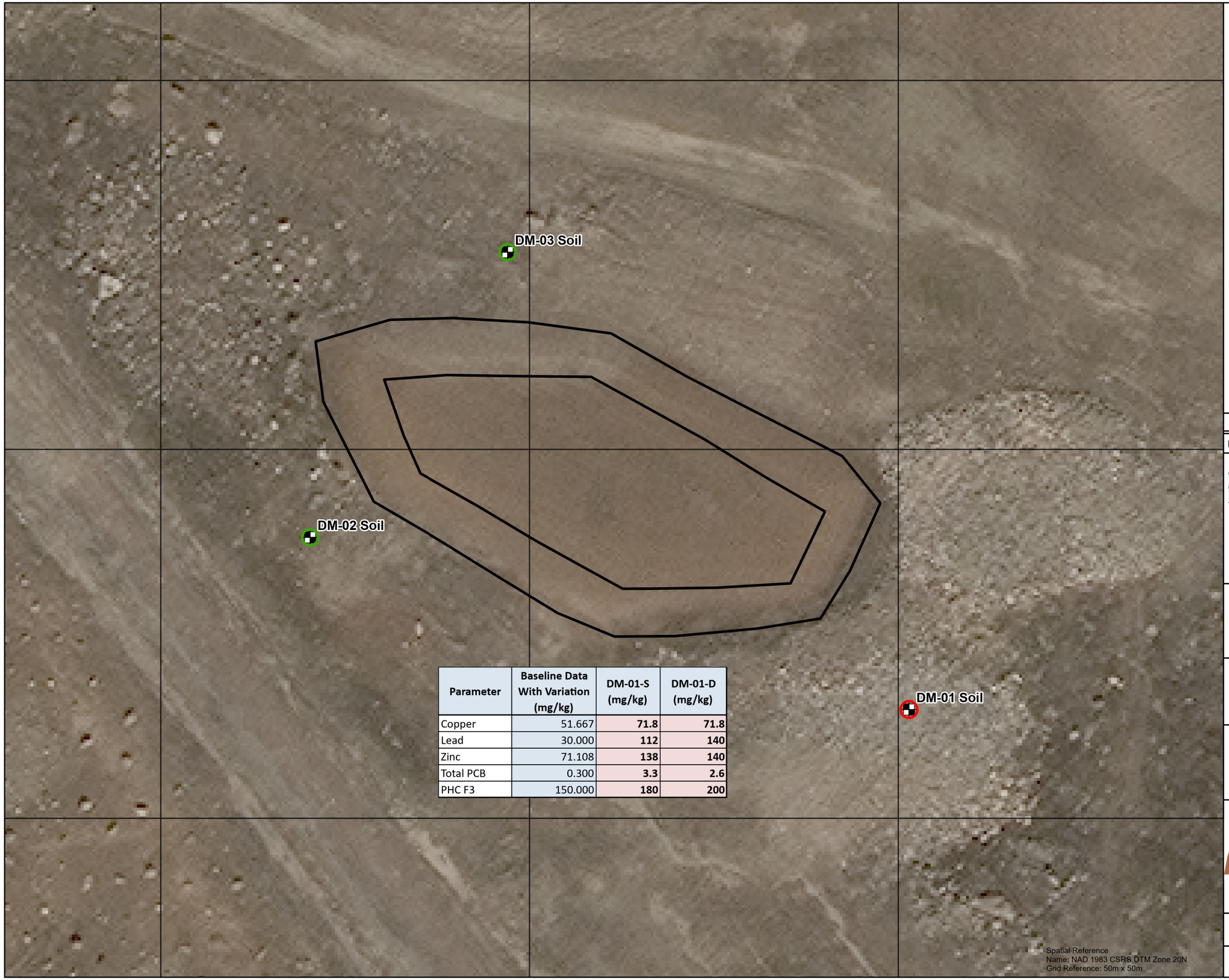
TITLE

Lower Site Crossroads Landfill - Photolog Locations

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230394	**March 19, 2024**		
DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**04b**	**0**

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Parameter	Baseline Data With Variation (mg/kg)	DM-01-S (mg/kg)	DM-01-D (mg/kg)
Copper	51.667	**71.8**	**71.8**
Lead	30.000	**112**	**140**
Zinc	71.108	**138**	**140**
Total PCB	0.300	**3.3**	**2.6**
PHC F3	150.000	**180**	**200**

Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

LEGEND

- Soil Sample
- Sample Exceeds Baseline + Variation
- Sample Does Not Exceed Baseline + Variation
- Landfill Crest / Toe

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Lower Site Crossroads Landfill - Environmental Results

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230394	**March 25, 2024**

DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**04c**	**0**

8 LOWER SITE FOUNDATION LANDFILL

8.1 LANDFILL DESCRIPTION

The Lower Site Foundation Landfill has an approximate footprint of 3,340 m^2 and is located 85 m southeast and upslope of the Lower Crossroads Landfill and 45 m north and downslope of the Lower Site Powerhouse Landfill. The landfill was completed in 2008 and consisted of regrading the surface of the landfill and placement of clean cover material.

8.2 SUMMARY OF WORK CONDUCTED

A visual inspection and environmental soil sampling were completed at the Lower Site Foundation Landfill. A total of seven environmental soil samples, including one duplicate sample were collected.

8.2.1 Visual Inspection

A visual inspection of the Lower Site Foundation Landfill was completed with no issues or deviations from the SOW, with inspection details shown in **Table 37** below. Features identified during the visual inspection are shown in **Figure 5a**.

Table 37: Lower Site Foundation Landfill Visual Inspection Checklist

Site Name	DYE-M
Landfill Designation / Type	Lower Site Foundation Landfill / Regraded
Date of Inspection	August 31, 2023
Date of Previous Inspection	August 13, 2018
Weather	9 °C, winds 5 km/hr, sunny
Inspected by	Brent Hay
DGPS Information (Make/model, accuracy, UTM zone)	Stonex S900-A, H=8mm, V=15mm, UTM Zone 20N
Landfill Surface Area (m^2)	3,340 m^2

8.2.2 Soil Sampling

A total of three test pits were advanced and consisted of the collection of seven soil samples including one duplicate for QA/QC purposes. Photos taken before, during and after soil samples are provided on the photolog, with their locations shown in **Figure 5b**. Sample locations are shown on the site plan presented on **Figure 5c**. A summary of the test pits is provided in **Table 38** below.

Table 38: Lower Site Foundation Landfill Test Pitting Details

Soil Sampling Location	Sample ID	Sample Depth (mbgs)	Soil Notes
DM-04	DM-04 -S	0.10-0.15	GW: Well graded brown gravel, sand matrix
	DM-04-D	0.5-0.55	GW: Well graded brown gravel, sand matrix
	MW23-5-20		
DM-05	DM-05-S	0.10-0.15	GW: Well graded brown gravel, sand matrix
	DM-05-D	0.5-0.55	GW: Well graded brown gravel, sand matrix, wet
DM-06	DM-06-S	0.10-0.15	SP: Organics, <10% gravel, medium brown sand
	DM-06-D	0.5-0.55	SP: <20% gravel, medium brown sand

8.2.3 Groundwater Sampling

Groundwater monitoring wells were not installed as part of the remediation program at the Lower Site Foundation Landfill; therefore, no groundwater sampling was required during the 2023 monitoring program.

8.2.4 Thermal Monitoring

Thermistors were not installed as part of the remediation program at the Lower Site Foundation Landfill; therefore, no thermistor monitoring was required during the 2023 monitoring program. Soil thermal property monitoring with the TEMPOS was not a requirement for this landfill and therefore was not completed during the 2023 monitoring program.

8.3 RESULTS OF THE MONITORING PROGRAM

8.3.1 Visual Inspection Results

Results of the visual inspection are summarized in the Visual Inspection Checklist, provided in **Table 39**, below.

Table 39: Lower Site Foundation Landfill Visual Inspection Table

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
Settlement	Y	M	Cover surface	562,770	7,387,588	3	1.2	0.1	<1	Minor depression (Acceptable)	Unchanged since previous observation	(2018)
	Y	M	Cover surface	562,770	7,387,588	1.43	1.1	0.1	<1	Minor depression (Acceptable)	Smaller area observed in 2023	1196, 1197
	Y	Q	Cover surface	562,746	7,387,548	0.4	0.3	0.1	<1	Minor depression (Acceptable)	New in 2018	(2018)
	Y	Q	Cover surface	562,746	7,387,544	0.7	0.55	0.05	<1	Minor depression (Acceptable)	Larger area observed in 2023	1182, 1184
Erosion	Y	O	East Slope	562,776	7,387,576	4	1	0.1	<1	Area of self-armouring erosion, accumulation of fines at toe of slope. (Acceptable)	Unchanged since previous observation	(2018)
	Y	O	East slope	562,776	7,387,576	1.77	1	0.1	<1	Area of self-armouring erosion, accumulation of fines at toe of slope (Acceptable)	Smaller area observed in 2023	1200
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
Cracking	N	N	North crest corner	562,740	7,387,624	-	-	-	-	Minor thaw crack	Not observed in 2018	(2018)
	N	N	North crest corner	-	-	-	-	-	-	Minor thaw crack	Not observed in 2023	1212, 1213
	Y	P	Southwest slope	562,743	7,387,552	9	2	-	<1	Area of minor thaw crack (Acceptable)	Expanded area (3 x 0.02 m in 2017)	(2018)
	Y	P	Southwest slope	562,743	7,387,552	10.14	0.50	<0.025	<1	Area of minor thaw crack (Acceptable)	No significant change since 2018	1178, 1179
	Y	K+L	Southeast slope	562,772	7,387,551	29	2.5	-	2	Area of minor thaw cracking (Acceptable)	Expanded area (K: 4 x 0.02 m; L: 10 x 0.02 m in 2017)	(2018)
	N	K+L	Southeast slope	-	-	-	-	-	-	Area of minor thaw cracking	Not observed in 2023	1209, 1210
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation	Y	D	Cover surface	562,751	7,387,585	80 (most of cover)	50 (most of cover)	-	86	Moderately vegetated except the central portion of the cover (Acceptable)	Expanded area in 2018, two separate/disconnected areas in 2017 that are now joined (D1: 70 x 30 m; D2: 50 x 5 m)	(2018)
	Y	D	Cover surface and slopes	562,751	7,387,582	85	59	-	100	Moderately vegetated over entire surface and slopes (Acceptable)	Increased to entire landfill cover in 2023. Dimensions provided are for footprint of landfill given ubiquitous nature of the vegetation.	1201-1203
Staining	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
Ponded Water	N	-	-	-	-	-	-	-	-	-	-	-
Seepage	N	-	-	-	-	-	-	-	-	-	-	-
Debris and/or Liner Exposed	N	E	-	-	-	-	-	-	-	Debris	Not observed in 2018	(2018)
	N	E	-	-	-	-	-	-	-	Debris	Not observed in 2023	-
Presence / Condition of Monitoring Instruments	N	-	-	-	-	-	-	-	-	-	-	-

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
Features of Note / Other Observations	N	A, B, F, G, H, I and J	-	-	-	-	-	-	-	Not assigned	Not assigned	(2018)
	N	A, B, C, F, G, H, I and J	-	-	-	-	-	-	-	Not assigned	A, B, C, F, G, H, I and J not assigned in 2018, 2023	-

Landfill Area ~ 3,340 m^2.

General Comments: Landfill is in excellent (Acceptable) condition

Note 1 - Rows with grey text are features from the 2018 DYE-M report and are also identified with (2018) in the photos column.

8.3.2 Preliminary Stability Assessment

Based on the results of the visual assessment, the landfill is in excellent condition and the Lower Site Foundation Landfill has been given an overall performance of Acceptable. The preliminary stability assessment is summarized in **Table 40**.

Table 40: Lower Site Foundation Landfill Preliminary Stability Assessment

Feature	Severity Rating	Extent
Settlement	Acceptable	Occasional
Erosion	Acceptable	Isolated
Lateral Movement	Not Observed	None
Frost Action	Not Observed	None
Sloughing	Not Observed	None
Cracking	Acceptable	Occasional
Animal Burrows	Not Observed	None
Ponded Water	Not Observed	None
Seepage	Not Observed	None
Staining	Not Observed	None
Vegetation Establishment	Acceptable	Extensive
Vegetation Stress	Not Observed	None
Debris and/or Liner Exposure	Not Observed	None
Other	Not Observed	None
Overall Landfill Performance	**Acceptable**	

Photographs obtained during the visual inspection provided electronically in the photolog. Feature locations and photographic locations are shown on **Figure 5a** and **Figure 5b,** respectively.

8.3.3 Visual Inspection Trend Analysis

A comparison of the visual inspection results from the current and previous program(s) was completed to assess if any trends are present. The results of this assessment are provided in **Table 41.**

Table 41: Lower Site Foundation Landfill Historical Inspection Comparison

Feature	Feature ID(s)	Comparison with Previous Inspection
Settlement	M *Q*	Smaller in 2023 *Larger in 2023*
Erosion	O	Smaller in 2023, barely visible
Lateral Movement	none	N/A
Frost Action	none	N/A
Sloughing	none	N/A
Cracking	P *N, K+L*	No significant change from 2018 *Not observed in 2023*
Animal Burrows	none	N/A
Ponded Water	none	N/A
Seepage	none	N/A
Staining	none	N/A
Vegetation Establishment	D	Vegetation is relatively evenly spaced over the surface of the landfill, increased in 2023
Vegetation Stress	none	N/A
Debris and/or Liner Exposure	E	Not observed in 2023
Other	none	N/A

No significant changes have been noted in comparison to previous inspections. The only trends that are apparent is the increase in vegetation and an area marked as erosion is almost not visible. Based on this comparison, a landfill performance of Acceptable is still considered appropriate.

8.3.4 Soil Sampling Results

Soil results were compared to the baseline with variation for the discussion provided in **Table 42** below. Background and baseline arithmetic means are included for information purposes. Analytical tables and graphs can be found in **Appendix D**. **Figure 5c** shows monitoring well and soil locations.

Table 42: Lower Site Foundations Landfill Soil Sampling Results

Parameter	Background Data (mg/kg)	Baseline Data (mg/kg)	Baseline Data with Variation (mg/kg)	Discussion
Arsenic	1.0	1.0	3.0	All results were below BL+V at upgradient and downgradient locations.
Cadmium	1.0	1.0	3.0	All results were below BL+V at upgradient and downgradient locations.
Chromium	93.8	67.1	97.7	All results were below BL+V at upgradient and downgradient locations.
Cobalt	12.1	10.9	17.2	All results were below BL+V at upgradient and downgradient locations.
Copper	42.6	28.5	66.1	All results were below BL+V at upgradient and downgradient locations.
Lead	10.0	10.0	30.0	Downgradient DM05-S exceeded BL+V. Other results were below BL+V at upgradient and downgradient locations.
Nickel	37.8	35.2	53.0	All results were below BL+V at upgradient and downgradient locations.
Zinc	83.6	61.9	183.2	All results were below BL+V at upgradient and downgradient locations.
Total PCB	0.0002	0.1	0.3	Upgradient DM04-S exceeded BL+V. Other results were below BL+V at downgradient locations.
F1 (C_6-C_{10})	N/A	10.0	30.0	All results were below BL+V at upgradient and downgradient locations.
F2 (C_{10}-C_{16})	N/A	10.0	30.0	All results were below BL+V at upgradient and downgradient locations.
F3 (C_{16}-C_{34})	N/A	50.0	150.0	Downgradient DM05-S exceeded BL+V. Other results were below BL+V at upgradient and downgradient locations.
F4 (C_{34}-C_{50})	N/A	50.0	150.0	Downgradient DM05-S exceeded BL+V. Other results were below BL+V at upgradient and downgradient locations.

Note:
Baseline Data with Variation = [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]

Exceedances of BL+V values were noted at monitoring locations DM-04 and DM-05. Exceedances are summarized in **Table 43,** below.

Table 43: Lower Site Foundations Landfill Soil Sampling – Results Above BL+V

Parameter	Baseline Data with Variation (mg/kg)	DEW Line Cleanup Tier II Criteria	DM-04-S (mg/kg)	DM-05-S (mg/kg)
Lead	30	500	14.8	**30.5**
Total PCB	0.3	5	**2.6**	0.084
F3 (C_{16}-C_{34})	150	--	91	**700**
F4 (C_{34}-C_{50})	150	--	<50	**220**

Note:
bold = exceeds BL+V

The Total PCB concentration at upgradient location DM-04 (shallow) represents a new maximum for this landfill at 2.6 mg/kg and is above the BL+V value of 0.3 but is still below the DEW Line Cleanup Tier II Criteria of 5.0 mg/kg. Considering the above points, the Total PCB concentration at DM-04 is not a concern at this time.

Downgradient location DM-05 had concentrations of lead, PHC F3 and PHC F4 elevated above BL+V values in the shallow soil sample. At 30.5 mg/kg the lead concentration is only marginally above the BL+V value of 30.0 mg/kg and below the historical maximum for this landfill (131 mg/kg). The lead concentration is not a concern at this time. PHC F3 and F4 concentrations were 700 mg/kg and 220 mg/kg respectively, which are above the BL+V criteria for these parameters. At 700 mg/kg this PHC F3 concentration represents a new maximum for this landfill and is anomalous relative to PHC F3 concentrations measured in all other soil samples from the 2023 monitoring event for this landfill. PHC concentrations at this landfill are not a concern at this time but should be evaluated as part of future monitoring events to assess whether PHC F3 remains elevated in soil. Organic material was not noted in the test pit log and biogenic interference is not believed to be influencing the PHC concentrations. All other parameters for upgradient and downgradient soil samples at this landfill were below BL+V values. The 2023 soil results are generally comparable to the results of previous monitoring events and there is no indication of contaminant migration from the landfill at this time.

8.4 CONCLUSIONS AND OVERALL LANDFILL PERFORMANCE

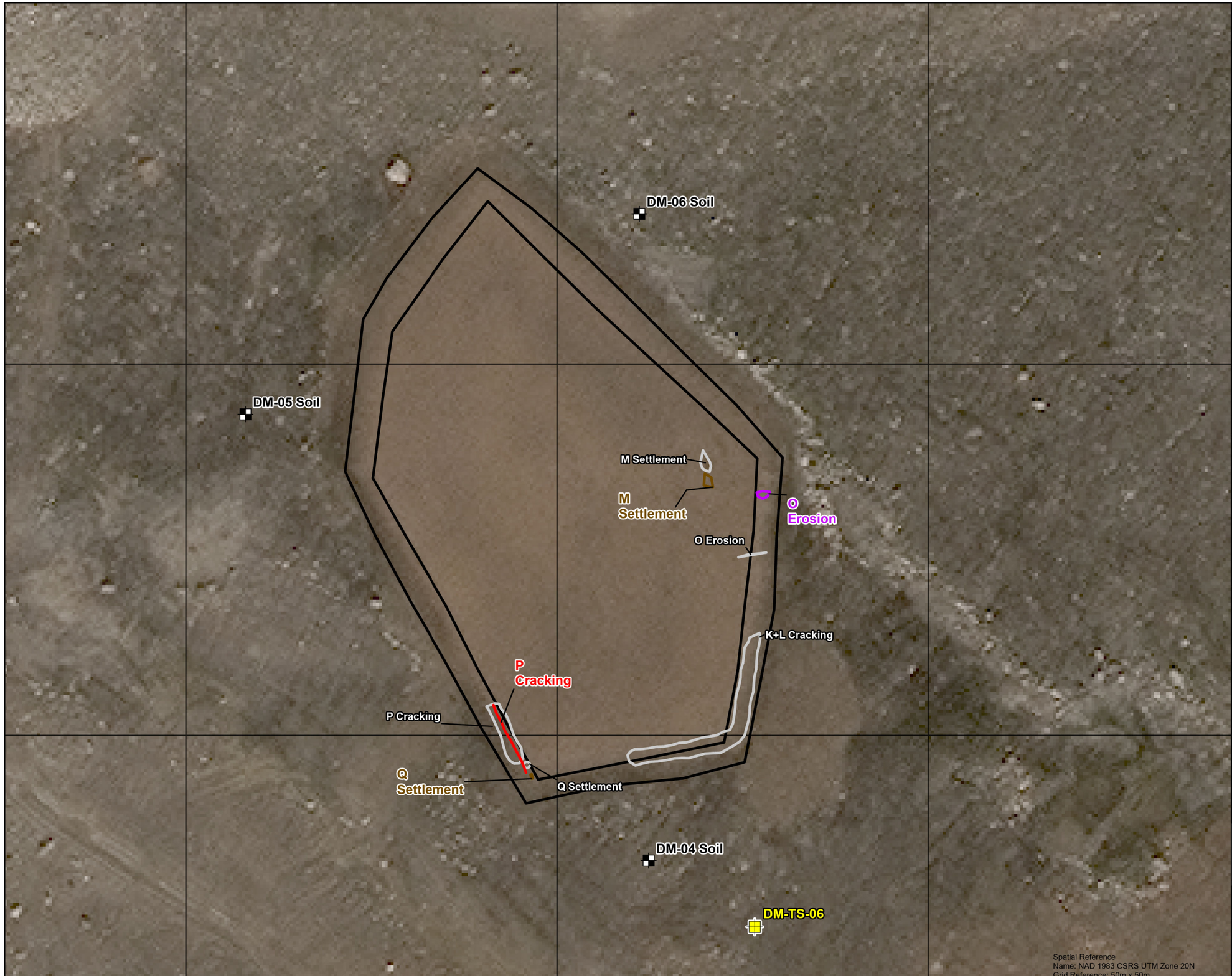
Based on the data presented above, a landfill performance of acceptable is considered appropriate. Soil samples were collected at all three scheduled locations at shallow and deep depths. Upgradient sample DM-04-S was above BL+V for Total PCBs. Downgradient sample DM-05-S was above BL+V for lead, PHC F3 and PHC F4. All other parameters and samples were below BL+V.

The preliminary stability assessment resulted in a rating of Acceptable. Based on the above information, an overall landfill performance of Acceptable is still considered appropriate. The landfill does not appear to be impacting the surrounding environment.

8.5 RECOMMENDATIONS

Based on the results of the visual inspection, and soil sampling program, the landfill should continue to be monitored as per the SOW.

Concentrations of PHCs, particularly at downgradient location DM-05, should be reviewed at future monitoring events to assess if concentrations are increasing over time.



LEGEND

- Soil Thermal Property Monitoring Location
- Soil Sample
- 2018 Features (Golder)
- Cracking
- Erosion
- Settlement
- Landfill Crest / Toe

Note:
Feature D - Moderately vegetated over entire surface and slopes, increased to entire landfill cover in 2023

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

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CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Lower Site Foundation Landfill - Visual Inspection

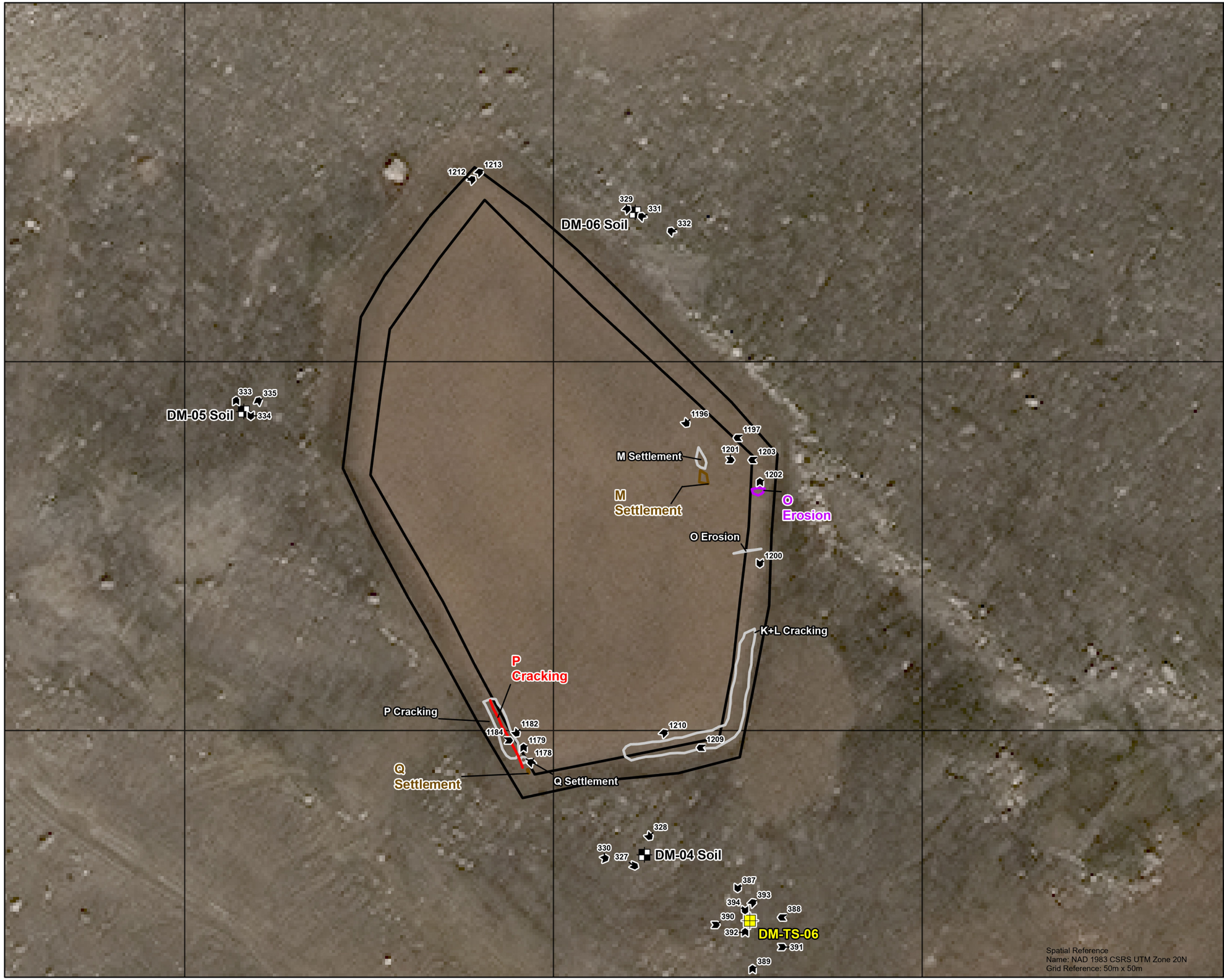
BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	DATE
230394	March 19, 2024

DRAWN	CHECKED	FIG NO.	REV
EB	HW	05a	0

Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

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LEGEND

- Soil Thermal Property Monitoring Location
- Soil Sample
- Photolog Locations
- 2018 Features (Golder)
- Cracking
- Erosion
- Settlement
- Landfill Crest / Toe

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

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Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Lower Site Foundation Landfill - Photolog Locations

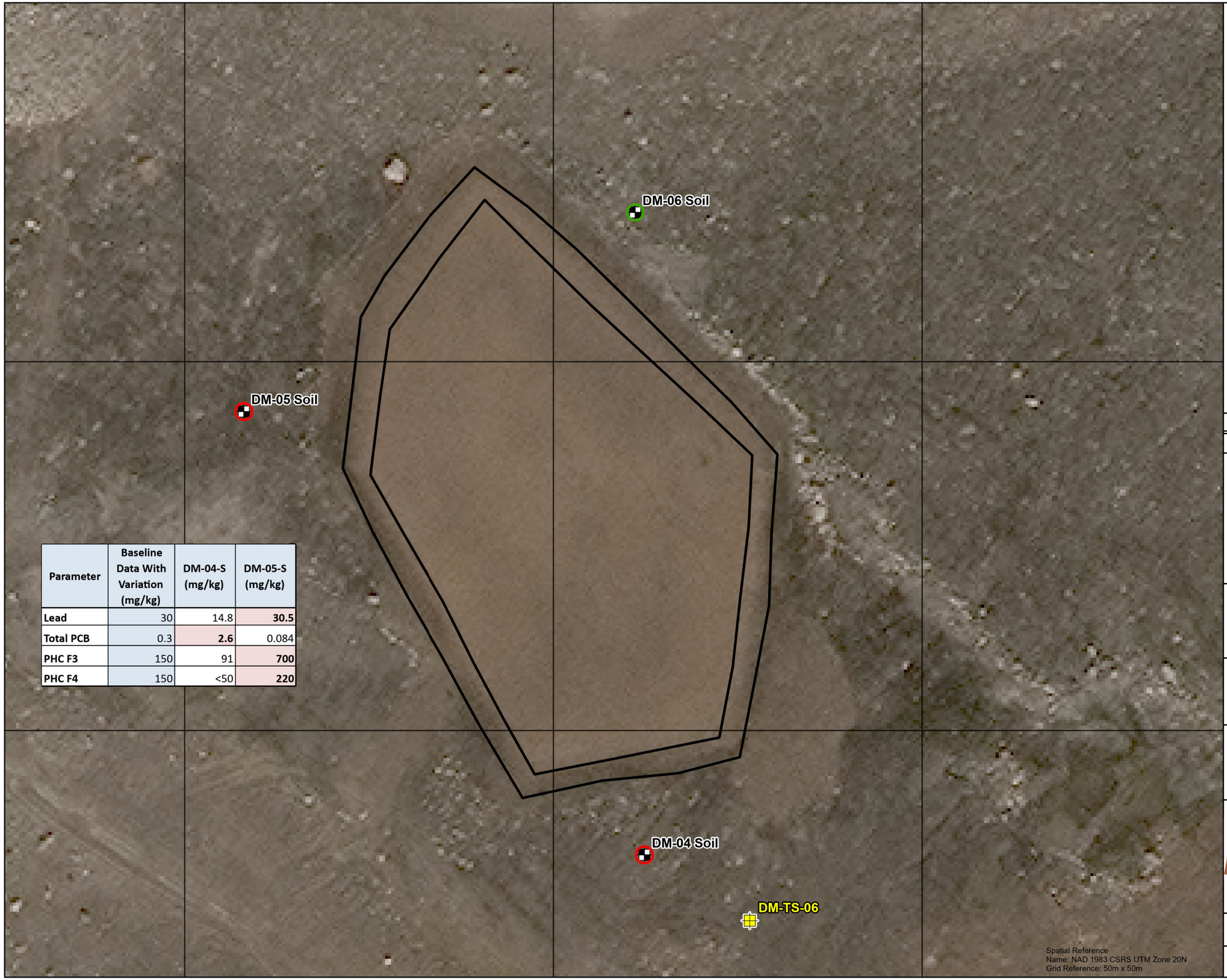
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PROJECT #	DATE
230394	March 19, 2024

DRAWN	CHECKED	FIG NO.	REV
EB	HW	05b	0

Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

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Parameter	Baseline Data With Variation (mg/kg)	DM-04-S (mg/kg)	DM-05-S (mg/kg)
Lead	30	14.8	**30.5**
Total PCB	0.3	**2.6**	0.084
PHC F3	150	91	**700**
PHC F4	150	<50	**220**

Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

LEGEND

- Soil Thermal Property Monitoring Location
- Soil Sample
- Sample Exceeds Baseline + Variation
- Sample Does Not Exceed Baseline + Variation
- Landfill Crest / Toe

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

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CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Lower Site Foundation Landfill - Environmental Results

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*
230394	**March 25, 2024**

DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**05c**	**0**

9 LOWER SITE POWERHOUSE LANDFILL

9.1 LANDFILL DESCRIPTION

The Lower Site Powerhouse Landfill has an approximate footprint of 7,000 m^2 and is located 45 m south and upslope of the Lower Site Foundation Landfill. The landfill consists of the installation of a leachate containment liner system and a capped surface with clean granular material.

9.2 SUMMARY OF WORK CONDUCTED

A visual inspection, thermistor monitoring, soil thermal monitoring and sampling, environmental soil sampling, and groundwater sampling was completed at the Lower Site Powerhouse Landfill. Thermistor monitoring was completed on August 27, 2023. Soil thermal property monitoring and sampling was completed on August 31 and September 1, 2023. A total of nine environmental soil samples, including one duplicate sample were collected as well as a total of five groundwater samples including one duplicate sample.

It was determined that well repairs were not required for the torn gasket at monitoring well MW05-08 as it did not impact sample collection or the ability to successfully lock the well. The torn gasket was removed on September 1, 2023.

9.2.1 Visual Inspection

9.2.1.1 Visual Inspection Results

A visual inspection of the Lower Site Powerhouse Landfill was completed with no issues or deviations from the SOW, with inspection details shown in **Table 44** below. Features identified during the visual inspection are shown in **Figure 6a**.

Table 44: Lower Site Powerhouse Landfill Visual Inspection Checklist

Site Name	DYE-M
Landfill Designation / Type	Lower Site Powerhouse Landfill / Leachate Contained
Date of Inspection	August 27, 2023
Date of Previous Inspection	August 13, 2018
Weather	9 °C, winds 24-30 km/hr, sunny
Inspected by	Brent Hay
DGPS Information (Make/model, accuracy, UTM zone)	Stonex S900-A, H=8mm, V=15mm, UTM Zone 20N
Landfill Surface Area (m^2)	7,000 m^2

9.2.2 Soil Sampling

A total of four test pits were advanced and consisted of the collection of nine soil samples at the four sampling locations, including one duplicate for QA/QC purposes. Photos taken before, during and after soil samples are provided on the photolog, with their locations shown in **Figure 6b**. Sample locations are shown on the site plan presented on **Figure 6c**. A summary of the test pits is provided in **Table 45** below.

Table 45: Lower Site Powerhouse Landfill Test Pitting Details

Soil Sampling Location	Sample ID	Sample Depth (mbgs)	Soil Notes
MW05-05	MW05-05 SOIL-S	0.05-0.1	SP: Medium brown sand, 30% gravel
	MW05-05 SOIL-D	0.45-0.5	SP: Medium brown sand, <10% gravel
MW05-06	MW05-06 SOIL-S	0.1-0.15	SP: Medium brown sand, 20% gravel
	MW05-06 SOIL-D	0.45-0.55	SP: Medium brown sand, <10% gravel
MW05-07	MW05-07 SOIL-S	0.10-0.15	SP: Medium brown sand, <20% gravel
	MW05-07 SOIL-D	0.45-0.55	SP: Medium brown sand
MW05-08	MW05-08 SOIL-S	0.05-0.10	SP: Medium brown sand, <10% gravel
	MW23-5-30		
	MW05-08 SOIL-D	0.45-0.5	SP: Medium brown sand

9.2.3 Groundwater Sampling

A total of four monitoring wells were monitored and sampled as per the SOW. Photos of the monitoring wells and well repairs are in Photologs in **Appendix G**. A summary of the monitoring activities is summarized below in **Table 46**.

Table 46: Lower Site Powerhouse Landfill Monitoring Well Details

Well ID	Water Level (mbgs)	LNAPL*	Calculated Water in Water Column (m)	Sampled	Additional Notes
MW05-05	0.46	ND	3.02	Yes	The water was clear during sampling.
MW05-06	0.8	ND	2.68	Yes	The water was clear during sampling.
MW05-07	0.65	ND	2.87	Yes	The water was clear during sampling.
MW05-08	0.45	ND	2.97	Yes	Threaded fitting noted in photos, removed gasket. Cap put back on after photo. The water was clear during sampling.

Note:
*ND= Not Detected

9.2.4 Thermistor Monitoring

Three thermistors (VT-5, VT-6, and VT-7) are present at the Lower Site Powerhouse landfill, all located within the landfill cover. Each thermistor had an inspection completed on August 27, 2023, to confirm both the functionality of the thermistor beads using a manual switchbox and ohm meter, and the overall condition of the protective casing and thermistor string by visual inspection. The data was downloaded from the existing RX16 dataloggers before they were removed and replaced with new TSR16 dataloggers. The new TSR16 dataloggers were equipped with new Energizer L91 lithium batteries and new desiccant packs, with the battery life estimated to last until August 2031. The TSR16 dataloggers were left in factory programming to secure readings every hour as directed to JV-60 by DND prior to the field program. The TSR16 dataloggers were then checked at the end of the field program to confirm datalogger functionality and data consistency, prior to demobilizing from site. **Table 47** below outlines any observed issues with thermistor functionality for this site.

Table 47: Lower Site Powerhouse Landfill Thermistor Inspection Observations

Thermistor	Observations
VT-5	Bead 6 reading low temperature
VT-6	No issues observed
VT-7	Bead 5 reading low temperature

Review of the temperature profiles revealed that Beads 5 and 6 exhibit similar trends to the surrounding beads, however at an offset temperature (lower) which is not consistent with the expected thermal regime. The offset is present before and after switching the RC16s with TSR16s, indicating the issue is likely within the thermistor, not the data logger(s). This offset may have developed due to a potential wiring issue, although no damage was observed to the visible portion of the thermistor string above ground. Thermistor inspection logs were completed for each thermistor during the field program and are provided in **Appendix E**.

9.2.5 Soil Thermal Property Monitoring

Soil thermal property testing was completed at five locations as per **Section 5.9** of the SOW using a TEMPOS thermal conductivity properties analyzer. The use of the SH-3 probe was prioritized over the TR-3 probe for testing per **Section 5.9.10** of the SOW, but in most areas was not practical due to the presence of gravel and boulders which only allowed for the insertion of the larger, single pronged TR-3 probe (compared to the smaller, double pronged SH-3 probe). Sampling depths for the deep samples in the native soil locations were limited to roughly 0.5 to 0.6 m due to the presence of gravel and cobbles. This was considered practical refusal per **Section 5.9.5** of the SOW, as excessive effort and time was required to manually excavate any further. Photos of the excavated material from the thermal properties sampling locations can be referenced in **Appendix F**.

9.3 RESULTS OF THE MONITORING PROGRAM

9.3.1 Visual Inspection Results

Results of the visual inspection are summarized in the Visual Inspection Checklist, provided in **Table 48**, below.

Table 48: Lower Site Powerhouse Landfill Visual Inspection Table

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
Settlement	N	-	-	-	-	-	-	-	-	-	-	-
Erosion	Y	C	West slope crest	562,729	7,387,461	1	1	0.3	<1	Self-armouring erosion at crest edge between rip-rap rocks (Acceptable)	Unchanged since previous observation	(2018)
	Y	C	West slope crest	562,727	7,387,456	1	1	<0.15	<1	Erosion/slight settlement (Acceptable)	No significant change since 2018	1487, 1488
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
Cracking	N	-	-	-	-	-	-	-	-	-	-	-
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation	Y	D	Cover surface	562,738	7,387,462	6	4	-	<1	Sparse vegetation (Acceptable)	New in 2018	(2018)
	Y	D	Cover surface	562,759	7,387,456	50	58	-	31	Sparse vegetation over entire cover surface of landfill (Acceptable)	Interpretation/new growth since 2018. Dimensions provided are for footprint of landfill given ubiquitous nature of the vegetation.	1489-1494
Staining	N	-	-	-	-	-	-	-	-	-	-	-
	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
	N	-	-	-	-	-	-	-	-	-	-	-
Ponded Water	N	B	-	-	-	-	-	-	-	Ponded water	Not observed in 2018	(2018)
	N	B	-	-	-	-	-	-	-	Ponded water	Not observed in 2023	-
Seepage	N	-	-	-	-	-	-	-	-	-	-	-
Debris and/or Liner Exposed	N	A	-	-	-	-	-	-	-	Debris	Not observed in 2018	(2018)
	N	A	-	-	-	-	-	-	-	Debris	Not observed in 2023	-
Presence / Condition of Monitoring Instruments	Y	MW05-05, 06, 07, 08	See Figure DYE-M.5	-	-	-	-	-	-	All wells in good physical condition	-	(2018)
	Y	MW05-05, 06, 07, 08	See Figure 6c	-	-	-	-	-	-	All locks removed and replaced, either very difficult to turn key or could not open locks. MW05-08 removed gasket from threaded fitting. No need to replace.	No significant change except locks replaced	18-25
	Y	VT-5, 6, 7	See Figure DYE-M.5	-	-	-		-	-	All thermistors in good physical condition	-	(2018)
	Y	VT-5, 6, 7	See Figure 6a	-	-	-	-	-	-	All locks removed and replaced, either very difficult to turn key or could not open locks. Thermistors in good condition.	RX16 dataloggers replaced with TSR16s	472-482

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
Features of Note / Other Observations	N	-	-	-	-	-	-	-	-	-	-	-

Landfill Area ~ 7,000 m^2
General Comments: The landfill is in excellent (Acceptable) condition, cover is level and even with the occasional depression which may be reminiscent of the construction or settlement of fill since construction, either way landfill is acceptable.
Note 1 - Rows with grey text are features from the 2018 DYE-M report and are also identified with (2018) in the photos column.

9.3.2 Preliminary Stability Assessment

Based on the results of the visual assessment, the landfill is in excellent condition and the Lower Site Powerhouse Landfill has been given an overall performance of Acceptable. The preliminary stability assessment is summarized in **Table 49.**

Table 49: Lower Site Powerhouse Landfill Preliminary Stability Assessment

Feature	Severity Rating	Extent
Settlement	Not Observed	None
Erosion	Acceptable	Isolated
Lateral Movement	Not Observed	None
Frost Action	Not Observed	None
Sloughing	Not Observed	None
Cracking	Not Observed	None
Animal Burrows	Not Observed	None
Ponded Water	Not Observed	None
Seepage	Not Observed	None
Staining	Not Observed	None
Vegetation Establishment	Acceptable	Occasional
Vegetation Stress	Not Observed	None
Debris and/or Liner Exposure	Not Observed	None
Other	Not Observed	None
Overall Landfill Performance	**Acceptable**	

Select photographic records are included in **Appendix G** with all photographs obtained during the visual inspection provided electronically. Photograph and feature locations are shown on **Figure 6b**. The landfill does not appear to be impacting the surrounding environment.

9.3.3 Visual Inspection Trend Analysis

A comparison of the visual inspection results from the current and previous program(s) was completed to assess if any trends are present. The results of this assessment are provided in **Table 50.**

Table 50: Lower Site Powerhouse Landfill Historical Inspection Comparison

Feature	Feature ID(s)	Comparison with Previous Inspection
Settlement	none	N/A
Erosion	C	No significant change from 2018
Lateral Movement	none	N/A
Frost Action	none	N/A
Sloughing	none	N/A
Cracking	none	N/A
Animal Burrows	none	N/A
Ponded Water	B	Not observed in 2023
Seepage	none	N/A
Staining	none	N/A
Vegetation Establishment	D	Vegetation is relatively evenly spaced over the surface of the landfill, increased in 2023
Vegetation Stress	none	N/A
Debris and/or Liner Exposure	A	Not observed in 2023
Other	none	N/A

No significant changes have been noted in comparison to previous inspections. There has been an increase in vegetation since the last inspection and no significant change was observed in Feature C. Based on this comparison, a landfill performance of Acceptable is still considered appropriate.

9.3.4 Soil Sampling Results

Soil results were compared to the baseline with variation for the discussion provided in **Table 51** below. Background and baseline arithmetic means are included for information purposes. Analytical tables and graphs can be found in **Appendix D**. **Figure 6c** shows monitoring well and soil locations.

Table 51: Lower Site Powerhouse Landfill Soil Sampling Results

Parameter	Background Data (mg/kg)	Baseline Data (mg/kg)	Baseline Data with Variation (mg/kg)	Discussion
Arsenic	1.0	1.2	3.6	All results were below BL+V at upgradient and downgradient locations
Cadmium	1.0	1.0	3.0	All results were below BL+V at upgradient and downgradient locations
Chromium	93.8	64.1	101.3	All results were below BL+V at upgradient and downgradient locations
Cobalt	12.06	10.5	18.2	All results were below BL+V at upgradient and downgradient locations
Copper	42.6	26.4	53.0	All results were below BL+V at upgradient and downgradient locations
Lead	10.0	10.0	30.0	All results were below BL+V at upgradient and downgradient locations
Nickel	37.8	34.3	60.3	All results were below BL+V at upgradient and downgradient locations
Zinc	83.6	53.4	127.5	All results were below BL+V at upgradient and downgradient locations.
Total PCB	0.0002	0.2	0.7	All results were below BL+V at upgradient and downgradient locations
F1 (C_6-C_{10})	N/A	10.0	30.0	All results were below BL+V at upgradient and downgradient locations
F2 (C_{10}-C_{16})	N/A	25.0	245.9	Downgradient MW05-07-SOIL-D exceeded BL+V. All results were below BL+V at other upgradient and downgradient locations
F3 (C_{16}-C_{34})	N/A	50.0	150.0	Downgradient MW05-07-SOIL-D exceeded BL+V. All results were below BL+V at other upgradient and downgradient locations
F4 (C_{34}-C_{50})	N/A	50.000	150.000	All results were below BL+V at upgradient and downgradient locations

Note:
Baseline Data with Variation = [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]

Exceedances of BL+V values were measured at downgradient soil sampling location MW05-07. Exceedances are summarized in **Table 52**, below.

Table 52: Lower Site Powerhouse Landfill Soil Sampling – Results Above BL+V

Parameter	Baseline Data with Variation (mg/kg)	MW05-07-SOIL-D (mg/kg)
F2 (C_{10}-C_{16})	245.9	**390**
F3 (C_{16}-C_{34})	150.0	**640**

Note:
bold = exceeds BL+V

Concentrations of PHC F2 at downgradient location MW05-07 (deep sample) were slightly above BL+V at 390 mg/kg, but still well below the historical maximum of 2,820 mg/kg measured at this location in 2014. PHC F2 concentrations in soil at the downgradient locations for this landfill have generally decreased in concentration relative to previous monitoring events. PHC F3 concentrations in downgradient locations have also generally decreased in concentration relative to previous monitoring events, with the exception of PHC F3 in the deep soil sample from MW05-07. At 640 mg/kg this PHC F3 concentration represents a new maximum for this landfill and is anomalous relative to PHC F3 concentrations measured in all other soil samples from the 2023 monitoring event for this landfill. PHC concentrations at this landfill are not a concern at this time but should be evaluated as part of future monitoring events to assess whether these parameters remain elevated in soil. All other upgradient and downgradient samples had parameter concentrations below BL+V values and were generally at or below concentrations from previous monitoring events.

9.3.5 Groundwater Sampling Results

Four (4) groundwater samples were collected at Lower Powerhouse Landfill. Groundwater results were compared to the baseline with variation for the discussion provided in **Table 53** below, analytical tables and graphs can be found in **Appendix D**.

Table 53: Lower Site Powerhouse Landfill Groundwater Sampling Results

Parameter	Background Data (mg/L)	Baseline Data (mg/L)	Baseline Data with Variation (mg/L)
Arsenic	0.003	0.010	All results were below BL+V at upgradient and downgradient locations
Cadmium	NA	0.003	All results were below BL+V at upgradient and downgradient locations
Chromium	0.09	0.18	All results were below BL+V at upgradient and downgradient locations
Cobalt	NA	0.009	All results were below BL+V at upgradient and downgradient locations
Copper	NA	0.015	All results were below BL+V at upgradient and downgradient locations
Lead	NA	0.03	All results were below BL+V at upgradient and downgradient locations
Nickel	NA	0.015	Upgradient well MW05-08 has exceeded BL+V. All other samples were below BL+V at upgradient and downgradient locations
Zinc	4.9	17.2	All results were below BL+V at upgradient and downgradient locations

Parameter	Background Data (mg/L)	Baseline Data (mg/L)	Baseline Data with Variation (mg/L)
F1 (C_6-C_{10})	0.025	0.15	All results were below BL+V at upgradient and downgradient locations
F2 (C_{10}-C_{16})	0.25	1.50	All results were below BL+V at upgradient and downgradient locations
F3 (C_{16}-C_{34})	0.5	3.0	All results were below BL+V at upgradient and downgradient locations
F4 (C_{34}-C_{50})	0.5	3.0	All results were below BL+V at upgradient and downgradient locations

Note: Baseline Data with Variation = [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]

MW05-08, an upgradient well, exceeded BL+V for nickel, **Table 54** below.

Table 54: Lower Site Powerhouse Landfill Groundwater Sampling – Results Above BL+V

Parameter	Baseline Data with Variation (mg/L)	MW05-08 (mg/L)
Nickel	0.015	**0.0537**

Note:
bold = exceeds BL+V

Concentrations of nickel in MW05-08 were above BL+V and represent a new maximum for nickel concentrations in groundwater at this landfill. As MW05-08 is an upgradient monitoring well, the elevated nickel concentration is not a concern at this time. All other parameters at the upgradient and downgradient monitoring wells were below BL+V values, and concentrations were generally less than or equivalent to previous monitoring events.

9.3.6 Thermal Monitoring Results

The thermistor data indicates almost all thermistor beads are still functioning as intended. The thermal data shows a thermal regime consistent with the locale and subsurface conditions, which indicate the landfill contents, containment berms and key trenches remained frozen since the last monitoring event. The soil thermal property monitoring results and soil samples have also been sent to the RMC, as per the SOW.

9.4 CONCLUSIONS AND OVERALL LANDFILL PERFORMANCE

Soil samples were collected at all four scheduled locations at shallow and deep depths. MW05-07-SOIL-D, a downgradient soil sampling location, had exceedances of BL+V for PHC fractions F2 and F3. All other parameters at upgradient and downgradient soil sampling locations were below BL+V. Groundwater samples were collected from all four monitoring wells at the landfill. MW05-08, an upgradient well, exceeded BL+V for nickel. All other parameters were below BL+V at upgradient and downgradient monitoring wells.

Overall, the soil and groundwater from 2023 are comparable to the results from the previous monitoring events and there is no indication of contaminant migration from the landfill at this time.

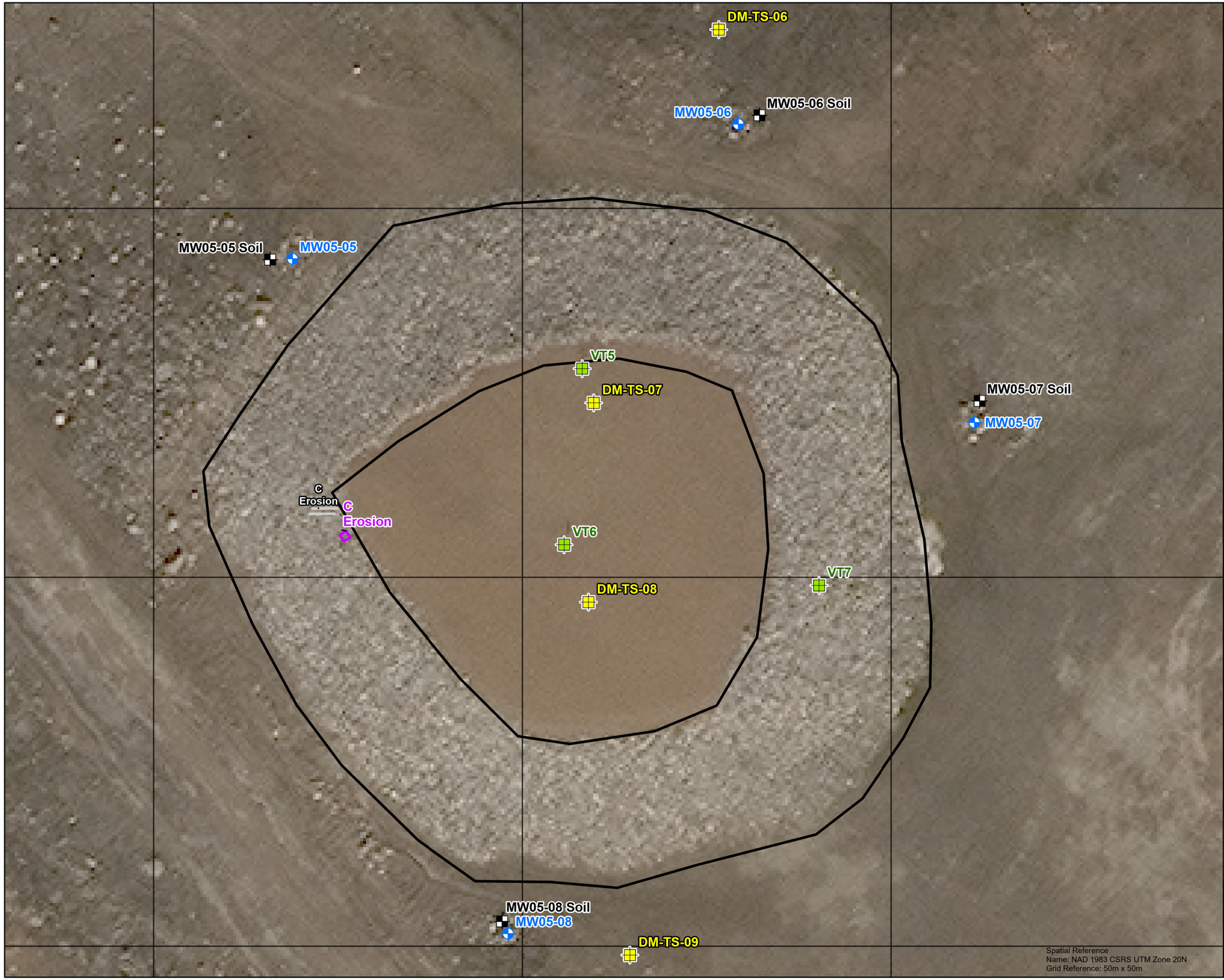
The preliminary stability assessment resulted in a rating of Acceptable. Based on the above information, an overall landfill performance of Acceptable is still considered appropriate. The landfill does not appear to be impacting the surrounding environment.

Thermistor data should be reviewed by Lakewood to assess beads that are not working or beads that are not tracking with the expected thermal regime and provide potential remedial solutions, whether they be field fixes or desktop exercises.

9.5 RECOMMENDATIONS

Concentrations of PHCs, particularly at downgradient location soil sampling location MW05-07, should be reviewed at future monitoring events to assess whether the 2023 results were anomalous or if concentrations are increasing over time. Similarly, concentrations of nickel in groundwater at MW05-08 should be reviewed at future monitoring events.

Based on the results of the visual inspection, soil and groundwater sampling, the landfill should continue to be monitored as per the SOW.



LEGEND

- Monitoring Well
- Soil Thermal Property Monitoring Location
- Soil Sample
- Thermistor
- 2018 Features (Golder)
- Erosion
- Landfill Crest / Toe

Note:
Feature D - Sparse vegetation over entire cover surface, new growth since 2023

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

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N, W, E, S

0 10 20 Metres

1:500

Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

CLIENT

Defence Construction Canada

PROJECT

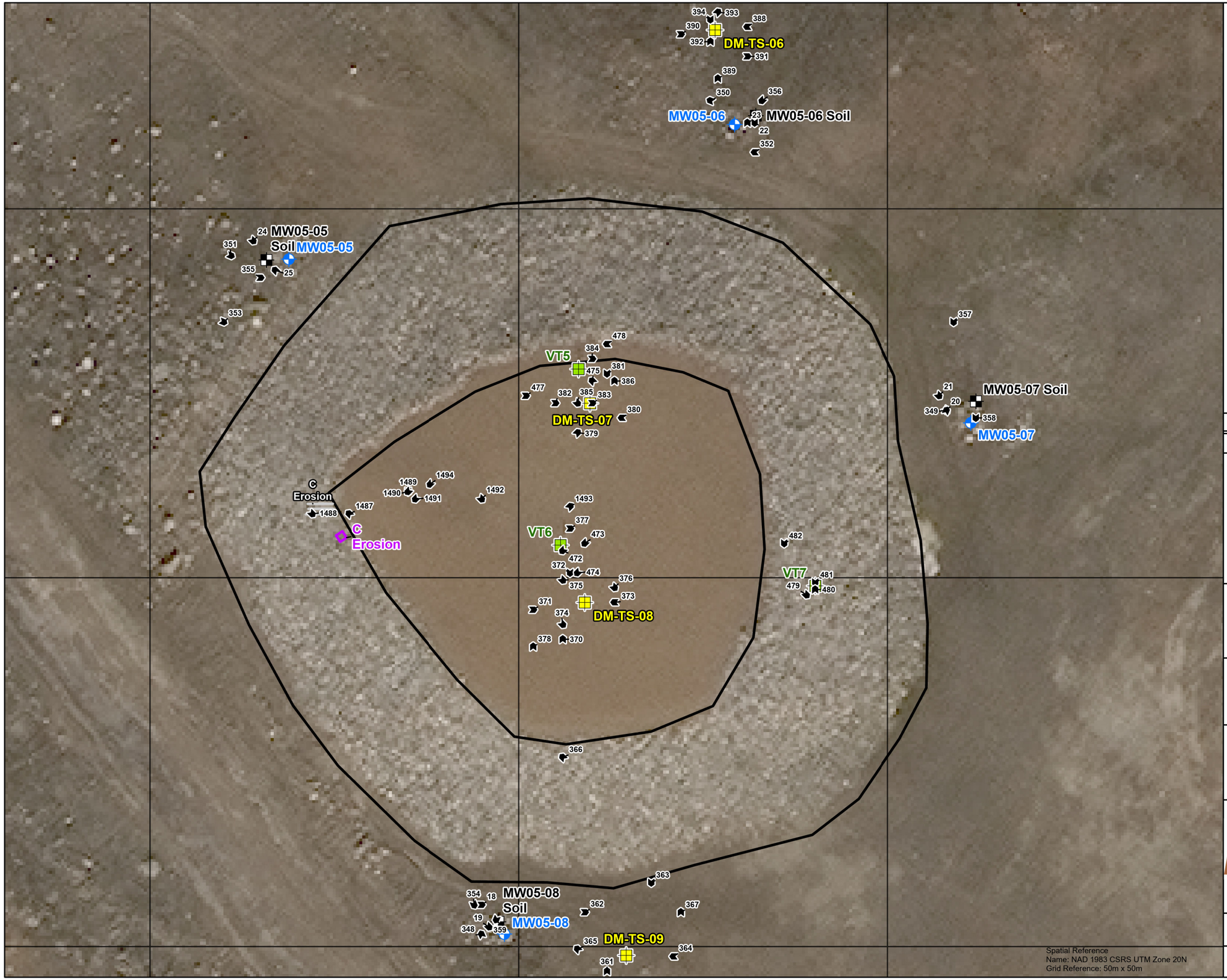
2023 DYE-M Landfill Monitoring Program

TITLE

Lower Site Powerhouse Landfill - Visual Inspection

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*		
230394	**March 18, 2024**		
DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**06a**	**0**



Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

LEGEND

- Monitoring Well
- Soil Thermal Property Monitoring Location
- Soil Sample
- Thermistor
- Photolog Locations
- 2018 Features (Golder)
- Erosion
- Landfill Crest / Toe

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

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N W E S

0 10 20 Metres

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CLIENT

Defence Construction Canada

PROJECT

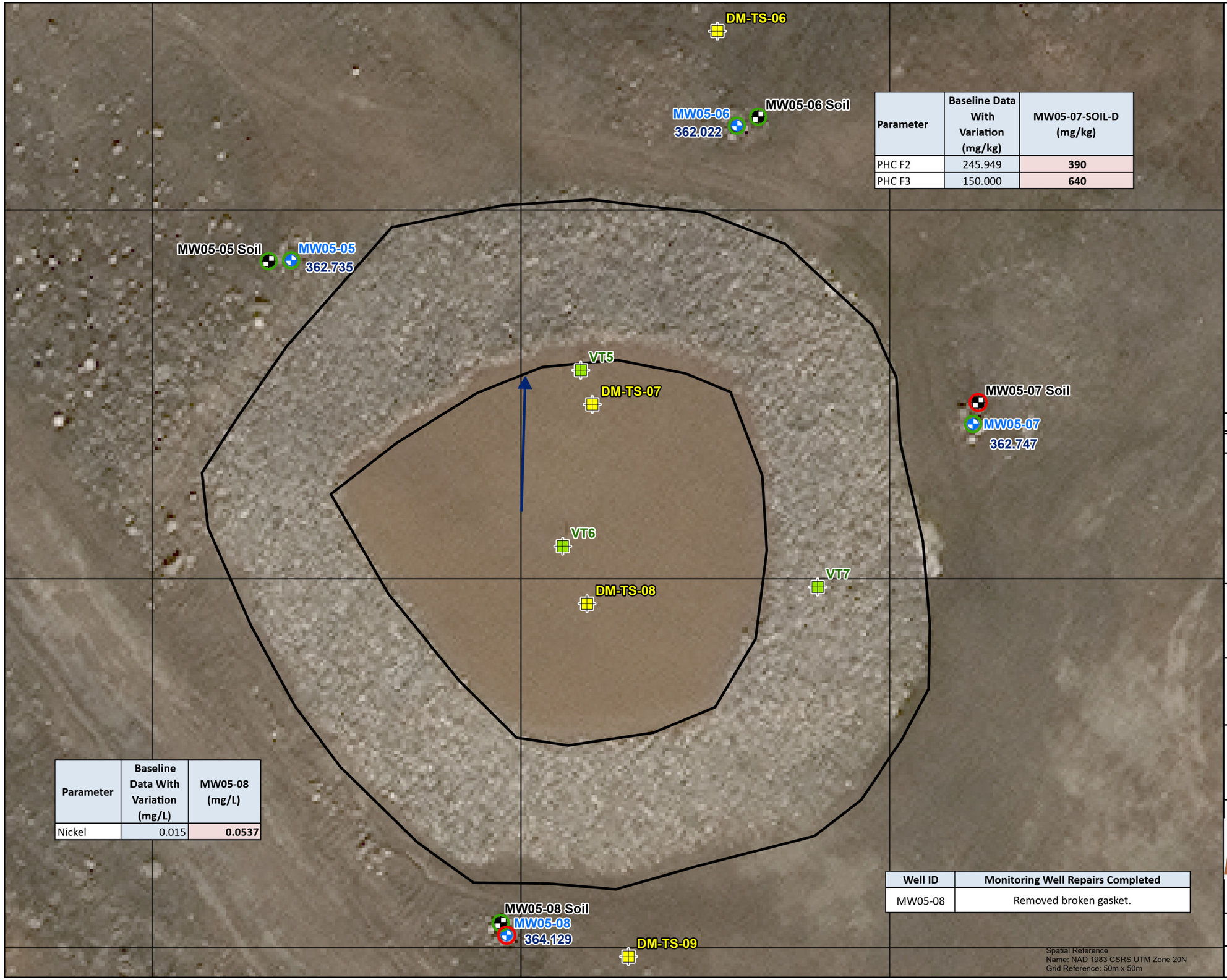
2023 DYE-M Landfill Monitoring Program

TITLE

Lower Site Powerhouse Landfill - Photolog Locations

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*		
230394	**March 18, 2024**		
DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**06b**	**0**



Parameter	Baseline Data With Variation (mg/kg)	MW05-07-SOIL-D (mg/kg)
PHC F2	245.949	**390**
PHC F3	150.000	**640**

Parameter	Baseline Data With Variation (mg/L)	MW05-08 (mg/L)
Nickel	0.015	**0.0537**

Well ID	Monitoring Well Repairs Completed
MW05-08	Removed broken gasket.

Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

LEGEND

- Monitoring Well
- Soil Thermal Property Monitoring Location
- Soil Sample
- Thermistor
- Sample Exceeds Baseline + Variation
- Sample Does Not Exceed Baseline + Variation
- Landfill Crest / Toe
- Inferred Groundwater Flow Direction
- 330.634 Water Level (masl)

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

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N W E S

0 10 20 Metres

1:500

CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Lower Site Powerhouse Landfill - Environmental Results

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*
230394	**March 25, 2024**

DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**06c**	**0**

10 LOWER SITE NON-HAZARDOUS WASTE LANDFILL

10.1 LANDFILL DESCRIPTION

The Lower Site Non-Hazardous Waste Landfill has an approximate footprint of 23,200 m^2 and is located in the southern portion of the lower site area, immediately east of the airstrip and 500 m south of the Lower Site Powerhouse Landfill. The landfill is relatively flat, with an overall slope of the natural terrain in the northeastern direction towards a drain located north of the landfill.

10.2 SUMMARY OF WORK CONDUCTED

A visual inspection, environmental soil sampling, and groundwater sampling were completed at the Lower Site Non-Hazardous Waste Landfill. A total of 12 environmental soil samples including two duplicate samples were collected as well as a total of two groundwater samples.

Well repairs were completed on site including removing bentonite from monitoring well MW05-09 and removing sand from inside the well pipe of monitoring well MW09-28. The well continued to be dry after removal of sand from inside the well. Well repairs were completed on September 2, 2023.

10.2.1 Visual Inspection

A visual inspection of the Lower Site Non-Hazardous Waste Landfill was completed with no issues or deviations from the SOW, with inspection details shown in **Table 55** below. Features identified during the visual inspection are shown in **Figure 7a**.

Table 55: Lower Site Non-Hazardous Waste Landfill Visual Inspection Checklist

Site Name	DYE-M
Landfill Designation / Type	Lower Non-Hazardous Waste Landfill / NHWL
Date of Inspection	August 29, 2023
Date of Previous Inspection	August 9, 2018
Weather	6-12 ^oC, winds 30 km/hr, sunny
Inspected by	Brent Hay
DGPS Information (Make/model, accuracy, UTM zone)	Stonex S900-A, H=8mm, V=15mm, UTM Zone 20N
Landfill Surface Area (m^2)	23,200 m^2

10.2.2 Soil Sampling

A total of five test pits were advanced and consisted of the collection of twelve soil samples including two duplicates for QA/QC purposes. Photos taken before, during and after soil samples are provided on the photo sheet, with their locations shown in **Figure 7b**. Sample locations are shown on the site plan presented on **Figure 7c**. A summary of the test pits is provided in **Table 56** below.

Table 56: Lower Site Non-Hazardous Waste Landfill Test Pitting Details

Soil Sampling Location	Sample ID	Sample Depth (mbgs)	Soil Notes
MW05-09	MW05-09-SOIL-S	0.10-0.15	GW: Well graded gravel with 30% brown sand matrix
	MW05-09-SOIL-D	0.45-0.5	SP: Medium brown sand
MW05-12	MW05-12-SOIL-S	0.10-0.15	GW: Well graded gravel with 30% brown sand matrix
	MW05-12-SOIL-D	0.45-0.50	SP: Medium brown sand
MW09-26	MW09-26-SOIL-S	0.15-0.2	GW: Well graded gravel with 20% brown sand matrix
	MW09-26-SOIL-D	0.45-0.55	Wet. SP: Medium brown sand
	MW23-5-40		
MW09-27	MW09-27-SOIL-S	0.10-0.15	SP: Medium brown sand
	MW09-27-SOIL-D	0.45-0.55	SP: Medium brown sand
MW09-28	MW09-28-SOIL-S	0.10-0.15	SP: Medium brown sand
	MW23-5-25	0.10-0.15	SP: Medium brown sand
	MW09-28-SOIL-D	0.45-0.45	SP: Medium brown sand

10.2.3 Groundwater Sampling

A total of four monitoring wells were monitored as per the SOW. Photos of the monitoring wells and well repairs are in Photologs in **Appendix G**. A summary of the monitoring activities is summarized in **Table 57** below:

Table 57: Lower Site Non-Hazardous Waste Landfill Monitoring Well Details

Well ID	Water Level (mbgs)	LNAPL*	Calculated Water in Water Column (L)	Sampled	Additional Notes
MW05-09	0.06	ND	3.49	yes	Bentonite observed inside well casing. Removed and properly disposed of. The water was clear during sampling.
MW05-12	0.54	ND	2.94	no	Insufficient water for sampling.
MW09-26	0.25	ND	2.65	no	Insufficient water for sampling.
MW09-27	-0.01	ND	2.86	yes	The water was clear during sampling.
MW09-28	Dry	ND	0	no	A 1.25" wide flighted hand auger removed sand from bottom of well pipe. Insufficient water for sampling.

Note
*ND= Not Detected

10.2.4 Thermal Monitoring

Thermistors were not installed as part of the remediation program at the Lower Site Non-Hazardous Waste Landfill; therefore, no thermistor monitoring was required during the 2023 monitoring program. Soil thermal property monitoring with the TEMPOS was not a requirement for this landfill and therefore was not completed during the 2023 monitoring program.

10.3 RESULTS OF THE MONITORING PROGRAM

10.3.1 Visual Inspection Results

Results of the visual inspection are summarized in the Visual Inspection Checklist, provided in **Table 58**, below.

Table 58: Lower Site Non-Hazardous Waste Landfill Visual Inspection Table

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
Settlement	Y	AC	North slope crest	562,986	7,387,025	0.5	0.5	0.1	<1	Minor depression (Acceptable)	New in 2018	(2018)
	Y	AC	North slope crest	562,986	7,387,025	0.9	1.0	0.05	<1	Minor depression (Acceptable)	Larger area observed in 2023	1259, 1261
	Y	AM	North slope crest	563,050	7,387,062	0.3	0.3	0.06	<1	Minor depression (Acceptable)	New in 2018	(2018)
	Y	AM	North slope crest	563,050	7,387,062	0.4	0.25	0.03	<1	Minor depression (Acceptable)	No significant change since 2018	1286, 1287
	Y	AN	Cover surface	563,053	7,387,056	2	1.2	0.04	<1	Minor depression (Acceptable)	New in 2018	(2018)
	Y	AN	Cover surface	563,053	7,387,056	1.40	1.2	0.04	<1	Minor depression (Acceptable)	No significant change since 2018	1283, 1284
	Y	AY	Cover surface	563,031	7,387,038	0.8	0.9	0.05	<1	Minor depression (Acceptable)	New in 2018	(2018)
	Y	AY	Cover surface	563,031	7,387,038	0.8	0.9	0.05	<1	Minor depression (Acceptable)	No significant change since 2018	1277, 1278
	Y	AZ	North slope	562,985	7,387,027	0.4	0.4	0.1	<1	Minor depression (Acceptable)	New in 2018	(2018)
	Y	AZ	North slope	562,985	7,387,027	0.4	0.4	0.05	<1	Minor depression (Acceptable)	No significant change since 2018	1258
	Y	AB	North slope crest	562,954	7,387,012	0.7	0.5	0.07	<1	Minor depression (Acceptable)	New in 2018	(2018)
	Y	AB	North slope crest	562,954	7,387,012	0.8	0.7	0.075	<1	Minor depression (Acceptable)	No significant change since 2018	1268
	Y	BB	North slope crest	563,026	7,387,044	0.35	0.3	0.11	<1	Minor depression (Acceptable)	New in 2023	1279
	Y	BC	North slope crest	563,026	7,387,044	0.4	0.4	0.13	<1	Minor depression (Acceptable)	New in 2023	1281
	Y	BH1	West cover surface	562,988	7,386,979	0.6	0.4	0.1	<1	Minor depression (Acceptable)	New in 2023	1399
	Y	BH2	West cover surface	562,986	7,386,978	0.6	0.6	0.1	<1	Minor depression (Acceptable)	New in 2023	1400
Erosion	Y	D	West slope	562,957	7,386,924	83 (area)	5 (area)	0.1	1.7	Area of minor self-armouring erosion with fines washing down slope (Acceptable)	Expanded area since previous observation, weathered and becoming stabilized (45 x 5 m in 2017)	(2018)
	Y	D	West slope	562,957	7,386,924	68	5	0.1	1.7	Entire slope has self-armoured by fines (Acceptable)	See Note 2	1384-1390
	Y	H	East slope	563,111	7,386,999	71 (area)	8 (area)	0.1	2.5	Area of minor self-armouring erosion with fines washing down slope (Acceptable)	Expanded area, weathered and becoming stabilized (45 x 10 m in 2017)	(2018)
	Y	H	East slope	563,111	7,386,999	71	8	0.1	2.5	Entire slope has self-armoured by fines (Acceptable)	Combined with S, See Note 2	1300-1308

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
	Y	S	East slope	563,064	7,387,064	43 (area)	8 (area)	0.1	1.5	Area of minor self-armouring erosion with fines washing down slope (Acceptable)	Expanded area, (25 x 10 m in 2017) becoming stabilized. Erosion channels up to 2 m wide	(2018)
	Y	S	East slope	563,064	7,387,064	43	8	0.1	1.5	Entire slope has self-armoured by fines (Acceptable)	Combined with H, See Note 2	1300-1308
	Y	X	South slope	563,105	7,386,945	6	0.5	0.1	<1	Minor self-armouring erosion (Acceptable)	Unchanged since previous inspection	(2018)
	Y	X	South slope	563,105	7,386,945	9.7	0.5	0.1	<1	Minor self-armouring erosion (Acceptable)	No significant change since 2018	1332, 1333
	Y	N+O+Q	North slope	562,995	7,387,034	150 (area)	8 (area)	0.1	4.0	Area of self-armouring erosion (Acceptable)	Expanded and connected area in 2018 (N:5 x 3 m; O: 15 x 10 m; Q: 30 x 10 m in 2017), weathered and becoming stabilized	(2018)
	Y	N+O+Q	North slope	562,995	7,387,034	31	6.5	0.1	4.0	Area of self-armouring erosion (Acceptable)	See Note 2	1262-1266, 1405
Lateral Movement	Y	AJ	North slope	563,027	7,387,056	19	4	-	<1	Minor bulging of slope (Marginal)	New in 2018	(2018)
	Y	AJ	North slope	563,027	7,387,056	7	3	Nil	<1	Minor bulging of slope (Acceptable)	Smaller in length than in 2018	1271, 1273
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
Cracking	Y	K	West crest	562,939	7,386,970	5	0.01	-	<1	Weathered minor crack (Acceptable)	Reduced length (15 m long in 2017)	(2018)
	N	K	West crest	-	-	-	-	-	-	Minor thaw cracking	Not observed in 2023 (Healed)	1394
	Y	L1	North crest	563,053	7,387,060	22	0.02	-	-	Minor thaw cracking (Acceptable)	Reduced length (35 m long in 2017)	(2018)
	N	L1	North crest	-	-	-	-	-	-	Minor thaw cracking	Not observed in 2023 (Healed)	1288, 1290
	N	L2	North crest	562,945	7,387,009	-	-	-	-	Minor thaw cracking	Not observed in 2018	(2018)
	N	L2	North crest	-	-	-	-	-	-	Minor thaw cracking	Not observed in 2023 (Healed)	-
	N	L3	North slope	562,951	7,387,010	-	-	-	<1	Minor thaw cracking	Not observed in 2018	(2018)
	N	L3	North slope	-	-	-	-	-	-	Minor thaw cracking	Not observed in 2023 (Healed)	-
	Y	BD	East cover to East crest	563,073	7,387,024	31.2	0.03	0.025	-	Minor cracking (Acceptable)	New in 2023	1315, 1318, 1320
	Y	P	North slope	563,000	7,387,034	11	0.01	-	<1	Parallel tension cracking on slope (Acceptable)	Increased length (7 m long in 2017)	(2018)
	Y	P	North slope	563,000	7,387,034	11	0.01	-	<1	Tension crack (Marginal)	See note 1	1219-1233
	N	R	Could not be distinguished due to frequent cracking on north slope. All cracking on north slope logged as new features.									
	Y	R	North slope	-	-	-	-	-	-	Minor crack, self-armouring (Marginal)	See note 1	1219-1233
	Y	T	South slope	563,042	7,386,934	1.4	0.2	-	<1	Parallel tension cracking on slope (Acceptable)	Shorter due to weathering (5 m long in 2017)	(2018)
	N	T	South slope	-	-	-	-	-	-	Parallel tension cracking on slope (Acceptable)	Not observed in 2023 (Healed)	1353
	N	U	South slope	563,062	7,386,931	-	-	-	-	Tension cracking near toe of slope	Not observed in 2018 due to snow cover	(2018)

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
	N	U	South slope	-	-	-	-	-	-	Tension cracking near toe of slope (Acceptable)	Not observed in 2023 (Healed)	1354
	N	V	South slope	563,030	7,386,925	-	-	-	-	Tension cracking	Not observed in 2018	(2018)
	N	V	South slope	-	-	-	-	-	-	Tension cracking (Acceptable)	Not observed in 2023 (Healed)	1355
	Y	BE	Cover surface	563,070	7,386,959	28.92	<0.075	0.05	<1	Settlement crack (Acceptable)	New in 2023, joins end of AA1	1343, 1344, 1346
	Y	BF	Cover surface	563,053	7,386,987	40.49	<0.075	0.05	<1	Settlement crack (Acceptable)	New in 2023	1349-1351
	Y	BG	Cover surface	563,023	7,386,941	26.66	<0.075	0.05	<1	Settlement crack (Acceptable)	New in 2023	1366, 1368, 1369
	Y	BI	Cover surface	562,975	7,386,999	22.4	0.05	0.025	<1	Settlement crack (Acceptable)	New in 2023	1401, 1404
	Y	Y	West slope	562,961	7,386,925	16	3	-	<1	Area of tension cracking (Acceptable)	Expanded to an area in 2018, single crack in 2017 (4 x 0.02 m)	(2018)
	Y	Y	West slope	562,961	7,386,925	9.29	3	nil	<1	Area of tension cracking (Marginal)	Smaller in length in 2023	1379, 1383
	Y	Y1	West slope	562,969	7,346,911	4.93	3	nil	<1	Area of tension cracking and potential slope movement (Marginal)	New in 2023	1376, 1378
	N	Z	West slope	562,931	7,386,973	-	-	-	-	Tension cracking	Not observed in 2018 due to snow cover	(2018)
	N	Z	West slope	-	-	-	-	-	-	Tension cracking	Not observed in 2023	-
	Y	AA	All over	562,999	7,387,009	32	0.05	0.02	<1	Weathered crack (Acceptable)	Increase in vegetation density and over surface of landfill, see photos	(2018)
	Y	AA	Cover surface	562,999	7,387,009	54	0.05	0.02	<1	Weathered crack (Acceptable)	Longer in length than in 2018	1238-1240, 1242-1244, 1246
	Y	AA1	Cover surface	563,044	7,386,955	74	0.05	0.02	<1	Weathered crack (Acceptable)	New in 2023, joins BE at east end	1245-1253
	Y	AD	All over	562,999	7,387,035	5	0.05	-	<1	Weathered crack (Acceptable)	New in 2018	(2018)
	Y	AD	North slope	562,999	7,387,035	-	-	-	<1	Weathered crack (Marginal)	See note 1	1219-1233
	Y	AE	All over	563,012	7,387,041	9	0.01	-	<1	Tension crack (Acceptable)	New in 2018	(2018)
	Y	AE	North slope	563,012	7,387,041	-	-	-	<1	Tension crack (Marginal)	See note 1	1274, 1275
	Y	AF	North slope crest	563,016	7,387,043	22	0.01	-	<1	Tension crack (Acceptable)	New in 2018	(2018)
	Y	AF	North slope crest	563,016	7,387,043	-	-	-	<1	Tension crack (Marginal)	See note 1	1274, 1275
	Y	AG	North slope	563,016	7,387,044	3	0.01	-	<1	Tension crack (Acceptable)	New in 2018	(2018)
	Y	AG	North Slope	563,016	7,387,044	-	-	-	<1	Tension crack (Marginal)	See note 1	1219-1233
	Y	AH	North Slope	563,024	7,387,049	16	0.01	-	<1	Tension crack (Acceptable)	New in 2018	(2018)
	Y	AH	North slope	563,024	7,387,049	-	-	-	<1	Tension crack (Marginal)	See note 1	1219-1233
	Y	AI	North slope	563,029	7,387,054	16	0.06	-	<1	Tension crack (Marginal)	New in 2018	(2018)

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
	Y	AI	North slope	563,029	7,387,054	-	-	-	<1	Tension crack (Marginal)	See note 1	1219-1233
	Y	AK	North slope	563,039	7,387,057	5	0.01	-	<1	Tension crack (Acceptable)	New in 2018	(2018)
	Y	AK	North slope	563,039	7,387,057	-	-	-	<1	Tension crack (Marginal)	See note 1	1219-1233
	Y	AL	North slope	563,052	7,387,066	4	0.01	-	<1	Tension crack (Acceptable)	New in 2018	(2018)
	Y	AL	North slope	563,052	7,387,066	-	-	-	<1	Tension crack (Marginal)	See note 1	1219-1233
	Y	AO	East slope crest	563,083	7,387,037	17	0.01	-	<1	Tension crack (Acceptable)	New in 2018	(2018)
	N	AO	East slope crest	-	-	-	-	-	<1	Tension crack	Not observed in 2023 (Healed)	1321-1322
	Y	AP	East slope crest	563,118	7,386,980	11	0.01	-	<1	Tension crack (Acceptable)	New in 2018	(2018)
	N	AP	East slope crest	-	-	-	-	-	<1	Tension crack	Not observed in 2023 (Healed)	1324
	Y	AQ	East slope crest	563,111	7,386,992	8	0.01	-	<1	Tension crack (Acceptable)	New in 2018	(2018)
	N	AQ	East slope crest	-	-	-	-	-	<1	Tension crack	Not observed in 2023 (Healed)	1326
	Y	AR	Cover surface	563,095	7,386,950	5	0.01	-	<1	Tension crack (Acceptable)	New in 2018	(2018)
	N	AR	Cover surface	-	-	-	-	-	-	Tension crack	Not observed in 2023 (Healed)	1342
	Y	AS	South slope	563,023	7,386,927	5	0.5	-	<1	Area of small tension cracks (Acceptable)	New in 2018	(2018)
	N	AS	South slope	-	-	5	0.5	-	<1	Crack healed however west of AS and to AW slope is uneven (Acceptable)	Not observed in 2023 (Healed)	1356-1365
	Y	AT	South slope	563,013	7,386,924	4	0.2	-	<1	Area of small tension cracks (Acceptable)	New in 2018	(2018)
	N	AT	South slope	-	-	4	0.2	-	<1	Crack healed however west of AS and to AW slope is uneven (Acceptable)	Not observed in 2023 (Healed)	1356-1365
	Y	AU	South slope	562,996	7,386,919	18	0.01	-	<1	Tension crack, discontinuous over reported length (Acceptable)	New in 2018	(2018)
	N	AU	South slope	-	-	18	0.01	-	<1	Crack healed however west of AS and to AW slope is uneven (Acceptable)	Not observed in 2023 (Healed)	1356-1365
	Y	AW	South slope	562,977	7,386,912	1.6	0.01	-	<1	Tension crack (Acceptable)	New in 2018	(2018)
	N	AW	South slope	-	-	1.6	0.01	-	<1	Crack healed however west of AS and to AW slope is uneven (Acceptable)	Not observed in 2023 (Healed)	1356-1365
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation	Y	G1+G2	East and South slope	563,107	7,387,008	203	5	-	3.1	Sparse vegetation (Acceptable)	Expanded and connected area in 2018 (G1: 40 x 5 m; G2: 40 x 0.5 m in 2017)	(2018)
	Y	W	Cover surface	563,041	7,387,048	50	16	-	2.3	Sparse vegetation (Acceptable)	Expanded area (5 x 3 m in 2017)	(2018)
	Y	M	North slope	562,954	7,387,013	160	4	-	<1	Sparse vegetation (Acceptable)	Expanded area in 2018 (50 x 2 m in 2017)	(2018)
	Y	AV	South slope	563,000	7,386,920	30	4	-	<1	Sparse vegetation (Acceptable)	New in 2018	(2018)
	Y	AX	Cover surface	562,962	7,387,002	23	8	-	<1	Sparse vegetation (Acceptable)	New in 2018	(2018)

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
	Y	G1+G2+W+M+AV	Cover surface and slopes	563031	7,386,984	175	165	-	100	Sparse vegetation over entire cover surface and slopes of landfill (Acceptable)	Increase to entire landfill in 2023. Dimensions provided are for footprint of landfill given ubiquitous nature of the vegetation.	1254-1256, 1310-1312, 1355
Staining	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
Ponded Water	N	-	-	-	-	-	-	-	-	-	-	-
Seepage	N	E	West Slope	562,967	7,386,913	-	-	-	-	Wet area with ponded water	Not observed in 2018 due to snow cover	(2018)
	Y	E	West Slope	562,944	7,386,946	95	2	surficial	<1	All slopes are wet approx. 1/3 way up and at toe due to recent rains (Acceptable), not considered leachate	Observed in 2023	1389-1393
	N	F	South toe	563,008	7,386,917	-	-	-	-	Ponded water/wet area	Not observed in 2018 due to snow cover	(2018)
	Y	F	South toe	563,065	7,386,927	180	2.5-3.0	surficial	2.0	All slopes are wet approx. 1/3 way up and at toe due to recent rains (Acceptable), not considered leachate	Observed in 2023	1337-1339
Seepage	Y	BJ	North Slope	562,988	7,387,034	169.35	3	surficial	3.0	All slopes are wet approx. 1/3 way up and at toe due to recent rains (Acceptable), not considered leachate	New in 2023	
	Y	BK	East Slope	563,107	7,387,005	156.86	3	surficial	2.0	All slopes are wet approx. 1/3 way up and at toe due to recent rains (Acceptable), not considered leachate	New in 2023	
Debris and/or Liner Exposed	N	-	-	-	-	-	-	-	-	-	-	-
Presence / Condition of Monitoring Instruments	Y	MW05-09, -12, and MW09-26, -27, -28	Refer to Figure DYE-M.6	-	-	-	-	-	-	All 5 monitoring wells intact, 3 functional and 2 non-functional (see Sect 4.6.5 and Appendix B for details)	-	(2018)
	Y	MW05-09, -12, and MW09-26, -27, -28	See Figure 7c	-	-	-	-	-	-	All locks removed and replaced, either very difficult to turn key or could not open locks. MW05-09: Bentonite removed from well casing. MW09-28: A 1.25" wide flighted hand auger removed sand from bottom of well pipe.	No significant change except locks replaced	1-17
Features of Note / Other Observations	N	C	-	-	-	-	-	-	-	Previously noted tire tracks	No longer a feature	(2018)
	N	C	-	-	-	-	-	-	-	Previously noted tire tracks	No longer a feature	-
	N	A, B, I & J	-	-	-	-	-	-	-	Not assigned	A, B, I & J not assigned in 2018 & 2023	-

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
	Y	BA	North west toe	562,943	7,387,008	8.24	0.9	<25mm	<1	Bacterial sheen on standing water at toe of LF (Acceptable)	New in 2023. Likely a result of seepage out of the landfill given it is originating from a discrete location on the slope	1234-1236

Landfill Area ~ 23,200 m^2

General Comments: A majority of the LF is in acceptable condition, with the exception of the northeast slope where there has been an increase in cracking and these features have been assigned a rating of Marginal and therefore the landfill overall has been rated as Marginal. The LF surface is more uneven than the other ones at the site. Unclear if this is a result of construction or settlement since. Difficult to assess based on existing photos. Using drone imagery would be valuable, particularly if a 3D model could be rendered.

Note 1 Previous cracks have joined and multiple new cracks appear to be present. It is not possible to discern which cracks are represented by which feature and there were too many cracks to individually survey each one for most of the slope. In this regard, the area where cracking is present was surveyed. The extent of the area and cracking should be compared year over year. Undertaking a historical comparison was not possible for features AD, AE and AF.

Note 2 - Slope has self-armoured as evidenced by fines beyond toe and comparison with previous years photos. Additional erosion is considered unlikely. Tracking individual features as previously noted is no longer possible given ubiquitous nature of the self-armouring erosion.

Note 3 - Rows with grey text are features from the 2018 DYE-M report and are also identified with (2018) in the photos column.

10.3.2 Preliminary Stability Assessment

Based on the results of the visual assessment, and the Lower Site Non-Hazardous Waste Landfill has been given an overall performance of Marginal. The preliminary stability assessment is summarized in **Table 59.**

Table 59: Lower Site Non-Hazardous Waste Landfill Preliminary Stability Assessment

Feature	Severity Rating	Extent
Settlement	Acceptable	Occasional
Erosion	Acceptable	Occasional
Lateral Movement	Acceptable	Isolated
Frost Action	Not Observed	None
Sloughing	Acceptable	Occasional
Cracking	Marginal	Occasional
Animal Burrows	Not Observed	None
Ponded Water	Acceptable	Isolated
Seepage	Acceptable	Occasional
Staining	none	N/A
Vegetation Establishment	Acceptable	Extensive
Vegetation Stress	Not Observed	None
Debris and/or Liner Exposure	Not Observed	None
Other	Acceptable	Isolated
Overall Landfill Performance	**Marginal**	

Select photographic records are included in **Appendix G** with all photographs obtained during the visual inspection provided electronically. Photograph and feature locations are shown on **Figure 7b**.

10.3.3 Visual Inspection Trend Analysis

A comparison of the visual inspection results from the current and previous program(s) was completed to assess if any trends are present. The results of this assessment are provided in **Table 60.**

Table 60: Lower Site Non-Hazardous Waste Landfill Historical Inspection Comparison

Feature	Feature ID(s)	Comparison with Previous Inspection
Settlement	AC *AM, AN, AY, AZ, AB,* **BB, BC, BH1, BH2**	Larger in 2023 *No significant change* **New in 2023**
Erosion	D, H, S, X, N+O+Q	Features noted as erosion have self-armoured and erosion no longer visible
Lateral Movement	AJ	Smaller in 2023
Frost Action	none	N/A
Sloughing	none	N/A
Cracking	Y, AA *K, L1, L2, L3, T, U, V, Z, AO, AP, AQ, AR, AS, AT, AU, AW* **BD, BE, BF, BG, BI, Y1, AA1** P, R, AD, AE, AF, AG, AH, AI, AK, AL	Feature is slightly longer/smaller. *Not observed in 2023* **New in 2023** Part of cracked area on north slope, see discussion
Animal Burrows	none	N/A
Ponded Water	none	N/A
Seepage	E, F **BJ, BK**	Observed in 2023 **New in 2023**
Staining	none	N/A
Vegetation Establishment	G1, G2, W, M, AV, AX	Vegetation is relatively evenly spaced over the surface of the landfill, increased in 2023
Vegetation Stress	none	N/A
Debris and/or Liner Exposure	none	N/A
Other	BA	New in 2023 – Bacterial sheen

Trends in settlement and cracking are apparent in that several previous features are no longer visible; several new ones are present, or features have changed. In some locations no significant change is apparent. Along the north slope, cracking is relatively ubiquitous and discerning which cracks correspond to existing features was not possible. In this regard, the cracking is shown as an area and given the increase in number/length of cracking a severity rating of Marginal was assigned. Similarly, the west and south slopes are visibly wet, approximately 1/3 up the slope. It is unclear if this is a result of recent precipitation, seepage through the landfill, or both. A bacterial sheen (new Feature BA) was also observed and assigned a severity rating of Acceptable. Seepage from the landfill is present from upslope of this area, however the bacterial sheen was only present beyond the toe of the landfill in an area with saturated ground. The change in cracking and settlement features may be indicative of consolidation of the landfill contents manifesting themselves as surface features. An increase in vegetation is apparent. Given

the observed increase in cracking and wet slopes, a landfill performance of Marginal is still considered appropriate.

10.3.4 Soil Sampling Results

Soil results were compared to the baseline with variation for the discussion provided in **Table 61** below. Background and baseline arithmetic means are included for information purposes. Analytical tables and graphs can be found in **Appendix D**. **Figure 7c** shows monitoring well and soil locations.

Table 61: Lower Site Non-Hazardous Waste Landfill Soil Sampling Results

Parameter	Background Data (mg/kg)	Baseline Data (mg/kg)	Baseline Data with Variation (mg/kg)	Discussion
Arsenic	1.0	1.0	3.0	All results were below BL+V at upgradient and downgradient locations
Cadmium	1.0	1.0	3.0	All results were below BL+V at upgradient and downgradient locations
Chromium	93.8	68.0	105.2	All results were below BL+V at upgradient and downgradient locations
Cobalt	12.1	10.4	16.5	All results were below BL+V at upgradient and downgradient locations
Copper	42.6	26.6	48.5	All results were below BL+V at upgradient and downgradient locations
Lead	10.0	10.0	30.0	All results were below BL+V at upgradient and downgradient locations
Nickel	37.8	34.7	49.9	All results were below BL+V at upgradient and downgradient locations
Zinc	83.6	50.7	93.9	All results were below BL+V at upgradient and downgradient locations.
Total PCB	0.0002	0.1	0.3	Downgradient sample location MW05-09 exceeded BL+V. All results were below BL+V at other upgradient and downgradient locations
F1 (C_6-C_{10})	N/A	10.0	30.0	Downgradient sample location MW05-09 exceeded BL+V. All results were below BL+V at other upgradient and downgradient locations

Parameter	Background Data (mg/kg)	Baseline Data (mg/kg)	Baseline Data with Variation (mg/kg)	Discussion
F2 (C_{10}-C_{16})	N/A	10.0	30.0	Downgradient sample location MW05-09 exceeded BL+V. All results were below BL+V at other upgradient and downgradient locations
F3 (C_{16}-C_{34})	N/A	50.0	150.0	All results were below BL+V at upgradient and downgradient locations.
F4 (C_{34}-C_{50})	N/A	50.0	150.0	All results were below BL+V at upgradient and downgradient locations

Note:
Baseline Data with Variation = [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]

MW05-09, a downgradient soil sampling location, had exceedances of several parameters for the respective BL+V, shown in **Table 62** below.

Table 62: Lower Site Non-Hazardous Waste Landfill Soil Sampling – Results Above BL+V

Parameter	Baseline Data with Variation (mg/kg)	DEW Line Cleanup Tier II Criteria (mg/kg)	MW05-09-SOIL-S (mg/kg)	MW05-09-SOIL-D (mg/kg)	MW05-09-SOIL-D Lab-Dup (mg/kg)
Total PCB	0.30	5	**0.44**	**1.1**	--
F1 (C_6-C_{10})	30.00	--	<10	**260**	--
F2 (C_{10}-C_{16})	30.00	--	**120**	**1200**	**1500**

Note:
bold = exceeds BL+V

Concentrations of Total PCBs, PHC F1 (deep only), and PHC F2 at downgradient location MW05-09 are higher than previous monitoring events and represent new maximums for these parameters at the Lower Site Non-Hazardous Waste Landfill. All other parameters for MW05-09 were below BL+V. All other upgradient and downgradient sample locations were below BL+V for all assessed parameters. The Total PCB concentrations of 0.44 mg/kg in the shallow sample and 1.1 mg/kg in the deep sample from MW05-09 are still well below the DEW line Tier II Cleanup Criteria of 5.0 mg/kg. PHC F1 and F2 concentrations are historically very low to non-detect at this landfill. The sample location is in a flat area adjacent to the DYE-M runway which is accessible to vehicles; given the anomalously high concentrations of these lighter PHC fractions, the MW05-09 results could be due to a more recent hydrocarbon release associated with vehicle use in the area and are not expected to be associated with the landfill. Organic material was not noted in the test pit log and biogenic interference is not believed to be influencing the PHC concentrations.

Although the elevated concentrations of Total PCBs, PHC F1 and PHC F2 at downgradient location MW05-09 are not considered a concern at this time, they should be reviewed in future monitoring events to assess whether concentrations continue to remain elevated or increase.

10.3.5 Groundwater Sampling Results

A limited number of groundwater samples were collected at Lower Site Non-Hazardous Waste Landfill due to insufficient water for sampling. Two downgradient samples were collected out of the one upgradient and four downgradient locations in the monitoring program for this landfill. The groundwater was analyzed for total metals, specifically arsenic, cadmium, chromium, copper, lead, nickel, and zinc as well as Petroleum Hydrocarbons F1 to F4. Groundwater results were compared to the baseline with variation for the discussion provided in **Table 63** below, analytical tables and graphs can be found in **Appendix D**.

Table 63: Lower Site Non-Hazardous Waste Landfill Groundwater Sampling Results

Parameter	Baseline Data (mg/L)	Baseline Data with Variation (mg/L)	Discussion
Arsenic	0.002	0.009	All results were below BL+V at upgradient and downgradient locations
Cadmium	0.001	0.003	All results were below BL+V at upgradient and downgradient locations
Chromium	0.2	0.6	All results were below BL+V at upgradient and downgradient locations
Cobalt	0.004	0.012	All results were below BL+V at upgradient and downgradient locations
Copper	0.02	0.05	All results were below BL+V at upgradient and downgradient locations
Lead	0.01	0.03	All results were below BL+V at upgradient and downgradient locations
Nickel	0.1	0.3	All results were below BL+V at upgradient and downgradient locations
Zinc	3.7	19.8	All results were below BL+V at upgradient and downgradient locations
F1 (C_6-C_{10})	0.025	0.15	All results were below BL+V at upgradient and downgradient locations
F2 (C_{10}-C_{16})	0.25	1.50	All results were below BL+V at upgradient and downgradient locations

Parameter	Baseline Data (mg/L)	Baseline Data with Variation (mg/L)	Discussion
F3 (C_{16}-C_{34})	0.50	3.0	All results were below BL+V at upgradient and downgradient locations
F4 (C_{34}-C_{50})	0.50	3.0	All results were below BL+V at upgradient and downgradient locations

Note:
Baseline Data with Variation = [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]

All results were below BL+V and BL at sampled locations. The exceedances of PHC fractions F1 and F2 noted in soil at this location are not reflected in the groundwater chemistry.

10.4 CONCLUSIONS AND OVERALL LANDFILL PERFORMANCE

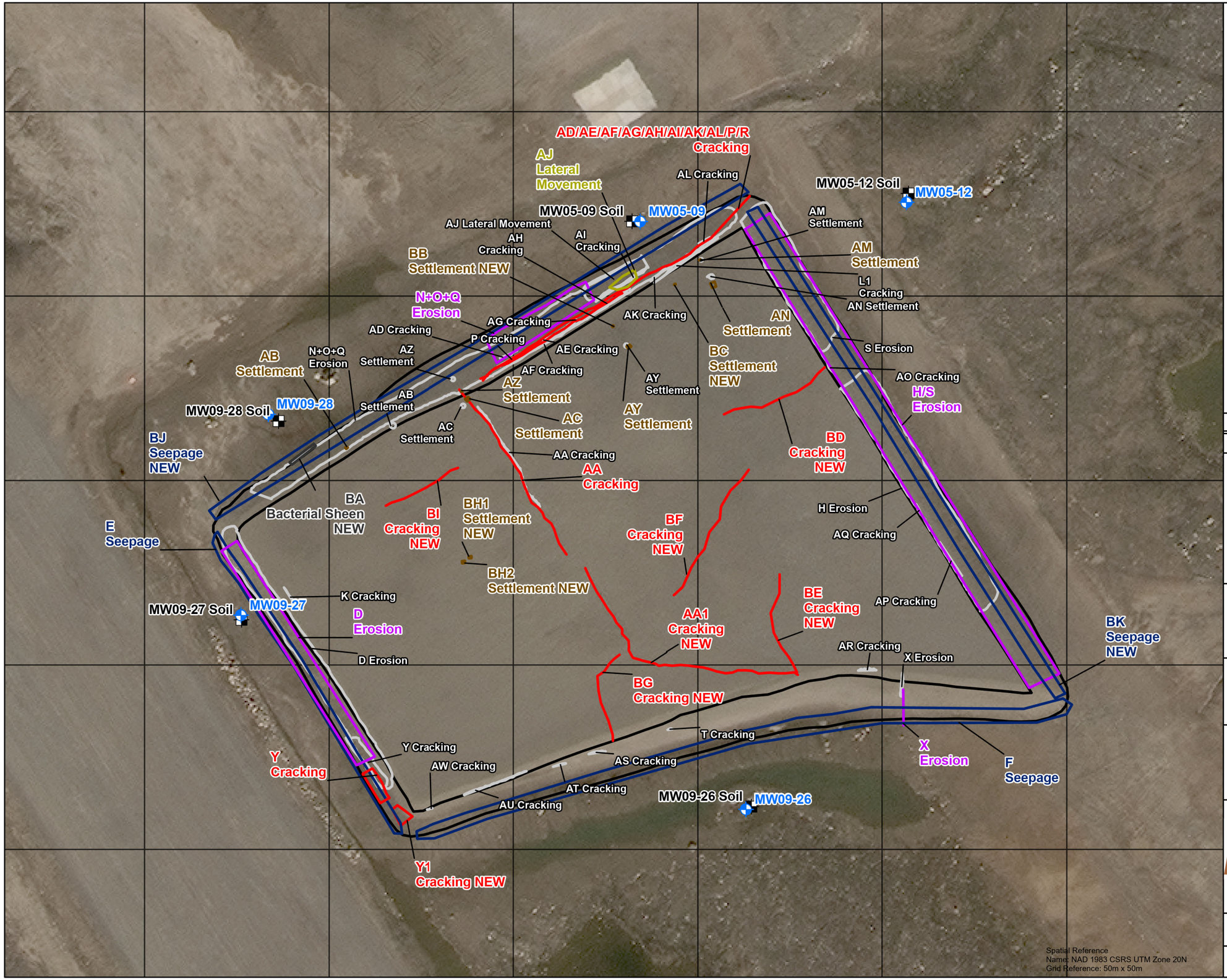
Downgradient soil sampling location MW05-09 had exceedances in the surface and deep samples for Total PCBs and PHC fractions F1 and F2 and could be due to a more recent hydrocarbon release and not be associated with the landfill. All other parameters for MW05-09 were below BL+V. All other upgradient and downgradient soil parameters and sample locations were below BL+V. All groundwater sampling results were below BL+V at upgradient and downgradient locations.

The preliminary stability assessment resulted in a rating of Marginal. Based on the above information, an overall landfill performance of Marginal is still considered appropriate.

10.5 RECOMMENDATIONS

Soil concentrations of Total PCBs, F1 and F2, which exceeded BL+V should be reviewed during the next monitoring event.

Based on the results of the visual inspection, the landfill should continue to be monitored as per the SOW. Particular attention should be paid to the cracking along the north slopes, increase in settlement areas and presence of seepage.



Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

LEGEND

- Monitoring Well
- Soil Sample
- 2018 Features (Golder)
- Cracking
- Erosion
- Cracking
- Erosion
- Lateral Movement
- Notable Feature
- Water
- Settlement
- Landfill Crest / Toe

Notes:

Feature G1+G2, W, M, AV, AX - Sparse vegetation over cover surface and slopes, expanded area

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

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CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Lower Site Non-Hazardous Waste Landfill - Visual Inspection

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*		
230394	**March 27, 2024**		
DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**07a**	**0**

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Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

LEGEND

- Monitoring Well
- Soil Sample
- Photolog Locations
- 2018 Features (Golder)
- Cracking
- Erosion
- Cracking
- Erosion
- Lateral Movement
- Notable Feature
- Water
- Settlement
- Landfill Crest / Toe

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

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N W E S

0 20 40 Metres

1:1,000

CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Lower Site Non-Hazardous Waste Landfill - Photolog Locations

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	DATE
230394	March 27, 2024

DRAWN	CHECKED	FIG NO.	REV
EB	HW	07b	0

C:\SP\BluMetric Environmental\Geomatics - GIS (1)\GIS_PROJECTS\230000\230394 - PR01201 - JV60DCC - DEW Line DM&F4 - Nunavut\APRX\2024-03-11\230394 - DYE-M.aprx

Parameter	Baseline Data With Variation (mg/kg)	MW05-09-SOIL-S (mg/kg)	MW05-09-SOIL-D (mg/kg)	MW05-09-SOIL-D (mg/kg) Lab-Dup
Total PCB	0.300	**0.44**	**1.1**	Not Analyzed
PHC F1	30.000	<10	**260**	Not Analyzed
PHC F2	30.000	**120**	**1200**	**1500**

MW05-09 Soil
MW05-09
371.528

MW05-12 Soil
MW05-12
370.236

MW09-28 Soil
MW09-28
372.661

MW09-27 Soil
MW09-27
370.199

MW09-26 Soil
MW09-26
373.048

Well ID	Monitoring Well Repairs Completed
MW05-09	Bentonite observed inside well casing. Removed and properly disposed of.
MW09-28	A 1.25" wide flighted hand auger removed sand from bottom of well pipe.

Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

LEGEND

- Monitoring Well
- Soil Sample
- Sample Exceeds Baseline + Variation
- Sample Does Not Exceed Baseline + Variation
- Landfill Crest / Toe
- Inferred Groundwater Flow Direction
- 370.236 Water Level (masl)

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

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N W E S

0 20 40 Metres

1:1,000

CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Lower Site Non-Hazardous Waste Landfill - Environmental Results

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	DATE
230394	March 25, 2024

DRAWN	CHECKED	FIG NO.	REV
EB	HW	07c	0

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11 UPPER SITE TIER II DISPOSAL FACILITY

11.1 LANDFILL DESCRIPTION

The Upper Site Tier II Disposal Facility has an approximate footprint of 18,600 m^2 and is located on the southside of the road to the Upper Site, located approximately 600 m west of the Upper Site Pallet Line Landfill. The facility contains contaminated soil exceeding the Tier II criteria excavated from the Upper Site. The design of this facility was based on the characteristics of the contaminants, geothermal properties of the area and the local permafrost regime. The Upper Site Tier II Disposal Facility has several areas of long-term monitoring features including groundwater monitoring wells and thermistors, shown in **Figure 8a.**

11.2 SUMMARY OF WORK CONDUCTED

Landfill visual inspection, thermistor monitoring, soil thermal monitoring and sampling, environmental soil sampling, and groundwater sampling were completed at the Upper Site Tier II Disposal Facility. Thermistor monitoring was completed on August 24, 2023. A total of eleven environmental soil samples, including one duplicate sample were collected as well as a total of two groundwater samples.

11.2.1 Visual Inspection

A visual inspection of the Upper Site Tier II Disposal Facility was completed with no issues or deviations from the SOW, with inspection details shown in **Table 64** below. Features identified during the visual inspection are shown in **Figure 8a**.

Table 64: Upper Site Tier II Disposal Facility Visual Inspection Checklist

Site Name	DYE-M
Landfill Designation / Type	Upper Site Tier II Disposal Facility / Tier II
Date of Inspection	August 24 & 25, 2023
Date of Previous Inspection	August 11, 2018
Weather	4-10 °C, winds 7-20 km/hr, partly cloudy / 9°C, winds 5 km/hr, sunny
Inspected by	Brent Hay
DGPS Information (Make/model, accuracy, UTM zone)	Stonex S900-A, H=8mm, V=15mm, UTM Zone 20N
Landfill Surface Area (m^2)	18,600 m^2

11.2.2 Soil Sampling

A total of five test pits were advanced and consisted of the collection of eleven soil samples, including one duplicate soil sample. Photos taken before, during and after soil samples are provided on the photo sheet, with their locations shown in **Figure 8b**. Sample locations are shown on the site plan presented on **Figure 8c**. A summary of the test pits is provided in **Table 65** below.

Table 65: Upper Site Tier II Disposal Facility Test Pitting Details

Soil Sampling Location	Sample ID	Sample Depth (mbgs)	Soil Notes
MW07-22	MW07-22 – Soil- S	0.10-0.20	GP: Poorly graded gravel with 30% medium brown sand
	MW07-22 – Soil-D	0.45-0.50	GP: Same as above
MW07-23	MW07-23 – Soil-S	0.10-0.20	GP: Poorly graded gravel with 10% sand matrix
	MW07-23 – Soil-D	0.45-0.55	GP: Poorly graded gravel with 20% sand matrix
MW08-24	MW08-24 – Soil-S	0.10-0.20	GP: Large gravel with 20% coarse brown sand
	MW08-24 – Soil-D	0.45-0.50	SP: Coarse brown sand 10% gravel (large)
	MW23-5-50	0.45-0.50	SP: Coarse brown sand 10% gravel (large)
MW08-25	MW08-25 – Soil-S	0.10-0.20	GP: Large gravel with 30% coarse brown sand
	MW08-25 – Soil-D	0.45-0.50	GP: Same as above
MW12-02	MW12-02 – Soil-S	0.10-0.20	GW: Well graded gravel
	MW12-02 – Soil-D	0.35-0.40	GW: Well graded gravel

11.2.3 Groundwater Sampling

Five monitoring wells were assessed as per the SOW for this landfill. Only two of the five monitoring wells contained enough water to collect a groundwater sample. Photos of the monitoring wells and well repairs are in Photologs in **Appendix G.** A summary of the monitoring activities is summarized below in **Table 66.**

Table 66: Upper Site Tier II Disposal Facility Monitoring Well Details

Well ID	Water Level (mbgs)	LNAPL*	Calculated Water in Water Column (m)	Sampled	Additional Notes
MW07-22	2.0	ND	0.13	No	J-plug replaced per well repair instructions. Insufficient water for sampling. Well did not recover.
MW07-23	0.52	ND	0.04	Yes	Water was clear during sampling.
MW08-24	0.87	ND	0.54	Yes	Water was clear during sampling.
MW08-25	1.42	ND	0.36	No	Insufficient water for sampling. Well did not recover.
MW12-02	1.08	ND	0.11	No	Exterior casing lid replaced per well repair instructions. Insufficient water for sampling. Well did not recover.

Note:
*ND= Not Detected

Groundwater sampling was conducted on August 31, 2023. Because available groundwater has been limited for previous sampling events, purging until stabilization of parameters was considered to be of lower priority than collection of samples. For both wells that went dry during sampling a reattempt to sample was conducted on September 2nd however the wells continued to have insufficient water for sampling. At monitoring wells with sufficient volume to purge (MW07-23 and MW08-24) samples were collected following parameter stabilization to ensure samples were representative of subsurface conditions. Field forms for the groundwater sampling are provided in **Appendix F.**

11.2.4 Thermal Monitoring

Five thermistors (VT-8, VT-9, VT-10, VT-11, and VT-BU) are present at the Upper Site Tier II Disposal Facility with two of the thermistors installed within the berm, two installed within the main landfill cover, and one installed to the south in the native soil as a background reference. Each thermistor had an inspection completed to confirm both the functionality of the thermistor beads using a manual switchbox and ohm meter, and the overall condition of the protective casing and thermistor string by visual inspection. The data was downloaded from the existing RX16 dataloggers before they were removed and replaced with new TSR16 dataloggers. The new TSR16 dataloggers were equipped with new Energizer L91 lithium batteries and new desiccant packs, with the battery life estimated to last until August 2031. The TSR16 dataloggers were left in factory programming to secure readings every hour as directed to JV-60 by DND prior to the

field program. The TSR16 dataloggers were then checked at the end of the field program to confirm datalogger functionality and data consistency, prior to demobilizing from site. **Table 67** below outlines any observed issues with thermistor functionality for this site.

Table 67: Upper Site Tier II Disposal Facility Thermistor Inspection Observations

Thermistor	Observations
VT-8	No issues observed
VT-9	No issues observed
VT-10	No issues observed
VT-11	No issues observed
VT-BU	No issues observed

Thermistor inspection logs were completed for each thermistor during the field program and are provided in **Appendix E**.

11.2.5 Soil Thermal Property Monitoring

Soil thermal property testing was completed at five locations as per **Section 5.9** of the SOW using a TEMPOS thermal conductivity properties analyzer. Sampling location DM-TS-14 was not tested or sampled during the 2023 field program. This location was observed to consist of large amounts of shattered rock at surface. The use of the SH-3 probe was prioritized over the TR-3 probe for per **Section 5.9.10** of the SOW, but in most areas was not practical due to the presence of gravel and boulders which only allowed for the insertion of the larger, single pronged TR-3 probe (compared to the smaller SH-3 probe). Per **Section 5.9.11** of the SOW, sampling location DM-TS-13 from the Upper Site Tier II Disposal Facility was selected as the one sampling location from DYE-M to have readings collected with both the SH-3 and TR-3 in order to compare how the different sensors report similar variables. This location was observed to contain less gravel than previous sampling locations completed.

Sampling depths for the deep samples in the native soil locations were limited to roughly 0.5 to 0.6 m due to the presence of gravel and cobbles. This was considered practical refusal per **Section 5.9.5** of the SOW as excessive effort and time was required to manually excavate any further. Photos of the excavated material from the thermal properties sampling locations can be referenced in **Appendix G**.

11.3 RESULTS OF THE MONITORING PROGRAM

11.3.1 Visual Inspection Results

Results of the visual inspection are summarized in the Visual Inspection Checklist, provided in **Table 68**, below.

Table 68: Upper Site Tier II Disposal Facility Visual Inspection Table

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
Settlement	-	-	-	-	-	-	-	-	-	-	-	-
Erosion	Y	B1	Northwest slope	571,069	7,394,653	5	0.3	0.06	<1	Self-armouring erosion (Acceptable)	Previously 2 channels observed, only 1 shorter channel in 2018 (10 x 3 m in 2017)	(2018)
	N	B1	Snow covered	571,069	7,394,653	-	-	-	-	Self-armouring erosion	Not observed in 2023 due to snow cover	822
	N	B2	Northwest slope	571,060	7,394,648	-	-	-	-	Self-armouring erosion	Not observed in 2018	-
	N	B2	Northwest slope	-	-	-	-	-	-	Self-armouring erosion	Not observed in 2023 due to snow cover	823, 827
	N	E	Southeast slope	571,149	7,394,574	-	-	-	-	Self-armouring erosion and accumulation of fines	Not observed in 2018	(2018)
	N	E	Southeast slope	-	-	-	-	-	-	Fines have all washed away and surface is all consistent	Erosion is no longer visible. The feature has self-armoured as evidenced by fines near toe of the slope.	854, 855
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
Cracking	Y	A	Northwest crest	571,093	7,394,658	2	0.1	0.02	<1	Weathered tension crack (Acceptable)	Previously observed, unchanged	(2018)
	Y	A	Northwest crest	571,093	7,394,658	2.0	0.1	0.03	<1	Weathered crack (Acceptable)	No significant change since 2018	820, 821
	Y	J	Northwest crest	571,071	7,394,585	10	0.04	-	<1	Weathered crack (Acceptable)	New in 2018	(2018)
	Y	J	Northwest crest	571,071	7,394,585	16.69	0.025	-	<1	Healing crack (Acceptable)	Longer in 2023	837, 838
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation	N	D	Southwest slope	571,060	7,394,565	-	-	-	-	Sparse vegetation	Not observed in 2018 due to snow cover	(2018)
	Y	D	Cover surface	571,100	7,394,609	88	90	-	41	Sparse vegetation over cover surface of landfill (Acceptable)	Expanded to entire cover surface in 2023, sparse but evenly spread out. Dimensions provided are for footprint of landfill given ubiquitous nature of the vegetation.	840-842
Staining	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
Ponded Water	N	H	East toe	571,125	7,394,688	-	-	-	-	Ponded and running water	Not observed in 2018 due to snow cover	(2018)
	N	H	East toe	-	-	-	-	-	-	Ponded and running water	Not observed in 2023	-
	Y	N	West slope	571,067	7,394,577	12.61	2.13	N/A	<1	Wet area attributed to recent precipitation (Acceptable)	New in 2023	843, 845
	Y	O	North corner	571,111	7,394,648	2.18	1.2	0.02	<1	Ponded water attributed to recent precipitation (Acceptable)	New in 2023	859, 860
Seepage	N	-	-	-	-	-	-	-	-	-	-	-

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
Debris and/or Liner Exposed	Y	M	North toe corner	571,112	7,394,697	1.53	0.05-0.125	N/A	<1	Exposed non-woven textile outside landfill (Acceptable)	New in 2023	833, 834
Presence / Condition of Monitoring Instruments	Y	MW07-22, 23, MW08-24, 25, MW12-02	See Figure DYE-M.7	-	-	-	-	-	-	All wells in good physical condition	-	(2018)
	Y	MW07-22, 23, MW08-24, 25, MW12-02	See Figure 8c	-	-	-	-	-	-	All locks removed and replaced, either very difficult to turn key or could not open locks.	All locks replaced. MW07-22: Installed new J-plug on well. MW12-02: Replaced 6'' casing lid.	65-107
	Y	VT-8, 9, 10, 11 and BU	See Figure DYE-M.7	-	-	-	-	-	-	All thermistors in good physical condition	-	(2018)
	Y	VT-8, 9, 10, 11 and BU	See Figure 8a	-	-	-	-	-	-	All locks removed and replaced, either very difficult to turn key or could not open locks. Thermistors in good condition.	RX16 dataloggers replaced with TSR16's	508-533
Features of Note / Other Observations	Y	C	Northwest crest corner	571,050	7,394,628	8 (area)	7 (area)	-	<1	Rough area (Acceptable)	Slightly larger dimensions in 2018 due to field interpretation (5 x 5 m in 2017) but considered unchanged	(2018)
	Y	C	Northwest crest corner	571,050	7,394,626	7.89	6.1	-	<1	Area of rough grading (Acceptable)	No significant change, area representative of coarser material used during construction and is not considered a feature (previously classified as erosion)	829, 830
	Y	F	Southeast crest corner	571,162	7,394,604	11 (area)	11 (area)	-	<1	Rough area (Acceptable)	Slightly larger dimensions in 2018 due to field interpretation (10 x 5 m in 2017) but considered unchanged	(2018)
	N	F	Southeast crest corner	-	-	-	-	-	<1	Area of rough grading	No significant change, area representative of coarser material used during construction and is not considered a feature (previously classified as erosion)	852
	Y	I	Northwest crest	571,073	7,394,647	2.5	1.8	0.1	<1	Minor settlement (Acceptable)	New in 2018	(2018)
	Y	I	Northwest crest	571,073	7,394,647	1.75	1.1	0.05	<1	Rough grading depression, see Feature P (Acceptable)	Reclassified from settlement. Smaller in length, width, and depth than in 2018, see Note 1	861, 865
	Y	K	East crest	571,131	7,394,659	0.4	0.3	0.1	<1	Minor settlement (Acceptable)	New in 2018	(2018)
	Y	K	East crest	571,131	7,394,659	0.4	0.2	0.1	<1	Rough grading depression, see Feature P (Acceptable)	Reclassified from settlement. No significant change, see Note 1	816
	Y	L	East crest	571,120	7,394,675	0.6	0.3	0.1	<1	Minor settlement (Acceptable)	New in 2018	(2018)

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
	Y	L	East crest	571,120	7,394,675	0.6	0.3	0.075	<1	Rough grading depression, see Feature P (Acceptable)	Reclassified from settlement. No significant change, see Note 1	816, 817
	Y	P	cover surface	571,112	7,394,657	13.6	14.4	-	<1	Area of uneven surface/rough grading (Acceptable)	New in 2023. Area demarcated to indicate a representative area of rough grading indicative to previously identified settlement features. See Note 1	861, 865
	N	G	-	-	-	-	-	-	-	Not assigned	G not assigned in 2018, 2023	-

Landfill Area ~ 18,600 m^2

General Comments: Landfill is in excellent (Acceptable) condition.

Note 1 - An area was demarcated with 37 individual pylons that indicate locations representative of features I, K & L. Suspected that these areas are not settlement, just a rough area of grading during construction. However, the depressions were generally <50 mm lower than surrounding grade and the area (shown as "P") is representative of entire cover surface. Rather than identifying specific features, the entire cover area should be inspected for changes to this observation or larger (e.g. 0.3 m or more) settlements. Representative area (avg feature dimension x # of features)/ (area of P) = (1.29x37)/195.8=24%

Note 2 - Rows with grey text are features from the 2018 DYE-M report and are also identified with (2018) in the photos column.

11.3.2 Preliminary Stability Assessment

Based on the results of the visual assessment, the landfill is in excellent condition and the Lower NWS Landfill has been given an overall performance of Acceptable. The preliminary stability assessment is summarized in **Table 69**.

Table 69: Upper Site Tier II Disposal Facility Preliminary Stability Assessment

Feature	Severity Rating	Extent
Settlement	Acceptable	Occasional
Erosion	Acceptable	Occasional
Lateral Movement	Not Observed	None
Frost Action	Not Observed	None
Sloughing	Not Observed	None
Cracking	Acceptable	Occasional
Animal Burrows	Not Observed	None
Ponded Water	Acceptable	Occasional
Seepage	Acceptable	Occasional
Staining	Not Observed	None
Vegetation Establishment	Acceptable	Occasional
Vegetation Stress	Not Observed	None
Debris and/or Liner Exposure	Acceptable	Isolated
Other	Not Observed	None
Overall Landfill Performance	**Acceptable**	

Select photographic records are included in **Appendix G** with all photographs obtained during the visual inspection provided electronically. Photograph and feature locations are shown on **Figure 8b.** The landfill does not appear to be impacting the surrounding environment.

11.3.3 Visual Inspection Trend Analysis

A comparison of the visual inspection results from the current and previous program(s) was completed to assess if any trends are present. The results of this assessment are provided in **Table 70.**

Table 70: Upper Site Tier II Disposal Facility Historical Inspection Comparison

Feature	Feature ID(s)	Comparison with Previous Inspection
Settlement	I *K, L*	Smaller in 2023 *No significant change*
Erosion	B1, B2 *E*	Not observed in 2023 due to snow cover *Not observed in 2023, self-armoured*
Lateral Movement	none	N/A
Frost Action	none	N/A
Sloughing	none	N/A
Cracking	A *J*	No significant change *Longer in 2023*
Animal Burrows	none	N/A
Ponded Water	H *N, O*	Not observed in 2023 *New in 2023*
Seepage	none	N/A
Staining	none	N/A
Vegetation Establishment	D	Vegetation is relatively evenly spaced over the surface of the landfill, increased in 2023
Vegetation Stress	none	N/A
Debris and/or Liner Exposure	M	New in 2023
Other	I, K, L, C, F *P*	Reclassified from settlement to rough grading in 2023 *New in 2023. Representative area of rough grading across entire cover surface*

No significant changes have been noted in comparison to previous inspections. Feature H was no longer observed, and Features N and O are new in 2023. The exposed debris (Feature M) consists of a 1.53 m long piece of non-woven geotextile, a couple meters off the north toe of the Tier II. It is not possible to determine if the geotextile is simply buried debris or part of the actual Tier II liner system, however its presence does not affect the performance of the landfill in any manner. Some features noted as erosion or settlement are not considered to be a result of processes that would indicate a detriment to landfill performance. For example, settlement as a result of consolidation of landfill materials or erosion from natural processes such as overland flow would be suitable to note as features. Rather, these observations are considered to be resultant of the techniques and materials used (e.g. rough grading, use of coarser stone in select areas) during landfill construction. These features have been noted and often indicated with a comment 'close loop' in the inspection form, indicating that these features no longer need to be tracked. Outside of these areas, the settlement noted appears to be less although this may be due to interpretation. There has been an increase in vegetation since the last inspection. Based on this comparison, a landfill performance of Acceptable is still considered appropriate.

11.3.4 Soil Sampling Results

Soil results were compared to the baseline with variation for the discussion provided in **Table 71** below. Background and baseline arithmetic means are included for information purposes. Analytical tables and graphs can be found in **Appendix D**. **Figure 8c** shows monitoring well and soil locations.

Table 71: Upper Site Tier II Disposal Facility Soil Sampling Results

Parameter	Background Data (mg/kg)	Baseline Data (mg/kg)	Baseline Data with Variation (mg/kg)	Discussion
Arsenic	1.0	4.2	14.1	All results were below BL+V at upgradient and downgradient locations
Cadmium	1.0	1.0	3.0	All results were below BL+V at upgradient and downgradient locations
Chromium	89.8	114.9	374.6	All results were below BL+V at upgradient and downgradient locations
Cobalt	19.7	18.9	39.5	All results were below BL+V at upgradient and downgradient locations
Copper	60.4	45.9	133.0	All results were below BL+V at upgradient and downgradient locations
Lead	10.0	20.4	91.4	All results were below BL+V at upgradient and downgradient locations
Nickel	141.3	80.6	282.1	All results were below BL+V at upgradient and downgradient locations
Zinc	70.1	83.2	231.2	All results were below BL+V at upgradient and downgradient locations
Total PCB	0.0002	0.1	0.3	All results were below BL+V at upgradient and downgradient locations
F1 (C_6-C_{10})	N/A	10.0	30.0	All results were below BL+V at upgradient and downgradient locations
F2 (C_{10}-C_{16})	N/A	10.0	30.0	All results were below BL+V at upgradient and downgradient locations
F3 (C_{16}-C_{34})	N/A	50.0	150.0	All results were below BL+V at upgradient and downgradient locations
F4 (C_{34}-C_{50})	N/A	50.0	150.0	All results were below BL+V at upgradient and downgradient locations

Note:
Baseline Data with Variation = [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]

Upgradient and downgradient samples at surface (0-0.15 mbgs) and deep (0.4-0.5 mbgs) were below BL+V for all parameters. Lead and zinc concentrations (53.0 mg/kg and 170.0 mg/kg, respectively) at downgradient surface location MW08-25 represent new maximums for these parameters at this landfill, however both are still below BL+V. All other results were at or below the maximum historical long-term monitoring values for this landfill. Overall, the soil results from 2023 are comparable to the results from the previous monitoring events and there is no indication of contaminant migration from the landfill at this time.

11.3.5 Groundwater Sampling Results

A limited number of groundwater samples were collected at Upper Site Tier II Disposal Facility due to insufficient water for sampling. Two downgradient samples were collected out of the two upgradient and three downgradient locations in the monitoring program. Groundwater results were compared to the baseline with variation for the discussion provided in **Table 72** below, and analytical tables and graphs can be found in **Appendix D**.

Table 72: Upper Site Tier II Disposal Facility Groundwater Sampling Results

Parameter	Baseline Data (mg/L)	Baseline Data with Variation (mg/L)	Discussion
Arsenic	0.002	0.009	All results were below BL+V at downgradient locations
Cadmium	0.001	0.003	All results were below BL+V at downgradient locations
Chromium	0.343	1.061	All results were below BL+V at downgradient locations
Cobalt	0.012	0.023	All results were below BL+V at downgradient locations
Copper	0.083	0.213	All results were below BL+V at downgradient locations
Lead	0.013	0.035	All results were below BL+V at downgradient locations
Nickel	0.214	0.739	All results were below BL+V at downgradient locations
Zinc	1.292	9.113	All results were below BL+V at downgradient locations
F1 (C_6-C_{10})	0.025	0.150	All results were below BL+V at downgradient locations
F2 (C_{10}-C_{16})	0.250	1.500	All results were below BL+V at downgradient locations
F3 (C_{16}-C_{34})	0.500	3.000	All results were below BL+V at downgradient locations
F4 (C_{34}-C_{50})	0.500	3.000	All results were below BL+V at downgradient locations

Note:
Baseline Data with Variation = [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]

Downgradient water samples were below BL+V and Baseline data for all parameters. The 2023 groundwater results are comparable to the results from the previous monitoring events and there is no indication of contaminant migration from the landfill at this time.

11.3.6 Thermal Monitoring Results

The thermistor data indicates all thermistor beads are still functioning as intended. The thermal data shows a thermal regime consistent with the locale and subsurface conditions, which indicate the landfill contents, containment berms and key trenches remained frozen since the last monitoring event. The soil thermal property monitoring results and soil samples were sent to RMC as per the SOW.

11.4 CONCLUSIONS AND OVERALL LANDFILL PERFORMANCE

The visual inspection did not identify significant changes to the landfill compared to the prior inspection.

The preliminary stability assessment resulted in a rating of Acceptable. Based on the above information, an overall landfill performance of Acceptable is still considered appropriate. There is no indication of contaminant migration from the landfill based on the review and assessment of the 2023 and historical analytical data and the landfill does not appear to be impacting the surrounding environment.

Soil samples were collected at all five scheduled locations at shallow and deep depths. Upgradient and downgradient soil samples were below BL+V for all parameters. Groundwater was collected from two of the five monitoring wells located at the landfill. Downgradient water samples were below BL+V for all parameters while upgradient wells contained insufficient water for sampling.

11.5 RECOMMENDATIONS

Based on the results of the visual inspection, soil sampling, and groundwater sampling programs, the landfill should continue to be monitored as per the SOW.



LEGEND

- Monitoring Well
- Soil Thermal Property Monitoring Location
- Soil Sample
- Thermistor
- 2018 Features (Golder)
- Cracking
- Debris / Liner Exposed
- Notable Feature
- Water
- Landfill Crest / Toe

Note:
Feature Feature D - Sparse vegetation over cover surface of landfill, new in 2023

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

PROPRIETARY INFORMATION MAY NOT BE REPRODUCED OR DIVULGED WITHOUT PRIOR WRITTEN CONSENT OF BLUMETRIC ENVIRONMENTAL INC. DO NOT SCALE DRAWING. THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS.

N W E S

0 20 40 Metres

1:1,000

CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Upper Site Tier II Disposal Facility - Visual Inspection

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*		
230394	**March 19, 2024**		
DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**08a**	**0**

C:\SP\BluMetric Environmental\Geomatics - GIS (1)\GIS_PROJECTS\230000\230394 - PR01201 - JV60DCC - DEW Line DM&F4 - Nunavut\APRX\2024-03-11\230394 - DYE-M.aprx



LEGEND

- Monitoring Well
- Soil Thermal Property Monitoring Location
- Soil Sample
- Thermistor
- Photolog Locations
- 2018 Features (Golder)
- Cracking
- Debris / Liner Exposed
- Notable Feature
- Water
- Landfill Crest / Toe

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

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N W E S

0 20 40 Metres

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CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Upper Site Tier II Disposal Facility - Photolog Locations

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	DATE
230394	March 19, 2024

DRAWN	CHECKED	FIG NO.	REV
EB	HW	08b	0

Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

C:\SP\BluMetric Environmental\Geomatics - GIS (1)\GIS_PROJECTS\230000\230394 - PR01201 - JV60DCC - DEW Line DM&F4 - Nunavut\APRX\2024-03-11\230394 - DYE-M.aprx

Well ID	Monitoring Well Repairs Completed
MW07-22	Installed new J-plug on well.
MW12-02	Replaced 6" casing lid and collar.

MW12-02 Soil
MW12-02
641.227

DM-TS-10

MW07-22
Soil
MW07-22
646.269

MW08-25 Soil
MW08-25
633.473

VT11

DM-TS-11

VT8

DM-TS-12
VT10

MW08-24 Soil
MW08-24
634.946

VT9

MW07-23
Soil
MW07-23
636.906
DM-TS-13

DM-TS-14
VT-BU

Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

LEGEND

- Monitoring Well
- Soil Thermal Property Monitoring Location
- Soil Sample
- Thermistor
- Sample Exceeds Baseline + Variation
- Sample Does Not Exceed Baseline + Variation
- Landfill Crest / Toe
- Inferred Groundwater Flow Direction
- 646.269 Water Level (masl)

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

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N
W E
S

0 20 40 Metres

1:1,000

CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Upper Site Tier II Disposal Facility - Environmental Results

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*		
230394	**March 16, 2024**		
DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**08c**	**0**

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12 UPPER SITE WEST LANDFILL – WEST LOBE

12.1 LANDFILL DESCRIPTION

The Upper Site West Landfill – West Lobe has an approximate footprint of 29,000 m^2 and is located 800 m west of the Station Area on the north side of the access road. Construction of this landfill involved complete excavation of some areas with regrading the remainder between 2008 and 2012.

12.2 SUMMARY OF WORK CONDUCTED

A visual inspection and environmental soil sampling were completed at the Upper Site West Landfill – West Lobe. A total of nineteen environmental soil samples, including one duplicate sample were collected.

12.2.1 Visual Inspection

A visual inspection of the Upper Site West Landfill – West Lobe was completed with no issues or deviations from the SOW, with inspection details shown in **Table 73** below. Features identified during the visual inspection are shown in **Figure 9a**.

Table 73: Upper Site West Landfill – West Lobe Visual Inspection Checklist

Site Name	DYE-M
Landfill Designation / Type	Upper Site West Landfill – West Lobe / Regraded
Date of Inspection	August 25, 2023
Date of Previous Inspection	August 11, 2018
Weather	4 °C, winds 27 km/hr, cloudy, rain
Inspected by	Brent Hay
DGPS Information (Make/model, accuracy, UTM zone)	Stonex S900-A, H=8mm, V=15mm, UTM Zone 20N
Landfill Surface Area (m^2)	29,000 m^2

12.2.2 Soil Sampling

A total of nine test pits were advanced and consisted of the collection of 19 soil samples, including one duplicate sample. Photos taken before, during and after soil samples are provided on the photo sheet, with their locations shown in **Figure 9b**. Sample locations are shown on the site plan presented on **Figure 9c**. A summary of the test pits is provided in **Table 74** below.

Table 74: Upper Site West Landfill- West Lobe Test Pitting Details

Soil Sampling Location	Sample ID	Sample Depth (mbgs)	Soil Notes
DM-31	DM-31-S	0.1-0.15	GP: Large gravel pieces, brown
	DM-31-D	0.45-0.5	GP: Large gravel pieces, brown
DM-32	DM-32-S	0.1-0.15	SW: Well graded gravelly sand, brown
	DM-32-D	0.45-0.5	SW: Well graded gravelly sand, brown
DM-33	DM-33-S	0.1-0.15	SW: Well graded gravelly sand, brown
	DM-33-D	0.45-0.5	SW: Well graded gravelly sand, brown
	MW23-5-60		
DM-34	DM-34-S	0.05-0.1	SW: Well graded, gravelly sand, brown
	DM-34-D	0.45-0.5	GW: Well graded gravel, 30% sand, brown
DM-35	DM-35-S	0.1-0.15	SW: Well graded gravelly sand, brown
	DM-35-D	0.45-0.5	Wet. SW: Well graded gravelly sand, brown
DM-36	DM-36-S	0.05-0.1	GP: Gravel > 3 cm, < 10% brown sand
	DM-36-D	0.35-0.4	Refusal 0.40 (boulder). GP: Gravel > 3 cm, < 10% brown sand matrix
DM-37	DM-37-S	0.10-0.20	GP: Large gravel, brown sand matrix fine to coarse
	DM-37-D	0.45-0.5	SP: Large gravel 30%, brown sand medium coarse
DM-38	DM-38-S	0.10-0.15	SP: Large gravel, 20% brown sand medium coarse
	DM-38-D	0.4-0.5	SP: Same as above
DM-39	DM-39-S	0.05-0.10	GP: Gravel > 5 cm, <20% brown sand matrix
	DM-39-D	0.4-0.5	SP: Large gravel, 30% brown sand matrix

12.2.3 Groundwater Sampling

Groundwater monitoring wells were not installed as part of the remediation program at the Upper Site West Landfill – West Lobe; therefore, no groundwater sampling was required during the 2023 monitoring program.

12.2.4 Thermal Monitoring

Thermistors were not installed as part of the remediation program at the Upper Site West Landfill – West Lobe; therefore, no thermistor monitoring was required during the 2023 monitoring program. Soil thermal property monitoring with the TEMPOS was not a requirement for this landfill and therefore was not completed during the 2023 monitoring program.

12.3 RESULTS OF THE MONITORING PROGRAM

12.3.1 Visual Inspection Results

Results of the visual inspection are summarized in the Visual Inspection Checklist, provided in **Table 75**, below.

Table 75: Upper Site West Landfill – West Lobe Visual Inspection Table

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
Settlement	Y	N	Cover surface	571,150	7,395,019	0.3	0.3	0.1	<1	Minor settlement (Acceptable)	New in 2018	(2018)
	Y	N	Cover Surface	571,150	7,395,019	0.3	0.3	0.1	<1	Minor settlement (Acceptable)	No significant change since 2018	1062, 1063
Erosion	N	A	Cover surface west end	571,115	7,394,939	-	-	-	-	Minor self-armouring erosion area	Not observed in 2018 due to snow cover	(2018)
	Y	A	West cover	571,114	7,394,942	15.5	0.05-0.125	0.1-0.4	<1	Minor self-armouring erosion area (Acceptable)	No significant change since 2017. (Named feature S in notes originally)	1056
	Y	A1	West cover	571,114	7,394,948	24.93	0.05-0.125	0.1-0.4	<1	Minor self-armouring erosion area (Acceptable)	No significant change since 2017. (Named feature S in notes originally)	1057
	Y	A2	West cover	571,097	7,394,939	10.53	0.1-0.5	<0.025	<1	Minor self-armouring erosion area (Acceptable)	No significant change since 2017. (Named feature R1 in notes originally)	1053
	Y	A3	West cover	571,094	7,394,927	18.33	0.1-0.5	<0.025	<1	Minor self-armouring erosion area (Acceptable)	No significant change since 2017. (Named feature R2 in notes originally)	1054
	Y	A4	West cover	571,092	7,394,931	20.42	0.1-0.5	<0.025	<1	Minor self-armouring erosion area (Acceptable)	No significant change since 2017. (Named feature R3 in notes originally)	1055
	Y	D	Cover surface near southwest slope	571,326	7,394,917	28 (area)	5 (area)	0.2	<1	Area of self-armouring erosion (Acceptable)	Increased length (length 20 m in 2017)	(2018)
	Y	D	Cover surface near southwest slope	571,326	7,394,917	9.12	8.72	<0.025	<1	Self-armouring (Acceptable)	Smaller area observed in 2023	1081, 1083
	Y	E	Cover surface near southwest slope	571,304	7,394,930	10	0.5	0.1	<1	Small erosion channel (Acceptable)	Increased length (length 6 m in 2017)	(2018)
	N	E	Cover surface near southwest slope	-	-	-	-	-	-	Area of self-armouring erosion	Not observed in 2023	1141, 1142
	Y	F	North toe	571,196	7,395,016	33 (area)	4 (area)	0.1	<1	Area of minor erosion (Acceptable)	Expanded area (5 x 5 m in 2017)	(2018)
	N	F	North toe	-	-	-	-	-	-	Area of minor erosion	Not observed in 2023 due to snow cover	1064, 1065
	Y	G	Cover surface	571,153	7,394,983	16 (area)	5 (area)	0.05	<1	Area of self-armouring erosion with 0.4 m wide channels (Acceptable)	Expanded area (12 x 0.3 m in 2017) becoming weathered/stabilized	(2018)
	N	G	Cover Surface	-	-	-	-	-	-	Area of self-armouring erosion	Not observed in 2023 as entire area has self-armoured	1061
	Y	H	Southwest slope	571,211	7,394,933	8 (area)	4 (area)	0.2	<1	Self-armouring erosion area (Acceptable)	Reduced area (16 x 2.5 m in 2017)	(2018)
	N	H	Southwest slope	-	-	-	-	-	-	Area of self-armouring erosion	Not observed in 2023 as entire area has self-armoured	1119, 1122

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
	Y	L	Cover surface	571,222	7,395,001	27 (area)	13 (area)	0.05	<1	Minor self-armouring erosion area with 0.5m wide channels (Acceptable)	Expanded area (15 x 10 m in 2017)	(2018)
	N	L	Cover Surface	-	-	-	-	-	-	Area of self-armouring erosion	Not observed in 2023 as entire area has self-armoured	1067, 1071, 1073
	Y	P	Cover surface	571,282	7,395,005	39	0.5	0.05	<1	Erosion channel with fines transported downslope (Acceptable)	New in 2018	(2018)
	N	P	Cover Surface	-	-	-	-	-	-	Area of self-armouring erosion	Not observed in 2023 as entire area has self-armoured	1075, 1076
	Y	Q	Southwest slope	571,227	7,394,919	15	0.3	0.05	<1	Erosion channel (Acceptable)	New in 2018	(2018)
	N	Q	Southwest slope	-	-	-	-	-	-	Self-armouring erosion channel	Not observed in 2023 as entire area has self-armoured	1126, 1128
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
Cracking	N	I	Cover surface	571,349	7,394,978	-	-	-	-	Cracking on surface of landfill	Not observed in 2018	(2018)
	N	I	Cover surface	-	-	-	-	-	-	Cracking on surface of landfill	Not observed in 2023	1088
	Y	K	Crest of south slope	571,276	7,394,979	2	0.1	0.05	<1	Weathered tension crack (Acceptable)	Reduced length (4 m long in 2017) and weathering	(2018)
	Y	K	Crest of south slope	571,276	7,394,979	3.23	nil	nil	<1	Weathered tension crack (Acceptable)	Barely visible in 2023	1135, 1137
	Y	M	Cover surface	571,339	7,394,979	15	0.05	-	<1	Weathered crack (Acceptable)	New in 2018	(2018)
	Y	M	Cover surface	571,339	7,394,979	9.4	Nil	Nil	Nil	Weathered crack (Acceptable)	Barely visible in 2023	1077, 1079
	Y	U	South slope	571,287	7,394,971	1.69	<0.05	<0.025	<1	Weathered crack (Acceptable)	New in 2023	1138, 1139
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation	Y	O	Cover surface	571,165	7,394,993	2	0.3	-	<1	Sparse vegetation (Acceptable)	New in 2018	(2018)
	Y	O	Cover surface and slopes	571,257	7,394,984	279	177.0	-	100	Sparse vegetation over entire cover surface and slopes of landfill (Acceptable)	Increase in vegetation density throughout landfill since 2018. Dimensions provided are for footprint of landfill given ubiquitous nature of the vegetation.	1066, 1145-1147
Staining	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
Ponded Water	N	-	-	-	-	-	-	-	-	-	-	-
Seepage	N	C	Southwest toe	571,356	7,394,922	-	-	-	-	Previously observed running water and minor erosion along toe beyond riprap	Not observed in 2018 due to snow cover	(2018)
	N	C	Southwest toe	-	-	-	-	-	-	Previously observed running water and minor erosion along toe beyond riprap	Not observed in 2023	-
Debris and/or Liner Exposed	N	-	-	-	-	-	-	-	-	-	-	-
Presence / Condition of Monitoring Instruments	N	-	-	-	-	-	-	-	-	-	-	-

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
Features of Note / Other Observations	N	B	-	-	-	-	-	-	-	Not assigned	Not assigned	(2018)
	N	B & J	-	-	-	-	-	-	-	Not assigned	B and J not assigned in 2018 or 2023	-
	Y	T	NE Toe	571,336	7,395,070	59.2	0.1-0.6	<0.05	<1 (outside 2F)	Overland flow along toe of NE Slope (Acceptable)	New in 2023	1098, 1101

Landfill Area ~ 29,000 m^2

General Comments: Landfill is in excellent (Acceptable) condition.

Note 1 - Rows with grey text are features from the 2018 DYE-M report and are also identified with (2018) in the photos column.

12.3.2 Preliminary Stability Assessment

Based on the results of the visual assessment, the landfill is in excellent condition and the Upper Site West Landfill – West Lobe has been given an overall performance of Acceptable. The preliminary stability assessment is summarized in **Table 76.**

Table 76: Upper Site West Landfill – West Lobe Preliminary Stability Assessment

Feature	Severity Rating	Extent
Settlement	Acceptable	Isolated
Erosion	Acceptable	Occasional
Lateral Movement	Not Observed	None
Frost Action	Not Observed	None
Sloughing	Not Observed	None
Cracking	Acceptable	Occasional
Animal Burrows	Not Observed	None
Ponded Water	Not Observed	None
Seepage	Not Observed	None
Staining	Not Observed	None
Vegetation Establishment	Acceptable	Extensive
Vegetation Stress	Not Observed	None
Debris and/or Liner Exposure	Not Observed	None
Other	Acceptable	Isolated
Overall Landfill Performance	**Acceptable**	

Photographs obtained during the visual inspection provided electronically in the photolog. Feature locations and photographic locations are shown on **Figure 9a** and **Figure 9b**, respectively. The landfill does not appear to be impacting the surrounding environment.

12.3.3 Visual Inspection Trend Analysis

A comparison of the visual inspection results from the current and previous program(s) was completed to assess if any trends are present. The results of this assessment are provided in **Table 77.**

Table 77: Upper Site West Landfill – West Lobe Historical Inspection Comparison

Feature	Feature ID(s)	Comparison with Previous Inspection
Settlement	N	No significant change from 2018
Erosion	A, A1, A2, A3, A4 *D* **F** E, G, H, L, P, Q	No significant change from 2017 *Smaller area than 2018* **Not observed due to snow cover** Not observed in 2023, self-armoured
Lateral Movement	none	N/A
Frost Action	none	N/A
Sloughing	none	N/A
Cracking	I *K, M* **U**	Not observed in 2023 *Barely visible, healed* **New in 2023**
Animal Burrows	none	N/A
Ponded Water	none	N/A
Seepage	C	Not observed in 2023
Staining	none	N/A
Vegetation Establishment	O	Vegetation is relatively evenly spaced over the surface of the landfill, increased in 2023
Vegetation Stress	none	N/A
Debris and/or Liner Exposure	none	N/A
Other	T	New in 2023 (overland flow)

No significant changes have been noted in comparison to previous inspections with the exception of three new erosion features, overland flow along the northeast slope and one new cracking feature. Features E, I, G, H, L, P, Q and C were not observed. There has been an increase in vegetation since the last inspection. Based on this comparison, a landfill performance of Acceptable is still considered appropriate.

12.3.4 Soil Sampling Results

Soil results were compared to the baseline with variation for the discussion provided in **Table 78** below. Background and baseline arithmetic means are included for information purposes. Analytical tables and graphs can be found in **Appendix D**. **Figure 9c** shows monitoring well and soil locations.

Table 78: Upper Site West Landfill- West Lobe Soil Sampling Results

Parameter	Background Data (mg/kg)	Baseline Data (mg/kg)	Baseline Data with Variation (mg/kg)	Discussion
Arsenic	1	1	3	Downgradient DM-38-D exceed BL+V. Other results were below BL+V at upgradient and downgradient locations
Cadmium	1	1	3	Downgradient DM-38-D exceed BL+V. Other results were below BL+V at upgradient and downgradient locations
Chromium	89.75	139.35	405.27	All results were below BL+V at upgradient and downgradient locations
Cobalt	19.7	16.39	37.75	Downgradient DM-38-D exceed BL+V. Other results were below BL+V at upgradient and downgradient locations
Copper	60.4	67.87	157.43	Downgradient DM-38-D exceed BL+V. Other results were below BL+V at upgradient and downgradient locations
Lead	10	13.43	63	Downgradient DM-38-D exceed BL+V. Other results were below BL+V at upgradient and downgradient locations
Nickel	141.27	62.78	218.24	Downgradient DM-38-D exceed BL+V. Other results were below BL+V at upgradient and downgradient locations
Zinc	70.09	116.66	259.21	All results were below BL+V at upgradient and downgradient locations
Total PCB	0.0002	0.1	0.3	All results were below BL+V at upgradient and downgradient locations
F1 (C_6-C_{10})	N/A	10	30	All results were below BL+V at upgradient and downgradient locations
F2 (C_{10}-C_{16})	N/A	10	30	All results were below BL+V at upgradient and downgradient locations
F3 (C_{16}-C_{34})	N/A	50	150	All results were below BL+V at upgradient and downgradient locations
F4 (C_{34}-C_{50})	N/A	50	150	All results were below BL+V at upgradient and downgradient locations

Note:
Baseline Data with Variation = [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]

DM-38, a downgradient soil sampling location, had exceedances of several metals parameters in the deep sample (0.4-0.5 mbgs), shown in **Table 79** below.

Table 79: Upper Site West Landfill – West Lobe Soil Sampling – Results Above BL+V

Parameter	Baseline Data with Variation (mg/kg)	DYE-M Upper Site Site-Specific Criteria (mg/kg)	DM-38-D (mg/kg)
Arsenic	3	30	**230**
Cadmium	3	5	**229**
Cobalt	37.25	153	**223**
Copper	157.43	296	**236**
Lead	0.3	500	**243**
Nickel	218.24	2010	**251**

Concentrations of arsenic, cadmium, cobalt, copper, lead, and nickel in the deep downgradient soil sample DM-38 are all above the BL+V criteria and represent new maximum concentrations for a downgradient location at this landfill. Golder Inc. noted in the 2018 DYE-M long term monitoring report that landfill influence, or pre-existing impacts, may be present at DM-38. Only one deep soil sample has been successfully collected at DM-38 during past monitoring events (in 2014), and as such there isn't enough information to assess whether the 2023 results are anomalous, reflective of pre-existing conditions at depth, or represent landfill influence downgradient of the West Lobe of the Upper Site West Landfill. The analytical record for the shallow interval at DM-38 is complete, and 2023 metals results from this soil sample are comparable or less than historical values.

Copper concentrations at upgradient location DM-35 (surface and deep) were elevated with respect to previous sampling events at 88.1 and 110 mg/kg, respectively, but still below BL+V; these represents a new maximum for copper concentrations at this upgradient location at the landfill. Zinc concentrations at upgradient location DM-35 (surface and deep) were elevated with respect to previous sampling events at 172 and 202 mg/kg, respectively, but still below BL+V; these represent a new maximum for zinc concentrations at this upgradient location at the landfill.

12.4 CONCLUSIONS AND OVERALL LANDFILL PERFORMANCE

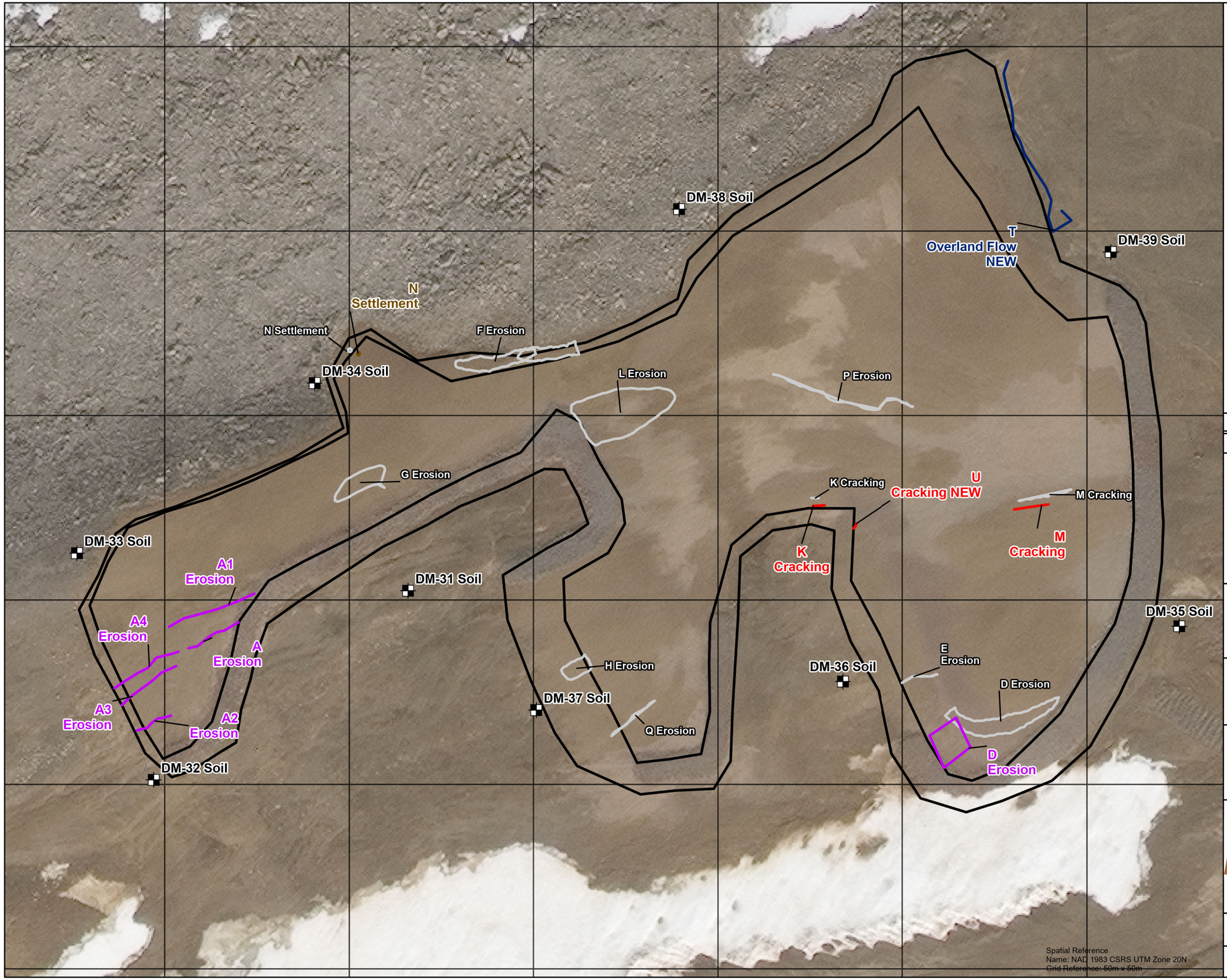
Soil samples were collected at all nine scheduled locations at shallow and deep depths. The deep sample had notable exceedances for arsenic, cadmium, cobalt, copper, lead, and nickel concentrations. Given the lack of samples from this location during past monitoring events, additional data is required to assess whether the elevated concentrations are related to potential impacts from the landfill.

The preliminary stability assessment resulted in a rating of Acceptable. Based on the above information, an overall landfill performance of Acceptable is still considered appropriate. The landfill does not appear to be impacting the surrounding environment.

12.5 RECOMMENDATIONS

Arsenic, cadmium, copper, nickel, and lead results, particularly at DM-38, should be reviewed in the next monitoring event to determine if the 2023 concentrations of these parameters were anomalous or could reflect landfill influence, or pre-remediation impacts at depth.

Based on the results of the visual inspection, and soil sampling program, the landfill should continue to be monitored as per the SOW.



LEGEND

- Soil Sample
- 2018 Features (Golder)
- Cracking
- Erosion
- Water
- Erosion
- Settlement
- Landfill Crest / Toe

Note:
Feature O - Sparse vegetation over entire cover surface and slopes of landfill, increase in density from 2018

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

PROPRIETARY INFORMATION MAY NOT BE REPRODUCED OR DIVULGED WITHOUT PRIOR WRITTEN CONSENT OF BLUMETRIC ENVIRONMENTAL INC.
DO NOT SCALE DRAWING.
THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS.

N W E S

0 20 40 Metres

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CLIENT

Defence Construction Canada

PROJECT

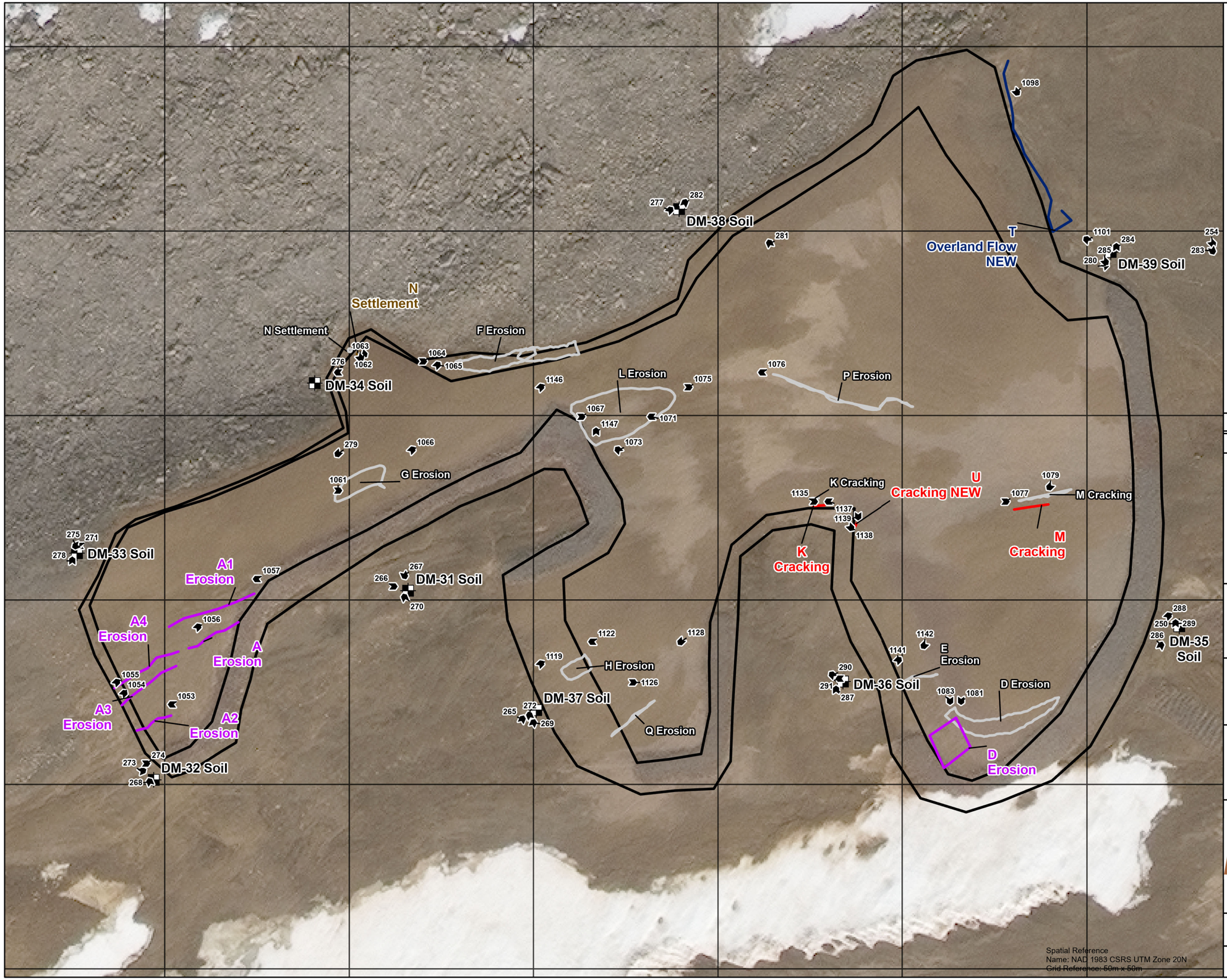
2023 DYE-M Landfill Monitoring Program

TITLE

Upper Site West Landfill (West Lobe) - Visual Inspection

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*		
230394	**March 19, 2024**		
DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**09a**	**0**



REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

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CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Upper Site West Landfill (West Lobe) - Photolog Locations

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	DATE
230394	March 19, 2024

DRAWN	CHECKED	FIG NO.	REV
EB	HW	09b	0

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Parameter	Baseline Data With Variation (mg/kg)	DM-38-D (mg/kg)
Arsenic	3	**230**
Cadmium	3	**229**
Cobalt	37.25	**223**
Copper	157	**236**
Lead	0.3	**243**
Nickel	218.2	**251**

DM-38 Soil

DM-39 Soil

DM-34 Soil

DM-33 Soil

DM-31 Soil

DM-35 Soil

DM-36 Soil

DM-37 Soil

DM-32 Soil

Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

LEGEND

- Soil Sample
- Sample Exceeds Baseline + Variation
- Sample Does Not Exceed Baseline + Variation
- Landfill Crest / Toe

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

PROPRIETARY INFORMATION MAY NOT BE REPRODUCED OR DIVULGED WITHOUT PRIOR WRITTEN CONSENT OF BLUMETRIC ENVIRONMENTAL INC.
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N W E S

0 20 40 Metres

1:1,000

CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Upper Site West Landfill (West Lobe) - Environmental Results

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*
230394	**March 25, 2024**

DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**09c**	**0**

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13 UPPER SITE WEST LANDFILL- CENTRE AND EAST LOBES

13.1 LANDFILL DESCRIPTION

The Upper Site West Landfill – Centre and East Lobes have an approximate footprint of 32,000 m^2 and is located 800 m west of the Station Area on the north side of the access road. Construction of this landfill involved complete excavation of some areas with regrading the remainder between 2008 and 2012.

13.2 SUMMARY OF WORK CONDUCTED

A visual inspection and environmental soil sampling were completed at the Upper Site West Landfill – Centre and East Lobes. A total of 29 environmental soil samples, including three duplicate samples were collected.

13.2.1 Visual Inspection

A visual inspection of the Upper Site West Landfill – Centre and East Lobes was completed with no issues or deviations from the SOW, with inspection details shown in **Table 80** below. Features identified during the visual inspection are shown in **Figure 10a**.

Table 80: Upper Site West Landfill – Centre and East Lobes Visual Inspection Checklist

Site Name	DYE-M
Landfill Designation / Type	Upper Site West Landfill – Centre and East Lobes / Regraded
Date of Inspection	August 26, 2023
Date of Previous Inspection	August 13, 2018
Weather	3-8 ^oC, winds 5-12 km/hr, cloudy, light rain
Inspected by	Brent Hay
DGPS Information (Make/model, accuracy, UTM zone)	Stonex S900-A, H=8mm, V=15mm, UTM Zone 20N
Landfill Surface Area (m^2)	32,000 m^2

13.2.2 Soil Sampling

A total of 13 test pits were advanced and consisted of the collection of 29 soil samples including three duplicate samples. Photos taken before, during and after soil samples are provided on the photo sheet, with their locations shown in **Figure 10b**. Sample locations are shown on the site plan presented on **Figure 10c**. A summary of the test pits is provided in **Table 81** below.

Table 81: Upper Site West Landfill- Centre and East Lobe Test Pitting Details

Soil Sampling Location	Sample ID	Sample Depth (mbgs)	Soil Notes
DM-40	DM-40-S	0.10-0.15	GW: Well graded gravel, brown
	DM-40-D	0.4-0.5	SW: Well graded sand, 20% gravel, brown/grey
DM-41	DM-41-S	0.10-0.15	GW: Well graded gravel, brown
	DM-41-D	0.45-0.55	GW: Well graded gravel, brown
DM-42	DM-42-S	0.10-0.15	GP: Large gravel, <10% sand matrix, no fines, brown
	DM-42-D	0.4-0.45	GP: Large gravel, <10% sand matrix, no fines, brown
DM-43	DM-43-S	0.10-0.3	GP: Large gravel, <10% sand matrix, no fines, brown
	DM-43-D	0.4-0.5	GP: Large gravel, <10% sand matrix, no fines, brown
DM-44	DM-44-S	0.1-0.2	GP: Large gravel, <20% sand matrix, brown
	DM-44-D	0.45-0.5	Wet. GP: Large gravel, <10% sand matrix, brown
DM-45	DM-45-S	0.10-0.15	GP: Large gravel with 30% sand brown matrix
	DM-45-D	0.45-0.55	SP: Medium brown sand with <20% large gravel
	MW23-5-160		
DM-46	DM-46-S	0.05-0.10	GP: Large gravel with 20% brown medium sand
	DM-46-D	0.45-0.5	SP: Medium brown sand with 20%, <2 cm gravel
DM-47	DM-47-S	0.1-0.15	GP: Large gravel with 20% brown medium sand
	DM-47-D	0.45-0.5	SP: Medium brown sand with 20%, <2 cm gravel
DM-48	DM-48-S	0.05-0.10	SP: Medium brown sand, gray gravel <20%
	DM-48-D	0.45-0.55	SP: Same as shallow
DM-49	DM-49-S	0.05-0.10	GP: Large gravel with 20% medium brown sand
	DM-49-D	0.5-0.55	GP: Large gravel with 30% medium brown sand
DM-50	DM-50-S	0.05-0.10	SW: Sand with gravel, brown
	DM-50-D	0.40-0.5	SW: Sand with gravel, brown
	MW23-5-80		
DM-51	DM-51-S	0.1-0.15	SW: Sand with gravel, brown
	DM-51-D	0.45-0.5	SW: Sand with gravel, brown
	MW23-5-70		
DM-52	DM-52-S	0.10-0.15	SW: Sand with gravel, brown
	DM-52-D	0.45-0.5	SW: Sand with gravel, brown

13.2.3 Groundwater Sampling

Groundwater monitoring wells were not installed as part of the remediation program at the Upper Site West Landfill – Centre and East Lobes; therefore, no groundwater sampling was required during the 2023 monitoring program.

13.2.4 Thermal Monitoring

Thermistors were not installed as part of the remediation program at the Upper Site West Landfill – Centre and East Lobes; therefore, no thermistor monitoring was required during the 2023 monitoring program. Soil thermal property monitoring with the TEMPOS was not a requirement for this landfill and therefore was not completed during the 2023 monitoring program.

13.3 RESULTS OF THE MONITORING PROGRAM

13.3.1 Visual Inspection Results

Results of the visual inspection are summarized in the Visual Inspection Checklist, provided in **Table 82**, below.

Table 82: Upper Site West Landfill – Centre and East Lobes Visual Inspection Table

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
Settlement	N	-	-	-	-	-	-	-	-	-	-	-
Erosion	Y	D	East slope and off landfill to road	571,731	7,395,089	39 (area)	6 (area)	0.1	<1	Self-armouring erosion area with fines washing out downslope (Acceptable)	Reduced area in 2018 (75 x 10 m in 2017)	(2018)
	N	D	East slope and off landfill to road	-	-	-	-	-	-	Surface is no different than rest of the landfill and vegetation is growing throughout. Self-armoured. Not actively eroding	Not observed in 2023, See Note 1	1027, 1028
	Y	E	North slope	571,632	7,395,088	15 (area)	5 (area)	0.1	<1	Self-armouring erosion area with one 0.3 m wide channel (Acceptable)	Unchanged dimensions in 2018. Becoming stabilized, only 1 erosion channel visible (2 visible during last inspection)	(2018)
	N	E	North slope	-	-	-	-	-	-	Fines have all washed away and surface is all consistent	Not observed in 2023, See Note 1	906, 911
	Y	F	North slope	571,558	7,395,091	16	0.5	0.05	<1	Self-armouring erosion transporting fines down slope (Acceptable)	Reduced length in 2018 (40 m long in 2017)	(2018)
	N	F	North slope	-	-	-	-	-	-	Fines have all washed away and surface is all consistent	Not observed in 2023, See Note 1	914, 915
	N	G	West slope	571,399	7,395,033	-	-	-	-	Self-armouring erosion	Stabilized. No longer considered a feature	(2018)
	N	G	West slope	-	-	-	-	-	-	Self-armouring erosion	Not observed in 2023, See Note 1	-
	Y	H	Cover surface	571,486	7,395,032	4	0.5	0.1	<1	Minor self-armouring erosion (Acceptable)	Reduced area in 2018 (10 x 3 m in 2017)	(2018)
	N	H	Cover surface	-	-	-	-	-	-	Self-armouring erosion	Not observed in 2023, See Note 1	963, 964
	Y	J	Cover surface	571,458	7,395,055	18 (area)	5 (area)	0.05	<1	Self-armouring erosion area, with transport of fines down slope (Acceptable)	Reduced area in 2018 (50 x 20 m in 2017)	(2018)
	N	J	Cover surface	-	-	-	-	-	-	Fines have all washed away and surface is consistent	Not observed in 2023, See Note 1	936, 937
	Y	K	West slope	571,402	7,395,054	20 (area)	5 (area)	0.05	<1	Self-armouring erosion area, with transport of fines down slope (Acceptable)	Expanded area in 2018 (10 x 5 m in 2017)	(2018)
	N	K	West slope	-	-	-	-	-	-	Fines have all washed away and surface is all consistent	Not observed in 2023, See Note 1	946, 947
	Y	N	South slope toe	571,609	7,395,026	27	1	0.15	<1	Self-armouring erosion transporting fines down slope (Acceptable)	Increased length, narrower in 2018 (17 x 4 m in 2017)	(2018)
	Y	N	South slope toe	571,627	7,395,028	75.98	0.1-0.3	<0.05	<1	Self-armouring erosion transporting fines down slope (Acceptable)	Increase in length, decreased width in 2023	983, 985-987
	Y	O	Cover surface	571,470	7,395,062	7	0.4	0.50	<1	Self-armouring erosion (Acceptable)	New in 2018	(2018)
	N	O	Cover surface	-	-	-	-	-	-	Fines have all washed away and surface is all consistent	Not observed in 2023, See Note 1	926
	Y	P	Cover surface	571,470	7,395,071	4 (area)	2.5 (area)	0.1	<1	Area with two erosion channels each 0.5 m wide (Acceptable)	New in 2018	(2018)
	N	P	Cover surface	-	-	-	-	-	-	Fines have all washed away and surface is all consistent	Not observed in 2023, See Note 1	926

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
	Y	Q	Cover surface	571,501	7,395,041	3	0.5	0.1	<1	Self-armouring erosion (Acceptable)	New in 2018	(2018)
	N	Q	Cover surface	-	-	-	-	-	-	Fines have all washed away and surface is all consistent	Not observed in 2023, See Note 1	966, 967
	Y	R	Cover surface	571,536	7,395,038	20 (area)	5 (area)	0.05	<1	Self-armouring erosion with fines transport down slope (Acceptable)	New in 2018	(2018)
	N	R	Cover surface	-	-	-	-	-	-	Fines have all washed away and surface is all consistent	Not observed in 2023, See Note 1	-
	Y	V	Cover surface	571,528	7,395,091	20.88	0.2	0.13	<1	Self-armouring erosion with fines transport down slope (Acceptable)	New in 2023	918, 921
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
Cracking	Y	B	North slope	571,664	7,395,119	9	0.1	0.05	<1	Tension crack (Acceptable)	Unchanged since previous observation	(2018)
	Y	B	North slope	571,686	7,395,121	15.0	0.05-0.125	0.05	<1	Tension crack (Acceptable)	Increase in length since 2018	1035, 1038, 1040
	N	I	Southwest corner	571,396	7,395,010	-	-	-	-	Thaw creep cracks	Not observed in 2018	(2018)
	N	I	Southwest corner	-	-	-	-	-	-	Thaw creep cracks	Not observed in 2023	-
	Y	T	Cover surface	571,500	7,395,000	10	0.1	-	<1	Weathered crack (Acceptable)	New in 2018	(2018)
	Y	T	Cover surface	571,500	7,395,000	11.6	0.1	0.03	<1	Weathered crack (Acceptable)	No significant change since 2018	968, 970
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation	Y	X1	Centre Lobe A Cover surface and slopes	571,661	7,394,998	46	55	-	100	Sparse vegetation over cover surface and slopes of landfill (Acceptable)	New in 2023 - sparse vegetation everywhere, see photos of 'representative vegetation'. Dimensions provided are for footprint of landfill given ubiquitous nature of the vegetation.	971, 990, 1041, 1042
	Y	X2	Centre Lobe cover surface and slopes	571,522	7,395,050	263	146		100	Sparse vegetation over cover surface and slopes of landfill (Acceptable)	New in 2023 - sparse vegetation everywhere, see photos of 'representative vegetation'. Dimensions provided are for footprint of landfill given ubiquitous nature of the vegetation.	971, 990, 1041, 1042
	Y	X3	East Lobe cover surface and slopes	571,699	7,395,091	84	80		100	Sparse vegetation over cover surface and slopes of landfill (Acceptable)	New in 2023 - sparse vegetation everywhere, see photos of 'representative vegetation'. Dimensions provided are for footprint of landfill given ubiquitous nature of the vegetation.	971, 990, 1041, 1042
Staining	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
Ponded Water	Y	S	South slope toe	571,562	7,395,017	19	5	0.15	<1	Ponding water (Acceptable)	New in 2018	(2018)

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
	Y	S	South slope toe	571,563	7,395,016	25.06	4.47	0.10	<1	Ponded water (Acceptable)	No significant change since 2018	976, 979
	Y	W	South toe	571,538	7,394,994	8.34	6.59	0.20	<1	Ponded water (Acceptable)	New in 2023, due to recent rain	972, 975
	Y	U	Centre lobe	571,666	7,394,981	15.73	4.63	Nil-0.075	<1	Ponded water (Acceptable)	New in 2023, due to recent rain	1020, 1021
Seepage	N	-	-	-	-	-	-	-	-	-	-	-
Debris and/or Liner Exposed	N	-	-	-	-	-	-	-	-	-	-	-
Presence / Condition of Monitoring Instruments	N	-	-	-	-	-	-	-	-	-	-	-
Features of Note / Other Observations	Y	L	Centre Lobe A Cover surface	571,662	7,394,988	33	16	-	1.8	Rough, uneven surface (Acceptable)	Larger dimensions in 2018 due to field interpretation (25 x 15 in 2017) but considered unchanged	(2018)
	Y	L	Centre Lobe A Cover surface	571,662	7,394,988	35.75	18	N/A	2.0	Area of coarser material	Not erosion, landfill is in excellent condition, no reason this should be considered a feature	1000, 1005, 1009
	N	M	Centre Lobe A	-	-	-	-	-	-	Tire tracks	No longer considered a feature	(2018)
	N	M	Centre Lobe A	-	-	-	-	-	-	Tire Tracks	No longer considered a feature	-
	N	A & C	-	-	-	-	-	-	-	Not assigned	A & C not assigned in 2018, 2023	-

Landfill Area ~ 32,000 m^2.

General Comments: Landfill is in excellent (Acceptable) condition. Areas of the landfill appear wet at the surface due to recent rain, several 'soft' areas throughout where footprints (<10 mm) could be left, again due to the recent rains.

Note 1 - Multiple areas where overland flow has washed fines downslope. The features observed in 2018 are largely no longer present and the area has self-armoured.

Note 2 - Rows with grey text are features from the 2018 DYE-M report and are also identified with (2018) in the photos column.

13.3.2 Preliminary Stability Assessment

Based on the results of the visual assessment, the landfill is in excellent condition and the Upper Site West Landfill – Centre and East Lobes has been given an overall performance of Acceptable. The preliminary stability assessment is summarized in **Table 83.**

Table 83: Upper Site West Landfill – Centre and East Lobes Preliminary Stability Assessment

Feature	Severity Rating	Extent
Settlement	Not Observed	None
Erosion	Acceptable	Occasional
Lateral Movement	Not Observed	None
Frost Action	Not Observed	None
Sloughing	Not Observed	None
Cracking	Acceptable	Occasional
Animal Burrows	Not Observed	None
Ponded Water	Acceptable	Occasional
Seepage	Not Observed	None
Staining	Not Observed	None
Vegetation Establishment	Acceptable	Extensive
Vegetation Stress	Not Observed	None
Debris and/or Liner Exposure	Not Observed	None
Other	Not Observed	None
Overall Landfill Performance	**Acceptable**	

Photographs obtained during the visual inspection provided electronically in the photolog. Feature locations and photographic locations are shown on **Figure 10a** and **Figure 10b,** respectively.

13.3.3 Visual Inspection Trend Analysis

A comparison of the visual inspection results from the current and previous program(s) was completed to assess if any trends are present. The results of this assessment are provided in **Table 84** below.

Table 84: Upper Site West Landfill – Centre and East Lobes Historical Inspection Comparison

Feature	Feature ID(s)	Comparison with Previous Inspection
Settlement	none	N/A
Erosion	D, E, F, G, H, J, K, O, P, Q, R *N* **V**	Not observed in 2023, self-armoured *Increased length in 2023* **New in 2023**
Lateral Movement	none	N/A
Frost Action	none	N/A
Sloughing	none	N/A
Cracking	B *I* **T**	Increased length in 2023 *Not observed in 2023* **No significant change**
Animal Burrows	none	N/A
Ponded Water	S *U, W*	No significant change *New in 2023*
Seepage	none	N/A
Staining	none	N/A
Vegetation Establishment	X1+X2+X3	Vegetation is relatively evenly spaced over the surface of the landfill, increased in 2023
Vegetation Stress	none	N/A
Debris and/or Liner Exposure	none	N/A
Other	L	Reclassified as rough grading in 2023

No significant changes have been noted in comparison to previous inspections with the exception of ponded water in two locations and cracks which extended in length or are new. Several features previously noted as erosion are no longer present due to self-armouring. Cracking Feature I was not observed. There has been an increase in vegetation since the last inspection. Based on this comparison, a landfill performance of Acceptable is still considered appropriate.

13.3.4 Soil Sampling Results

Soil results were compared to the baseline with variation for the discussion provided in **Table 85** below. Background and baseline arithmetic means are included for information purposes. Analytical tables can be found in **Appendix D**. **Figure 10c** shows monitoring well and soil locations.

Table 85: Upper Site West Landfill- West Lobe Soil Sampling Results

Parameter	Background Data (mg/kg)	Baseline Data (mg/kg)	Baseline Data with Variation (mg/kg)	Discussion
Arsenic	1	1	3	Upgradient MW23-S-80 (duplicate of DM-50-D) and downgradient DM-48 exceeded BL+V. Other results were below BL+V at upgradient and downgradient locations
Cadmium	1	1	3	All results were below BL+V at upgradient and downgradient locations
Chromium	89.75	139.35	405.27	Downgradient DM-48-S exceeded BL+V. All other results were below BL+V at upgradient and downgradient locations
Cobalt	19.7	16.39	37.75	Downgradient DM-45-S exceeded BL+V. All other results were below BL+V at upgradient and downgradient locations
Copper	60.4	67.87	157.43	All results were below BL+V at upgradient and downgradient locations
Lead	10	13.43	63	All results were below BL+V at upgradient and downgradient locations
Nickel	141.27	62.78	218.24	Downgradient DM-48-S exceeded BL+V. Other results were below BL+V at upgradient and downgradient locations
Zinc	70.09	116.66	259.21	All results were below BL+V at upgradient and downgradient locations
Total PCB	0.0002	0.1	0.3	Upgradient DM-47-S exceeded BL+V. All results were below BL+V at upgradient and downgradient locations
F1 (C_6-C_{10})	N/A	10	30	All results were below BL+V at upgradient and downgradient locations
F2 (C_{10}-C_{16})	N/A	10	30	Upgradient DM-47-S and DM-51-D exceeded BL+V. All other results were below BL+V at upgradient and downgradient locations
F3 (C_{16}-C_{34})	N/A	50	150	Upgradient DM-47-S and DM-51-D, and downgradient DM-52 exceeded BL+V. All other results were below BL+V at upgradient and downgradient locations
F4 (C_{34}-C_{50})	N/A	50	150	All results were below BL+V at upgradient and downgradient locations

Note:
Baseline Data with Variation = [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]

Exceedances of BV+L criteria were detected at downgradient locations DM-45 and DM-48, as well as at upgradient locations DM-47, DM-50, DM-51, and DM-52 are provided in **Table 86** below.

Table 86: Upper Site West Landfill – Centre and East Lobe Soil Sampling – Results Above BL+V

Parameter	Baseline Data with Variation (mg/kg)	DYE-M Upper Site Site-Specific Criteria (mg/kg)	DM-45-S (mg/kg	DM-47-S (mg/kg)	DM-48-S (mg/kg)	DM-48-D (mg/kg)	MW23-S-80 (mg/kg) *(DM-50-D duplicate)*	DM-51-D (mg/kg)	MW23-S-70 (mg/kg)	DM-52-S (mg/kg)	DM-52-D (mg/kg)
Arsenic	3	30	0.76	1.46	**18.8**	**15.7**	**3.05**	1.21	1.07	0.52	0.39
Chromium	405.27	513*	159	155	**451**	230	257	110	115	67.30	72.50
Cobalt	37.75	153	**38.2**	13.8	37.1	30.2	17	12.1	11.4	26.30	28.0
Nickel	218.24	2010	120	70	**333**	207	78.9	51.9	44.8	142.0	168.0
Total PCB*	0.3	5	<0.010	**1**	<0.010	<0.010	<0.010	<0.010	<0.010	0.024	0.063
PHC F2	30	--	<10	**180**	<10	<10	<10	**180**	**81**	<10	<10
PHC F3	150	--	<50	**530**	<50	<50	<50	**750**	**370**	**230**	**250**

Note:
bold = exceeds BL+V; * = Site-specific target level applies for Upper Site West Landfill only

Cobalt concentrations in downgradient soil sampling location DM-45 had an BL+V exceedance of 38.2 mg/kg, marginally over the BL+L, and concentrations just below BL+V at downgradient location DM-48. DM-48 also has BL+V exceedances for arsenic, chromium and nickel concentrations in the shallow sample, and arsenic concentration exceedance in the deep sample. The concentrations of arsenic, chromium, cobalt, nickel that exceed the BL+V criteria at the upgradient MW23-S-80 (duplicate of DM-50-D) location and downgradient sampling locations are all below the respective DYE-M Upper Site Site-Specific Criteria, and are similar to, or lower than, the results from previous monitoring events. PHC F3 exceedances of BL+V are also present at downgradient location DM-52 (surface and deep samples). PHC F3 has been detected at this location during past monitoring events, but 2023 is the first year PHC F3 exceeded at this location at 230 mg/kg and 250 mg/kg not significantly over the BL+V value of 150 mg/kg.

Golder Inc. noted in the 2018 DYE-M long term monitoring report that landfill influence, or pre-existing impacts, may be present downgradient of the Upper Site West Landfill, particularly at DM-48. The 2023 results suggest that concentrations are stable or decreasing downgradient of the landfill. Trend calculations will be possible after the next monitoring event and will assist with determining whether the landfill is adversely impacting the surrounding soil or if there are residual, pre-existing impacts north of the Upper Site West Landfill.

The concentration of Total PCB at upgradient location DM-47 (shallow sample) exceeds BL+V criteria at 1.0 mg/kg and represents a new maximum Total PCB concentration for these landfills but is still below the DYE-M Upper Site Site-Specific Criteria for Total PCBs (5.0 mg/kg). Soil sample MW23-S-80 is a duplicate of DM-50-D and had an arsenic concentration of 3.05 mg/kg, marginally above BL+V. Neither of these exceedances are a concern at this time.

PHC fractions F2 and F3 are above BL+V in samples from upgradient locations DM-47 (shallow), and DM-51 (deep). The highest historical concentration of PHC F2 was recorded at DM-47 with a concentration of 3,000 mg/kg, and the 2023 PHC F2 concentrations well below at 180 mg/kg PHC F2 in both DM-47 and DM-51. The PHC F3 concentration in DM-51 (deep) represents a new maximum for this landfill at 750 mg/kg, and the concentration in soil sample DM-47 (shallow) is also above the previous historical maximum. The elevated PHC F2 and F3 concentrations are found in upgradient sample locations and are likely not a result of influence from the landfill. The 2023 PHC concentrations at DM-47, and DM-51 are not a concern at this time.

All other results were at or below the maximum historical long-term monitoring values for this landfill.

13.4 CONCLUSIONS AND OVERALL LANDFILL PERFORMANCE

Soil samples were collected at all thirteen scheduled locations at shallow and deep depths. Exceedances of BL+V criteria were noted at three downgradient soil sampling locations but there was no overlap in exceeding parameters between these locations. Exceeding parameters at downgradient locations were arsenic, chromium, cobalt, nickel and PHC F3. The 2023 concentrations of the metals parameters are all below the respective DYE-M Upper Site Site-Specific Criteria, and are similar to, or lower than, the results from previous monitoring events. The 2023 results suggest that metals concentrations are stable or decreasing downgradient of the landfill. The exceeding PHC F3 concentrations are not significantly over the BL+V value.

Exceedances of BL+V criteria were noted at four upgradient soil sampling locations.

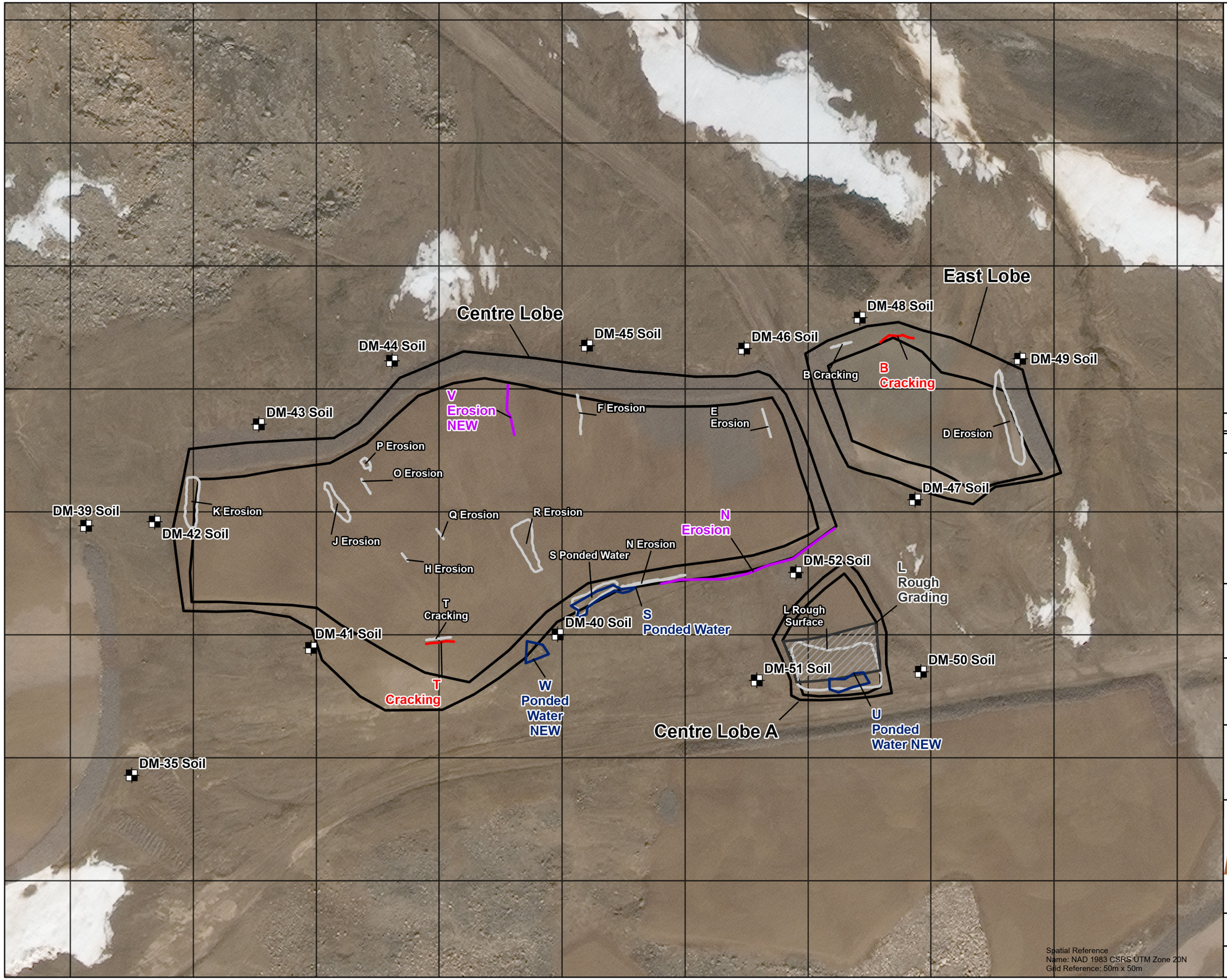
Based on the results of the 2023 soil sampling program, and in comparison, to results from previous monitoring events, contaminant migration from the landfill is not suspected at this time.

The preliminary stability assessment resulted in a rating of Acceptable. Based on the above information, an overall landfill performance of Acceptable is still considered appropriate. The landfill does not appear to be impacting the surrounding environment.

13.5 RECOMMENDATIONS

Arsenic, chromium, cobalt, nickel, Total PCBs and PHC fractions F2 and F3 should be reviewed at future monitoring events.

Based on the results of the visual inspection, and soil sampling program, the landfill should continue to be monitored as per the SOW.



LEGEND

- Soil Sample
- 2018 Features (Golder)
- Cracking
- Erosion
- Notable Feature
- Water
- Landfill Crest / Toe

Note:
Feature X1 - X3 - Sparse vegetation over surface and slopes of all landfill lobes, new in 2023

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

PROPRIETARY INFORMATION MAY NOT BE REPRODUCED OR DIVULGED WITHOUT PRIOR WRITTEN CONSENT OF BLUMETRIC ENVIRONMENTAL INC. DO NOT SCALE DRAWING. THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS.

N W E S

0 35 70 Metres

1:1,500

CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Upper Site West Landfill (Centre Lobe, East Lobe) -Visual Inspection

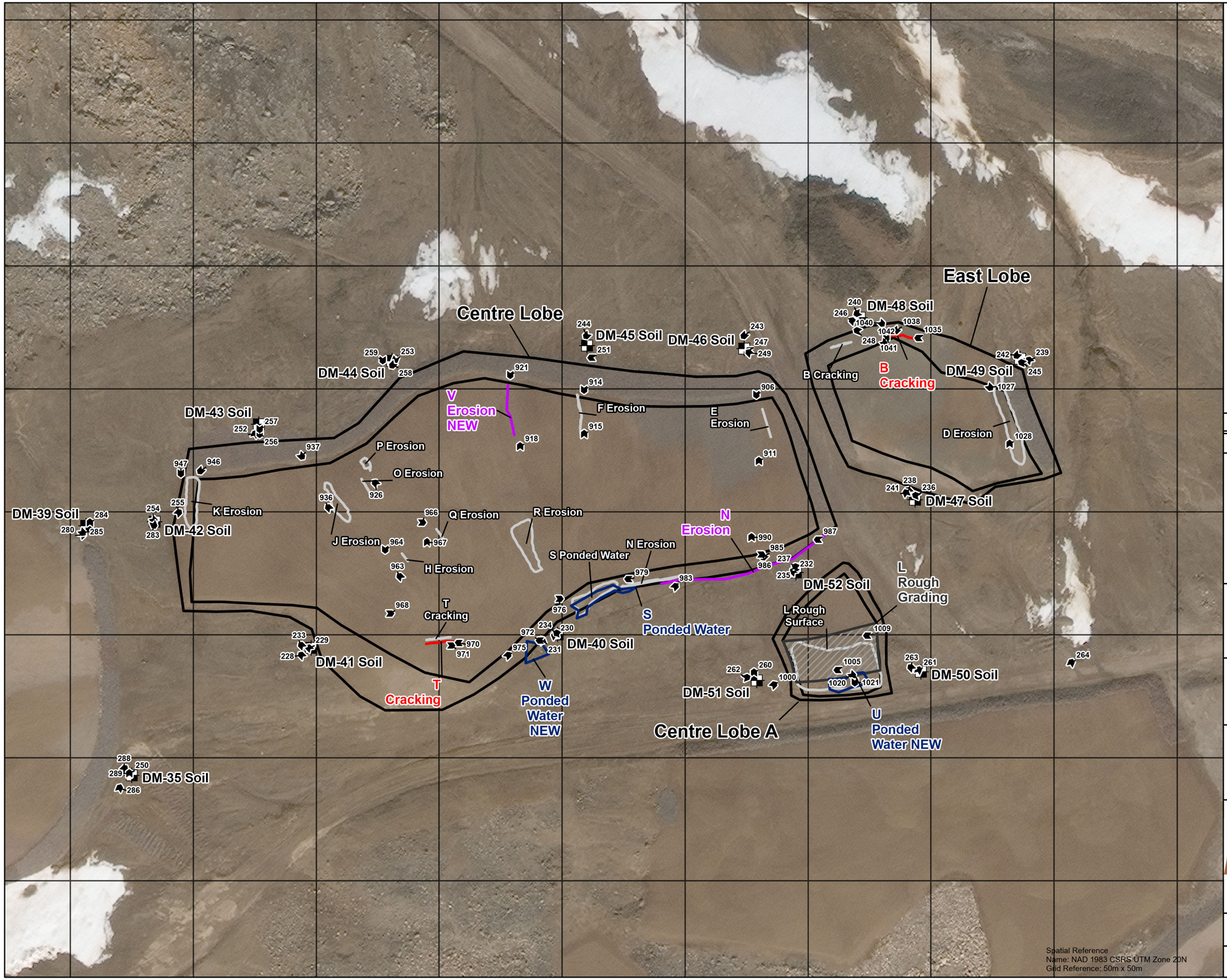
BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	DATE
230394	March 18, 2024

DRAWN	CHECKED	FIG NO.	REV
EB	HW	10a	0

Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

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LEGEND

- Soil Sample
- Photolog Locations
- 2018 Features (Golder)
- Cracking
- Erosion
- Notable Feature
- Water
- Landfill Crest / Toe

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

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N W E S

0 35 70 Metres

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CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Upper Site West Landfill (Centre Lobe, East Lobe) - Photolog Locations

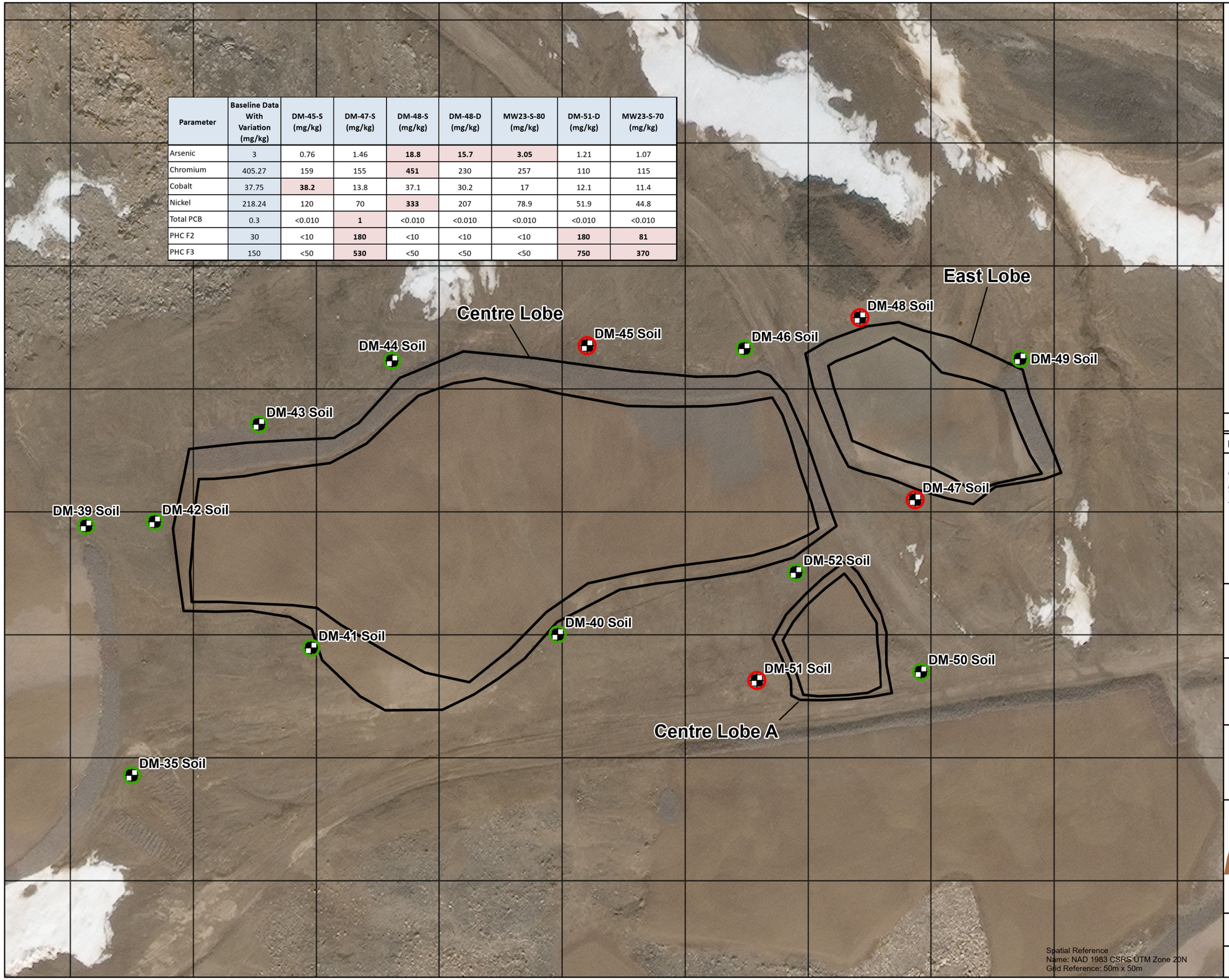
BLM-KEL-60
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BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*		
230394	**March 18, 2024**		
DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**10b**	**0**

Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

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Parameter	Baseline Data With Variation (mg/kg)	DM-45-S (mg/kg)	DM-47-S (mg/kg)	DM-48-S (mg/kg)	DM-48-D (mg/kg)	MW23-S-80 (mg/kg)	DM-51-D (mg/kg)	MW23-S-70 (mg/kg)
Arsenic	3	0.76	1.46	**18.8**	**15.7**	**3.05**	1.21	1.07
Chromium	405.27	159	155	**451**	230	257	110	115
Cobalt	37.75	**38.2**	13.8	37.1	30.2	17	12.1	11.4
Nickel	218.24	120	70	**333**	207	78.9	51.9	44.8
Total PCB	0.3	<0.010	**1**	<0.010	<0.010	<0.010	<0.010	<0.010
PHC F2	30	<10	**180**	<10	<10	<10	**180**	**81**
PHC F3	150	<50	**530**	<50	<50	<50	**750**	**370**



Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

LEGEND

- Soil Sample
- Sample Exceeds Baseline + Variation
- Sample Does Not Exceed Baseline + Variation
- Landfill Crest / Toe

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

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N W E S

0 35 70 Metres

1:1,500

CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Upper Site West Landfill (Centre Lobe, East Lobe) - Environmental Results

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*		
230394	**March 25, 2024**		
DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**10c**	**0**

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14 UPPER SITE PALLET LINE LANDFILL

14.1 LANDFILL DESCRIPTION

The Upper Site Pallet Line Landfill has a total approximate footprint of 49,330 m^2 and is located approximately 800 m west of the Station Area on the south side of the access road. The landfill consists of six lobes (Lobe 1, Lobes 2, 3 and 4 which are amalgamated and Lobe 5). The landfill was created during DEW Line operation and regraded with clean fill in 2008 and 2009.

14.2 SUMMARY OF WORK CONDUCTED

A visual inspection and environmental soil sampling were completed at the Upper Site Pallet Line Landfill. A total of 22 environmental soil samples, including two duplicate samples were collected.

14.2.1 Visual Inspection

A visual inspection of the Upper Site Pallet Line Landfill was completed with no issues or deviations from the SOW, with inspection details shown in **Table 87** below. Features identified during the visual inspection are shown in **Figure 11a**.

Table 87: Upper Site Pallet Line Landfill Visual Inspection Checklist

Site Name	DYE-M
Landfill Designation / Type	Upper Site Pallet Line Landfill / Regraded
Date of Inspection	August 30, 2023
Date of Previous Inspection	August 12, 2018
Weather	6 to 12 ^oC, up to 30 winds km/hr, Sunny
Inspected by	Brent Hay
DGPS Information (Make/model, accuracy, UTM zone)	Stonex S900-A, H=8mm, V=15mm, UTM Zone 20N
Landfill Surface Area (m^2)	Lobe 1 = 21,600 m^2, Lobe 2, 3, 4 = 21,950 m^2, Lobe 5 = 940 m^2, Abandoned Lobe = 4,840 m^2

14.2.2 Soil Sampling

A total of 10 test pits were advanced and consisted of the collection of 22 soil samples, including one duplicate soil sample for QA/QC purposes. Photos taken before, during and after soil samples are provided on the photo sheet, with their locations shown in **Figure 11b**. Sample locations are shown on the site plan presented on **Figure 11c**. A summary of the test pits is provided in **Table 88** below.

Table 88: Upper Site Pallet Line Landfill Test Pitting Details

Soil Sampling Location	Sample ID	Sample Depth (mbgs)	Soil Notes
DM-53	DM-53- S	0.10-0.15	GW: Well graded brown gravel with sand matrix
	DM-54-D	0.45-0.5	GW: Well graded brown gravel with sand matrix
DM-54	DM-54-S	0.10-0.15	GP: <5 cm gravel and medium brown sand
	MW23-S-90		
	DM-54-D	0.45-0.55	SP: Medium brown sand, <30% gravel
DM-55	DM-55-S	0.10-0.15	SP: Medium brown sand, 10% gravel
	DM-55-D	0.45-0.55	SP: Medium brown sand, <10% gravel
DM-56	DM-56-S	0.10-0.15	SP: Medium brown sand, 10% gravel
	DM-56-D	0.45-0.55	SP: Medium brown sand, <20% gravel
DM-57	DM-57-S	0.10-0.15	SP: Medium brown sand, <10% gravel
	DM-57-D	0.45-0.55	SP: Medium brown sand, <10% gravel
DM-58	DM-58-S	0.10-0.15	SP: Medium brown sand, 10% gravel
	DM-58-D	0.45-0.55	SP: Medium brown sand, <10% gravel
DM-59	DM-59-S	0.10-0.15	SP: Medium brown sand, 10% gravel
	DM-59-D	0.45-0.55	SP: Medium brown sand, <20% gravel
DM-60	DM-60-S	0.05-0.1	GW: Well graded brown gravel
	DM-60-D	0.45-0.55	SP: Medium brown sand, 10% gravel
DM-61	DM-61-S	0.05-0.1	GW: Well graded gravel brown
	DM-61-D	0.45-0.55	SP: Medium brown sand,20% gravel
DM-62	DM-62-S	0.1-0.15	SP: Medium brown sand 10% gravel
	MW13-S-100		
	DM-62-D	0.45-0.55	SP: Medium brown sand, 20% gravel

14.2.3 Groundwater Sampling

Groundwater monitoring wells were not installed as part of the remediation program at the Upper Site Pallet Line Landfill; therefore, no groundwater sampling was required during the 2023 monitoring program.

14.2.4 Thermal Monitoring

Thermistors were not installed as part of the remediation program at the Upper Site Pallet Line Landfill; therefore, no thermistor monitoring was required during the 2023 monitoring program. Soil thermal property monitoring with the TEMPOS was not a requirement for this landfill and therefore was not completed during the 2023 monitoring program.

14.3 RESULTS OF THE MONITORING PROGRAM

14.3.1 Visual Inspection Results

Results of the visual inspection are summarized in the Visual Inspection Checklist, provided in **Table 89**, below.

Table 89: Upper Site Pallet Line Landfill Visual Inspection Table

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
Settlement	Y	U	Abandoned Lobe – toe of northeast slope	571,582	7,394,865	0.3 (each)	0.3 (each)	0.3	<1	Six small sinkholes at toe of slope. Dimensions are typical of each sinkhole (Acceptable)	Previously only 2 sinkholes identified in 2017	(2018)
	Y	U	Abandoned Lobe – toe of northeast slope	571,582	7,394,865	0.3 (each)	0.3 (each)	0.3	<1	Six small sinkholes at toe of slope. Dimensions are typical of each sinkhole (Acceptable)	No significant change. These are a result of coarser rock being used around the edges and migration of sand/gravel into voids over time. Suggest DND infill these holes with granular material.	1863, 1867
	Y	V	Abandoned Lobe – cover surface	571,565	7,394,869	11	5	0.1	<1	Uneven ground, potential settlement, some self-armouring erosion (Acceptable)	Narrower since previous observation. (10 x 10 m in 2017)	(2018)
	Y	V	Abandoned Lobe – cover surface	571,568	7,394,863	17.1	1.0	0.05	<1	Uneven ground, potential settlement, some self-armouring erosion (Acceptable)	Narrower and longer in 2023	1870, 1871
	Y	AN	Lobes 2, 3, & 4 southeast slope	571,861	7,394,835	0.5	0.5	0.15	<1	Minor settlement (Acceptable)	New in 2018	(2018)
	Y	AN	Lobes 2, 3, & 4 southeast slope	571,861	7,394,835	0.5	0.4	0.10	<1	Minor settlement (Acceptable)	No significant change from 2018	1817, 1820, 1821
	Y	AN1	Lobes 2, 3, & 4 southeast slope	571,861	7,394,835	0.3	0.2	0.10	<1	Minor settlement (Acceptable)	New in 2023	1817, 1820, 1821
	Y	AX	Lobes 2,3,4	571,897	7,394,845	8.3	3.5	0.05-0.15	<1	Area of 10 minor sinkholes (Acceptable)	New in 2023. Result of coarser rock being used around the edges and migration of sand/gravel into voids over time. Suggest DND infill these holes with granular material.	1814, 1816
	Y	AP	Lobes 2, 3, & 4 southeast slope	571,955	7,394,880	0.5	0.5	0.15	<1	Minor settlement with crack on north extent (Acceptable)	New in 2018	(2018)
	N	AP	Lobes 2, 3, & 4 southeast slope	-	-	-	-	-	-	Minor settlement with crack on north extent	Not observed in 2023	-
	Y	AQ	Lobe 1- cover surface	571,672	7,394,932	3	0.5	0.15	<1	Minor settlement (Acceptable)	New in 2018	(2018)
	Y	AQ	Lobe 1- cover surface	571,672	7,394,932	1.12	1.17	0.10	<1	Minor settlement (Acceptable)	No significant change since 2018, size difference due to interpretation	1746
	Y	AS	Lobes 2, 3, & 4 northeast slope	571,799	7,394,852	1	0.6	0.15	<1	Minor settlement (Acceptable)	New in 2018	(2018)

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
	Y	AS	Lobes 2, 3 and 4 – cover surface	571,799	7,394,852	1.41	0.5	0.025	<1	Minor settlement (Acceptable)	No significant change since 2018, size difference due to interpretation. Mislabeled Feature S in photos	1784
	Y	AZ	Abandoned Lobe – cover surface	571,576	7,394,831	3.60	0.5	0.01	<1	Minor settlement (Acceptable)	New in 2023. Mislabeled Feature AS in photos	1877, 1879
Erosion	N	A	Lobes 2, 3 and 4 – internal slope	571,810	7,394,822	-	-	-	-	Minor self-armouring erosion area	Not observed in 2018 due to snow cover (20 x 10 m in 2017)	(2018)
	N	A	Lobes 2, 3 and 4 – internal slope	-	-	-	-	-	-	Minor self-armouring erosion	Not observed in 2023. Same area as Feature AV (ponded water)	1780
	Y	B	Lobes 2, 3 and 4 – internal slope	571,787	7,394,784	13	0.5	0.1	<1	Minor self-armouring erosion (Acceptable)	Unchanged since previous observation	(2018)
	Y	B	Lobes 2, 3 and 4 – internal slope	571,787	7,394,784	25.2	1.0	0.1	<1	Minor self-armouring erosion (Acceptable)	Wider and longer than in 2018	1838, 1840
	Y	R	Lobes 2, 3 and 4 southeast slope	571,954	7,394,879	3	2	0.1	<1	Minor self-armouring erosion into boulders (Acceptable)	Reduced area (8 x 5 m in 2017)	(2018)
	N	R	Lobes 2, 3 and 4 – southeast slope	-	-	-	-	-	-	Minor self-armouring erosion into boulders	Not observed in 2023	1809
	Y	T	Lobes 2, 3 and 4 – southeast slope	571,844	7,394,822	13	5	0.05	<1	Self-armouring erosion (Acceptable)	Slightly shorter and wider since previous observation (15 x 0.5 m in 2017)	(2018)
	Y	T	Lobes 2, 3 and 4 – southeast slope	571,844	7,394,822	11.2	0.6	<0.025	<1	Self-armouring erosion (Acceptable)	Smaller area in 2023	1825, 1827
	Y	W	Lobe 1 – west slope	571,588	7,394,903	7	1	0.1	<1	Minor self-armouring erosion area (Acceptable)	Smaller area since previous observation (10 x 3 m in 2017)	(2018)
	Y	W	Lobe 1 – west slope	571,588	7,394,903	8.05	0.25	0.1	<1	Minor self-armouring erosion area (Acceptable)	Smaller area in 2023	1673, 1674
	N	AJ	Lobe 1 – cover surface	571,678	7,394,932	-	-	-	-	Self-armouring erosion channel	Not observed in 2018	(2018)
	N	AJ	Lobe 1 – cover surface	-	-	-	-	-	-	Self-armouring erosion channel	Not observed in 2023	-
	Y	AK	Lobes 2, 3 and 4 – cover surface	571,913	7,394,901	16	1	0.1	<1	Self-armouring (Acceptable)	Increased length since previous inspection (7 x 0.3 m in 2017)	(2018)

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
	Y	AK	Lobes 2, 3 and 4 – cover surface	571,913	7,394,901	6.96	1.00	0.05	<1	Self-armouring (Acceptable)	Smaller area in 2023	1799, 1800
Lateral Movement	Y	AU	Lobe 1 - Southeast Slope	571,782	7,394,881	7.35	4.83	0.125	<1	Head scarp and slump in the edge of landfill (Acceptable)	New in 2023	1712, 1714
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
Cracking	Y	C	Lobe 1 – west slope of the south side extension	571,729	7,394,866	1	0.03	0.01	<1	Minor weathered crack (Acceptable)	Shorter and nearly indistinguishable due to weathering (3 x 0.3 m in 2017)	(2018)
	N	C	Lobe 1 – west slope of the south side extension	-	-	-	-	-	-	Minor weathered crack	Not observed in 2023	1706
	Y	K	Lobe 1 – south slope	571,698	7,394,897	1.5	0.15	0.05	<1	Minor weathered crack (Acceptable)	Unchanged since previous observation	(2018)
	Y	K/L	Lobe 1 – south slope	571,707	7,394,899	22.7	0.03	<0.025	<1	Minor weathered crack (Acceptable)	Larger, K and L tie in together as one larger crack in 2023	1700, 1704
	Y	L	Lobe 1 – south slope	571,712	7,394,903	13	2	-	<1	Series of minor thaw cracks (Acceptable)	Expanded area (2 x 2 m in 2017)	(2018)
	Y	L/K	Lobe 1 – south slope	571,707	7,394,899	22.7	0	<0.025	<1	Series of minor thaw cracks (Acceptable)	Larger, K and L tie in together as one larger crack in 2023	1700, 1704
	Y	Q	Lobe 5 – south slope	571,991	7,394,914	10	2.5	-	2.7	Minor tension cracks and settlement (Acceptable)	Expanded area (3 x 0.1 m in 2017) with multiple tension cracks and minor settlement/sloughing	(2018)
	N	Q	Lobe 5 – south slope	-	-	-	-	-	-	Minor tension cracks and settlement	Not observed in 2023	1853
	N	AA	Lobe 1 – east slope	571,810	7,394,937	-	-	-	-	Tension crack	Not observed in 2017 or 2018	(2018)
	N	AA	Lobe 1 – east slope	-	-	-	-	-	-	Tension crack	Not observed in 2023	1719
	N	AB	Lobe 1 – east slope	571,816	7,394,923	-	-	-	-	Tension crack	Not observed in 2017 or 2018	(2018)
	N	AB	Lobe 1 – east slope	-	-	-	-	-	-	Tension crack	Not observed in 2023	1718
	N	AC	Lobe 1 – south slope	571,754	7,394,856	-	-	-	-	Tension crack	Not observed in 2017 or 2018	(2018)
	N	AC	Lobe 1 – south slope	-	-	-	-	-	-	Tension crack	Not observed in 2023	1709
	N	AD	Lobe 1 – south slope	571,681	7,394,878	-	-	-	-	Tension crack	Not observed in 2017 or 2018	(2018)

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
	Y	AD	Lobe 1 – south slope	571,674	7,394,873	5.27	<0.025	<0.025	<1	Partially self-healed tension crack (Acceptable)	Observed in 2023	1693, 1694
	N	AE	Lobe 1 – south slope	571,648	7,394,869	-	-	-	-	Tension crack on slope	Not observed in 2018	(2018)
	N	AE	Lobe 1 – south slope	-	-	-	-	-	-	Tension crack on slope	Not observed in 2023	1689
	N	AF	Lobe 1 – south slope	571,625	7,394,873	-	-	-	-	Tension crack at crest of slope	Not observed in 2018	(2018)
	Y	AF	Lobe 1 - south	571,617	7,394,874	18.4	0.030	0.025	<1	Tension crack at crest of slope (Acceptable)	Larger in length than in 2017 (10.0 x 0.1 x 0.02). Mislabeled Feature AT in photos	1684, 1687
	Y	AL	Lobes 2,3 and 4 – southeast slope	571,860	7,394,834	2.3	2.3	-	<1	Series of minor tension cracks (Acceptable)	Mainly wider since previous observation (2 x 0.01 m in 2017)	(2018)
	Y	AL	Lobes 2, 3 and 4 – southeast slope	571,860	7,394,834	8.09	2.56	25-175mm	<1	Area with series of minor tension cracks (Acceptable)	Larger in length in 2023	1822, 1824
	Y	AR	Lobes 2,3 and 4 – southeast slope	571,954	7,394,882	1.2	0.15	0.1	<1	Weathered crack (Acceptable)	New in 2018	(2018)
	Y	AR	Lobes 2,3 and 4 – southeast slope	571,954	7,394,877	3.5	6.23	0.05-0.15	<1	Weathered crack (Acceptable)	Larger in 2023, same general area as erosion feature 'R'	1807, 1808
	Y	AW	Lobes 2,3,4	571,928	7,394,930	4.1	0.05	0.025	<1	Weathered crack (Acceptable)	New in 2023	1801, 1802
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation	Y	P	Lobe 5 – east slope	572,001	7,394,916	7	3	-	1.5	Sparse grass on slope (Acceptable)	Expanded area (2 x 2 m in 2017)	(2018)
	Y	P1	Lobe 5 cover surface and slopes	571,982	7,394,922	45	25	-	100	Sparse vegetation throughout landfill cover surface and slopes (Acceptable)	Increase to entire cover surface and vegetation density throughout landfill since 2018. Dimensions provided are for footprint of landfill given ubiquitous nature of the vegetation.	1854
	Y	P2	Lobes 2, 3, and 4 cover surface and slopes	571,839	7,394,843	262	122	-	100	Sparse vegetation throughout landfill cover surface and slopes (Acceptable)	Increase to entire cover surface and vegetation density throughout landfill since 2018. Dimensions provided are for footprint of landfill given ubiquitous nature of the vegetation.	1781, 1798, 1813
	Y	P3	Lobe 1 cover surface and slopes	571,704	7,394,919	231	122	-	100	Sparse vegetation throughout landfill cover surface and slopes (Acceptable)	Increase to entire cover surface and vegetation density throughout landfill since 2018. Dimensions provided are for footprint of landfill given ubiquitous nature of the vegetation.	1727, 1747

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
	Y	P4	Abandoned Lobe cover surface and slope	571,573	7,394,810	123	65	-	100	Sparse vegetation throughout landfill cover surface and slopes (Acceptable)	Increase to entire cover surface and vegetation density throughout landfill since 2018. Dimensions provided are for footprint of landfill given ubiquitous nature of the vegetation.	1884
Staining	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
Ponded Water	Y	AM	Lobes 2, 3, and 4 cover	571,761	7,394,793	11	6	0.1	<1	Ponded water (Acceptable)	New in 2018	(2018)
	Y	AM	Lobes 2, 3, and 4 cover	571,761	7,394,793	10.9	5.0	0.03	<1	Ponded water due to precipitation (Acceptable)	No significant change since 2018. Due to recent precipitation.	1764, 1765
	N	Z	East toe of Lobe 1	571,805	7,394,954	-	-	-	-	Ponded water	Snow covered in 2018, observed water is from snow melt	(2018)
	Y	Z	East toe of Lobe 1, outside of LF	571,804	7,394,961	19	0.9	0.1	<1	Ponded water (Acceptable)	Wet due to recent snow in 2023	1721, 1722
	N	AH	Abandoned Lobe – cover surface	571,588	7,394,804	-	-	-	-	Wet area	Dry in 2018	(2018)
	N	AH	Abandoned Lobe – cover surface	-	-	-	-	-	-	Wet area	Not observed in 2023	-
	Y	AO	Lobes 2, 3, and 4 cover	571,854	7,394,864	21	6	0.05	<1	Ponded water (Acceptable)	New in 2018	(2018)
	Y	AO	Lobes 2, 3, and 4 cover	571,854	7,394,864	14.9	5.8	0.05	<1	Ponded water (Acceptable)	Smaller in 2023, possibly due to interpretation	1786, 1788
	Y	AV	Lobes 2, 3, and 4 cover	571,796	7,394,811	17.8	4.6	0.05	<1	Ponded water due to precipitation (Acceptable)	New in 2023	1779, 1780
Seepage	N	-	-	-	-	-	-	-	-	-	-	-
Debris and/or Liner Exposed	Y	AY	Lobes 2, 3, 4 south toe	571,794	7,394,756	9.92	1.22	0.15-0.45	<1	Erosion from overland flow (likely spring melt) has exposed debris - crushed 50 gallon drum outside of the toe. (Acceptable). Feature does not represent ability of landfill to contain waste as it is outside of the footprint.	New in 2023	1766, 1768
Presence / Condition of Monitoring Instruments	N	-	-	-	-	-	-	-	-	-	-	-
Features of Note / Other Observations	N	S	Lobes 2, 3 and 4 – southeast slope	571,913	7,394,862	-	-	-	-	Uneven ground	No longer considered a feature	(2018)
	N	S	Lobes 2, 3 and 4 – southeast slope	-	-	-	-	-	-	Uneven ground	No longer considered a feature	-

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
	N	G	Lobes 2, 3 and 4 – cover surface	571,878	7,394,887	-	-	-	-	Rough / segregated material	No longer considered a feature	(2018)
	N	G	Lobes 2, 3 and 4 – cover surface	-	-	-	-	-	-	Rough / segregated material	No longer considered a feature	-
	Y	AG	Lobe 1 – cover surface	571,688	7,394,934	21	6	-	<1	Minor settlement (Acceptable)	Expanded area (1 x 0.5 m in 2017)	(2018)
	Y	AG	Lobe 1 – cover surface	571,688	7,394,934	19.0	3.6	nil	<1	Rough grading area (Acceptable)	Area of rough grading during construction	1737, 1739, 1742
	Y	AI	Lobe 1 – north crest	571,694	7,394,959	21	7	0.15	<1	Uneven ground, potential settlement (Acceptable)	Expanded area (7 x 5 m in 2017)	(2018)
	Y	AI	Lobe 1 – north crest	571,694	7,394,959	21	7	0.15	<1	Rough grading area (Acceptable)	Area of rough grading during construction	1757, 1760
	N	D, E, F, H, I, J, M, N, O, Q, X, Y, AT	-	-	-	-	-	-	-	Not assigned	D, E, F, H, I, J, M, N, O, Q, X, & Y not assigned in 2018 & 2023. AT not assigned in 2023.	-

Landfill Area: Pallet Line – Lobe 1 ~ 21,160 m^2; Pallet Line – Lobes 2,3 and 4 ~ 21,950 m^2; Pallet Line – Lobe 5 ~ 940 m^2 Pallet Line – Abandoned Lobe ~ 4,840 m^2

General Comments: Overall LF is in excellent (acceptable) condition. Almost all slope have self-armoured with some areas have larger diameter rock exposed where flow is highest. Toes of various slopes have dark lichen which may be interpreted as seepage/wet area when looking at photos but are not.

Note 1 - Rows with grey text are features from the 2018 DYE-M report and are also identified with (2018) in the photos column.

14.3.2 Preliminary Stability Assessment

Based on the results of the visual assessment the Upper Site Pallet Line Landfill has been given an overall performance of Acceptable. The preliminary stability assessment is summarized in **Table 90**.

Table 90: Upper Site Pallet Line Landfill Preliminary Stability Assessment

Feature	Severity Rating	Extent
Settlement	Acceptable	Occasional
Erosion	Acceptable	Occasional
Lateral Movement	Acceptable	Isolated
Frost Action	Not Observed	None
Sloughing	Acceptable	Occasional
Cracking	Acceptable	Occasional
Animal Burrows	Not Observed	None
Ponded Water	Acceptable	Occasional
Seepage	Not Observed	None
Staining	Not Observed	None
Vegetation Establishment	Acceptable	Extensive
Vegetation Stress	Not Observed	None
Debris and/or Liner Exposure	Acceptable	Occasional
Other	Not Observed	None
Overall Landfill Performance	**Acceptable**	

Photographs obtained during the visual inspection provided electronically in the photolog. Feature locations and photographic locations are shown on **Figure 11a** and **Figure 11b,** respectively**.**

14.3.3 Visual Inspection Trend Analysis

A comparison of the visual inspection results from the current and previous program(s) was completed to assess if any trends are present. The results of this assessment are provided in **Table 91** below.

Table 91: Upper Site Pallet Line Landfill Historical Inspection Comparison

Feature	Feature ID(s)	Comparison with Previous Inspection
Settlement	U, AN, AQ, AS *V* **AG, AI** AX, AN1, AZ *AP*	No significant change from 2018 *Longer and narrower than in 2018* **No longer considered settlement (moved to other)** New in 2023 *Not observed in 2023*
Erosion	A, R, AJ *B* **T, W, AK**	Not observed in 2023 *Wider and longer than 2018* **Smaller than 2018**
Lateral Movement	AU	New in 2023
Frost Action	none	N/A
Sloughing	none	N/A
Cracking	C, Q, AA, AB, AC, AE *K/L, AF, AL* **AD** AR *AW*	Not observed in 2023 *Increase in length* **No significant change** Larger area than 2018 *New in 2023*
Animal Burrows	none	N/A
Ponded Water	AM, Z *AH* **AO** AV	No significant change *Not observed in 2023* **Smaller than in 2018** New in 2023
Seepage	none	N/A
Staining	none	N/A
Vegetation Establishment	P1, P2, P3, P4	Vegetation is relatively evenly spaced over the surface of the landfill, increased in 2023
Vegetation Stress	none	N/A
Debris and/or Liner Exposure	AY	New in 2023
Other	AG, AI	Reclassified to rough grading in 2023

The trend analysis revealed several changes between 2018 and 2023 reflected in Settlement, Erosion, Cracking and Ponded Water. These features span the potential changes as being new, changed in size from the previous inspection, not observed (no longer present), or having no significant change. These observations are likely reflective of earthworks being subject to natural processes such as settlement, erosion and deposition over time which affect the surface of the landfill. No specific change appears to be a result of deteriorating landfill performance and therefore have all been assigned a rating of Acceptable. There has been an increase in vegetation since the last inspection.

Although exposed debris was encountered, it is present outside of the footprint of the landfill and therefore does not represent a deterioration in the landfill performance itself. Recommendations regarding the exposed debris are however provided below. Based on this comparison, a landfill performance of Acceptable is still considered appropriate.

14.3.4 Soil Sampling Results

Soil results were compared to the baseline with variation for the discussion provided in **Table 92** below. Background and baseline arithmetic means are included for information purposes. Analytical tables and graphs can be found in **Appendix D**. **Figure 11c** shows monitoring well and soil locations.

Table 92: Upper Site Pallet Line Landfill Soil Sampling Results

Parameter	Background Data (mg/kg)	Baseline Data (mg/kg)	Baseline Data with Variation (mg/kg)	Discussion
Arsenic	1.0	1.0	3.0	All results were below BL+V at upgradient and downgradient locations
Cadmium	1.0	1.0	3.0	All results were below BL+V at upgradient and downgradient locations
Chromium	89.75	70.45	176.65	Downgradient DM-50 location exceeded BL+V. Other results were below BL+V at upgradient and downgradient locations
Cobalt	19.7	16.6	46.0	All results were below BL+V at upgradient and downgradient locations
Copper	60.4	36.6	87.7	Downgradient DM-50 location exceeded BL+V. Other results were below BL+V at upgradient and downgradient locations
Lead	10.0	20.4	89.9	All results were below BL+V at upgradient and downgradient locations
Nickel	141.3	74.3	149.4	All results were below BL+V at upgradient and downgradient locations
Zinc	70.1	73.9	171.2	All results were below BL+V at upgradient and downgradient locations
Total PCB	0.0002	0.1	0.3	All results were below BL+V at upgradient and downgradient locations
F1 (C_6-C_{10})	N/A	10.0	30.0	All results were below BL+V at upgradient and downgradient locations
F2 (C_{10}-C_{16})	N/A	10.0	30.0	Downgradient DM-51-D and DM-59-D exceeded BL+V. Other All results were below BL+V at upgradient and downgradient locations

Parameter	Background Data (mg/kg)	Baseline Data (mg/kg)	Baseline Data with Variation (mg/kg)	Discussion
F3 (C_{16}-C_{34})	N/A	50.0	150.0	Downgradient DM-51-D location exceeded BL+V. Other results were below BL+V at upgradient and downgradient locations
F4 (C_{34}-C_{50})	N/A	50.0	150.0	All results were below BL+V at upgradient and downgradient locations

Note:
Baseline Data with Variation = [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]

Downgradient soil sampling locations DM-50-S, DM-50-D, DM-51-D, and DM-59-D had exceedances, as shown in **Table 93** below.

Table 93: Upper Site Pallet Line Landfill Soil Sampling – Results Above BL+V

Parameter	Baseline Data with Variation (mg/kg)	DYE-M Upper Site Site-Specific Criteria (mg/kg)	DM-50-S (mg/kg)	DM-50-D (mg/kg)	DM-51-D (mg/kg)	MW23-S-70 (mg/kg)	DM-59-D (mg/kg)
Chromium	176.650	250	**222**	**281**	82.4	115	110
Copper	87.694	296	**96**	**127**	43.8	42.50	33.8
F2 (C_{10}-C_{16})	30	--	<10	<10	**180**	**81**	**420**
F3 (C_{16}-C_{34})	150	--	<50	<50	**750**	**370**	<50

Note:
bold = exceeds BL+V

Downgradient soil sampling locations DM-50-S, DM-50-D, DM-51-D, and DM-59-D had exceedances of BL+V criteria. Downgradient DM-50 samples at surface (0.10-0.15 mbgs) and depth exceeded for chromium and copper. DM-50 soil samples have had exceeding concentrations of chromium and copper in almost all previous soil sampling events at this location, and the 2023 concentrations are consistent with these historical results.

DM-51-D and its duplicate MW23-S-70, a downgradient soil sampling location, had exceedances in the deep soil sample of PHC F2 and F3. While the 2023 PHC F3 concentration does represent a new maximum for PHC F3 at this landfill, PHC F2 and F3 exceedances at this location consistent with the results of past monitoring events.

Downgradient location DM-59 had PHC F3 concentration exceeding BL+V in 2023, but this result is consistent with past monitoring events for this location. Surface and deep soil samples were below BL+V for all other parameters. Downgradient DM-59-D sample at the deeper location (0.45- 0.55 mbgs) exceeded for PHC F2. DM-59-D was below BL+V for all other parameters.

All other parameters were below BL+V for upgradient and downgradient soil sampling locations at this landfill.

BL+V exceedances at downgradient soil sampling locations are consistent with the results from past monitoring events.

14.4 CONCLUSIONS AND OVERALL LANDFILL PERFORMANCE

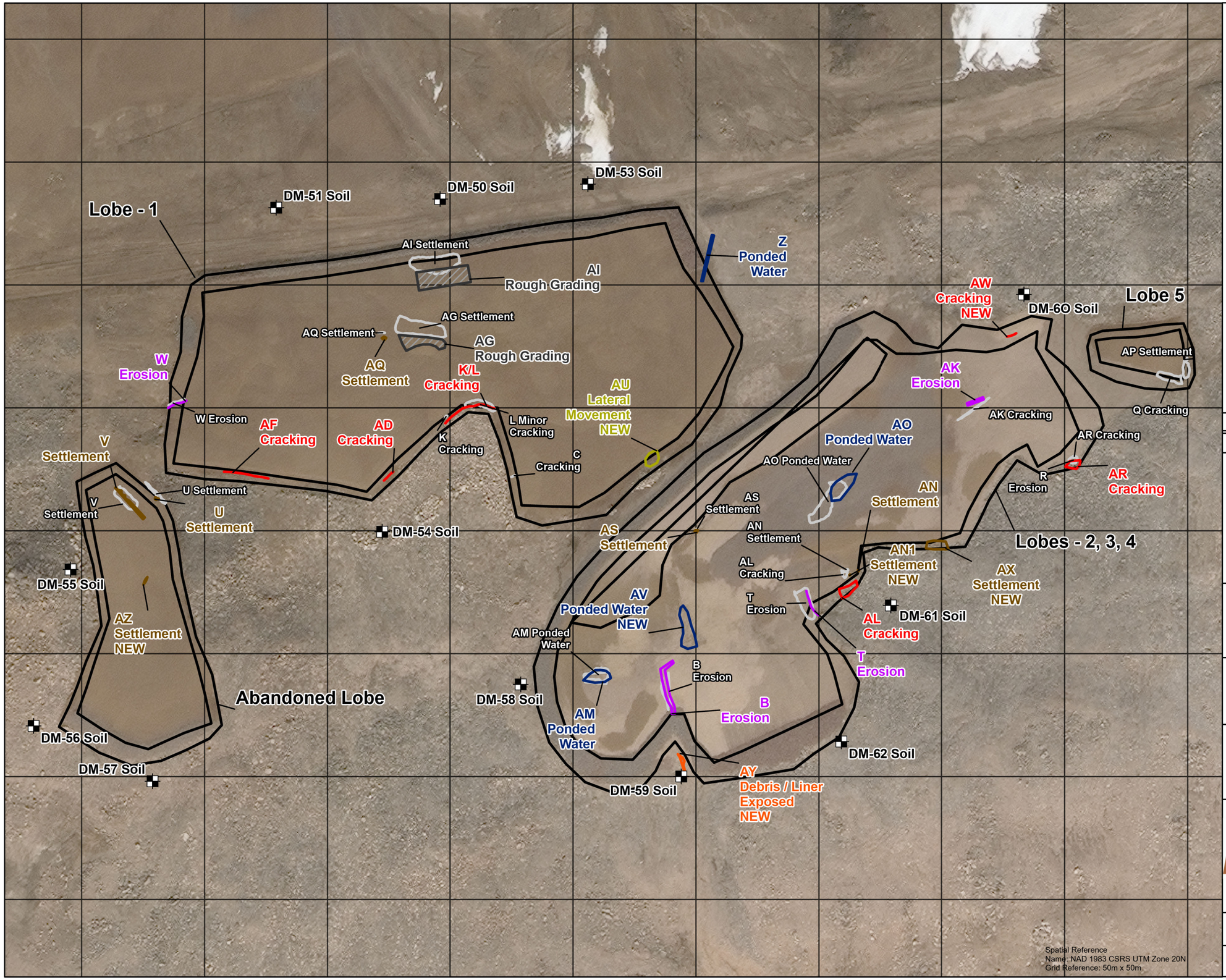
Soil samples were collected at all ten scheduled locations at shallow and deep depths. Downgradient location DM-50 exceeded for chromium and copper at surface and deep sampling locations. Downgradient location DM-51-D and its duplicate sample exceeded for PHC F2 and F3. Downgradient DM-59-D sample at the deeper location (0.45-0.55 mbgs) exceeded for PHC F2. BL+V exceedances at downgradient soil sampling locations are consistent with the results from past monitoring events and the landfill contents are not suspected of impacting the surrounding soil at this time.

The preliminary stability assessment resulted in a rating of Acceptable. Based on the above information, an overall landfill performance of Acceptable is still considered appropriate. The landfill does not appear to be impacting the surrounding environment.

14.5 RECOMMENDATIONS

Chromium, copper, PHC F2 and PHC F3 results should be reviewed in the next monitoring event.

Based on the results of the visual inspection, and soil sampling program, the landfill should continue to be monitored as per the SOW. Consideration should be given to armouring the slope near where the exposed debris is present outside of the landfill. Although not currently an issue, erosion has the potential to progress towards the landfill and eventually impact landfill performance.



LEGEND

- Soil Sample
- 2018 Features (Golder)
- Cracking
- Erosion
- Cracking
- Debris / Liner Exposed
- Erosion
- Lateral Movement
- Notable Feature
- Settlement
- Water
- Landfill Crest / Toe

Note:
Feature P1 - P4 - Sparse vegetation throughout all landfill lobes, increase to entire cover surface and density

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

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PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Upper Site Pallet Line Landfill - Visual Inspection

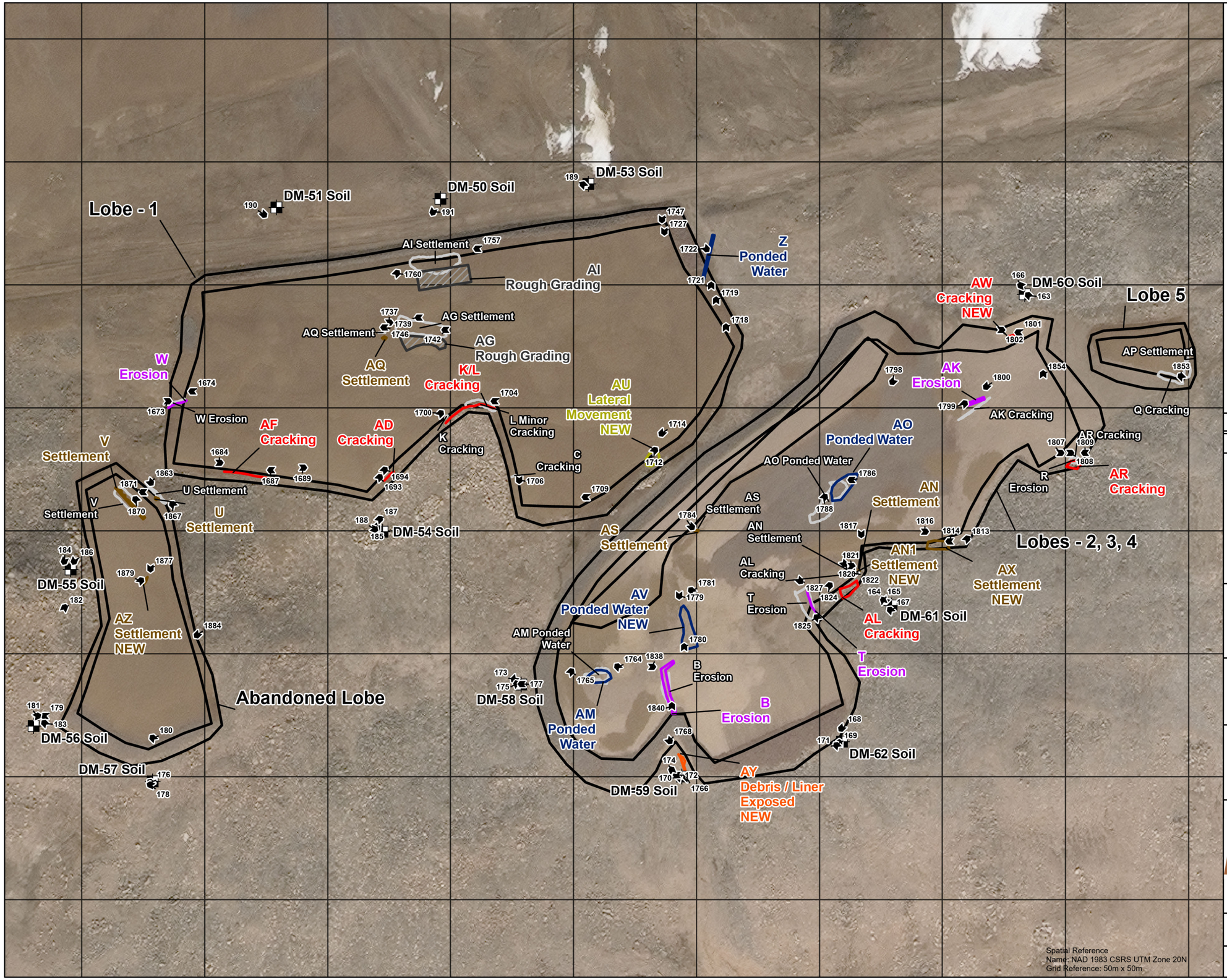
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P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	DATE
230394	March 25, 2024

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Spatial Reference
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Grid Reference: 50m x 50m

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LEGEND

- Soil Sample
- Photolog Locations
- 2018 Features (Golder)
- Cracking
- Erosion
- Cracking
- Debris / Liner Exposed
- Erosion
- Lateral Movement
- Notable Feature
- Settlement
- Water
- Landfill Crest / Toe

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

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2023 DYE-M Landfill Monitoring Program

TITLE

Upper Site Pallet Line Landfill - Photolog Locations

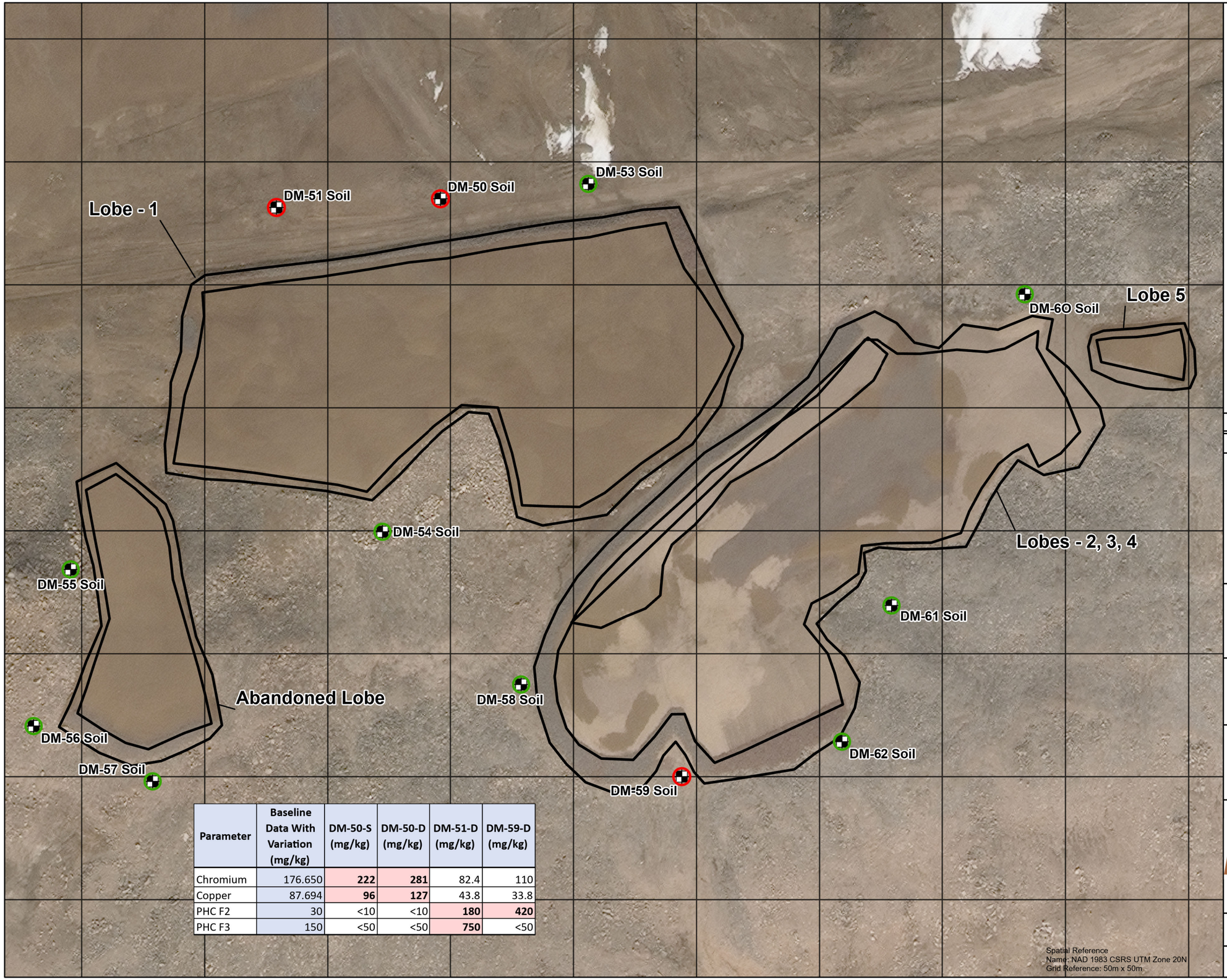
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PROJECT #	DATE
230394	March 19, 2024

DRAWN	CHECKED	FIG NO.	REV
EB	HW	11b	0

Spatial Reference
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Grid Reference: 50m x 50m

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Parameter	Baseline Data With Variation (mg/kg)	DM-50-S (mg/kg)	DM-50-D (mg/kg)	DM-51-D (mg/kg)	DM-59-D (mg/kg)
Chromium	176.650	**222**	**281**	82.4	110
Copper	87.694	**96**	**127**	43.8	33.8
PHC F2	30	<10	<10	**180**	**420**
PHC F3	150	<50	<50	**750**	<50

Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

LEGEND

- Soil Sample
- Sample Does Not Exceed Baseline + Variation
- Sample Exceeds Baseline + Variation
- Landfill Crest / Toe

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
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PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Upper Site Pallet Line Landfill - Environmental Results

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PROJECT #	*DATE*		
230394	**March 28, 2024**		
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15 UPPER SITE NON-HAZARDOUS WASTE LANDFILL

15.1 LANDFILL DESCRIPTION

The Upper Site Non-Hazardous Waste Landfill has an approximate footprint of 21,100 m^2 and is located on the north side of the road adjacent to the NWS Warehouse. The landfill was created to dispose of non-hazardous waste created during cleanup operations.

15.2 SUMMARY OF WORK CONDUCTED

A visual inspection, environmental soil sampling, and groundwater sampling were completed at the Upper Site Non-Hazardous Waste Landfill. A total of eight environmental soil samples, including one duplicate sample were collected as well as a total of six groundwater samples, including one duplicate sample and one field blank.

15.2.1 Visual Inspection

A visual inspection of the Upper Site Non-Hazardous Waste Landfill was completed with no issues or deviations from the SOW, with inspection details shown in **Table 94** below. Features identified during the visual inspection are shown in **Figure 12a**.

Table 94: Upper Site Non-Hazardous Waste Landfill Visual Inspection Checklist

Site Name	DYE-M
Landfill Designation / Type	Upper Site Non-Hazardous Waste Landfill / NHWL
Date of Inspection	August 28, 2023
Date of Previous Inspection	August 10, 2018
Weather	2 °C, winds 50 km/hr, sunny
Inspected by	Brent Hay
DGPS Information (Make/model, accuracy, UTM zone)	Stonex S900-A, H=8mm, V=15mm, UTM Zone 20N
Landfill Surface Area (m^2)	21,100 m^2

15.2.2 Soil Sampling

A total of four test pits were advanced and consisted of the collection of nine soil samples, including one duplicate soil sample for QA/QC purposes. Photos taken before, during and after soil samples are provided on the photo sheet, with their locations shown in **Figure 12b**. Sample locations are shown on the site plan presented on **Figure 12c**. A summary of the test pits is provided in **Table 95** below.

Table 95: Upper Site Non-Hazardous Landfill Test Pitting Details

Soil Sampling Location	Sample ID	Sample Depth (mbgs)	Soil Notes
MW06-18	MW06-18-SOIL-S	0.1-0.15	GW: Well graded gravel brown, sand matrix
	MW06-18-SOIL-D	0.45-0.5	Wet. Under water. GW: Well graded gravel. Brown
MW06-19	MW06-19-SOIL-S	0.15-0.20	GP: Large boulders at surface, gravel with sand matrix underneath
	No sample	Refusal	Refusal at 0.35. GP: coarse gravel with <0% matrix 0.10-0.35 (insufficient sand for sample)
MW06-20	MW06-20-SOIL-S	0.1-0.2	GW: Well graded gravel, brown sand matrix
	MW06-20-SOIL-D	0.4-0.45	Refusal 0.45. SP: Brown medium sand
MW07-21	MW07-21-SOIL-S	0.15-0.20	Under boulder. GP: 2 cm gravel with medium brown sand matrix
	MW07-21-SOIL-D	0.45-0.5	SP: Brown medium sand matrix
	MW23-5-10		

15.2.3 Groundwater Sampling

A total of four monitoring wells were monitored and sampled as per the SOW. Six samples were collected – four groundwater samples, one duplicate, and one field blank. Photos of the monitoring wells and well repairs are in Photologs in **Appendix G**. A summary of the monitoring activities is summarized in **Table 96** below.

Table 96: Upper Site Non-Hazardous Landfill Monitoring Well Details

Well ID	Water Level (mbgs)	LNAPL*	Calculated Water in water column (m)	Sampled	Additional Notes
MW06-18	0.01	ND	3.14	yes	Bentonite observed inside well casing. Removed and properly disposed of. The water was clear during sampling.
MW06-19	0.66	ND	1.48	yes	Bentonite observed inside well casing. Removed and properly disposed of. The water was clear during sampling.
MW06-20	0.134	ND	2.06	yes	The water was clear during sampling
MW07-21	0.75	ND	1.7	yes	The water was clear during sampling.

Note:
*ND= Not Detected

15.2.4 Thermal Monitoring

Thermistors were not installed as part of the remediation program at the Upper Site Non-Hazardous Waste Landfill; therefore, no thermistor monitoring was required during the 2023 monitoring program. Soil thermal property monitoring with the TEMPOS was not a requirement for this landfill and therefore was not completed during the 2023 monitoring program.

15.3 RESULTS OF THE MONITORING PROGRAM

15.3.1 Visual Inspection Results

Results of the visual inspection are summarized in the Visual Inspection Checklist, provided in **Table 97**, below.

Table 97: Upper Site Non-Hazardous Waste Landfill Visual Inspection Table

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
Settlement	Y	F	South crest	572,286	7,395,091	0.5	0.5	0.2	<1	Minor depression (Acceptable)	New in 2018	(2018)
	Y	F	South crest	572,286	7,395,091	0.5	0.4	0.1	<1	Minor depression (Acceptable)	No significant change since 2018	637, 638
Erosion	N	B	Southeast corner	-	-	-	-	-	-	Area of segregation	As-built condition, not a feature	(2018)
	N	B	Southeast corner	-	-	-	-	-	-	Area of segregation	As-built condition, not a feature	-
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
Cracking	N	E	East crest	572,310	7,395,134	-	-	-	-	Minor tension cracking	Not observed in 2018	(2018)
	Y	E	East crest	572310.2	7395136.2	7	0.05-0.1	0.01	<1	Minor tension cracking (Acceptable)	No significant change since 2017	647, 649
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation	Y	I	Cover surface	572,214	7,395,129	169	114	-	67.0	Very sparse vegetation throughout cover surface of landfill (Acceptable)	New in 2023. Dimensions provided are for footprint of landfill given ubiquitous nature of the vegetation.	613, 614
Staining	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
Ponded Water	N	C and D	-	-	-	-	-	-	-	Ponded water	Not observed in 2016, 2017 or 2018	(2018)
	N	C and D	-	-	-	-	-	-	-	Ponded water	Not observed in 2023	-
	Y	H	Southern toe	572,213	7,395,074	7.85	2.65	<0.1	<1	Ponded water due to recent precipitation (Acceptable)	New in 2023	656, 657
	Y	G	NW corner	572,158	7,395,181	3.37	2.81	<0.03	<1	Ponded water due to recent precipitation (Acceptable)	New in 2023	609, 610
Seepage	N	-	-	-	-	-	-	-	-	-	-	-
Debris and/or Liner Exposed	N	-	-	-	-	-	-	-	-	-	-	-
Presence / Condition of Monitoring Instruments	Y	MW06-18, 19, 20 and MW07-21	See Figure DYE-M.11	-	-	-	-	-	-	Monitoring wells intact	-	(2018)
	Y	MW06-18, 19, 20 and MW07-21	See Figure 12c	-	-	-	-	-	-	Monitoring wells intact. MW06-18: Bentonite removed from inside well casing. MW06-19: Bentonite removed from inside well casing.	No significant change except locks replaced	49-64
Features of Note / Other Observations	N	A	East slope	-	-	-	-	-	-	Tire tracks	No longer considered a feature	(2018)
	N	A	East slope	-	-	-	-	-	-	Tire tracks	No longer considered a feature	-

Landfill Area = 21,100 m^2
General Comments: Overall LF is in excellent (acceptable) condition.
Note 1 - Rows with grey text are features from the 2018 DYE-M report and are also identified with (2018) in the photos column.

15.3.2 Preliminary Stability Assessment

Based on the results of the visual assessment, the landfill is in excellent condition and the Upper Site Non-Hazardous Waste Landfill has been given an overall performance of Acceptable. The preliminary stability assessment is summarized in **Table 98.**

Table 98: Upper Site Non-Hazardous Waste Landfill Preliminary Stability Assessment

Feature	Severity Rating	Extent
Settlement	Acceptable	Isolated
Erosion	Not Observed	None
Lateral Movement	Not Observed	None
Frost Action	Not Observed	None
Sloughing	Not Observed	None
Cracking	Acceptable	Isolated
Animal Burrows	Not Observed	None
Ponded Water	Acceptable	Occasional
Seepage	Not Observed	None
Staining	Not Observed	None
Vegetation Establishment	Acceptable	Extensive
Vegetation Stress	Not Observed	None
Debris and/or Liner Exposure	Not Observed	None
Other	Not Observed	None
Overall Landfill Performance	**Acceptable**	

Select photographic records are included in **Appendix G** with all photographs obtained during the visual inspection provided electronically. Photograph and feature locations are shown on **Figure 12b**.

15.3.3 Visual Inspection Trend Analysis

A comparison of the visual inspection results from the current and previous program(s) was completed to assess if any trends are present. The results of this assessment are provided in **Table 99.**

Table 99: Upper Site Non-Hazardous Waste Landfill Historical Inspection Comparison

Feature	Feature ID(s)	Comparison with Previous Inspection
Settlement	F	No significant change from 2018
Erosion	B	No change from 2018, no longer a feature
Lateral Movement	none	N/A
Frost Action	none	N/A
Sloughing	none	N/A
Cracking	E	No significant change from 2017
Animal Burrows	none	N/A
Ponded Water	C, D *H, G*	Not observed *New in 2023, due to recent snow*
Seepage	none	N/A
Staining	none	N/A
Vegetation Establishment	I	New in 2023. Vegetation is relatively evenly spaced over the surface of the landfill.
Vegetation Stress	none	N/A
Debris and/or Liner Exposure	none	N/A
Other	none	N/A

No significant changes have been noted in comparison to previous inspections. Features F and E show no change from previous inspections. Features H and G identified as areas of ponded water are new and attributed to snowfall from the previous day before the inspection of this landfill. Feature B was previously classified as erosion however is a result of segregation due to the use of coarser fill, no longer considered a feature. Vegetation is newly established and has been added as a feature. Based on this comparison, a landfill performance of Acceptable is still considered appropriate.

15.3.4 Soil Sampling Results

Soil results were compared to the baseline with variation for the discussion provided in **Table 100** below. Background and baseline arithmetic means are included for information purposes. Analytical tables and graphs can be found in **Appendix D**. **Figure 12c** shows monitoring well and soil locations.

Table 100: Upper Site Non-Hazardous Landfill Soil Sampling Results

Parameter	Background Data (mg/kg)	Baseline Data (mg/kg)	Baseline Data with Variation (mg/kg)	Discussion
Arsenic	1.0	1.0	3.0	All results were below BL+V at upgradient and downgradient locations
Cadmium	1.0	1.0	3.0	All results were below BL+V at upgradient and downgradient locations
Chromium	89.8	40.9	111.8	All results were below BL+V at upgradient and downgradient locations
Cobalt	19.7	14.1	30.2	All results were below BL+V at upgradient and downgradient locations
Copper	60.4	26.2	71.7	All results were below BL+V at upgradient and downgradient locations
Lead	10.0	10.0	30.0	All results were below BL+V at upgradient and downgradient locations
Nickel	141.3	63.4	173.1	All results were below BL+V at upgradient and downgradient locations
Zinc	70.1	54.4	130.8	All results were below BL+V at upgradient and downgradient locations
Total PCB	0.0002	0.1	0.3	All results were below BL+V at upgradient and downgradient locations
F1 (C_6-C_{10})	N/A	10.0	30.0	All results were below BL+V at upgradient and downgradient locations
F2 (C_{10}-C_{16})	N/A	10.0	30.0	All results were below BL+V at upgradient and downgradient locations
F3 (C_{16}-C_{34})	N/A	50.0	150.0	All results were below BL+V at upgradient and downgradient locations
F4 (C_{34}-C_{50})	N/A	50.0	150.0	All results were below BL+V at upgradient and downgradient locations

Note:
Baseline Data with Variation = [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]

Upgradient and downgradient samples at surface (0-0.15 mbgs) and deep (0.4-0.5 mbgs) were below BL+V for all parameters. PHC F3 concentrations at upgradient location MW-06-18 (surface) have been increasing since 2016 and are above the baseline in 2023, but below BL+V. All other parameters show consistent or decreasing values relative to historical long term monitoring data for this location.

Overall, the soil results from 2023 are comparable to the results from the previous monitoring events.

15.3.5 Groundwater Sampling Results

Four groundwater samples were collected at Upper Site Non-Hazardous Landfill. Groundwater results were compared to the baseline with variation for the discussion provided in **Table 101** below. Chemistry tables and graphs are provided in **Appendix D**.

Table 101: Upper Site Non-Hazardous Waste Landfill Groundwater Sampling Results

Parameter	Baseline Data (mg/L)	Baseline Data with Variation (mg/L)	Discussion
Arsenic	0.009	0.038	All results were below BL+V at upgradient and downgradient locations
Cadmium	0.002	0.005	All results were below BL+V at upgradient and downgradient locations
Chromium	0.265	0.791	All results were below BL+V at upgradient and downgradient locations
Cobalt	0.065	0.194	All results were below BL+V at upgradient and downgradient locations
Copper	0.248	0.761	All results were below BL+V at upgradient and downgradient locations
Lead	0.082	0.352	All results were below BL+V at upgradient and downgradient locations
Nickel	0.220	0.593	All results were below BL+V at upgradient and downgradient locations
Zinc	3.697	20.354	All results were below BL+V at upgradient and downgradient locations
F1 (C_6-C_{10})	0.025	0.150	All results were below BL+V at upgradient and downgradient locations
F2 (C_{10}-C_{16})	0.25	1.50	All results were below BL+V at upgradient and downgradient locations
F3 (C_{16}-C_{34})	0.5	3.0	All results were below BL+V at upgradient and downgradient locations
F4 (C_{34}-C_{50})	0.5	3.0	All results were below BL+V at upgradient and downgradient locations

Note:
Baseline Data with Variation = [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]

All results were below BL+V at upgradient and downgradient groundwater locations. The 2023 groundwater sampling results at this landfill are comparable to the results from the previous monitoring events.

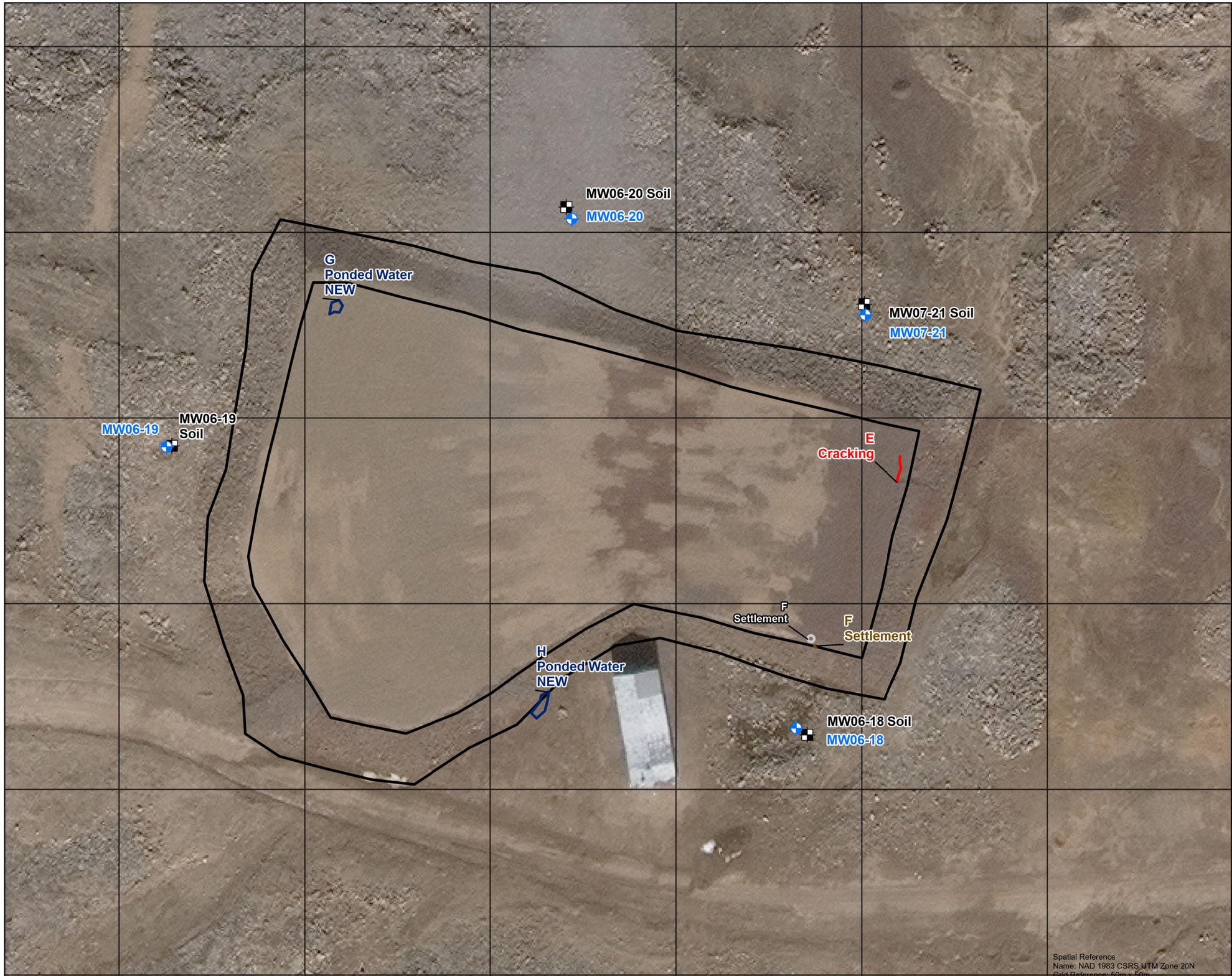
15.4 CONCLUSIONS AND OVERALL LANDFILL PERFORMANCE

Soil samples were collected at all four scheduled locations at shallow and deep depths. Upgradient and downgradient soil samples were below BL+V for all parameters. Groundwater samples were collected at all four monitoring wells at this location. All results were below BL+V at upgradient and downgradient groundwater locations. Overall, the soil and groundwater results from 2023 are comparable to the results from the previous monitoring events and there is no indication of contaminant migration from the landfill at this time.

The preliminary stability assessment resulted in a rating of Acceptable. Based on the above information, an overall landfill performance of Acceptable is still considered appropriate. The landfill does not appear to be impacting the surrounding environment.

15.5 RECOMMENDATIONS

Based on the results of the visual inspection, soil and groundwater sampling, the landfill should continue to be monitored as per the SOW.



LEGEND

- Monitoring Well
- Soil Sample
- 2018 Features (Golder)
- Cracking
- Settlement
- Water
- Landfill Crest / Toe

Note:
Feature I - Sparse vegetation over cover surface, new in 2023

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

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THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS.

N W E S

0 20 40 Metres

1:1,000

Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Upper Site Non-Hazardous Waste Landfill - Visual Inspection

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*
230394	**March 19, 2024**

DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**12a**	**0**

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LEGEND

- Monitoring Well
- Soil Sample
- Photolog Locations
- 2018 Features (Golder)
- Cracking
- Settlement
- Water
- Landfill Crest / Toe

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

PROPRIETARY INFORMATION MAY NOT BE REPRODUCED OR DIVULGED WITHOUT PRIOR WRITTEN CONSENT OF BLUMETRIC ENVIRONMENTAL INC.
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N W E S

0 20 40 Metres

1:1,000

Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Upper Site Non-Hazardous Waste Landfill - Photolog Locations

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*
230394	**March 19, 2024**

DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**12b**	**0**

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Well ID	Monitoring Well Repairs Completed
MW06-18	Bentonite observed inside well casing. Removed and properly disposed of.
MW06-19	Bentonite observed inside well casing. Removed and properly disposed of.

MW06-20 Soil
MW06-20
719.373

MW07-21 Soil
MW07-21
720.352

MW06-19
721.332
MW06-19 Soil

MW06-18 Soil
MW06-18
725.279

LEGEND

- Monitoring Well
- Soil Sample
- Sample Does Not Exceed Baseline + Variation
- Landfill Crest / Toe
- Inferred Groundwater Flow Direction
- 720.352 Water Level (masl)

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

REFERENCES

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N W E S

0 20 40 Metres

1:1,000

Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Upper Site Non-Hazardous Waste Landfill - Environmental Results

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*
230394	**March 16, 2024**

DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**12c**	**0**

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16 UPPER SITE NORTH WARNING SYSTEM LANDFILL

16.1 LANDFILL DESCRIPTION

The Upper Site NWS Landfill has an approximate footprint of 21,100 m^2 and is located southwest of the Station Area on the west side of the road. The landfill was initially created during DEW Line operations and was regraded and covered with clean fill in 2008.

16.2 SUMMARY OF WORK CONDUCTED

A visual inspection and environmental soil sampling were completed at the Upper Site NWS Landfill. A total of 13 environmental soil samples, including one duplicate sample were collected.

16.2.1 Visual Inspection

A visual inspection of the Upper Site NWS Landfill was completed with no issues or deviations from the SOW, with inspection details shown in **Table 102** below. Features identified during the visual inspection are shown in **Figure 13a**.

Table 102: Upper Site NWS Landfill Visual Inspection Checklist

Site Name	DYE-M
Landfill Designation / Type	Upper Site NWS Landfill / Regraded
Date of Inspection	August 27, 2023
Date of Previous Inspection	August 10, 2018
Weather	Morning -2 °C, winds 80 km/hr, snow Evening 5 °C, winds 10 km/hr, sunny
Inspected by	Brent Hay
DGPS Information (Make/model, accuracy, UTM zone)	Stonex S900-A, H=8mm, V=15mm, UTM Zone 20N
Landfill Surface Area (m^2)	9,100 m^2

16.2.2 Soil Sampling

A total of six test pits were advanced and consisted of the collection of 13 soil samples, including one duplicate soil sample. Photos taken before, during and after soil samples are provided on the photo sheet, with their locations shown in **Figure 13b**. Sample locations are shown on the site plan presented on **Figure 13c**. A summary of the test pits is provided in **Table 103** below.

Table 103: Upper Site NWS Landfill Test Pitting Details

Soil Sampling Location	Sample ID	Sample Depth (mbgs)	Soil Notes
DM-18	DM-18-S	0.05-0.1	Strong odour. GP: Poorly graded brown, >20% sand matrix
	MW23-5-120		
	DM-18-D	0.45-0.55	GP: Poorly graded brown gravel, >30% sand matrix
DM-19	DM-19-S	0.05-0.1	GP: Poorly graded brown gravel, 20% sand
	DM-19-D	0.45-0.55	GP: Same as above
DM-20	DM-20-S	0.05-0.1	GP: Poorly graded brown gravel, 30% sand
	DM-20-D	0.45-0.55	SP/GP: 50/50 (large gravel >5 cm with coarse brown sand)
DM-21	DM-21-S	0.05-0.1	GP: Poorly graded brown gravel with brown coarse sand matrix
	DM-21-D	0.45-0.55	SP: Brown coarse sand, 20% mix size gravel
DM-22	DM-22-S	0.1-0.15	SP: Brown coarse sand, 30% mix size gravel
	DM-22-D	0.45-0.55	SP: Brown coarse sand, 10% mix size gravel
DM-23	DM-23-S	0.05-0.1	SP: Coarse brown sand
	DM-23-D	0.45-0.5	SP: Coarse brown sand

16.2.3 Groundwater Sampling

Groundwater monitoring wells were not installed as part of the remediation program at the Upper Site NWS Landfill; therefore, no groundwater sampling was required during the 2023 monitoring program.

16.2.4 Thermal Monitoring

Thermistors were not installed as part of the remediation program at the Upper Site NWS Landfill; therefore, no thermistor monitoring was required during the 2023 monitoring program. Soil thermal property monitoring with the TEMPOS was not a requirement for this landfill and therefore was not completed during the 2023 monitoring program.

16.3 RESULTS OF THE MONITORING PROGRAM

16.3.1 Visual Inspection Results

Results of the visual inspection are summarized in the Visual Inspection Checklist, provided in **Table 104**, below.

Table 104: Upper Site North Warning System Landfill Visual Inspection Table

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
Settlement	N	-	-	-	-	-	-	-	-	-	-	-
Erosion	Y	C	South slope area	572,570	7,394,695	5 (length of each channel)	40 (3 areas over 70 m wide area)	0.05	1.7	Three areas with minor self-armouring erosion (Acceptable)	Expanded widespread erosion over three separate areas with 5 m long x 0.3 m wide channels in 2018 (40 x 15 m area in 2017)	(2018)
	Y	C	South slope area	572,574	7,394,687	4.0-13	59.75	Nil	3.6	Erosion of fines downslope of upstream area, potentially could be migration of fines through piping but not likely due to linear nature of the feature (Acceptable)	More fines, larger area in 2023. The previous individual features weren't observed (could not be differentiated)	676-679, 686
	Y	D	West end of cover surface	572,537	7,394,744	18 (area)	7 (area)	0.02	1.2	Minor self-armouring erosion area (Acceptable)	Expanded widespread erosion area (9 x 0.2 m single channel in 2017)	(2018)
	N	D	West end of cover surface	-	-	-	-	-	-	Minor self-armouring erosion area	Not observed in 2023	703, 705
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
Cracking	N	E	South slope	572,543	7,394,678	-	-	-	-	Minor tension crack	Not observed in 2018 due to snow cover (7 x 0.03 m in 2017)	(2018)
	Y	E	South slope	572,550	7,394,675	6.68	<0.075	<0.025	<1	Minor tension crack (Acceptable)	No significant change since 2017	667, 668
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation	Y	H	Cover surface	572,578	7,394,715	98	31	-	30	Very sparse vegetation throughout cover surface of landfill (Acceptable)	New in 2023. Dimensions provided are for footprint of landfill given ubiquitous nature of the vegetation.	692, 693
Staining	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
Ponded Water	N	-	-	-	-	-	-	-	-	-	-	-
Seepage	Y	F	SW Toe	572,529	7,394,683	3.69	1.2	nil	<1	Minor seepage, observable flow (Acceptable)	New in 2023, attributed to storm in the morning and sun/warmth in afternoon, not expected to be leachate	695, 696
Debris and/or Liner Exposed	Y	B	Lower south slope	572,576	7,394,649	1	-	-	-	Partially buried steel cable (Acceptable)	Unchanged since previous observation	(2018)
	Y	B	Lower south slope	572,576	7,394,649	1	0.012 diam	N/A	<1	Partially buried steel cable (Acceptable)	No significant change since 2018	662, 663
Presence / Condition of Monitoring Instruments	N	-	-	-	-	-	-	-	-	-	-	-
Features of Note / Other Observations	N	A	-	-	-	-	-	-	-	Not assigned	Not assigned	(2018)
	N	A	-	-	-	-	-	-	-	Not assigned	Not assigned	-

Landfill Area ~ 9,100 m^2

General Comments: Overall LF is in excellent (acceptable) condition.

Note 1 - Rows with grey text are features from the 2018 DYE-M report and are also identified with (2018) in the photos column.

16.3.2 Preliminary Stability Assessment

Based on the results of the visual assessment, the landfill is in excellent condition and the Upper Site NWS Landfill has been given an overall performance of Acceptable. The preliminary stability assessment is summarized in **Table 105.**

Table 105: Upper Site NWS Landfill Preliminary Stability Assessment

Feature	Severity Rating	Extent
Settlement	Not Observed	None
Erosion	Acceptable	Isolated
Lateral Movement	Not Observed	None
Frost Action	Not Observed	None
Sloughing	Not Observed	None
Cracking	Acceptable	Isolated
Animal Burrows	Not Observed	None
Ponded Water	Not Observed	None
Seepage	Acceptable	Isolated
Staining	Not Observed	None
Vegetation Establishment	Acceptable	Occasional
Vegetation Stress	Not Observed	None
Debris and/or Liner Exposure	Acceptable	Isolated
Other	Not Observed	None
Overall Landfill Performance	**Acceptable**	

The exposed debris is a piece of partially buried cable suspected to have gotten stuck in the cover material during the regrade of the landfill. The cable was not able to be moved by hand but is not affecting the landfill performance in any way. Photographs obtained during the visual inspection provided electronically in the photolog. Feature locations and photographic locations are shown on **Figure 13a** and **Figure 13b,** respectively.

16.3.3 Visual Inspection Trend Analysis

A comparison of the visual inspection results from the current and previous program(s) was completed to assess if any trends are present. The results of this assessment are provided in **Table 106.**

Table 106: Upper Site NWS Landfill Historical Inspection Comparison

Feature	Feature ID(s)	Comparison with Previous Inspection
Settlement	none	N/A
Erosion	C *D*	One area (Individual features not observed) *Not observed in 2023*
Lateral Movement	none	N/A
Frost Action	none	N/A
Sloughing	none	N/A
Cracking	E	No significant change from 2017
Animal Burrows	none	N/A
Ponded Water	none	N/A
Seepage	F	New in 2023
Staining	none	N/A
Vegetation Establishment	H	New in 2023. Vegetation is relatively evenly spaced over the surface of the landfill
Vegetation Stress	none	N/A
Debris and/or Liner Exposure	B	No significant change from 2018
Other	none	N/A

No significant changes have been noted in comparison to previous inspections with the exception of seepage in one location and the presence of vegetation which have been added as features. The exposed debris is a piece of partially buried cable suspected to have gotten stuck in the cover material during the regrade of the landfill. The cable was not able to be moved by hand but is not affecting the landfill performance in any way. Based on this comparison, a landfill performance of Acceptable is still considered appropriate.

16.3.4 Soil Sampling Results

Soil results were compared to the baseline with variation for the discussion provided in **Table 107** below. Background and baseline arithmetic means are included for information purposes. Analytical tables and graphs can be found in **Appendix D**. **Figure 13c** shows monitoring well and soil locations.

Table 107: Upper Site NWS Landfill Soil Sampling Results

Parameter	Background Data (mg/kg)	Baseline Data (mg/kg)	Baseline Data with Variation (mg/kg)	Discussion
Arsenic	1.0	1.0	3.0	Upgradient DM-18-S exceeded BL+V. All results were below BL+V at upgradient and downgradient locations
Cadmium	1.0	1.0	3.0	All results were below BL+V at upgradient and downgradient locations
Chromium	89.8	37.5	145.3	All results were below BL+V at upgradient and downgradient locations
Cobalt	19.7	10.1	23.4	All results were below BL+V at upgradient and downgradient locations
Copper	60.4	25.7	71.0	All results were below BL+V at upgradient and downgradient locations
Lead	10.0	10.0	30.0	All results were below BL+V at upgradient and downgradient locations
Nickel	141.3	58.9	285.0	All results were below BL+V at upgradient and downgradient locations
Zinc	70.1	63.4	157.5	All results were below BL+V at upgradient and downgradient locations.
Total PCB	0.0002	0.10	0.3	All results were below BL+V at upgradient and downgradient locations
F1 (C_6-C_{10})	N/A	10.0	30.0	All results were below BL+V at upgradient and downgradient locations
F2 (C_{10}-C_{16})	N/A	10.0	30.0	All results were below BL+V at upgradient and downgradient locations
F3 (C_{16}-C_{34})	N/A	50.0	150.0	All results were below BL+V at upgradient and downgradient locations
F4 (C_{34}-C_{50})	N/A	50.0	150.0	All results were below BL+V at upgradient and downgradient locations

Note:
Baseline Data with Variation = [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]

DM-18-S, an upgradient soil sampling location, had an arsenic concentration above BL+V. exceedances, shown in **Table 108** below.

Table 108: Upper Site NWS Landfill Soil Sampling – Results Above BL+V

Parameter	Baseline Data with Variation (mg/kg)	DYE-M Upper Site Site-Specific Criteria (mg/kg)	DM-18-S (mg/kg)	MW23-S-120 (mg/kg)
Arsenic	3.0	30	**3.28**	**3.61**

Note:
bold = exceeds BL+V

The arsenic concentration at DM-18 (shallow sample) is only marginally above the BL+V and is well below the DYE-M Upper Site Site-Specific Criteria for arsenic and is not a concern at this time. All other parameters for DM-18-S were below BL+V. All other upgradient and downgradient sample locations were below BL+V and are consistent with previous monitoring events.

16.4 CONCLUSIONS AND OVERALL LANDFILL PERFORMANCE

Soil samples were collected at all six scheduled locations at shallow and deep depths. DM-18, an upgradient soil sampling location, had an exceedance above BL+V for arsenic in the shallow sample, which is not a concern at this time as it is only marginally above the BL+V and is well below the DYE-M Upper Site Site-Specific Criteria for arsenic.

The preliminary stability assessment resulted in a rating of Acceptable. Based on the above information, an overall landfill performance of Acceptable is still considered appropriate. The landfill does not appear to be impacting the surrounding environment.

16.5 RECOMMENDATIONS

Arsenic results should be reviewed in the next monitoring event to determine if concentrations are continuing to increase in upgradient DM-18 location.

Based on the results of the visual inspection, and soil sampling program, the landfill should continue to be monitored as per the SOW.



LEGEND

- Soil Sample
- Cracking
- Debris / Liner Exposed
- Erosion
- Water
- Landfill Crest / Toe
- 2018 Features (Golder)

Note:
Feature H - Sparse vegetation throughout cover surface, new in 2023

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
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REFERENCES

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N W E S

0 10 20 Metres

1:500

CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Upper Site North Warning System Landfill - Visual Inspection

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*		
230394	**March 18, 2024**		
DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**13a**	**0**

C:\SP\BluMetric Environmental\Geomatics - GIS (1)\GIS_PROJECTS\230000\230394 - PR01201 - JV60DCC - DEW Line DM&F4 - Nunavut\APRX\2024-03-11\230394 - DYE-M.aprx



LEGEND

- Soil Sample
- Photolog Locations
- Cracking
- Debris / Liner Exposed
- Erosion
- Water
- Landfill Crest / Toe
- 2018 Features (Golder)

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
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N W E S

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CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

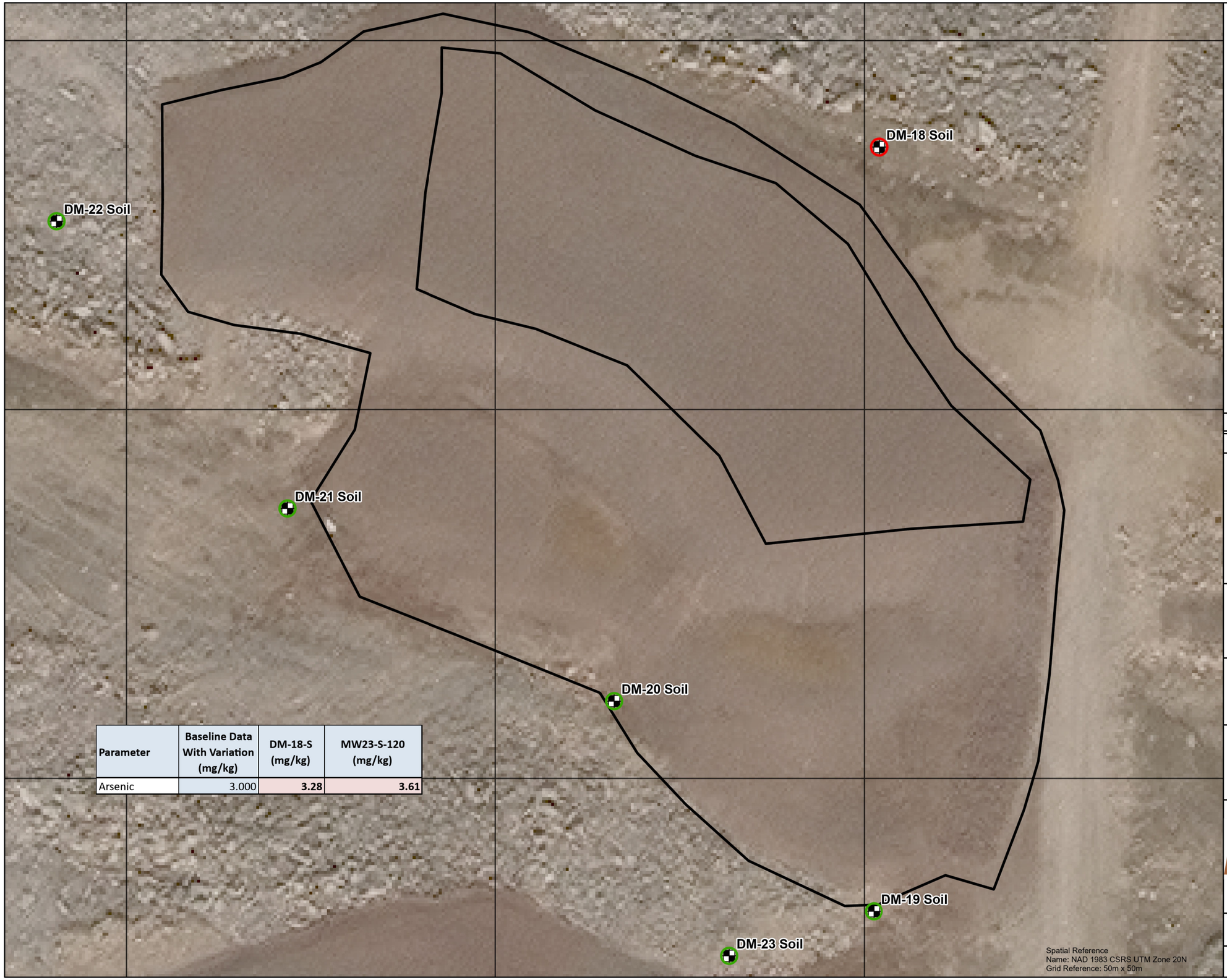
TITLE

Upper Site North Warning System Landfill - Photolog Locations

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*		
230394	**March 18, 2024**		
DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**13b**	**0**

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Parameter	Baseline Data With Variation (mg/kg)	DM-18-S (mg/kg)	MW23-S-120 (mg/kg)
Arsenic	3.000	**3.28**	**3.61**

Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

LEGEND

- Soil Sample
- Sample Exceeds Parameters
- Sample Does Not Exceed Baseline + Variation
- Landfill Crest / Toe

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
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REFERENCES

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N W E S

0 10 20 Metres

1:500

CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Upper Site North Warning System Landfill - Environmental Results

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	*DATE*
230394	**March 25, 2024**

DRAWN	*CHECKED*	*FIG NO.*	*REV*
EB	**HW**	**13c**	**0**

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17 UPPER SITE SOUTH LANDFILL – WEST

17.1 LANDFILL DESCRIPTION

The Upper Site South Landfill – West has an approximate footprint of 11,700 m^2 and is located 25 m south and downgradient from the Upper Site North Warning System Landfill. The landfill was created during DEW Line operations then regraded and covered with clean fill in 2008. The area surrounding the landfill has a general slope towards the southwest.

17.2 SUMMARY OF WORK CONDUCTED

A visual inspection and environmental soil sampling were completed at the Upper Site South Landfill – West. A total of 18 environmental soil samples, including two duplicate samples were collected.

17.2.1 Visual Inspection

A visual inspection of the Upper Site South Landfill – West was completed with no issues or deviations from the SOW, with inspection details shown in **Table 109** below. Features identified during the visual inspection are shown in **Figure 14a**.

Table 109: Upper Site South Landfill – West Visual Inspection Checklist

Site Name	DYE-M
Landfill Designation / Type	Upper Site South Landfill – West / Regraded
Date of Inspection	August 28, 2023
Date of Previous Inspection	August 10, 2018
Weather	2 ^oC, winds 50 km/hr, sunny
Inspected by	Brent Hay
DGPS Information (Make/model, accuracy, UTM zone)	Stonex S900-A, H=8mm, V=15mm, UTM Zone 20N
Landfill Surface Area (m^2)	11,700 m^2

17.2.2 Soil Sampling

A total of eight test pits were advanced and consisted of the collection of 18 soil samples, including a duplicate soil sample for QA/QC purposes. Photos taken before, during and after soil samples are provided on the photo sheet, with their locations shown in **Figure 14b**. Sample locations are shown on the site plan presented on **Figure 14c**. A summary of the test pits is provided in **Table 110** below.

Table 110: Upper Site South Landfill West Test Pitting Details

Soil Sampling Location	Sample ID	Sample Depth (mbgs)	Soil Notes
DM-23	DM-23-S	0.05-0.1	SP: Coarse brown sand
	DM-23-D	0.45-0.5	SP: Coarse brown sand
DM-24	DM-24-S	0.05-0.1	SP: Brown coarse sand, <20% gravel
	DM-24-D	0.25-0.3	Refusal at 0.30. SP: Brown coarse sand
DM-25	DM-25-S	0.1-0.15	GW: Gravel (range of sizes) with coarse brown sand matrix
	DM-25-D	0.45-0.5	SP: Coarse brown sand, <10% gravel
DM-26	DM-26-S	0.1-0.15	SP: Coarse brown sand, <20% gravel
	DM-26-D	0.45-0.5	SP: Coarse brown sand
DM-27	DM-27-S	0.1-0.15	SP: Coarse brown sand
	MW23-5-130	0.1-0.15	SP: Coarse brown sand
	DM-27-D	0.45-0.55	SP: Coarse brown sand
DM-28	DM-28-S	0.10-0.15	GW: Well graded brown gravel, 20% coarse sand matrix
	DM-28-D	0.4-0.45	SP: Coarse sand brown
DM-29	DM-29-S	0.1-0.15	GW: Well graded gravel, brown medium sand matrix
	MW23-5-135	0.1-0.15	GW: Well graded gravel, brown medium sand matrix
	DM-29-D	0.45-0.55	SP: Medium brown sand, moist
DM-30	DM-30-S	0.1-0.15	GW: Well graded gravel with coarse sand matrix
	DM-30-D	0.45-0.5	GW: Same as above

17.2.3 Groundwater Sampling

Groundwater monitoring wells were not installed as part of the remediation program at the Upper Site South Landfill – West; therefore, no groundwater sampling was required during the 2023 monitoring program.

17.2.4 Thermal Monitoring

Thermistors were not installed as part of the remediation program at the Upper Site South Landfill – West; therefore, no thermistor monitoring was required during the 2023 monitoring program. Soil thermal property monitoring with the TEMPOS was not a requirement for this landfill and therefore was not completed during the 2023 monitoring program.

17.3 RESULTS OF THE MONITORING PROGRAM

17.3.1 Visual Inspection Results

Results of the visual inspection are summarized in the Visual Inspection Checklist, provided in **Table 111**, below.

Table 111: Upper Site South Landfill - West Visual Inspection Table

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
Settlement	Y	R	SW Corner	572,461	7,394,575	2.02	0.8	0.125	<1	Settlement (Acceptable)	New in 2023	753, 755
Erosion	N	C	Cover surface	572,461	7,394,575	-	-	-	-	Minor self-armouring erosion	Not observed in 2018 due to snow cover (1 x 0.3 m in 2017)	(2018)
	N	C	Cover surface	-	-	-	-	-	-	Area has self-armoured, no longer eroding	Not observed in 2023. See Note 1	-
	N	E	Cover surface	572,524	7,394,600	-	-	-	-	Minor self-armouring erosion	Not observed in 2018 due to snow cover (10 x 0.3 m in 2017)	(2018)
	N	E	Cover surface	-	-	-	-	-	-	Area has self-armoured, no longer eroding	Not observed in 2023. See Note 1	738
	N	F1	Cover surface	572,556	7,394,568	-	-	-	-	Minor self-armouring erosion	Not observed in 2018 due to snow cover (20 x 0.2 m in 2017)	(2018)
	N	F1	Cover surface	-	-	-	-	-	-	Area has self-armoured, no longer eroding	Not observed in 2023. See Note 1	725
	N	F2	Cover surface	572,564	7,394,573	-	-	-	-	Minor self-armouring erosion	Not observed in 2018 due to snow cover (10 x 2 m in 2017)	(2018)
	N	F2	Cover surface	-	-	-	-	-	-	Area has self-armoured, no longer eroding	Not observed in 2023. See Note 1	722
	N	G	Cover surface	572,541	7,394,581	-	-	-	-	Minor self-armouring erosion	Not observed in 2018 due to snow cover (14 x 0.2 m in 2017))	(2018)
	N	G	Cover surface	-	-	-	-	-	-	Area has self-armoured, no longer eroding	Not observed in 2023. See Note 1	791
	Y	H	Cover surface	572,490	7,394,576	25 (area)	18 (area)	0.02	2	Minor self-armouring erosion area (Acceptable)	Larger erosion area delineated in 2018. Single channel (19 x 0.2 m in 2017)	(2018)
	N	H	Cover surface	-	-	-	-	-	-	Area has self-armoured, no longer eroding	Not observed in 2023. See Note 1	742, 748, 750
	N	I	Cover surface	572,574	7,394,568	-	-	-	-	Minor self-armouring erosion	Not observed in 2018 due to snow cover (10 x 0.1 m in 2017)	(2018)
	N	I	Cover surface	-	-	-	-	-	-	Area has self-armoured, no longer eroding	Not observed in 2023. See Note 1	801
	N	J	Cover surface	572,609	7,394,567	-	-	-	-	Area of self-armouring erosion with 0.5-1m wide channels	Not observed in 2018 due to snow cover (10 x 8 m in 2017)	(2018)
	N	J	Cover surface	-	-	-	-	-	-	Area has self-armoured, no longer eroding	Not observed in 2023. See Note 1	776
	N	M	South slope	572,517	7,394,552	-	-	-	-	Minor self-armouring erosion	Not observed in 2018 due to snow cover (7 x 0.3 m in 2017)	(2018)
	N	M	Cover surface	-	-	-	-	-	-	Area has self-armoured, no longer eroding	Not observed in 2023. See Note 1	719
	N	N	South slope	572,510	7,394,554	-	-	-	-	Minor self-armouring erosion	Not observed in 2018 due to snow cover (10 x 2 m in 2017))	(2018)
	N	N	South slope	-	-	-	-	-	-	Area has self-armoured, no longer eroding	Not observed in 2023. See Note 1	-
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
Frost Action	Y	S	South Slope	572,544	7,394,575	0.6	0.5	0.025	<1	Frost boil with vegetation in middle (Acceptable)	New in 2023	788-789
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
Cracking	N	L	North crest	-	-	-	-	-	-	Minor tension cracking	Not observed in 2017 or 2018	(2018)

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
	N	L	North crest	-	-	-	-	-	-	Minor tension cracking	Not observed in 2017, 2018, or 2023	-
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation	Y	A	South slope	572,463	7,394,533	9	3	-	<1	Sparse vegetation (Acceptable)	Expanded area (1 x 1 m in 2017)	(2018)
	Y	K	Cover surface	572,570	7,394,590	8	6	-	<1	Sparse vegetation (Acceptable)	Expanded area (1 x 1 m in 2017)	(2018)
	Y	P	Cover surface	572,539	7,394,619	13	7	-	<1	Sparse vegetation (Acceptable)	New in 2018	(2018)
	Y	Q	Cover surface	572,557	7,394,587	6	3	-	<1	Sparse vegetation (Acceptable)	New in 2018	(2018)
	Y	A+K+P+Q	Cover surface and slopes	572,535	7,394,584	197	90	-	100	Sparse vegetation over cover surface and slopes of landfill (Acceptable)	Increased to entire landfill in 2023. Dimensions provided are for footprint of landfill given ubiquitous nature of the vegetation.	720, 724, 766
Staining	N	O	South toe	572,564	7,394,548	-	-	-	-	Wet area with running water and orange staining	Not observed in 2018 due to snow cover (17 x 2-5 m in 2017)	(2018)
	N	O	South toe	-	-	-	-	-	-	Wet area with running water and orange staining	Not observed in 2023	-
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
Ponded Water	Y	T	Southeast toe	572,587	7,394,568	3.04	0.06	nil	<1	Wet area, no ponded water (Acceptable)	New in 2023	799, 800
	Y	T1	Southeast toe	572,606	7,394,562	9.36	6.38	nil	<1	Wet area, no ponded water (Acceptable)	New in 2023	805, 807
	Y	U	Southeast toe	572,613	7,394,581	3.2	4.5	nil	<1	Wet area, no ponded water (Acceptable)	New in 2023	814, 815
Seepage	N	O	South toe	572,564	7,394,548	-	-	-	<1	Wet area with melting snow and running water	Not observed in 2018 due to snow cover (15 x 2 m in 2017)	(2018)
	N	O	South toe	-	-	-	-	-	-	Wet area with melting snow and running water	Not observed in 2023	-
Debris and/or Liner Exposed	N	-	-	-	-	-	-	-	-	-	-	-
Presence / Condition of Monitoring Instruments	N	-	-	-	-	-	-	-	-	-	-	-
Features of Note / Other Observations	N	B and D	-	-	-	-	-	-	-	Not assigned	Not assigned	(2018)
	N	B and D	-	-	-	-	-	-	-	Not assigned	Not assigned	-

Landfill Area ~ 11,700 m^2

General Comments: Overall LF is in excellent (acceptable) condition. There is a high occurrence of seepage and down stream flow from overland drainage. There is potential over the long term that this could result in piping (internal erosion), additional settlement or tension cracks along interior crest.

Note 1 - South slope has multiple areas where overland flow has washed fines downslope. The features observed in 2018 are largely no longer present and the area has self-armoured.

17.3.2 Preliminary Stability Assessment

Based on the results of the visual assessment, the landfill is in excellent condition and the Upper Site South Landfill – West has been given an overall performance of Acceptable. The preliminary stability assessment is summarized in **Table 112.**

Table 112: Upper Site South Landfill – West Preliminary Stability Assessment

Feature	Severity Rating	Extent
Settlement	Acceptable	Isolated
Erosion	Not Observed	None
Lateral Movement	Not Observed	None
Frost Action	Acceptable	Isolated
Sloughing	Not Observed	None
Cracking	Not Observed	None
Animal Burrows	Not Observed	None
Ponded Water	Acceptable	Occasional
Seepage	Not Observed	None
Staining	Not Observed	None
Vegetation Establishment	Acceptable	Extensive
Vegetation Stress	Not Observed	None
Debris and/or Liner Exposure	Not Observed	None
Other	Not Observed	None
Overall Landfill Performance	**Acceptable**	

Photographs obtained during the visual inspection provided electronically in the photolog. Feature locations and photographic locations are shown on **Figure 14a** and **Figure 14b,** respectively.

17.3.3 Visual Inspection Trend Analysis

A comparison of the visual inspection results from the current and previous program(s) was completed to assess if any trends are present. The results of this assessment are provided in **Table 113** below.

Table 113: Upper Site South Landfill – West Historical Inspection Comparison

Feature	Feature ID(s)	Comparison with Previous Inspection
Settlement	R	New in 2023
Erosion	C, E, F1, F2, G, H, I, J, M, N	Not observed in 2023, self-armoured
Lateral Movement	none	N/A
Frost Action	S	New in 2023
Sloughing	none	N/A
Cracking	L	Not observed
Animal Burrows	none	N/A
Ponded Water	T, T1, U	New in 2023
Seepage	O	Not observed in 2023
Staining	O	Not observed in 2023
Vegetation Establishment	A+K+P+Q	Vegetation is relatively evenly spaced over the surface of the landfill, increased in 2023
Vegetation Stress	none	N/A
Debris and/or Liner Exposure	none	N/A
Other	none	N/A

Features L and O that were previously identified were not observed in 2023. Features R, S, T, and U are newly identified features in 2023 and are all rated as Acceptable, with the ponded water features considered a likely result of recent snow falls. Features classified as erosion encompass the south slope of the landfill as evidenced by the self-armouring of the surface. Due to the self-armouring, the individual features could not be discerned on the south slope and were therefore marked as not observed. Other trends that are apparent are the increase in vegetation. Based on this comparison, a landfill performance of Acceptable is still considered appropriate.

17.3.4 Soil Sampling Results

Soil results were compared to the baseline with variation for the discussion provided in **Table 114** below. Background and baseline arithmetic means are included for information purposes. Analytical tables and graphs can be found in **Appendix D**. **Figure 14c** shows monitoring well and soil locations.

Table 114: Upper Site South Landfill - West Soil Sampling Results

Parameter	Background Data (mg/kg)	Baseline Data (mg/kg)	Baseline Data with Variation (mg/kg)	Discussion
Arsenic	1.0	1.0	3.0	All results were below BL+V at upgradient and downgradient locations
Cadmium	1.0	1.0	3.0	All results were below BL+V at upgradient and downgradient locations
Chromium	89.8	57.2	177.6	All results were below BL+V at upgradient and downgradient locations
Cobalt	19.7	12.5	49.6	All results were below BL+V at upgradient and downgradient locations
Copper	60.4	26.8	88.0	All results were below BL+V at upgradient and downgradient locations
Lead	10.0	10.0	30.0	All results were below BL+V at upgradient and downgradient locations
Nickel	141.3	42.4	100.3	All results were below BL+V at upgradient and downgradient locations
Zinc	70.1	85.9	229.2	All results were below BL+V at upgradient and downgradient locations.
Total PCB	0.0002	0.1	0.3	All results were below BL+V at upgradient and downgradient locations
F1 (C_6-C_{10})	N/A	10.0	30.0	All results were below BL+V at upgradient and downgradient locations
F2 (C_{10}-C_{16})	N/A	10.0	30.0	All results were below BL+V at upgradient and downgradient locations
F3 (C_{16}-C_{34})	N/A	50.0	150.0	All results were below BL+V at upgradient and downgradient locations
F4 (C_{34}-C_{50})	N/A	50.0	150.0	All results were below BL+V at upgradient and downgradient locations

Note:
Baseline Data with Variation = [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]

Upgradient and downgradient samples at surface (0-0.15 mbgs) and deep (0.4-0.5 mbgs) were below BL+V for all parameters. Lead concentrations (13.4 mg/kg) at the upgradient surface location DM-23 (deep) represents a new maximum for this parameter at this landfill, however the value is still below BL+V. All other results were at or below the maximum historical long-term monitoring values for this landfill. Overall, the soil results from 2023 are comparable to the results from the previous monitoring events and there is no indication of contaminant migration from the landfill at this time.

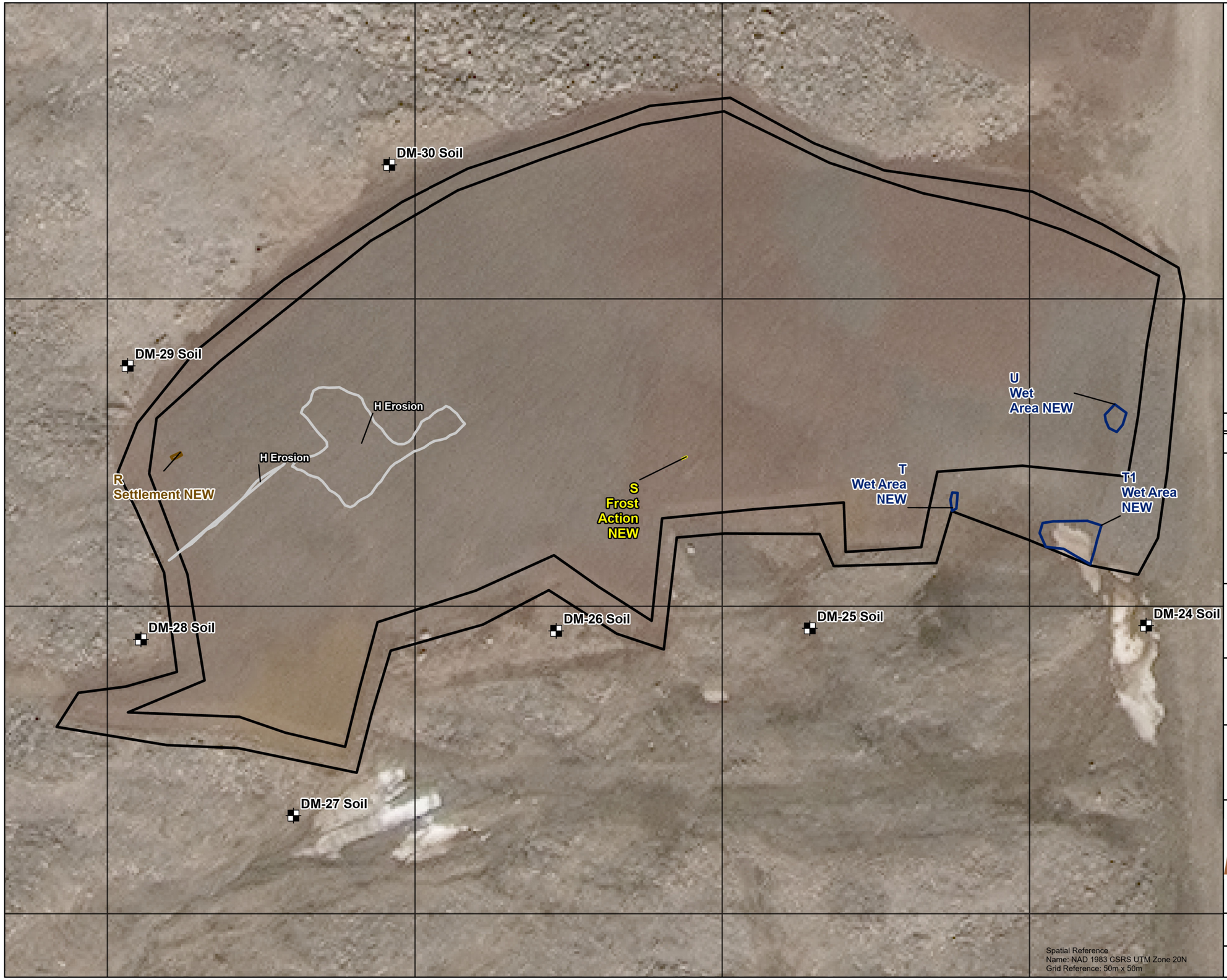
17.4 CONCLUSIONS AND OVERALL LANDFILL PERFORMANCE

Soil samples were collected at all eight scheduled locations at shallow and deep depths. All upgradient and downgradient soil samples were below BL+V for all parameters and were comparable to previous monitoring events.

The preliminary stability assessment resulted in a rating of Acceptable. Based on the above information, an overall landfill performance of Acceptable is still considered appropriate. The landfill does not appear to be impacting the surrounding environment.

17.5 RECOMMENDATIONS

Based on the results of the visual inspection, and soil sampling program, the landfill should continue to be monitored as per the SOW.



LEGEND

- Soil Sample
- Frost Action
- Settlement
- Water
- Landfill Crest / Toe
- 2018 Features (Golder)

Note:
Feature A,K,P,Q - Sparse vegetation over cover surface and slopes of landfill, increase to entire landfill cover

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REFERENCES

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PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Upper Site South Landfill West - Visual Inspection

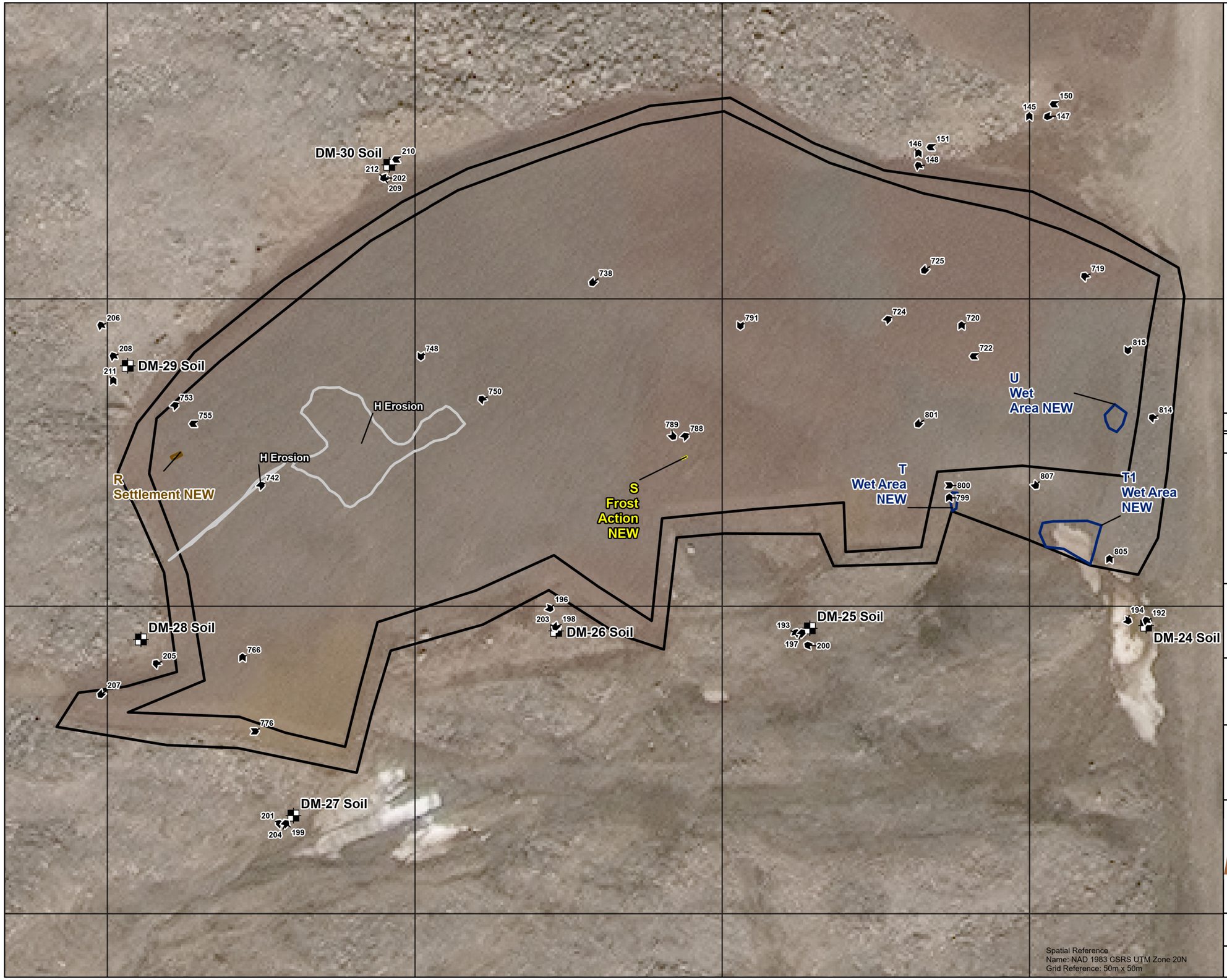
BLM-KEL-60
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Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
Grid Reference: 50m x 50m

PROJECT #	DATE
230394	March 16, 2024

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EB	HW	14a	0

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LEGEND

- Soil Sample
- Photolog Locations
- Frost Action
- Settlement
- Water
- Landfill Crest / Toe
- 2018 Features (Golder)

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PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Upper Site South Landfill West - Photolog Locations

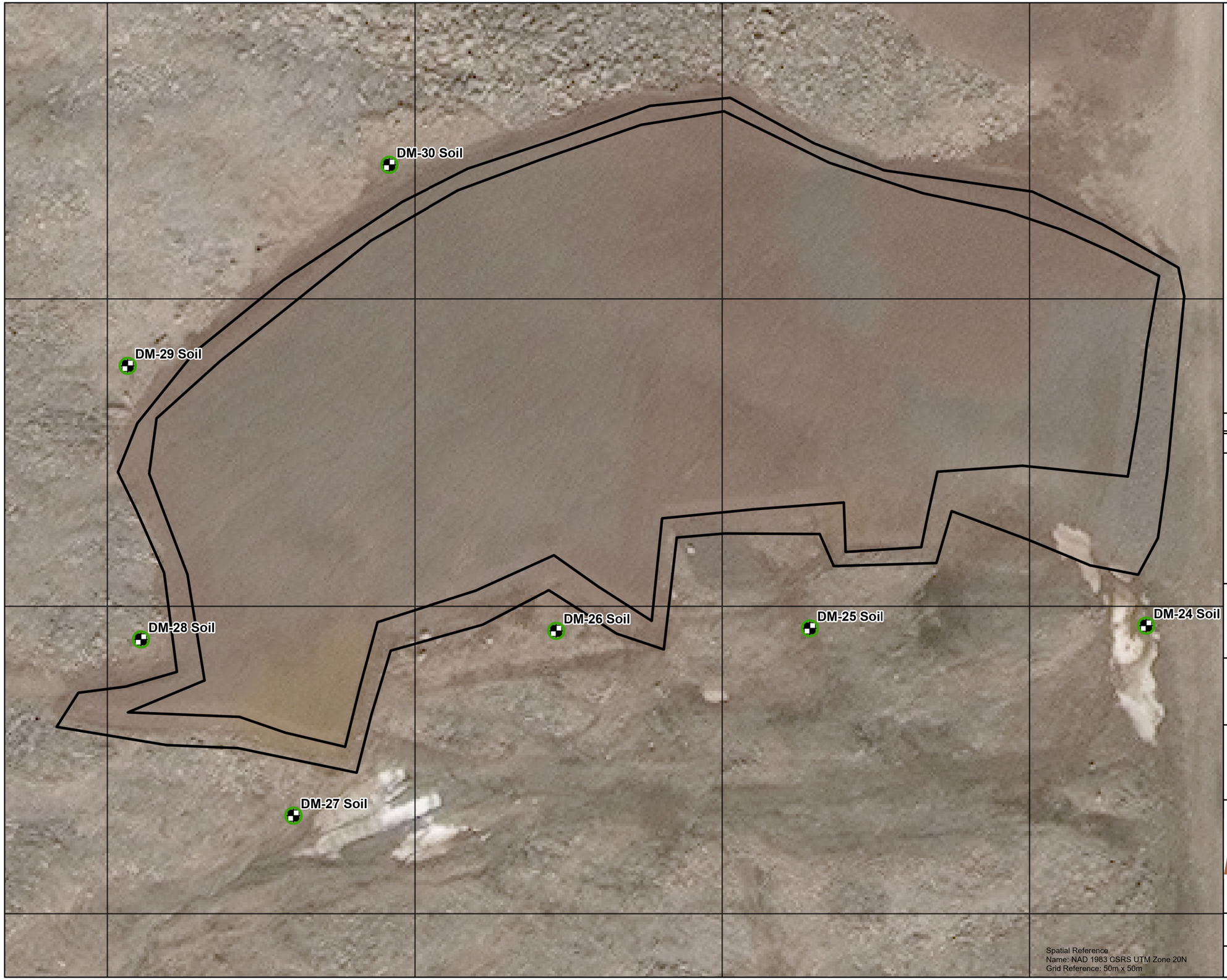
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EB	HW	14b	0

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LEGEND

- Soil Sample
- Sample Exceeds Baseline + Variation
- Sample Does Not Exceed Baseline + Variation
- Landfill Crest / Toe

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PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Upper Site South Landfill West - Environmental Results

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230394	**March 16, 2024**		
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EB	**HW**	**14c**	**0**

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18 UPPER SITE HELIPAD DEBRIS AREA

18.1 LANDFILL DESCRIPTION

The Upper Site Helipad Debris Area has an approximate footprint of 5,600 m^2 and is located on the southside of the station, adjacent to the existing helipad. The facility was created during original DEW Line operations and was regraded and covered with clean fill in 2008.

18.2 SUMMARY OF WORK CONDUCTED

A visual inspection and environmental soil sampling were completed at the Upper Site Helipad Debris Area. A total of 16 environmental soil samples, including two duplicate samples were collected.

18.2.1 Visual Inspection

A visual inspection of the Upper Site Helipad Debris Area was completed with no issues or deviations from the SOW, with inspection details shown in **Table 115** below. Features identified during the visual inspection are shown in **Figure 15a**.

Table 115: Upper Site Helipad Debris Area Visual Inspection Checklist

Site Name	DYE-M
Landfill Designation / Type	Upper Site Helipad Debris Area / Debris Area
Date of Inspection	August 28, 2023
Date of Previous Inspection	August 10, 2018
Weather	2 to 4 ^oC, winds 50-80 km/hr, sunny
Inspected by	Brent Hay
DGPS Information (Make/model, accuracy, UTM zone)	Stonex S900-A, H=8mm, V=15mm, UTM Zone 20N
Landfill Surface Area (m^2)	5,600 m^2

18.2.2 Soil Sampling

A total of seven test pits were advanced and consisted of the collection of 16 soil samples, including two duplicate soil samples for QA/QC purposes. Photos taken before, during and after soil samples are provided on the photo sheet, with their locations shown in **Figure 15b**. Sample locations are shown on the site plan presented on **Figure 15c**. A summary of the test pits is provided in **Table 116** below.

Table 116: Upper Site Helipad Debris Area Test Pitting Details

Soil Sampling Location	Sample ID	Sample Depth (mbgs)	Soil Notes
DM-11	DM-11-S	0.10-0.15	GW: Well graded gravel with sand matrix
	MW23-S-150		
	DM-11-D	0.45-0.55	SW: Well graded brown sand
DM-12	DM-12-S	0.05-0.10	SW: Well graded brown sand
	DM-12-D	0.45-0.55	SW: Well graded brown sand
DM-13	DM-13-S	0.10-0.15	GP: Large gravel with medium sand matrix, brown
	DM-13-D	0.45-0.55	GP: Large gravel with brown medium sand matrix
DM-14	DM-14-S	0.1-0.15	GP: Large gravel with brown medium sand matrix
	DM-14-D	0.4-0.5	SP: Brown medium sand
DM-15	DM-15-S	0.05-0.10	GW: Well graded gravel, medium brown matrix
	DM-15-D	0.45-0.55	SP: Medium brown sand matrix
	MW23-5-140		
DM-16	DM-16-S	0.10-0.15	GP: Poorly graded brown gravel with medium brown sand matrix
	DM-16-D	0.45-0.55	SP: Medium brown sand
DM-17	DM-17-S	0.05-0.10	GP: Large gravel with medium brown sand matrix
	DM-17-D	0.3-0.35	Refusal at 0.35. GP: Large gravel with medium brown sand

18.2.3 Groundwater Sampling

Groundwater monitoring wells were not installed as part of the remediation program at the Upper Site Helipad Debris Area; therefore, no groundwater sampling was required during the 2023 monitoring program.

18.2.4 Thermal Monitoring

Thermistors were not installed as part of the remediation program at the Upper Site Helipad Debris Area; therefore, no thermistor monitoring was required during the 2023 monitoring program. Soil thermal property monitoring with the TEMPOS was not a requirement for this landfill and therefore was not completed during the 2023 monitoring program.

18.3 RESULTS OF THE MONITORING PROGRAM

18.3.1 Visual Inspection Results

Results of the visual inspection are summarized in the Visual Inspection Checklist, provided in **Table 117**, below.

Table 117: Upper Site Helipad Debris Area Visual Inspection Table

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
Settlement	Y	C	Cover surface	572,674	7,394,823	2.0	2.0	0.15	<1	Minor settlement (Acceptable)	Unchanged since previous observation	(2018)
	Y	C	North side east of west end	572,675	7,394,822	1.49	1.56	<0.04	<1	Minor settlement depression collecting ponded water due to recent snow fall (Acceptable)	No significant change in size since 2018	594, 595
	Y	L	Cover surface	572,705	7,394,838	0.7	0.7	0.15	<1	Minor settlement (Acceptable)	New in 2018	(2018)
	Y	L	Cover surface	572,705	7,394,834	4.03	0.9	0.03	<1	Minor settlement (Acceptable)	Increase in length, shallower in 2023	587, 588
	Y	M	Cover surface	572,657	7,394,790	0.6	0.3	0.15	<1	Minor settlement (Acceptable)	New in 2018	(2018)
	Y	M1 M2 M3 M4 M5 M6	Cover surface	572,654 572,655 572,655 572,656 572,658 572,657	7,394,802 7,394,801 7,394,800 7,394,792 7,394,789 7,394,788	0.3-0.6	0.3	0.1-0.15	<1	Minor settlement, six sinkholes (Acceptable)	New sink holes since 2018, otherwise no significant change. These are a result of coarser rock being used around the edges and migration of sand/gravel into voids over time. Suggest DND infill these holes with granular material.	535, 538, 540
Erosion	Y	G	Southeast slope	572,720	7,394,782	8	1.5	-	<1	Self-armouring erosion with fines transport downslope (Acceptable)	New in 2018	(2018)
	Y	G	Southeast slope	572,720	7,394,782	5.75	<0.50	-	<1	Self-armouring, fines no longer present (Acceptable)	No significant change since 2018	560, 563
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
Cracking	N	-	-	-	-	-	-	-	-	-	-	-
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
Vegetation	Y	N	Cover surface and slopes	572,708	7,394,810	110	76	-	100	Sparse vegetation over cover surface and slopes of landfill (Acceptable)	New in 2023. Dimensions provided are for footprint of landfill given ubiquitous nature of the vegetation.	543-545
Staining	N	F	Northwest toe	572,699	7,394,857	-	-	-	-	Hydrocarbon stain	Not observed in 2018	(2018)
	N	F	Northwest toe	-	-	-	-	-	-	Hydrocarbon stain	Not observed in 2023	-
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
Ponded Water	N	-	-	-	-	-	-	-	-	-	-	-
Seepage	N	-	-	-	-	-	-	-	-	-	-	-
Debris and/or Liner Exposed	N	-	-	-	-	-	-	-	-	-	-	-
Presence / Condition of Monitoring Instruments	N	-	-	-	-	-	-	-	-	-	-	-
Features of Note / Other Observations	N	D	-	-	-	-	-	-	-	Tire tracks	No longer a feature	(2018)
	N	D	-	-	-	-	-	-	-	Tire tracks	No longer a feature	-
	Y	H	Cover surface	572,713	7,394,829	33	7	-	3.3	Area of rough grading (Acceptable)	New in 2018	(2018)

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photo Reference Number
	Y	H	Cover surface	5,721,713	7,394,829	31	7	-	3.3	Area of rough grading (Acceptable)	No significant change	566, 567
	Y	I	Cover surface	572,732	7,394,821	4	4	-	<1	Area of rough grading (Acceptable)	New in 2018	(2018)
	Y	I	Cover surface	572,732	7,394,821	4	4	-	<1	Rutting due to truck traffic (Acceptable)	No significant change	575, 576
	Y	J	Cover surface	572,728	7,394,854	10	7	-	1.1	Area of rough grading (Acceptable)	New in 2018	(2018)
	Y	J	Cover surface	572,728	7,394,854	10	7	-	1.1	Rutting due to truck traffic (Acceptable)	No significant change	583, 584
	Y	A	Cover surface	572,730	7,394,836	5	4	0.3	<1	Minor settlement (Acceptable)	Reduced area (8 x 6 m in 2017)	(2018)
	Y	A	Cover surface	572,724	7,394,832	9	8	-	<1	Rutting due to truck traffic (Acceptable)	See Note 1	574, 575
	Y	E	Cover surface	572,707	7,394,831	6	4	0.2	<1	Minor settlement (Acceptable)	Unchanged since previous observation	(2018)
	Y	E	Cover surface	572,715	7,394,837	1	1	-	<1	Rutting due to truck traffic (Acceptable)	See Note 1	589, 590
	Y	K	Cover surface	572,715	7,394,852	3	0.15	0.05	<1	Minor settlement (Acceptable)	New in 2018	(2018)
	Y	K	Cover surface	572,715	7,394,852	1	1	-	<1	Rutting due to truck traffic (Acceptable)	See Note 1	585, 586
	Y	B	South slope	572,694	7,394,796	37 (area)	13 (area)	0.1	6.2	Erosion/rough grading (Acceptable)	Considered unchanged since previous observation, dimension differences are due to field interpretation (27 x 15 m in 2017)	(2018)
	Y	B	South slope	572,692	7,394,792	33.06	7.86	nil	n/a	Rough grading (Acceptable)	Area of coarser material used during construction, reclassified from erosion feature	546, 547

Landfill Area ~ 5,600 m^2

General Comments: Overall LF is in excellent (acceptable) condition. There is a damaged landing light in the active Helipad landing area. Likely not a feature as this pertains to NWS operations, not LF performance.

Note 1 - All settlement features from previous 2018 inspection are a result of truck traffic with the exception of M and L1. These are moved to 'Other'. If the LF is used as a trafficable surface, it should be maintained.

18.3.2 Preliminary Stability Assessment

Based on the results of the visual assessment, the landfill is in excellent condition and the Upper Site Helipad Debris Area has been given an overall performance of Acceptable. The preliminary stability assessment is summarized in **Table 118.**

Table 118: Upper Site Helipad Debris Area Preliminary Stability Assessment

Feature	Severity Rating	Extent
Settlement	Acceptable	Occasional
Erosion	Acceptable	Isolated
Lateral Movement	Not Observed	None
Frost Action	Not Observed	None
Sloughing	Not Observed	None
Cracking	Not Observed	None
Animal Burrows	Not Observed	None
Ponded Water	Not Observed	None
Seepage	Not Observed	None
Staining	Not Observed	None
Vegetation Establishment	Acceptable	Extensive
Vegetation Stress	Not Observed	None
Debris and/or Liner Exposure	Not Observed	None
Other	Acceptable	Occasional
Overall Landfill Performance	**Acceptable**	

Photographs obtained during the visual inspection provided electronically in the photolog. Feature locations and photographic locations are shown on **Figure 15a** and **Figure 15b,** respectively.

18.3.3 Visual Inspection Trend Analysis

A comparison of the visual inspection results from the current and previous program(s) was completed to assess if any trends are present. The results of this assessment are provided in **Table 119** below.

Table 119: Upper Site Helipad Debris Area Historical Inspection Comparison

Feature	Feature ID(s)	Comparison with Previous Inspection
Settlement	M1-M6, C *L*	No significant change from 2018 *Larger in length from 2018*
Erosion	G	No significant change from 2018
Lateral Movement	none	N/A
Frost Action	none	N/A
Sloughing	none	N/A
Cracking	none	N/A
Animal Burrows	none	N/A
Ponded Water	none	N/A
Seepage	none	N/A
Staining	F	Not observed in 2023
Vegetation Establishment	N	Vegetation is relatively evenly spaced over the surface of the landfill, new in 2023
Vegetation Stress	none	N/A
Debris and/or Liner Exposure	none	N/A
Other	A, E, C, K *H, I, J* **B**	Rough area due to truck traffic, reclassified from erosion *No significant change from 2018* **Area of rough grading/coarser material**

Settlement feature C was holding ponded water at the time of the visual inspection and was attributed to rainfall from the same morning. Feature B previously logged as an area of rough, uneven surface is an area of rough grading (coarser material used during construction) having no impact on the landfill performance. Features H, I, J, A, C, E, and K are areas that were defined as settlement or rough areas however are attributed to truck traffic from NWS personnel due to the proximity to the Station Area and the adjacent existing helipad, these features were not observed or were very minor. An increase in vegetation and an increase in the length of settlement Feature L are also apparent. Based on this comparison, a landfill performance of Acceptable is still considered appropriate.

18.3.4 Soil Sampling Results

The soil results for 2023 are presented in the following table. The background and baseline means are presented for information purposes. The discussions are focused on the comparison of the results to the baseline plus variation. Soil results were compared to the baseline with variation for the discussion provided in **Table 120** below, analytical tables and graphs can be found in **Appendix D**.

Table 120: Upper Site Helipad Debris Area Soil Sampling Results

Parameter	Background Data	Baseline Data	Baseline Data with Variation	Discussion
Arsenic	1.0	1.3	3.9	All results were below BL+V at upgradient and downgradient locations
Cadmium	1.0	1.0	3.0	All results were below BL+V at upgradient and downgradient locations
Chromium	89.7	57.1	135.4	All results were below BL+V at upgradient and downgradient locations
Cobalt	19.7	14.2	30.6	All results were below BL+V at upgradient and downgradient locations
Copper	60.4	35.1	77.3	Downgradient DM-17-S exceeded BL+V. All other results were below BL+V at upgradient and downgradient locations
Lead	10.0	11.0	33.4	All results were below BL+V at upgradient and downgradient locations
Nickel	141.3	79.5	269.2	All results were below BL+V at upgradient and downgradient locations
Zinc	70.1	68.7	130.0	All results were below BL+V at upgradient and downgradient locations.
Total PCB	0.0002	0.1	0.5	Downgradient DM-12-D exceeded BL+V. All other results were below BL+V at upgradient and downgradient locations
F1 (C_6-C_{10})	N/A	10.0	30.0	All results were below BL+V at upgradient and downgradient locations
F2 (C_{10}-C_{16})	N/A	10.0	30.0	Downgradient DM-15-D and duplicate MW23-S-140 exceeded BL+V. All other results were below BL+V at upgradient and downgradient locations
F3 (C_{16}-C_{34})	N/A	62.6	368.7	Downgradient DM-15-D and duplicate MW23-S-140 exceeded BL+V. All other results were below BL+V at upgradient and downgradient locations
F4 (C_{34}-C_{50})	N/A	50.0	150.0	All results were below BL+V at upgradient and downgradient locations

Note:
Baseline Data with Variation = [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]

Downgradient soil sampling locations DM-12, DM-15 and DM-17 had exceedances of the BL+V criteria, shown in **Table 121** below.

Table 121: Upper Site Helipad Debris Area Soil Sampling - Results Above BL+V

Parameter	Baseline Data With Variation (mg/kg)	DYE-M Upper Site Site-Specific Criteria (mg/kg)	DM-12-D (mg/kg)	DM-15-D (mg/kg)	MW23-S-140 (mg/kg)	DM-17-S (mg/kg)
Copper	77.3	296	33.6	14.60	13.70	**106**
Total PCB	0.5	5	**0.74**	0.013	0.040	<0.010
F2 (C_{10}-C_{16})	30.0	--	<10	**1700**	**1900**	<10
F3 (C_{16}-C_{34})	368.7	--	130	**460**	**430**	<50

Note:
bold = exceeds BL+V

Total PBC concentrations in the deep soil sample from downgradient location DM-12 were slightly above BL+V, but below historical maximums for this location and landfill and below the DYE-M Upper Site Site-Specific Criteria for Total PCBs. The copper concentration for the downgradient DM-17 (shallow) soil sample exceeded the BL+V but is below the DYE-M Upper Site Site-Specific Criteria for copper, and below historical maximums for this location and landfill.

PHC F2 concentrations in the downgradient DM-15 (deep sample) exceeded the BL+V criteria and PHC F3 concentrations for this sample exceeded the BL+V and represent a new maximum for PHC F3 concentrations at this landfill. PHCs have historically not been detected at DM-15 but it should be noted that limited depth samples have been collected in previous monitoring events. These exceedances at depth could represent contaminant migration that has not been previously assessed. Future monitoring events should endeavour to assess this soil at depth to determine whether the results are anomalous.

All other parameters for DM-12-D, DM-15-D and DM-17-S were below BL+V. All other upgradient and downgradient sample locations were below BL+V. All other results were at or below the maximum historical long term monitoring values for this landfill and contaminant migration from the landfill is not suspected at this time.

18.4 CONCLUSIONS AND OVERALL LANDFILL PERFORMANCE

Soil samples were collected at all seven scheduled locations at shallow and deep depths. BL+V criteria exceedances for copper, Total PCBs, and PHC fractions F2 and F3. There was no overlap in exceeding parameters between these three locations. The exceeding copper and Total PCB concentrations are below the respective DYE-M Upper Site Site-Specific Criteria and below historical maximums for these parameters at this landfill. PHC F2 and F3 concentrations exceed

the BL+V at one downgradient location. Additional data is required to assess whether the elevated downgradient PHC results are a result of landfill influence. All other results were at or below the maximum historical long-term monitoring values for this landfill.

The preliminary stability assessment resulted in a rating of Acceptable. Based on the above information, an overall landfill performance of Acceptable is still considered appropriate. The landfill does not appear to be impacting the surrounding environment.

18.5 RECOMMENDATIONS

Copper, Total PCB, and PHC F2 and F3 concentrations should be reviewed at future monitoring events to assess whether the 2023 results were anomalous or if concentrations are increasing over time.

Based on the results of the visual inspection, and soil sampling program, the landfill should continue to be monitored as per the SOW.

DND should discuss operations with NWS regarding vehicle traffic over landfills. If vehicle traffic results in features that could be detrimental to landfill performance, operations should be adjusted such that traffic on landfills is restricted, or a trafficable surface be maintained. Currently is does not appear vehicle traffic on the Helipad Landfill is an issue.



LEGEND

- Soil Sample
- Landfill Crest / Toe
- 2018 Features (Golder)
- Notable Feature
- Settlement
- Vehicle Rut
- Erosion

Note:
Feature N - Sparse vegetation over cover surface and slopes of landfill, new in 2023

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LEGEND

- Soil Sample
- Photolog Locations
- 2018 Features (Golder)
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Parameter	Baseline Data With Variation (mg/kg)	DM-12-D (mg/kg)	DM-17-S (mg/kg)
Cooper	77.289	33.6	**106**
Total PCB	0.530	**0.74**	<0.010

DM-12 Soil
DM-11 Soil
DM-13 Soil
DM-17 Soil
DM-14 Soil
DM-16 Soil
DM-15 Soil

Spatial Reference
Name: NAD 1983 CSRS UTM Zone 20N
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LEGEND

- Soil Sample
- Sample Exceeds Baseline + Variation
- Sample Does Not Exceed Baseline + Variation
- Landfill Crest / Toe

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REFERENCES

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N W E S

0 10 20 Metres

1:500

CLIENT

Defence Construction Canada

PROJECT

2023 DYE-M Landfill Monitoring Program

TITLE

Upper Site Helipad Debris Area - Environmental Results

BLM-KEL-60
A Kitikmeot JV Corporation
BluMetric • KBL • Accutech
P.O. Box 6
Cambridge Bay, NU
X0B-0C0

PROJECT #	DATE
230394	March 25, 2024

DRAWN	CHECKED	FIG NO.	REV
EB	HW	15c	0

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19 OVERALL LANDFILL PERFORMANCE

The overall landfill performance for DYE-M is provided in the **Table 122** below based on Visual Inspection Landfill Checklist (**Annex C**) and Preliminary Stability Assessments (**Annex D**).

Table 122: Overall Landfill Performance

Landfill	Overall Performance Rating
DYE-M Cape Dyer	
Lower NWS Landfill	Acceptable
Lower Site Tier II Disposal Facility	Marginal
Lower Site Crossroads Landfill	Acceptable
Lower Site Foundations Landfill	Acceptable
Lower Site Powerhouse Landfill	Acceptable
Lower Site Non-Hazardous Waste Landfill	Marginal
Upper Site Tier II Disposal Facility	Acceptable
Upper Site West Landfill- West Lobe	Acceptable
Upper Site West Landfill- Centre/East Lobes	Acceptable
Upper Site Pallet Line Landfill	Acceptable
Upper Site Non-Hazardous Waste Landfill	Acceptable
Upper Site NWS Landfill	Acceptable
Upper Site South Landfill - West	Acceptable
Upper Site Helipad Debris Area	Acceptable

20 RECOMMENDATIONS FOR NEXT SITE VISIT

Noteworthy items requiring the immediate attention of DND are described in detail below, with photos where applicable. These noteworthy items are identified as action items for the next monitoring event.

20.1 DAMAGED WELL – MW05-13

MW05-13 at the Lower Tier II Landfill at DYE-M had severe damage to the outer casing of the monitoring well. This damaged blocked access to the top of the monitoring well as well as prevented the well from locking. A rock was wedged between the outer casing and interior monitoring well pipe to allow the lid to be opened and groundwater sampling to be completed. The outer casing lid was adjusted; however, the significant damage prevented the outer casing from being locked. Replacing the outer casing would be recommended during the next sampling event. Photos 8 to 13 in the Lower Site Tier II Disposal Facility photo sheet located in **Appendix G** show the damage to the well.

20.2 Lower Site Tier II Disposal Facility Failures

The Features described in the Lower Site Tier II Disposal Facility section indicate a deteriorating landfill performance. Although the failure is not expected to be imminent (failure being described as the Tier II's ability to contain waste), careful visual inspection as to the progress of the failures is required. The numerical analysis should be conducted prior to the next site visit such that any information gaps identified as part of the analysis can be addressed. This may include assessing groundwater levels in the slope or obtaining samples of cover material to refine input parameters. Photos 37 and 38 in the Lower Site Tier II Disposal Facility photo sheet located in **Appendix G** show the slope failures of the landfill.

21 SUMMARY OF SAMPLES NOT COLLECTED

One soil sample (MW06-19-SOIL-D) was not collected due to early refusal (0.3 m) and poor-quality fractured bedrock from 0.15-0.30m. This low-quality matrix prevented a depth sample from being taken. A shallow sample, MW06-19-SOIL-S, was taken between 0.1 and 0.15 mbgs.

Several groundwater samples could not be completed due to insufficient water in the wells:

- MW09-28 (Lower Site Non-Hazardous Waste Landfill); sampling was attempted following the well repair and insufficient water was present to sample
- MW07-22, MW08-25, MW12-02 and QA/QC sample MW23-20 (Upper Tier II Landfill)

21.1 LABORATORY CERTIFICATES OF ANALYSIS

Laboratory Certificates are included in **Appendix B**.

22 CLOSURE

BLM-KEL-60 understands that this deliverable is subject to the general conditions GC4.3 of the contract which grants to Canada non-exclusive, perpetual, worldwide, irrevocable license to use this document for the purpose of planning, designing, and constructing or otherwise implementing any other work.

Full report limitations are included in **Appendix A**.

Respectfully submitted,
BLM-KEL-60 Corporation

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Environmental Field Team Lead

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Project Manager

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Senior Environmental Professional

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Senior Geotechnical Engineer

Nelson Ferreira, Ph.D., P.Eng. (NAPEG)
Senior Geotechnical Engineer

APPENDIX A

Report Limitations

Appendix A

Limiting Conditions

The information and opinions expressed in this *report* are prepared for the benefit of ***Defence Construction Canada and the Department of National Defence***.

BLM-KEL-60 Corporation understands that this deliverable is subject to the general conditions GC4.3 of the contract which grants to Canada non-exclusive, perpetual, worldwide, irrevocable license to use this document for the purpose of planning, designing, and constructing or otherwise implementing any other work. The conclusions presented in this report represent our professional opinion and are based upon the work described in this report and any limiting conditions in the terms of reference, scope of work, or conditions noted herein.

The findings presented in this report are based on conditions observed at the specified dates and locations, the analysis of samples for the specified parameters, and information obtained for this project. Unless otherwise stated, the findings cannot be extended to previous or future site conditions, locations that were not investigated directly, or types of analysis not performed. BLM-KEL-60 Corporation makes no warranty as to the accuracy or completeness of the information provided by others, or of conclusions and recommendations predicated on the accuracy of that information.

Any use a third party makes of this report, any reliance on the report, or decisions based upon the report, are the responsibility of those third parties unless authorization is received from BluMetric Environmental Inc. in writing. BLM-KEL-60 Corporation accepts no responsibility for any loss or damages suffered by any unauthorized third party as a result of decisions made or actions taken based on this report.

APPENDIX B

Laboratory Certificates of Analysis

Your Project #: 230394
Site Location: DYE-M
Your C.O.C. #: 761064

Attention: Heather Wolczanski

BluMetric Environmental Inc
1682 Woodward Dr
Ottawa, ON
CANADA K2C 3R8

Report Date: 2023/09/15
Report #: R7814022
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3R2252
Received: 2023/09/05, 10:28

Sample Matrix: Soil
Samples Received: 63

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Petroleum Hydro. CCME F1 & BTEX in Soil (1, 3)	57	N/A	2023/09/12	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydro. CCME F1 & BTEX in Soil (1, 3)	5	N/A	2023/09/13	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (1, 4)	3	2023/09/11	2023/09/12	CAM SOP-00316	CCME CWS m
Petroleum Hydrocarbons F2-F4 in Soil (1, 4)	21	2023/09/12	2023/09/12	CAM SOP-00316	CCME CWS m
Petroleum Hydrocarbons F2-F4 in Soil (1, 4)	30	2023/09/12	2023/09/13	CAM SOP-00316	CCME CWS m
Petroleum Hydrocarbons F2-F4 in Soil (1, 4)	9	2023/09/12	2023/09/14	CAM SOP-00316	CCME CWS m
Elements by ICPMS (total) (2, 5)	36	2023/09/13	2023/09/13		
Elements by ICPMS (total) (2, 5)	27	2023/09/13	2023/09/14		
Moisture (1)	63	N/A	2023/09/09	CAM SOP-00445	Carter 2nd ed 51.2 m
Polychlorinated Biphenyl in Soil (1)	17	2023/09/10	2023/09/11	CAM SOP-00309	EPA 8082A m
Polychlorinated Biphenyl in Soil (1)	1	2023/09/10	2023/09/13	CAM SOP-00309	EPA 8082A m
Polychlorinated Biphenyl in Soil (1)	15	2023/09/11	2023/09/11	CAM SOP-00309	EPA 8082A m
Polychlorinated Biphenyl in Soil (1)	20	2023/09/11	2023/09/12	CAM SOP-00309	EPA 8082A m
Polychlorinated Biphenyl in Soil (1)	2	2023/09/12	2023/09/12	CAM SOP-00309	EPA 8082A m
Polychlorinated Biphenyl in Soil (1)	8	2023/09/09	2023/09/09	CAM SOP-00309	EPA 8082A m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCCFP, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Your Project #: 230394
Site Location: DYE-M
Your C.O.C. #: 761064

Attention: Heather Wolczanski

BluMetric Environmental Inc
1682 Woodward Dr
Ottawa, ON
CANADA K2C 3R8

Report Date: 2023/09/15
Report #: R7814022
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3R2252

Received: 2023/09/05, 10:28

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8

(2) This test was performed by Bureau Veritas Burnaby, 4606 Canada Way , Burnaby, BC, V5G 1K5

(3) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.

(4) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

(5) The sample is prepaired per the BC MOE Lab Manual "Strong Acid Leachable Metals (SALM) in Soil - Prescriptive", Revision Nov 6, 2015.

Encryption Key



Christine Gripton
Senior Project Manager
15 Sep 2023 15:46:34

Please direct all questions regarding this Certificate of Analysis to:
Christine Gripton, Senior Project Manager
Email: Christine.Gripton@bureauveritas.com
Phone# (519)652-9444

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15

BluMetric Environmental Inc
Client Project #: 230394
Site Location: DYE-M

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WXF630	WXF631		WXF632	WXF633		WXF634		
Sampling Date		2023/08/29	2023/08/29		2023/08/29	2023/08/29		2023/08/29		
COC Number		761064	761064		761064	761064		761064		
	UNITS	DM-11-S	DM-11-D	QC Batch	DM-12-S	DM-12-D	QC Batch	DM-13-S	RDL	QC Batch
Inorganics										
Moisture	%	6.5	6.8	8906719	16	11	8906718	19	1.0	8906719
Metals										
Total Arsenic (As)	mg/kg	<0.20	<0.20	8918469	1.38	0.51	8918469	1.75	0.20	8918469
Total Cadmium (Cd)	mg/kg	0.052	<0.050	8918469	0.125	0.135	8918469	0.137	0.050	8918469
Total Chromium (Cr)	mg/kg	33.4	23.0	8918469	68.3	60.2	8918469	69.5	0.50	8918469
Total Cobalt (Co)	mg/kg	11.8	8.44	8918469	11.0	11.6	8918469	12.0	0.10	8918469
Total Copper (Cu)	mg/kg	29.0	24.2	8918469	34.6	33.6	8918469	37.3	0.50	8918469
Total Lead (Pb)	mg/kg	6.05	5.14	8918469	26.5	16.0	8918469	14.9	0.10	8918469
Total Nickel (Ni)	mg/kg	75.3	46.6	8918469	69.9	78.3	8918469	79.5	0.50	8918469
Total Zinc (Zn)	mg/kg	45.6	34.4	8918469	63.1	60.8	8918469	68.4	1.0	8918469

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXF635	WXF636	WXF637		WXF638	WXF639		
Sampling Date		2023/08/29	2023/08/29	2023/08/29		2023/08/29	2023/08/29		
COC Number		761064	761064	761064		761064	761064		
	UNITS	DM-13-D	DM-14-S	DM-14-D	QC Batch	DM-15-S	DM-15-D	RDL	QC Batch
Inorganics									
Moisture	%	7.3	17	6.9	8906719	19	5.1	1.0	8906563
Metals									
Total Arsenic (As)	mg/kg	0.44	0.83	<0.20	8918469	<0.20	<0.20	0.20	8918469
Total Cadmium (Cd)	mg/kg	0.119	0.137	0.061	8918469	0.089	0.112	0.050	8918469
Total Chromium (Cr)	mg/kg	49.4	51.8	25.0	8918469	22.9	17.1	0.50	8918469
Total Cobalt (Co)	mg/kg	9.66	13.8	7.76	8918469	7.42	5.15	0.10	8918469
Total Copper (Cu)	mg/kg	33.5	39.2	17.2	8918469	21.9	14.6	0.50	8918469
Total Lead (Pb)	mg/kg	12.8	14.7	6.21	8918469	9.72	8.75	0.10	8918469
Total Nickel (Ni)	mg/kg	69.4	98.5	46.4	8918469	26.7	19.5	0.50	8918469
Total Zinc (Zn)	mg/kg	61.2	71.0	38.8	8918469	63.3	50.3	1.0	8918469

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WXF640	WXF641			WXF641			WXF642		
Sampling Date		2023/08/29	2023/08/29			2023/08/29			2023/08/29		
COC Number		761064	761064			761064			761064		
	UNITS	DM-16-S	DM-16-D	RDL	QC Batch	DM-16-D Lab-Dup	RDL	QC Batch	DM-17-S	RDL	QC Batch
Inorganics											
Moisture	%	8.3	4.3	1.0	8906719				10	1.0	8906563
Metals											
Total Arsenic (As)	mg/kg	<0.20	<0.20	0.20	8918469	<0.20	0.20	8918469	<0.20	0.20	8918469
Total Cadmium (Cd)	mg/kg	<0.050	<0.050	0.050	8918469	<0.050	0.050	8918469	0.058	0.050	8918469
Total Chromium (Cr)	mg/kg	23.9	32.4	0.50	8918469	32.6	0.50	8918469	14.6	0.50	8918469
Total Cobalt (Co)	mg/kg	10.1	11.4	0.10	8918469	11.3	0.10	8918469	12.9	0.10	8918469
Total Copper (Cu)	mg/kg	64.5	60.0	0.50	8918469	59.4	0.50	8918469	106	0.50	8918469
Total Lead (Pb)	mg/kg	6.12	8.27	0.10	8918469	8.31	0.10	8918469	7.89	0.10	8918469
Total Nickel (Ni)	mg/kg	35.0	42.5	0.50	8918469	42.2	0.50	8918469	36.9	0.50	8918469
Total Zinc (Zn)	mg/kg	62.5	76.7	1.0	8918469	75.7	1.0	8918469	101	1.0	8918469

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WXF643		WXF644		WXF645		WXF646		
Sampling Date		2023/08/29		2023/08/29		2023/08/29		2023/08/30		
COC Number		761064		761064		761064		761064		
	UNITS	DM-17-D	QC Batch	MW23-S-140	QC Batch	MW23-S-150	QC Batch	DM-35-S	RDL	QC Batch
Inorganics										
Moisture	%	4.5	8906719	3.9	8906563	17	8906718	24	1.0	8906719
Metals										
Total Arsenic (As)	mg/kg	<0.20	8918469	0.53	8918469	<0.20	8918469	0.47	0.20	8918469
Total Cadmium (Cd)	mg/kg	<0.050	8918469	0.086	8918469	<0.050	8918469	0.091	0.050	8918469
Total Chromium (Cr)	mg/kg	17.2	8918469	15.7	8918469	26.8	8918469	182	0.50	8918469
Total Cobalt (Co)	mg/kg	9.66	8918469	4.73	8918469	11.9	8918469	6.61	0.10	8918469
Total Copper (Cu)	mg/kg	61.0	8918469	13.7	8918469	29.2	8918469	88.1	0.50	8918469
Total Lead (Pb)	mg/kg	6.46	8918469	8.29	8918469	5.38	8918469	3.14	0.10	8918469
Total Nickel (Ni)	mg/kg	33.8	8918469	16.2	8918469	81.5	8918469	20.1	0.50	8918469
Total Zinc (Zn)	mg/kg	58.1	8918469	46.1	8918469	39.1	8918469	172	1.0	8918469

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WXF647		WXF648		WXF649		WXF650		
Sampling Date		2023/08/30		2023/08/30		2023/08/30		2023/08/30		
COC Number		761064		761064		761064		761064		
	UNITS	DM-35-D	QC Batch	DM-36-S	QC Batch	DM-36-D	QC Batch	DM-40-S	RDL	QC Batch
Inorganics										
Moisture	%	24	8906718	5.9	8906718	19	8906719	14	1.0	8906566
Metals										
Total Arsenic (As)	mg/kg	0.51	8918469	<0.20	8918470	1.75	8918470	2.24	0.20	8918470
Total Cadmium (Cd)	mg/kg	0.075	8918469	0.057	8918470	0.071	8918470	0.407	0.050	8918470
Total Chromium (Cr)	mg/kg	241	8918469	115	8918470	143	8918470	77.2	0.50	8918470
Total Cobalt (Co)	mg/kg	7.38	8918469	9.34	8918470	9.22	8918470	31.7	0.10	8918470
Total Copper (Cu)	mg/kg	110	8918469	52.7	8918470	84.1	8918470	64.9	0.50	8918470
Total Lead (Pb)	mg/kg	3.11	8918469	7.98	8918470	8.50	8918470	6.94	0.10	8918470
Total Nickel (Ni)	mg/kg	20.1	8918469	34.5	8918470	33.9	8918470	105	0.50	8918470
Total Zinc (Zn)	mg/kg	202	8918469	91.6	8918470	112	8918470	129	1.0	8918470

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXF650			WXF651	WXF652		WXF653		
Sampling Date		2023/08/30			2023/08/30	2023/08/30		2023/08/30		
COC Number		761064			761064	761064		761064		
	UNITS	DM-40-S Lab-Dup	RDL	QC Batch	DM-40-D	DM-41-S	QC Batch	DM-41-D	RDL	QC Batch
Inorganics										
Moisture	%				20	23	8906719	7.0	1.0	8906566
Metals										
Total Arsenic (As)	mg/kg	2.23	0.20	8918470	1.71	0.92	8918470	0.59	0.20	8918470
Total Cadmium (Cd)	mg/kg	0.382	0.050	8918470	0.270	0.105	8918470	0.084	0.050	8918470
Total Chromium (Cr)	mg/kg	77.8	0.50	8918470	115	122	8918470	110	0.50	8918470
Total Cobalt (Co)	mg/kg	32.0	0.10	8918470	23.7	10.5	8918470	11.3	0.10	8918470
Total Copper (Cu)	mg/kg	65.6	0.50	8918470	76.8	52.8	8918470	44.5	0.50	8918470
Total Lead (Pb)	mg/kg	6.88	0.10	8918470	9.89	13.2	8918470	6.44	0.10	8918470
Total Nickel (Ni)	mg/kg	106	0.50	8918470	87.4	46.5	8918470	60.0	0.50	8918470
Total Zinc (Zn)	mg/kg	130	1.0	8918470	137	114	8918470	94.0	1.0	8918470

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WXF654		WXF655	WXF656		WXF657	WXF658		
Sampling Date		2023/08/30		2023/08/30	2023/08/30		2023/08/30	2023/08/30		
COC Number		761064		761064	761064		761064	761064		
	UNITS	DM-45-S	QC Batch	DM-45-D	DM-46-S	QC Batch	DM-46-D	DM-47-S	RDL	QC Batch
Inorganics										
Moisture	%	11	8906718	18	17	8906566	16	11	1.0	8906719
Metals										
Total Arsenic (As)	mg/kg	0.76	8918470	1.11	1.92	8918470	4.60	1.46	0.20	8918470
Total Cadmium (Cd)	mg/kg	0.124	8918470	0.070	0.107	8918470	0.078	0.129	0.050	8918470
Total Chromium (Cr)	mg/kg	159	8918470	171	129	8918470	112	155	0.50	8918470
Total Cobalt (Co)	mg/kg	38.2	8918470	16.3	12.6	8918470	10.1	13.8	0.10	8918470
Total Copper (Cu)	mg/kg	75.3	8918470	123	61.7	8918470	119	63.4	0.50	8918470
Total Lead (Pb)	mg/kg	9.43	8918470	10.4	11.1	8918470	7.15	19.5	0.10	8918470
Total Nickel (Ni)	mg/kg	120	8918470	79.9	60.1	8918470	57.8	70.0	0.50	8918470
Total Zinc (Zn)	mg/kg	152	8918470	183	103	8918470	103	115	1.0	8918470

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXF659		WXF660	WXF661		WXF662	WXF663		
Sampling Date		2023/08/30		2023/08/30	2023/08/30		2023/08/30	2023/08/30		
COC Number		761064		761064	761064		761064	761064		
	UNITS	DM-47-D	QC Batch	DM-48-S	DM-48-D	QC Batch	DM-49-S	DM-49-D	RDL	QC Batch
Inorganics										
Moisture	%	7.4	8906718	12	13	8906719	18	13	1.0	8906563
Metals										
Total Arsenic (As)	mg/kg	1.24	8918470	18.8	15.7	8918470	0.73	0.70	0.20	8918470
Total Cadmium (Cd)	mg/kg	0.083	8918470	0.138	0.190	8918470	0.059	0.057	0.050	8918470
Total Chromium (Cr)	mg/kg	142	8918470	451	230	8918470	113	125	0.50	8918470
Total Cobalt (Co)	mg/kg	14.5	8918470	37.1	30.2	8918470	17.8	17.2	0.10	8918470
Total Copper (Cu)	mg/kg	54.9	8918470	79.9	151	8918470	64.3	63.4	0.50	8918470
Total Lead (Pb)	mg/kg	7.57	8918470	4.92	9.11	8918470	8.47	9.34	0.10	8918470
Total Nickel (Ni)	mg/kg	77.5	8918470	333	207	8918470	95.3	95.1	0.50	8918470
Total Zinc (Zn)	mg/kg	101	8918470	88.6	131	8918470	86.7	90.6	1.0	8918470

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WXF664	WXF665		WXF666		WXF667		
Sampling Date		2023/08/30	2023/08/30		2023/08/30		2023/08/31		
COC Number		761064	761064		761064		761064		
	UNITS	DM-52-S	DM-52-D	QC Batch	MW23-S-160	QC Batch	DM-50-S	RDL	QC Batch
Inorganics									
Moisture	%	16	13	8906563	18	8906563	11	1.0	8906566
Metals									
Total Arsenic (As)	mg/kg	0.52	0.39	8918470	1.57	8918472	2.87	0.20	8918472
Total Cadmium (Cd)	mg/kg	0.064	0.076	8918470	<0.050	8918472	<0.050	0.050	8918472
Total Chromium (Cr)	mg/kg	67.3	72.5	8918470	173	8918472	222	0.50	8918472
Total Cobalt (Co)	mg/kg	26.3	28.0	8918470	16.4	8918472	12.8	0.10	8918472
Total Copper (Cu)	mg/kg	53.1	56.5	8918470	123	8918472	96.0	0.50	8918472
Total Lead (Pb)	mg/kg	9.97	10.2	8918470	11.3	8918472	6.99	0.10	8918472
Total Nickel (Ni)	mg/kg	142	168	8918470	79.2	8918472	66.5	0.50	8918472
Total Zinc (Zn)	mg/kg	60.0	65.8	8918470	183	8918472	75.2	1.0	8918472

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXF668		WXF669		WXF670	WXF671	WXF672		
Sampling Date		2023/08/31		2023/08/31		2023/08/31	2023/08/31	2023/08/31		
COC Number		761064		761064		761064	761064	761064		
	UNITS	DM-50-D	QC Batch	DM-51-S	QC Batch	DM-51-D	MW23-S-70	MW23-S-80	RDL	QC Batch
Inorganics										
Moisture	%	18	8906563	18	8906719	16	16	12	1.0	8906563
Metals										
Total Arsenic (As)	mg/kg	2.77	8918472	1.68	8918472	1.21	1.07	3.05	0.20	8918472
Total Cadmium (Cd)	mg/kg	0.100	8918472	0.146	8918472	0.081	0.087	<0.050	0.050	8918472
Total Chromium (Cr)	mg/kg	281	8918472	82.4	8918472	110	115	257	0.50	8918472
Total Cobalt (Co)	mg/kg	19.4	8918472	11.7	8918472	12.1	11.4	17.0	0.10	8918472
Total Copper (Cu)	mg/kg	127	8918472	35.1	8918472	43.8	42.5	114	0.50	8918472
Total Lead (Pb)	mg/kg	37.2	8918472	13.5	8918472	20.3	47.1	32.2	0.10	8918472
Total Nickel (Ni)	mg/kg	92.7	8918472	59.7	8918472	51.9	44.8	78.9	0.50	8918472
Total Zinc (Zn)	mg/kg	147	8918472	68.5	8918472	88.6	87.4	135	1.0	8918472

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WXF673	WXF674			WXF674			WXF675		
Sampling Date		2023/08/31	2023/08/31			2023/08/31			2023/08/31		
COC Number		761064	761064			761064			761064		
	UNITS	DM-54-S	DM-54-D	RDL	QC Batch	DM-54-D Lab-Dup	RDL	QC Batch	DM-55-S	RDL	QC Batch
Inorganics											
Moisture	%	12	18	1.0	8906566				8.7	1.0	8906563
Metals											
Total Arsenic (As)	mg/kg	1.43	1.37	0.20	8918472	1.33	0.20	8918472	1.00	0.20	8918472
Total Cadmium (Cd)	mg/kg	<0.050	<0.050	0.050	8918472	<0.050	0.050	8918472	<0.050	0.050	8918472
Total Chromium (Cr)	mg/kg	62.4	71.5	0.50	8918472	72.1	0.50	8918472	51.8	0.50	8918472
Total Cobalt (Co)	mg/kg	16.7	15.7	0.10	8918472	15.6	0.10	8918472	13.8	0.10	8918472
Total Copper (Cu)	mg/kg	27.8	29.0	0.50	8918472	28.9	0.50	8918472	23.2	0.50	8918472
Total Lead (Pb)	mg/kg	23.2	24.2	0.10	8918472	24.3	0.10	8918472	20.0	0.10	8918472
Total Nickel (Ni)	mg/kg	74.0	73.8	0.50	8918472	74.7	0.50	8918472	80.8	0.50	8918472
Total Zinc (Zn)	mg/kg	69.3	78.0	1.0	8918472	78.4	1.0	8918472	53.7	1.0	8918472

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WXF676		WXF677	WXF678		WXF679	WXF680		
Sampling Date		2023/08/31		2023/08/31	2023/08/31		2023/08/31	2023/08/31		
COC Number		761064		761064	761064		761064	761064		
	UNITS	DM-55-D	QC Batch	DM-56-S	DM-56-D	QC Batch	DM-57-S	DM-57-D	RDL	QC Batch
Inorganics										
Moisture	%	8.8	8906566	16	15	8906563	7.9	16	1.0	8906566
Metals										
Total Arsenic (As)	mg/kg	0.88	8918472	0.49	0.57	8918472	0.70	0.45	0.20	8918472
Total Cadmium (Cd)	mg/kg	<0.050	8918472	<0.050	<0.050	8918472	<0.050	<0.050	0.050	8918472
Total Chromium (Cr)	mg/kg	46.6	8918472	40.8	36.9	8918472	51.6	39.7	0.50	8918472
Total Cobalt (Co)	mg/kg	12.9	8918472	11.0	10.3	8918472	16.9	14.0	0.10	8918472
Total Copper (Cu)	mg/kg	21.3	8918472	19.1	19.0	8918472	22.5	11.4	0.50	8918472
Total Lead (Pb)	mg/kg	17.8	8918472	7.87	9.40	8918472	8.62	9.24	0.10	8918472
Total Nickel (Ni)	mg/kg	79.4	8918472	83.0	60.4	8918472	105	65.0	0.50	8918472
Total Zinc (Zn)	mg/kg	47.5	8918472	36.9	39.9	8918472	54.8	56.0	1.0	8918472

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WXF681		WXF682	WXF683		WXF684	WXF685		
Sampling Date		2023/08/31		2023/08/31	2023/08/31		2023/08/31	2023/08/31		
COC Number		761064		761064	761064		761064	761064		
	UNITS	DM-58-S	QC Batch	DM-58-D	DM-59-S	QC Batch	DM-59-D	DM-60-S	RDL	QC Batch
Inorganics										
Moisture	%	6.8	8906563	11	15	8906566	8.5	12	1.0	8906566
Metals										
Total Arsenic (As)	mg/kg	0.66	8918472	0.66	0.44	8918472	0.48	0.63	0.20	8918473
Total Cadmium (Cd)	mg/kg	<0.050	8918472	<0.050	<0.050	8918472	<0.050	<0.050	0.050	8918473
Total Chromium (Cr)	mg/kg	50.2	8918472	48.1	33.7	8918472	24.5	22.8	0.50	8918473
Total Cobalt (Co)	mg/kg	14.1	8918472	13.7	11.8	8918472	11.9	9.39	0.10	8918473
Total Copper (Cu)	mg/kg	24.2	8918472	23.6	30.9	8918472	33.8	12.5	0.50	8918473
Total Lead (Pb)	mg/kg	7.18	8918472	7.38	9.67	8918472	7.53	11.0	0.10	8918473
Total Nickel (Ni)	mg/kg	97.4	8918472	83.8	71.4	8918472	59.8	40.9	0.50	8918473
Total Zinc (Zn)	mg/kg	44.8	8918472	49.8	44.9	8918472	40.1	40.4	1.0	8918473

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXF686			WXF686			WXF687		
Sampling Date		2023/08/31			2023/08/31			2023/08/31		
COC Number		761064			761064			761064		
	UNITS	DM-60-D	RDL	QC Batch	DM-60-D Lab-Dup	RDL	QC Batch	DM-61-S	RDL	QC Batch
Inorganics										
Moisture	%	14	1.0	8906566				21	1.0	8906719
Metals										
Total Arsenic (As)	mg/kg	0.53	0.20	8918473	0.49	0.20	8918473	0.51	0.20	8918473
Total Cadmium (Cd)	mg/kg	<0.050	0.050	8918473	<0.050	0.050	8918473	0.053	0.050	8918473
Total Chromium (Cr)	mg/kg	23.4	0.50	8918473	23.2	0.50	8918473	44.6	0.50	8918473
Total Cobalt (Co)	mg/kg	9.47	0.10	8918473	9.39	0.10	8918473	13.2	0.10	8918473
Total Copper (Cu)	mg/kg	12.1	0.50	8918473	12.0	0.50	8918473	30.2	0.50	8918473
Total Lead (Pb)	mg/kg	10.0	0.10	8918473	10.1	0.10	8918473	4.21	0.10	8918473
Total Nickel (Ni)	mg/kg	42.9	0.50	8918473	42.9	0.50	8918473	67.0	0.50	8918473
Total Zinc (Zn)	mg/kg	40.3	1.0	8918473	40.1	1.0	8918473	51.5	1.0	8918473

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WXF688	WXF689	WXF690	WXF691		WXF692		
Sampling Date		2023/08/31	2023/08/31	2023/08/31	2023/08/31		2023/08/31		
COC Number		761064	761064	761064	761064		761064		
	UNITS	DM-61-D	DM-62-S	DM-62-D	MW23-S-90	QC Batch	MW23-S-100	RDL	QC Batch
Inorganics									
Moisture	%	15	7.5	7.2	16	8906566	2.8	1.0	8906563
Metals									
Total Arsenic (As)	mg/kg	0.48	0.51	0.80	1.32	8918473	0.67	0.20	8918473
Total Cadmium (Cd)	mg/kg	<0.050	0.060	0.072	<0.050	8918473	<0.050	0.050	8918473
Total Chromium (Cr)	mg/kg	40.6	40.5	45.4	60.8	8918473	45.9	0.50	8918473
Total Cobalt (Co)	mg/kg	12.8	16.2	15.5	13.7	8918473	15.8	0.10	8918473
Total Copper (Cu)	mg/kg	25.6	26.7	40.9	24.5	8918473	33.1	0.50	8918473
Total Lead (Pb)	mg/kg	3.81	5.71	10.1	20.8	8918473	6.92	0.10	8918473
Total Nickel (Ni)	mg/kg	70.2	126	90.1	70.2	8918473	106	0.50	8918473
Total Zinc (Zn)	mg/kg	49.6	39.4	55.8	63.5	8918473	44.2	1.0	8918473

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WXF630	WXF631			WXF632			WXF633	WXF634		
Sampling Date		2023/08/29	2023/08/29			2023/08/29			2023/08/29	2023/08/29		
COC Number		761064	761064			761064			761064	761064		
	UNITS	DM-11-S	DM-11-D	RDL	QC Batch	DM-12-S	RDL	QC Batch	DM-12-D	DM-13-S	RDL	QC Batch
BTEX & F1 Hydrocarbons												
F1 (C6-C10)	ug/g	<10	<10	10	8909043				<10	<10	10	8909043
F2-F4 Hydrocarbons												
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	10	8909980	<10	10	8909980	<10	<10	10	8909980
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	50	8909980	<50	50	8909980	130	70	50	8909980
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	50	8909980	<50	50	8909980	<50	<50	50	8909980
Reached Baseline at C50	ug/g	Yes	Yes		8909980	Yes		8909980	Yes	Yes		8909980
Surrogate Recovery (%)												
1,4-Difluorobenzene	%	100	100		8909043				101	99		8909043
4-Bromofluorobenzene	%	96	95		8909043				95	96		8909043
D10-o-Xylene	%	98	96		8909043				93	95		8909043
D4-1,2-Dichloroethane	%	95	93		8909043				94	96		8909043
o-Terphenyl	%	121	120		8909980	118		8909980	118	120		8909980

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXF635	WXF636	WXF637			WXF637			WXF638		
Sampling Date		2023/08/29	2023/08/29	2023/08/29			2023/08/29			2023/08/29		
COC Number		761064	761064	761064			761064			761064		
	UNITS	DM-13-D	DM-14-S	DM-14-D	RDL	QC Batch	DM-14-D Lab-Dup	RDL	QC Batch	DM-15-S	RDL	QC Batch
BTEX & F1 Hydrocarbons												
F1 (C6-C10)	ug/g	<10	<10	<10	10	8909043	<10	10	8909043	<10	10	8909043
F2-F4 Hydrocarbons												
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	<10	10	8909980				<10	10	8909980
F3 (C16-C34 Hydrocarbons)	ug/g	64	97	<50	50	8909980				<50	50	8909980
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	<50	50	8909980				<50	50	8909980
Reached Baseline at C50	ug/g	Yes	Yes	Yes		8909980				Yes		8909980
Surrogate Recovery (%)												
1,4-Difluorobenzene	%	101	101	100		8909043	101		8909043	100		8909043
4-Bromofluorobenzene	%	96	96	96		8909043	96		8909043	95		8909043
D10-o-Xylene	%	99	93	98		8909043	95		8909043	98		8909043
D4-1,2-Dichloroethane	%	97	94	95		8909043	94		8909043	98		8909043
o-Terphenyl	%	119	128	114		8909980				123		8909980

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WXF639	WXF640	WXF641	WXF642	WXF643		WXF644		
Sampling Date		2023/08/29	2023/08/29	2023/08/29	2023/08/29	2023/08/29		2023/08/29		
COC Number		761064	761064	761064	761064	761064		761064		
	UNITS	DM-15-D	DM-16-S	DM-16-D	DM-17-S	DM-17-D	QC Batch	MW23-S-140	RDL	QC Batch
BTEX & F1 Hydrocarbons										
F1 (C6-C10)	ug/g	<10	<10	<10	<10	<10	8909043	<10	10	8909043
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/g	1700	<10	<10	<10	<10	8909980	1900	10	8910929
F3 (C16-C34 Hydrocarbons)	ug/g	460	<50	<50	<50	<50	8909980	430	50	8910929
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	<50	<50	<50	8909980	<50	50	8910929
Reached Baseline at C50	ug/g	Yes	Yes	Yes	Yes	Yes	8909980	Yes		8910929
Surrogate Recovery (%)										
1,4-Difluorobenzene	%	96	97	98	98	101	8909043	93		8909043
4-Bromofluorobenzene	%	102	98	94	97	92	8909043	119		8909043
D10-o-Xylene	%	91	87	85	87	85	8909043	112		8909043
D4-1,2-Dichloroethane	%	91	99	95	95	95	8909043	86		8909043
o-Terphenyl	%	124	117	121	116	120	8909980	110		8910929

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXF645			WXF645			WXF646	WXF647		
Sampling Date		2023/08/29			2023/08/29			2023/08/30	2023/08/30		
COC Number		761064			761064			761064	761064		
	UNITS	MW23-S-150	RDL	QC Batch	MW23-S-150 Lab-Dup	RDL	QC Batch	DM-35-S	DM-35-D	RDL	QC Batch
BTEX & F1 Hydrocarbons											
F1 (C6-C10)	ug/g	<10	10	8909043				<10	<10	10	8909043
F2-F4 Hydrocarbons											
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	8909980	<10	10	8909980	<10	<10	10	8909980
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	8909980	56	50	8909980	<50	<50	50	8909980
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	8909980	<50	50	8909980	<50	<50	50	8909980
Reached Baseline at C50	ug/g	Yes		8909980	Yes		8909980	Yes	Yes		8909980
Surrogate Recovery (%)											
1,4-Difluorobenzene	%	98		8909043				99	99		8909043
4-Bromofluorobenzene	%	97		8909043				93	97		8909043
D10-o-Xylene	%	102		8909043				99	94		8909043
D4-1,2-Dichloroethane	%	93		8909043				95	95		8909043
o-Terphenyl	%	114		8909980	114		8909980	111	107		8909980

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WXF648		WXF649		WXF650		WXF651		
Sampling Date		2023/08/30		2023/08/30		2023/08/30		2023/08/30		
COC Number		761064		761064		761064		761064		
	UNITS	DM-36-S	QC Batch	DM-36-D	QC Batch	DM-40-S	QC Batch	DM-40-D	RDL	QC Batch
BTEX & F1 Hydrocarbons										
F1 (C6-C10)	ug/g	<10	8909043	<10	8909043	<10	8909043	<10	10	8909689
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/g	<10	8911548	19	8909980	<10	8911560	<10	10	8909980
F3 (C16-C34 Hydrocarbons)	ug/g	<50	8911548	<50	8909980	<50	8911560	<50	50	8909980
F4 (C34-C50 Hydrocarbons)	ug/g	<50	8911548	<50	8909980	<50	8911560	<50	50	8909980
Reached Baseline at C50	ug/g	Yes	8911548	Yes	8909980	Yes	8911560	Yes		8909980
Surrogate Recovery (%)										
1,4-Difluorobenzene	%	99	8909043	100	8909043	99	8909043	100		8909689
4-Bromofluorobenzene	%	96	8909043	96	8909043	96	8909043	99		8909689
D10-o-Xylene	%	93	8909043	99	8909043	87	8909043	98		8909689
D4-1,2-Dichloroethane	%	96	8909043	97	8909043	95	8909043	94		8909689
o-Terphenyl	%	97	8911548	115	8909980	103	8911560	108		8909980

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXF652		WXF653		WXF654		WXF655	WXF656		
Sampling Date		2023/08/30		2023/08/30		2023/08/30		2023/08/30	2023/08/30		
COC Number		761064		761064		761064		761064	761064		
	UNITS	DM-41-S	QC Batch	DM-41-D	QC Batch	DM-45-S	QC Batch	DM-45-D	DM-46-S	RDL	QC Batch
BTEX & F1 Hydrocarbons											
F1 (C6-C10)	ug/g	<10	8909689	<10	8909689	<10	8909689	<10	<10	10	8909689
F2-F4 Hydrocarbons											
F2 (C10-C16 Hydrocarbons)	ug/g	12	8911548	<10	8911560	<10	8911548	<10	<10	10	8911560
F3 (C16-C34 Hydrocarbons)	ug/g	130	8911548	80	8911560	<50	8911548	<50	<50	50	8911560
F4 (C34-C50 Hydrocarbons)	ug/g	<50	8911548	<50	8911560	<50	8911548	<50	<50	50	8911560
Reached Baseline at C50	ug/g	Yes	8911548	Yes	8911560	Yes	8911548	Yes	Yes		8911560
Surrogate Recovery (%)											
1,4-Difluorobenzene	%	99	8909689	100	8909689	99	8909689	103	99		8909689
4-Bromofluorobenzene	%	96	8909689	96	8909689	96	8909689	94	96		8909689
D10-o-Xylene	%	91	8909689	97	8909689	90	8909689	106	95		8909689
D4-1,2-Dichloroethane	%	94	8909689	94	8909689	94	8909689	90	95		8909689
o-Terphenyl	%	96	8911548	102	8911560	96	8911548	103	103		8911560

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WXF657		WXF658		WXF659	WXF660	WXF661		
Sampling Date		2023/08/30		2023/08/30		2023/08/30	2023/08/30	2023/08/30		
COC Number		761064		761064		761064	761064	761064		
	UNITS	DM-46-D	QC Batch	DM-47-S	QC Batch	DM-47-D	DM-48-S	DM-48-D	RDL	QC Batch
BTEX & F1 Hydrocarbons										
F1 (C6-C10)	ug/g	<10	8909689	<10	8909689	<10	<10	<10	10	8909689
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/g	<10	8911548	180	8909980	20	<10	<10	10	8911548
F3 (C16-C34 Hydrocarbons)	ug/g	<50	8911548	530	8909980	68	<50	<50	50	8911548
F4 (C34-C50 Hydrocarbons)	ug/g	<50	8911548	76	8909980	<50	<50	<50	50	8911548
Reached Baseline at C50	ug/g	Yes	8911548	Yes	8909980	Yes	Yes	Yes		8911548
Surrogate Recovery (%)										
1,4-Difluorobenzene	%	99	8909689	98	8909689	104	99	99		8909689
4-Bromofluorobenzene	%	99	8909689	99	8909689	95	96	96		8909689
D10-o-Xylene	%	91	8909689	86	8909689	86	85	98		8909689
D4-1,2-Dichloroethane	%	96	8909689	94	8909689	89	95	96		8909689
o-Terphenyl	%	94	8911548	127	8909980	94	94	95		8911548

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXF662			WXF662			WXF663	WXF664	WXF665		
Sampling Date		2023/08/30			2023/08/30			2023/08/30	2023/08/30	2023/08/30		
COC Number		761064			761064			761064	761064	761064		
	UNITS	DM-49-S	RDL	QC Batch	DM-49-S Lab-Dup	RDL	QC Batch	DM-49-D	DM-52-S	DM-52-D	RDL	QC Batch
BTEX & F1 Hydrocarbons												
F1 (C6-C10)	ug/g	<10	10	8909689	<10	10	8909689	<10	<10	<10	10	8909689
F2-F4 Hydrocarbons												
F2 (C10-C16 Hydrocarbons)	ug/g	12	10	8911548				29	<10	<10	10	8911548
F3 (C16-C34 Hydrocarbons)	ug/g	78	50	8911548				51	230	250	50	8911548
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	8911548				<50	<50	<50	50	8911548
Reached Baseline at C50	ug/g	Yes		8911548				Yes	Yes	Yes		8911548
Surrogate Recovery (%)												
1,4-Difluorobenzene	%	98		8909689	99		8909689	96	97	99		8909689
4-Bromofluorobenzene	%	98		8909689	95		8909689	99	97	95		8909689
D10-o-Xylene	%	95		8909689	89		8909689	127	94	94		8909689
D4-1,2-Dichloroethane	%	95		8909689	94		8909689	96	97	98		8909689
o-Terphenyl	%	95		8911548				95	96	94		8911548

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WXF666		WXF667		WXF668	WXF669	WXF670		
Sampling Date		2023/08/30		2023/08/31		2023/08/31	2023/08/31	2023/08/31		
COC Number		761064		761064		761064	761064	761064		
	UNITS	MW23-S-160	QC Batch	DM-50-S	QC Batch	DM-50-D	DM-51-S	DM-51-D	RDL	QC Batch
BTEX & F1 Hydrocarbons										
F1 (C6-C10)	ug/g	<10	8909689	<10	8909689	<10	<10	<10	10	8909689
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/g	<10	8911548	<10	8911560	<10	<10	180	10	8911548
F3 (C16-C34 Hydrocarbons)	ug/g	<50	8911548	<50	8911560	<50	68	750	50	8911548
F4 (C34-C50 Hydrocarbons)	ug/g	<50	8911548	<50	8911560	<50	<50	66	50	8911548
Reached Baseline at C50	ug/g	Yes	8911548	Yes	8911560	Yes	Yes	Yes		8911548
Surrogate Recovery (%)										
1,4-Difluorobenzene	%	98	8909689	98	8909689	98	101	98		8909689
4-Bromofluorobenzene	%	95	8909689	96	8909689	97	95	97		8909689
D10-o-Xylene	%	126	8909689	92	8909689	107	102	97		8909689
D4-1,2-Dichloroethane	%	96	8909689	96	8909689	99	98	94		8909689
o-Terphenyl	%	94	8911548	103	8911560	95	95	94		8911548

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXF671			WXF671			WXF672		WXF673		
Sampling Date		2023/08/31			2023/08/31			2023/08/31		2023/08/31		
COC Number		761064			761064			761064		761064		
	UNITS	MW23-S-70	RDL	QC Batch	MW23-S-70 Lab-Dup	RDL	QC Batch	MW23-S-80	QC Batch	DM-54-S	RDL	QC Batch
BTEX & F1 Hydrocarbons												
F1 (C6-C10)	ug/g	16	10	8909860				<10	8909860	<10	10	8909860
F2-F4 Hydrocarbons												
F2 (C10-C16 Hydrocarbons)	ug/g	81	10	8911548	71	10	8911548	<10	8909848	<10	10	8911560
F3 (C16-C34 Hydrocarbons)	ug/g	370	50	8911548	330	50	8911548	<50	8909848	<50	50	8911560
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	8911548	<50	50	8911548	<50	8909848	<50	50	8911560
Reached Baseline at C50	ug/g	Yes		8911548	Yes		8911548	Yes	8909848	Yes		8911560
Surrogate Recovery (%)												
1,4-Difluorobenzene	%	110		8909860				103	8909860	112		8909860
4-Bromofluorobenzene	%	91		8909860				96	8909860	89		8909860
D10-o-Xylene	%	114		8909860				99	8909860	120		8909860
D4-1,2-Dichloroethane	%	82		8909860				93	8909860	83		8909860
o-Terphenyl	%	94		8911548	95		8911548	109	8909848	101		8911560

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WXF674		WXF675		WXF676			WXF676		
Sampling Date		2023/08/31		2023/08/31		2023/08/31			2023/08/31		
COC Number		761064		761064		761064			761064		
	UNITS	DM-54-D	QC Batch	DM-55-S	QC Batch	DM-55-D	RDL	QC Batch	DM-55-D Lab-Dup	RDL	QC Batch
BTEX & F1 Hydrocarbons											
F1 (C6-C10)	ug/g	<10	8909860	<10	8909860	<10	10	8909860	<10	10	8909860
F2-F4 Hydrocarbons											
F2 (C10-C16 Hydrocarbons)	ug/g	<10	8911560	<10	8909848	<10	10	8911560			
F3 (C16-C34 Hydrocarbons)	ug/g	<50	8911560	<50	8909848	<50	50	8911560			
F4 (C34-C50 Hydrocarbons)	ug/g	<50	8911560	<50	8909848	<50	50	8911560			
Reached Baseline at C50	ug/g	Yes	8911560	Yes	8909848	Yes		8911560			
Surrogate Recovery (%)											
1,4-Difluorobenzene	%	112	8909860	111	8909860	111		8909860	111		8909860
4-Bromofluorobenzene	%	91	8909860	92	8909860	93		8909860	92		8909860
D10-o-Xylene	%	117	8909860	110	8909860	118		8909860	123		8909860
D4-1,2-Dichloroethane	%	83	8909860	82	8909860	83		8909860	84		8909860
o-Terphenyl	%	103	8911560	108	8909848	104		8911560			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WXF677		WXF678		WXF679	WXF680		WXF681		
Sampling Date		2023/08/31		2023/08/31		2023/08/31	2023/08/31		2023/08/31		
COC Number		761064		761064		761064	761064		761064		
	UNITS	DM-56-S	QC Batch	DM-56-D	QC Batch	DM-57-S	DM-57-D	QC Batch	DM-58-S	RDL	QC Batch
BTEX & F1 Hydrocarbons											
F1 (C6-C10)	ug/g	<10	8909860	<10	8909860	<10	<10	8909860	<10	10	8909860
F2-F4 Hydrocarbons											
F2 (C10-C16 Hydrocarbons)	ug/g	<10	8911548	<10	8909848	<10	<10	8911560	<10	10	8911548
F3 (C16-C34 Hydrocarbons)	ug/g	<50	8911548	<50	8909848	<50	<50	8911560	<50	50	8911548
F4 (C34-C50 Hydrocarbons)	ug/g	<50	8911548	<50	8909848	<50	<50	8911560	<50	50	8911548
Reached Baseline at C50	ug/g	Yes	8911548	Yes	8909848	Yes	Yes	8911560	Yes		8911548
Surrogate Recovery (%)											
1,4-Difluorobenzene	%	110	8909860	110	8909860	112	110	8909860	105		8909860
4-Bromofluorobenzene	%	90	8909860	89	8909860	91	93	8909860	101		8909860
D10-o-Xylene	%	175 (1)	8909860	117	8909860	198 (1)	212 (1)	8909860	128		8909860
D4-1,2-Dichloroethane	%	82	8909860	81	8909860	82	80	8909860	96		8909860
o-Terphenyl	%	94	8911548	106	8909848	102	103	8911560	93		8911548

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) The surrogate recovery for the sample was below the acceptance criteria. The high moisture content may impact surrogate recoveries.

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WXF682			WXF682			WXF683	WXF684	WXF685		
Sampling Date		2023/08/31			2023/08/31			2023/08/31	2023/08/31	2023/08/31		
COC Number		761064			761064			761064	761064	761064		
	UNITS	DM-58-D	RDL	QC Batch	DM-58-D Lab-Dup	RDL	QC Batch	DM-59-S	DM-59-D	DM-60-S	RDL	QC Batch
BTEX & F1 Hydrocarbons												
F1 (C6-C10)	ug/g	<10	10	8909860				<10	<10	<10	10	8909860
F2-F4 Hydrocarbons												
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	8911560	<10	10	8911560	<10	420	<10	10	8911560
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	8911560	<50	50	8911560	<50	<50	<50	50	8911560
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	8911560	<50	50	8911560	<50	<50	<50	50	8911560
Reached Baseline at C50	ug/g	Yes		8911560	Yes		8911560	Yes	Yes	Yes		8911560
Surrogate Recovery (%)												
1,4-Difluorobenzene	%	110		8909860				107	100	110		8909860
4-Bromofluorobenzene	%	93		8909860				92	98	90		8909860
D10-o-Xylene	%	164 (1)		8909860				172 (1)	106	132		8909860
D4-1,2-Dichloroethane	%	81		8909860				80	86	81		8909860
o-Terphenyl	%	103		8911560	104		8911560	104	98	103		8911560

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
(1) The surrogate recovery for the sample was below the acceptance criteria. The high moisture content may impact surrogate recoveries.

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PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WXF686			WXF686			WXF687		WXF688		
Sampling Date		2023/08/31			2023/08/31			2023/08/31		2023/08/31		
COC Number		761064			761064			761064		761064		
	UNITS	DM-60-D	RDL	QC Batch	DM-60-D Lab-Dup	RDL	QC Batch	DM-61-S	QC Batch	DM-61-D	RDL	QC Batch
BTEX & F1 Hydrocarbons												
F1 (C6-C10)	ug/g	<10	10	8910005	<10	10	8910005	<10	8910005	<10	10	8910005
F2-F4 Hydrocarbons												
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	8911560				<10	8911548	<10	10	8911560
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	8911560				<50	8911548	<50	50	8911560
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	8911560				<50	8911548	<50	50	8911560
Reached Baseline at C50	ug/g	Yes		8911560				Yes	8911548	Yes		8911560
Surrogate Recovery (%)												
1,4-Difluorobenzene	%	106		8910005	103		8910005	107	8910005	107		8910005
4-Bromofluorobenzene	%	109		8910005	110		8910005	116	8910005	114		8910005
D10-o-Xylene	%	189 (1)		8910005	207 (1)		8910005	208 (1)	8910005	232 (1)		8910005
D4-1,2-Dichloroethane	%	101		8910005	101		8910005	103	8910005	98		8910005
o-Terphenyl	%	103		8911560				95	8911548	105		8911560

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
(1) The recovery of the extraction surrogate compound was above the upper control limit. Visible loss of methanol was observed in this sample. As a result, there is an increased level of uncertainty.

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PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WXF689	WXF690	WXF691	WXF692		
Sampling Date		2023/08/31	2023/08/31	2023/08/31	2023/08/31		
COC Number		761064	761064	761064	761064		
	UNITS	DM-62-S	DM-62-D	MW23-S-90	MW23-S-100	RDL	QC Batch
BTEX & F1 Hydrocarbons							
F1 (C6-C10)	ug/g	<10	<10	<10	<10	10	8910005
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	<10	<10	10	8911560
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	<50	<50	50	8911560
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	<50	<50	50	8911560
Reached Baseline at C50	ug/g	Yes	Yes	Yes	Yes		8911560
Surrogate Recovery (%)							
1,4-Difluorobenzene	%	106	103	104	107		8910005
4-Bromofluorobenzene	%	106	105	106	113		8910005
D10-o-Xylene	%	237 (1)	188 (1)	111	150 (1)		8910005
D4-1,2-Dichloroethane	%	99	104	98	103		8910005
o-Terphenyl	%	103	102	104	103		8911560

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) The recovery of the extraction surrogate compound was above the upper control limit. Visible loss of methanol was observed in this sample. As a result, there is an increased level of uncertainty.

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POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Bureau Veritas ID		WXF630	WXF631	WXF632	WXF633	WXF634	WXF635	WXF636		
Sampling Date		2023/08/29	2023/08/29	2023/08/29	2023/08/29	2023/08/29	2023/08/29	2023/08/29		
COC Number		761064	761064	761064	761064	761064	761064	761064		
	UNITS	DM-11-S	DM-11-D	DM-12-S	DM-12-D	DM-13-S	DM-13-D	DM-14-S	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8907190
Aroclor 1221	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8907190
Aroclor 1232	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8907190
Aroclor 1242	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8907190
Aroclor 1248	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8907190
Aroclor 1254	ug/g	0.012	<0.010	0.038	0.19	0.18	0.43	0.053	0.010	8907190
Aroclor 1260	ug/g	<0.010	<0.010	0.014	0.54	0.068	0.061	0.083	0.010	8907190
Aroclor 1262	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8907190
Aroclor 1268	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8907190
Total PCB	ug/g	0.012	<0.010	0.052	0.74	0.24	0.49	0.14	0.010	8907190
Surrogate Recovery (%)										
Decachlorobiphenyl	%	99	95	94	106	117	94	101		8907190

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXF637		WXF638	WXF639	WXF640		WXF641		
Sampling Date		2023/08/29		2023/08/29	2023/08/29	2023/08/29		2023/08/29		
COC Number		761064		761064	761064	761064		761064		
	UNITS	DM-14-D	QC Batch	DM-15-S	DM-15-D	DM-16-S	QC Batch	DM-16-D	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	8907541	<0.010	<0.010	<0.010	8906427	<0.010	0.010	8907190
Aroclor 1221	ug/g	<0.010	8907541	<0.010	<0.010	<0.010	8906427	<0.010	0.010	8907190
Aroclor 1232	ug/g	<0.010	8907541	<0.010	<0.010	<0.010	8906427	<0.010	0.010	8907190
Aroclor 1242	ug/g	<0.010	8907541	<0.010	<0.010	<0.010	8906427	<0.010	0.010	8907190
Aroclor 1248	ug/g	<0.010	8907541	<0.010	<0.010	<0.010	8906427	<0.010	0.010	8907190
Aroclor 1254	ug/g	0.16	8907541	<0.010	0.013	<0.010	8906427	<0.010	0.010	8907190
Aroclor 1260	ug/g	0.35	8907541	<0.010	<0.010	<0.010	8906427	<0.010	0.010	8907190
Aroclor 1262	ug/g	<0.010	8907541	<0.010	<0.010	<0.010	8906427	<0.010	0.010	8907190
Aroclor 1268	ug/g	<0.010	8907541	<0.010	<0.010	<0.010	8906427	<0.010	0.010	8907190
Total PCB	ug/g	0.51	8907541	<0.010	0.013	<0.010	8906427	<0.010	0.010	8907190
Surrogate Recovery (%)										
Decachlorobiphenyl	%	88	8907541	112	99	99	8906427	95		8907190

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Bureau Veritas ID		WXF642		WXF643		WXF644		WXF645		
Sampling Date		2023/08/29		2023/08/29		2023/08/29		2023/08/29		
COC Number		761064		761064		761064		761064		
	UNITS	DM-17-S	QC Batch	DM-17-D	QC Batch	MW23-S-140	QC Batch	MW23-S-150	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	8906427	<0.010	8907190	<0.010	8906427	<0.010	0.010	8907190
Aroclor 1221	ug/g	<0.010	8906427	<0.010	8907190	<0.010	8906427	<0.010	0.010	8907190
Aroclor 1232	ug/g	<0.010	8906427	<0.010	8907190	<0.010	8906427	<0.010	0.010	8907190
Aroclor 1242	ug/g	<0.010	8906427	<0.010	8907190	<0.010	8906427	<0.010	0.010	8907190
Aroclor 1248	ug/g	<0.010	8906427	<0.010	8907190	<0.010	8906427	<0.010	0.010	8907190
Aroclor 1254	ug/g	<0.010	8906427	<0.010	8907190	0.023	8906427	<0.010	0.010	8907190
Aroclor 1260	ug/g	<0.010	8906427	<0.010	8907190	0.016	8906427	<0.010	0.010	8907190
Aroclor 1262	ug/g	<0.010	8906427	<0.010	8907190	<0.010	8906427	<0.010	0.010	8907190
Aroclor 1268	ug/g	<0.010	8906427	<0.010	8907190	<0.010	8906427	<0.010	0.010	8907190
Total PCB	ug/g	<0.010	8906427	<0.010	8907190	0.040	8906427	<0.010	0.010	8907190
Surrogate Recovery (%)										
Decachlorobiphenyl	%	92	8906427	83	8907190	87	8906427	105		8907190

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXF646		WXF647	WXF648	WXF649		WXF650		
Sampling Date		2023/08/30		2023/08/30	2023/08/30	2023/08/30		2023/08/30		
COC Number		761064		761064	761064	761064		761064		
	UNITS	DM-35-S	QC Batch	DM-35-D	DM-36-S	DM-36-D	QC Batch	DM-40-S	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	8909987	<0.010	<0.010	<0.010	8907190	<0.010	0.010	8908856
Aroclor 1221	ug/g	<0.010	8909987	<0.010	<0.010	<0.010	8907190	<0.010	0.010	8908856
Aroclor 1232	ug/g	<0.010	8909987	<0.010	<0.010	<0.010	8907190	<0.010	0.010	8908856
Aroclor 1242	ug/g	<0.010	8909987	<0.010	<0.010	<0.010	8907190	<0.010	0.010	8908856
Aroclor 1248	ug/g	<0.010	8909987	<0.010	<0.010	<0.010	8907190	<0.010	0.010	8908856
Aroclor 1254	ug/g	<0.010	8909987	<0.010	<0.010	<0.010	8907190	<0.010	0.010	8908856
Aroclor 1260	ug/g	<0.010	8909987	<0.010	<0.010	<0.010	8907190	<0.010	0.010	8908856
Aroclor 1262	ug/g	<0.010	8909987	<0.010	<0.010	<0.010	8907190	<0.010	0.010	8908856
Aroclor 1268	ug/g	<0.010	8909987	<0.010	<0.010	<0.010	8907190	<0.010	0.010	8908856
Total PCB	ug/g	<0.010	8909987	<0.010	<0.010	<0.010	8907190	<0.010	0.010	8908856
Surrogate Recovery (%)										
Decachlorobiphenyl	%	107	8909987	110	96	102	8907190	86		8908856

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Bureau Veritas ID		WXF651		WXF652		WXF653		WXF654	WXF654		
Sampling Date		2023/08/30		2023/08/30		2023/08/30		2023/08/30	2023/08/30		
COC Number		761064		761064		761064		761064	761064		
	UNITS	DM-40-D	QC Batch	DM-41-S	QC Batch	DM-41-D	QC Batch	DM-45-S	DM-45-S Lab-Dup	RDL	QC Batch
PCBs											
Aroclor 1016	ug/g	<0.010	8907190	<0.010	8907541	<0.010	8908856	<0.010	<0.010	0.010	8907190
Aroclor 1221	ug/g	<0.010	8907190	<0.010	8907541	<0.010	8908856	<0.010	<0.010	0.010	8907190
Aroclor 1232	ug/g	<0.010	8907190	<0.010	8907541	<0.010	8908856	<0.010	<0.010	0.010	8907190
Aroclor 1242	ug/g	<0.010	8907190	<0.010	8907541	<0.010	8908856	<0.010	<0.010	0.010	8907190
Aroclor 1248	ug/g	<0.010	8907190	<0.010	8907541	<0.010	8908856	<0.010	<0.010	0.010	8907190
Aroclor 1254	ug/g	<0.010	8907190	<0.010	8907541	<0.010	8908856	<0.010	<0.010	0.010	8907190
Aroclor 1260	ug/g	<0.010	8907190	<0.010	8907541	<0.010	8908856	<0.010	<0.010	0.010	8907190
Aroclor 1262	ug/g	<0.010	8907190	<0.010	8907541	<0.010	8908856	<0.010	<0.010	0.010	8907190
Aroclor 1268	ug/g	<0.010	8907190	<0.010	8907541	<0.010	8908856	<0.010	<0.010	0.010	8907190
Total PCB	ug/g	<0.010	8907190	<0.010	8907541	<0.010	8908856	<0.010	<0.010	0.010	8907190
Surrogate Recovery (%)											
Decachlorobiphenyl	%	105	8907190	95	8907541	70	8908856	91	92		8907190

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WXF655	WXF656		WXF657			WXF658		
Sampling Date		2023/08/30	2023/08/30		2023/08/30			2023/08/30		
COC Number		761064	761064		761064			761064		
	UNITS	DM-45-D	DM-46-S	QC Batch	DM-46-D	RDL	QC Batch	DM-47-S	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	<0.010	8908856	<0.010	0.010	8907541	<0.050	0.050	8907190
Aroclor 1221	ug/g	<0.010	<0.010	8908856	<0.010	0.010	8907541	<0.050	0.050	8907190
Aroclor 1232	ug/g	<0.010	<0.010	8908856	<0.010	0.010	8907541	<0.050	0.050	8907190
Aroclor 1242	ug/g	<0.010	<0.010	8908856	<0.010	0.010	8907541	<0.050	0.050	8907190
Aroclor 1248	ug/g	<0.010	<0.010	8908856	<0.010	0.010	8907541	<0.050	0.050	8907190
Aroclor 1254	ug/g	<0.010	<0.010	8908856	<0.010	0.010	8907541	<0.050	0.050	8907190
Aroclor 1260	ug/g	<0.010	<0.010	8908856	<0.010	0.010	8907541	1.0	0.050	8907190
Aroclor 1262	ug/g	<0.010	<0.010	8908856	<0.010	0.010	8907541	<0.050	0.050	8907190
Aroclor 1268	ug/g	<0.010	<0.010	8908856	<0.010	0.010	8907541	<0.050	0.050	8907190
Total PCB	ug/g	<0.010	<0.010	8908856	<0.010	0.010	8907541	1.0	0.050	8907190
Surrogate Recovery (%)										
Decachlorobiphenyl	%	93	98	8908856	81		8907541	116		8907190

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Bureau Veritas ID		WXF659		WXF660		WXF661		WXF662		
Sampling Date		2023/08/30		2023/08/30		2023/08/30		2023/08/30		
COC Number		761064		761064		761064		761064		
	UNITS	DM-47-D	QC Batch	DM-48-S	QC Batch	DM-48-D	QC Batch	DM-49-S	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	8907190	<0.010	8909985	<0.010	8907541	<0.010	0.010	8908856
Aroclor 1221	ug/g	<0.010	8907190	<0.010	8909985	<0.010	8907541	<0.010	0.010	8908856
Aroclor 1232	ug/g	<0.010	8907190	<0.010	8909985	<0.010	8907541	<0.010	0.010	8908856
Aroclor 1242	ug/g	<0.010	8907190	<0.010	8909985	<0.010	8907541	<0.010	0.010	8908856
Aroclor 1248	ug/g	<0.010	8907190	<0.010	8909985	<0.010	8907541	<0.010	0.010	8908856
Aroclor 1254	ug/g	<0.010	8907190	<0.010	8909985	<0.010	8907541	<0.010	0.010	8908856
Aroclor 1260	ug/g	0.17	8907190	<0.010	8909985	<0.010	8907541	0.19	0.010	8908856
Aroclor 1262	ug/g	<0.010	8907190	<0.010	8909985	<0.010	8907541	<0.010	0.010	8908856
Aroclor 1268	ug/g	<0.010	8907190	<0.010	8909985	<0.010	8907541	<0.010	0.010	8908856
Total PCB	ug/g	0.17	8907190	<0.010	8909985	<0.010	8907541	0.19	0.010	8908856
Surrogate Recovery (%)										
Decachlorobiphenyl	%	86	8907190	97	8909985	92	8907541	84		8908856

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXF663	WXF664	WXF665	WXF666		WXF667		
Sampling Date		2023/08/30	2023/08/30	2023/08/30	2023/08/30		2023/08/31		
COC Number		761064	761064	761064	761064		761064		
	UNITS	DM-49-D	DM-52-S	DM-52-D	MW23-S-160	QC Batch	DM-50-S	RDL	QC Batch
PCBs									
Aroclor 1016	ug/g	<0.010	<0.010	<0.010	<0.010	8907541	<0.010	0.010	8906427
Aroclor 1221	ug/g	<0.010	<0.010	<0.010	<0.010	8907541	<0.010	0.010	8906427
Aroclor 1232	ug/g	<0.010	<0.010	<0.010	<0.010	8907541	<0.010	0.010	8906427
Aroclor 1242	ug/g	<0.010	<0.010	<0.010	<0.010	8907541	<0.010	0.010	8906427
Aroclor 1248	ug/g	<0.010	<0.010	<0.010	<0.010	8907541	<0.010	0.010	8906427
Aroclor 1254	ug/g	<0.010	<0.010	0.052	<0.010	8907541	<0.010	0.010	8906427
Aroclor 1260	ug/g	0.073	0.024	0.011	<0.010	8907541	<0.010	0.010	8906427
Aroclor 1262	ug/g	<0.010	<0.010	<0.010	<0.010	8907541	<0.010	0.010	8906427
Aroclor 1268	ug/g	<0.010	<0.010	<0.010	<0.010	8907541	<0.010	0.010	8906427
Total PCB	ug/g	0.073	0.024	0.063	<0.010	8907541	<0.010	0.010	8906427
Surrogate Recovery (%)									
Decachlorobiphenyl	%	89	84	80	80	8907541	96		8906427

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Bureau Veritas ID		WXF668		WXF669		WXF670		WXF671		
Sampling Date		2023/08/31		2023/08/31		2023/08/31		2023/08/31		
COC Number		761064		761064		761064		761064		
	UNITS	DM-50-D	QC Batch	DM-51-S	QC Batch	DM-51-D	QC Batch	MW23-S-70	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	8907541	<0.010	8906427	<0.010	8907541	<0.010	0.010	8906427
Aroclor 1221	ug/g	<0.010	8907541	<0.010	8906427	<0.010	8907541	<0.010	0.010	8906427
Aroclor 1232	ug/g	<0.010	8907541	<0.010	8906427	<0.010	8907541	<0.010	0.010	8906427
Aroclor 1242	ug/g	<0.010	8907541	<0.010	8906427	<0.010	8907541	<0.010	0.010	8906427
Aroclor 1248	ug/g	<0.010	8907541	<0.010	8906427	<0.010	8907541	<0.010	0.010	8906427
Aroclor 1254	ug/g	<0.010	8907541	0.010	8906427	<0.010	8907541	<0.010	0.010	8906427
Aroclor 1260	ug/g	<0.010	8907541	<0.010	8906427	<0.010	8907541	<0.010	0.010	8906427
Aroclor 1262	ug/g	<0.010	8907541	<0.010	8906427	<0.010	8907541	<0.010	0.010	8906427
Aroclor 1268	ug/g	<0.010	8907541	<0.010	8906427	<0.010	8907541	<0.010	0.010	8906427
Total PCB	ug/g	<0.010	8907541	0.010	8906427	<0.010	8907541	<0.010	0.010	8906427
Surrogate Recovery (%)										
Decachlorobiphenyl	%	88	8907541	97	8906427	86	8907541	93		8906427

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXF672		WXF673	WXF674		WXF675	WXF675		
Sampling Date		2023/08/31		2023/08/31	2023/08/31		2023/08/31	2023/08/31		
COC Number		761064		761064	761064		761064	761064		
	UNITS	MW23-S-80	QC Batch	DM-54-S	DM-54-D	QC Batch	DM-55-S	DM-55-S Lab-Dup	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	8907190	<0.010	<0.010	8908856	<0.010	<0.010	0.010	8907541
Aroclor 1221	ug/g	<0.010	8907190	<0.010	<0.010	8908856	<0.010	<0.010	0.010	8907541
Aroclor 1232	ug/g	<0.010	8907190	<0.010	<0.010	8908856	<0.010	<0.010	0.010	8907541
Aroclor 1242	ug/g	<0.010	8907190	<0.010	<0.010	8908856	<0.010	<0.010	0.010	8907541
Aroclor 1248	ug/g	<0.010	8907190	<0.010	<0.010	8908856	<0.010	<0.010	0.010	8907541
Aroclor 1254	ug/g	<0.010	8907190	<0.010	<0.010	8908856	<0.010	<0.010	0.010	8907541
Aroclor 1260	ug/g	<0.010	8907190	<0.010	<0.010	8908856	<0.010	<0.010	0.010	8907541
Aroclor 1262	ug/g	<0.010	8907190	<0.010	<0.010	8908856	<0.010	<0.010	0.010	8907541
Aroclor 1268	ug/g	<0.010	8907190	<0.010	<0.010	8908856	<0.010	<0.010	0.010	8907541
Total PCB	ug/g	<0.010	8907190	<0.010	<0.010	8908856	<0.010	<0.010	0.010	8907541
Surrogate Recovery (%)										
Decachlorobiphenyl	%	91	8907190	85	80	8908856	85	90		8907541

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Bureau Veritas ID		WXF676		WXF677	WXF678		WXF679	WXF679		
Sampling Date		2023/08/31		2023/08/31	2023/08/31		2023/08/31	2023/08/31		
COC Number		761064		761064	761064		761064	761064		
	UNITS	DM-55-D	QC Batch	DM-56-S	DM-56-D	QC Batch	DM-57-S	DM-57-S Lab-Dup	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	8908856	<0.010	<0.010	8907541	<0.010	<0.010	0.010	8908856
Aroclor 1221	ug/g	<0.010	8908856	<0.010	<0.010	8907541	<0.010	<0.010	0.010	8908856
Aroclor 1232	ug/g	<0.010	8908856	<0.010	<0.010	8907541	<0.010	<0.010	0.010	8908856
Aroclor 1242	ug/g	<0.010	8908856	<0.010	<0.010	8907541	<0.010	<0.010	0.010	8908856
Aroclor 1248	ug/g	<0.010	8908856	<0.010	<0.010	8907541	<0.010	<0.010	0.010	8908856
Aroclor 1254	ug/g	<0.010	8908856	<0.010	<0.010	8907541	<0.010	<0.010	0.010	8908856
Aroclor 1260	ug/g	<0.010	8908856	<0.010	<0.010	8907541	<0.010	<0.010	0.010	8908856
Aroclor 1262	ug/g	<0.010	8908856	<0.010	<0.010	8907541	<0.010	<0.010	0.010	8908856
Aroclor 1268	ug/g	<0.010	8908856	<0.010	<0.010	8907541	<0.010	<0.010	0.010	8908856
Total PCB	ug/g	<0.010	8908856	<0.010	<0.010	8907541	<0.010	<0.010	0.010	8908856
Surrogate Recovery (%)										
Decachlorobiphenyl	%	77	8908856	82	91	8907541	92	82		8908856

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WXF680		WXF681		WXF682	WXF683	WXF684		
Sampling Date		2023/08/31		2023/08/31		2023/08/31	2023/08/31	2023/08/31		
COC Number		761064		761064		761064	761064	761064		
	UNITS	DM-57-D	QC Batch	DM-58-S	QC Batch	DM-58-D	DM-59-S	DM-59-D	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	8908856	<0.010	8907541	<0.010	<0.010	<0.010	0.010	8908856
Aroclor 1221	ug/g	<0.010	8908856	<0.010	8907541	<0.010	<0.010	<0.010	0.010	8908856
Aroclor 1232	ug/g	<0.010	8908856	<0.010	8907541	<0.010	<0.010	<0.010	0.010	8908856
Aroclor 1242	ug/g	<0.010	8908856	<0.010	8907541	<0.010	<0.010	<0.010	0.010	8908856
Aroclor 1248	ug/g	<0.010	8908856	<0.010	8907541	<0.010	<0.010	<0.010	0.010	8908856
Aroclor 1254	ug/g	<0.010	8908856	<0.010	8907541	<0.010	<0.010	<0.010	0.010	8908856
Aroclor 1260	ug/g	<0.010	8908856	<0.010	8907541	<0.010	<0.010	<0.010	0.010	8908856
Aroclor 1262	ug/g	<0.010	8908856	<0.010	8907541	<0.010	<0.010	<0.010	0.010	8908856
Aroclor 1268	ug/g	<0.010	8908856	<0.010	8907541	<0.010	<0.010	<0.010	0.010	8908856
Total PCB	ug/g	<0.010	8908856	<0.010	8907541	<0.010	<0.010	<0.010	0.010	8908856
Surrogate Recovery (%)										
Decachlorobiphenyl	%	87	8908856	82	8907541	75	82	87		8908856

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Bureau Veritas ID		WXF685	WXF686	WXF687	WXF688	WXF689	WXF690	WXF691		
Sampling Date		2023/08/31	2023/08/31	2023/08/31	2023/08/31	2023/08/31	2023/08/31	2023/08/31		
COC Number		761064	761064	761064	761064	761064	761064	761064		
	UNITS	DM-60-S	DM-60-D	DM-61-S	DM-61-D	DM-62-S	DM-62-D	MW23-S-90	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8908856
Aroclor 1221	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8908856
Aroclor 1232	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8908856
Aroclor 1242	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8908856
Aroclor 1248	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8908856
Aroclor 1254	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8908856
Aroclor 1260	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8908856
Aroclor 1262	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8908856
Aroclor 1268	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8908856
Total PCB	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8908856
Surrogate Recovery (%)										
Decachlorobiphenyl	%	103	90	88	94	84	76	90		8908856

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXF692		
Sampling Date		2023/08/31		
COC Number		761064		
	UNITS	MW23-S-100	RDL	QC Batch
PCBs				
Aroclor 1016	ug/g	<0.010	0.010	8907541
Aroclor 1221	ug/g	<0.010	0.010	8907541
Aroclor 1232	ug/g	<0.010	0.010	8907541
Aroclor 1242	ug/g	<0.010	0.010	8907541
Aroclor 1248	ug/g	<0.010	0.010	8907541
Aroclor 1254	ug/g	<0.010	0.010	8907541
Aroclor 1260	ug/g	<0.010	0.010	8907541
Aroclor 1262	ug/g	<0.010	0.010	8907541
Aroclor 1268	ug/g	<0.010	0.010	8907541
Total PCB	ug/g	<0.010	0.010	8907541
Surrogate Recovery (%)				
Decachlorobiphenyl	%	82		8907541

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	0.7°C
Package 2	2.3°C
Package 3	2.3°C
Package 4	1.7°C

Sample WXF630 [DM-11-S] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF631 [DM-11-D] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF633 [DM-12-D] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF634 [DM-13-S] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF635 [DM-13-D] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF636 [DM-14-S] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF637 [DM-14-D] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF638 [DM-15-S] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF639 [DM-15-D] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF640 [DM-16-S] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF641 [DM-16-D] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF642 [DM-17-S] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF643 [DM-17-D] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF645 [MW23-S-150] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF646 [DM-35-S] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF647 [DM-35-D] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF648 [DM-36-S] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF649 [DM-36-D] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF650 [DM-40-S] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF651 [DM-40-D] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF652 [DM-41-S] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF653 [DM-41-D] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF654 [DM-45-S] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF655 [DM-45-D] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF656 [DM-46-S] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF657 [DM-46-D] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF658 [DM-47-S] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

PCB Analysis: Due to high concentrations of the target analytes, sample required dilution. Detection limits were adjusted accordingly.

Sample WXF659 [DM-47-D] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF660 [DM-48-S] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF661 [DM-48-D] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF662 [DM-49-S] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF664 [DM-52-S] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF665 [DM-52-D] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF667 [DM-50-S] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF668 [DM-50-D] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF669 [DM-51-S] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF670 [DM-51-D] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXF671 [MW23-S-70] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WXF672 [MW23-S-80] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WXF673 [DM-54-S] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WXF674 [DM-54-D] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WXF675 [DM-55-S] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WXF676 [DM-55-D] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WXF677 [DM-56-S] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WXF678 [DM-56-D] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WXF684 [DM-59-D] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WXF691 [MW23-S-90] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8906427	Decachlorobiphenyl	2023/09/09	103	60 - 130	88	60 - 130	104	%				
8907190	Decachlorobiphenyl	2023/09/11	128	60 - 130	98	60 - 130	96	%				
8907541	Decachlorobiphenyl	2023/09/11	88	60 - 130	76	60 - 130	84	%				
8908856	Decachlorobiphenyl	2023/09/12	81	60 - 130	86	60 - 130	101	%				
8909043	1,4-Difluorobenzene	2023/09/12	98	60 - 140	96	60 - 140	101	%				
8909043	4-Bromofluorobenzene	2023/09/12	97	60 - 140	98	60 - 140	95	%				
8909043	D10-o-Xylene	2023/09/12	97	60 - 140	86	60 - 140	85	%				
8909043	D4-1,2-Dichloroethane	2023/09/12	90	60 - 140	92	60 - 140	96	%				
8909689	1,4-Difluorobenzene	2023/09/12	96	60 - 140	97	60 - 140	99	%				
8909689	4-Bromofluorobenzene	2023/09/12	99	60 - 140	97	60 - 140	95	%				
8909689	D10-o-Xylene	2023/09/12	100	60 - 140	89	60 - 140	83	%				
8909689	D4-1,2-Dichloroethane	2023/09/12	89	60 - 140	91	60 - 140	95	%				
8909848	o-Terphenyl	2023/09/12	112	60 - 130	109	60 - 130	111	%				
8909860	1,4-Difluorobenzene	2023/09/12	108	60 - 140	107	60 - 140	112	%				
8909860	4-Bromofluorobenzene	2023/09/12	95	60 - 140	95	60 - 140	93	%				
8909860	D10-o-Xylene	2023/09/12	139	60 - 140	106	60 - 140	107	%				
8909860	D4-1,2-Dichloroethane	2023/09/12	79	60 - 140	81	60 - 140	82	%				
8909980	o-Terphenyl	2023/09/12	112	60 - 130	109	60 - 130	120	%				
8909985	Decachlorobiphenyl	2023/09/12	93	60 - 130	96	60 - 130	100	%				
8909987	Decachlorobiphenyl	2023/09/12	114	60 - 130	96	60 - 130	95	%				
8910005	1,4-Difluorobenzene	2023/09/12	93	60 - 140	106	60 - 140	108	%				
8910005	4-Bromofluorobenzene	2023/09/12	101	60 - 140	100	60 - 140	103	%				
8910005	D10-o-Xylene	2023/09/12	196 (3)	60 - 140	108	60 - 140	109	%				
8910005	D4-1,2-Dichloroethane	2023/09/12	93	60 - 140	105	60 - 140	110	%				
8910929	o-Terphenyl	2023/09/12	111	60 - 130	102	60 - 130	104	%				
8911548	o-Terphenyl	2023/09/13	93	60 - 130	92	60 - 130	96	%				
8911560	o-Terphenyl	2023/09/13	105	60 - 130	100	60 - 130	102	%				
8906427	Aroclor 1016	2023/09/09					<0.010	ug/g				
8906427	Aroclor 1221	2023/09/09					<0.010	ug/g				
8906427	Aroclor 1232	2023/09/09					<0.010	ug/g				
8906427	Aroclor 1242	2023/09/09					<0.010	ug/g	NC	50		
8906427	Aroclor 1248	2023/09/09					<0.010	ug/g	NC	50		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8906427	Aroclor 1254	2023/09/09					<0.010	ug/g	NC	50		
8906427	Aroclor 1260	2023/09/09	96	30 - 130	94	30 - 130	<0.010	ug/g	NC	50		
8906427	Aroclor 1262	2023/09/09					<0.010	ug/g				
8906427	Aroclor 1268	2023/09/09					<0.010	ug/g				
8906427	Total PCB	2023/09/09	96	30 - 130	94	30 - 130	<0.010	ug/g	NC	50		
8906563	Moisture	2023/09/09							2.0	20		
8906566	Moisture	2023/09/09							0.53	20		
8906718	Moisture	2023/09/09							0	20		
8906719	Moisture	2023/09/09							2.9	20		
8907190	Aroclor 1016	2023/09/11					<0.010	ug/g	NC	50		
8907190	Aroclor 1221	2023/09/11					<0.010	ug/g	NC	50		
8907190	Aroclor 1232	2023/09/11					<0.010	ug/g	NC	50		
8907190	Aroclor 1242	2023/09/11					<0.010	ug/g	NC	50		
8907190	Aroclor 1248	2023/09/11					<0.010	ug/g	NC	50		
8907190	Aroclor 1254	2023/09/11					<0.010	ug/g	NC	50		
8907190	Aroclor 1260	2023/09/11	149 (1)	30 - 130	113	30 - 130	<0.010	ug/g	NC	50		
8907190	Aroclor 1262	2023/09/11					<0.010	ug/g	NC	50		
8907190	Aroclor 1268	2023/09/11					<0.010	ug/g	NC	50		
8907190	Total PCB	2023/09/11	149 (2)	30 - 130	113	30 - 130	<0.010	ug/g	NC	50		
8907541	Aroclor 1016	2023/09/11					<0.010	ug/g	NC	50		
8907541	Aroclor 1221	2023/09/11					<0.010	ug/g	NC	50		
8907541	Aroclor 1232	2023/09/11					<0.010	ug/g	NC	50		
8907541	Aroclor 1242	2023/09/11					<0.010	ug/g	NC	50		
8907541	Aroclor 1248	2023/09/11					<0.010	ug/g	NC	50		
8907541	Aroclor 1254	2023/09/11					<0.010	ug/g	NC	50		
8907541	Aroclor 1260	2023/09/11	110	30 - 130	97	30 - 130	<0.010	ug/g	NC	50		
8907541	Aroclor 1262	2023/09/11					<0.010	ug/g	NC	50		
8907541	Aroclor 1268	2023/09/11					<0.010	ug/g	NC	50		
8907541	Total PCB	2023/09/11	110	30 - 130	97	30 - 130	<0.010	ug/g	NC	50		
8908856	Aroclor 1016	2023/09/12					<0.010	ug/g	NC	50		
8908856	Aroclor 1221	2023/09/12					<0.010	ug/g	NC	50		
8908856	Aroclor 1232	2023/09/12					<0.010	ug/g	NC	50		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8908856	Aroclor 1242	2023/09/12					<0.010	ug/g	NC	50		
8908856	Aroclor 1248	2023/09/12					<0.010	ug/g	NC	50		
8908856	Aroclor 1254	2023/09/12					<0.010	ug/g	NC	50		
8908856	Aroclor 1260	2023/09/12	123	30 - 130	120	30 - 130	<0.010	ug/g	NC	50		
8908856	Aroclor 1262	2023/09/12					<0.010	ug/g	NC	50		
8908856	Aroclor 1268	2023/09/12					<0.010	ug/g	NC	50		
8908856	Total PCB	2023/09/12	123	30 - 130	120	30 - 130	<0.010	ug/g	NC	50		
8909043	F1 (C6-C10)	2023/09/12	106	60 - 140	92	80 - 120	<10	ug/g	NC	30		
8909689	F1 (C6-C10)	2023/09/12	121	60 - 140	97	80 - 120	<10	ug/g	NC	30		
8909848	F2 (C10-C16 Hydrocarbons)	2023/09/12	118	60 - 130	113	80 - 120	<10	ug/g	NC	30		
8909848	F3 (C16-C34 Hydrocarbons)	2023/09/12	119	60 - 130	115	80 - 120	<50	ug/g	NC	30		
8909848	F4 (C34-C50 Hydrocarbons)	2023/09/12	120	60 - 130	114	80 - 120	<50	ug/g	NC	30		
8909860	F1 (C6-C10)	2023/09/12	124	60 - 140	102	80 - 120	<10	ug/g	NC	30		
8909980	F2 (C10-C16 Hydrocarbons)	2023/09/12	113	60 - 130	111	80 - 120	<10	ug/g	NC	30		
8909980	F3 (C16-C34 Hydrocarbons)	2023/09/12	114	60 - 130	111	80 - 120	<50	ug/g	11	30		
8909980	F4 (C34-C50 Hydrocarbons)	2023/09/12	118	60 - 130	112	80 - 120	<50	ug/g	NC	30		
8909985	Aroclor 1016	2023/09/12					<0.010	ug/g	NC	50		
8909985	Aroclor 1221	2023/09/12					<0.010	ug/g	NC	50		
8909985	Aroclor 1232	2023/09/12					<0.010	ug/g	NC	50		
8909985	Aroclor 1242	2023/09/12					<0.010	ug/g	NC	50		
8909985	Aroclor 1248	2023/09/12					<0.010	ug/g	NC	50		
8909985	Aroclor 1254	2023/09/12					<0.010	ug/g	NC	50		
8909985	Aroclor 1260	2023/09/12	102	30 - 130	104	30 - 130	<0.010	ug/g	NC	50		
8909985	Aroclor 1262	2023/09/12					<0.010	ug/g				
8909985	Aroclor 1268	2023/09/12					<0.010	ug/g				
8909985	Total PCB	2023/09/12	102	30 - 130	104	30 - 130	<0.010	ug/g	NC	50		
8909987	Aroclor 1016	2023/09/12					<0.010	ug/g	NC	50		
8909987	Aroclor 1221	2023/09/12					<0.010	ug/g	NC	50		
8909987	Aroclor 1232	2023/09/12					<0.010	ug/g	NC	50		
8909987	Aroclor 1242	2023/09/12					<0.010	ug/g	NC	50		
8909987	Aroclor 1248	2023/09/12					<0.010	ug/g	NC	50		
8909987	Aroclor 1254	2023/09/12					<0.010	ug/g	NC	50		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8909987	Aroclor 1260	2023/09/12	120	30 - 130	111	30 - 130	<0.010	ug/g	NC	50		
8909987	Aroclor 1262	2023/09/12					<0.010	ug/g	NC	50		
8909987	Aroclor 1268	2023/09/12					<0.010	ug/g	NC	50		
8909987	Total PCB	2023/09/12	120	30 - 130	111	30 - 130	<0.010	ug/g	NC	50		
8910005	F1 (C6-C10)	2023/09/12	162 (4)	60 - 140	100	80 - 120	<10	ug/g	NC	30		
8910929	F2 (C10-C16 Hydrocarbons)	2023/09/13	120	60 - 130	113	80 - 120	<10	ug/g	NC	30		
8910929	F3 (C16-C34 Hydrocarbons)	2023/09/13	120	60 - 130	111	80 - 120	<50	ug/g	13	30		
8910929	F4 (C34-C50 Hydrocarbons)	2023/09/13	119	60 - 130	110	80 - 120	<50	ug/g	NC	30		
8911548	F2 (C10-C16 Hydrocarbons)	2023/09/13	100	60 - 130	98	80 - 120	<10	ug/g	12	30		
8911548	F3 (C16-C34 Hydrocarbons)	2023/09/13	99	60 - 130	94	80 - 120	<50	ug/g	10	30		
8911548	F4 (C34-C50 Hydrocarbons)	2023/09/13	98	60 - 130	95	80 - 120	<50	ug/g	NC	30		
8911560	F2 (C10-C16 Hydrocarbons)	2023/09/13	110	60 - 130	104	80 - 120	<10	ug/g	NC	30		
8911560	F3 (C16-C34 Hydrocarbons)	2023/09/13	110	60 - 130	103	80 - 120	<50	ug/g	NC	30		
8911560	F4 (C34-C50 Hydrocarbons)	2023/09/13	109	60 - 130	102	80 - 120	<50	ug/g	NC	30		
8918469	Total Arsenic (As)	2023/09/13	85	75 - 125	99	75 - 125	<0.20	mg/kg	NC	30	81	70 - 130
8918469	Total Cadmium (Cd)	2023/09/13	88	75 - 125	96	75 - 125	<0.050	mg/kg	NC	30	93	70 - 130
8918469	Total Chromium (Cr)	2023/09/13	84	75 - 125	96	75 - 125	<0.50	mg/kg	0.46	30	96	70 - 130
8918469	Total Cobalt (Co)	2023/09/13	85	75 - 125	97	75 - 125	<0.10	mg/kg	0.42	30	95	70 - 130
8918469	Total Copper (Cu)	2023/09/13	84	75 - 125	96	75 - 125	<0.50	mg/kg	0.96	30	106	70 - 130
8918469	Total Lead (Pb)	2023/09/13	88	75 - 125	98	75 - 125	<0.10	mg/kg	0.44	40	106	70 - 130
8918469	Total Nickel (Ni)	2023/09/13	82	75 - 125	94	75 - 125	<0.50	mg/kg	0.58	30	101	70 - 130
8918469	Total Zinc (Zn)	2023/09/13	82	75 - 125	94	75 - 125	<1.0	mg/kg	1.3	30	99	70 - 130
8918470	Total Arsenic (As)	2023/09/13	91	75 - 125	97	75 - 125	<0.20	mg/kg	0.42	30	79	70 - 130
8918470	Total Cadmium (Cd)	2023/09/13	94	75 - 125	94	75 - 125	<0.050	mg/kg	6.3	30	104	70 - 130
8918470	Total Chromium (Cr)	2023/09/13	92	75 - 125	94	75 - 125	<0.50	mg/kg	0.84	30	95	70 - 130
8918470	Total Cobalt (Co)	2023/09/13	87	75 - 125	97	75 - 125	<0.10	mg/kg	1.1	30	93	70 - 130
8918470	Total Copper (Cu)	2023/09/13	90	75 - 125	96	75 - 125	<0.50	mg/kg	1.1	30	97	70 - 130
8918470	Total Lead (Pb)	2023/09/13	93	75 - 125	99	75 - 125	<0.10	mg/kg	0.86	40	111	70 - 130
8918470	Total Nickel (Ni)	2023/09/13	88	75 - 125	92	75 - 125	<0.50	mg/kg	0.83	30	99	70 - 130
8918470	Total Zinc (Zn)	2023/09/13	88	75 - 125	92	75 - 125	<1.0	mg/kg	1.3	30	97	70 - 130
8918472	Total Arsenic (As)	2023/09/14	94	75 - 125	100	75 - 125	<0.20	mg/kg	3.5	30	105	70 - 130
8918472	Total Cadmium (Cd)	2023/09/14	95	75 - 125	97	75 - 125	<0.050	mg/kg	NC	30	90	70 - 130

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8918472	Total Chromium (Cr)	2023/09/14	96	75 - 125	103	75 - 125	<0.50	mg/kg	0.80	30	101	70 - 130
8918472	Total Cobalt (Co)	2023/09/14	83	75 - 125	95	75 - 125	<0.10	mg/kg	0.35	30	98	70 - 130
8918472	Total Copper (Cu)	2023/09/14	95	75 - 125	106	75 - 125	<0.50	mg/kg	0.25	30	101	70 - 130
8918472	Total Lead (Pb)	2023/09/14	90	75 - 125	94	75 - 125	<0.10	mg/kg	0.24	40	113	70 - 130
8918472	Total Nickel (Ni)	2023/09/14	90	75 - 125	98	75 - 125	<0.50	mg/kg	1.2	30	103	70 - 130
8918472	Total Zinc (Zn)	2023/09/14	87	75 - 125	95	75 - 125	<1.0	mg/kg	0.57	30	100	70 - 130
8918473	Total Arsenic (As)	2023/09/14	86	75 - 125	96	75 - 125	<0.20	mg/kg	6.8	30	99	70 - 130
8918473	Total Cadmium (Cd)	2023/09/14	87	75 - 125	93	75 - 125	<0.050	mg/kg	NC	30	112	70 - 130
8918473	Total Chromium (Cr)	2023/09/14	87	75 - 125	100	75 - 125	<0.50	mg/kg	0.54	30	95	70 - 130
8918473	Total Cobalt (Co)	2023/09/14	84	75 - 125	96	75 - 125	<0.10	mg/kg	0.86	30	93	70 - 130
8918473	Total Copper (Cu)	2023/09/14	89	75 - 125	105	75 - 125	<0.50	mg/kg	0.94	30	94	70 - 130
8918473	Total Lead (Pb)	2023/09/14	86	75 - 125	96	75 - 125	<0.10	mg/kg	0.25	40	102	70 - 130
8918473	Total Nickel (Ni)	2023/09/14	83	75 - 125	92	75 - 125	<0.50	mg/kg	0.0068	30	97	70 - 130
8918473	Total Zinc (Zn)	2023/09/14	81	75 - 125	90	75 - 125	<1.0	mg/kg	0.34	30	94	70 - 130

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Matrix spike exceeds acceptance limits, probable matrix interference.

(2) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

(3) The recovery of the extraction surrogate compound was above the upper control limit. Visible loss of methanol was observed in this sample. As a result, there is an increased level of uncertainty.

(4) The recovery was above the upper control limit. This may represent a high bias in some results for flagged analytes. For results that were not detected (ND), this potential bias has no impact.

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere, Senior Scientific Specialist

David Huang, BBY Scientific Specialist

Bureau Veritas Proprietary Software
Logiciel Propriétaire de Bureau Veritas

Automated Statchk

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by {0}, {1} responsible for {2} {3} laboratory operations.

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Received in Ottawa

Custody Tracking Form

eCOC Number
T761064

Please use this form for custody tracking when submitting the work instructions via eCOC (electronic Chain of Custody). Please ensure your form **has a barcode or a Bureau Veritas Laboratories eCOC confirmation number** in the top right hand side. This number links your electronic submission to your samples. This form should be **placed in the cooler with your samples.**

Relinquished By				Received By			
Connor MCClelland		Date	2023/09/02	ADASON LAWRENCE	ALawrence	Date	2023/09/05
		Time (24 HR)	14:10			Time (24 HR)	1028
		Date				Date	2023/09/06
		Time (24 HR)				Time (24 HR)	09:00
		Date				Date	
		Time (24 HR)				Time (24 HR)	

Unless otherwise agreed to, submissions and use of services are governed by Bureau Veritas' standard terms and conditions which can be found at www.bvlabs.com.

Triage Information					
Sampled By (Print)	# of Coolers/Pkgs	Rush ☐	Immediate Test ☐	Food Residue ☐	
C.MCClelland	4	Micro ☐		Food Chemistry ☐	

*** Laboratory Use Only ***

05-Sep-23 10:28
Christine Gripton
C3R2252
:PK ENV-1421

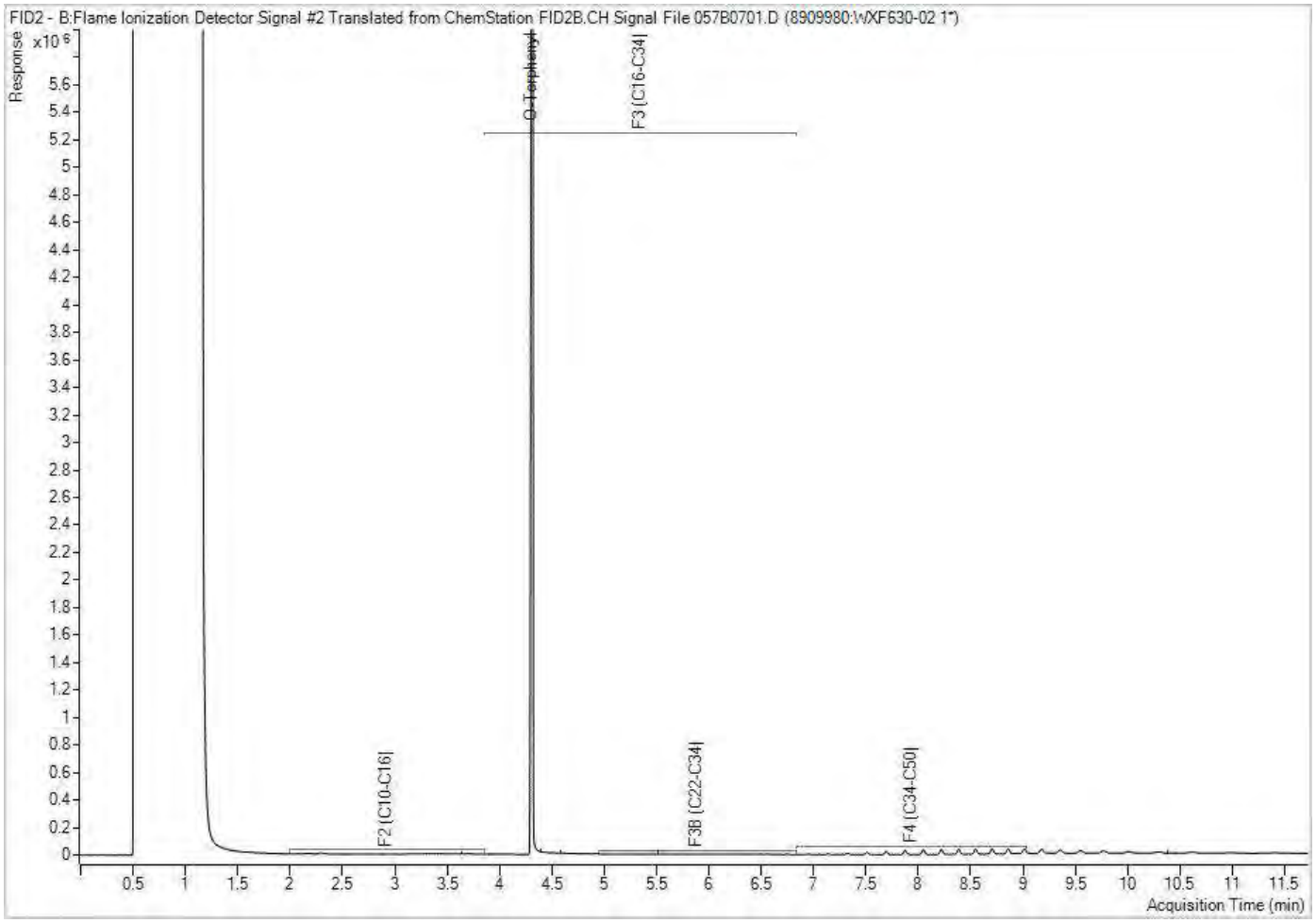
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Received At					see ACTR		
Labeled By							
Verified By					see ACTR		

COR FCD-00340 / 3
PAGE 1 of 1

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF630

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-11-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

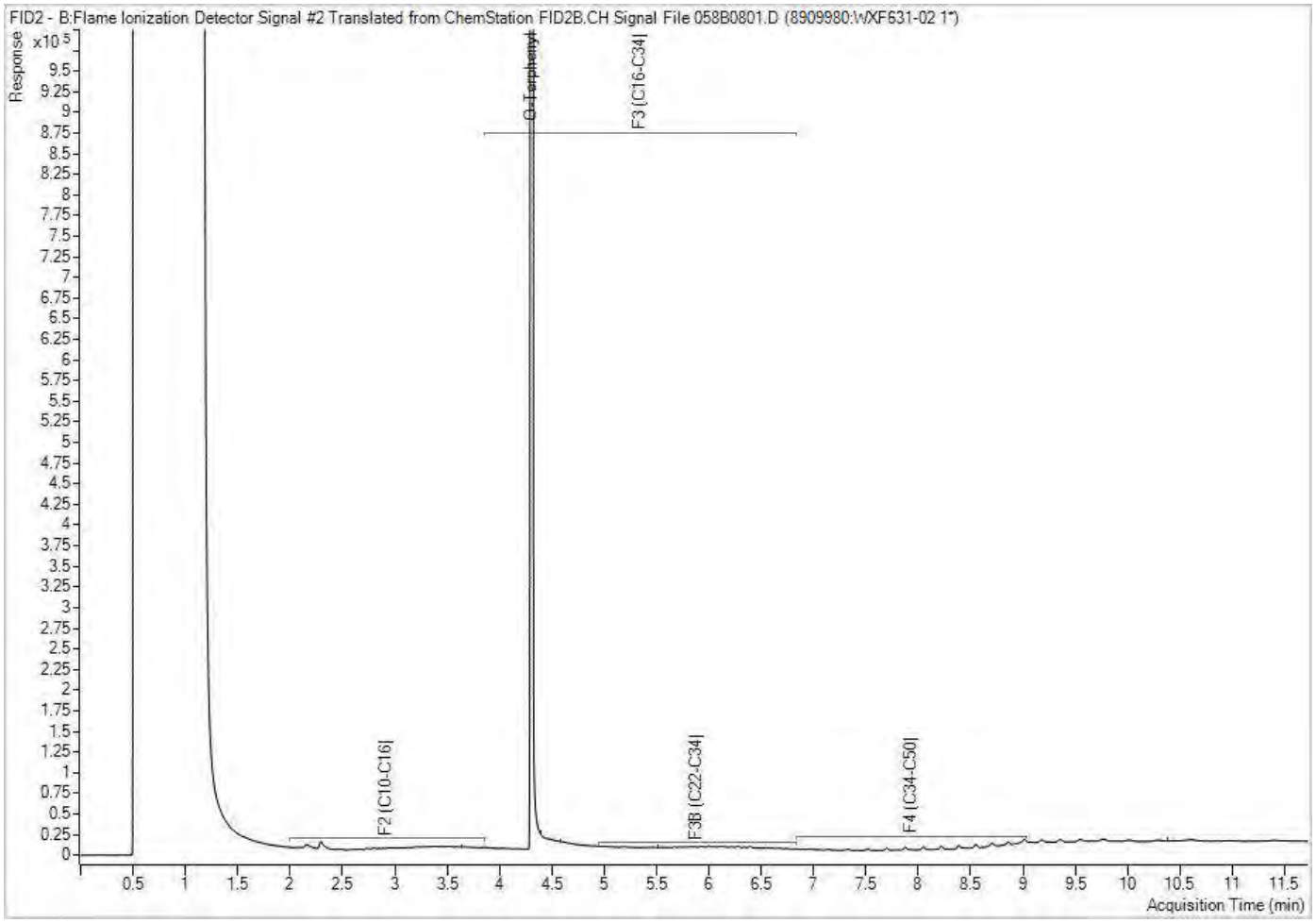


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF631

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-11-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

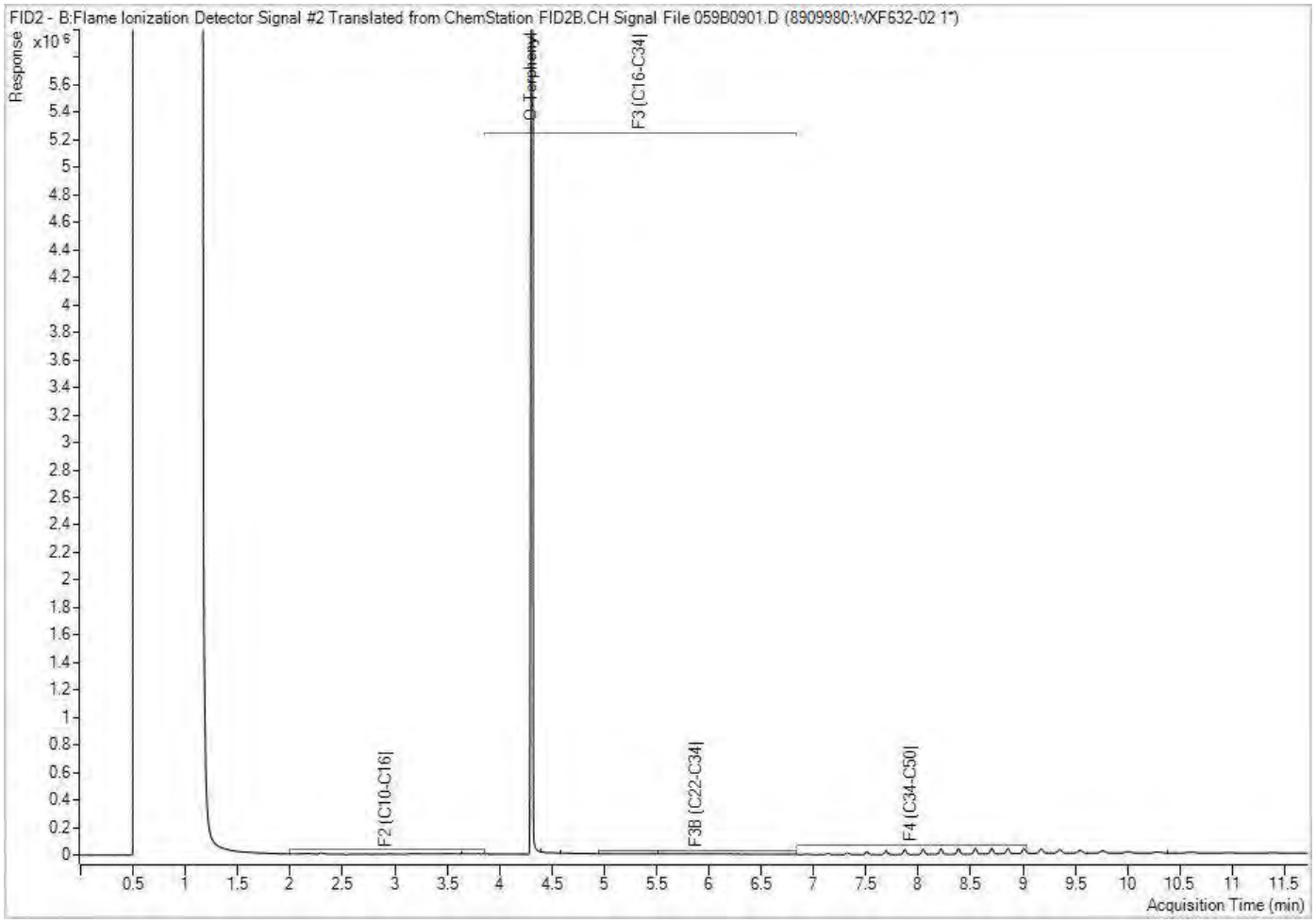


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF632

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-12-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

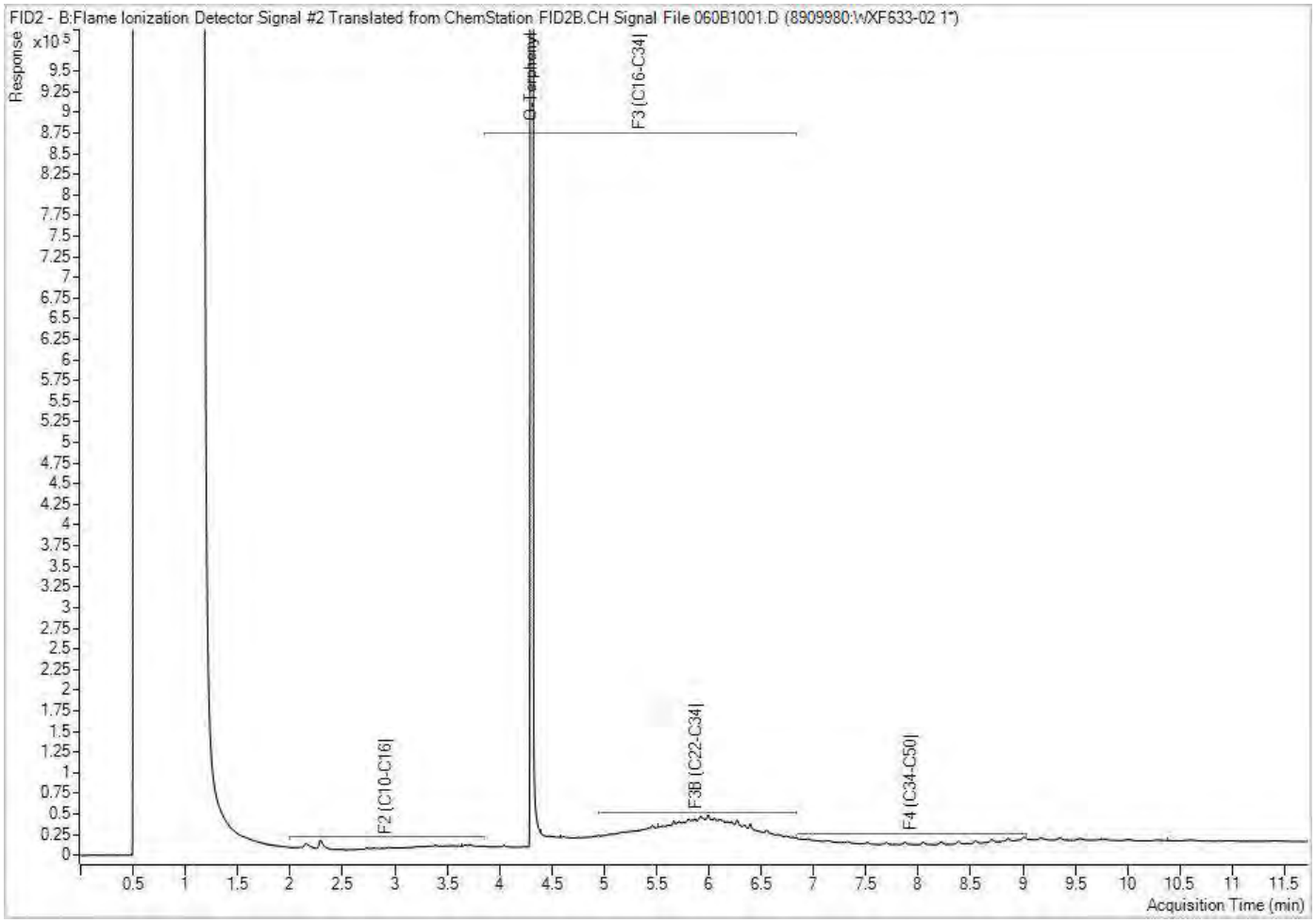


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF633

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-12-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

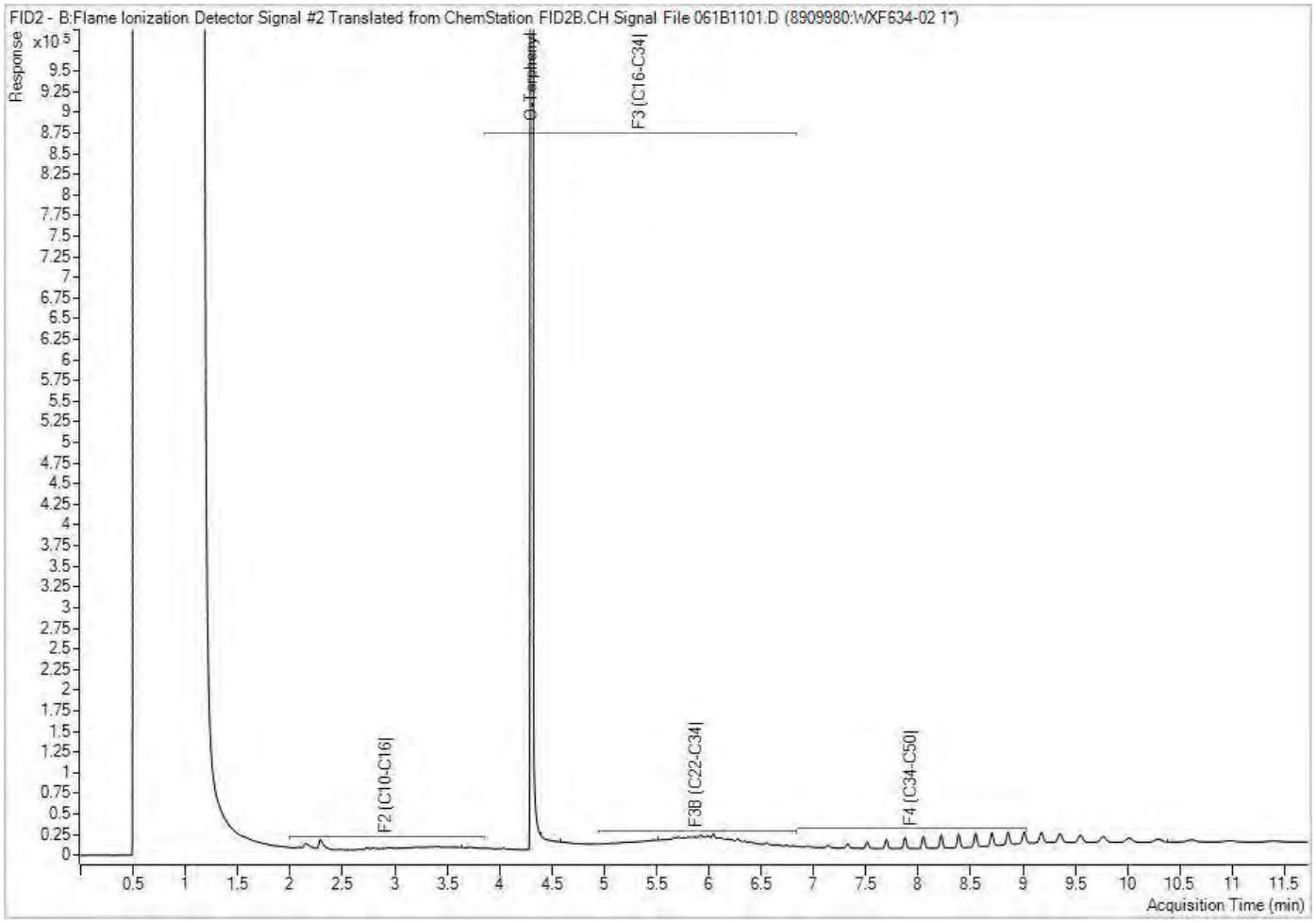


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF634

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-13-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

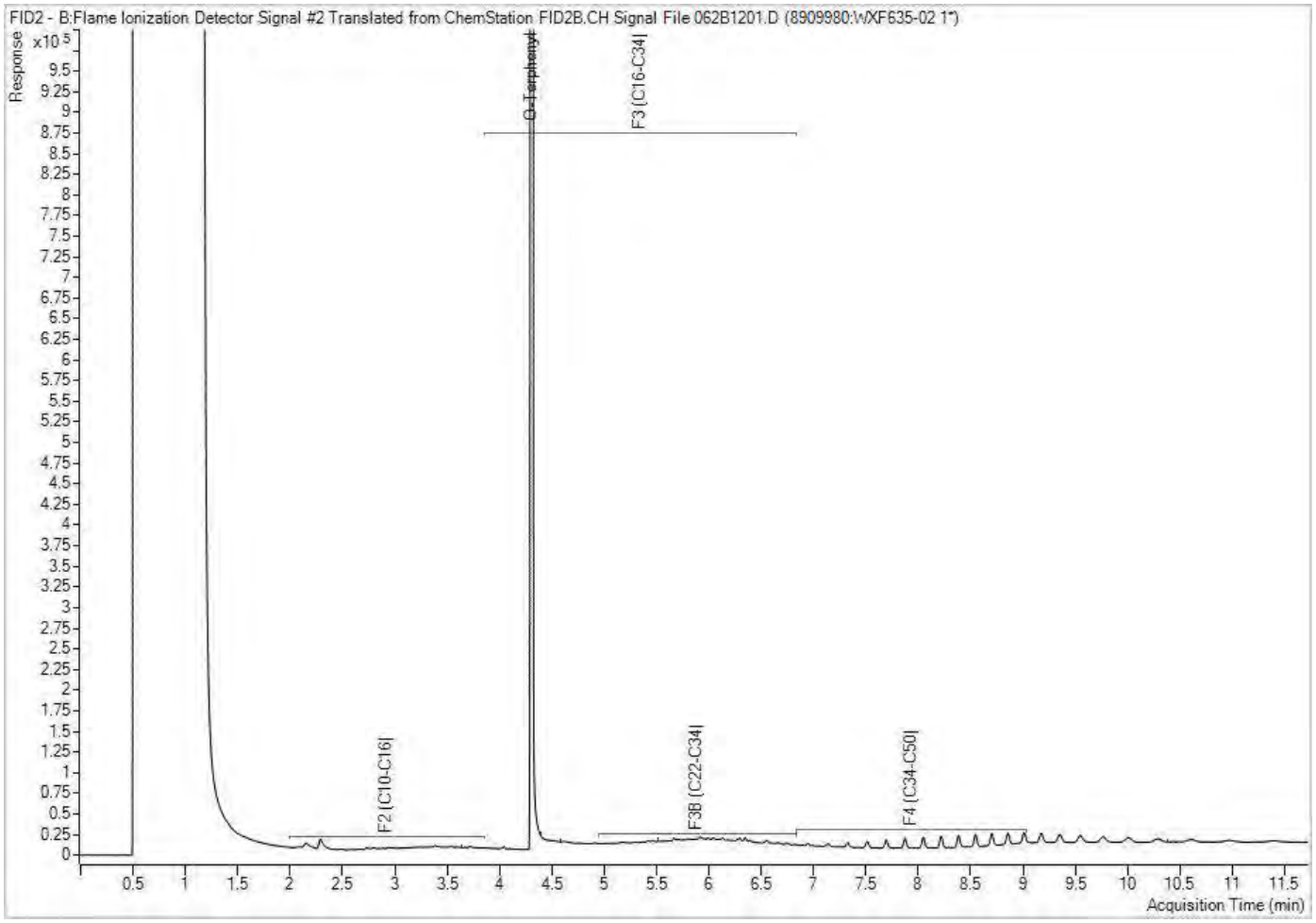


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF635

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-13-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

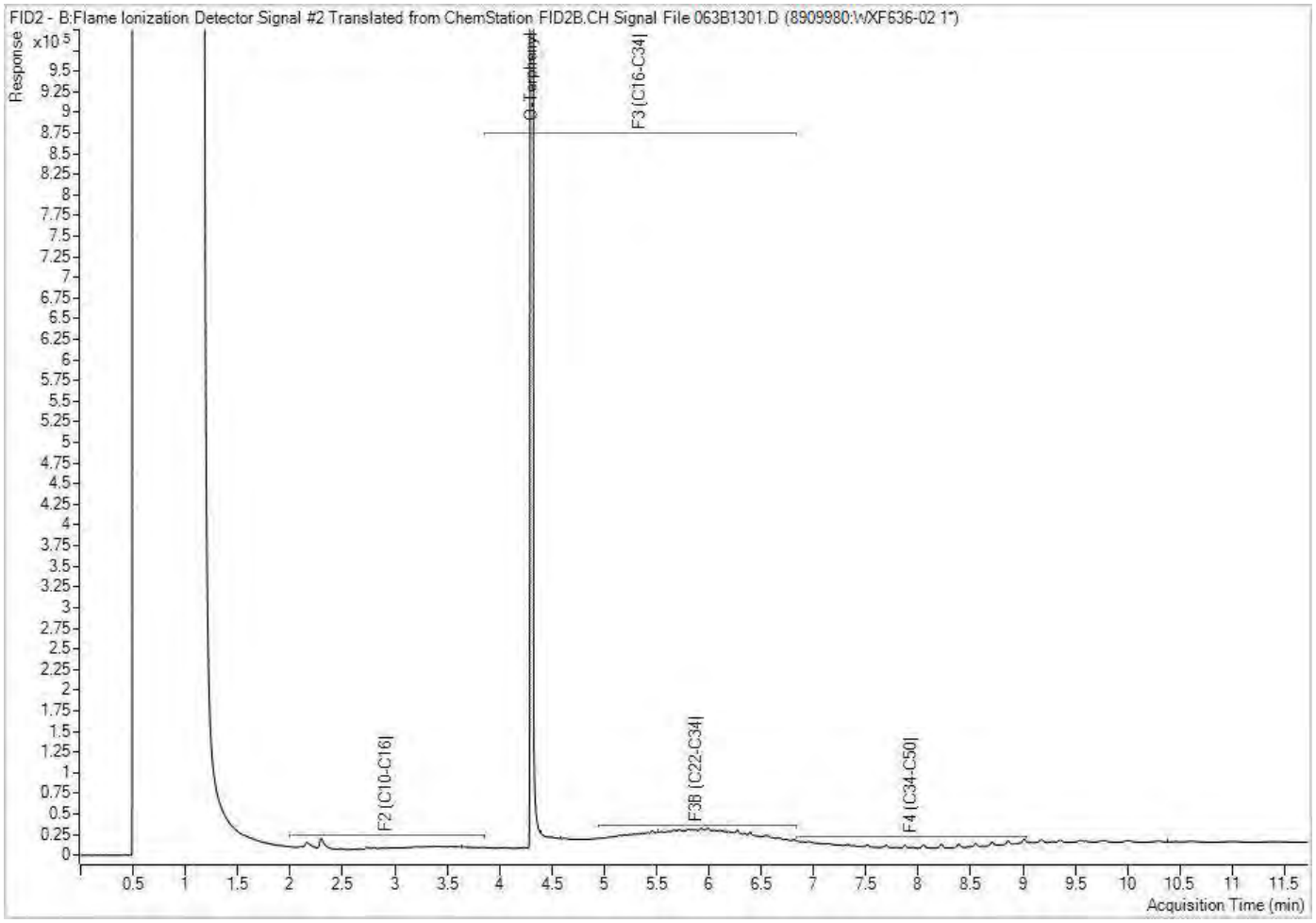


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF636

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-14-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

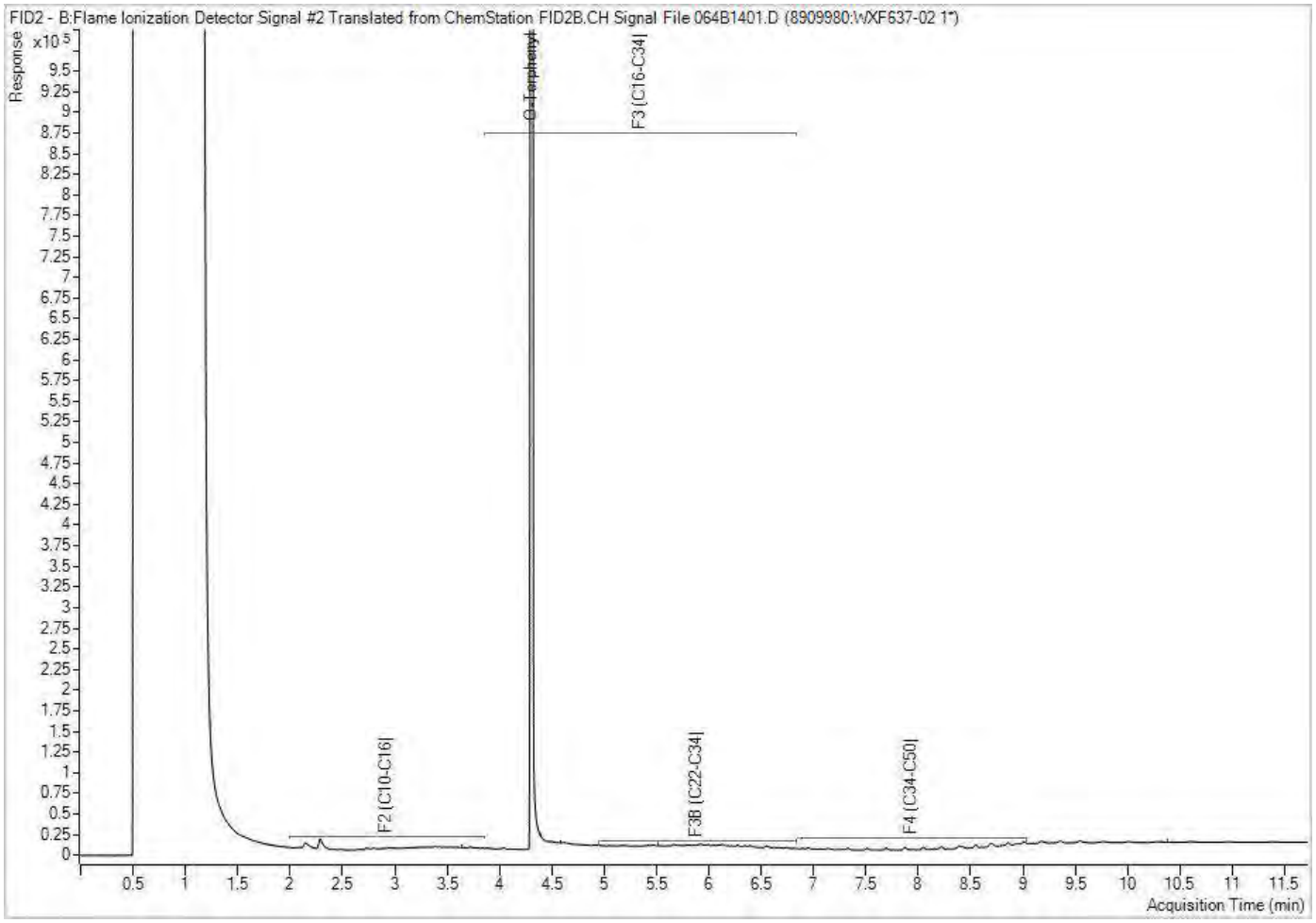


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF637

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-14-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

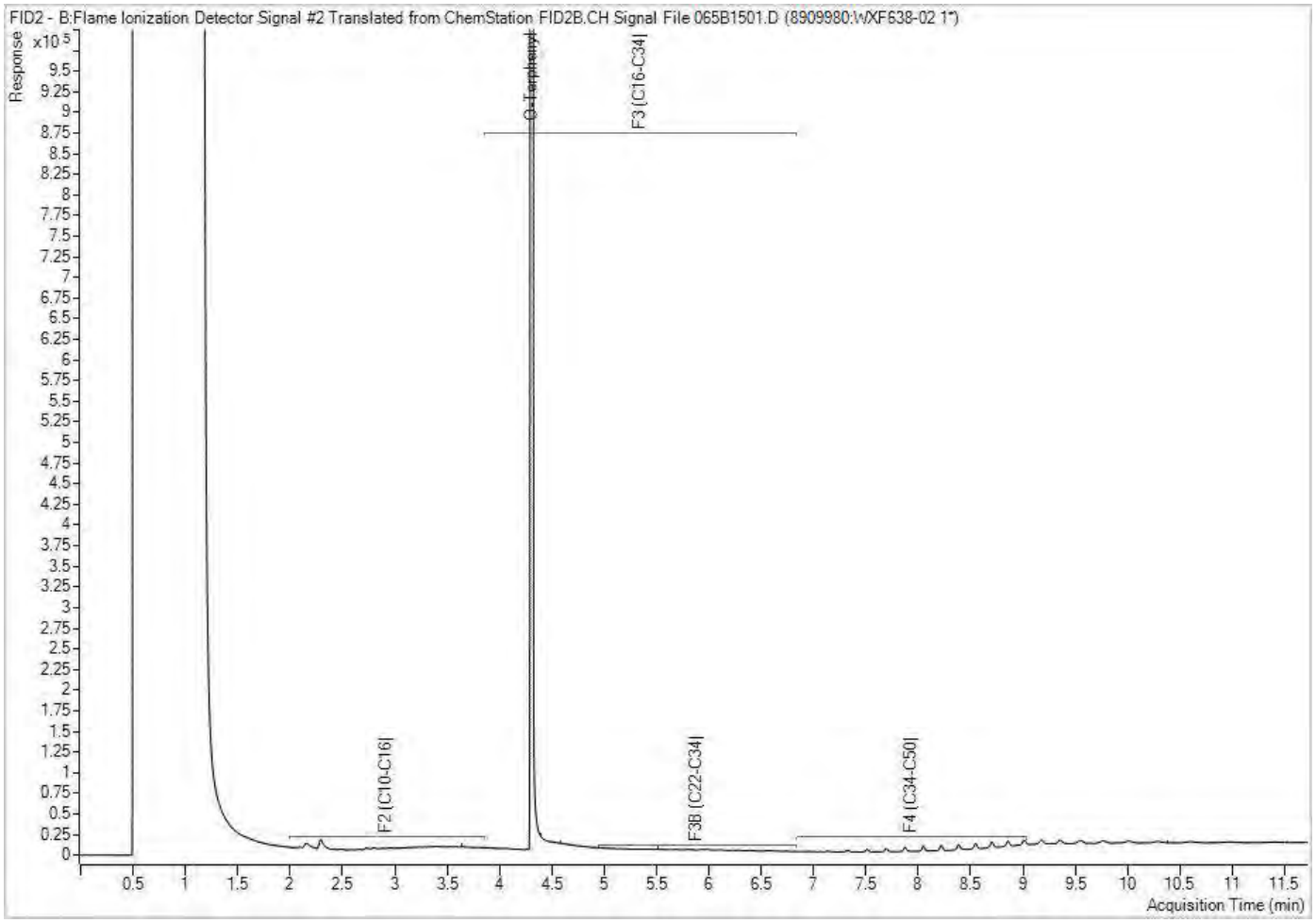


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF638

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-15-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

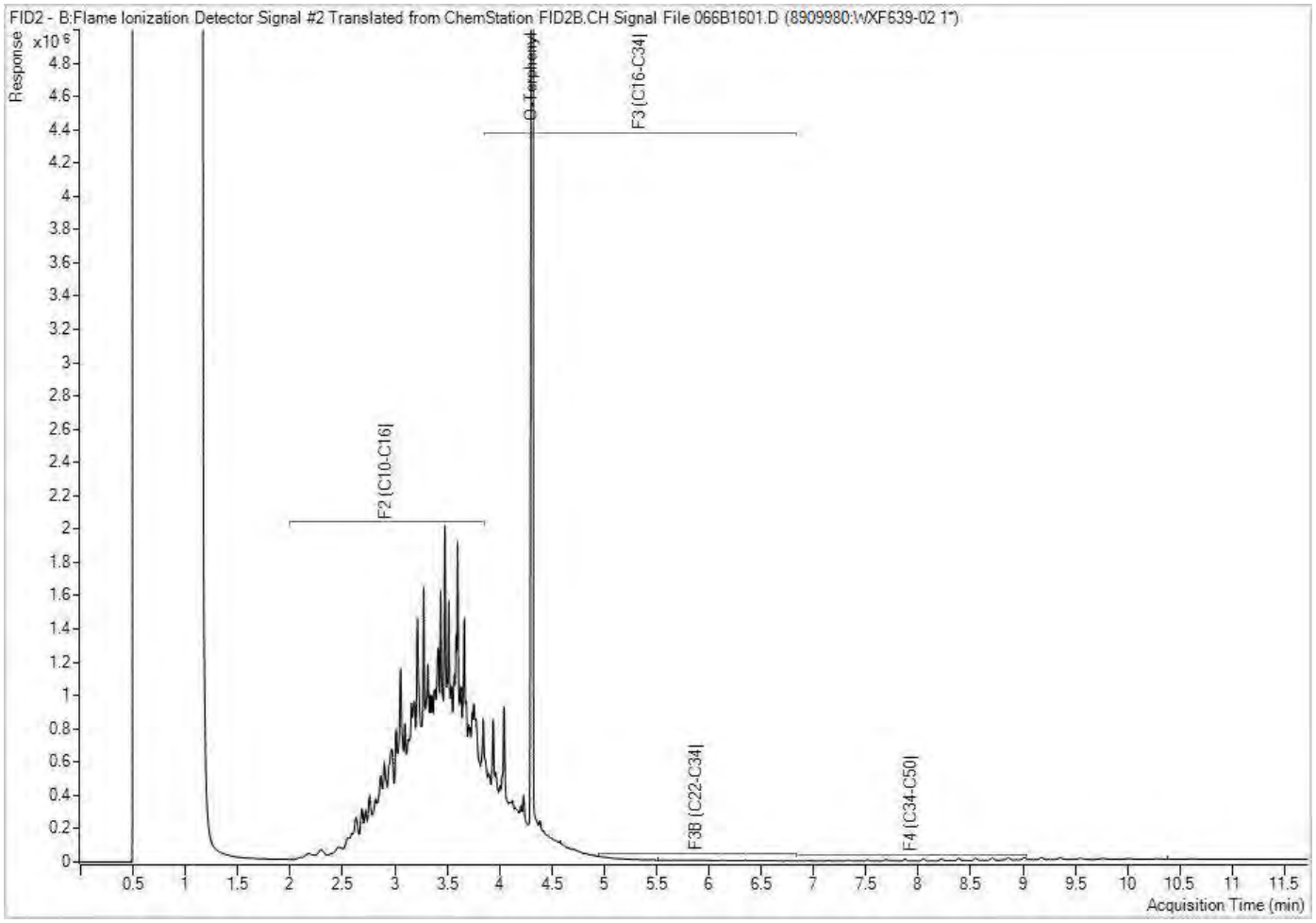


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF639

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-15-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

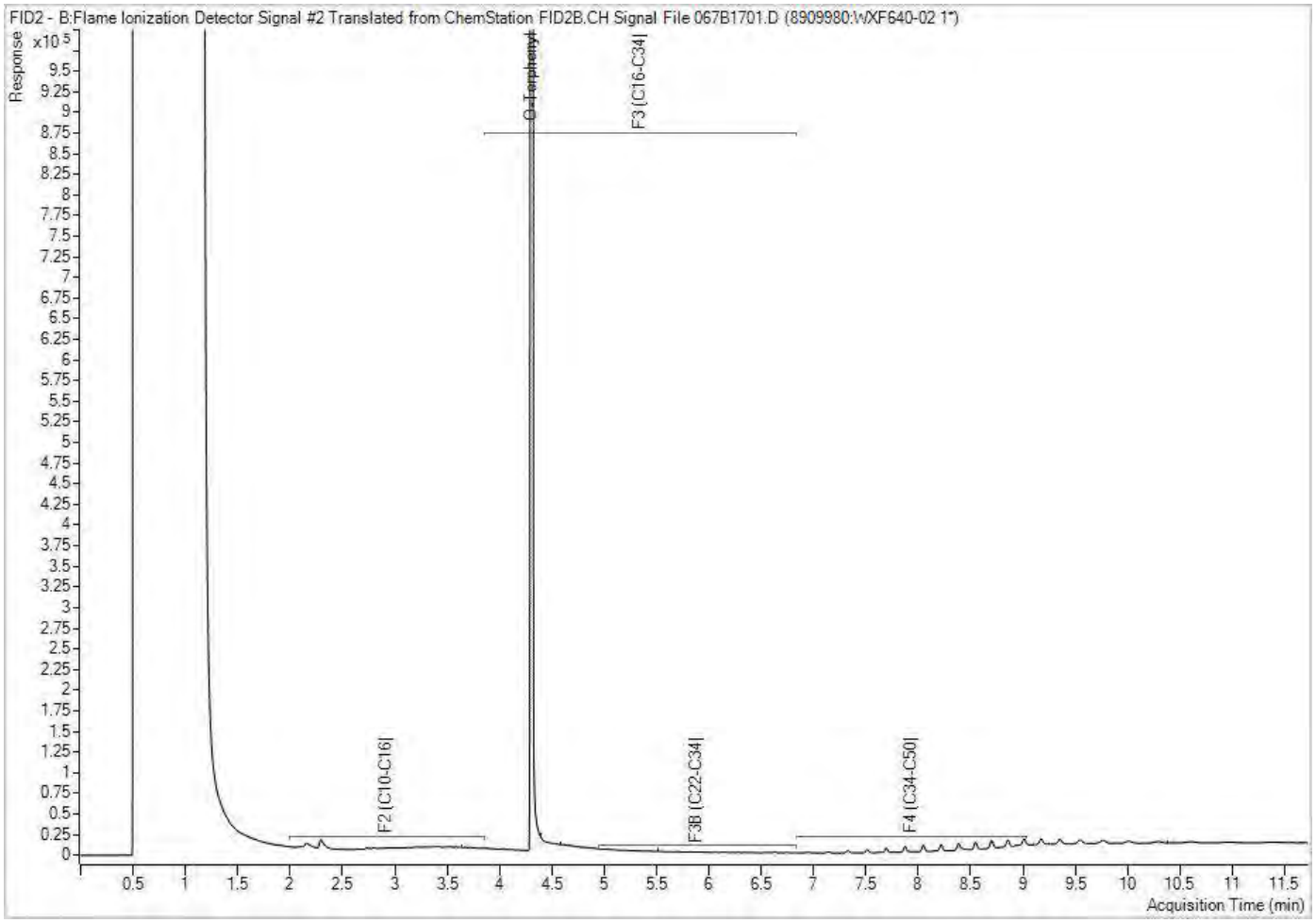


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF640

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-16-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

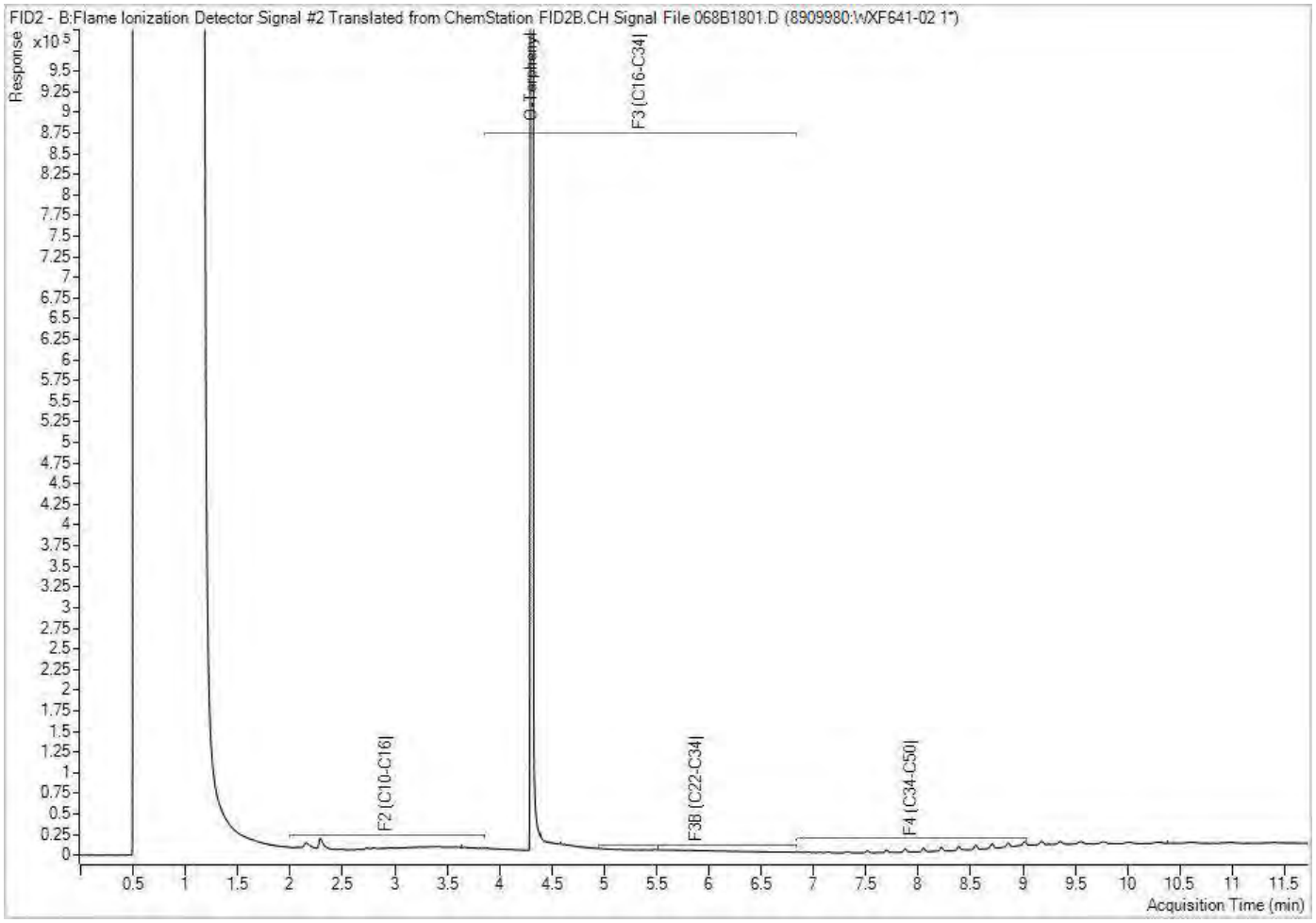


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF641

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-16-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

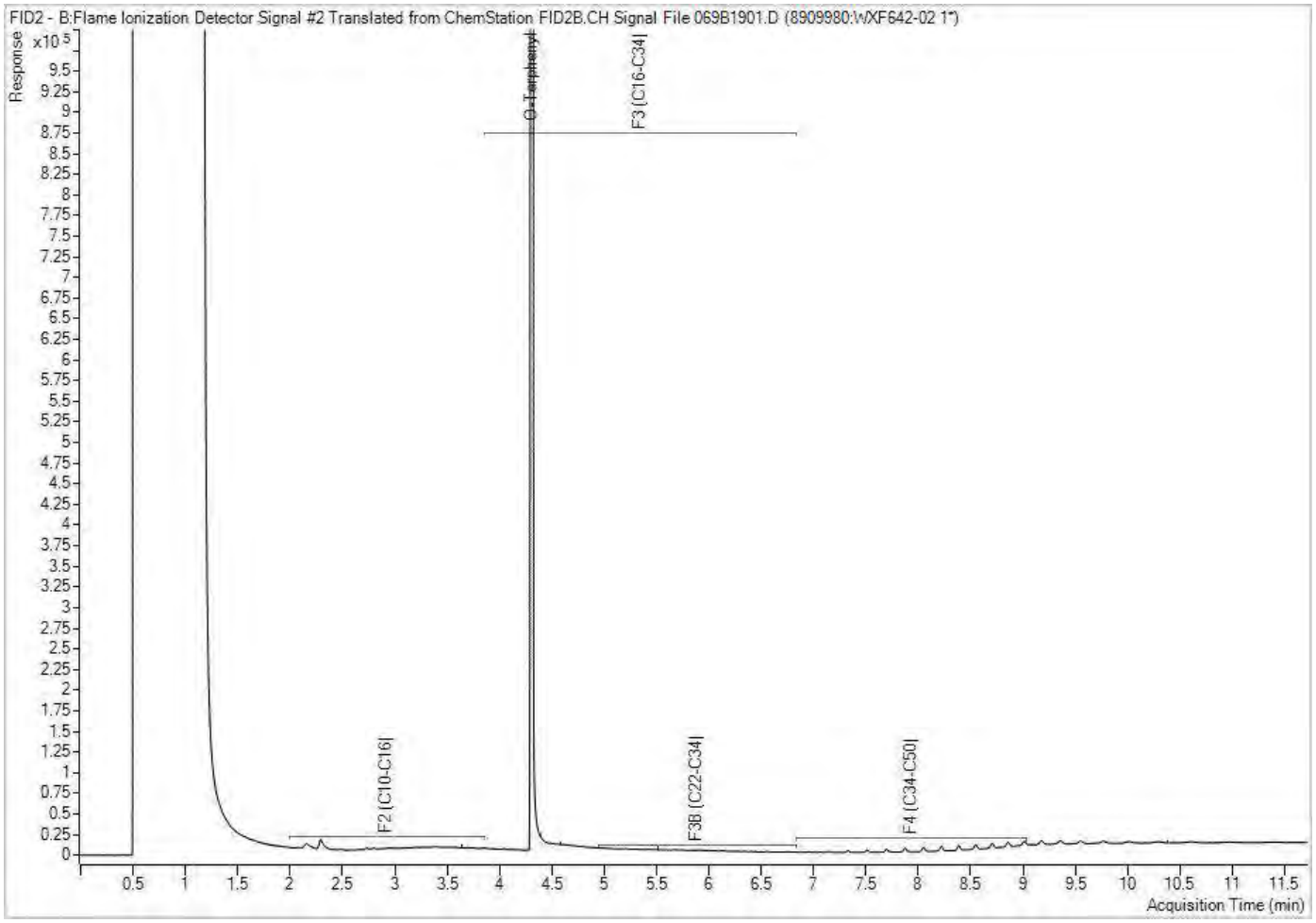


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF642

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-17-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

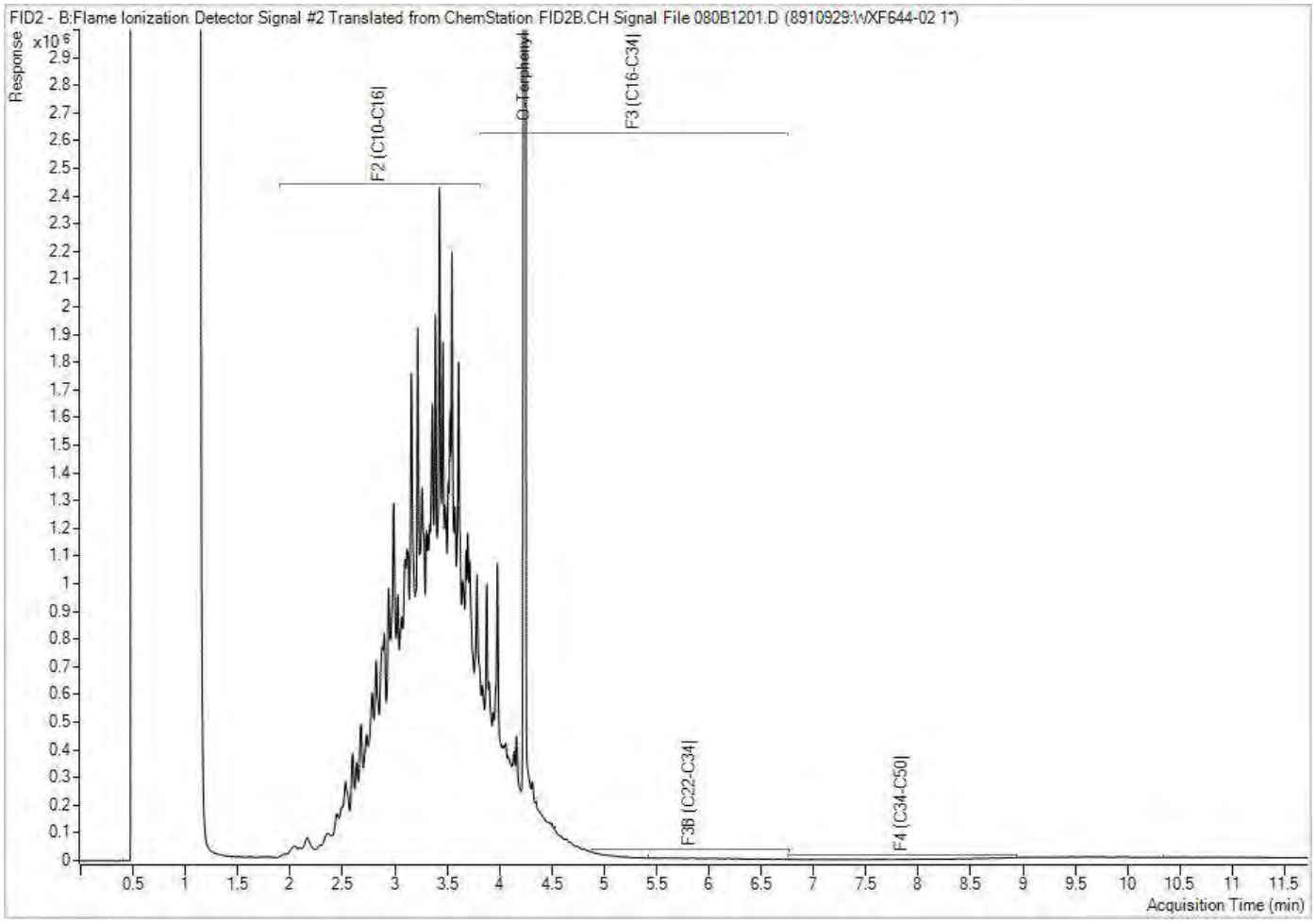


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF644

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-S-140

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

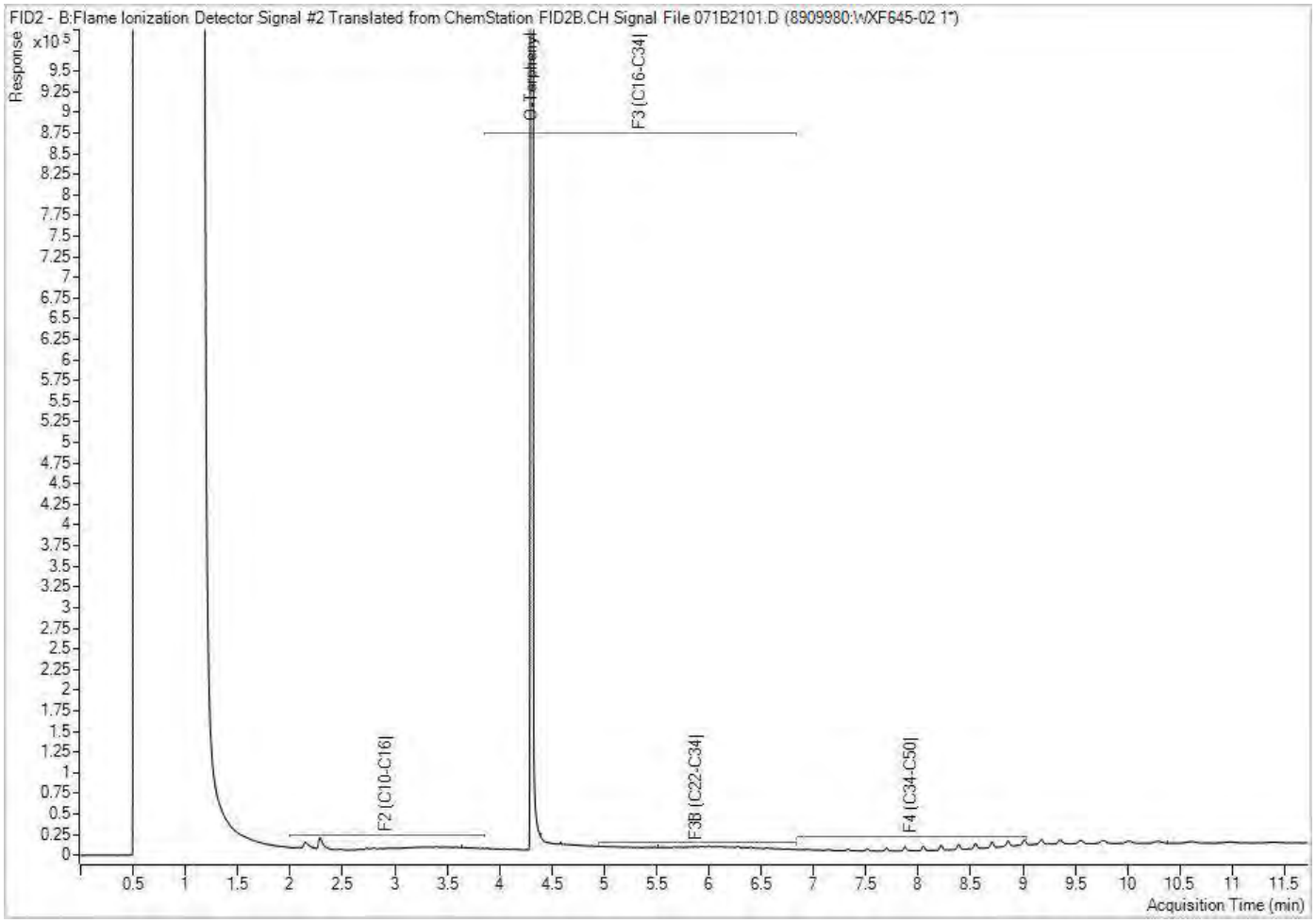


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF645

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-S-150

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

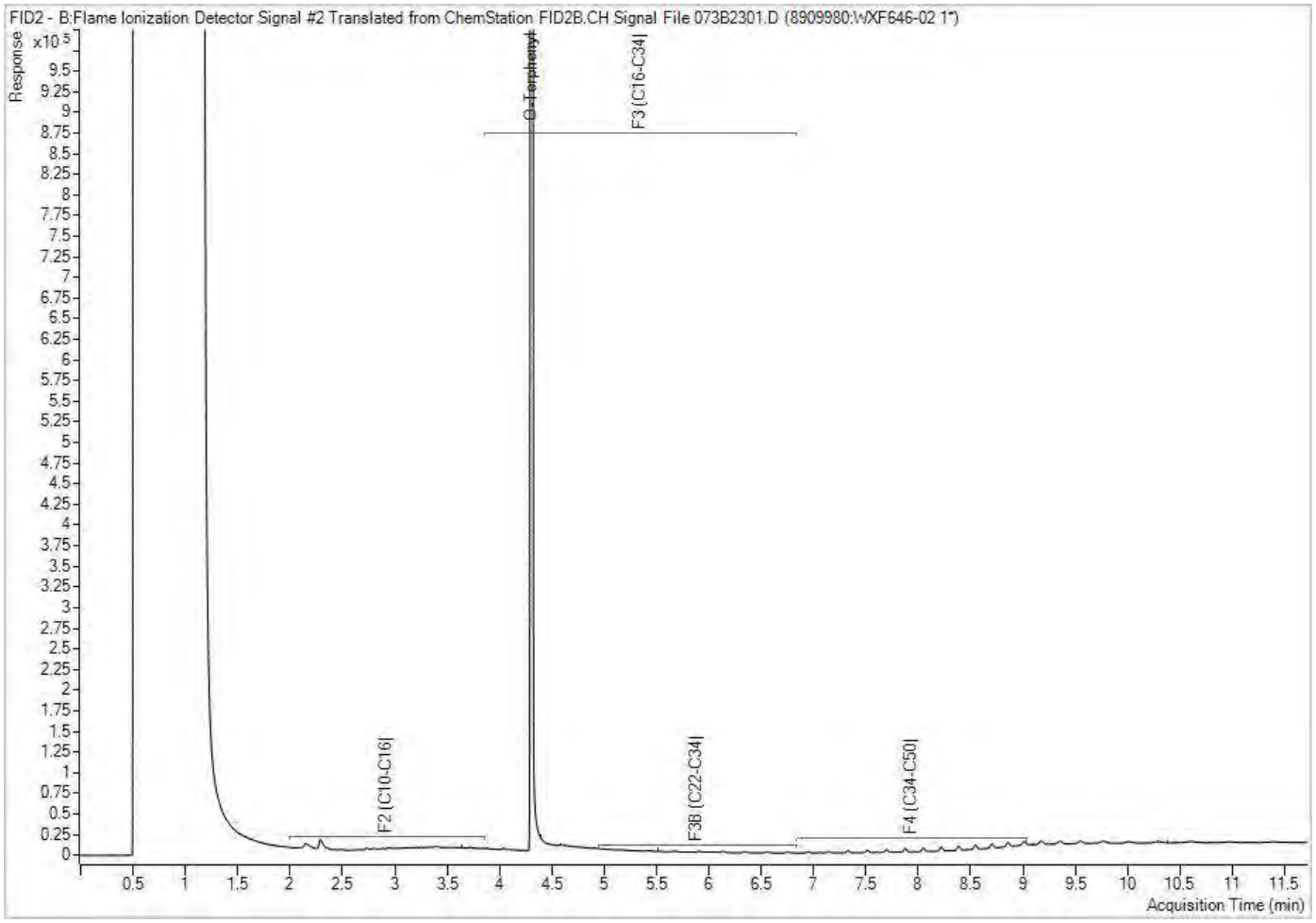


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF646

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-35-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

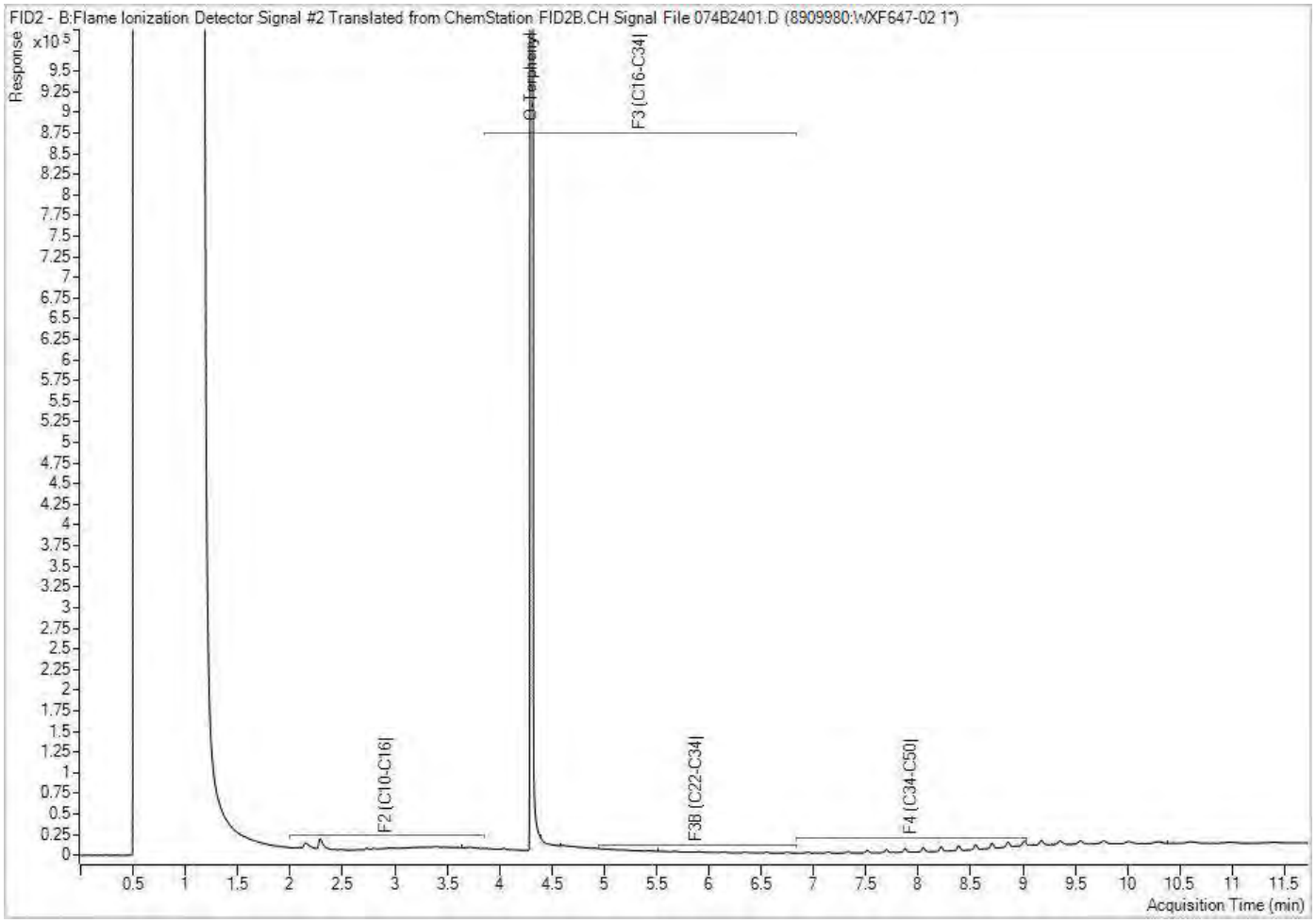


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF647

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-35-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

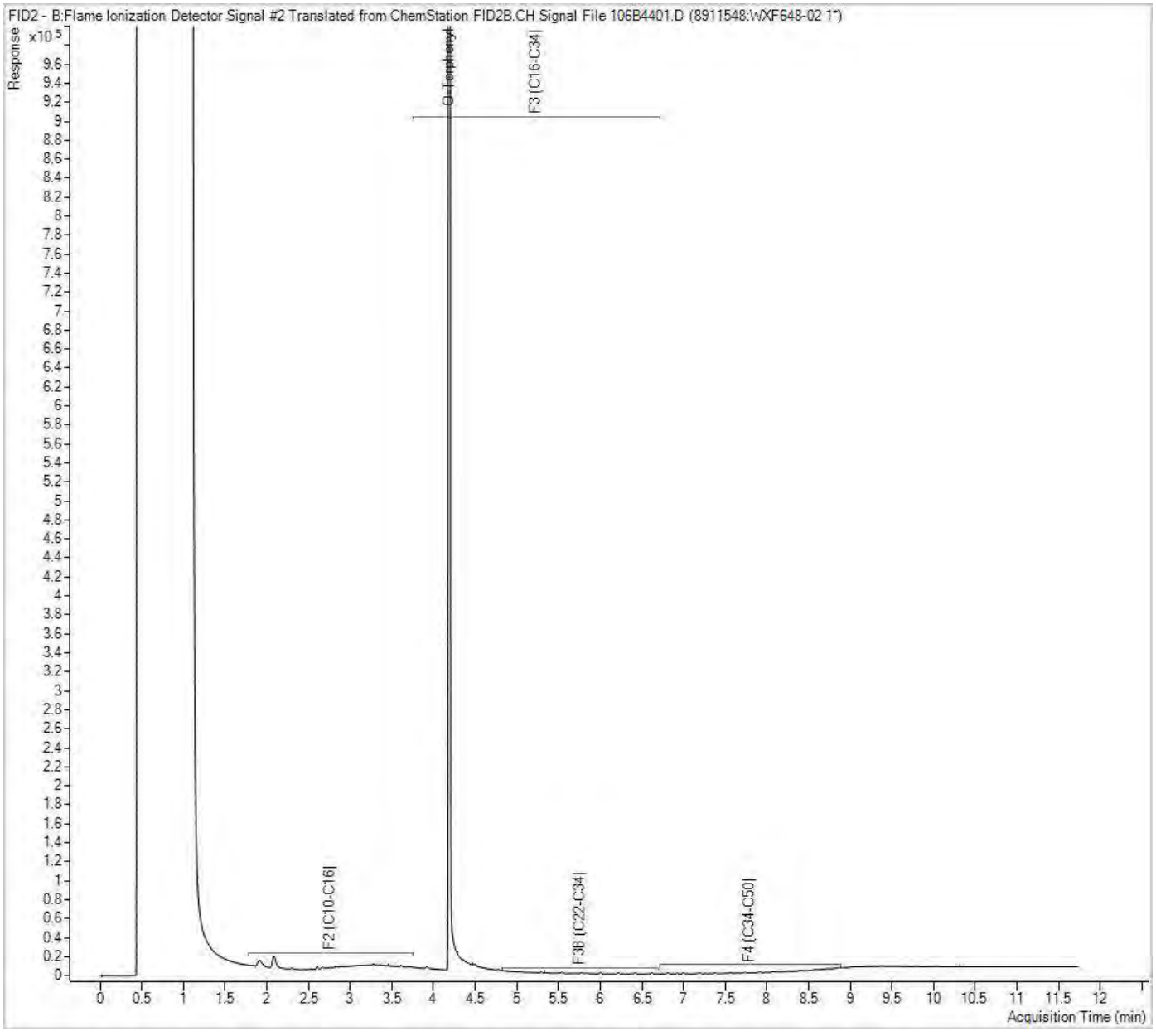


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF648

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-36-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

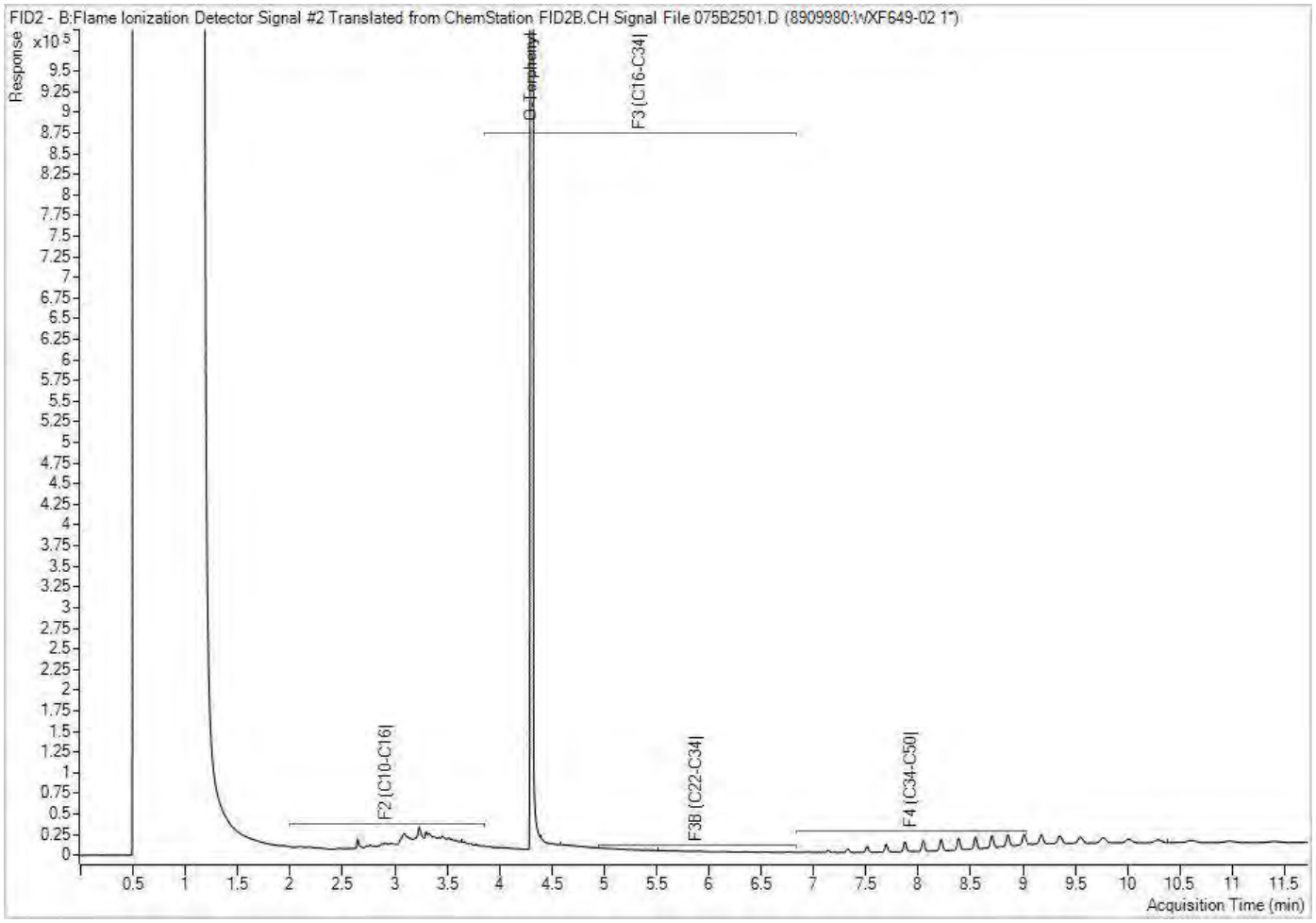


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF649

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-36-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

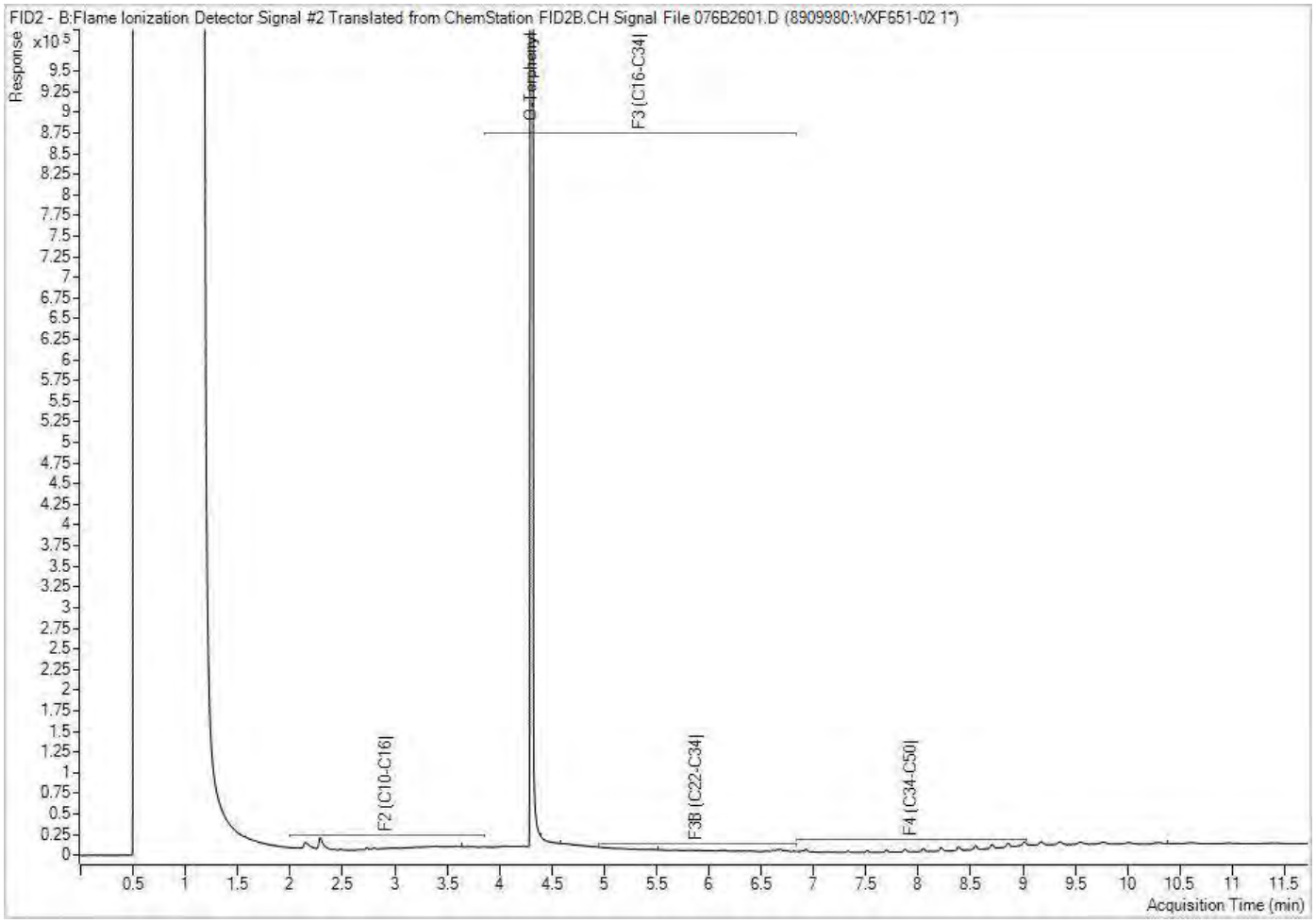


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF651

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-40-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

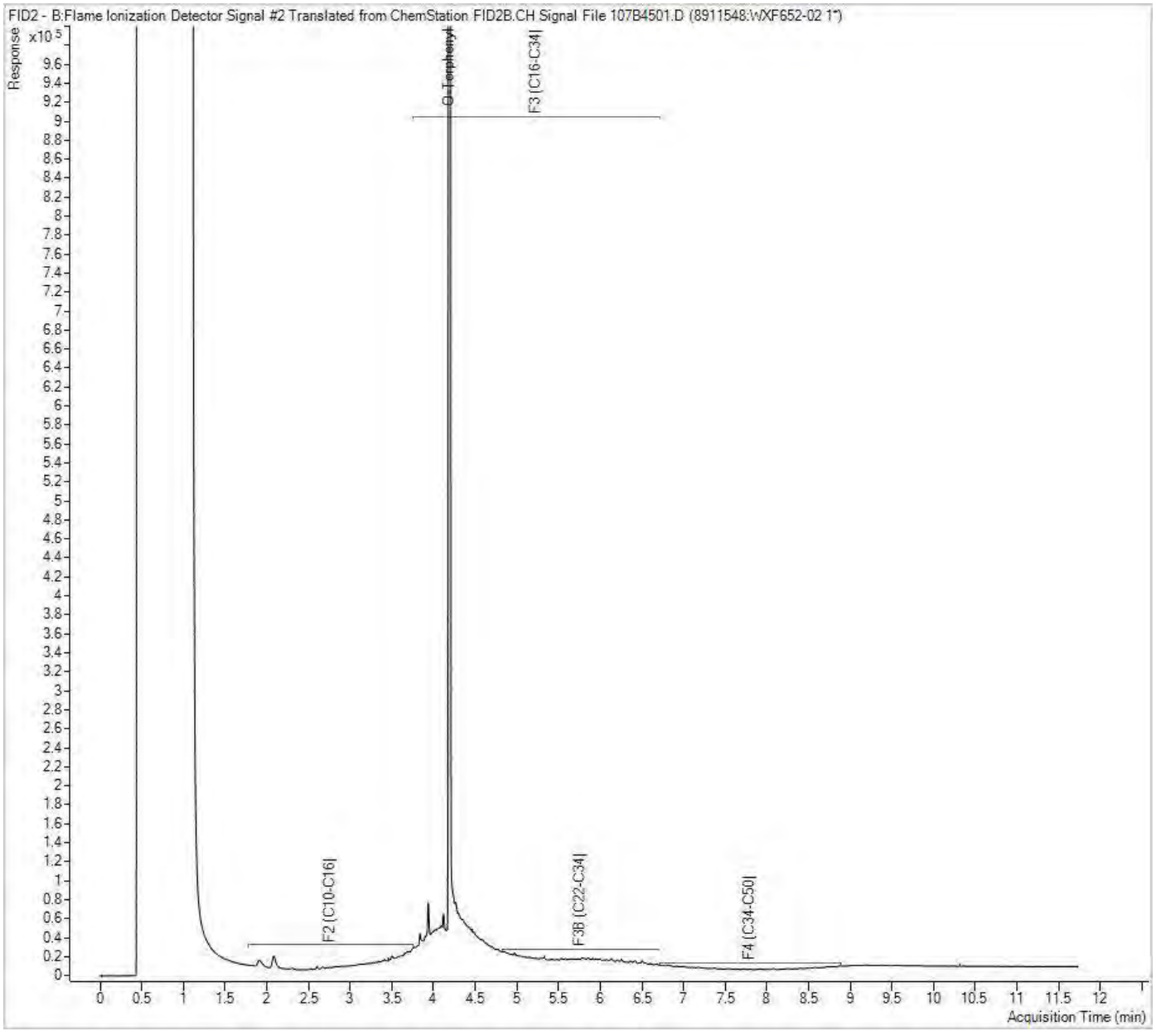


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF652

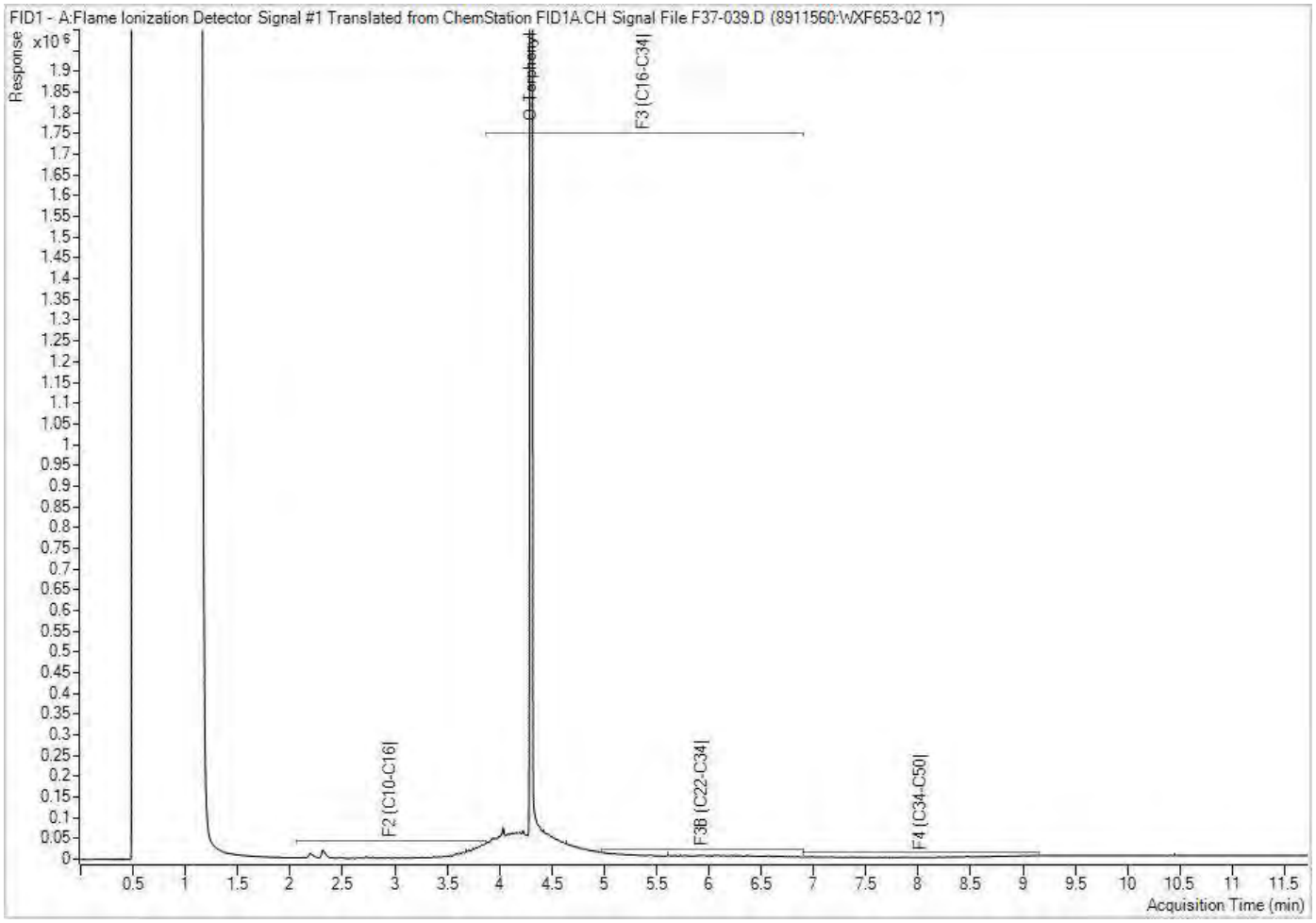
BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-41-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

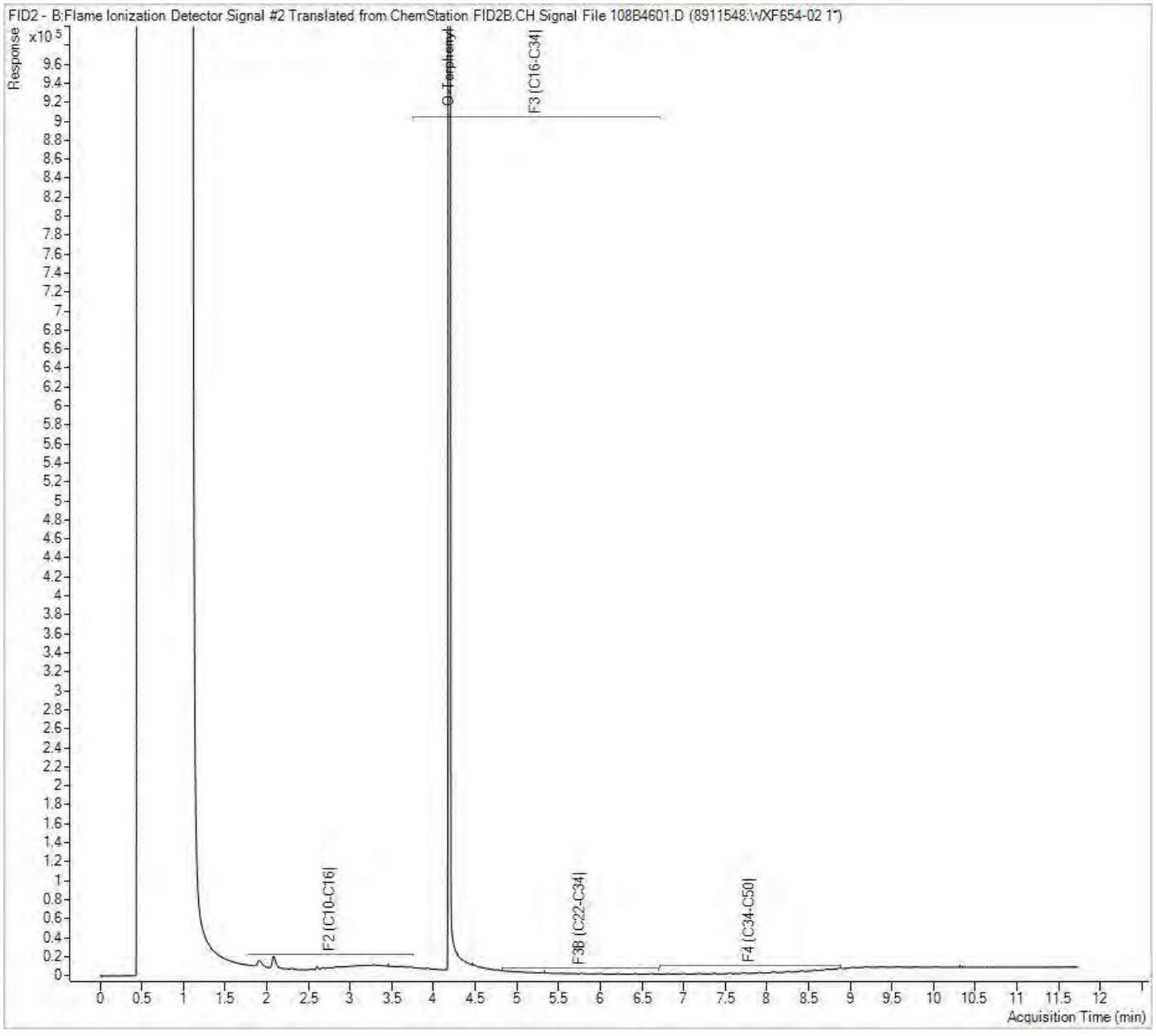


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF654

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-45-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

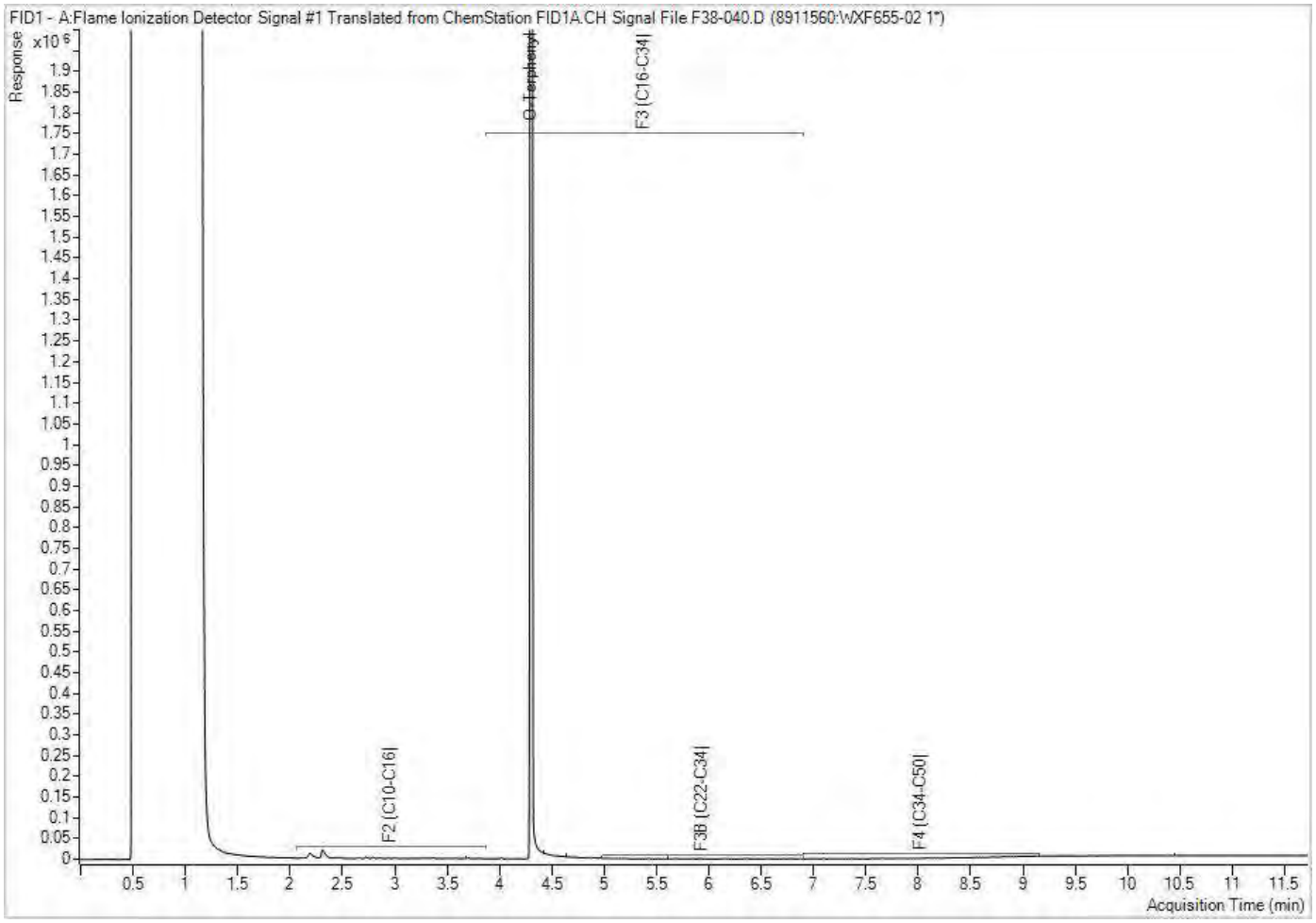


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF655

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-45-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

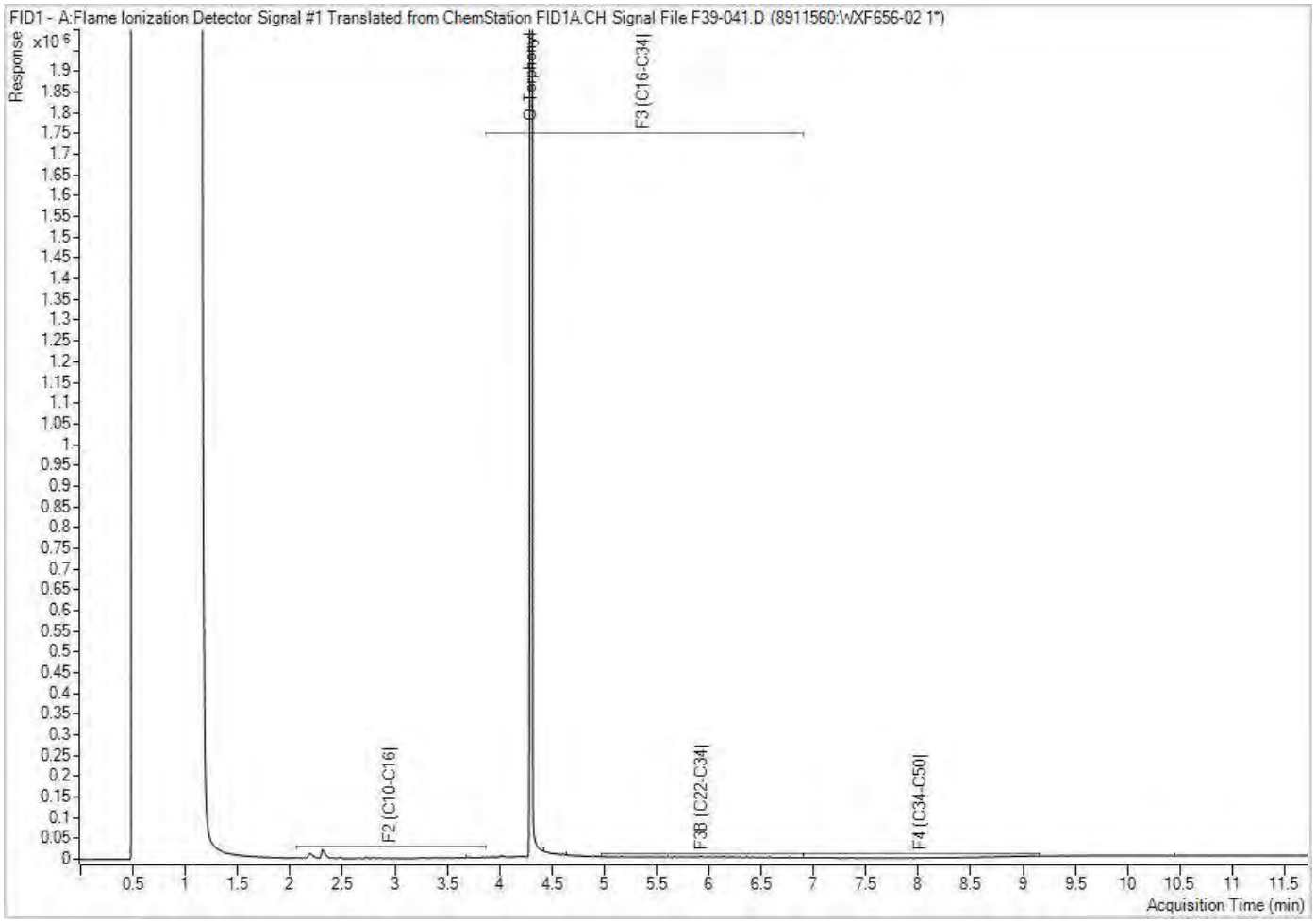


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF656

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-46-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

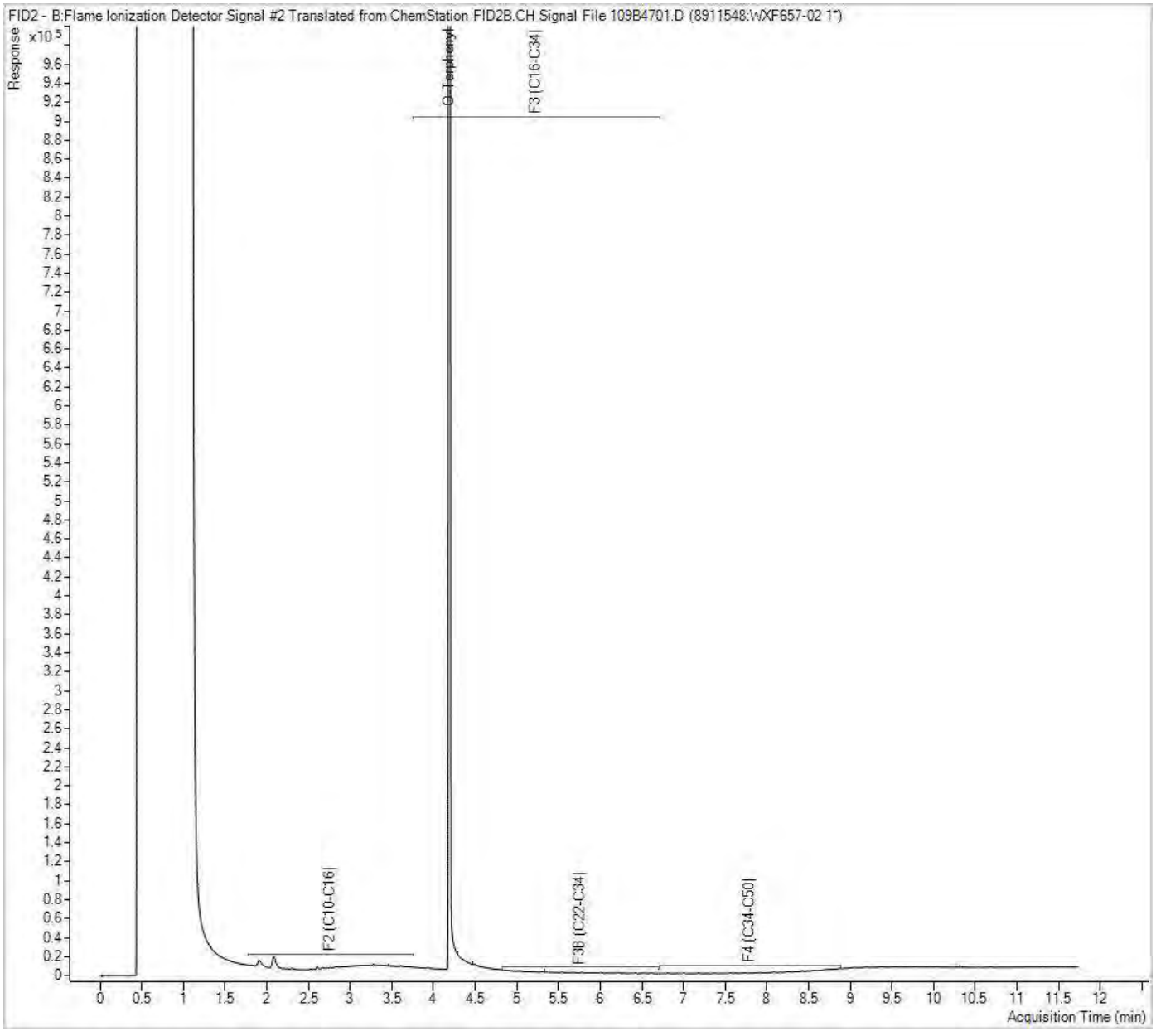


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF657

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-46-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

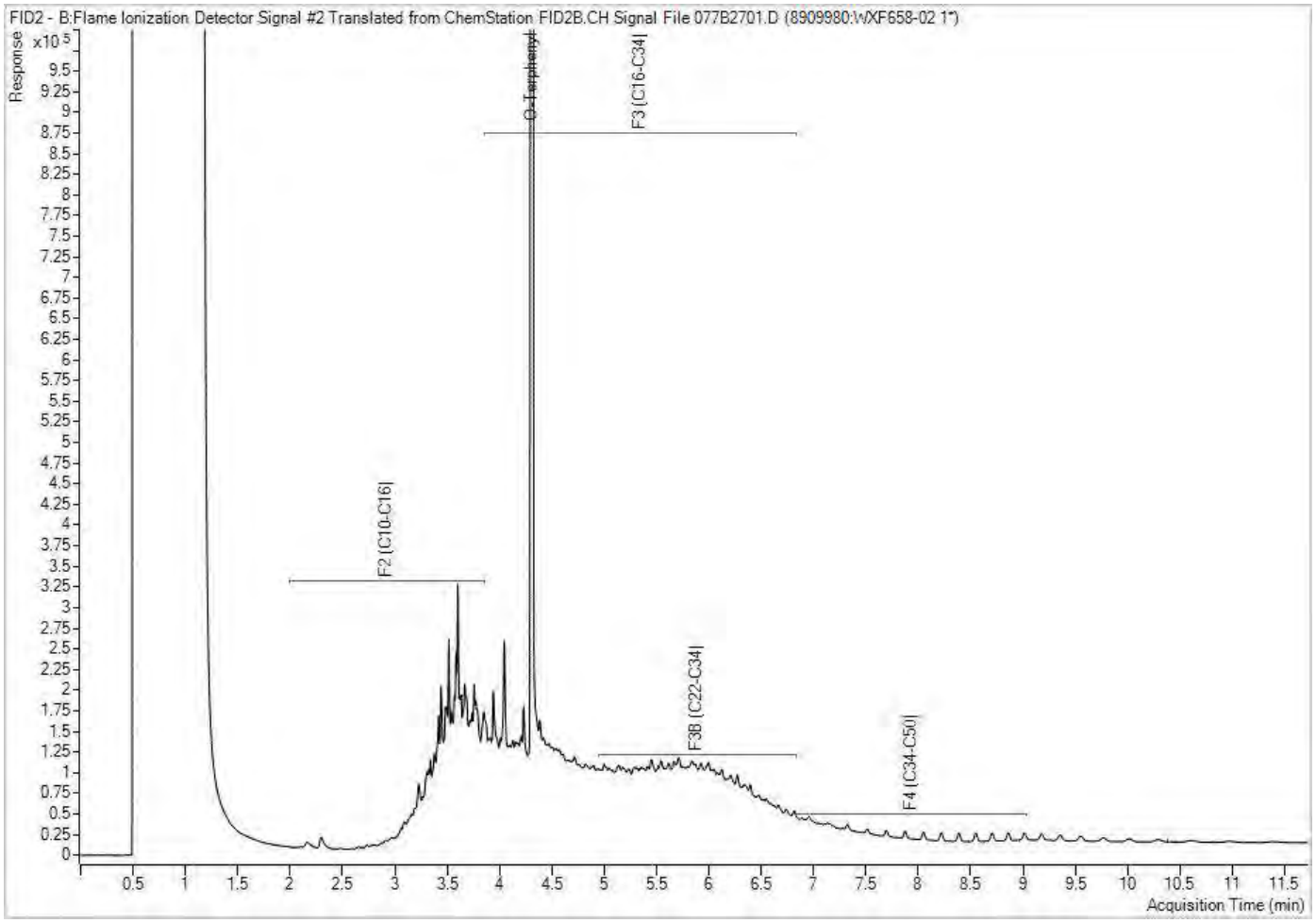


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF658

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-47-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

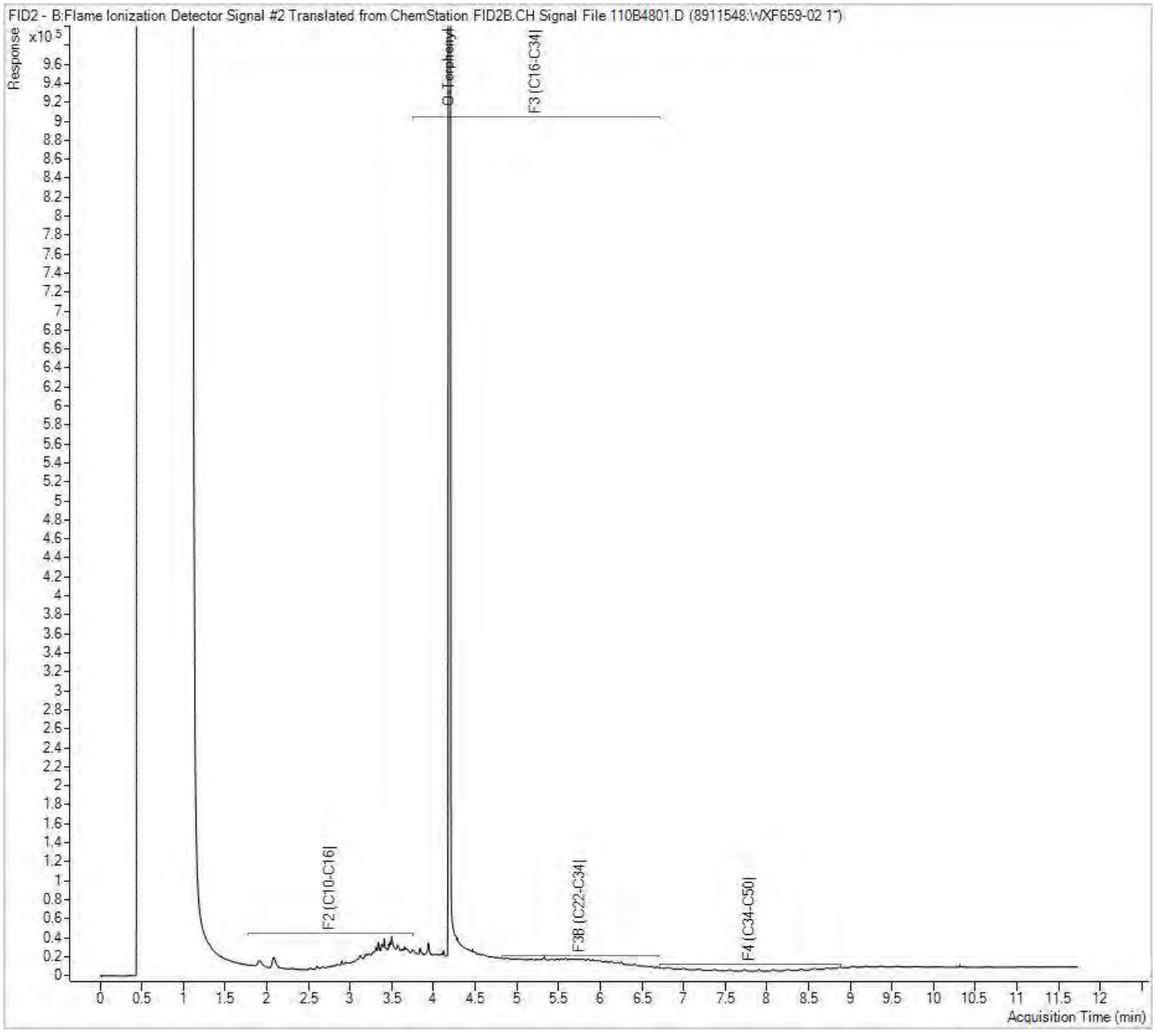


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF659

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-47-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

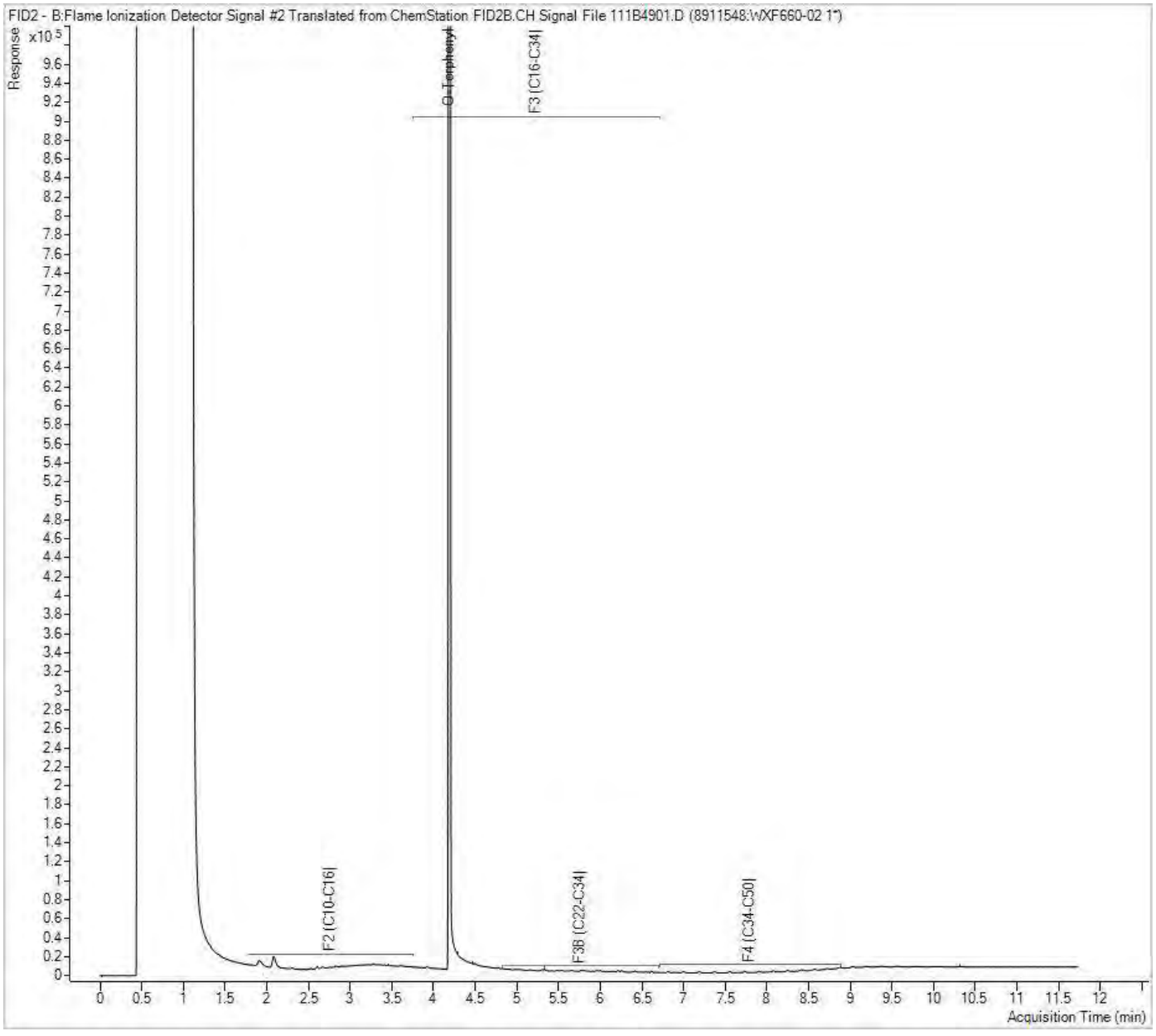


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF660

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-48-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

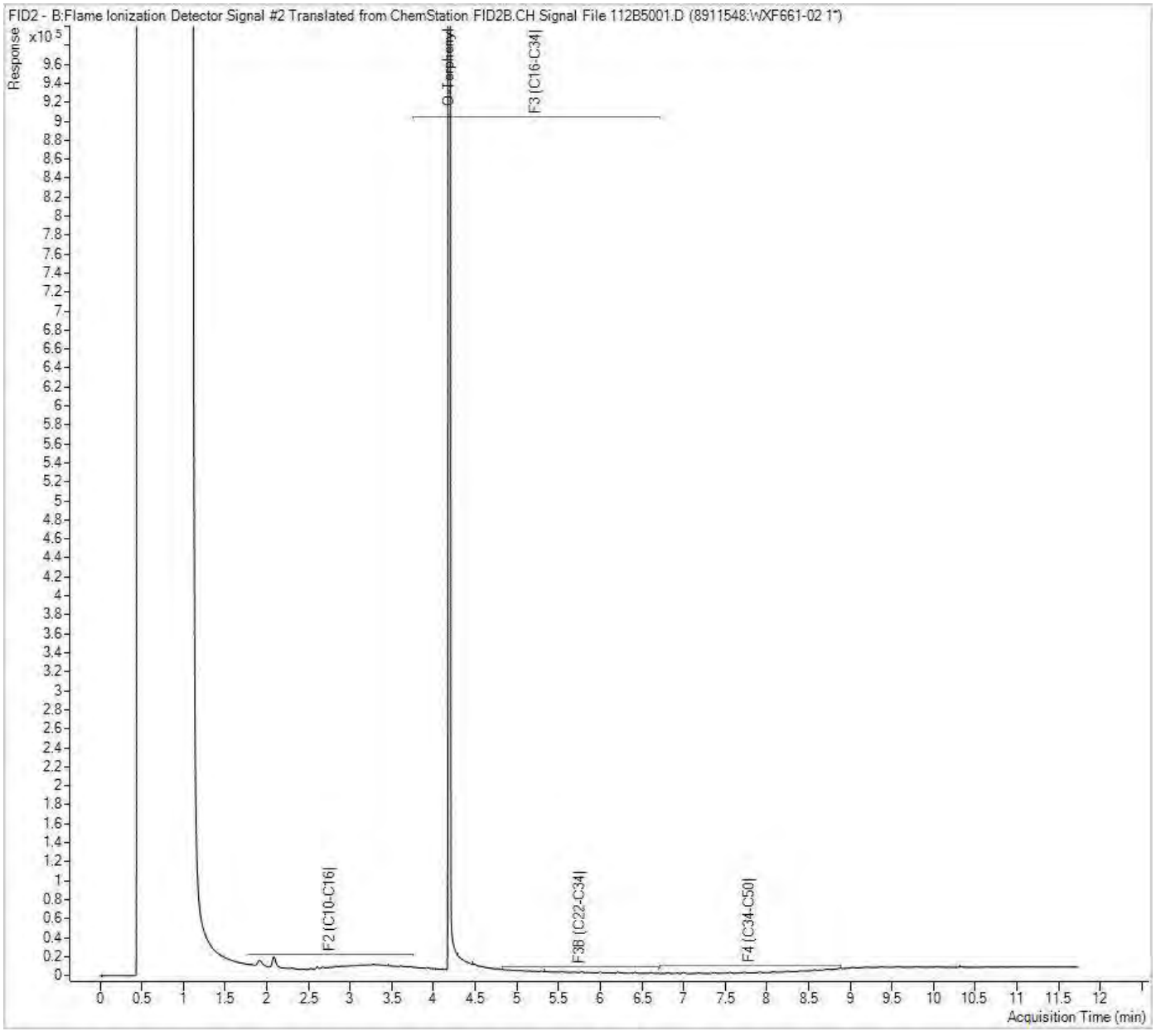


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF661

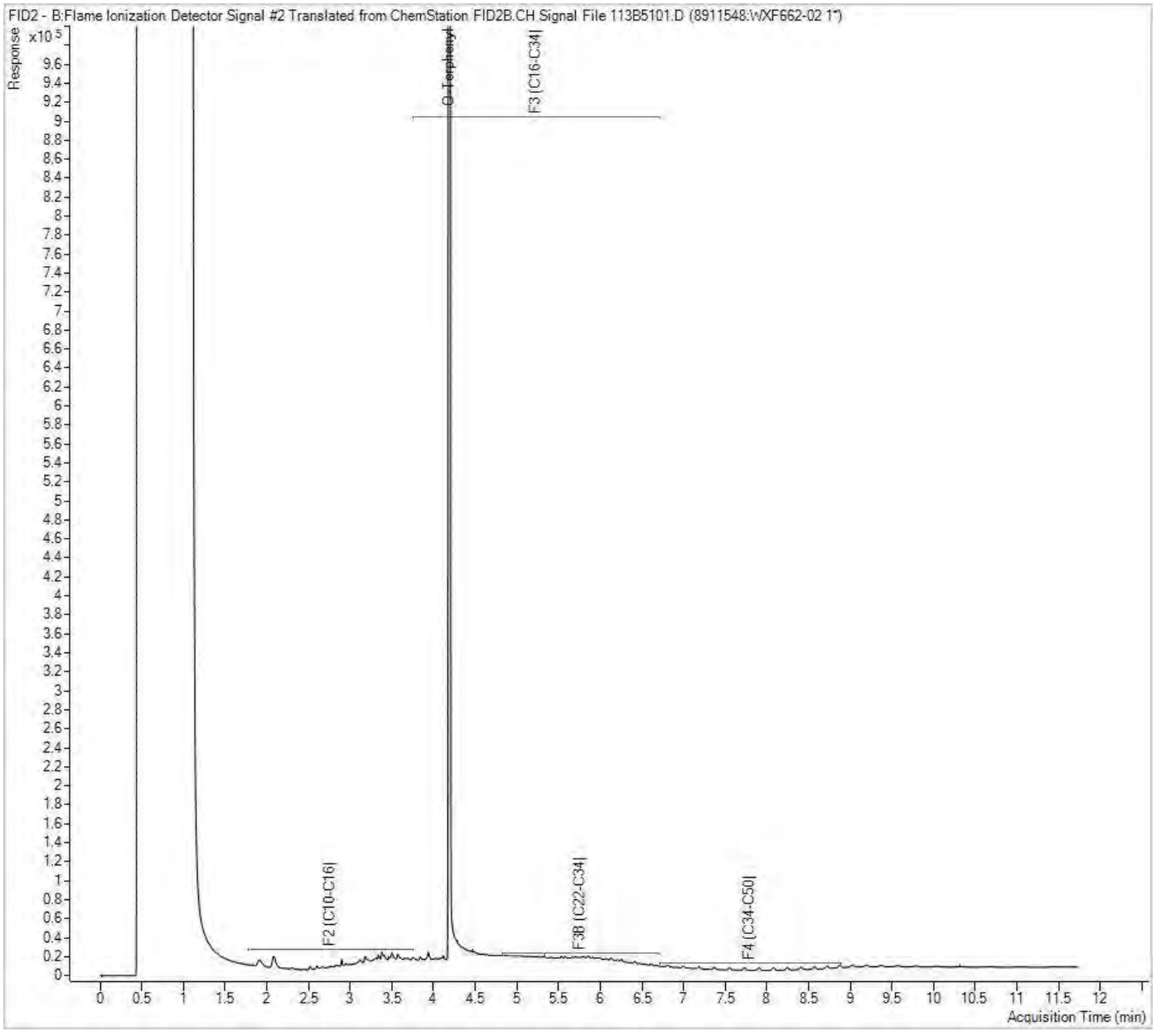
BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-48-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

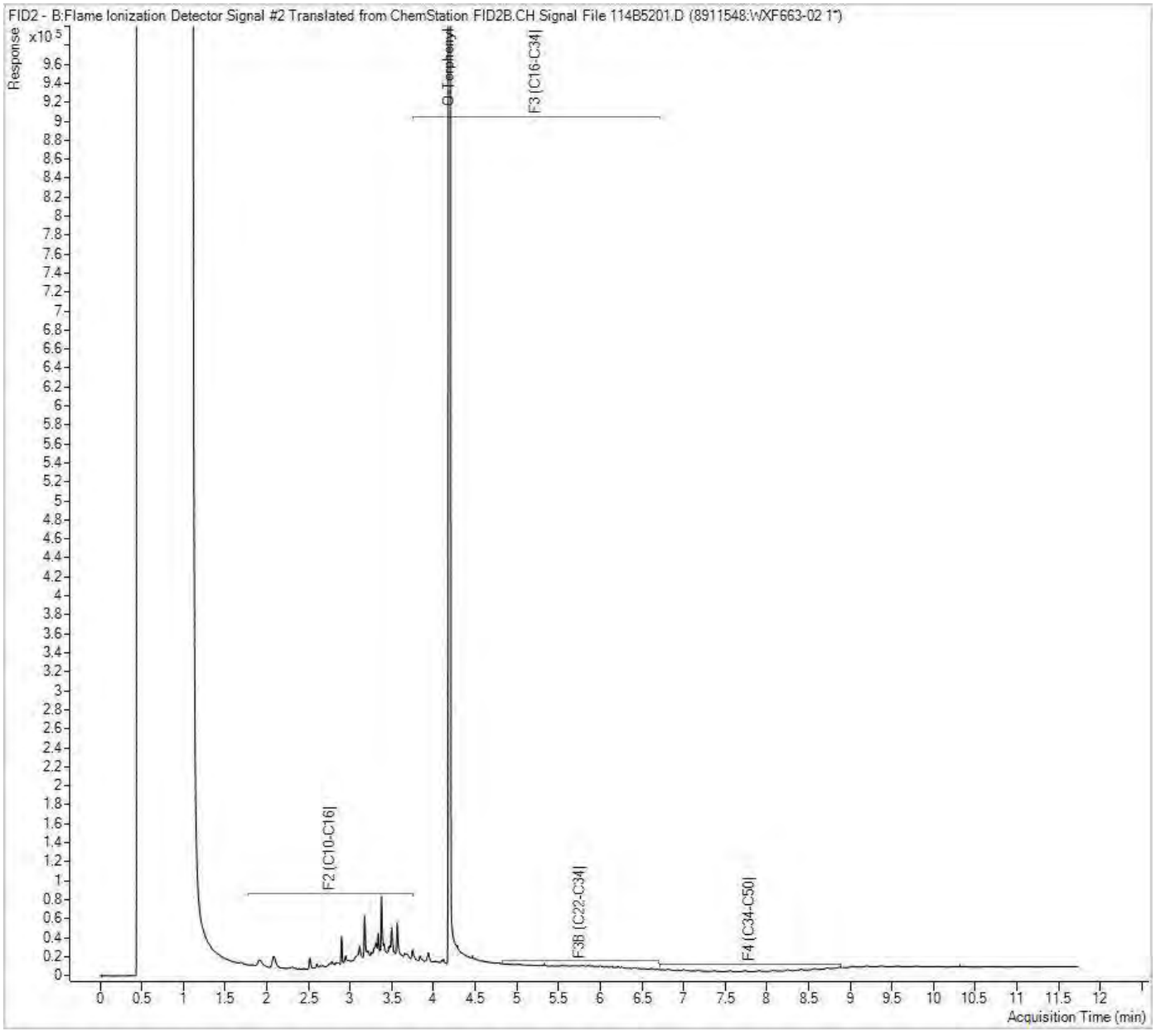


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF663

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-49-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

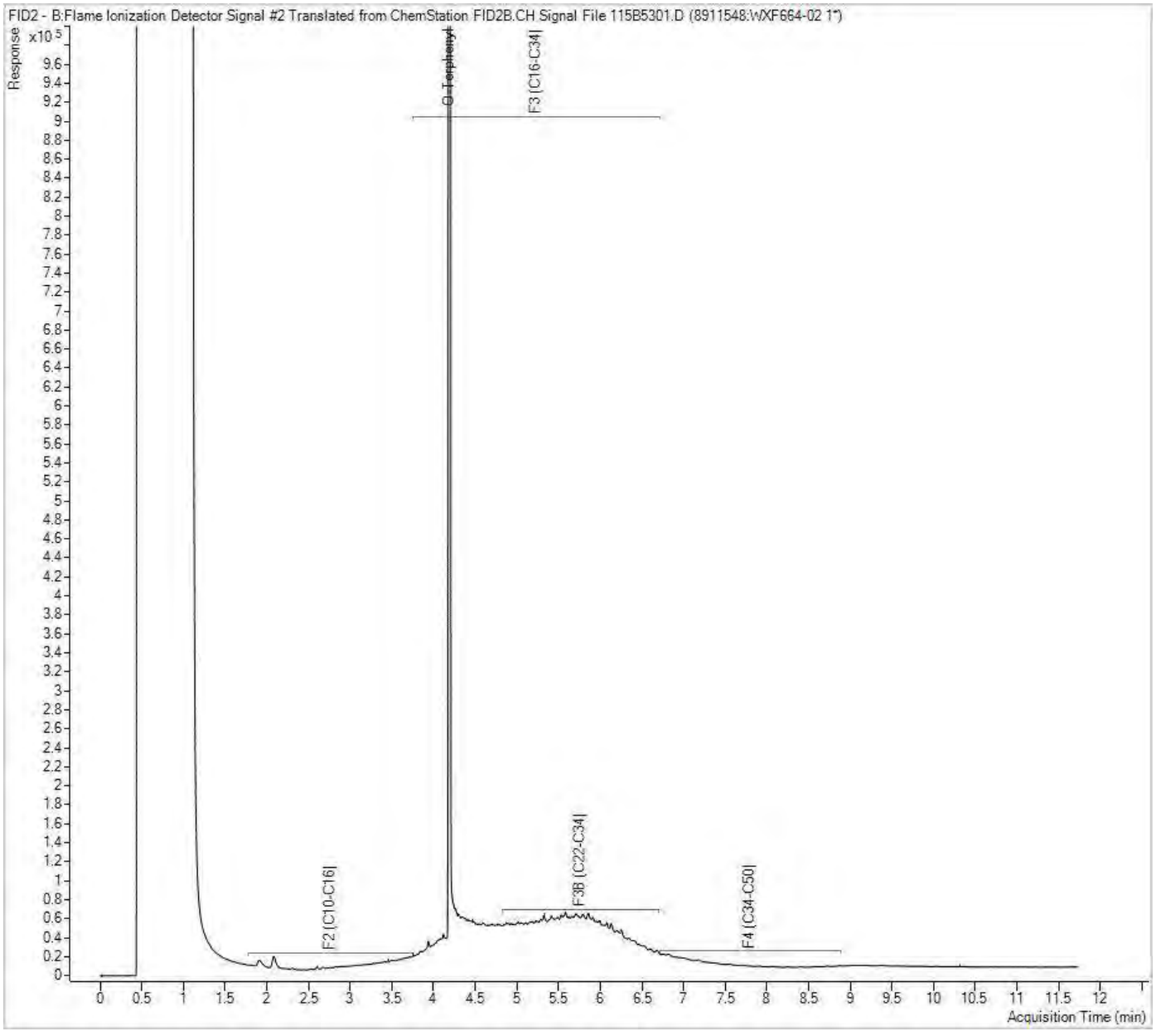


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF664

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-52-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

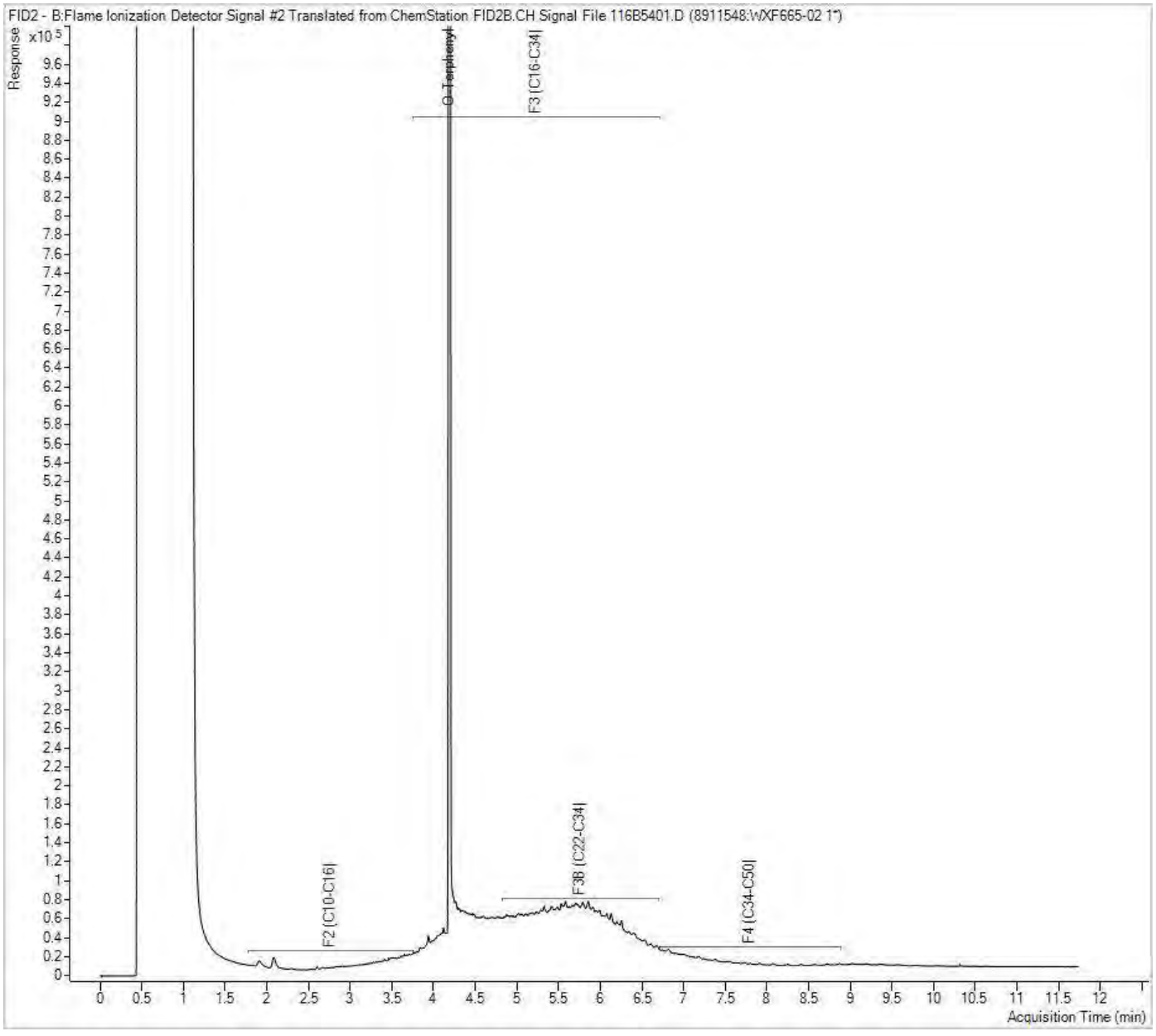


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF665

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-52-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

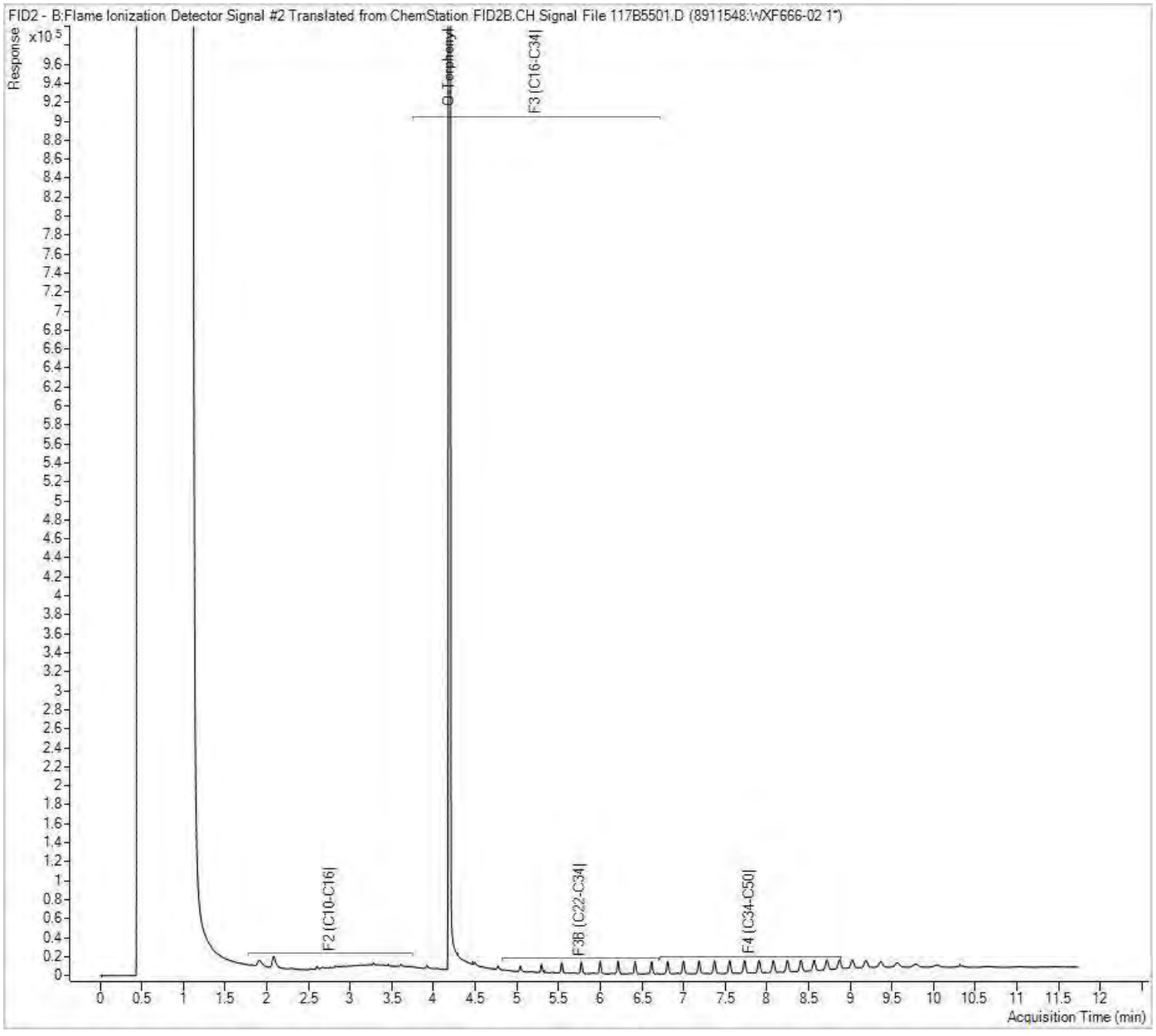


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF666

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-S-160

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

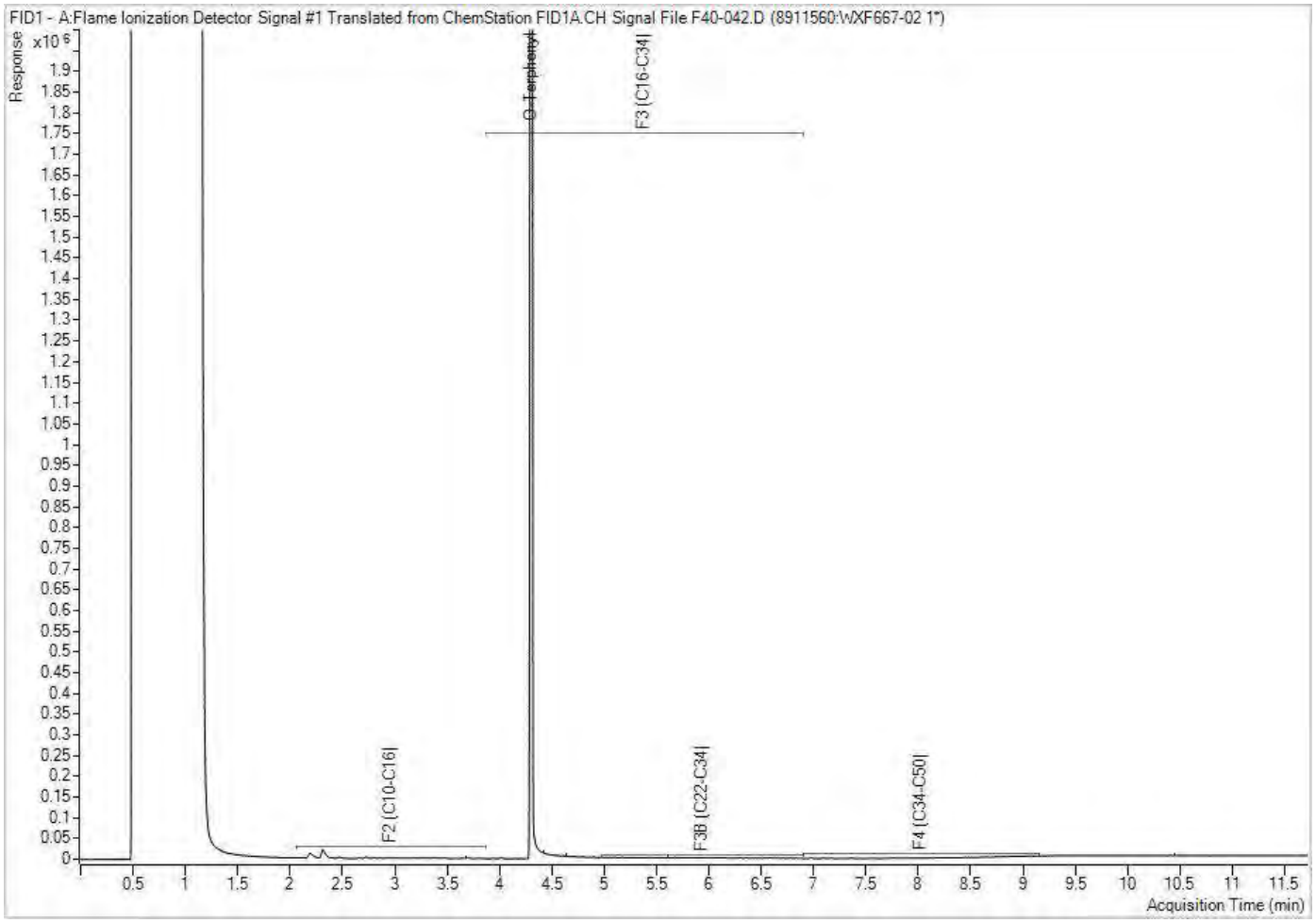


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF667

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-50-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

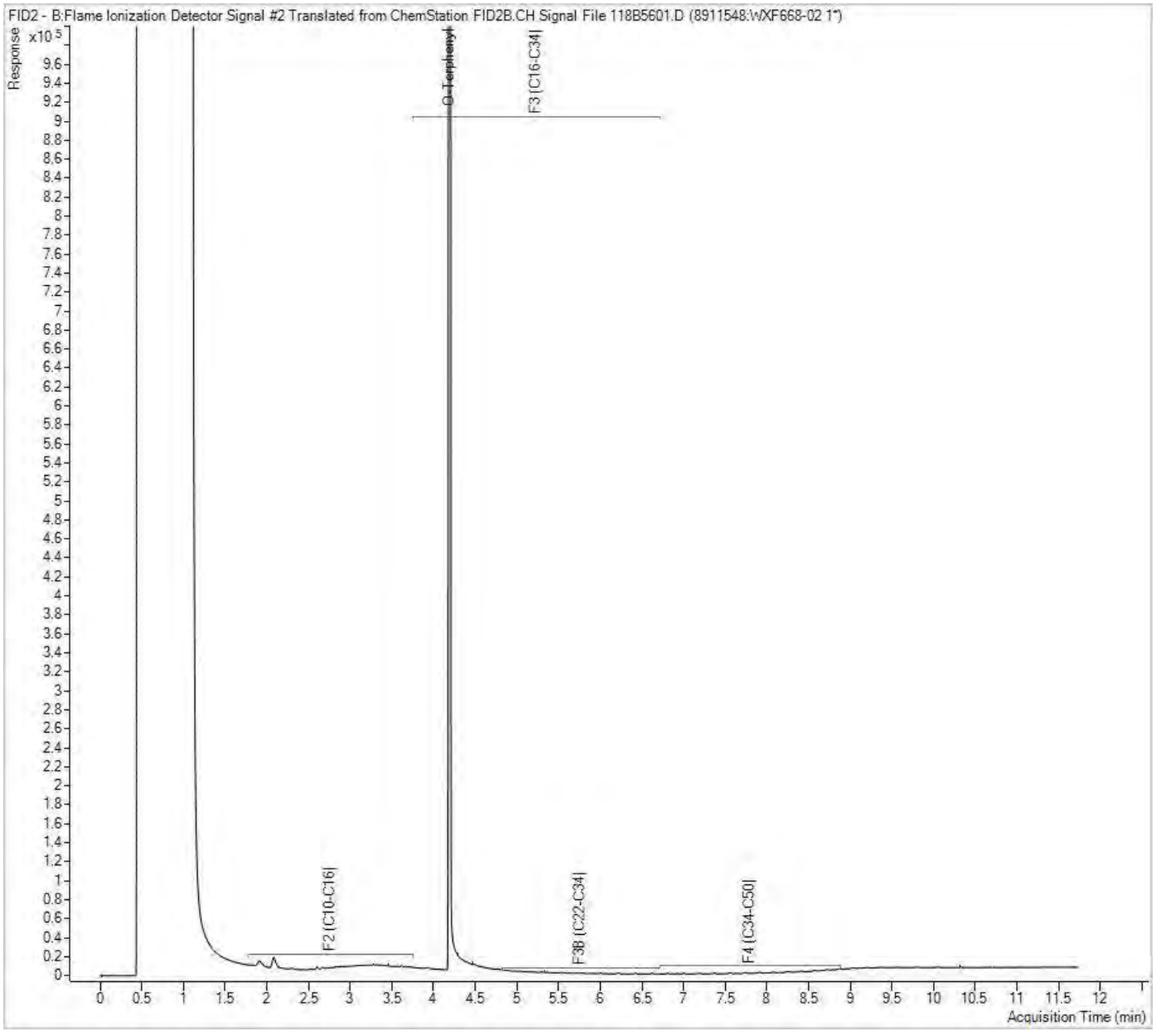


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF668

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-50-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

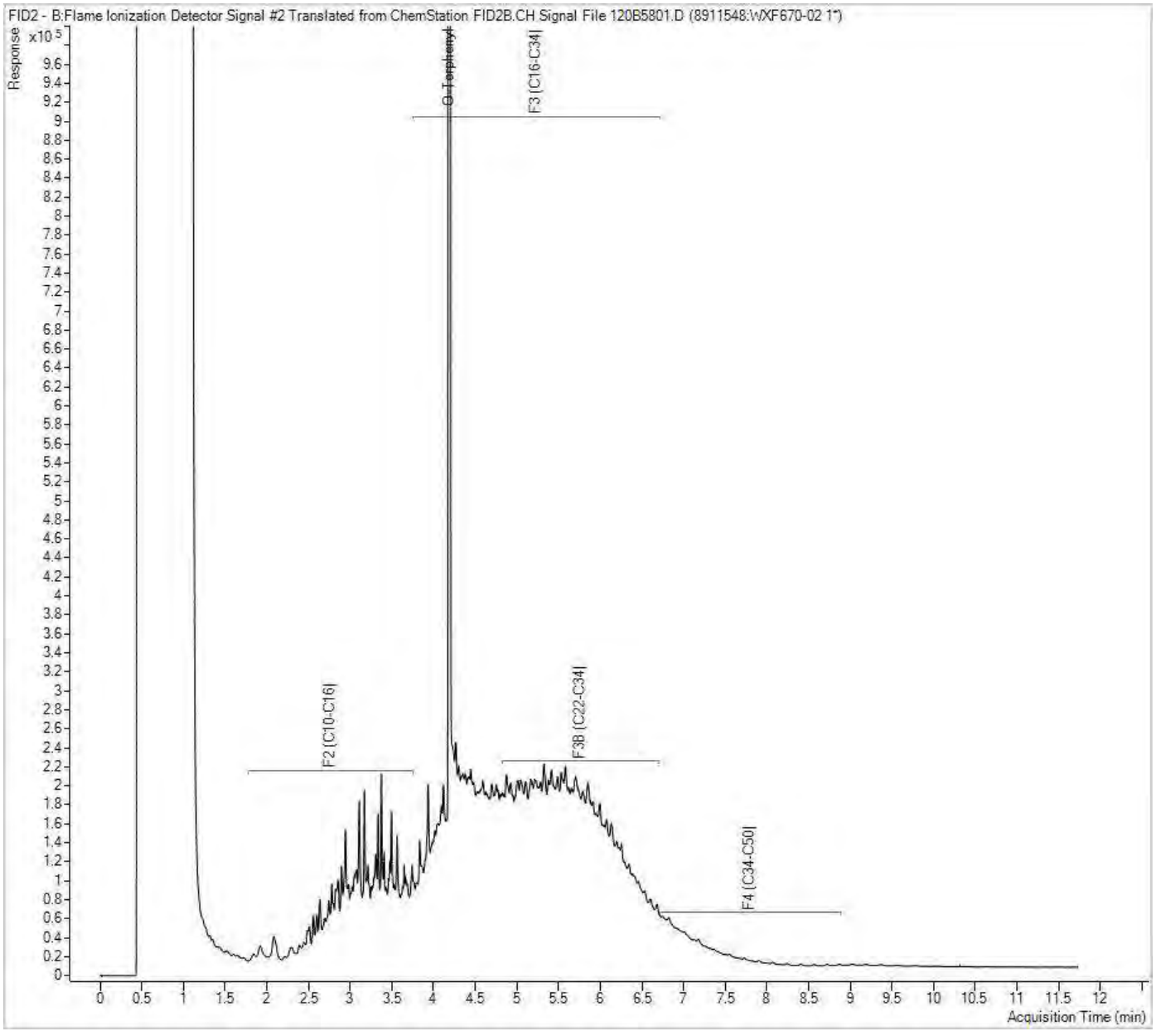


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF670

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-51-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

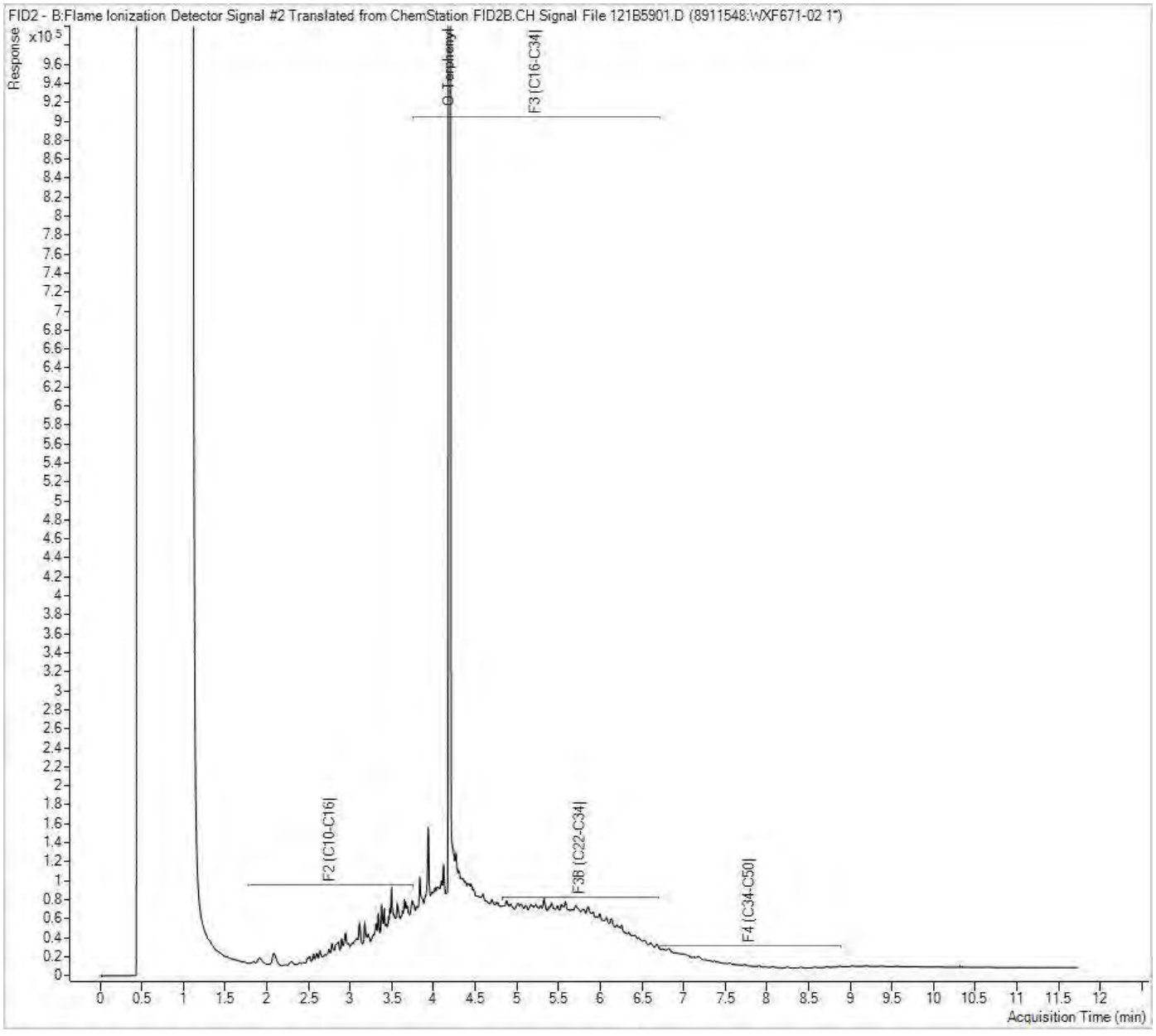


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF671

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-S-70

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

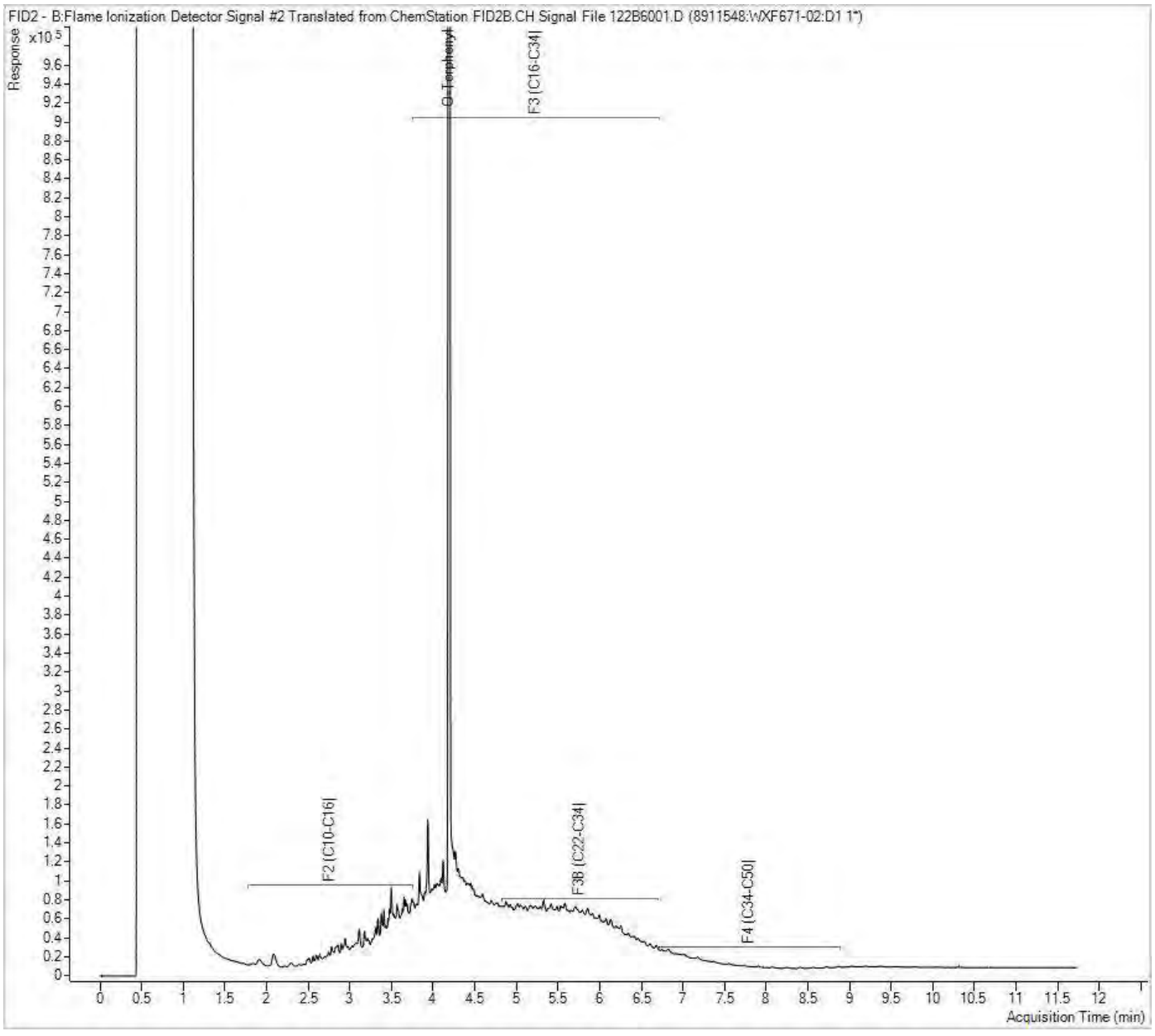


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF671 Lab-Dup

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-S-70

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

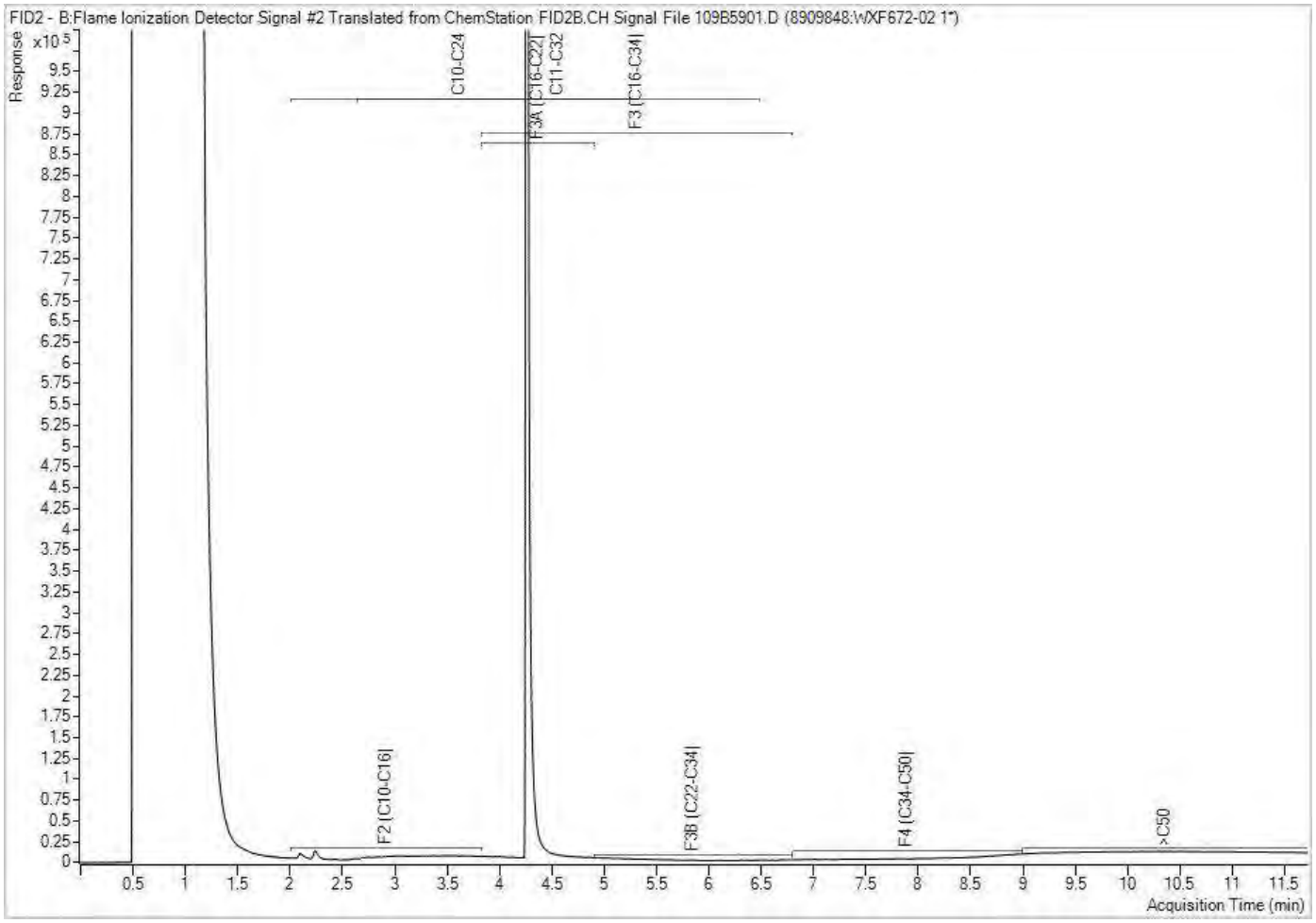


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF672

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-S-80

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

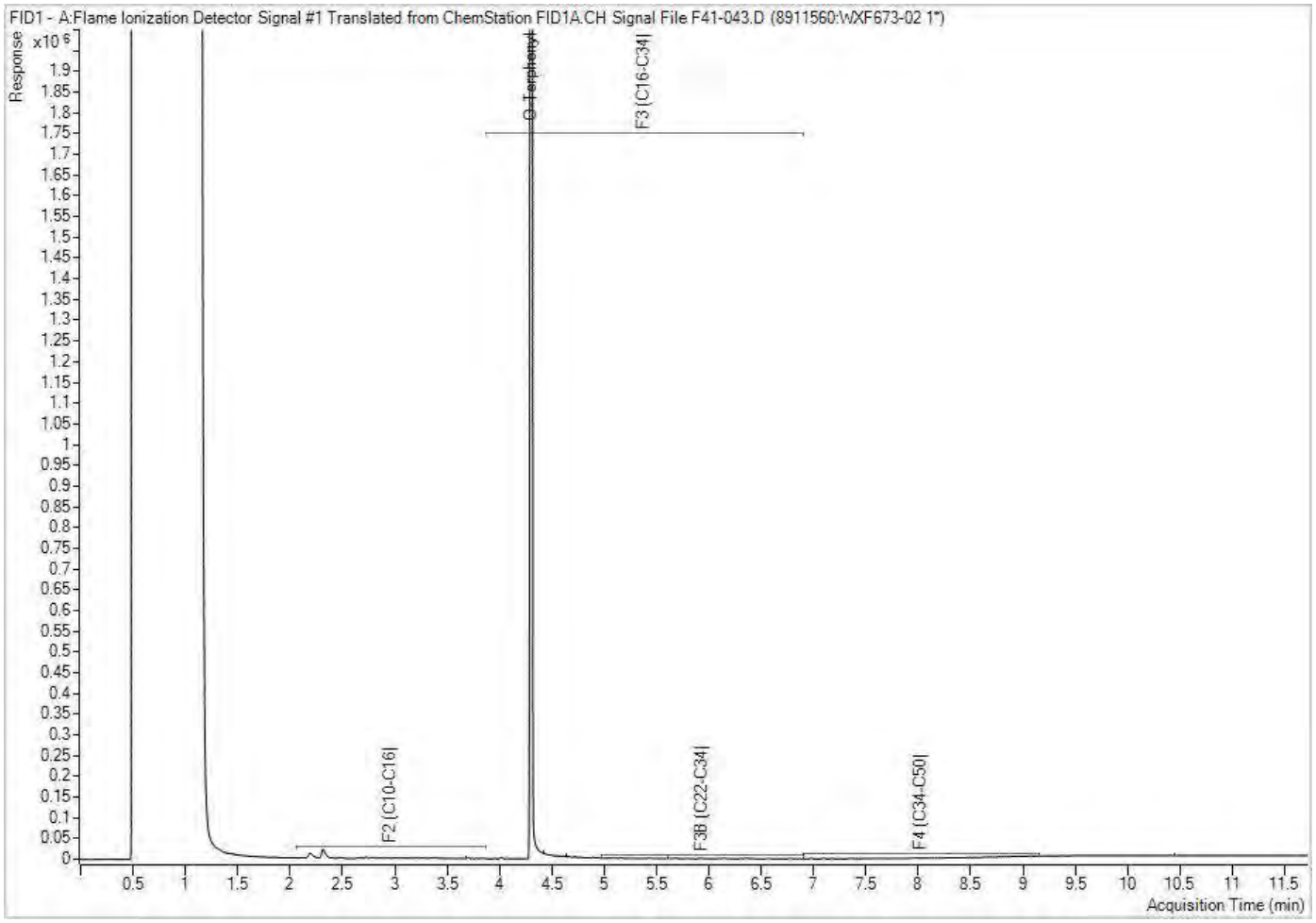


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF673

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-54-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

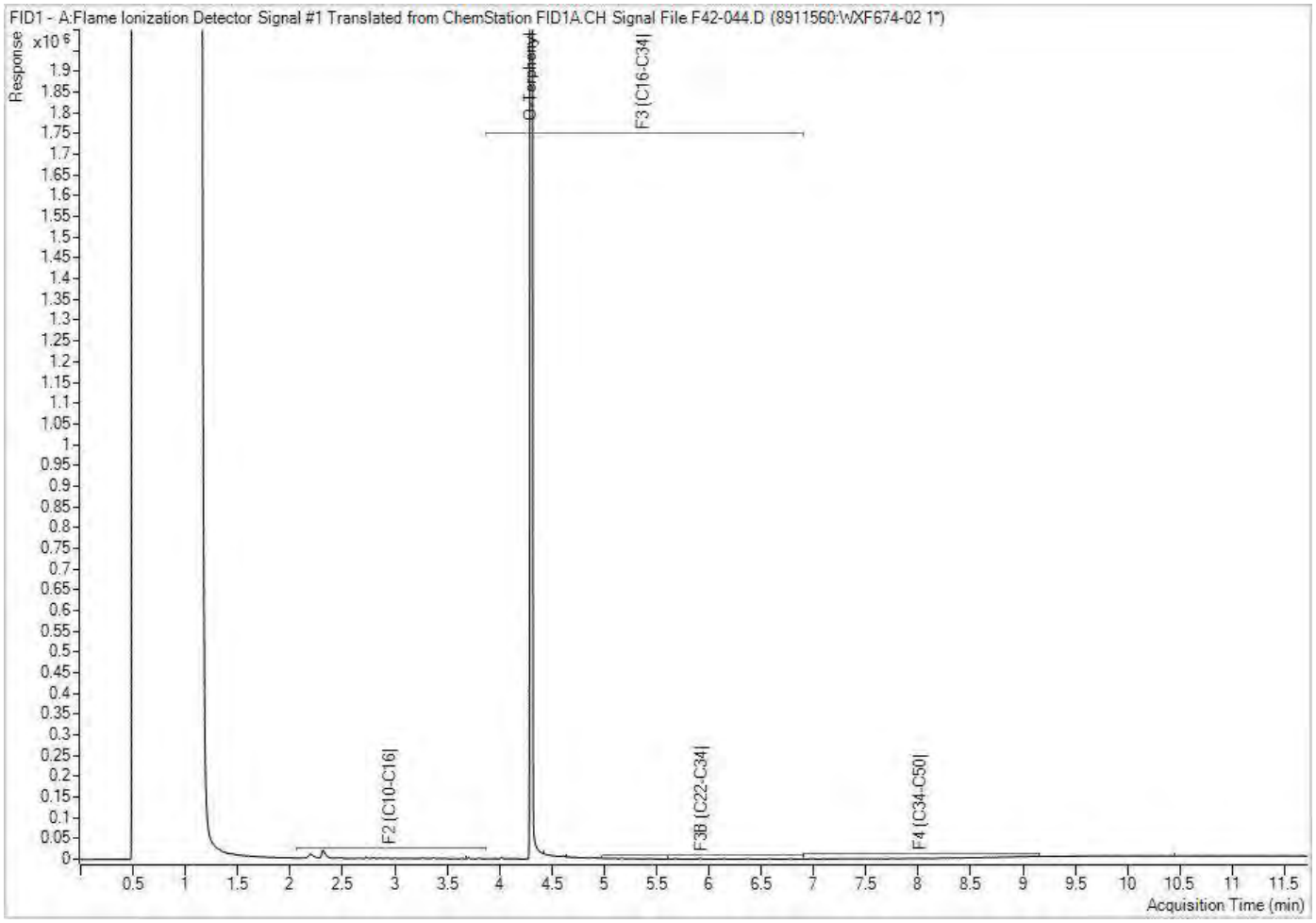


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF674

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-54-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

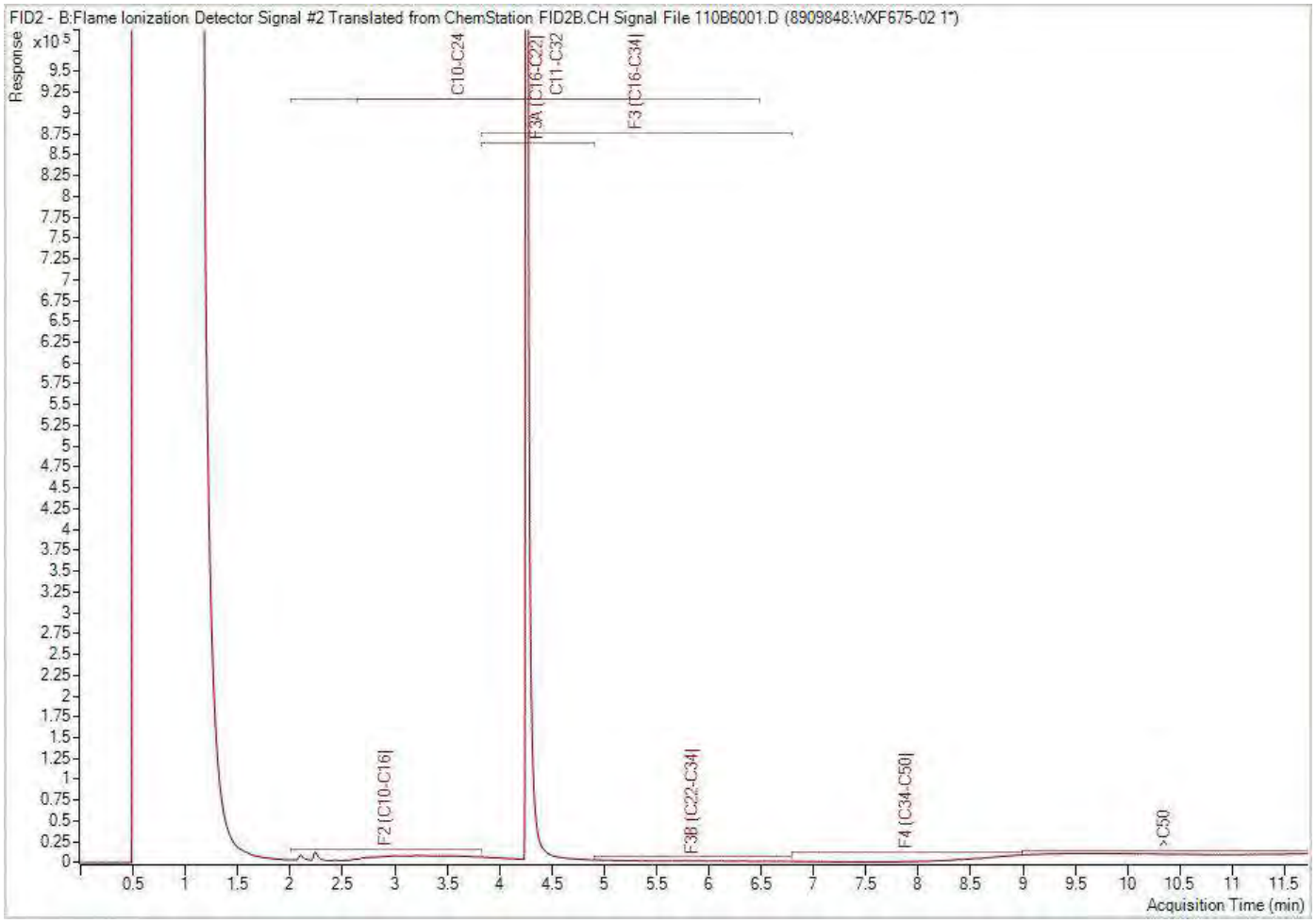


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF675

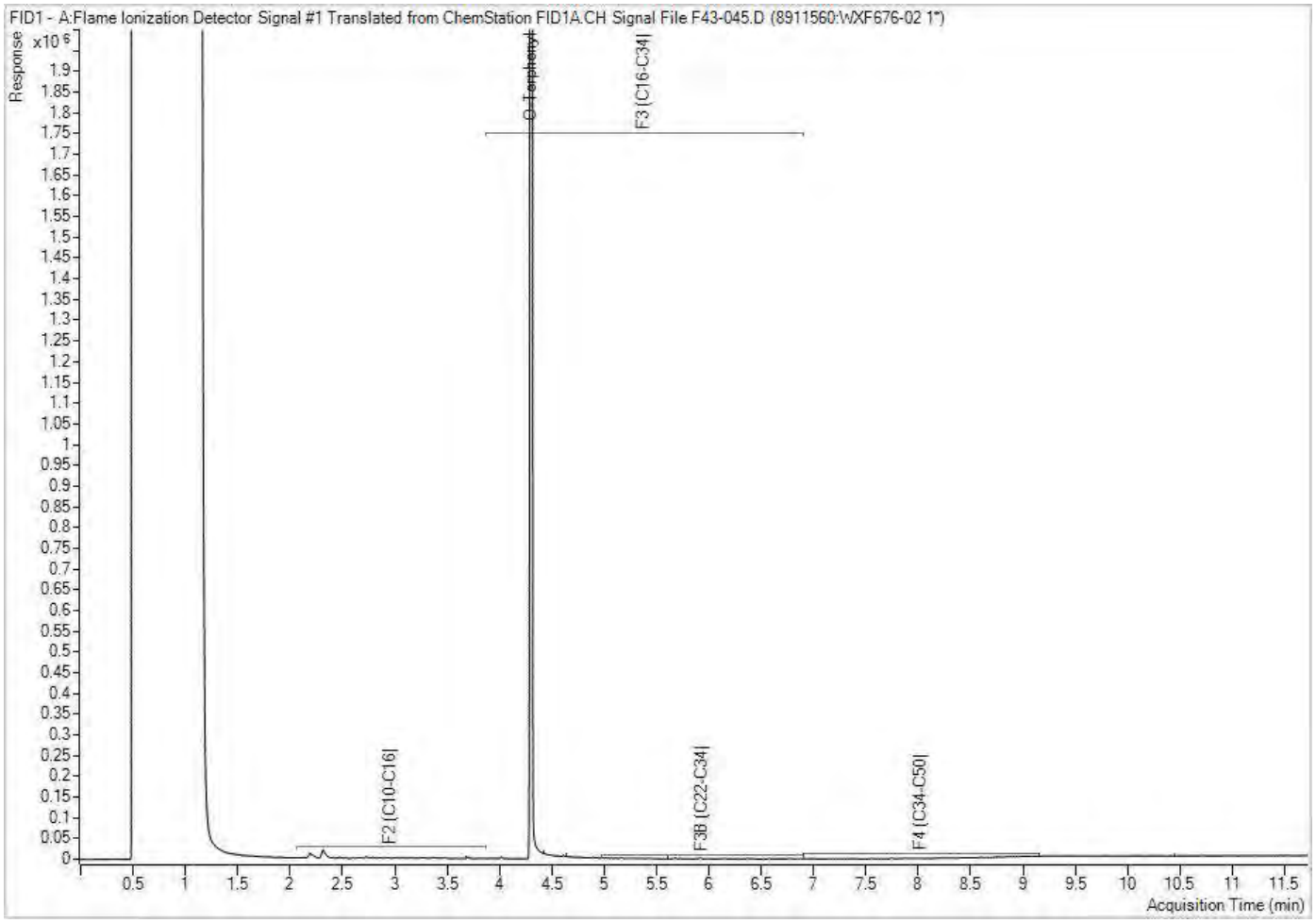
BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-55-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

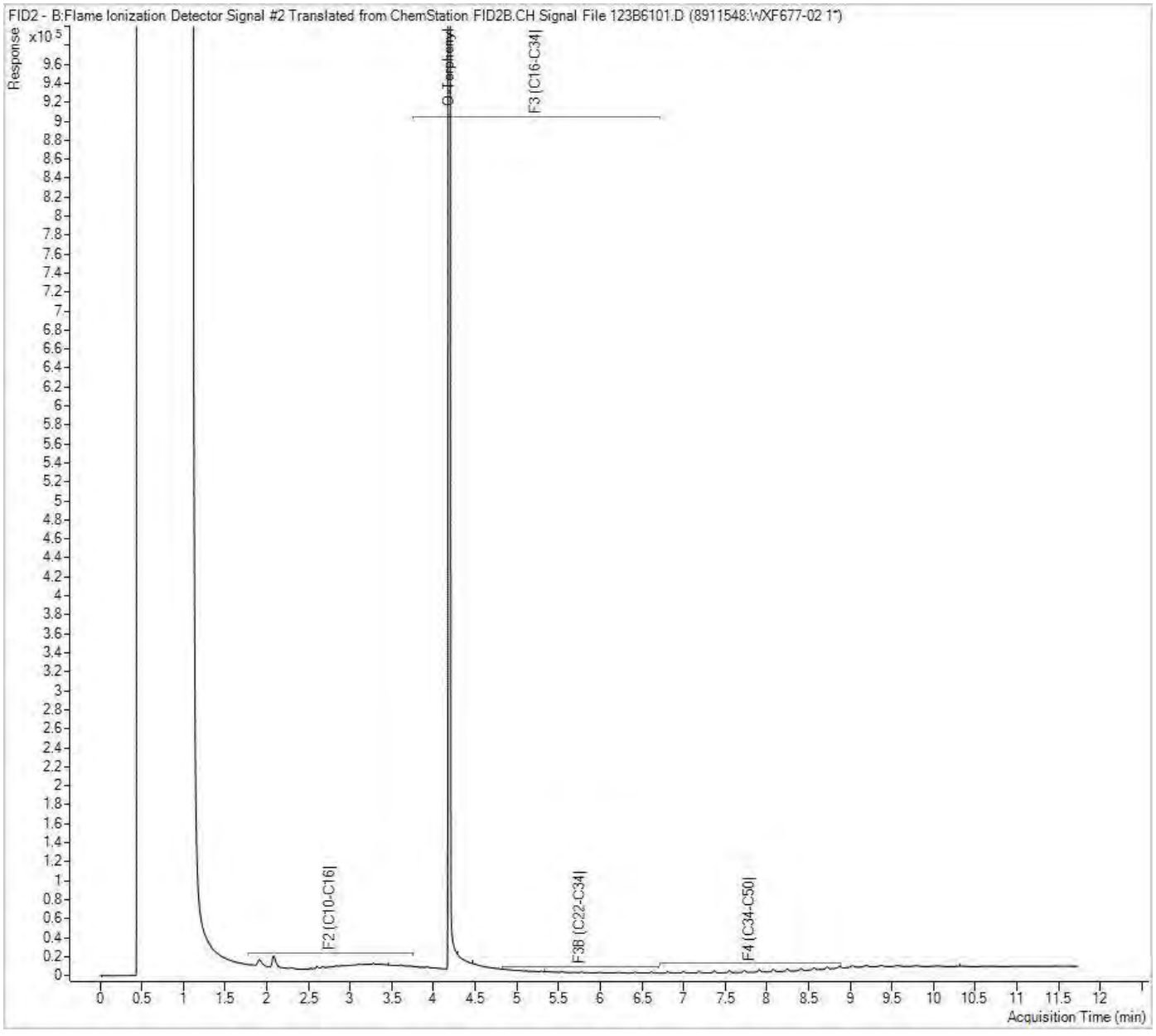


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF677

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-56-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

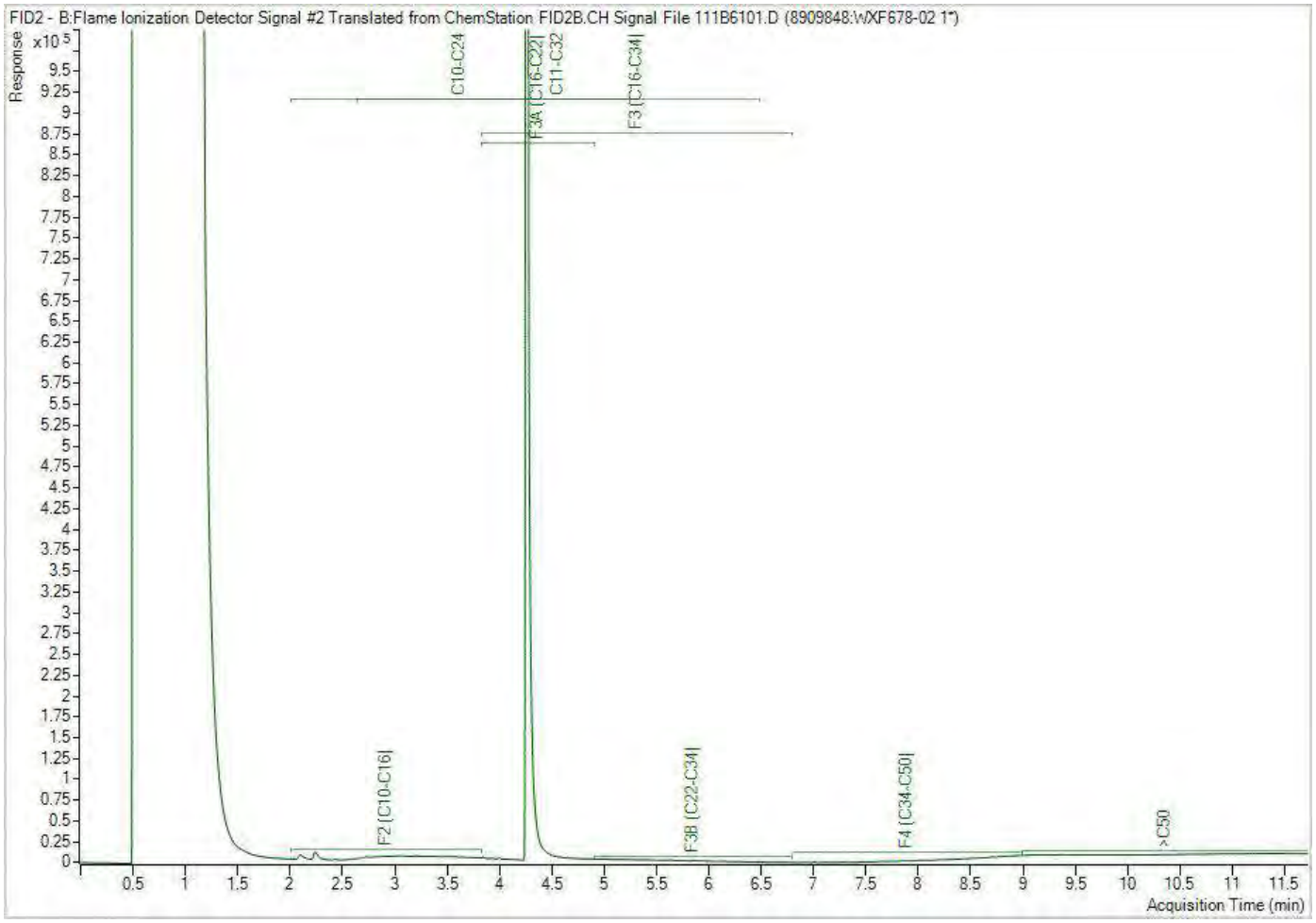


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF678

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-56-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

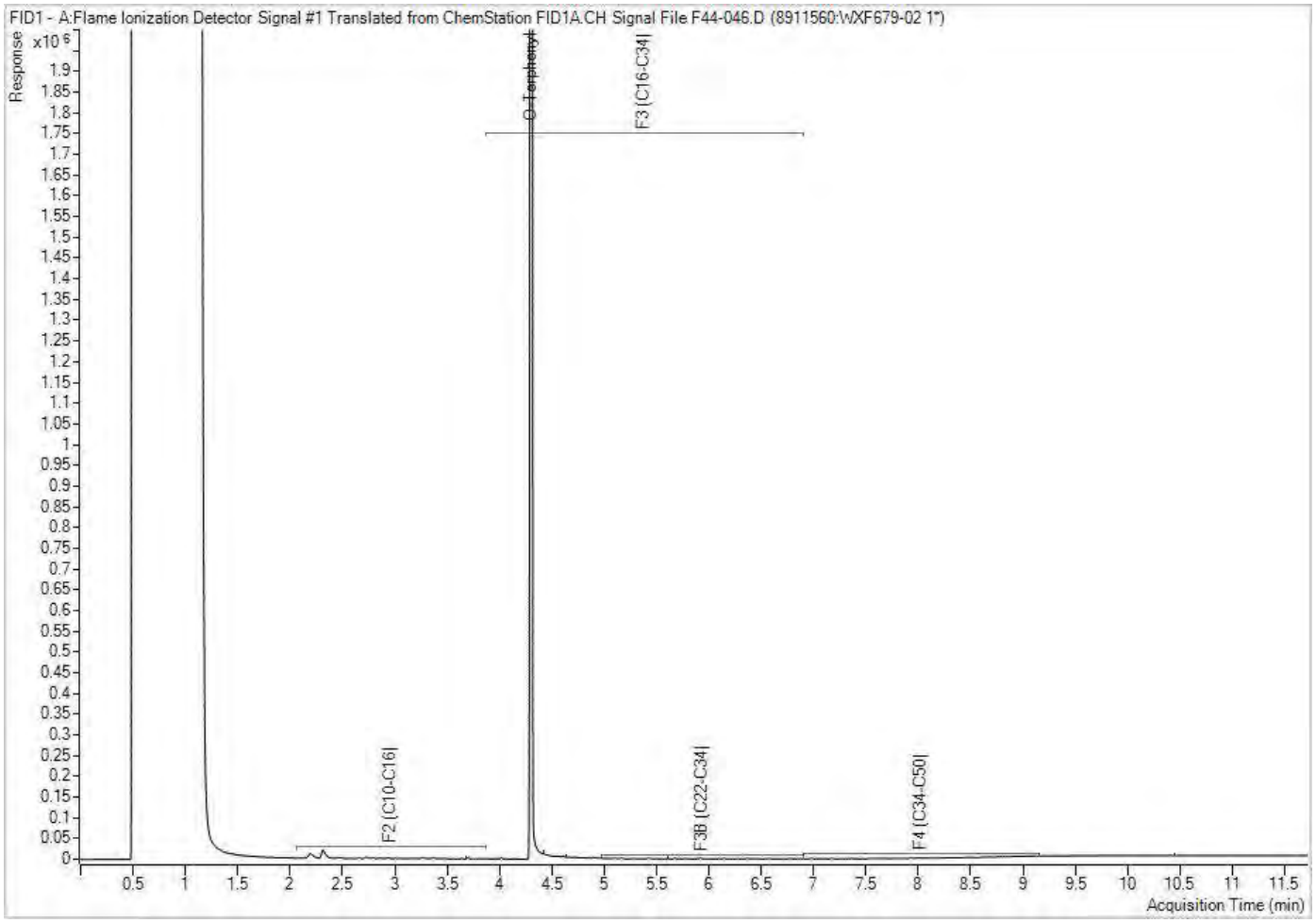


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF679

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-57-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

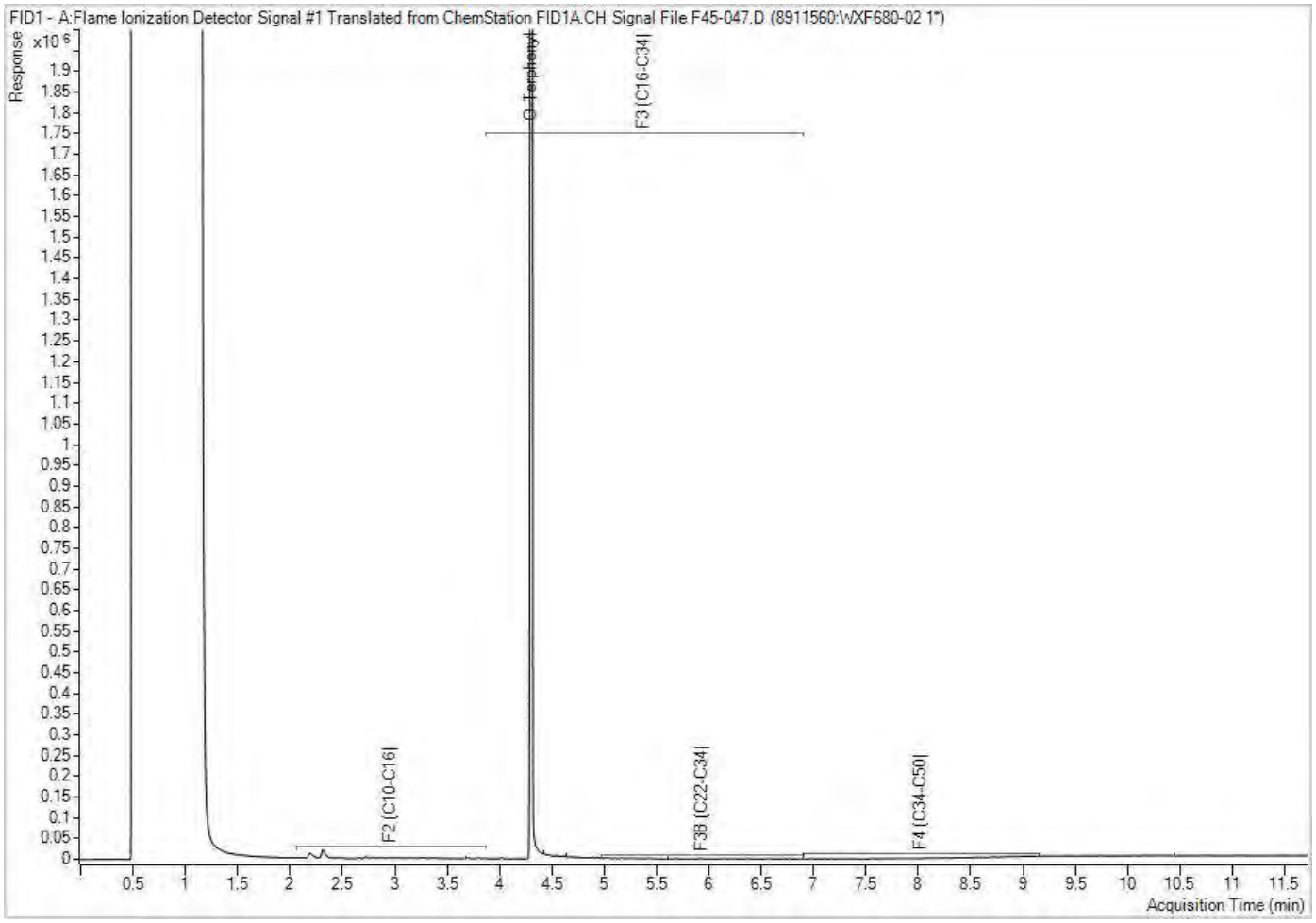


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF680

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-57-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

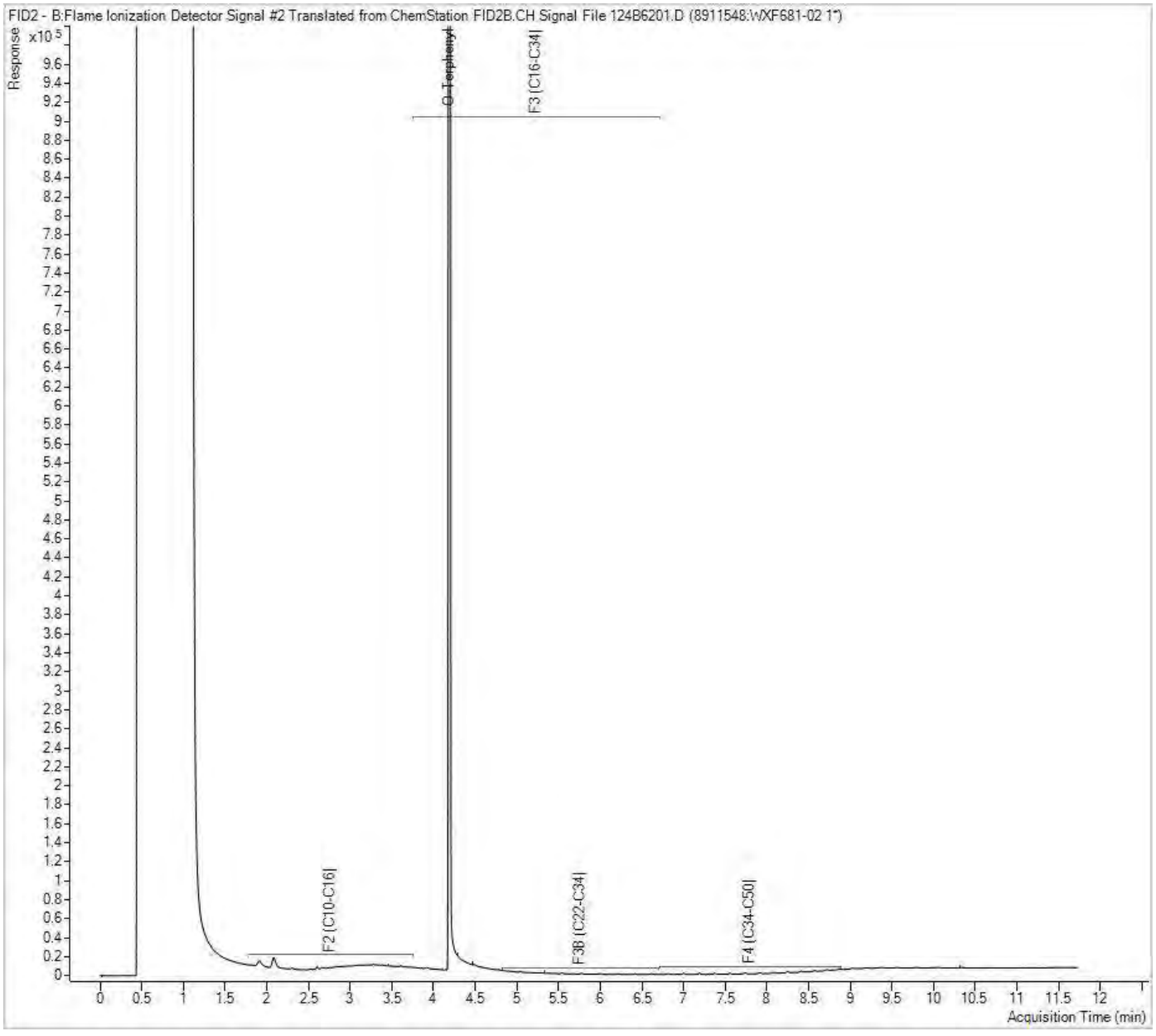


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF681

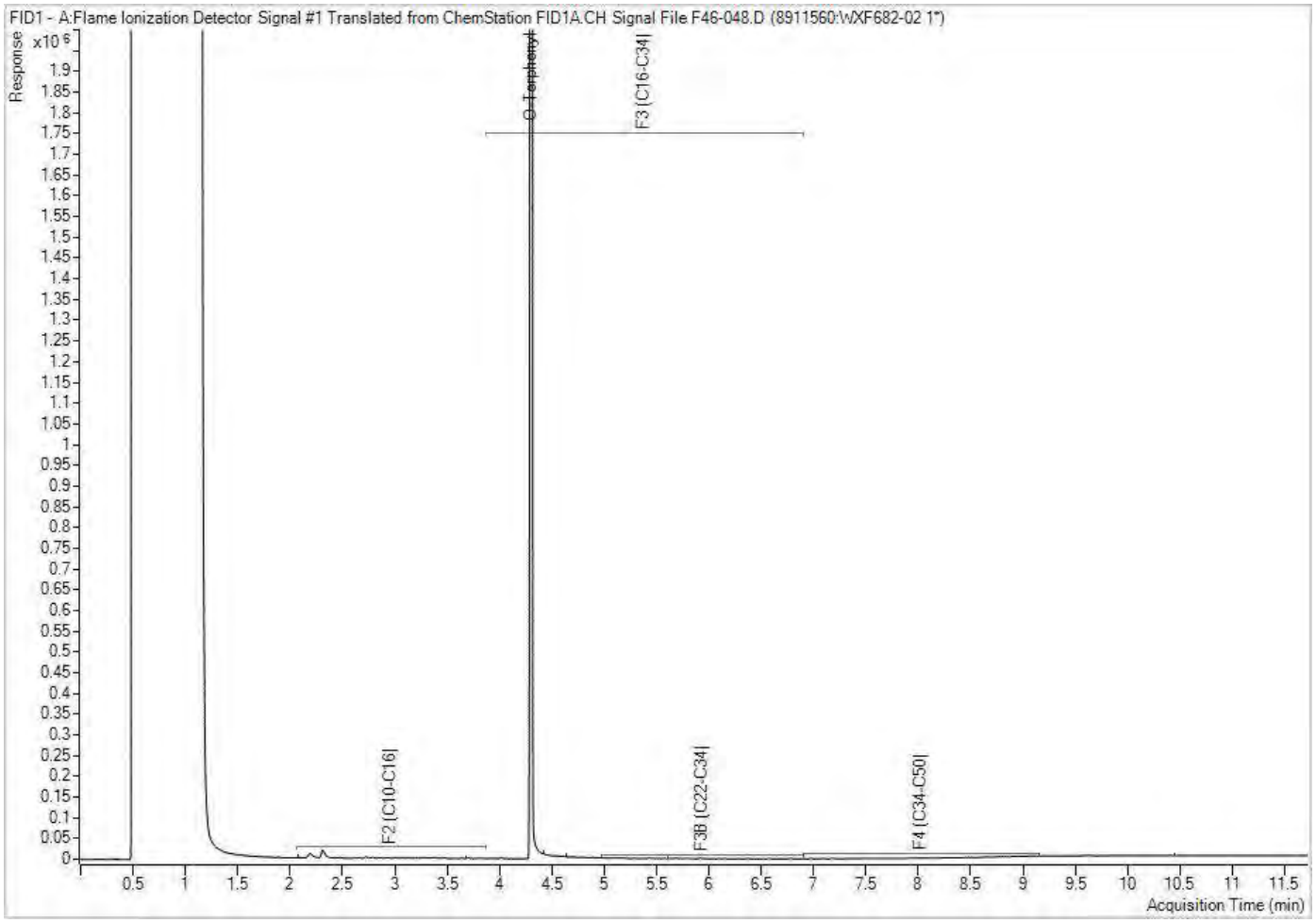
BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-58-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

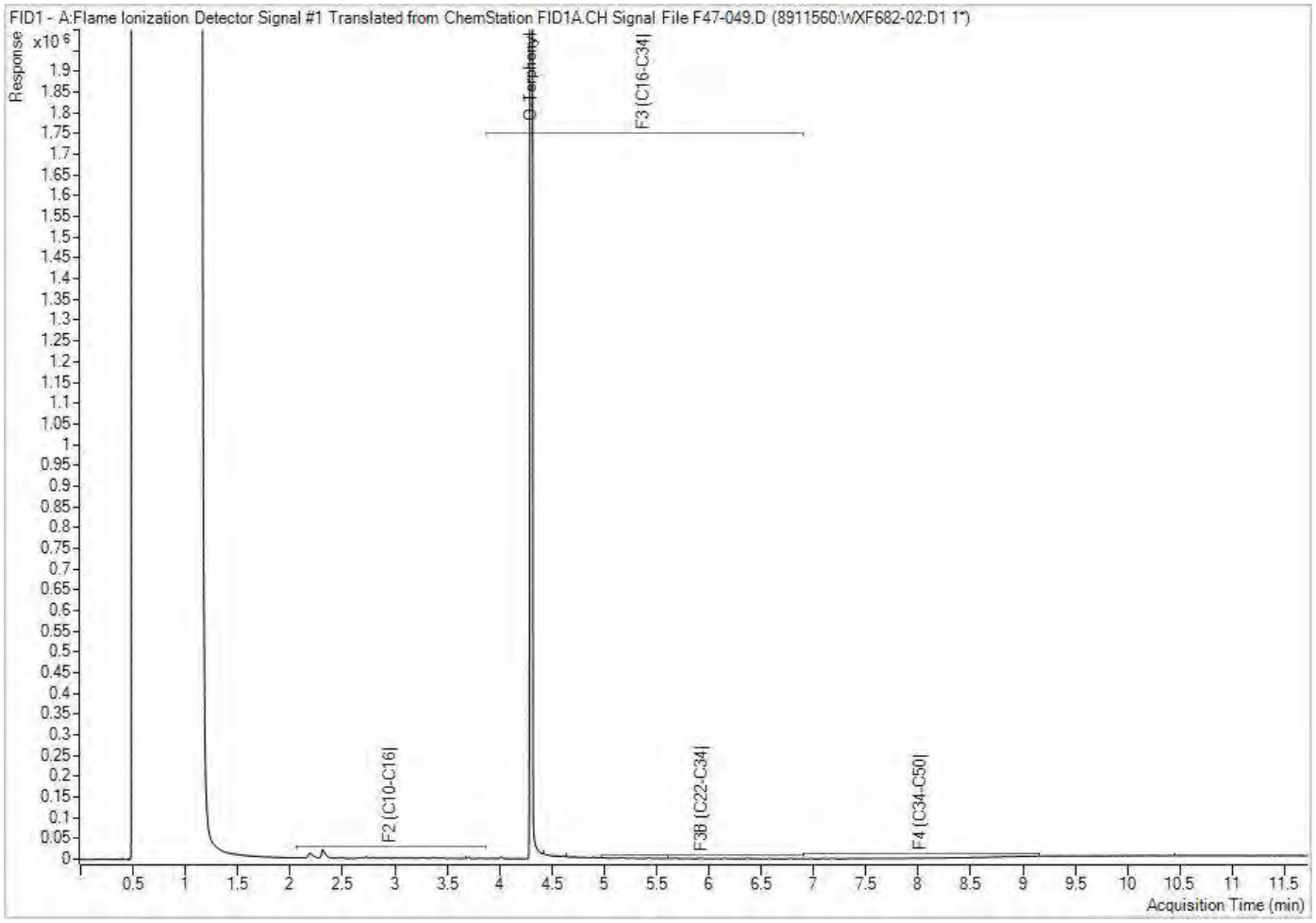


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF682 Lab-Dup

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-58-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

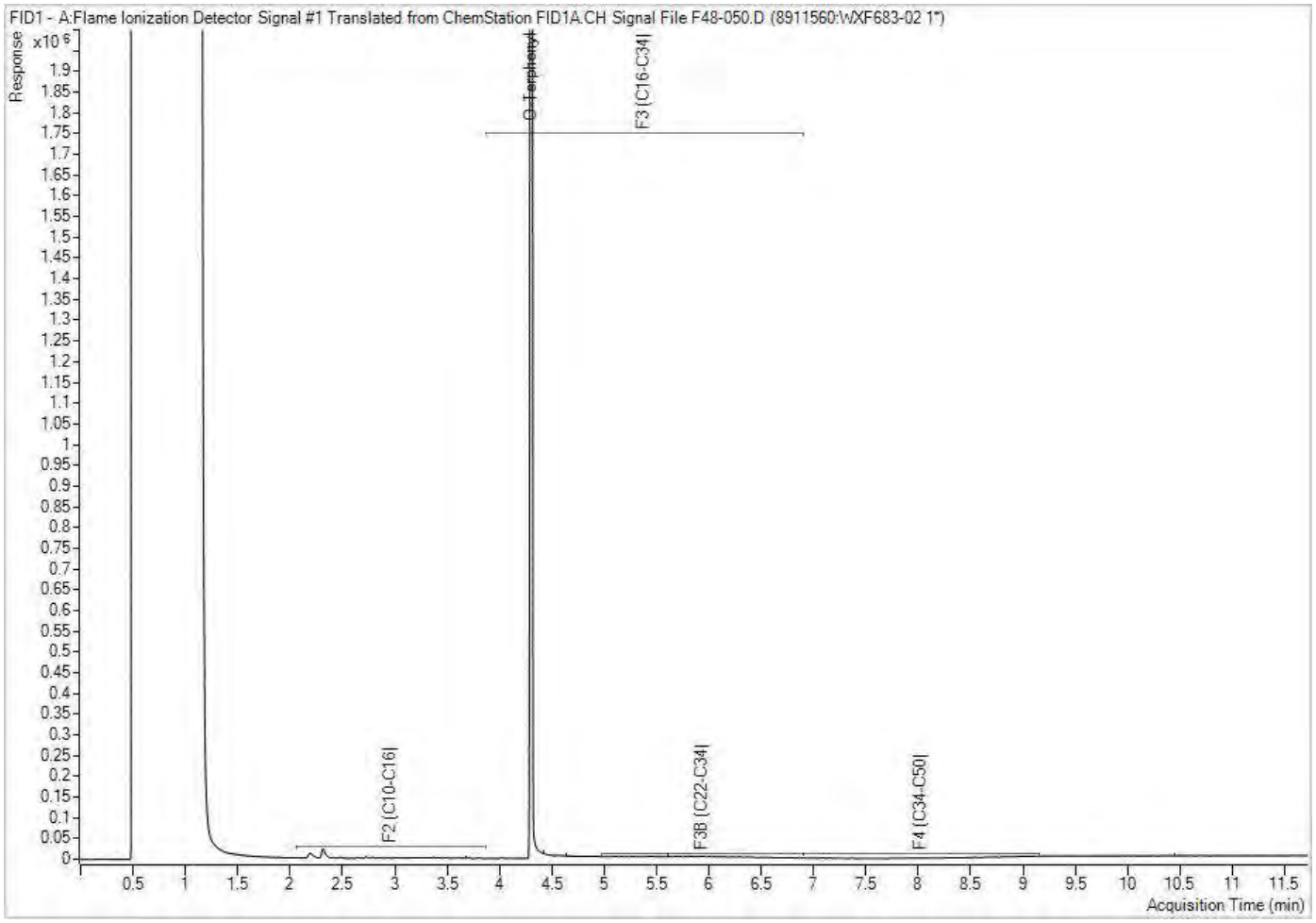


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF683

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-59-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

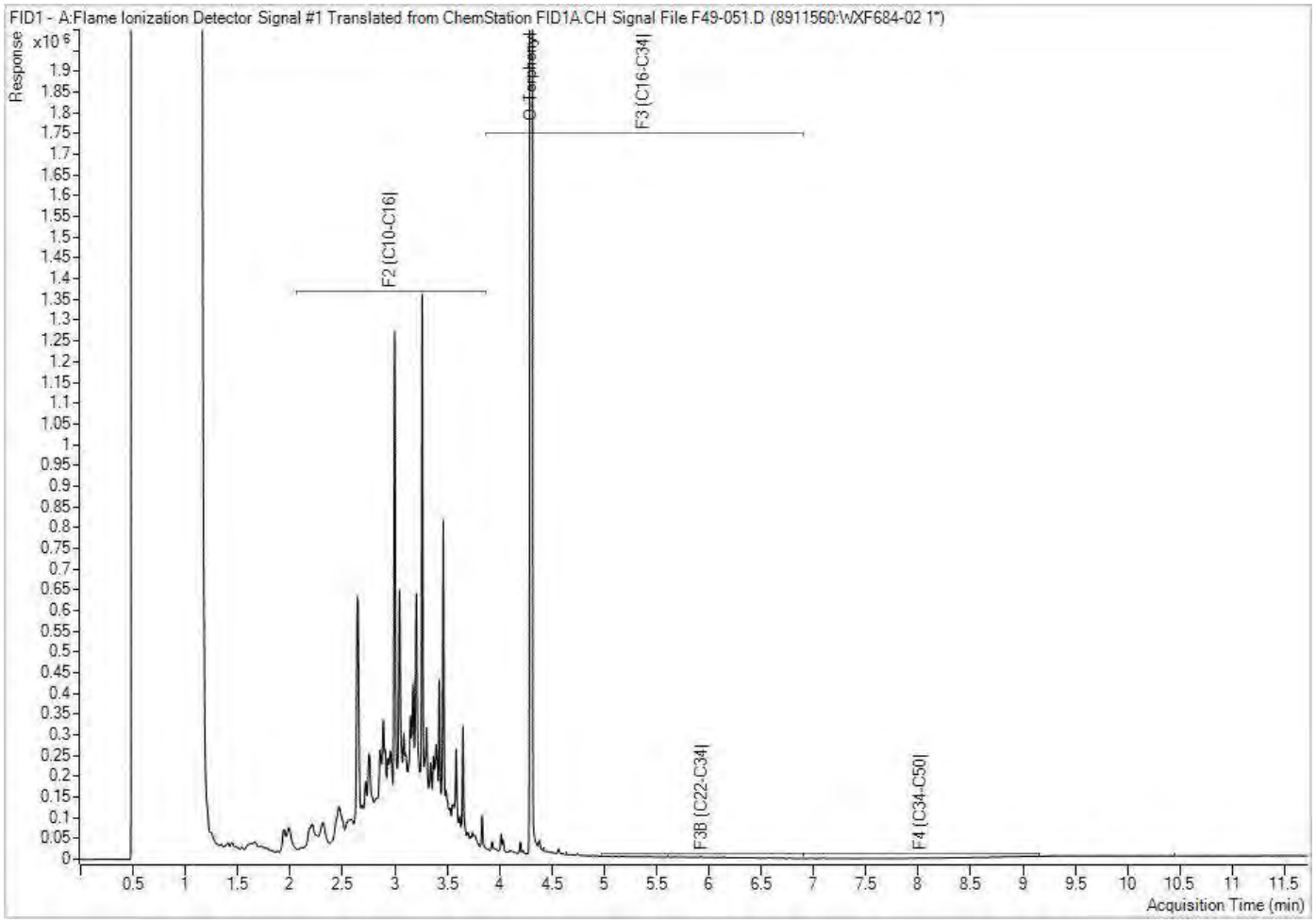


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF684

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-59-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

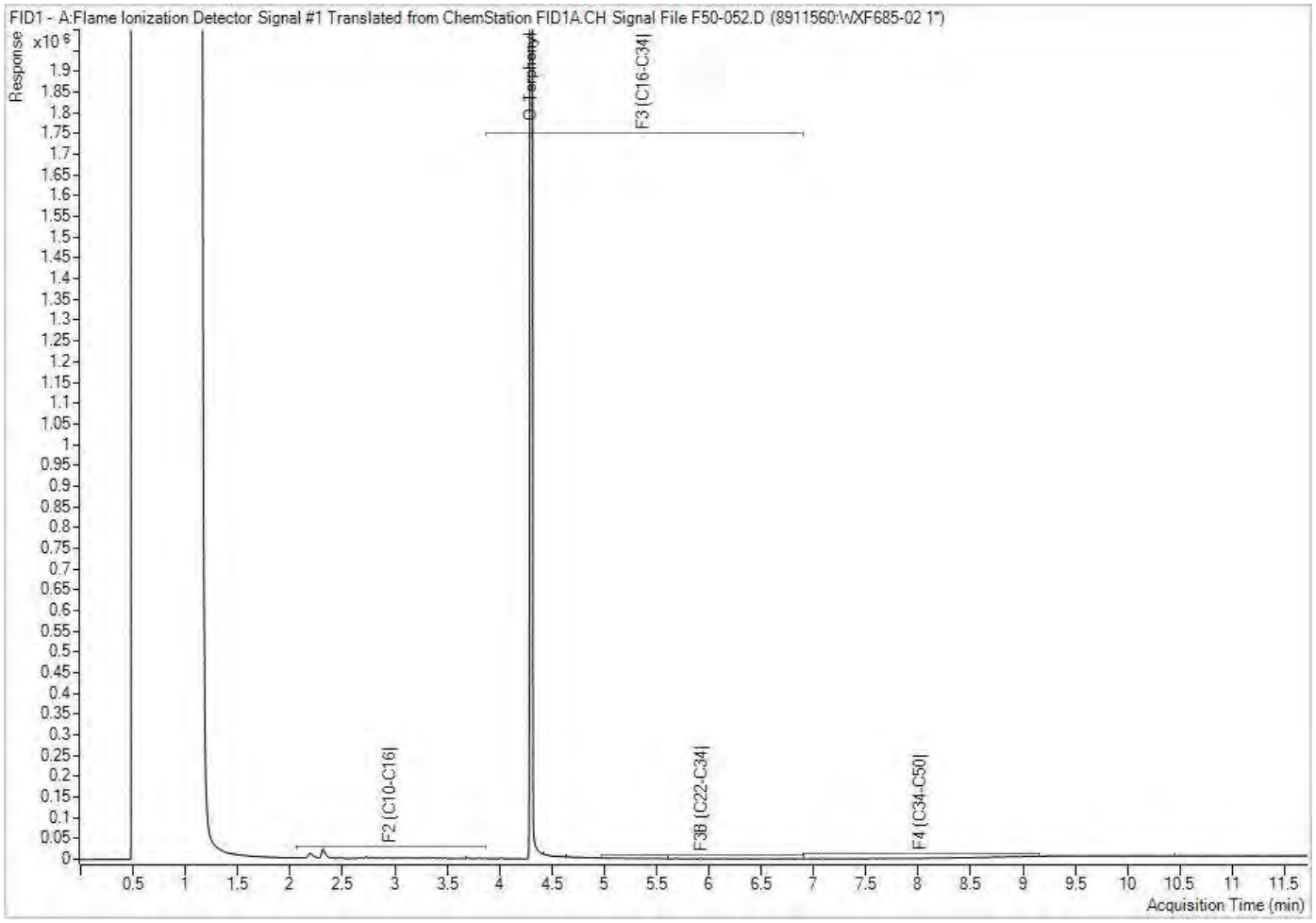


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF685

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-60-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

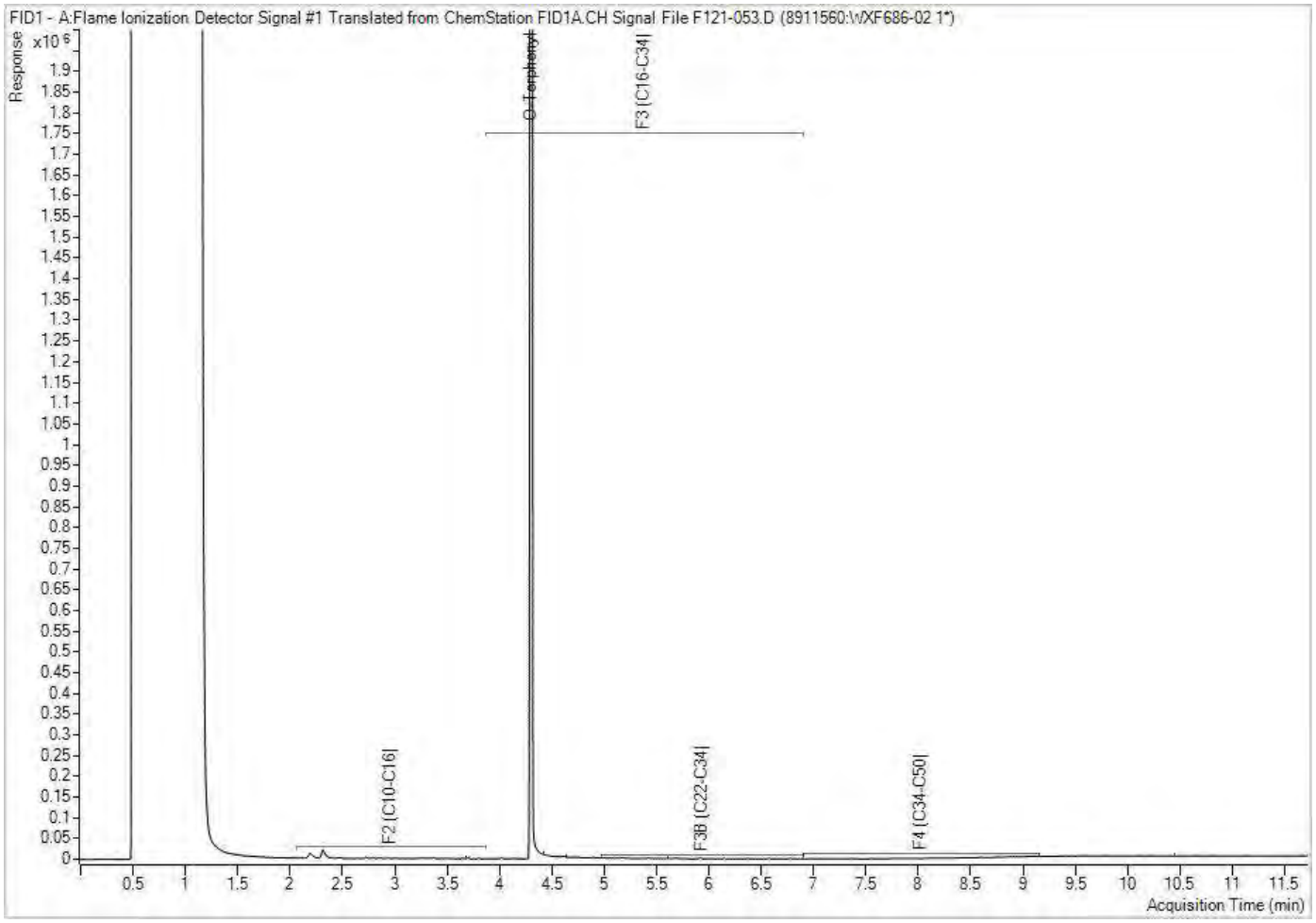


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF686

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-60-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

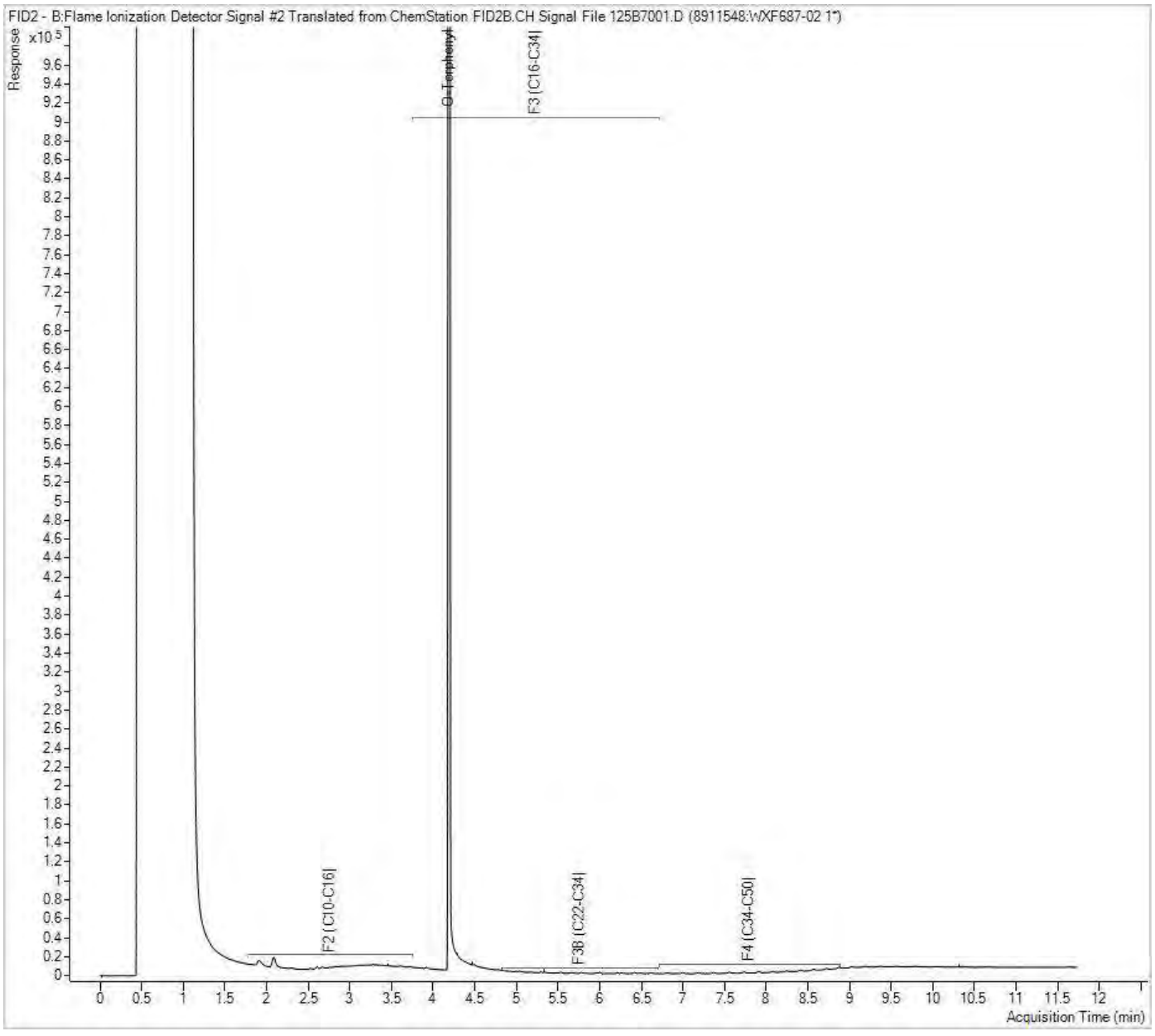


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF687

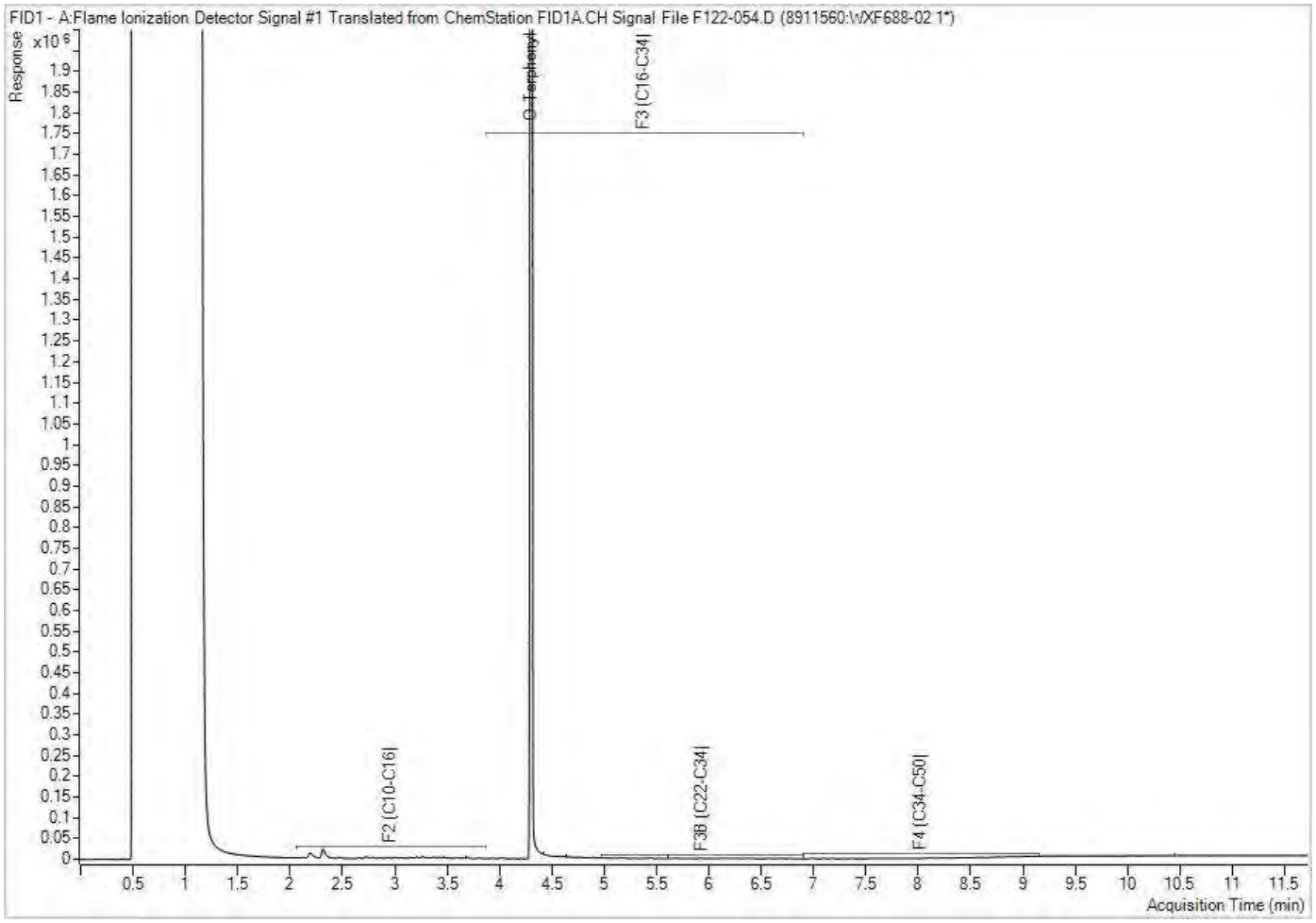
BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-61-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

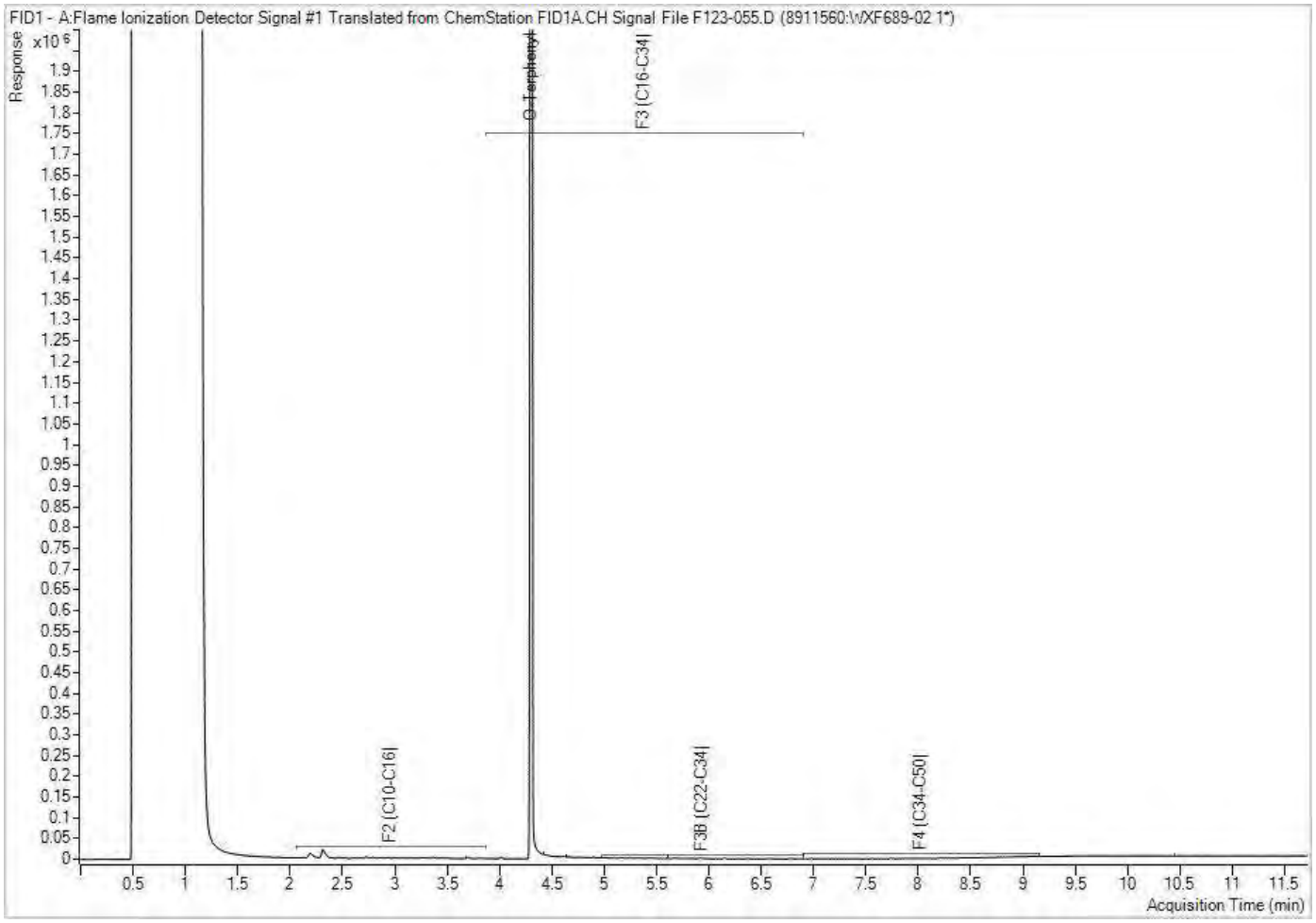


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF689

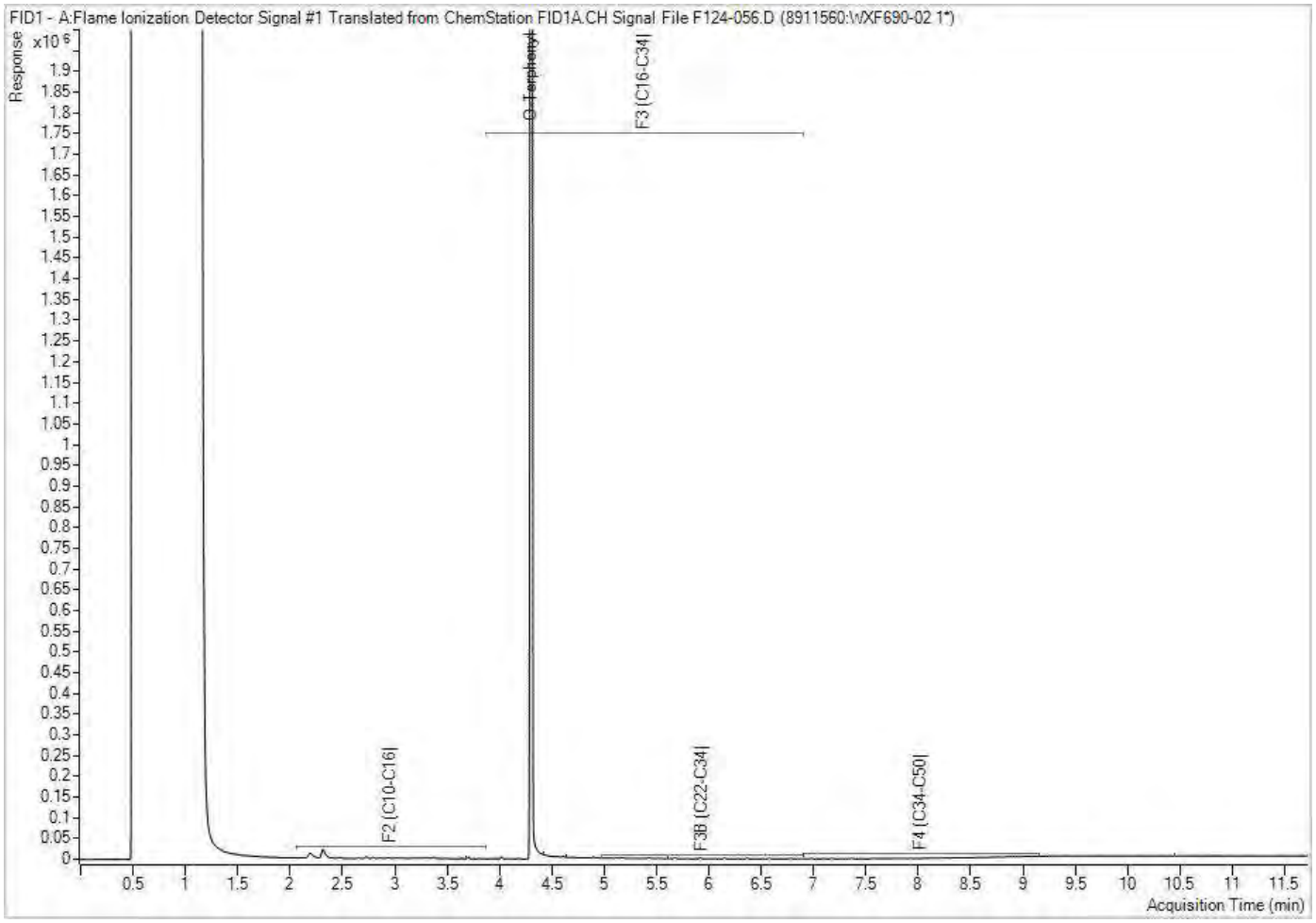
BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-62-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

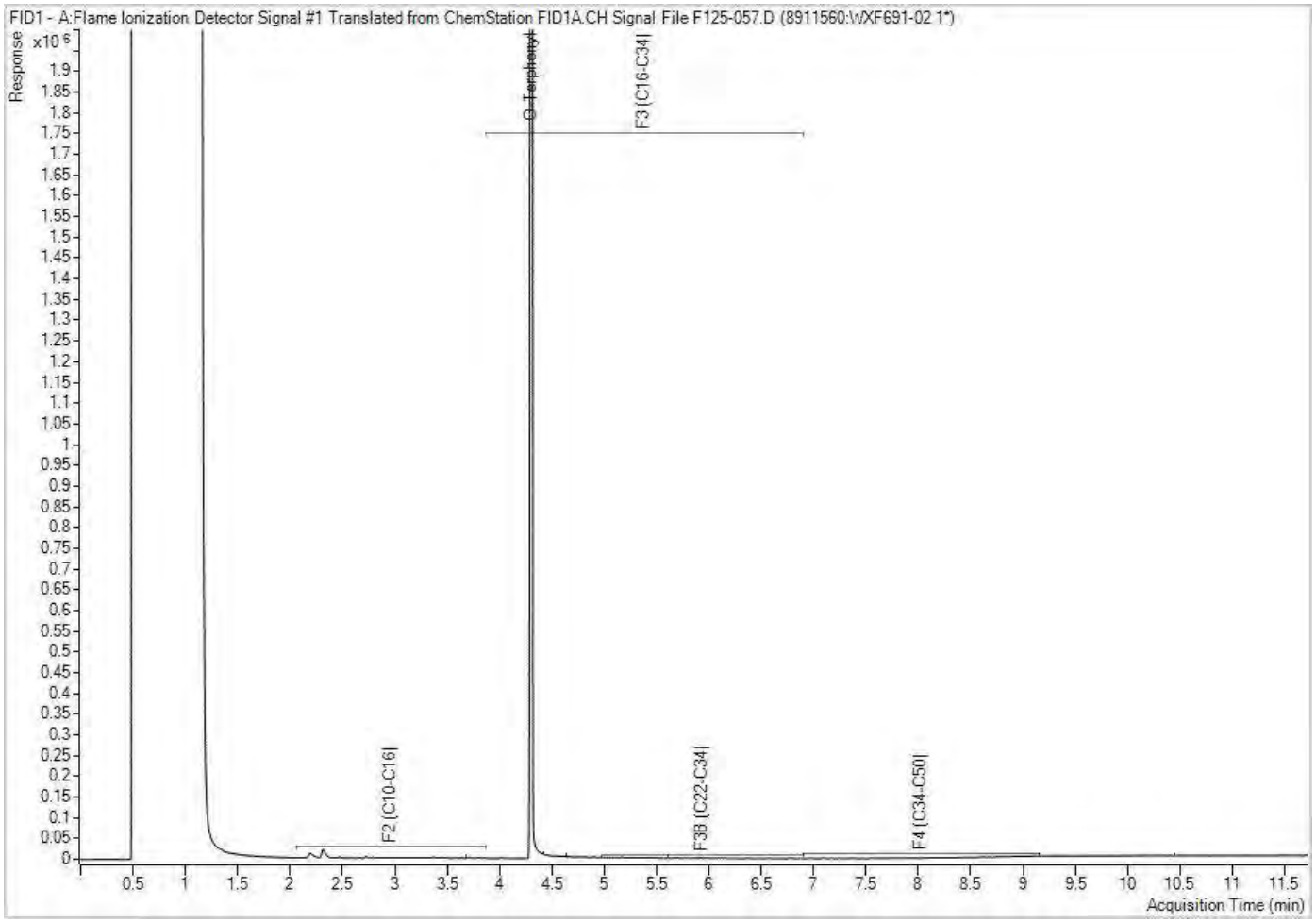


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF691

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-S-90

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

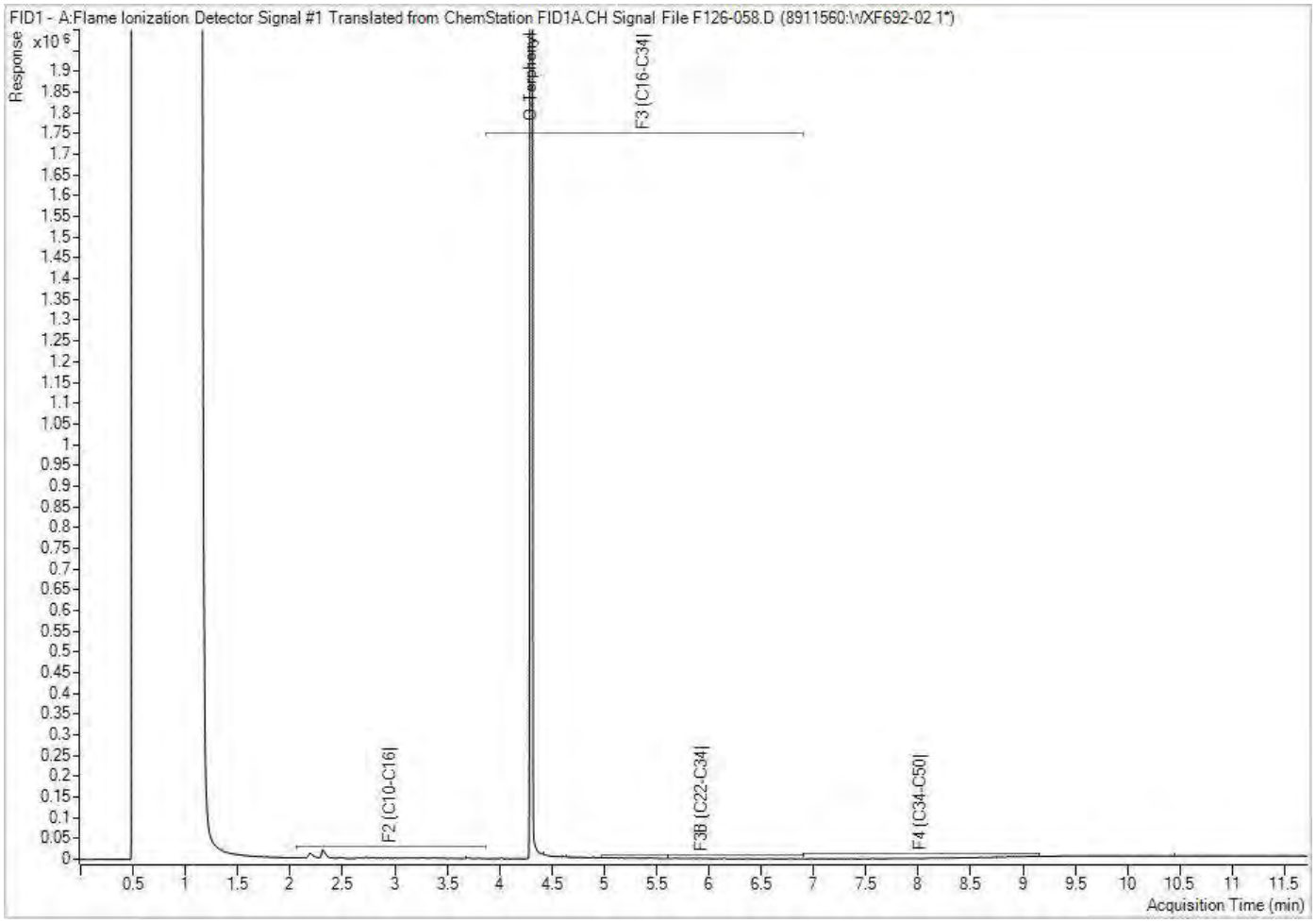


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2252
Report Date: 2023/09/15
Bureau Veritas Sample: WXF692

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-S-100

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Your Project #: 230394
Site Location: DYE-M
Your C.O.C. #: 761062

Attention: Heather Wolczanski

BluMetric Environmental Inc
1682 Woodward Dr
Ottawa, ON
CANADA K2C 3R8

Report Date: 2023/09/21
Report #: R7824263
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3R2454
Received: 2023/09/05, 10:28

Sample Matrix: Water
Samples Received: 14

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Petroleum Hydro. CCME F1 & BTEX in Water (1)	4	N/A	2023/09/07	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydro. CCME F1 & BTEX in Water (1)	10	N/A	2023/09/08	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1, 3)	1	2023/09/12	2023/09/13	CAM SOP-00316	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1, 3)	1	2023/09/08	2023/09/08	CAM SOP-00316	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1, 3)	12	2023/09/08	2023/09/09	CAM SOP-00316	CCME PHC-CWS m
Elements by ICPMS Low Level (total) (2)	9	2023/09/15	2023/09/19	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Low Level (total) (2)	5	N/A	2023/09/14	BBY7SOP-00002 / CAL SOP -00265	EPA 6020B R2 m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCCFP, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
(2) This test was performed by Bureau Veritas Burnaby, 4606 Canada Way , Burnaby, BC, V5G 1K5
(3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the

Your Project #: 230394
Site Location: DYE-M
Your C.O.C. #: 761062

Attention: Heather Wolczanski

BluMetric Environmental Inc
1682 Woodward Dr
Ottawa, ON
CANADA K2C 3R8

Report Date: 2023/09/21
Report #: R7824263
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3R2454

Received: 2023/09/05, 10:28

reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Christine Gripton, Senior Project Manager
Email: Christine.Gripton@bureauveritas.com
Phone# (519)652-9444

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas Job #: C3R2454
Report Date: 2023/09/21

BluMetric Environmental Inc
Client Project #: 230394
Site Location: DYE-M
Sampler Initials: HW

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		WXH319	WXH319	WXH320	WXH321			WXH322		
Sampling Date		2023/09/01	2023/09/01	2023/09/01	2023/09/01			2023/09/01		
COC Number		761062	761062	761062	761062			761062		
	UNITS	MW05-05	MW05-05 Lab-Dup	MW05-06	MW05-07	RDL	QC Batch	MW05-08	RDL	QC Batch
Metals										
Total Arsenic (As)	ug/L	0.415	0.429	0.282	0.277	0.020	8931917	0.159	0.020	8920151
Total Cadmium (Cd)	ug/L	0.139	0.134	0.0201	0.0411	0.0050	8931917	0.246	0.0050	8920151
Total Chromium (Cr)	ug/L	3.55	3.29	3.98	10.2	0.10	8931917	88.2	0.10	8920151
Total Cobalt (Co)	ug/L	0.837	0.853	0.830	0.597	0.010	8931917	1.15	0.0050	8920151
Total Copper (Cu)	ug/L	2.75	2.83	4.64	5.89	0.10	8931917	5.13	0.050	8920151
Total Lead (Pb)	ug/L	14.1	14.7	3.42	1.66	0.020	8931917	0.340	0.0050	8920151
Total Nickel (Ni)	ug/L	5.16	5.32	6.18	8.37	0.10	8931917	53.7	0.020	8920151
Total Zinc (Zn)	ug/L	532	553	3560	2210	1.0	8931917	3960	0.10	8920151

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WXH323			WXH324	WXH325			WXH326		
Sampling Date		2023/09/01			2023/09/01	2023/09/01			2023/08/31		
COC Number		761062			761062	761062			761062		
	UNITS	MW23-00	RDL	QC Batch	MW05-09	MW09-27	RDL	QC Batch	MW07-23	RDL	QC Batch
Metals											
Total Arsenic (As)	ug/L	0.247	0.020	8931917	0.087	0.320	0.020	8920151	0.386	0.020	8931917
Total Cadmium (Cd)	ug/L	0.0205	0.0050	8931917	0.0870	0.0350	0.0050	8920151	<0.0050	0.0050	8931917
Total Chromium (Cr)	ug/L	3.52	0.10	8931917	0.51	2.31	0.10	8920151	9.43	0.10	8931917
Total Cobalt (Co)	ug/L	0.737	0.010	8931917	0.188	0.427	0.0050	8920151	1.56	0.010	8931917
Total Copper (Cu)	ug/L	4.17	0.10	8931917	1.15	3.92	0.050	8920151	6.92	0.10	8931917
Total Lead (Pb)	ug/L	3.05	0.020	8931917	2.12	0.0340	0.0050	8920151	2.12	0.020	8931917
Total Nickel (Ni)	ug/L	5.60	0.10	8931917	4.86	4.96	0.020	8920151	11.3	0.10	8931917
Total Zinc (Zn)	ug/L	3310	1.0	8931917	2660	163	0.10	8920151	108	1.0	8931917

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas Job #: C3R2454
Report Date: 2023/09/21

BluMetric Environmental Inc
Client Project #: 230394
Site Location: DYE-M
Sampler Initials: HW

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		WXH327		WXH328			WXH329		
Sampling Date		2023/08/31		2023/08/30			2023/08/30		
COC Number		761062		761062			761062		
	UNITS	MW08-24	RDL	MW06-18	RDL	QC Batch	MW06-19	RDL	QC Batch
Metals									
Total Arsenic (As)	ug/L	0.768	0.020	6.10	0.20	8931917	0.031	0.020	8920151
Total Cadmium (Cd)	ug/L	0.0112	0.0050	<0.050	0.050	8931917	<0.0050	0.0050	8920151
Total Chromium (Cr)	ug/L	36.0	0.10	19.0	1.0	8931917	0.56	0.10	8920151
Total Cobalt (Co)	ug/L	4.45	0.010	6.83	0.10	8931917	0.182	0.0050	8920151
Total Copper (Cu)	ug/L	32.3	0.10	54.2	1.0	8931917	0.799	0.050	8920151
Total Lead (Pb)	ug/L	4.85	0.020	42.0	0.20	8931917	0.323	0.0050	8920151
Total Nickel (Ni)	ug/L	81.1	0.10	31.4	1.0	8931917	0.516	0.020	8920151
Total Zinc (Zn)	ug/L	110	1.0	7060	10	8931917	24.7	0.10	8920151

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXH330	WXH331			WXH332		
Sampling Date		2023/08/30	2023/08/30			2023/08/30		
COC Number		761062	761062			761062		
	UNITS	MW06-20	MW07-21	RDL	QC Batch	MW23-01	RDL	QC Batch
Metals								
Total Arsenic (As)	ug/L	0.376	<0.020	0.020	8931917	<0.020	0.020	8920151
Total Cadmium (Cd)	ug/L	0.0111	0.0104	0.0050	8931917	<0.0050	0.0050	8920151
Total Chromium (Cr)	ug/L	4.42	16.9	0.10	8931917	<0.10	0.10	8920151
Total Cobalt (Co)	ug/L	1.48	4.53	0.010	8931917	<0.0050	0.0050	8920151
Total Copper (Cu)	ug/L	7.00	15.8	0.10	8931917	<0.050	0.050	8920151
Total Lead (Pb)	ug/L	4.39	4.16	0.020	8931917	<0.0050	0.0050	8920151
Total Nickel (Ni)	ug/L	4.85	15.0	0.10	8931917	0.020	0.020	8920151
Total Zinc (Zn)	ug/L	1760	34.7	1.0	8931917	0.44	0.10	8920151

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas Job #: C3R2454
Report Date: 2023/09/21

BluMetric Environmental Inc
Client Project #: 230394
Site Location: DYE-M
Sampler Initials: HW

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WXH319	WXH320	WXH321	WXH322	WXH323	WXH324	WXH325		
Sampling Date		2023/09/01	2023/09/01	2023/09/01	2023/09/01	2023/09/01	2023/09/01	2023/09/01		
COC Number		761062	761062	761062	761062	761062	761062	761062		
	UNITS	MW05-05	MW05-06	MW05-07	MW05-08	MW23-00	MW05-09	MW09-27	RDL	QC Batch
BTEX & F1 Hydrocarbons										
F1 (C6-C10)	ug/L	<25	<25	<25	<25	<25	<25	<25	25	8902475
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	<100	<100	<100	<100	100	8903597
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	<200	<200	<200	<200	200	8903597
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	<200	<200	<200	<200	200	8903597
Reached Baseline at C50	ug/L	Yes	Yes	Yes	Yes	Yes	Yes	Yes		8903597
Surrogate Recovery (%)										
1,4-Difluorobenzene	%	112	113	111	115	111	113	112		8902475
4-Bromofluorobenzene	%	119	113	87	94	115	96	91		8902475
D10-o-Xylene	%	94	97	95	94	94	94	94		8902475
D4-1,2-Dichloroethane	%	102	99	101	105	103	102	108		8902475
o-Terphenyl	%	96	97	98	100	95	96	100		8903597

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXH326	WXH327		WXH328		WXH329	WXH330		
Sampling Date		2023/08/31	2023/08/31		2023/08/30		2023/08/30	2023/08/30		
COC Number		761062	761062		761062		761062	761062		
	UNITS	MW07-23	MW08-24	QC Batch	MW06-18	QC Batch	MW06-19	MW06-20	RDL	QC Batch
BTEX & F1 Hydrocarbons										
F1 (C6-C10)	ug/L	<25	<25	8902475	<25	8902475	<25	<25	25	8902475
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	8903597	<100	8911701	<100	<100	100	8903597
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	8903597	<200	8911701	<200	<200	200	8903597
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	8903597	<200	8911701	<200	<200	200	8903597
Reached Baseline at C50	ug/L	Yes	Yes	8903597	Yes	8911701	Yes	Yes		8903597
Surrogate Recovery (%)										
1,4-Difluorobenzene	%	111	113	8902475	113	8902475	112	113		8902475
4-Bromofluorobenzene	%	78	119	8902475	93	8902475	91	128		8902475
D10-o-Xylene	%	93	93	8902475	91	8902475	92	94		8902475
D4-1,2-Dichloroethane	%	102	103	8902475	101	8902475	103	103		8902475
o-Terphenyl	%	97	101	8903597	104	8911701	96	97		8903597

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WXH331	WXH332		
Sampling Date		2023/08/30	2023/08/30		
COC Number		761062	761062		
	UNITS	MW07-21	MW23-01	RDL	QC Batch
BTEX & F1 Hydrocarbons					
F1 (C6-C10)	ug/L	<25	<25	25	8902475
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	100	8903597
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	200	8903597
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	200	8903597
Reached Baseline at C50	ug/L	Yes	Yes		8903597
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	113	112		8902475
4-Bromofluorobenzene	%	81	87		8902475
D10-o-Xylene	%	92	96		8902475
D4-1,2-Dichloroethane	%	103	102		8902475
o-Terphenyl	%	97	96		8903597

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	0.7°C
Package 2	2.3°C
Package 3	2.3°C
Package 4	1.7°C

Results relate only to the items tested.

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8902475	1,4-Difluorobenzene	2023/09/07	99	70 - 130	98	70 - 130	111	%		
8902475	4-Bromofluorobenzene	2023/09/07	91	70 - 130	94	70 - 130	87	%		
8902475	D10-o-Xylene	2023/09/07	97	70 - 130	101	70 - 130	94	%		
8902475	D4-1,2-Dichloroethane	2023/09/07	95	70 - 130	93	70 - 130	102	%		
8903597	o-Terphenyl	2023/09/08	103	60 - 130	98	60 - 130	100	%		
8911701	o-Terphenyl	2023/09/13	109	60 - 130	109	60 - 130	105	%		
8902475	F1 (C6-C10)	2023/09/07	99	60 - 140	103	60 - 140	<25	ug/L	NC	30
8903597	F2 (C10-C16 Hydrocarbons)	2023/09/08	103	60 - 130	96	60 - 130	<100	ug/L	NC	30
8903597	F3 (C16-C34 Hydrocarbons)	2023/09/08	100	60 - 130	95	60 - 130	<200	ug/L	NC	30
8903597	F4 (C34-C50 Hydrocarbons)	2023/09/08	101	60 - 130	93	60 - 130	<200	ug/L	NC	30
8911701	F2 (C10-C16 Hydrocarbons)	2023/09/13	111	60 - 130	110	60 - 130	<100	ug/L	NC	30
8911701	F3 (C16-C34 Hydrocarbons)	2023/09/13	113	60 - 130	116	60 - 130	<200	ug/L	6.7	30
8911701	F4 (C34-C50 Hydrocarbons)	2023/09/13	117	60 - 130	114	60 - 130	<200	ug/L	NC	30
8920151	Total Arsenic (As)	2023/09/14	105	80 - 120	101	80 - 120	<0.020	ug/L		
8920151	Total Cadmium (Cd)	2023/09/14	102	80 - 120	101	80 - 120	<0.0050	ug/L		
8920151	Total Chromium (Cr)	2023/09/14	102	80 - 120	98	80 - 120	<0.10	ug/L		
8920151	Total Cobalt (Co)	2023/09/14	NC	80 - 120	96	80 - 120	<0.0050	ug/L		
8920151	Total Copper (Cu)	2023/09/14	97	80 - 120	95	80 - 120	<0.050	ug/L		
8920151	Total Lead (Pb)	2023/09/14	103	80 - 120	101	80 - 120	<0.0050	ug/L		
8920151	Total Nickel (Ni)	2023/09/14	NC	80 - 120	95	80 - 120	0.027, RDL=0.020 (1)	ug/L		
8920151	Total Zinc (Zn)	2023/09/14	NC	80 - 120	98	80 - 120	<0.10	ug/L		
8931917	Total Arsenic (As)	2023/09/19	101	80 - 120	103	80 - 120	<0.020	ug/L	3.2	20
8931917	Total Cadmium (Cd)	2023/09/19	98	80 - 120	101	80 - 120	<0.0050	ug/L	3.7	20
8931917	Total Chromium (Cr)	2023/09/19	90	80 - 120	97	80 - 120	<0.10	ug/L	7.6	20
8931917	Total Cobalt (Co)	2023/09/19	89	80 - 120	95	80 - 120	<0.010	ug/L	1.9	20
8931917	Total Copper (Cu)	2023/09/19	86	80 - 120	93	80 - 120	<0.10	ug/L	2.9	20
8931917	Total Lead (Pb)	2023/09/19	103	80 - 120	99	80 - 120	<0.020	ug/L	3.8	20
8931917	Total Nickel (Ni)	2023/09/19	87	80 - 120	94	80 - 120	<0.10	ug/L	3.0	20

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8931917	Total Zinc (Zn)	2023/09/19	NC	80 - 120	105	80 - 120	<1.0	ug/L	3.8	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Method Blank exceeds acceptance limits - 2X RDL acceptable for low level metals determination.

Bureau Veritas Job #: C3R2454
Report Date: 2023/09/21

BluMetric Environmental Inc
Client Project #: 230394
Site Location: DYE-M
Sampler Initials: HW

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere, Senior Scientific Specialist

David Huang, BBY Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

05-Sep-23 10:28
Christine Gripton
C3R2454

Received in Ottawa

RUK ENV-1740

eCOC Number: T761062

Custody Tracking Form

Please use this form for custody tracking when submitting the work instructions via eCOC (electronic Chain of Custody). Please ensure your form **has a barcode or a Bureau Veritas Laboratories eCOC confirmation number** in the top right hand side. This number links your electronic submission to your samples. This form should be **placed in the cooler with your samples**.

Relinquished By				Received By			
Connor McClelland		Date	2023/09/02	Tyson LAWRENCE	Lawrence	Date	2023/09/05
		Time (24 HR)	14:10			Time (24 HR)	1028
		Date				Date	2023/09/06
		Time (24 HR)				Time (24 HR)	09:00
		Date				Date	
		Time (24 HR)				Time (24 HR)	

Unless otherwise agreed to, submissions and use of services are governed by Bureau Veritas' standard terms and conditions which can be found at www.bvlabs.com.

Triage Information

Sampled By (Print)	# of Coolers/Pkgs				
C. McClelland	4	Rush ☐	Immediate Test ☐	Food Residue ☐	
		Micro ☐		Food Chemistry ☐	

See ACTR

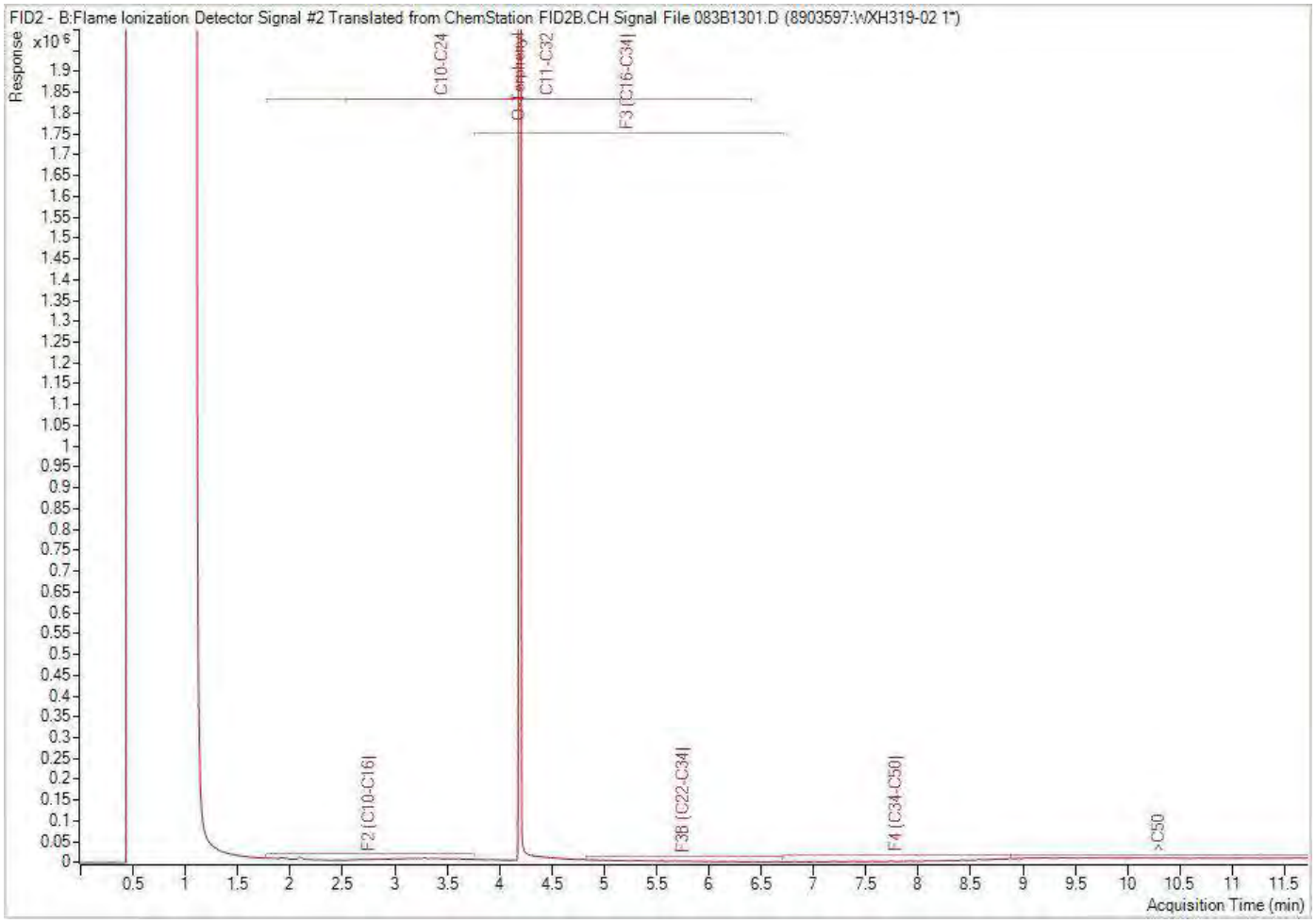
***** Laboratory Use Only *****

Received At	Lab Comments:	Custody Seal		Cooling Media	Temperature °C		
		Present (Y/N)	Intact (Y/N)	Present (Y/N)	1	2	3

Bureau Veritas Job #: C3R2454
Report Date: 2023/09/21
Bureau Veritas Sample: WXH319

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW05-05

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

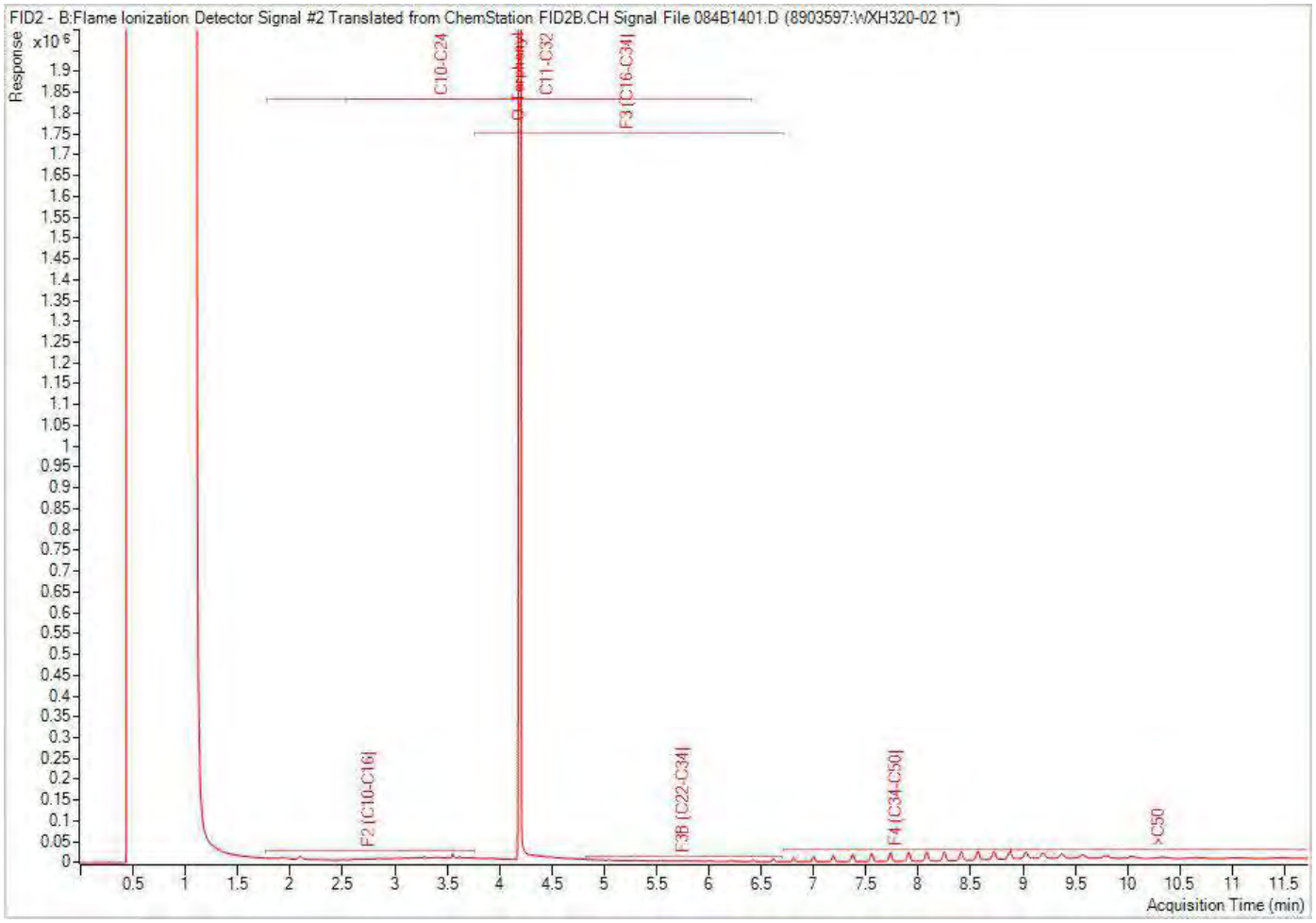


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2454
Report Date: 2023/09/21
Bureau Veritas Sample: WXH320

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW05-06

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

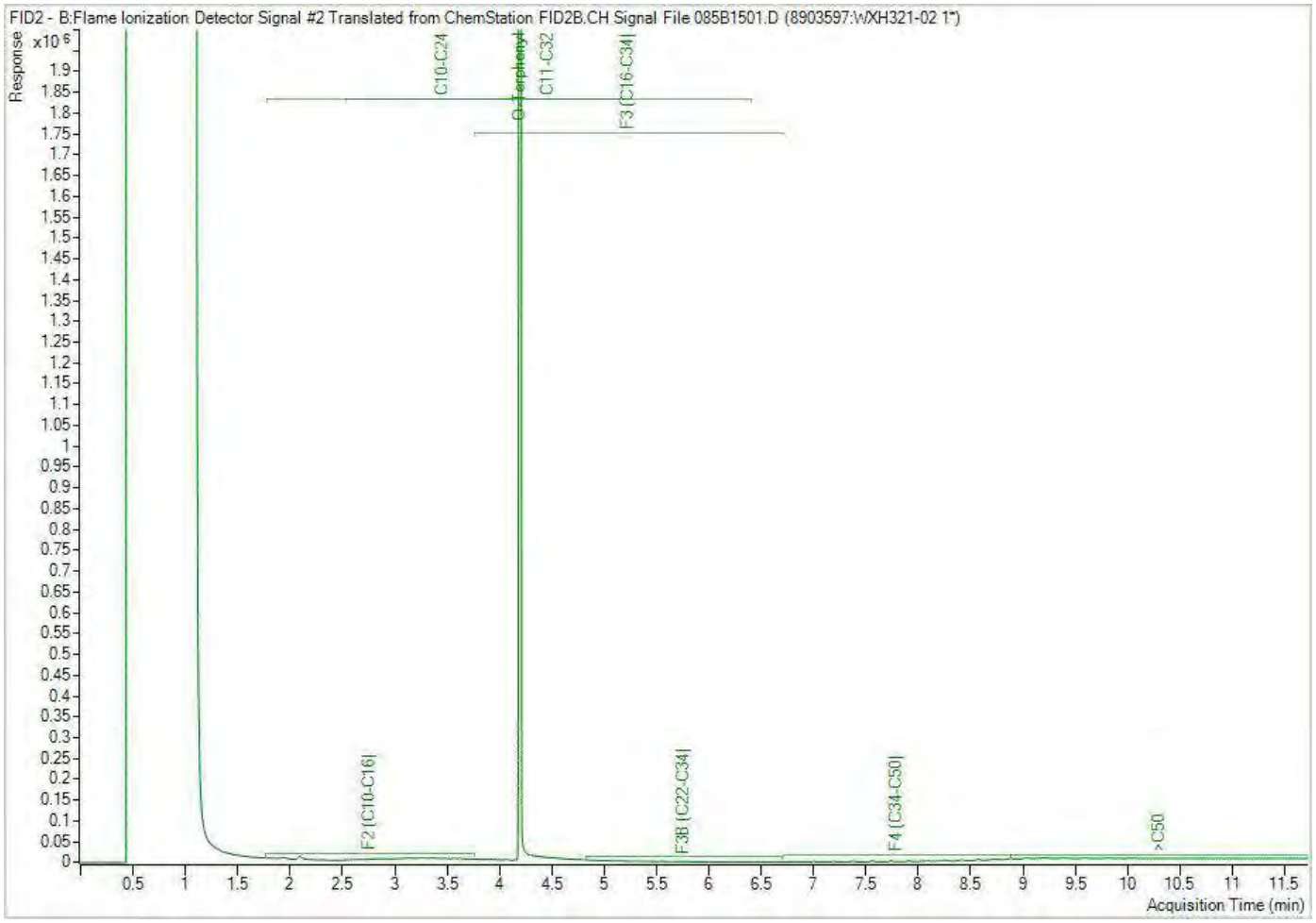


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2454
Report Date: 2023/09/21
Bureau Veritas Sample: WXH321

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW05-07

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

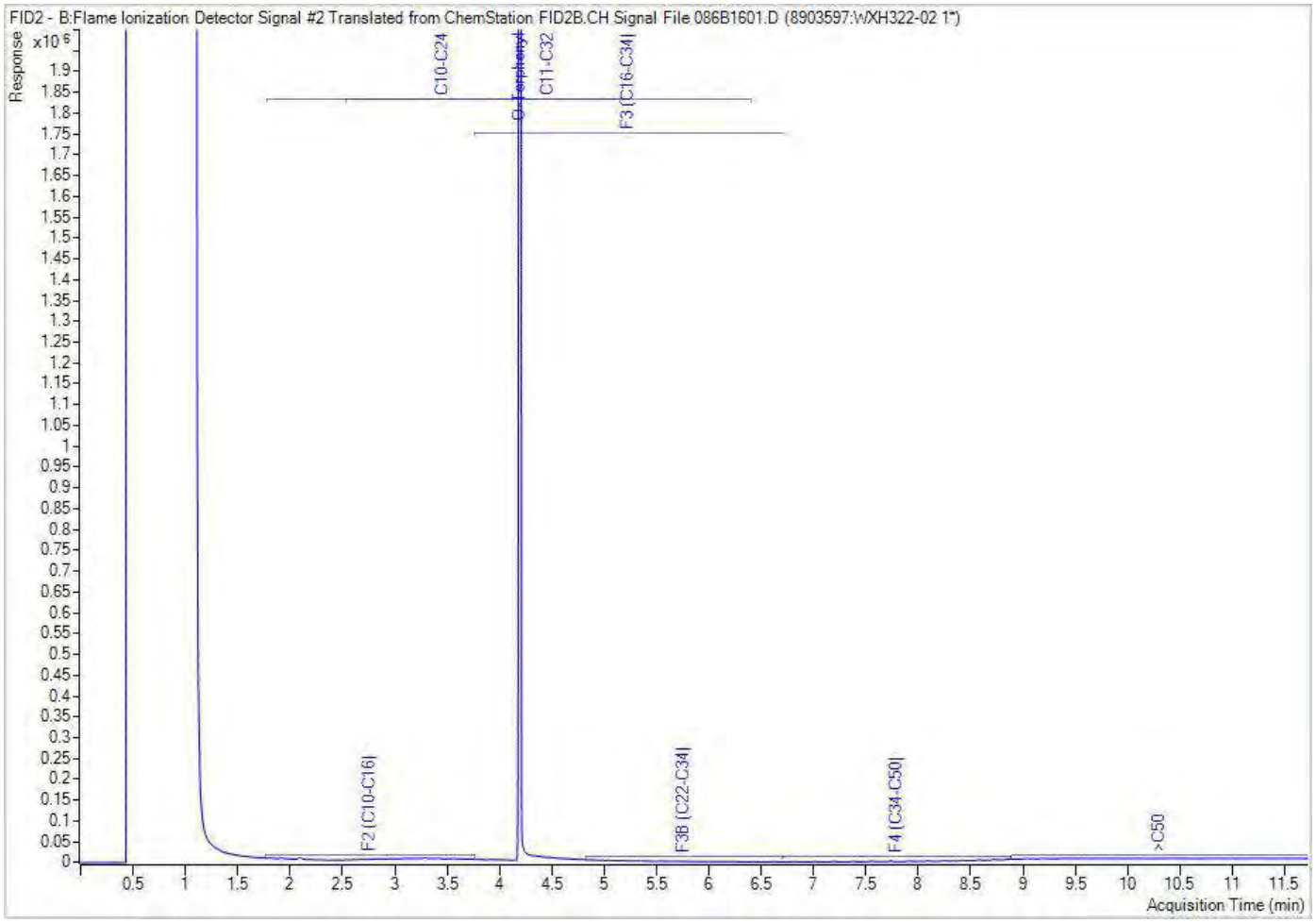


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2454
Report Date: 2023/09/21
Bureau Veritas Sample: WXH322

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW05-08

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

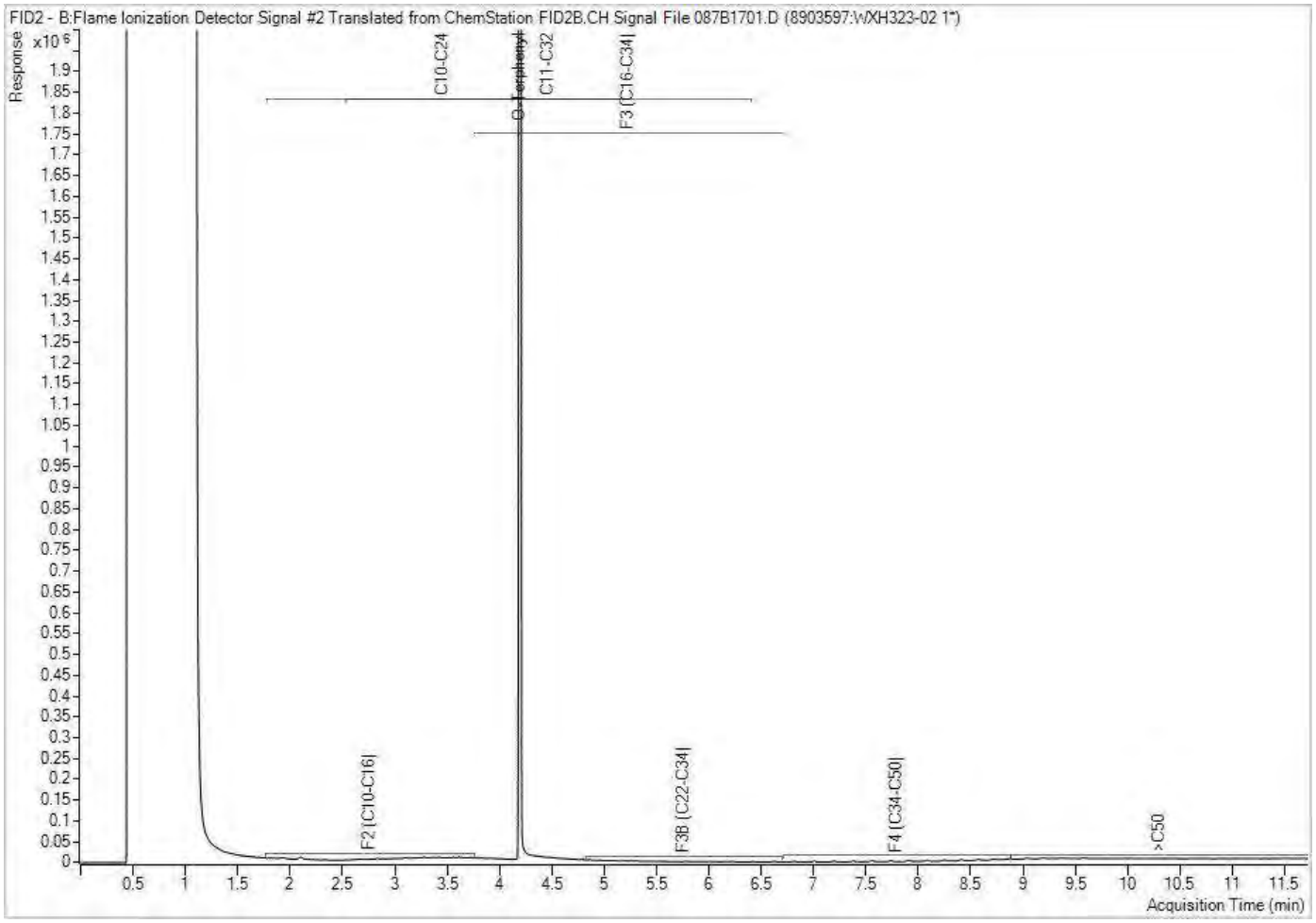


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2454
Report Date: 2023/09/21
Bureau Veritas Sample: WXH323

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-00

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

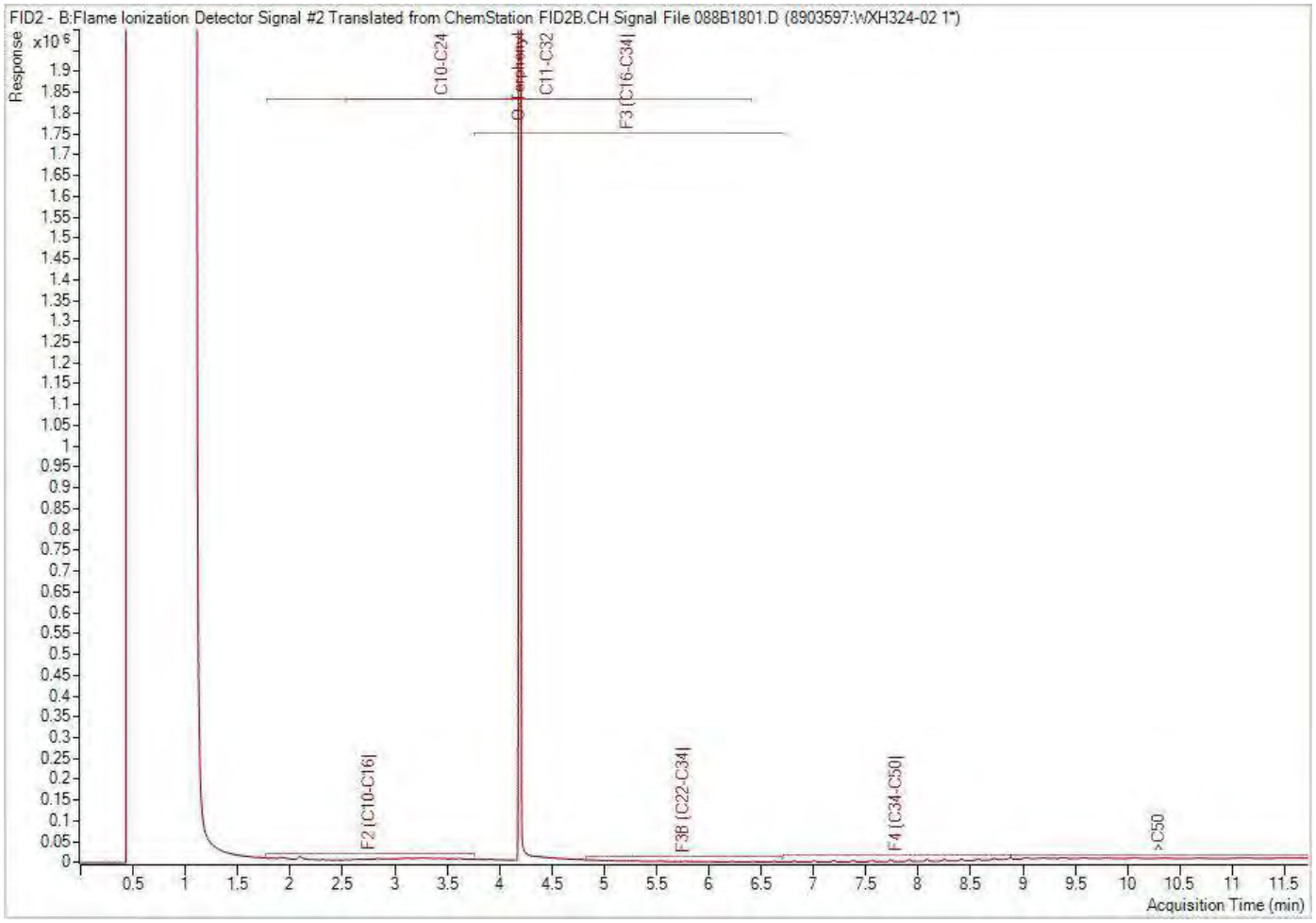


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2454
Report Date: 2023/09/21
Bureau Veritas Sample: WXH324

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW05-09

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

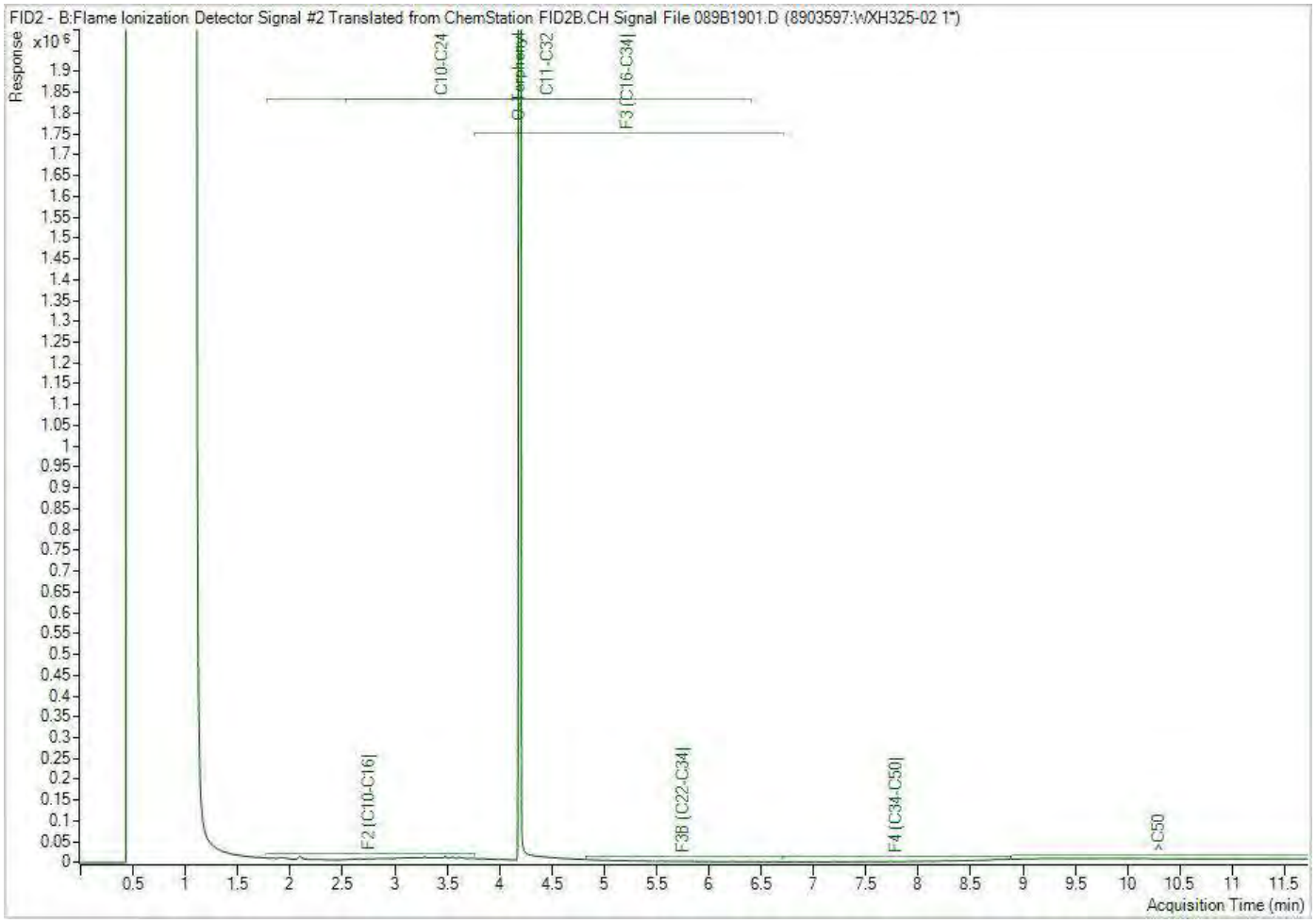


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2454
Report Date: 2023/09/21
Bureau Veritas Sample: WXH325

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW09-27

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

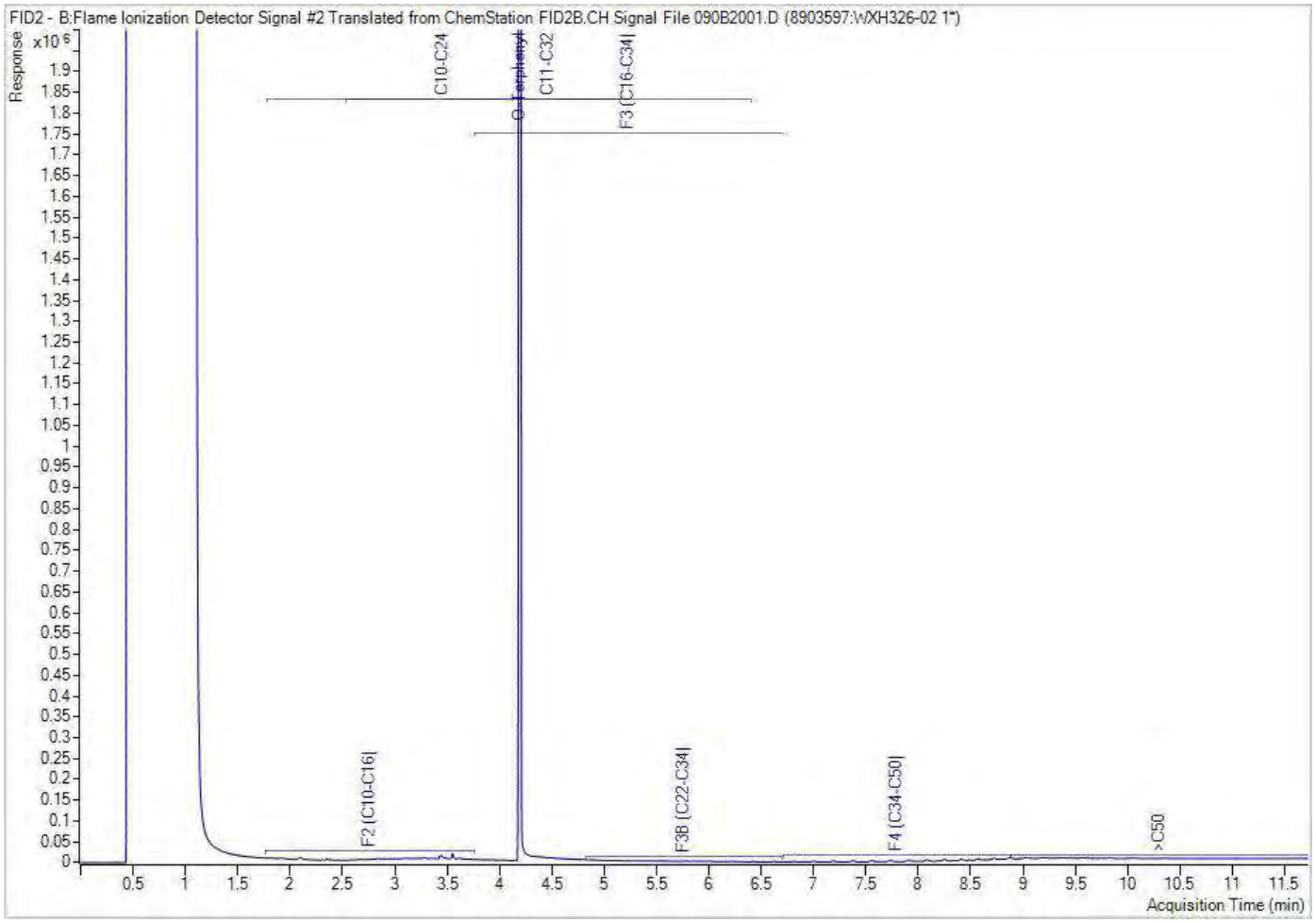


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2454
Report Date: 2023/09/21
Bureau Veritas Sample: WXH326

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW07-23

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

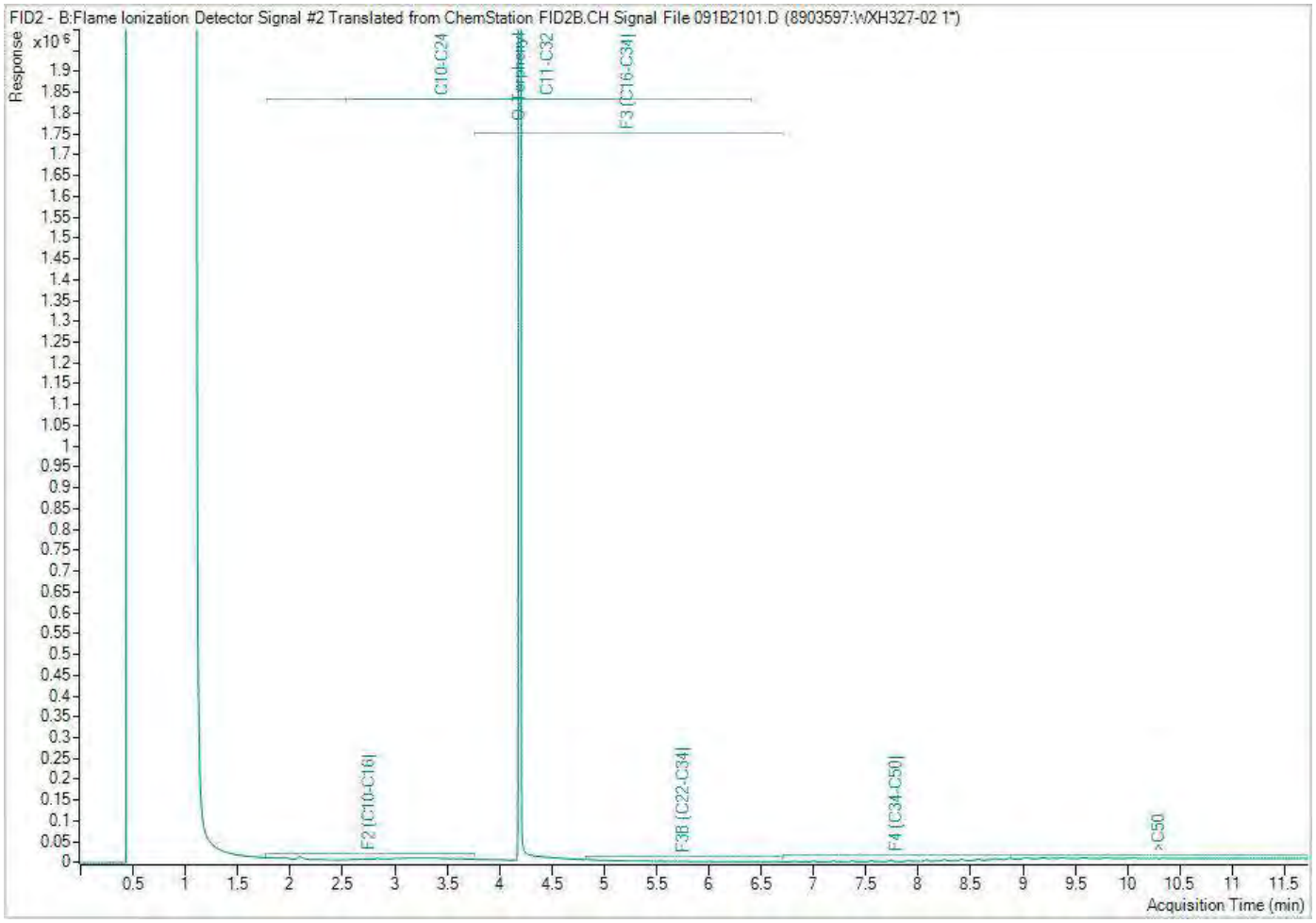


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2454
Report Date: 2023/09/21
Bureau Veritas Sample: WXH327

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW08-24

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

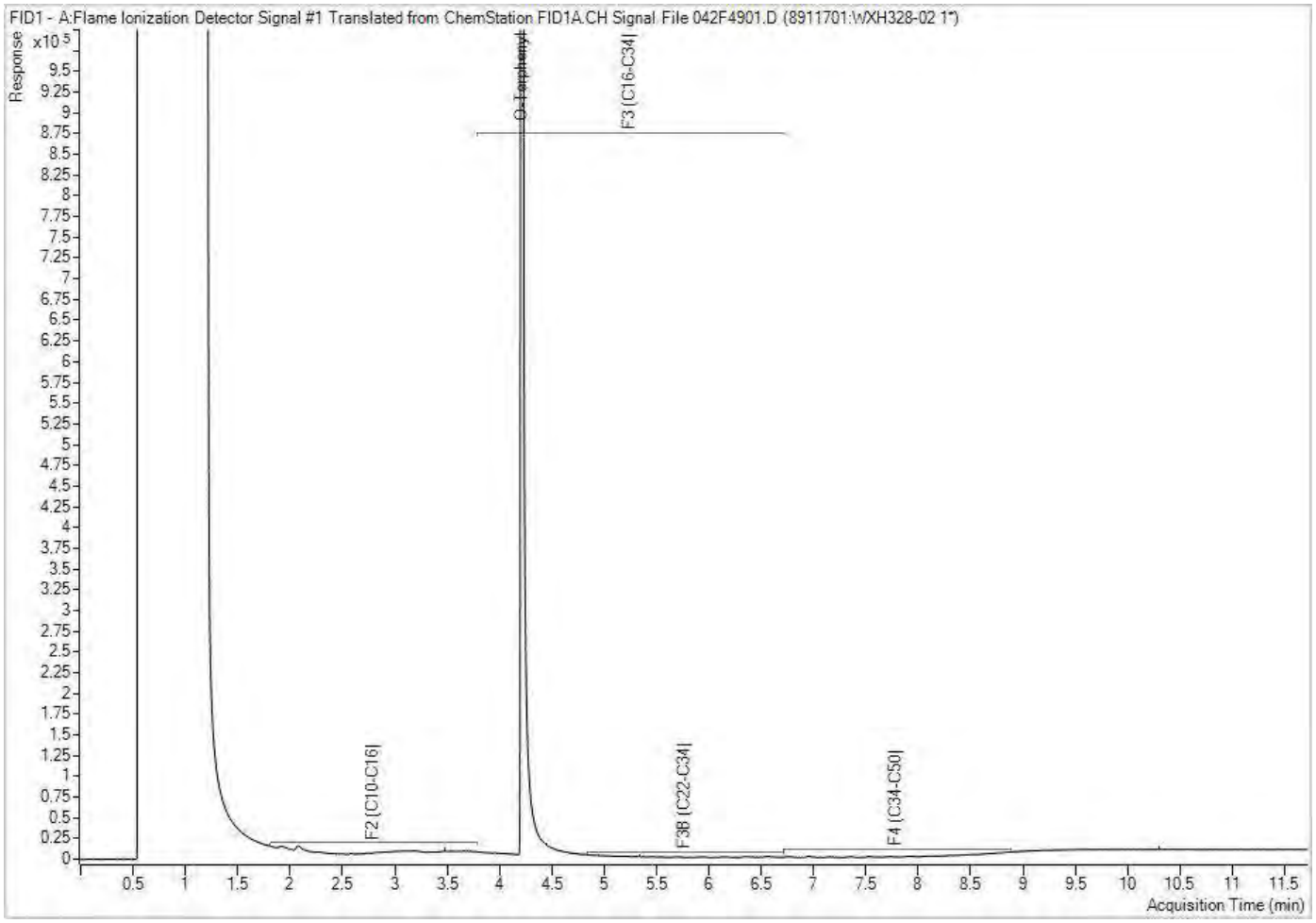


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2454
Report Date: 2023/09/21
Bureau Veritas Sample: WXH328

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW06-18

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

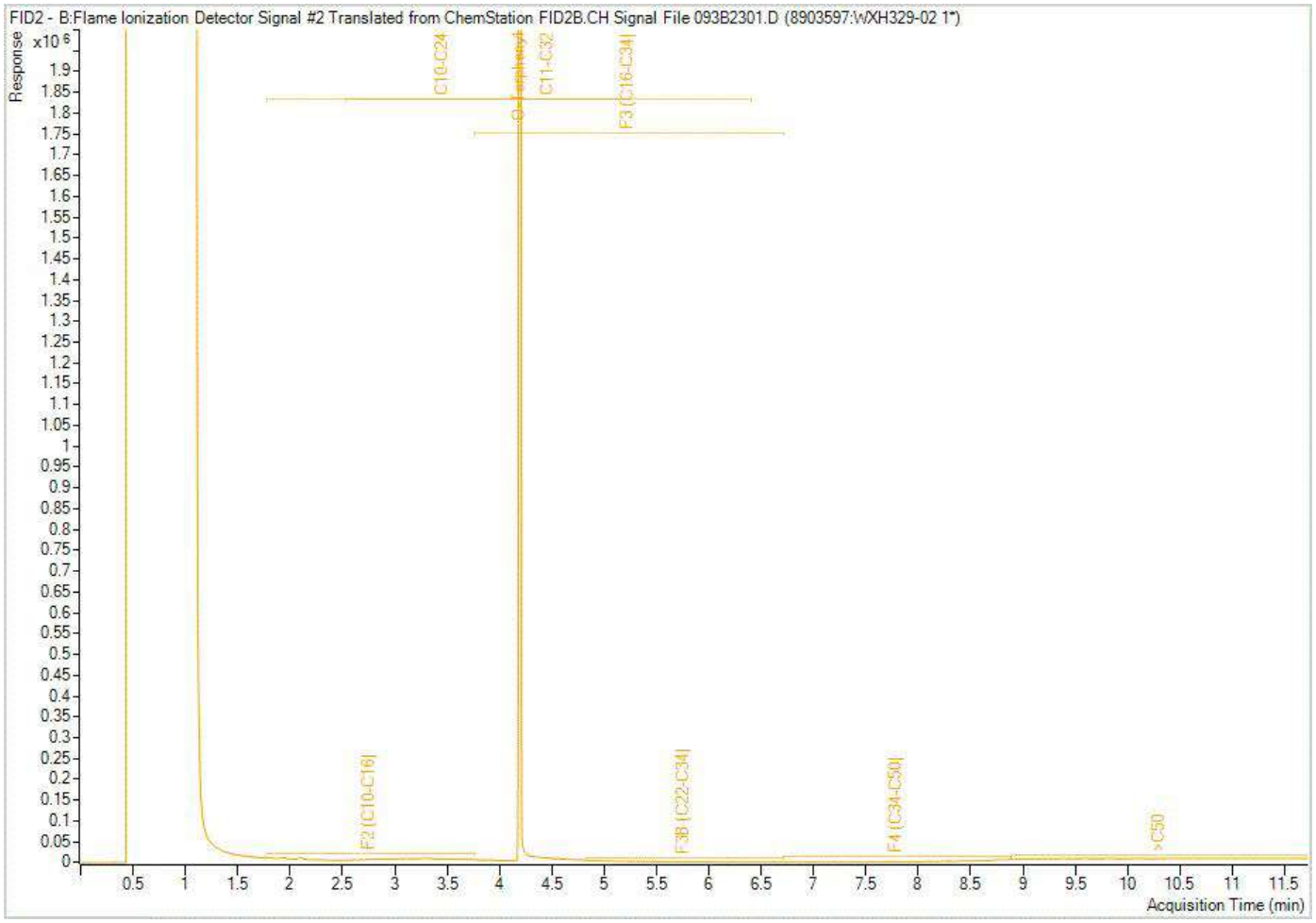


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2454
Report Date: 2023/09/21
Bureau Veritas Sample: WXH329

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW06-19

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

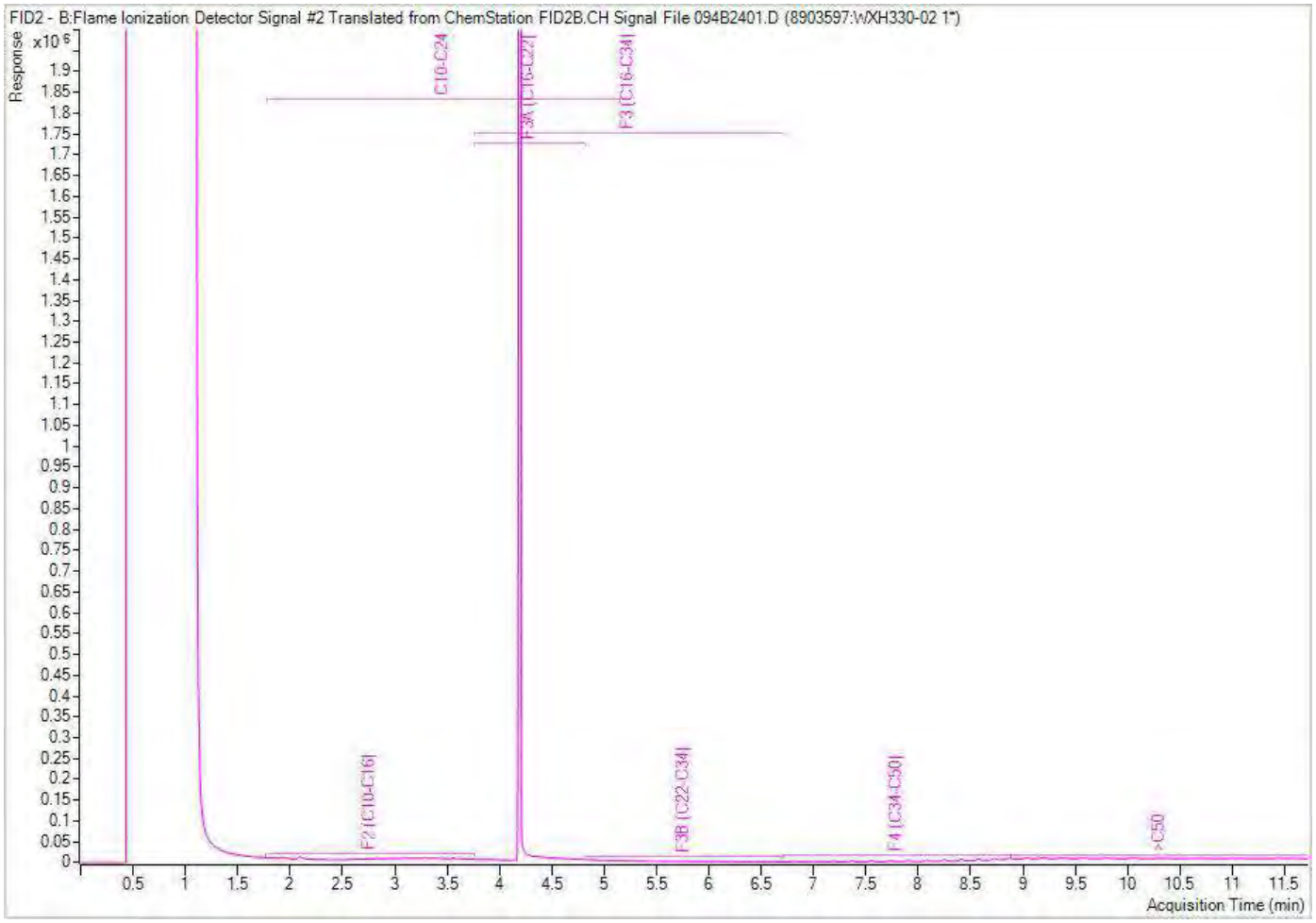


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2454
Report Date: 2023/09/21
Bureau Veritas Sample: WXH330

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW06-20

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

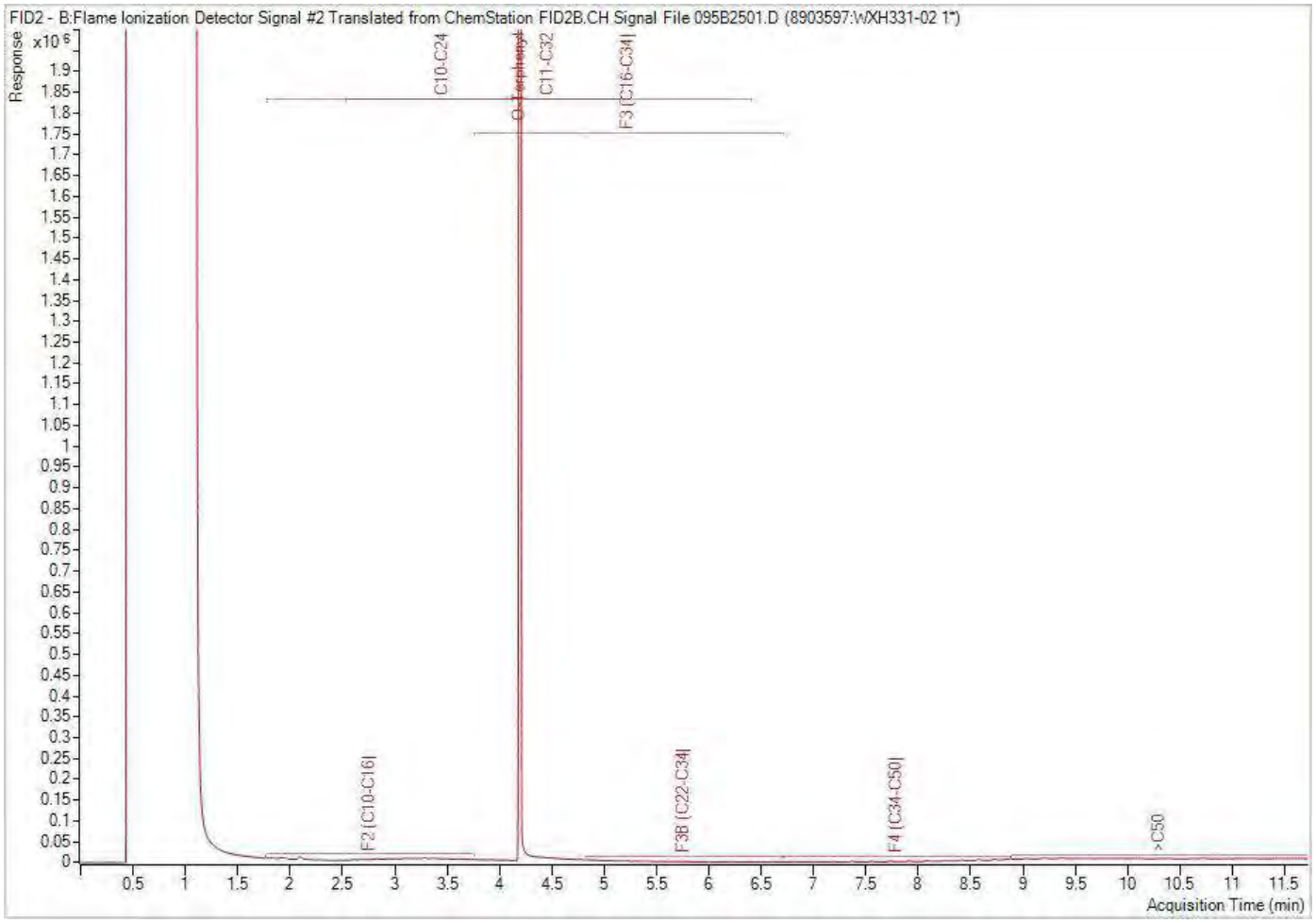


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2454
Report Date: 2023/09/21
Bureau Veritas Sample: WXH331

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW07-21

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

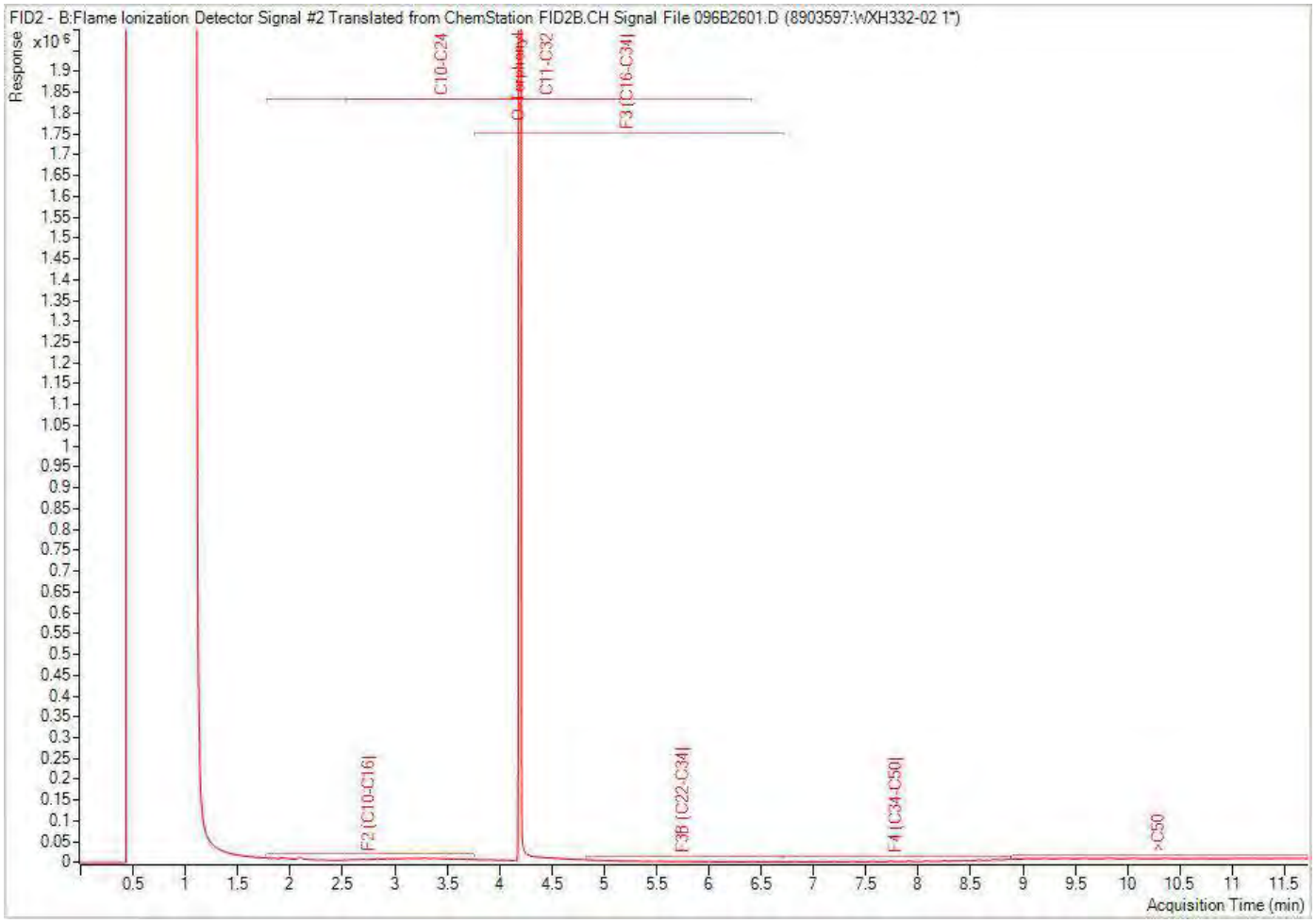


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2454
Report Date: 2023/09/21
Bureau Veritas Sample: WXH332

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-01

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Your Project #: 230394
Site Location: DYE-M
Your C.O.C. #: 758140

Attention: Heather Wolczanski

BluMetric Environmental Inc
1682 Woodward Dr
Ottawa, ON
CANADA K2C 3R8

Report Date: 2023/09/18
Report #: R7818468
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3R2660
Received: 2023/09/05, 11:35

Sample Matrix: Soil
Samples Received: 81

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Petroleum Hydro. CCME F1 & BTEX in Soil (1, 3)	1	N/A	2023/09/10	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydro. CCME F1 & BTEX in Soil (1, 3)	10	N/A	2023/09/11	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydro. CCME F1 & BTEX in Soil (1, 3)	1	N/A	2023/09/08	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydro. CCME F1 & BTEX in Soil (1, 3)	69	N/A	2023/09/09	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (1, 4)	20	2023/09/08	2023/09/10	CAM SOP-00316	CCME CWS m
Petroleum Hydrocarbons F2-F4 in Soil (1, 4)	43	2023/09/08	2023/09/11	CAM SOP-00316	CCME CWS m
Petroleum Hydrocarbons F2-F4 in Soil (1, 4)	16	2023/09/08	2023/09/12	CAM SOP-00316	CCME CWS m
Petroleum Hydrocarbons F2-F4 in Soil (1, 4)	2	2023/09/09	2023/09/10	CAM SOP-00316	CCME CWS m
Elements by ICPMS (total) (2, 5)	63	2023/09/13	2023/09/14		
Elements by ICPMS (total) (2, 5)	18	2023/09/13	2023/09/15		
Moisture (1)	81	N/A	2023/09/08	CAM SOP-00445	Carter 2nd ed 51.2 m
Polychlorinated Biphenyl in Soil (1)	1	2023/09/11	2023/09/11	CAM SOP-00309	EPA 8082A m
Polychlorinated Biphenyl in Soil (1)	1	2023/09/08	2023/09/13	CAM SOP-00309	EPA 8082A m
Polychlorinated Biphenyl in Soil (1)	12	2023/09/08	2023/09/08	CAM SOP-00309	EPA 8082A m
Polychlorinated Biphenyl in Soil (1)	27	2023/09/08	2023/09/09	CAM SOP-00309	EPA 8082A m
Polychlorinated Biphenyl in Soil (1)	3	2023/09/09	2023/09/11	CAM SOP-00309	EPA 8082A m
Polychlorinated Biphenyl in Soil (1)	37	2023/09/09	2023/09/09	CAM SOP-00309	EPA 8082A m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCCFP, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Your Project #: 230394
Site Location: DYE-M
Your C.O.C. #: 758140

Attention: Heather Wolczanski

BluMetric Environmental Inc
1682 Woodward Dr
Ottawa, ON
CANADA K2C 3R8

Report Date: 2023/09/18
Report #: R7818468
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3R2660

Received: 2023/09/05, 11:35

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
(2) This test was performed by Bureau Veritas Burnaby, 4606 Canada Way , Burnaby, BC, V5G 1K5
(3) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.
(4) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
(5) The sample is prepaired per the BC MOE Lab Manual "Strong Acid Leachable Metals (SALM) in Soil - Prescriptive", Revision Nov 6, 2015.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Christine Gripton, Senior Project Manager
Email: Christine.Gripton@bureauveritas.com
Phone# (519)652-9444

==========

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RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WXI234		WXI235	WXI236		WXI237		
Sampling Date		2023/08/25		2023/08/25	2023/08/25		2023/08/25		
COC Number		758140		758140	758140		758140		
	UNITS	MW07-22-S	QC Batch	MW07-22-D	MW07-23-S	QC Batch	MW07-23-D	RDL	QC Batch
Inorganics									
Moisture	%	20	8904613	19	3.4	8904705	4.2	1.0	8905842
Metals									
Total Arsenic (As)	mg/kg	4.02	8918473	1.95	2.93	8918473	3.45	0.20	8918473
Total Cadmium (Cd)	mg/kg	0.306	8918473	0.084	<0.050	8918473	<0.050	0.050	8918473
Total Chromium (Cr)	mg/kg	134	8918473	217	41.1	8918473	35.8	0.50	8918473
Total Cobalt (Co)	mg/kg	18.8	8918473	16.4	8.35	8918473	8.20	0.10	8918473
Total Copper (Cu)	mg/kg	97.0	8918473	38.0	27.3	8918473	37.2	0.50	8918473
Total Lead (Pb)	mg/kg	9.01	8918473	20.3	3.52	8918473	2.84	0.10	8918473
Total Nickel (Ni)	mg/kg	68.4	8918473	95.9	60.0	8918473	46.4	0.50	8918473
Total Zinc (Zn)	mg/kg	132	8918473	78.3	23.9	8918473	21.3	1.0	8918473

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXI238	WXI239		WXI240		WXI241		
Sampling Date		2023/08/25	2023/08/25		2023/08/25		2023/08/25		
COC Number		758140	758140		758140		758140		
	UNITS	MW08-24-S	MW08-24-D	QC Batch	MW08-25-S	QC Batch	MW08-25-D	RDL	QC Batch
Inorganics									
Moisture	%	17	10	8904705	12	8905842	12	1.0	8904705
Metals									
Total Arsenic (As)	mg/kg	0.55	0.54	8918473	1.13	8918473	1.36	0.20	8918473
Total Cadmium (Cd)	mg/kg	<0.050	<0.050	8918473	0.052	8918473	0.059	0.050	8918473
Total Chromium (Cr)	mg/kg	54.8	55.0	8918473	135	8918473	133	0.50	8918473
Total Cobalt (Co)	mg/kg	9.73	9.87	8918473	23.7	8918473	17.8	0.10	8918473
Total Copper (Cu)	mg/kg	21.3	18.8	8918473	18.7	8918473	37.7	0.50	8918473
Total Lead (Pb)	mg/kg	9.64	9.31	8918473	53.0	8918473	32.7	0.10	8918473
Total Nickel (Ni)	mg/kg	42.1	44.9	8918473	74.5	8918473	61.3	0.50	8918473
Total Zinc (Zn)	mg/kg	43.5	40.8	8918473	170	8918473	129	1.0	8918473

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WXI242		WXI243		WXI244			WXI244		
Sampling Date		2023/08/25		2023/08/25		2023/08/25			2023/08/25		
COC Number		758140		758140		758140			758140		
	UNITS	MW12-02-S	QC Batch	MW12-02-D	QC Batch	MW23-S-50	RDL	QC Batch	MW23-S-50 Lab-Dup	RDL	QC Batch
Inorganics											
Moisture	%	4.4	8904613	11	8904705	11	1.0	8905842			
Metals											
Total Arsenic (As)	mg/kg	1.20	8918473	0.72	8920718	0.48	0.20	8920718	0.48	0.20	8920718
Total Cadmium (Cd)	mg/kg	0.136	8918473	0.057	8920718	<0.050	0.050	8920718	<0.050	0.050	8920718
Total Chromium (Cr)	mg/kg	45.3	8918473	10.3	8920718	45.3	0.50	8920718	45.8	0.50	8920718
Total Cobalt (Co)	mg/kg	13.9	8918473	8.60	8920718	8.26	0.10	8920718	8.37	0.10	8920718
Total Copper (Cu)	mg/kg	14.7	8918473	5.71	8920718	16.5	0.50	8920718	16.8	0.50	8920718
Total Lead (Pb)	mg/kg	14.0	8918473	5.13	8920718	8.05	0.10	8920718	8.17	0.10	8920718
Total Nickel (Ni)	mg/kg	31.3	8918473	10.1	8920718	36.0	0.50	8920718	36.6	0.50	8920718
Total Zinc (Zn)	mg/kg	63.0	8918473	48.7	8920718	35.0	1.0	8920718	37.5	1.0	8920718

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WXI245		WXI246		WXI247		WXI248	WXI249		
Sampling Date		2023/08/26		2023/08/26		2023/08/26		2023/08/26	2023/08/26		
COC Number		758140		758140		758140		758140	758140		
	UNITS	DM-31-S	QC Batch	DM-31-D	QC Batch	DM-32-S	QC Batch	DM-32-D	DM-33-S	RDL	QC Batch
Inorganics											
Moisture	%	21	8905730	16	8905842	23	8904705	18	21	1.0	8905728
Metals											
Total Arsenic (As)	mg/kg	0.63	8920718	0.98	8920718	2.11	8920718	2.30	0.63	0.20	8920718
Total Cadmium (Cd)	mg/kg	0.084	8920718	0.076	8920718	0.050	8920718	0.184	0.054	0.050	8920718
Total Chromium (Cr)	mg/kg	125	8920718	136	8920718	215	8920718	227	46.6	0.50	8920718
Total Cobalt (Co)	mg/kg	10.9	8920718	13.1	8920718	11.7	8920718	13.1	11.7	0.10	8920718
Total Copper (Cu)	mg/kg	39.3	8920718	52.6	8920718	65.1	8920718	79.5	17.2	0.50	8920718
Total Lead (Pb)	mg/kg	5.58	8920718	6.65	8920718	13.4	8920718	15.1	3.02	0.10	8920718
Total Nickel (Ni)	mg/kg	35.7	8920718	44.7	8920718	37.7	8920718	43.9	53.4	0.50	8920718
Total Zinc (Zn)	mg/kg	104	8920718	113	8920718	146	8920718	153	38.8	1.0	8920718

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WXI250		WXI251	WXI252		WXI253	WXI254		
Sampling Date		2023/08/26		2023/08/26	2023/08/26		2023/08/26	2023/08/26		
COC Number		758140		758140	758140		758140	758140		
	UNITS	DM-33-D	QC Batch	DM-34-S	DM-34-D	QC Batch	DM-37-S	DM-37-D	RDL	QC Batch
Inorganics										
Moisture	%	19	8905730	18	20	8904613	8.4	15	1.0	8904705
Metals										
Total Arsenic (As)	mg/kg	0.54	8920718	0.49	0.41	8920718	0.64	0.44	0.20	8920718
Total Cadmium (Cd)	mg/kg	<0.050	8920718	<0.050	<0.050	8920718	<0.050	<0.050	0.050	8920718
Total Chromium (Cr)	mg/kg	47.8	8920718	28.8	24.4	8920718	76.9	44.4	0.50	8920718
Total Cobalt (Co)	mg/kg	11.4	8920718	14.0	11.0	8920718	7.27	8.16	0.10	8920718
Total Copper (Cu)	mg/kg	16.6	8920718	24.7	16.9	8920718	24.3	16.1	0.50	8920718
Total Lead (Pb)	mg/kg	2.80	8920718	6.31	4.77	8920718	2.74	7.93	0.10	8920718
Total Nickel (Ni)	mg/kg	60.4	8920718	40.2	41.2	8920718	33.9	35.7	0.50	8920718
Total Zinc (Zn)	mg/kg	40.1	8920718	54.0	41.5	8920718	67.3	34.8	1.0	8920718

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXI255	WXI256		WXI257		WXI258		WXI259		
Sampling Date		2023/08/26	2023/08/26		2023/08/26		2023/08/26		2023/08/26		
COC Number		758140	758140		758140		758140		758140		
	UNITS	DM-38-S	DM-38-D	QC Batch	DM-39-S	QC Batch	DM-39-D	QC Batch	MW23-S-60	RDL	QC Batch
Inorganics											
Moisture	%	15	10	8905842	23	8904613	18	8905730	18	1.0	8904613
Metals											
Total Arsenic (As)	mg/kg	0.68	230	8920718	0.66	8920718	0.57	8920718	0.48	0.20	8920718
Total Cadmium (Cd)	mg/kg	0.226	229	8920718	0.109	8920718	0.082	8920718	<0.050	0.050	8920718
Total Chromium (Cr)	mg/kg	62.9	281	8920718	129	8920718	129	8920718	33.8	0.50	8920718
Total Cobalt (Co)	mg/kg	12.0	223	8920718	9.85	8920718	10.7	8920718	8.64	0.10	8920718
Total Copper (Cu)	mg/kg	49.2	236	8920718	71.2	8920718	58.5	8920718	12.8	0.50	8920718
Total Lead (Pb)	mg/kg	52.9	243	8920718	3.98	8920718	4.19	8920718	2.60	0.10	8920718
Total Nickel (Ni)	mg/kg	52.7	251	8920718	32.8	8920718	40.3	8920718	51.0	0.50	8920718
Total Zinc (Zn)	mg/kg	179	250	8920718	117	8920718	123	8920718	30.2	1.0	8920718

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WXI260		WXI261	WXI262	WXI263	WXI264		
Sampling Date		2023/08/26		2023/08/26	2023/08/26	2023/08/26	2023/08/26		
COC Number		758140		758140	758140	758140	758140		
	UNITS	DM-42-S	QC Batch	DM-42-D	DM-43-S	DM-43-D	DM-44-S	RDL	QC Batch
Inorganics									
Moisture	%	6.0	8904613	22	3.9	4.6	15	1.0	8904613
Metals									
Total Arsenic (As)	mg/kg	0.59	8920718	0.54	0.44	0.32	2.88	0.20	8920719
Total Cadmium (Cd)	mg/kg	0.051	8920718	0.057	0.050	<0.050	0.189	0.050	8920719
Total Chromium (Cr)	mg/kg	124	8920718	110	80.4	70.4	154	0.50	8920719
Total Cobalt (Co)	mg/kg	8.91	8920718	8.87	11.0	9.23	7.10	0.10	8920719
Total Copper (Cu)	mg/kg	39.3	8920718	47.6	28.8	25.3	113	0.50	8920719
Total Lead (Pb)	mg/kg	3.87	8920718	2.95	2.39	1.63	7.16	0.10	8920719
Total Nickel (Ni)	mg/kg	29.6	8920718	29.1	45.7	36.5	22.3	0.50	8920719
Total Zinc (Zn)	mg/kg	115	8920718	92.9	57.2	46.7	153	1.0	8920719

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXI265		WXI266		WXI267	WXI268		
Sampling Date		2023/08/26		2023/08/27		2023/08/27	2023/08/27		
COC Number		758140		758140		758140	758140		
	UNITS	DM-44-D	QC Batch	MW06-18-SOIL-S	QC Batch	MW06-18-SOIL-D	MW06-19-SOIL-S	RDL	QC Batch
Inorganics									
Moisture	%	23	8904705	12	8904613	16	15	1.0	8905728
Metals									
Total Arsenic (As)	mg/kg	2.47	8920719	0.33	8920719	0.31	0.34	0.20	8920719
Total Cadmium (Cd)	mg/kg	0.138	8920719	<0.050	8920719	<0.050	<0.050	0.050	8920719
Total Chromium (Cr)	mg/kg	137	8920719	6.57	8920719	18.3	19.5	0.50	8920719
Total Cobalt (Co)	mg/kg	8.18	8920719	3.54	8920719	8.37	7.57	0.10	8920719
Total Copper (Cu)	mg/kg	105	8920719	5.80	8920719	11.1	10.0	0.50	8920719
Total Lead (Pb)	mg/kg	6.24	8920719	3.24	8920719	4.53	4.07	0.10	8920719
Total Nickel (Ni)	mg/kg	31.7	8920719	14.1	8920719	52.0	47.9	0.50	8920719
Total Zinc (Zn)	mg/kg	140	8920719	17.7	8920719	24.3	23.6	1.0	8920719

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WXI269		WXI270		WXI271		
Sampling Date		2023/08/27		2023/08/27		2023/08/27		
COC Number		758140		758140		758140		
	UNITS	MW06-20-SOIL-S	QC Batch	MW06-20-SOIL-D	QC Batch	MW07-21-SOIL-S	RDL	QC Batch
Inorganics								
Moisture	%	17	8905730	6.9	8905728	15	1.0	8905730
Metals								
Total Arsenic (As)	mg/kg	0.34	8920719	0.66	8920719	0.57	0.20	8920719
Total Cadmium (Cd)	mg/kg	<0.050	8920719	<0.050	8920719	<0.050	0.050	8920719
Total Chromium (Cr)	mg/kg	14.6	8920719	18.6	8920719	30.3	0.50	8920719
Total Cobalt (Co)	mg/kg	8.23	8920719	9.35	8920719	11.8	0.10	8920719
Total Copper (Cu)	mg/kg	13.0	8920719	15.9	8920719	20.9	0.50	8920719
Total Lead (Pb)	mg/kg	2.50	8920719	2.89	8920719	5.75	0.10	8920719
Total Nickel (Ni)	mg/kg	41.5	8920719	51.0	8920719	65.6	0.50	8920719
Total Zinc (Zn)	mg/kg	25.9	8920719	31.8	8920719	35.5	1.0	8920719

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXI272	WXI273	WXI274		WXI275		
Sampling Date		2023/08/27	2023/08/27	2023/08/27		2023/08/27		
COC Number		758140	758140	758140		758140		
	UNITS	MW07-21-SOIL-D	MW23-S-110	MW05-09-SOIL-S	QC Batch	MW05-09-SOIL-D	RDL	QC Batch
Inorganics								
Moisture	%	12	12	15	8905728	15	1.0	8905730
Metals								
Total Arsenic (As)	mg/kg	0.50	0.39	0.98	8920719	0.63	0.20	8920719
Total Cadmium (Cd)	mg/kg	<0.050	<0.050	0.132	8920719	0.083	0.050	8920719
Total Chromium (Cr)	mg/kg	27.0	20.2	48.6	8920719	31.8	0.50	8920719
Total Cobalt (Co)	mg/kg	11.5	8.95	7.17	8920719	6.08	0.10	8920719
Total Copper (Cu)	mg/kg	19.2	14.6	24.0	8920719	15.7	0.50	8920719
Total Lead (Pb)	mg/kg	5.01	3.89	14.7	8920719	13.4	0.10	8920719
Total Nickel (Ni)	mg/kg	68.4	52.2	27.2	8920719	19.9	0.50	8920719
Total Zinc (Zn)	mg/kg	32.5	26.6	45.6	8920719	34.2	1.0	8920719

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WXI276			WXI276			WXI277		
Sampling Date		2023/08/27			2023/08/27			2023/08/27		
COC Number		758140			758140			758140		
	UNITS	MW05-12-SOIL-S	RDL	QC Batch	MW05-12-SOIL-S Lab-Dup	RDL	QC Batch	MW05-12-SOIL-D	RDL	QC Batch
Inorganics										
Moisture	%	15	1.0	8905730				16	1.0	8904705
Metals										
Total Arsenic (As)	mg/kg	1.12	0.20	8920719	1.05	0.20	8920719	0.83	0.20	8920719
Total Cadmium (Cd)	mg/kg	0.056	0.050	8920719	0.064	0.050	8920719	0.081	0.050	8920719
Total Chromium (Cr)	mg/kg	71.3	0.50	8920719	70.8	0.50	8920719	52.5	0.50	8920719
Total Cobalt (Co)	mg/kg	10.4	0.10	8920719	10.4	0.10	8920719	7.81	0.10	8920719
Total Copper (Cu)	mg/kg	28.7	0.50	8920719	27.7	0.50	8920719	19.8	0.50	8920719
Total Lead (Pb)	mg/kg	4.77	0.10	8920719	4.81	0.10	8920719	5.29	0.10	8920719
Total Nickel (Ni)	mg/kg	39.2	0.50	8920719	38.6	0.50	8920719	29.6	0.50	8920719
Total Zinc (Zn)	mg/kg	49.4	1.0	8920719	49.0	1.0	8920719	37.9	1.0	8920719

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WXI278		WXI279	WXI280		WXI281		
Sampling Date		2023/08/27		2023/08/27	2023/08/27		2023/08/27		
COC Number		758140		758140	758140		758140		
	UNITS	MW09-26-SOIL-S	QC Batch	MW09-26-SOIL-D	MW09-27-SOIL-S	QC Batch	MW09-27-SOIL-D	RDL	QC Batch
Inorganics									
Moisture	%	13	8905730	11	14	8905728	10	1.0	8904705
Metals									
Total Arsenic (As)	mg/kg	1.06	8920719	0.94	1.22	8920720	0.94	0.20	8920720
Total Cadmium (Cd)	mg/kg	0.052	8920719	0.067	0.075	8920720	<0.050	0.050	8920720
Total Chromium (Cr)	mg/kg	69.8	8920719	55.3	54.3	8920720	46.7	0.50	8920720
Total Cobalt (Co)	mg/kg	9.83	8920719	8.17	7.52	8920720	6.66	0.10	8920720
Total Copper (Cu)	mg/kg	26.1	8920719	19.6	21.9	8920720	19.7	0.50	8920720
Total Lead (Pb)	mg/kg	4.25	8920719	3.38	10.2	8920720	3.86	0.10	8920720
Total Nickel (Ni)	mg/kg	38.4	8920719	30.0	28.4	8920720	25.2	0.50	8920720
Total Zinc (Zn)	mg/kg	47.5	8920719	36.6	39.4	8920720	31.4	1.0	8920720

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WXI282		WXI283		WXI284		WXI285		
Sampling Date		2023/08/27		2023/08/27		2023/08/27		2023/08/27		
COC Number		758140		758140		758140		758140		
	UNITS	MW09-28-SOIL-S	QC Batch	MW09-28-SOIL-D	QC Batch	MW23-S-25	QC Batch	MW23-S-40	RDL	QC Batch
Inorganics										
Moisture	%	13	8905728	24	8905730	17	8905728	18	1.0	8904613
Metals										
Total Arsenic (As)	mg/kg	1.90	8920720	1.78	8920720	2.03	8920720	0.94	0.20	8920720
Total Cadmium (Cd)	mg/kg	0.138	8920720	0.127	8920720	0.142	8920720	<0.050	0.050	8920720
Total Chromium (Cr)	mg/kg	78.6	8920720	84.9	8920720	73.7	8920720	56.5	0.50	8920720
Total Cobalt (Co)	mg/kg	9.79	8920720	11.2	8920720	10.0	8920720	8.07	0.10	8920720
Total Copper (Cu)	mg/kg	40.9	8920720	47.9	8920720	39.8	8920720	20.9	0.50	8920720
Total Lead (Pb)	mg/kg	15.9	8920720	14.8	8920720	15.4	8920720	3.66	0.10	8920720
Total Nickel (Ni)	mg/kg	38.0	8920720	43.1	8920720	37.7	8920720	30.7	0.50	8920720
Total Zinc (Zn)	mg/kg	64.5	8920720	67.0	8920720	63.1	8920720	37.9	1.0	8920720

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXI286		WXI287	WXI288		WXI289		WXI290		
Sampling Date		2023/08/28		2023/08/28	2023/08/28		2023/08/28		2023/08/28		
COC Number		758140		758140	758140		758140		758140		
	UNITS	DM-18-S	QC Batch	DM-18-D	DM-19-S	QC Batch	DM-19-D	QC Batch	DM-20-S	RDL	QC Batch
Inorganics											
Moisture	%	16	8905728	13	5.0	8905730	18	8905842	19	1.0	8904705
Metals											
Total Arsenic (As)	mg/kg	3.28	8920720	2.05	0.53	8920720	0.44	8920720	0.61	0.20	8920720
Total Cadmium (Cd)	mg/kg	<0.050	8920720	<0.050	<0.050	8920720	<0.050	8920720	0.071	0.050	8920720
Total Chromium (Cr)	mg/kg	68.1	8920720	50.7	21.9	8920720	17.4	8920720	22.2	0.50	8920720
Total Cobalt (Co)	mg/kg	15.2	8920720	13.0	7.16	8920720	6.30	8920720	7.09	0.10	8920720
Total Copper (Cu)	mg/kg	50.0	8920720	40.1	21.1	8920720	19.6	8920720	13.1	0.50	8920720
Total Lead (Pb)	mg/kg	3.93	8920720	7.07	5.60	8920720	4.40	8920720	4.74	0.10	8920720
Total Nickel (Ni)	mg/kg	97.9	8920720	65.9	27.2	8920720	25.1	8920720	43.4	0.50	8920720
Total Zinc (Zn)	mg/kg	32.4	8920720	34.3	38.0	8920720	30.2	8920720	29.0	1.0	8920720

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WXI291		WXI292			WXI292			WXI293		
Sampling Date		2023/08/28		2023/08/28			2023/08/28			2023/08/28		
COC Number		758140		758140			758140			758140		
	UNITS	DM-20-D	QC Batch	DM-21-S	RDL	QC Batch	DM-21-S Lab-Dup	RDL	QC Batch	DM-21-D	RDL	QC Batch
Inorganics												
Moisture	%	5.4	8905728	9.0	1.0	8904705	8.7	1.0	8904705	20	1.0	8905728
Metals												
Total Arsenic (As)	mg/kg	0.44	8920720	1.05	0.20	8920720				1.12	0.20	8920720
Total Cadmium (Cd)	mg/kg	<0.050	8920720	<0.050	0.050	8920720				<0.050	0.050	8920720
Total Chromium (Cr)	mg/kg	17.4	8920720	16.0	0.50	8920720				14.0	0.50	8920720
Total Cobalt (Co)	mg/kg	6.78	8920720	8.00	0.10	8920720				9.73	0.10	8920720
Total Copper (Cu)	mg/kg	12.1	8920720	15.6	0.50	8920720				19.1	0.50	8920720
Total Lead (Pb)	mg/kg	4.75	8920720	13.3	0.10	8920720				12.8	0.10	8920720
Total Nickel (Ni)	mg/kg	40.9	8920720	23.1	0.50	8920720				17.9	0.50	8920720
Total Zinc (Zn)	mg/kg	24.9	8920720	81.5	1.0	8920720				124	1.0	8920720

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WXI294			WXI294			WXI295		
Sampling Date		2023/08/28			2023/08/28			2023/08/28		
COC Number		758140			758140			758140		
	UNITS	DM-22-S	RDL	QC Batch	DM-22-S Lab-Dup	RDL	QC Batch	DM-22-D	RDL	QC Batch
Inorganics										
Moisture	%	19	1.0	8905730				22	1.0	8905730
Metals										
Total Arsenic (As)	mg/kg	0.93	0.20	8920720	0.98	0.20	8920720	0.86	0.20	8920720
Total Cadmium (Cd)	mg/kg	<0.050	0.050	8920720	<0.050	0.050	8920720	<0.050	0.050	8920720
Total Chromium (Cr)	mg/kg	33.0	0.50	8920720	33.3	0.50	8920720	38.4	0.50	8920720
Total Cobalt (Co)	mg/kg	8.90	0.10	8920720	9.20	0.10	8920720	15.8	0.10	8920720
Total Copper (Cu)	mg/kg	38.6	0.50	8920720	39.6	0.50	8920720	61.0	0.50	8920720
Total Lead (Pb)	mg/kg	8.27	0.10	8920720	9.70	0.10	8920720	11.5	0.10	8920720
Total Nickel (Ni)	mg/kg	42.1	0.50	8920720	43.6	0.50	8920720	47.5	0.50	8920720
Total Zinc (Zn)	mg/kg	54.5	1.0	8920720	56.6	1.0	8920720	86.6	1.0	8920720

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WXI296		WXI297		WXI298	WXI299	WXI300		
Sampling Date		2023/08/28		2023/08/28		2023/08/28	2023/08/28	2023/08/28		
COC Number		758140		758140		758140	758140	758140		
	UNITS	MW23-S-120	QC Batch	DM-23-S	QC Batch	DM-23-D	DM-24-S	DM-24-D	RDL	QC Batch
Inorganics										
Moisture	%	6.8	8904705	17	8905730	14	13	18	1.0	8905728
Metals										
Total Arsenic (As)	mg/kg	3.61	8920720	0.64	8920721	1.01	0.45	0.58	0.20	8920721
Total Cadmium (Cd)	mg/kg	<0.050	8920720	<0.050	8920721	0.057	<0.050	<0.050	0.050	8920721
Total Chromium (Cr)	mg/kg	84.3	8920720	14.7	8920721	15.5	87.1	115	0.50	8920721
Total Cobalt (Co)	mg/kg	18.3	8920720	6.39	8920721	8.88	10.9	11.5	0.10	8920721
Total Copper (Cu)	mg/kg	60.3	8920720	21.9	8920721	29.5	21.9	24.7	0.50	8920721
Total Lead (Pb)	mg/kg	4.76	8920720	11.0	8920721	13.4	3.82	4.57	0.10	8920721
Total Nickel (Ni)	mg/kg	134	8920720	23.1	8920721	33.7	50.7	70.3	0.50	8920721
Total Zinc (Zn)	mg/kg	37.7	8920720	40.8	8920721	40.7	56.9	49.9	1.0	8920721

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXI301		WXI302	WXI303		WXI304		WXI305		
Sampling Date		2023/08/28		2023/08/28	2023/08/28		2023/08/28		2023/08/28		
COC Number		758140		758140	758140		758140		758140		
	UNITS	DM-25-S	QC Batch	DM-25-D	DM-26-S	QC Batch	DM-26-D	QC Batch	DM-27-S	RDL	QC Batch
Inorganics											
Moisture	%	11	8905728	8.3	5.6	8904613	19	8904705	21	1.0	8904613
Metals											
Total Arsenic (As)	mg/kg	0.76	8920721	0.74	0.66	8920721	0.49	8920721	0.73	0.20	8920721
Total Cadmium (Cd)	mg/kg	0.093	8920721	<0.050	<0.050	8920721	<0.050	8920721	<0.050	0.050	8920721
Total Chromium (Cr)	mg/kg	54.7	8920721	31.9	29.1	8920721	21.0	8920721	23.2	0.50	8920721
Total Cobalt (Co)	mg/kg	12.0	8920721	11.2	10.3	8920721	8.68	8920721	9.92	0.10	8920721
Total Copper (Cu)	mg/kg	24.7	8920721	12.3	13.2	8920721	16.3	8920721	13.2	0.50	8920721
Total Lead (Pb)	mg/kg	5.29	8920721	4.76	4.05	8920721	4.26	8920721	4.81	0.10	8920721
Total Nickel (Ni)	mg/kg	59.2	8920721	62.9	28.5	8920721	21.0	8920721	21.4	0.50	8920721
Total Zinc (Zn)	mg/kg	62.9	8920721	67.9	64.3	8920721	58.5	8920721	62.7	1.0	8920721

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WXI306	WXI307			WXI307			WXI308		
Sampling Date		2023/08/28	2023/08/28			2023/08/28			2023/08/28		
COC Number		758140	758140			758140			758140		
	UNITS	DM-27-D	DM-28-S	RDL	QC Batch	DM-28-S Lab-Dup	RDL	QC Batch	DM-28-D	RDL	QC Batch
Inorganics											
Moisture	%	17	12	1.0	8904613	12	1.0	8904613	5.1	1.0	8904705
Metals											
Total Arsenic (As)	mg/kg	0.70	0.46	0.20	8920721				0.42	0.20	8920721
Total Cadmium (Cd)	mg/kg	<0.050	<0.050	0.050	8920721				0.096	0.050	8920721
Total Chromium (Cr)	mg/kg	28.3	24.9	0.50	8920721				27.0	0.50	8920721
Total Cobalt (Co)	mg/kg	10.4	9.19	0.10	8920721				8.37	0.10	8920721
Total Copper (Cu)	mg/kg	15.6	11.8	0.50	8920721				13.4	0.50	8920721
Total Lead (Pb)	mg/kg	5.21	3.73	0.10	8920721				3.47	0.10	8920721
Total Nickel (Ni)	mg/kg	30.5	26.8	0.50	8920721				34.5	0.50	8920721
Total Zinc (Zn)	mg/kg	61.8	58.0	1.0	8920721				49.9	1.0	8920721

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WXI309		WXI310	WXI311			WXI311		
Sampling Date		2023/08/28		2023/08/28	2023/08/28			2023/08/28		
COC Number		758140		758140	758140			758140		
	UNITS	DM-29-S	QC Batch	DM-29-D	DM-30-S	RDL	QC Batch	DM-30-S Lab-Dup	RDL	QC Batch
Inorganics										
Moisture	%	5.9	8904613	8.1	9.0	1.0	8904705			
Metals										
Total Arsenic (As)	mg/kg	0.48	8920721	0.37	0.42	0.20	8920721	0.29	0.20	8920721
Total Cadmium (Cd)	mg/kg	<0.050	8920721	<0.050	<0.050	0.050	8920721	<0.050	0.050	8920721
Total Chromium (Cr)	mg/kg	17.3	8920721	16.7	16.7	0.50	8920721	13.7	0.50	8920721
Total Cobalt (Co)	mg/kg	6.33	8920721	6.16	5.79	0.10	8920721	5.39	0.10	8920721
Total Copper (Cu)	mg/kg	12.4	8920721	10.6	13.9	0.50	8920721	17.6	0.50	8920721
Total Lead (Pb)	mg/kg	4.58	8920721	4.12	3.78	0.10	8920721	3.51	0.10	8920721
Total Nickel (Ni)	mg/kg	33.6	8920721	39.4	22.6	0.50	8920721	21.7	0.50	8920721
Total Zinc (Zn)	mg/kg	28.1	8920721	25.4	31.9	1.0	8920721	29.1	1.0	8920721

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WXI312		WXI313		WXI314		
Sampling Date		2023/08/28		2023/08/28		2023/08/28		
COC Number		758140		758140		758140		
	UNITS	**DM-30-D**	**QC Batch**	**MW23-S-130**	**QC Batch**	**MW23-S-135**	**RDL**	**QC Batch**
Inorganics								
Moisture	%	16	8904705	17	8905842	17	1.0	8904613
Metals								
Total Arsenic (As)	mg/kg	0.30	8920721	0.80	8920721	0.51	0.20	8920721
Total Cadmium (Cd)	mg/kg	<0.050	8920721	0.061	8920721	<0.050	0.050	8920721
Total Chromium (Cr)	mg/kg	19.0	8920721	26.1	8920721	21.6	0.50	8920721
Total Cobalt (Co)	mg/kg	5.90	8920721	10.7	8920721	7.81	0.10	8920721
Total Copper (Cu)	mg/kg	15.4	8920721	15.2	8920721	15.3	0.50	8920721
Total Lead (Pb)	mg/kg	4.82	8920721	5.71	8920721	5.31	0.10	8920721
Total Nickel (Ni)	mg/kg	18.3	8920721	22.5	8920721	46.4	0.50	8920721
Total Zinc (Zn)	mg/kg	35.9	8920721	68.5	8920721	31.3	1.0	8920721

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WXI234			WXI234			WXI235	WXI236		
Sampling Date		2023/08/25			2023/08/25			2023/08/25	2023/08/25		
COC Number		758140			758140			758140	758140		
	UNITS	MW07-22-S	RDL	QC Batch	MW07-22-S Lab-Dup	RDL	QC Batch	MW07-22-D	MW07-23-S	RDL	QC Batch
BTEX & F1 Hydrocarbons											
F1 (C6-C10)	ug/g	<10	10	8905102				<10	<10	10	8905102
F2-F4 Hydrocarbons											
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	8904407	<10	10	8904407	<10	<10	10	8904407
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	8904407	<50	50	8904407	<50	<50	50	8904407
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	8904407	<50	50	8904407	<50	<50	50	8904407
Reached Baseline at C50	ug/g	Yes		8904407	Yes		8904407	Yes	Yes		8904407
Surrogate Recovery (%)											
1,4-Difluorobenzene	%	115		8905102				112	109		8905102
4-Bromofluorobenzene	%	89		8905102				91	93		8905102
D10-o-Xylene	%	101		8905102				115	99		8905102
D4-1,2-Dichloroethane	%	99		8905102				87	86		8905102
o-Terphenyl	%	98		8904407	103		8904407	100	103		8904407

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WXI236			WXI237	WXI238	WXI239	WXI240	WXI241		
Sampling Date		2023/08/25			2023/08/25	2023/08/25	2023/08/25	2023/08/25	2023/08/25		
COC Number		758140			758140	758140	758140	758140	758140		
	UNITS	MW07-23-S Lab-Dup	RDL	QC Batch	MW07-23-D	MW08-24-S	MW08-24-D	MW08-25-S	MW08-25-D	RDL	QC Batch
BTEX & F1 Hydrocarbons											
F1 (C6-C10)	ug/g	<10	10	8905102	<10	<10	<10	<10	<10	10	8905102
F2-F4 Hydrocarbons											
F2 (C10-C16 Hydrocarbons)	ug/g				<10	<10	<10	<10	<10	10	8904407
F3 (C16-C34 Hydrocarbons)	ug/g				<50	<50	<50	<50	<50	50	8904407
F4 (C34-C50 Hydrocarbons)	ug/g				<50	<50	<50	<50	<50	50	8904407
Reached Baseline at C50	ug/g				Yes	Yes	Yes	Yes	Yes		8904407
Surrogate Recovery (%)											
1,4-Difluorobenzene	%	118		8905102	106	113	106	106	105		8905102
4-Bromofluorobenzene	%	88		8905102	93	93	93	92	94		8905102
D10-o-Xylene	%	100		8905102	133	136	93	117	105		8905102
D4-1,2-Dichloroethane	%	95		8905102	96	90	97	97	95		8905102
o-Terphenyl	%				98	100	101	97	98		8904407

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WXI242	WXI243	WXI244	WXI245	WXI246		WXI247		
Sampling Date		2023/08/25	2023/08/25	2023/08/25	2023/08/26	2023/08/26		2023/08/26		
COC Number		758140	758140	758140	758140	758140		758140		
	UNITS	MW12-02-S	MW12-02-D	MW23-S-50	DM-31-S	DM-31-D	QC Batch	DM-32-S	RDL	QC Batch
BTEX & F1 Hydrocarbons										
F1 (C6-C10)	ug/g	<10	<10	<10	<10	<10	8905102	<10	10	8905102
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	<10	<10	<10	8904407	<10	10	8906288
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	<50	<50	<50	8904407	<50	50	8906288
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	<50	<50	<50	8904407	<50	50	8906288
Reached Baseline at C50	ug/g	Yes	Yes	Yes	Yes	Yes	8904407	Yes		8906288
Surrogate Recovery (%)										
1,4-Difluorobenzene	%	112	107	112	106	112	8905102	116		8905102
4-Bromofluorobenzene	%	90	93	91	97	95	8905102	91		8905102
D10-o-Xylene	%	113	127	111	137	128	8905102	125		8905102
D4-1,2-Dichloroethane	%	87	94	86	95	85	8905102	95		8905102
o-Terphenyl	%	96	101	101	106	106	8904407	97		8906288

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXI248		WXI249	WXI250		WXI251	WXI252		
Sampling Date		2023/08/26		2023/08/26	2023/08/26		2023/08/26	2023/08/26		
COC Number		758140		758140	758140		758140	758140		
	UNITS	DM-32-D	QC Batch	DM-33-S	DM-33-D	QC Batch	DM-34-S	DM-34-D	RDL	QC Batch
BTEX & F1 Hydrocarbons										
F1 (C6-C10)	ug/g	<10	8905102	<10	<10	8905102	<10	<10	10	8905102
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/g	<10	8904407	<10	<10	8904537	<10	<10	10	8904407
F3 (C16-C34 Hydrocarbons)	ug/g	<50	8904407	<50	<50	8904537	<50	<50	50	8904407
F4 (C34-C50 Hydrocarbons)	ug/g	<50	8904407	<50	<50	8904537	<50	<50	50	8904407
Reached Baseline at C50	ug/g	Yes	8904407	Yes	Yes	8904537	Yes	Yes		8904407
Surrogate Recovery (%)										
1,4-Difluorobenzene	%	111	8905102	105	105	8905102	105	105		8905102
4-Bromofluorobenzene	%	91	8905102	93	94	8905102	92	92		8905102
D10-o-Xylene	%	131	8905102	121	126	8905102	115	129		8905102
D4-1,2-Dichloroethane	%	83	8905102	98	97	8905102	100	97		8905102
o-Terphenyl	%	101	8904407	104	105	8904537	107	103		8904407

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WXI253		WXI254		WXI255			WXI255		
Sampling Date		2023/08/26		2023/08/26		2023/08/26			2023/08/26		
COC Number		758140		758140		758140			758140		
	UNITS	DM-37-S	QC Batch	DM-37-D	QC Batch	DM-38-S	RDL	QC Batch	DM-38-S Lab-Dup	RDL	QC Batch
BTEX & F1 Hydrocarbons											
F1 (C6-C10)	ug/g	<10	8905102	<10	8905139	<10	10	8905139	<10	10	8905139
F2-F4 Hydrocarbons											
F2 (C10-C16 Hydrocarbons)	ug/g	<10	8904407	<10	8904537	<10	10	8904407			
F3 (C16-C34 Hydrocarbons)	ug/g	<50	8904407	<50	8904537	<50	50	8904407			
F4 (C34-C50 Hydrocarbons)	ug/g	<50	8904407	<50	8904537	<50	50	8904407			
Reached Baseline at C50	ug/g	Yes	8904407	Yes	8904537	Yes		8904407			
Surrogate Recovery (%)											
1,4-Difluorobenzene	%	111	8905102	100	8905139	100		8905139	100		8905139
4-Bromofluorobenzene	%	93	8905102	110	8905139	109		8905139	111		8905139
D10-o-Xylene	%	108	8905102	90	8905139	114		8905139	114		8905139
D4-1,2-Dichloroethane	%	82	8905102	115	8905139	115		8905139	116		8905139
o-Terphenyl	%	102	8904407	104	8904537	101		8904407			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WXI256		WXI257		WXI258	WXI259	WXI260		
Sampling Date		2023/08/26		2023/08/26		2023/08/26	2023/08/26	2023/08/26		
COC Number		758140		758140		758140	758140	758140		
	UNITS	DM-38-D	QC Batch	DM-39-S	QC Batch	DM-39-D	MW23-S-60	DM-42-S	RDL	QC Batch
BTEX & F1 Hydrocarbons										
F1 (C6-C10)	ug/g	<10	8905139	<10	8905139	<10	<10	<10	10	8905139
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/g	<10	8904537	<10	8904407	<10	<10	<10	10	8904537
F3 (C16-C34 Hydrocarbons)	ug/g	<50	8904537	<50	8904407	<50	<50	<50	50	8904537
F4 (C34-C50 Hydrocarbons)	ug/g	<50	8904537	<50	8904407	<50	<50	<50	50	8904537
Reached Baseline at C50	ug/g	Yes	8904537	Yes	8904407	Yes	Yes	Yes		8904537
Surrogate Recovery (%)										
1,4-Difluorobenzene	%	100	8905139	100	8905139	109	101	101		8905139
4-Bromofluorobenzene	%	110	8905139	107	8905139	92	106	108		8905139
D10-o-Xylene	%	98	8905139	130	8905139	106	92	97		8905139
D4-1,2-Dichloroethane	%	116	8905139	121	8905139	95	115	114		8905139
o-Terphenyl	%	103	8904537	103	8904407	104	104	103		8904537

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WXI261	WXI262	WXI263		WXI264		WXI265		
Sampling Date		2023/08/26	2023/08/26	2023/08/26		2023/08/26		2023/08/26		
COC Number		758140	758140	758140		758140		758140		
	UNITS	DM-42-D	DM-43-S	DM-43-D	QC Batch	DM-44-S	QC Batch	DM-44-D	RDL	QC Batch
BTEX & F1 Hydrocarbons										
F1 (C6-C10)	ug/g	<10	<10	<10	8905139	<10	8905139	<10	10	8905139
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	<10	8904537	<10	8906288	<10	10	8904537
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	<50	8904537	<50	8906288	<50	50	8904537
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	<50	8904537	<50	8906288	<50	50	8904537
Reached Baseline at C50	ug/g	Yes	Yes	Yes	8904537	Yes	8906288	Yes		8904537
Surrogate Recovery (%)										
1,4-Difluorobenzene	%	101	101	101	8905139	99	8905139	102		8905139
4-Bromofluorobenzene	%	110	110	107	8905139	108	8905139	108		8905139
D10-o-Xylene	%	95	90	90	8905139	89	8905139	95		8905139
D4-1,2-Dichloroethane	%	116	116	116	8905139	122	8905139	114		8905139
o-Terphenyl	%	103	102	104	8904537	98	8906288	105		8904537

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXI266	WXI267	WXI268		WXI269		
Sampling Date		2023/08/27	2023/08/27	2023/08/27		2023/08/27		
COC Number		758140	758140	758140		758140		
	UNITS	MW06-18-SOIL-S	MW06-18-SOIL-D	MW06-19-SOIL-S	QC Batch	MW06-20-SOIL-S	RDL	QC Batch
BTEX & F1 Hydrocarbons								
F1 (C6-C10)	ug/g	<10	<10	<10	8905139	<10	10	8905139
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	<10	8904537	<10	10	8904940
F3 (C16-C34 Hydrocarbons)	ug/g	66	<50	<50	8904537	<50	50	8904940
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	<50	8904537	<50	50	8904940
Reached Baseline at C50	ug/g	Yes	Yes	Yes	8904537	Yes		8904940
Surrogate Recovery (%)								
1,4-Difluorobenzene	%	101	100	102	8905139	102		8905139
4-Bromofluorobenzene	%	109	109	109	8905139	105		8905139
D10-o-Xylene	%	86	91	97	8905139	96		8905139
D4-1,2-Dichloroethane	%	114	116	113	8905139	118		8905139
o-Terphenyl	%	104	105	102	8904537	96		8904940

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WXI270		WXI271	WXI272		WXI273		
Sampling Date		2023/08/27		2023/08/27	2023/08/27		2023/08/27		
COC Number		758140		758140	758140		758140		
	UNITS	MW06-20-SOIL-D	QC Batch	MW07-21-SOIL-S	MW07-21-SOIL-D	QC Batch	MW23-S-110	RDL	QC Batch
BTEX & F1 Hydrocarbons									
F1 (C6-C10)	ug/g	<10	8905139	<10	<10	8905139	<10	10	8905139
F2-F4 Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	ug/g	<10	8904537	<10	<10	8904940	<10	10	8905692
F3 (C16-C34 Hydrocarbons)	ug/g	<50	8904537	<50	<50	8904940	<50	50	8905692
F4 (C34-C50 Hydrocarbons)	ug/g	<50	8904537	<50	<50	8904940	<50	50	8905692
Reached Baseline at C50	ug/g	Yes	8904537	Yes	Yes	8904940	Yes		8905692
Surrogate Recovery (%)									
1,4-Difluorobenzene	%	101	8905139	102	101	8905139	102		8905139
4-Bromofluorobenzene	%	109	8905139	108	110	8905139	107		8905139
D10-o-Xylene	%	87	8905139	89	90	8905139	96		8905139
D4-1,2-Dichloroethane	%	115	8905139	117	118	8905139	117		8905139
o-Terphenyl	%	102	8904537	95	94	8904940	106		8905692

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXI274		WXI275			WXI275		
Sampling Date		2023/08/27		2023/08/27			2023/08/27		
COC Number		758140		758140			758140		
	UNITS	MW05-09-SOIL-S	QC Batch	MW05-09-SOIL-D	RDL	QC Batch	MW05-09-SOIL-D Lab-Dup	RDL	QC Batch
BTEX & F1 Hydrocarbons									
F1 (C6-C10)	ug/g	<10	8905299	260	10	8905299			
F2-F4 Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	ug/g	120	8904940	1200	10	8904537	1500	10	8904537
F3 (C16-C34 Hydrocarbons)	ug/g	110	8904940	86	50	8904537	100	50	8904537
F4 (C34-C50 Hydrocarbons)	ug/g	<50	8904940	<50	50	8904537	<50	50	8904537
Reached Baseline at C50	ug/g	Yes	8904940	Yes		8904537	Yes		8904537
Surrogate Recovery (%)									
1,4-Difluorobenzene	%	103	8905299	96		8905299			
4-Bromofluorobenzene	%	95	8905299	126		8905299			
D10-o-Xylene	%	165 (1)	8905299	169 (1)		8905299			
D4-1,2-Dichloroethane	%	101	8905299	93		8905299			
o-Terphenyl	%	93	8904940	101		8904537	102		8904537

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
(1) The recovery of the extraction surrogate compound was above the upper control limit. Visible loss of methanol was observed in this sample. As a result, there is an increased level of uncertainty.

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WXI276		WXI277		WXI278	WXI278		
Sampling Date		2023/08/27		2023/08/27		2023/08/27	2023/08/27		
COC Number		758140		758140		758140	758140		
	UNITS	MW05-12-SOIL-S	QC Batch	MW05-12-SOIL-D	QC Batch	MW09-26-SOIL-S	MW09-26-SOIL-S Lab-Dup	RDL	QC Batch
BTEX & F1 Hydrocarbons									
F1 (C6-C10)	ug/g	<10	8905299	<10	8905299	<10	<10	10	8905299
F2-F4 Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	ug/g	<10	8904940	<10	8904537	<10	<10	10	8904940
F3 (C16-C34 Hydrocarbons)	ug/g	<50	8904940	<50	8904537	<50	<50	50	8904940
F4 (C34-C50 Hydrocarbons)	ug/g	<50	8904940	<50	8904537	<50	<50	50	8904940
Reached Baseline at C50	ug/g	Yes	8904940	Yes	8904537	Yes	Yes		8904940
Surrogate Recovery (%)									
1,4-Difluorobenzene	%	102	8905299	102	8905299	103	104		8905299
4-Bromofluorobenzene	%	96	8905299	97	8905299	96	95		8905299
D10-o-Xylene	%	99	8905299	112	8905299	115	121		8905299
D4-1,2-Dichloroethane	%	95	8905299	98	8905299	99	99		8905299
o-Terphenyl	%	92	8904940	104	8904537	94	97		8904940

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WXI279	WXI280		WXI281		WXI282		
Sampling Date		2023/08/27	2023/08/27		2023/08/27		2023/08/27		
COC Number		758140	758140		758140		758140		
	UNITS	MW09-26-SOIL-D	MW09-27-SOIL-S	QC Batch	MW09-27-SOIL-D	QC Batch	MW09-28-SOIL-S	RDL	QC Batch
BTEX & F1 Hydrocarbons									
F1 (C6-C10)	ug/g	<10	<10	8905299	<10	8905299	<10	10	8905299
F2-F4 Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	8904940	<10	8904537	<10	10	8904940
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	8904940	<50	8904537	<50	50	8904940
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	8904940	<50	8904537	<50	50	8904940
Reached Baseline at C50	ug/g	Yes	Yes	8904940	Yes	8904537	Yes		8904940
Surrogate Recovery (%)									
1,4-Difluorobenzene	%	104	103	8905299	103	8905299	103		8905299
4-Bromofluorobenzene	%	96	95	8905299	98	8905299	97		8905299
D10-o-Xylene	%	105	136	8905299	111	8905299	131		8905299
D4-1,2-Dichloroethane	%	99	98	8905299	100	8905299	101		8905299
o-Terphenyl	%	96	97	8904940	103	8904537	95		8904940

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WXI283	WXI284		WXI285		WXI286		
Sampling Date		2023/08/27	2023/08/27		2023/08/27		2023/08/28		
COC Number		758140	758140		758140		758140		
	UNITS	MW09-28-SOIL-D	MW23-S-25	QC Batch	MW23-S-40	QC Batch	DM-18-S	RDL	QC Batch
BTEX & F1 Hydrocarbons									
F1 (C6-C10)	ug/g	<10	<10	8905299	<10	8905299	<10	10	8905299
F2-F4 Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	8904940	<10	8904537	<10	10	8904940
F3 (C16-C34 Hydrocarbons)	ug/g	53	<50	8904940	<50	8904537	<50	50	8904940
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	8904940	<50	8904537	<50	50	8904940
Reached Baseline at C50	ug/g	Yes	Yes	8904940	Yes	8904537	Yes		8904940
Surrogate Recovery (%)									
1,4-Difluorobenzene	%	102	102	8905299	103	8905299	104		8905299
4-Bromofluorobenzene	%	98	97	8905299	97	8905299	96		8905299
D10-o-Xylene	%	146 (1)	105	8905299	104	8905299	101		8905299
D4-1,2-Dichloroethane	%	99	99	8905299	99	8905299	100		8905299
o-Terphenyl	%	94	95	8904940	100	8904537	94		8904940

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) The recovery of the extraction surrogate compound was above the upper control limit. Visible loss of methanol was observed in this sample. As a result, there is an increased level of uncertainty.

Bureau Veritas ID		WXI287	WXI288	WXI289		WXI290	WXI291		
Sampling Date		2023/08/28	2023/08/28	2023/08/28		2023/08/28	2023/08/28		
COC Number		758140	758140	758140		758140	758140		
	UNITS	DM-18-D	DM-19-S	DM-19-D	QC Batch	DM-20-S	DM-20-D	RDL	QC Batch
BTEX & F1 Hydrocarbons									
F1 (C6-C10)	ug/g	<10	<10	<10	8905299	<10	<10	10	8905299
F2-F4 Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	ug/g	15	<10	<10	8905692	<10	<10	10	8904940
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	<50	8905692	<50	<50	50	8904940
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	<50	8905692	<50	<50	50	8904940
Reached Baseline at C50	ug/g	Yes	Yes	Yes	8905692	Yes	Yes		8904940
Surrogate Recovery (%)									
1,4-Difluorobenzene	%	102	102	103	8905299	103	105		8905299
4-Bromofluorobenzene	%	97	96	96	8905299	96	95		8905299
D10-o-Xylene	%	100	98	100	8905299	105	95		8905299
D4-1,2-Dichloroethane	%	100	100	99	8905299	100	99		8905299
o-Terphenyl	%	106	105	105	8905692	93	97		8904940

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WXI292		WXI293		WXI294	WXI295		WXI296		
Sampling Date		2023/08/28		2023/08/28		2023/08/28	2023/08/28		2023/08/28		
COC Number		758140		758140		758140	758140		758140		
	UNITS	DM-21-S	QC Batch	DM-21-D	QC Batch	DM-22-S	DM-22-D	QC Batch	MW23-S-120	RDL	QC Batch
BTEX & F1 Hydrocarbons											
F1 (C6-C10)	ug/g	<10	8905299	<10	8905299	<10	<10	8905756	<10	10	8905756
F2-F4 Hydrocarbons											
F2 (C10-C16 Hydrocarbons)	ug/g	<10	8905692	<10	8904940	<10	<10	8905692	<10	10	8904940
F3 (C16-C34 Hydrocarbons)	ug/g	<50	8905692	<50	8904940	<50	<50	8905692	<50	50	8904940
F4 (C34-C50 Hydrocarbons)	ug/g	<50	8905692	<50	8904940	<50	<50	8905692	<50	50	8904940
Reached Baseline at C50	ug/g	Yes	8905692	Yes	8904940	Yes	Yes	8905692	Yes		8904940
Surrogate Recovery (%)											
1,4-Difluorobenzene	%	104	8905299	103	8905299	101	101	8905756	100		8905756
4-Bromofluorobenzene	%	96	8905299	97	8905299	97	96	8905756	96		8905756
D10-o-Xylene	%	94	8905299	104	8905299	96	107	8905756	96		8905756
D4-1,2-Dichloroethane	%	99	8905299	103	8905299	103	105	8905756	104		8905756
o-Terphenyl	%	104	8905692	94	8904940	105	104	8905692	98		8904940

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXI297		WXI298	WXI299	WXI300	WXI301		
Sampling Date		2023/08/28		2023/08/28	2023/08/28	2023/08/28	2023/08/28		
COC Number		758140		758140	758140	758140	758140		
	UNITS	DM-23-S	QC Batch	DM-23-D	DM-24-S	DM-24-D	DM-25-S	RDL	QC Batch
BTEX & F1 Hydrocarbons									
F1 (C6-C10)	ug/g	<10	8905756	<10	<10	<10	<10	10	8905756
F2-F4 Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	ug/g	<10	8905692	<10	<10	<10	<10	10	8904940
F3 (C16-C34 Hydrocarbons)	ug/g	<50	8905692	<50	<50	<50	<50	50	8904940
F4 (C34-C50 Hydrocarbons)	ug/g	<50	8905692	<50	<50	<50	<50	50	8904940
Reached Baseline at C50	ug/g	Yes	8905692	Yes	Yes	Yes	Yes		8904940
Surrogate Recovery (%)									
1,4-Difluorobenzene	%	100	8905756	101	100	101	101		8905756
4-Bromofluorobenzene	%	96	8905756	95	99	96	95		8905756
D10-o-Xylene	%	97	8905756	102	125	94	92		8905756
D4-1,2-Dichloroethane	%	104	8905756	104	106	103	103		8905756
o-Terphenyl	%	107	8905692	99	97	94	93		8904940

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WXI302	WXI303	WXI303	WXI304	WXI305	WXI306	WXI307		
Sampling Date		2023/08/28	2023/08/28	2023/08/28	2023/08/28	2023/08/28	2023/08/28	2023/08/28		
COC Number		758140	758140	758140	758140	758140	758140	758140		
	UNITS	DM-25-D	DM-26-S	DM-26-S Lab-Dup	DM-26-D	DM-27-S	DM-27-D	DM-28-S	RDL	QC Batch
BTEX & F1 Hydrocarbons										
F1 (C6-C10)	ug/g	<10	<10	<10	<10	<10	<10	<10	10	8905756
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	<10	<10	<10	<10	<10	10	8905692
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	<50	<50	<50	<50	<50	50	8905692
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	<50	<50	<50	<50	<50	50	8905692
Reached Baseline at C50	ug/g	Yes	Yes	Yes	Yes	Yes	Yes	Yes		8905692
Surrogate Recovery (%)										
1,4-Difluorobenzene	%	100	101	100	100	100	108	102		8905756
4-Bromofluorobenzene	%	96	94	97	95	97	95	97		8905756
D10-o-Xylene	%	93	88	86	95	89	94	96		8905756
D4-1,2-Dichloroethane	%	104	103	104	104	103	94	103		8905756
o-Terphenyl	%	105	107	105	98	97	101	94		8905692

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WXI308	WXI309	WXI310	WXI311	WXI312	WXI313		
Sampling Date		2023/08/28	2023/08/28	2023/08/28	2023/08/28	2023/08/28	2023/08/28		
COC Number		758140	758140	758140	758140	758140	758140		
	UNITS	DM-28-D	DM-29-S	DM-29-D	DM-30-S	DM-30-D	MW23-S-130	RDL	QC Batch
BTEX & F1 Hydrocarbons									
F1 (C6-C10)	ug/g	<10	<10	<10	<10	<10	<10	10	8905756
F2-F4 Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	<10	<10	<10	<10	10	8905692
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	<50	<50	<50	<50	50	8905692
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	<50	<50	<50	<50	50	8905692
Reached Baseline at C50	ug/g	Yes	Yes	Yes	Yes	Yes	Yes		8905692
Surrogate Recovery (%)									
1,4-Difluorobenzene	%	100	102	101	99	101	102		8905756
4-Bromofluorobenzene	%	97	93	96	97	98	95		8905756
D10-o-Xylene	%	96	90	93	95	93	97		8905756
D4-1,2-Dichloroethane	%	103	103	104	104	104	103		8905756
o-Terphenyl	%	99	99	97	101	97	97		8905692

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WXI314		
Sampling Date		2023/08/28		
COC Number		758140		
	UNITS	**MW23-S-135**	**RDL**	**QC Batch**
BTEX & F1 Hydrocarbons				
F1 (C6-C10)	ug/g	<10	10	8906030
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	8904537
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	8904537
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	8904537
Reached Baseline at C50	ug/g	Yes		8904537
Surrogate Recovery (%)				
1,4-Difluorobenzene	%	105		8906030
4-Bromofluorobenzene	%	93		8906030
D10-o-Xylene	%	105		8906030
D4-1,2-Dichloroethane	%	102		8906030
o-Terphenyl	%	94		8904537

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Bureau Veritas ID		WXI234	WXI234	WXI235		WXI236	WXI237	WXI238		
Sampling Date		2023/08/25	2023/08/25	2023/08/25		2023/08/25	2023/08/25	2023/08/25		
COC Number		758140	758140	758140		758140	758140	758140		
	UNITS	MW07-22-S	MW07-22-S Lab-Dup	MW07-22-D	QC Batch	MW07-23-S	MW07-23-D	MW08-24-S	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	<0.010	<0.010	8904550	<0.010	<0.010	<0.010	0.010	8906260
Aroclor 1221	ug/g	<0.010	<0.010	<0.010	8904550	<0.010	<0.010	<0.010	0.010	8906260
Aroclor 1232	ug/g	<0.010	<0.010	<0.010	8904550	<0.010	<0.010	<0.010	0.010	8906260
Aroclor 1242	ug/g	<0.010	<0.010	<0.010	8904550	<0.010	<0.010	<0.010	0.010	8906260
Aroclor 1248	ug/g	<0.010	<0.010	<0.010	8904550	<0.010	<0.010	<0.010	0.010	8906260
Aroclor 1254	ug/g	<0.010	<0.010	<0.010	8904550	<0.010	<0.010	<0.010	0.010	8906260
Aroclor 1260	ug/g	<0.010	<0.010	<0.010	8904550	<0.010	<0.010	<0.010	0.010	8906260
Aroclor 1262	ug/g	<0.010	<0.010	<0.010	8904550	<0.010	<0.010	<0.010	0.010	8906260
Aroclor 1268	ug/g	<0.010	<0.010	<0.010	8904550	<0.010	<0.010	<0.010	0.010	8906260
Total PCB	ug/g	<0.010	<0.010	<0.010	8904550	<0.010	<0.010	<0.010	0.010	8906260
Surrogate Recovery (%)										
Decachlorobiphenyl	%	110	117	111	8904550	101	100	117		8906260

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WXI239	WXI240	WXI241	WXI242		WXI243		
Sampling Date		2023/08/25	2023/08/25	2023/08/25	2023/08/25		2023/08/25		
COC Number		758140	758140	758140	758140		758140		
	UNITS	MW08-24-D	MW08-25-S	MW08-25-D	MW12-02-S	QC Batch	MW12-02-D	RDL	QC Batch
PCBs									
Aroclor 1016	ug/g	<0.010	<0.010	<0.010	<0.010	8906260	<0.010	0.010	8904550
Aroclor 1221	ug/g	<0.010	<0.010	<0.010	<0.010	8906260	<0.010	0.010	8904550
Aroclor 1232	ug/g	<0.010	<0.010	<0.010	<0.010	8906260	<0.010	0.010	8904550
Aroclor 1242	ug/g	<0.010	<0.010	<0.010	<0.010	8906260	<0.010	0.010	8904550
Aroclor 1248	ug/g	<0.010	<0.010	<0.010	<0.010	8906260	<0.010	0.010	8904550
Aroclor 1254	ug/g	<0.010	<0.010	<0.010	<0.010	8906260	<0.010	0.010	8904550
Aroclor 1260	ug/g	<0.010	<0.010	<0.010	<0.010	8906260	<0.010	0.010	8904550
Aroclor 1262	ug/g	<0.010	<0.010	<0.010	<0.010	8906260	<0.010	0.010	8904550
Aroclor 1268	ug/g	<0.010	<0.010	<0.010	<0.010	8906260	<0.010	0.010	8904550
Total PCB	ug/g	<0.010	<0.010	<0.010	<0.010	8906260	<0.010	0.010	8904550
Surrogate Recovery (%)									
Decachlorobiphenyl	%	104	107	112	101	8906260	114		8904550

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Bureau Veritas ID		WXI244		WXI245		WXI246		WXI247		
Sampling Date		2023/08/25		2023/08/26		2023/08/26		2023/08/26		
COC Number		758140		758140		758140		758140		
	UNITS	MW23-S-50	QC Batch	DM-31-S	QC Batch	DM-31-D	QC Batch	DM-32-S	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	8906260	<0.010	8904548	<0.010	8906260	<0.010	0.010	8904550
Aroclor 1221	ug/g	<0.010	8906260	<0.010	8904548	<0.010	8906260	<0.010	0.010	8904550
Aroclor 1232	ug/g	<0.010	8906260	<0.010	8904548	<0.010	8906260	<0.010	0.010	8904550
Aroclor 1242	ug/g	<0.010	8906260	<0.010	8904548	<0.010	8906260	<0.010	0.010	8904550
Aroclor 1248	ug/g	<0.010	8906260	<0.010	8904548	<0.010	8906260	<0.010	0.010	8904550
Aroclor 1254	ug/g	<0.010	8906260	<0.010	8904548	<0.010	8906260	<0.010	0.010	8904550
Aroclor 1260	ug/g	<0.010	8906260	<0.010	8904548	<0.010	8906260	<0.010	0.010	8904550
Aroclor 1262	ug/g	<0.010	8906260	<0.010	8904548	<0.010	8906260	<0.010	0.010	8904550
Aroclor 1268	ug/g	<0.010	8906260	<0.010	8904548	<0.010	8906260	<0.010	0.010	8904550
Total PCB	ug/g	<0.010	8906260	<0.010	8904548	<0.010	8906260	<0.010	0.010	8904550
Surrogate Recovery (%)										
Decachlorobiphenyl	%	104	8906260	109	8904548	110	8906260	105		8904550

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXI248	WXI249		WXI250		WXI251	WXI252		
Sampling Date		2023/08/26	2023/08/26		2023/08/26		2023/08/26	2023/08/26		
COC Number		758140	758140		758140		758140	758140		
	UNITS	DM-32-D	DM-33-S	QC Batch	DM-33-D	QC Batch	DM-34-S	DM-34-D	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	<0.010	8904548	<0.010	8904550	<0.010	<0.010	0.010	8906260
Aroclor 1221	ug/g	<0.010	<0.010	8904548	<0.010	8904550	<0.010	<0.010	0.010	8906260
Aroclor 1232	ug/g	<0.010	<0.010	8904548	<0.010	8904550	<0.010	<0.010	0.010	8906260
Aroclor 1242	ug/g	<0.010	<0.010	8904548	<0.010	8904550	<0.010	<0.010	0.010	8906260
Aroclor 1248	ug/g	<0.010	<0.010	8904548	<0.010	8904550	<0.010	<0.010	0.010	8906260
Aroclor 1254	ug/g	<0.010	<0.010	8904548	<0.010	8904550	<0.010	<0.010	0.010	8906260
Aroclor 1260	ug/g	<0.010	<0.010	8904548	<0.010	8904550	<0.010	<0.010	0.010	8906260
Aroclor 1262	ug/g	<0.010	<0.010	8904548	<0.010	8904550	<0.010	<0.010	0.010	8906260
Aroclor 1268	ug/g	<0.010	<0.010	8904548	<0.010	8904550	<0.010	<0.010	0.010	8906260
Total PCB	ug/g	<0.010	<0.010	8904548	<0.010	8904550	<0.010	<0.010	0.010	8906260
Surrogate Recovery (%)										
Decachlorobiphenyl	%	97	93	8904548	103	8904550	105	112		8906260

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Bureau Veritas ID		WXI253	WXI254	WXI255		WXI256		WXI257		
Sampling Date		2023/08/26	2023/08/26	2023/08/26		2023/08/26		2023/08/26		
COC Number		758140	758140	758140		758140		758140		
	UNITS	DM-37-S	DM-37-D	DM-38-S	QC Batch	DM-38-D	QC Batch	DM-39-S	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	<0.010	<0.010	8906260	<0.010	8904548	<0.010	0.010	8906260
Aroclor 1221	ug/g	<0.010	<0.010	<0.010	8906260	<0.010	8904548	<0.010	0.010	8906260
Aroclor 1232	ug/g	<0.010	<0.010	<0.010	8906260	<0.010	8904548	<0.010	0.010	8906260
Aroclor 1242	ug/g	<0.010	<0.010	<0.010	8906260	<0.010	8904548	<0.010	0.010	8906260
Aroclor 1248	ug/g	<0.010	<0.010	<0.010	8906260	<0.010	8904548	<0.010	0.010	8906260
Aroclor 1254	ug/g	<0.010	<0.010	<0.010	8906260	<0.010	8904548	<0.010	0.010	8906260
Aroclor 1260	ug/g	<0.010	<0.010	<0.010	8906260	<0.010	8904548	<0.010	0.010	8906260
Aroclor 1262	ug/g	<0.010	<0.010	<0.010	8906260	<0.010	8904548	<0.010	0.010	8906260
Aroclor 1268	ug/g	<0.010	<0.010	<0.010	8906260	<0.010	8904548	<0.010	0.010	8906260
Total PCB	ug/g	<0.010	<0.010	<0.010	8906260	<0.010	8904548	<0.010	0.010	8906260
Surrogate Recovery (%)										
Decachlorobiphenyl	%	107	107	108	8906260	89	8904548	105		8906260

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXI258		WXI259	WXI260	WXI261	WXI262		
Sampling Date		2023/08/26		2023/08/26	2023/08/26	2023/08/26	2023/08/26		
COC Number		758140		758140	758140	758140	758140		
	UNITS	DM-39-D	QC Batch	MW23-S-60	DM-42-S	DM-42-D	DM-43-S	RDL	QC Batch
PCBs									
Aroclor 1016	ug/g	<0.010	8904548	<0.010	<0.010	<0.010	<0.010	0.010	8906260
Aroclor 1221	ug/g	<0.010	8904548	<0.010	<0.010	<0.010	<0.010	0.010	8906260
Aroclor 1232	ug/g	<0.010	8904548	<0.010	<0.010	<0.010	<0.010	0.010	8906260
Aroclor 1242	ug/g	<0.010	8904548	<0.010	<0.010	<0.010	<0.010	0.010	8906260
Aroclor 1248	ug/g	<0.010	8904548	<0.010	<0.010	<0.010	<0.010	0.010	8906260
Aroclor 1254	ug/g	<0.010	8904548	<0.010	<0.010	<0.010	<0.010	0.010	8906260
Aroclor 1260	ug/g	<0.010	8904548	<0.010	<0.010	<0.010	<0.010	0.010	8906260
Aroclor 1262	ug/g	<0.010	8904548	<0.010	<0.010	<0.010	<0.010	0.010	8906260
Aroclor 1268	ug/g	<0.010	8904548	<0.010	<0.010	<0.010	<0.010	0.010	8906260
Total PCB	ug/g	<0.010	8904548	<0.010	<0.010	<0.010	<0.010	0.010	8906260
Surrogate Recovery (%)									
Decachlorobiphenyl	%	110	8904548	104	108	106	94		8906260

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Bureau Veritas ID		WXI263	WXI264	WXI265	WXI266		WXI267		
Sampling Date		2023/08/26	2023/08/26	2023/08/26	2023/08/27		2023/08/27		
COC Number		758140	758140	758140	758140		758140		
	UNITS	DM-43-D	DM-44-S	DM-44-D	MW06-18-SOIL-S	QC Batch	MW06-18-SOIL-D	RDL	QC Batch
PCBs									
Aroclor 1016	ug/g	<0.010	<0.010	<0.010	<0.010	8906261	<0.010	0.010	8904550
Aroclor 1221	ug/g	<0.010	<0.010	<0.010	<0.010	8906261	<0.010	0.010	8904550
Aroclor 1232	ug/g	<0.010	<0.010	<0.010	<0.010	8906261	<0.010	0.010	8904550
Aroclor 1242	ug/g	<0.010	<0.010	<0.010	<0.010	8906261	<0.010	0.010	8904550
Aroclor 1248	ug/g	<0.010	<0.010	<0.010	<0.010	8906261	<0.010	0.010	8904550
Aroclor 1254	ug/g	<0.010	<0.010	<0.010	0.016	8906261	<0.010	0.010	8904550
Aroclor 1260	ug/g	<0.010	<0.010	<0.010	0.019	8906261	<0.010	0.010	8904550
Aroclor 1262	ug/g	<0.010	<0.010	<0.010	<0.010	8906261	<0.010	0.010	8904550
Aroclor 1268	ug/g	<0.010	<0.010	<0.010	<0.010	8906261	<0.010	0.010	8904550
Total PCB	ug/g	<0.010	<0.010	<0.010	0.035	8906261	<0.010	0.010	8904550
Surrogate Recovery (%)									
Decachlorobiphenyl	%	107	110	99	106	8906261	103		8904550

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXI268	WXI269	WXI270		WXI271		
Sampling Date		2023/08/27	2023/08/27	2023/08/27		2023/08/27		
COC Number		758140	758140	758140		758140		
	UNITS	MW06-19-SOIL-S	MW06-20-SOIL-S	MW06-20-SOIL-D	QC Batch	MW07-21-SOIL-S	RDL	QC Batch
PCBs								
Aroclor 1016	ug/g	<0.010	<0.010	<0.010	8904550	<0.010	0.010	8904548
Aroclor 1221	ug/g	<0.010	<0.010	<0.010	8904550	<0.010	0.010	8904548
Aroclor 1232	ug/g	<0.010	<0.010	<0.010	8904550	<0.010	0.010	8904548
Aroclor 1242	ug/g	<0.010	<0.010	<0.010	8904550	<0.010	0.010	8904548
Aroclor 1248	ug/g	<0.010	<0.010	<0.010	8904550	<0.010	0.010	8904548
Aroclor 1254	ug/g	<0.010	<0.010	<0.010	8904550	<0.010	0.010	8904548
Aroclor 1260	ug/g	<0.010	<0.010	<0.010	8904550	<0.010	0.010	8904548
Aroclor 1262	ug/g	<0.010	<0.010	<0.010	8904550	<0.010	0.010	8904548
Aroclor 1268	ug/g	<0.010	<0.010	<0.010	8904550	<0.010	0.010	8904548
Total PCB	ug/g	<0.010	<0.010	<0.010	8904550	<0.010	0.010	8904548
Surrogate Recovery (%)								
Decachlorobiphenyl	%	114	101	111	8904550	103		8904548

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Bureau Veritas ID		WXI272		WXI273	WXI274		WXI275		
Sampling Date		2023/08/27		2023/08/27	2023/08/27		2023/08/27		
COC Number		758140		758140	758140		758140		
	UNITS	MW07-21-SOIL-D	QC Batch	MW23-S-110	MW05-09-SOIL-S	RDL	MW05-09-SOIL-D	RDL	QC Batch
PCBs									
Aroclor 1016	ug/g	<0.010	8904550	<0.010	<0.010	0.010	<0.050	0.050	8904548
Aroclor 1221	ug/g	<0.010	8904550	<0.010	<0.010	0.010	<0.050	0.050	8904548
Aroclor 1232	ug/g	<0.010	8904550	<0.010	<0.010	0.010	<0.050	0.050	8904548
Aroclor 1242	ug/g	<0.010	8904550	<0.010	<0.010	0.010	<0.050	0.050	8904548
Aroclor 1248	ug/g	<0.010	8904550	<0.010	<0.010	0.010	<0.050	0.050	8904548
Aroclor 1254	ug/g	<0.010	8904550	<0.010	0.41	0.010	1.1	0.050	8904548
Aroclor 1260	ug/g	<0.010	8904550	<0.010	0.029	0.010	<0.050	0.050	8904548
Aroclor 1262	ug/g	<0.010	8904550	<0.010	<0.010	0.010	<0.050	0.050	8904548
Aroclor 1268	ug/g	<0.010	8904550	<0.010	<0.010	0.010	<0.050	0.050	8904548
Total PCB	ug/g	<0.010	8904550	<0.010	0.44	0.010	1.1	0.050	8904548
Surrogate Recovery (%)									
Decachlorobiphenyl	%	98	8904550	108	98		125		8904548

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXI276		WXI277		WXI278		
Sampling Date		2023/08/27		2023/08/27		2023/08/27		
COC Number		758140		758140		758140		
	UNITS	MW05-12-SOIL-S	QC Batch	MW05-12-SOIL-D	QC Batch	MW09-26-SOIL-S	RDL	QC Batch
PCBs								
Aroclor 1016	ug/g	<0.010	8904548	<0.010	8906261	<0.010	0.010	8904548
Aroclor 1221	ug/g	<0.010	8904548	<0.010	8906261	<0.010	0.010	8904548
Aroclor 1232	ug/g	<0.010	8904548	<0.010	8906261	<0.010	0.010	8904548
Aroclor 1242	ug/g	<0.010	8904548	<0.010	8906261	<0.010	0.010	8904548
Aroclor 1248	ug/g	<0.010	8904548	<0.010	8906261	<0.010	0.010	8904548
Aroclor 1254	ug/g	0.018	8904548	0.018	8906261	<0.010	0.010	8904548
Aroclor 1260	ug/g	0.019	8904548	0.030	8906261	<0.010	0.010	8904548
Aroclor 1262	ug/g	<0.010	8904548	<0.010	8906261	<0.010	0.010	8904548
Aroclor 1268	ug/g	<0.010	8904548	<0.010	8906261	<0.010	0.010	8904548
Total PCB	ug/g	0.037	8904548	0.048	8906261	<0.010	0.010	8904548
Surrogate Recovery (%)								
Decachlorobiphenyl	%	96	8904548	117	8906261	105		8904548

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Bureau Veritas ID		WXI279		WXI280		WXI281		
Sampling Date		2023/08/27		2023/08/27		2023/08/27		
COC Number		758140		758140		758140		
	UNITS	MW09-26-SOIL-D	QC Batch	MW09-27-SOIL-S	QC Batch	MW09-27-SOIL-D	RDL	QC Batch
PCBs								
Aroclor 1016	ug/g	<0.010	8904550	<0.010	8904548	<0.010	0.010	8904550
Aroclor 1221	ug/g	<0.010	8904550	<0.010	8904548	<0.010	0.010	8904550
Aroclor 1232	ug/g	<0.010	8904550	<0.010	8904548	<0.010	0.010	8904550
Aroclor 1242	ug/g	<0.010	8904550	<0.010	8904548	<0.010	0.010	8904550
Aroclor 1248	ug/g	<0.010	8904550	<0.010	8904548	<0.010	0.010	8904550
Aroclor 1254	ug/g	<0.010	8904550	<0.010	8904548	<0.010	0.010	8904550
Aroclor 1260	ug/g	<0.010	8904550	<0.010	8904548	<0.010	0.010	8904550
Aroclor 1262	ug/g	<0.010	8904550	<0.010	8904548	<0.010	0.010	8904550
Aroclor 1268	ug/g	<0.010	8904550	<0.010	8904548	<0.010	0.010	8904550
Total PCB	ug/g	<0.010	8904550	<0.010	8904548	<0.010	0.010	8904550
Surrogate Recovery (%)								
Decachlorobiphenyl	%	108	8904550	114	8904548	105		8904550

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXI282	WXI283	WXI284		WXI285	WXI286		
Sampling Date		2023/08/27	2023/08/27	2023/08/27		2023/08/27	2023/08/28		
COC Number		758140	758140	758140		758140	758140		
	UNITS	MW09-28-SOIL-S	MW09-28-SOIL-D	MW23-S-25	QC Batch	MW23-S-40	DM-18-S	RDL	QC Batch
PCBs									
Aroclor 1016	ug/g	<0.010	<0.010	<0.010	8904548	<0.010	<0.010	0.010	8906261
Aroclor 1221	ug/g	<0.010	<0.010	<0.010	8904548	<0.010	<0.010	0.010	8906261
Aroclor 1232	ug/g	<0.010	<0.010	<0.010	8904548	<0.010	<0.010	0.010	8906261
Aroclor 1242	ug/g	<0.010	<0.010	<0.010	8904548	<0.010	<0.010	0.010	8906261
Aroclor 1248	ug/g	<0.010	<0.010	<0.010	8904548	<0.010	<0.010	0.010	8906261
Aroclor 1254	ug/g	0.049	0.033	0.043	8904548	<0.010	<0.010	0.010	8906261
Aroclor 1260	ug/g	0.062	0.044	0.043	8904548	<0.010	<0.010	0.010	8906261
Aroclor 1262	ug/g	<0.010	<0.010	<0.010	8904548	<0.010	<0.010	0.010	8906261
Aroclor 1268	ug/g	<0.010	<0.010	<0.010	8904548	<0.010	<0.010	0.010	8906261
Total PCB	ug/g	0.11	0.077	0.086	8904548	<0.010	<0.010	0.010	8906261
Surrogate Recovery (%)									
Decachlorobiphenyl	%	116	109	117	8904548	115	118		8906261

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Bureau Veritas ID		WXI287		WXI288	WXI288		WXI289		WXI290		
Sampling Date		2023/08/28		2023/08/28	2023/08/28		2023/08/28		2023/08/28		
COC Number		758140		758140	758140		758140		758140		
	UNITS	DM-18-D	QC Batch	DM-19-S	DM-19-S Lab-Dup	QC Batch	DM-19-D	QC Batch	DM-20-S	RDL	QC Batch
PCBs											
Aroclor 1016	ug/g	<0.010	8904550	<0.010	<0.010	8904548	<0.010	8906261	<0.010	0.010	8906260
Aroclor 1221	ug/g	<0.010	8904550	<0.010	<0.010	8904548	<0.010	8906261	<0.010	0.010	8906260
Aroclor 1232	ug/g	<0.010	8904550	<0.010	<0.010	8904548	<0.010	8906261	<0.010	0.010	8906260
Aroclor 1242	ug/g	<0.010	8904550	<0.010	<0.010	8904548	<0.010	8906261	<0.010	0.010	8906260
Aroclor 1248	ug/g	<0.010	8904550	<0.010	<0.010	8904548	<0.010	8906261	<0.010	0.010	8906260
Aroclor 1254	ug/g	<0.010	8904550	<0.010	<0.010	8904548	<0.010	8906261	0.012	0.010	8906260
Aroclor 1260	ug/g	<0.010	8904550	<0.010	<0.010	8904548	<0.010	8906261	<0.010	0.010	8906260
Aroclor 1262	ug/g	<0.010	8904550	<0.010	<0.010	8904548	<0.010	8906261	<0.010	0.010	8906260
Aroclor 1268	ug/g	<0.010	8904550	<0.010	<0.010	8904548	<0.010	8906261	<0.010	0.010	8906260
Total PCB	ug/g	<0.010	8904550	<0.010	<0.010	8904548	<0.010	8906261	0.012	0.010	8906260
Surrogate Recovery (%)											
Decachlorobiphenyl	%	106	8904550	120	91	8904548	98	8906261	105		8906260

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WXI290		WXI291	WXI292	WXI293		WXI294		
Sampling Date		2023/08/28		2023/08/28	2023/08/28	2023/08/28		2023/08/28		
COC Number		758140		758140	758140	758140		758140		
	UNITS	DM-20-S Lab-Dup	QC Batch	DM-20-D	DM-21-S	DM-21-D	QC Batch	DM-22-S	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	8906260	<0.010	<0.010	<0.010	8904550	<0.010	0.010	8904548
Aroclor 1221	ug/g	<0.010	8906260	<0.010	<0.010	<0.010	8904550	<0.010	0.010	8904548
Aroclor 1232	ug/g	<0.010	8906260	<0.010	<0.010	<0.010	8904550	<0.010	0.010	8904548
Aroclor 1242	ug/g	<0.010	8906260	<0.010	<0.010	<0.010	8904550	<0.010	0.010	8904548
Aroclor 1248	ug/g	<0.010	8906260	<0.010	<0.010	<0.010	8904550	<0.010	0.010	8904548
Aroclor 1254	ug/g	<0.010	8906260	<0.010	<0.010	<0.010	8904550	<0.010	0.010	8904548
Aroclor 1260	ug/g	<0.010	8906260	<0.010	<0.010	<0.010	8904550	<0.010	0.010	8904548
Aroclor 1262	ug/g	<0.010	8906260	<0.010	<0.010	<0.010	8904550	<0.010	0.010	8904548
Aroclor 1268	ug/g	<0.010	8906260	<0.010	<0.010	<0.010	8904550	<0.010	0.010	8904548
Total PCB	ug/g	<0.010	8906260	<0.010	<0.010	<0.010	8904550	<0.010	0.010	8904548
Surrogate Recovery (%)										
Decachlorobiphenyl	%	102	8906260	108	101	103	8904550	119		8904548

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Bureau Veritas ID		WXI295		WXI296	WXI296		WXI297	WXI298		
Sampling Date		2023/08/28		2023/08/28	2023/08/28		2023/08/28	2023/08/28		
COC Number		758140		758140	758140		758140	758140		
	UNITS	DM-22-D	QC Batch	MW23-S-120	MW23-S-120 Lab-Dup	QC Batch	DM-23-S	DM-23-D	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	8904550	<0.010	<0.010	8906261	<0.010	<0.010	0.010	8904548
Aroclor 1221	ug/g	<0.010	8904550	<0.010	<0.010	8906261	<0.010	<0.010	0.010	8904548
Aroclor 1232	ug/g	<0.010	8904550	<0.010	<0.010	8906261	<0.010	<0.010	0.010	8904548
Aroclor 1242	ug/g	<0.010	8904550	<0.010	<0.010	8906261	<0.010	<0.010	0.010	8904548
Aroclor 1248	ug/g	<0.010	8904550	<0.010	<0.010	8906261	<0.010	<0.010	0.010	8904548
Aroclor 1254	ug/g	<0.010	8904550	<0.010	<0.010	8906261	<0.010	<0.010	0.010	8904548
Aroclor 1260	ug/g	<0.010	8904550	<0.010	<0.010	8906261	<0.010	<0.010	0.010	8904548
Aroclor 1262	ug/g	<0.010	8904550	<0.010	<0.010	8906261	<0.010	<0.010	0.010	8904548
Aroclor 1268	ug/g	<0.010	8904550	<0.010	<0.010	8906261	<0.010	<0.010	0.010	8904548
Total PCB	ug/g	<0.010	8904550	<0.010	<0.010	8906261	<0.010	<0.010	0.010	8904548
Surrogate Recovery (%)										
Decachlorobiphenyl	%	101	8904550	92	96	8906261	97	114		8904548

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WXI299		WXI300		WXI301		WXI302	WXI303		
Sampling Date		2023/08/28		2023/08/28		2023/08/28		2023/08/28	2023/08/28		
COC Number		758140		758140		758140		758140	758140		
	UNITS	DM-24-S	QC Batch	DM-24-D	QC Batch	DM-25-S	QC Batch	DM-25-D	DM-26-S	RDL	QC Batch
PCBs											
Aroclor 1016	ug/g	<0.010	8904550	<0.010	8904548	<0.010	8904550	<0.010	<0.010	0.010	8906261
Aroclor 1221	ug/g	<0.010	8904550	<0.010	8904548	<0.010	8904550	<0.010	<0.010	0.010	8906261
Aroclor 1232	ug/g	<0.010	8904550	<0.010	8904548	<0.010	8904550	<0.010	<0.010	0.010	8906261
Aroclor 1242	ug/g	<0.010	8904550	<0.010	8904548	<0.010	8904550	<0.010	<0.010	0.010	8906261
Aroclor 1248	ug/g	<0.010	8904550	<0.010	8904548	<0.010	8904550	<0.010	<0.010	0.010	8906261
Aroclor 1254	ug/g	<0.010	8904550	<0.010	8904548	<0.010	8904550	<0.010	<0.010	0.010	8906261
Aroclor 1260	ug/g	<0.010	8904550	<0.010	8904548	<0.010	8904550	<0.010	<0.010	0.010	8906261
Aroclor 1262	ug/g	<0.010	8904550	<0.010	8904548	<0.010	8904550	<0.010	<0.010	0.010	8906261
Aroclor 1268	ug/g	<0.010	8904550	<0.010	8904548	<0.010	8904550	<0.010	<0.010	0.010	8906261
Total PCB	ug/g	<0.010	8904550	<0.010	8904548	<0.010	8904550	<0.010	<0.010	0.010	8906261
Surrogate Recovery (%)											
Decachlorobiphenyl	%	109	8904550	116	8904548	105	8904550	84	92		8906261

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Bureau Veritas ID		WXI304		WXI305		WXI306	WXI307	WXI308		
Sampling Date		2023/08/28		2023/08/28		2023/08/28	2023/08/28	2023/08/28		
COC Number		758140		758140		758140	758140	758140		
	UNITS	DM-26-D	QC Batch	DM-27-S	QC Batch	DM-27-D	DM-28-S	DM-28-D	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	8906261	<0.010	8904550	<0.010	<0.010	<0.010	0.010	8906261
Aroclor 1221	ug/g	<0.010	8906261	<0.010	8904550	<0.010	<0.010	<0.010	0.010	8906261
Aroclor 1232	ug/g	<0.010	8906261	<0.010	8904550	<0.010	<0.010	<0.010	0.010	8906261
Aroclor 1242	ug/g	<0.010	8906261	<0.010	8904550	<0.010	<0.010	<0.010	0.010	8906261
Aroclor 1248	ug/g	<0.010	8906261	<0.010	8904550	<0.010	<0.010	<0.010	0.010	8906261
Aroclor 1254	ug/g	<0.010	8906261	<0.010	8904550	<0.010	<0.010	<0.010	0.010	8906261
Aroclor 1260	ug/g	<0.010	8906261	<0.010	8904550	<0.010	<0.010	<0.010	0.010	8906261
Aroclor 1262	ug/g	<0.010	8906261	<0.010	8904550	<0.010	<0.010	<0.010	0.010	8906261
Aroclor 1268	ug/g	<0.010	8906261	<0.010	8904550	<0.010	<0.010	<0.010	0.010	8906261
Total PCB	ug/g	<0.010	8906261	<0.010	8904550	<0.010	<0.010	<0.010	0.010	8906261
Surrogate Recovery (%)										
Decachlorobiphenyl	%	107	8906261	107	8904550	102	92	101		8906261

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WXI309	WXI310	WXI311	WXI312	WXI313		WXI314		
Sampling Date		2023/08/28	2023/08/28	2023/08/28	2023/08/28	2023/08/28		2023/08/28		
COC Number		758140	758140	758140	758140	758140		758140		
	UNITS	DM-29-S	DM-29-D	DM-30-S	DM-30-D	MW23-S-130	QC Batch	MW23-S-135	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	8906261	<0.010	0.010	8907541
Aroclor 1221	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	8906261	<0.010	0.010	8907541
Aroclor 1232	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	8906261	<0.010	0.010	8907541
Aroclor 1242	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	8906261	<0.010	0.010	8907541
Aroclor 1248	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	8906261	<0.010	0.010	8907541
Aroclor 1254	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	8906261	<0.010	0.010	8907541
Aroclor 1260	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	8906261	<0.010	0.010	8907541
Aroclor 1262	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	8906261	<0.010	0.010	8907541
Aroclor 1268	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	8906261	<0.010	0.010	8907541
Total PCB	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	8906261	<0.010	0.010	8907541
Surrogate Recovery (%)										
Decachlorobiphenyl	%	95	83	94	104	99	8906261	88		8907541

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	7.0°C
Package 2	16.7°C
Package 3	3.7°C
Package 4	1.0°C
Package 5	-1.0°C
Package 6	-1.0°C
Package 7	0.0°C
Package 8	9.7°C
Package 9	0.0°C

Sample WXI234 [MW07-22-S] : F1 BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WXI235 [MW07-22-D] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WXI236 [MW07-23-S] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WXI239 [MW08-24-D] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WXI241 [MW08-25-D] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WXI244 [MW23-S-50] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WXI247 [DM-32-S] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WXI248 [DM-32-D] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WXI251 [DM-34-S] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WXI253 [DM-37-S] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WXI254 [DM-37-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI256 [DM-38-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI258 [DM-39-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI259 [MW23-S-60] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI261 [DM-42-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI262 [DM-43-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI263 [DM-43-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI264 [DM-44-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI265 [DM-44-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI266 [MW06-18-SOIL-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI267 [MW06-18-SOIL-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI269 [MW06-20-SOIL-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI270 [MW06-20-SOIL-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI271 [MW07-21-SOIL-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI272 [MW07-21-SOIL-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI273 [MW23-S-110] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI276 [MW05-12-SOIL-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI277 [MW05-12-SOIL-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI278 [MW09-26-SOIL-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI279 [MW09-26-SOIL-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI280 [MW09-27-SOIL-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI281 [MW09-27-SOIL-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI282 [MW09-28-SOIL-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI284 [MW23-S-25] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI285 [MW23-S-40] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI286 [DM-18-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI287 [DM-18-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI289 [DM-19-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI290 [DM-20-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI291 [DM-20-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI292 [DM-21-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI293 [DM-21-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI294 [DM-22-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI295 [DM-22-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI296 [MW23-S-120] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI297 [DM-23-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI298 [DM-23-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI300 [DM-24-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI301 [DM-25-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI302 [DM-25-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI303 [DM-26-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI304 [DM-26-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI305 [DM-27-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI306 [DM-27-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI307 [DM-28-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI308 [DM-28-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI309 [DM-29-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI310 [DM-29-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI311 [DM-30-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI312 [DM-30-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI313 [MW23-S-130] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WXI314 [MW23-S-135] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8904407	o-Terphenyl	2023/09/11	100	60 - 130	101	60 - 130	92	%				
8904537	o-Terphenyl	2023/09/11	109	60 - 130	102	60 - 130	103	%				
8904548	Decachlorobiphenyl	2023/09/08	108	60 - 130	95	60 - 130	88	%				
8904550	Decachlorobiphenyl	2023/09/08	112	60 - 130	108	60 - 130	105	%				
8904940	o-Terphenyl	2023/09/11	98	60 - 130	93	60 - 130	94	%				
8905102	1,4-Difluorobenzene	2023/09/08	110	60 - 140	110	60 - 140	112	%				
8905102	4-Bromofluorobenzene	2023/09/08	95	60 - 140	96	60 - 140	92	%				
8905102	D10-o-Xylene	2023/09/08	133	60 - 140	100	60 - 140	106	%				
8905102	D4-1,2-Dichloroethane	2023/09/08	85	60 - 140	86	60 - 140	85	%				
8905139	1,4-Difluorobenzene	2023/09/09	99	60 - 140	101	60 - 140	102	%				
8905139	4-Bromofluorobenzene	2023/09/09	111	60 - 140	112	60 - 140	109	%				
8905139	D10-o-Xylene	2023/09/09	114	60 - 140	87	60 - 140	86	%				
8905139	D4-1,2-Dichloroethane	2023/09/09	114	60 - 140	113	60 - 140	111	%				
8905299	1,4-Difluorobenzene	2023/09/09	99	60 - 140	100	60 - 140	104	%				
8905299	4-Bromofluorobenzene	2023/09/09	98	60 - 140	97	60 - 140	94	%				
8905299	D10-o-Xylene	2023/09/09	119	60 - 140	93	60 - 140	97	%				
8905299	D4-1,2-Dichloroethane	2023/09/09	96	60 - 140	97	60 - 140	99	%				
8905692	o-Terphenyl	2023/09/10	105	60 - 130	101	60 - 130	102	%				
8905756	1,4-Difluorobenzene	2023/09/09	97	60 - 140	97	60 - 140	99	%				
8905756	4-Bromofluorobenzene	2023/09/09	98	60 - 140	99	60 - 140	97	%				
8905756	D10-o-Xylene	2023/09/09	108	60 - 140	92	60 - 140	92	%				
8905756	D4-1,2-Dichloroethane	2023/09/09	98	60 - 140	97	60 - 140	104	%				
8906030	1,4-Difluorobenzene	2023/09/10	102	60 - 140	103	60 - 140	104	%				
8906030	4-Bromofluorobenzene	2023/09/10	98	60 - 140	97	60 - 140	95	%				
8906030	D10-o-Xylene	2023/09/10	115	60 - 140	95	60 - 140	96	%				
8906030	D4-1,2-Dichloroethane	2023/09/10	104	60 - 140	101	60 - 140	105	%				
8906260	Decachlorobiphenyl	2023/09/09	119	60 - 130	111	60 - 130	104	%				
8906261	Decachlorobiphenyl	2023/09/09	97	60 - 130	95	60 - 130	99	%				
8906288	o-Terphenyl	2023/09/10	97	60 - 130	98	60 - 130	98	%				
8907541	Decachlorobiphenyl	2023/09/11	88	60 - 130	76	60 - 130	84	%				
8904407	F2 (C10-C16 Hydrocarbons)	2023/09/11	108	60 - 130	102	80 - 120	<10	ug/g	NC	30		
8904407	F3 (C16-C34 Hydrocarbons)	2023/09/11	108	60 - 130	100	80 - 120	<50	ug/g	NC	30		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8904407	F4 (C34-C50 Hydrocarbons)	2023/09/11	109	60 - 130	107	80 - 120	<50	ug/g	NC	30		
8904537	F2 (C10-C16 Hydrocarbons)	2023/09/11	106	60 - 130	100	80 - 120	<10	ug/g	20	30		
8904537	F3 (C16-C34 Hydrocarbons)	2023/09/11	116	60 - 130	103	80 - 120	<50	ug/g	20	30		
8904537	F4 (C34-C50 Hydrocarbons)	2023/09/11	118	60 - 130	105	80 - 120	<50	ug/g	NC	30		
8904548	Aroclor 1016	2023/09/08					<0.010	ug/g	NC	50		
8904548	Aroclor 1221	2023/09/08					<0.010	ug/g	NC	50		
8904548	Aroclor 1232	2023/09/08					<0.010	ug/g	NC	50		
8904548	Aroclor 1242	2023/09/08					<0.010	ug/g	NC	50		
8904548	Aroclor 1248	2023/09/08					<0.010	ug/g	NC	50		
8904548	Aroclor 1254	2023/09/08					<0.010	ug/g	NC	50		
8904548	Aroclor 1260	2023/09/08	116	30 - 130	103	30 - 130	<0.010	ug/g	NC	50		
8904548	Aroclor 1262	2023/09/08					<0.010	ug/g	NC	50		
8904548	Aroclor 1268	2023/09/08					<0.010	ug/g	NC	50		
8904548	Total PCB	2023/09/08	116	30 - 130	103	30 - 130	<0.010	ug/g	NC	50		
8904550	Aroclor 1016	2023/09/08					<0.010	ug/g	NC	50		
8904550	Aroclor 1221	2023/09/08					<0.010	ug/g	NC	50		
8904550	Aroclor 1232	2023/09/08					<0.010	ug/g	NC	50		
8904550	Aroclor 1242	2023/09/08					<0.010	ug/g	NC	50		
8904550	Aroclor 1248	2023/09/08					<0.010	ug/g	NC	50		
8904550	Aroclor 1254	2023/09/08					<0.010	ug/g	NC	50		
8904550	Aroclor 1260	2023/09/08	106	30 - 130	100	30 - 130	<0.010	ug/g	NC	50		
8904550	Aroclor 1262	2023/09/08					<0.010	ug/g	NC	50		
8904550	Aroclor 1268	2023/09/08					<0.010	ug/g	NC	50		
8904550	Total PCB	2023/09/08	106	30 - 130	100	30 - 130	<0.010	ug/g	NC	50		
8904613	Moisture	2023/09/08							3.4	20		
8904705	Moisture	2023/09/08							3.4	20		
8904940	F2 (C10-C16 Hydrocarbons)	2023/09/11	102	60 - 130	99	80 - 120	<10	ug/g	NC	30		
8904940	F3 (C16-C34 Hydrocarbons)	2023/09/11	102	60 - 130	99	80 - 120	<50	ug/g	NC	30		
8904940	F4 (C34-C50 Hydrocarbons)	2023/09/11	103	60 - 130	100	80 - 120	<50	ug/g	NC	30		
8905102	F1 (C6-C10)	2023/09/09	129	60 - 140	96	80 - 120	<10	ug/g	NC	30		
8905139	F1 (C6-C10)	2023/09/09	119	60 - 140	91	80 - 120	<10	ug/g	NC	30		
8905299	F1 (C6-C10)	2023/09/09	136	60 - 140	96	80 - 120	<10	ug/g	NC	30		

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8905692	F2 (C10-C16 Hydrocarbons)	2023/09/10	112	60 - 130	108	80 - 120	<10	ug/g	NC	30		
8905692	F3 (C16-C34 Hydrocarbons)	2023/09/10	113	60 - 130	110	80 - 120	<50	ug/g	NC	30		
8905692	F4 (C34-C50 Hydrocarbons)	2023/09/10	115	60 - 130	112	80 - 120	<50	ug/g	NC	30		
8905728	Moisture	2023/09/08							2.6	20		
8905730	Moisture	2023/09/08							2.0	20		
8905756	F1 (C6-C10)	2023/09/09	99	60 - 140	95	80 - 120	<10	ug/g	NC	30		
8905842	Moisture	2023/09/08							5.4	20		
8906030	F1 (C6-C10)	2023/09/10	121	60 - 140	91	80 - 120	<10	ug/g	NC	30		
8906260	Aroclor 1016	2023/09/09					<0.010	ug/g	NC	50		
8906260	Aroclor 1221	2023/09/09					<0.010	ug/g	NC	50		
8906260	Aroclor 1232	2023/09/09					<0.010	ug/g	NC	50		
8906260	Aroclor 1242	2023/09/09					<0.010	ug/g	NC	50		
8906260	Aroclor 1248	2023/09/09					<0.010	ug/g	NC	50		
8906260	Aroclor 1254	2023/09/09					<0.010	ug/g	15	50		
8906260	Aroclor 1260	2023/09/09	119	30 - 130	113	30 - 130	<0.010	ug/g	NC	50		
8906260	Aroclor 1262	2023/09/09					<0.010	ug/g	NC	50		
8906260	Aroclor 1268	2023/09/09					<0.010	ug/g	NC	50		
8906260	Total PCB	2023/09/09	119	30 - 130	113	30 - 130	<0.010	ug/g	15	50		
8906261	Aroclor 1016	2023/09/09					<0.010	ug/g	NC	50		
8906261	Aroclor 1221	2023/09/09					<0.010	ug/g	NC	50		
8906261	Aroclor 1232	2023/09/09					<0.010	ug/g	NC	50		
8906261	Aroclor 1242	2023/09/09					<0.010	ug/g	NC	50		
8906261	Aroclor 1248	2023/09/09					<0.010	ug/g	NC	50		
8906261	Aroclor 1254	2023/09/09					<0.010	ug/g	NC	50		
8906261	Aroclor 1260	2023/09/09	105	30 - 130	101	30 - 130	<0.010	ug/g	NC	50		
8906261	Aroclor 1262	2023/09/09					<0.010	ug/g	NC	50		
8906261	Aroclor 1268	2023/09/09					<0.010	ug/g	NC	50		
8906261	Total PCB	2023/09/09	105	30 - 130	101	30 - 130	<0.010	ug/g	NC	50		
8906288	F2 (C10-C16 Hydrocarbons)	2023/09/11	105	60 - 130	106	80 - 120	<10	ug/g	NC	30		
8906288	F3 (C16-C34 Hydrocarbons)	2023/09/11	107	60 - 130	107	80 - 120	<50	ug/g	26	30		
8906288	F4 (C34-C50 Hydrocarbons)	2023/09/11	110	60 - 130	109	80 - 120	<50	ug/g	NC	30		
8907541	Aroclor 1016	2023/09/11					<0.010	ug/g	NC	50		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8907541	Aroclor 1221	2023/09/11					<0.010	ug/g	NC	50		
8907541	Aroclor 1232	2023/09/11					<0.010	ug/g	NC	50		
8907541	Aroclor 1242	2023/09/11					<0.010	ug/g	NC	50		
8907541	Aroclor 1248	2023/09/11					<0.010	ug/g	NC	50		
8907541	Aroclor 1254	2023/09/11					<0.010	ug/g	NC	50		
8907541	Aroclor 1260	2023/09/11	110	30 - 130	97	30 - 130	<0.010	ug/g	NC	50		
8907541	Aroclor 1262	2023/09/11					<0.010	ug/g	NC	50		
8907541	Aroclor 1268	2023/09/11					<0.010	ug/g	NC	50		
8907541	Total PCB	2023/09/11	110	30 - 130	97	30 - 130	<0.010	ug/g	NC	50		
8918473	Total Arsenic (As)	2023/09/14	86	75 - 125	96	75 - 125	<0.20	mg/kg	6.8	30	99	70 - 130
8918473	Total Cadmium (Cd)	2023/09/14	87	75 - 125	93	75 - 125	<0.050	mg/kg	NC	30	112	70 - 130
8918473	Total Chromium (Cr)	2023/09/14	87	75 - 125	100	75 - 125	<0.50	mg/kg	0.54	30	95	70 - 130
8918473	Total Cobalt (Co)	2023/09/14	84	75 - 125	96	75 - 125	<0.10	mg/kg	0.86	30	93	70 - 130
8918473	Total Copper (Cu)	2023/09/14	89	75 - 125	105	75 - 125	<0.50	mg/kg	0.94	30	94	70 - 130
8918473	Total Lead (Pb)	2023/09/14	86	75 - 125	96	75 - 125	<0.10	mg/kg	0.25	40	102	70 - 130
8918473	Total Nickel (Ni)	2023/09/14	83	75 - 125	92	75 - 125	<0.50	mg/kg	0.0068	30	97	70 - 130
8918473	Total Zinc (Zn)	2023/09/14	81	75 - 125	90	75 - 125	<1.0	mg/kg	0.34	30	94	70 - 130
8920718	Total Arsenic (As)	2023/09/14	91	75 - 125	96	75 - 125	<0.20	mg/kg	0.21	30	101	70 - 130
8920718	Total Cadmium (Cd)	2023/09/14	91	75 - 125	94	75 - 125	<0.050	mg/kg	NC	30	111	70 - 130
8920718	Total Chromium (Cr)	2023/09/14	92	75 - 125	95	75 - 125	<0.50	mg/kg	1.1	30	91	70 - 130
8920718	Total Cobalt (Co)	2023/09/14	88	75 - 125	94	75 - 125	<0.10	mg/kg	1.4	30	93	70 - 130
8920718	Total Copper (Cu)	2023/09/14	88	75 - 125	95	75 - 125	<0.50	mg/kg	1.9	30	97	70 - 130
8920718	Total Lead (Pb)	2023/09/14	92	75 - 125	96	75 - 125	<0.10	mg/kg	1.5	40	108	70 - 130
8920718	Total Nickel (Ni)	2023/09/14	86	75 - 125	92	75 - 125	<0.50	mg/kg	1.7	30	100	70 - 130
8920718	Total Zinc (Zn)	2023/09/14	87	75 - 125	92	75 - 125	<1.0	mg/kg	7.1	30	98	70 - 130
8920719	Total Arsenic (As)	2023/09/14	96	75 - 125	97	75 - 125	<0.20	mg/kg	6.6	30	101	70 - 130
8920719	Total Cadmium (Cd)	2023/09/14	95	75 - 125	96	75 - 125	<0.050	mg/kg	12	30	89	70 - 130
8920719	Total Chromium (Cr)	2023/09/14	97	75 - 125	98	75 - 125	<0.50	mg/kg	0.68	30	90	70 - 130
8920719	Total Cobalt (Co)	2023/09/14	89	75 - 125	97	75 - 125	<0.10	mg/kg	0.052	30	92	70 - 130
8920719	Total Copper (Cu)	2023/09/14	90	75 - 125	97	75 - 125	<0.50	mg/kg	3.3	30	94	70 - 130
8920719	Total Lead (Pb)	2023/09/14	98	75 - 125	99	75 - 125	<0.10	mg/kg	0.75	40	107	70 - 130
8920719	Total Nickel (Ni)	2023/09/14	88	75 - 125	93	75 - 125	<0.50	mg/kg	1.4	30	99	70 - 130

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8920719	Total Zinc (Zn)	2023/09/14	89	75 - 125	93	75 - 125	<1.0	mg/kg	0.88	30	97	70 - 130
8920720	Total Arsenic (As)	2023/09/14	100	75 - 125	100	75 - 125	<0.20	mg/kg	5.3	30	101	70 - 130
8920720	Total Cadmium (Cd)	2023/09/14	99	75 - 125	98	75 - 125	<0.050	mg/kg	NC	30	90	70 - 130
8920720	Total Chromium (Cr)	2023/09/14	101	75 - 125	102	75 - 125	<0.50	mg/kg	1.1	30	98	70 - 130
8920720	Total Cobalt (Co)	2023/09/14	94	75 - 125	98	75 - 125	<0.10	mg/kg	3.3	30	94	70 - 130
8920720	Total Copper (Cu)	2023/09/14	99	75 - 125	101	75 - 125	<0.50	mg/kg	2.7	30	96	70 - 130
8920720	Total Lead (Pb)	2023/09/14	103	75 - 125	103	75 - 125	<0.10	mg/kg	16	40	113	70 - 130
8920720	Total Nickel (Ni)	2023/09/14	93	75 - 125	96	75 - 125	<0.50	mg/kg	3.4	30	98	70 - 130
8920720	Total Zinc (Zn)	2023/09/14	94	75 - 125	95	75 - 125	<1.0	mg/kg	3.7	30	96	70 - 130
8920721	Total Arsenic (As)	2023/09/15	98	75 - 125	99	75 - 125	<0.20	mg/kg	NC	30	100	70 - 130
8920721	Total Cadmium (Cd)	2023/09/15	97	75 - 125	98	75 - 125	<0.050	mg/kg	NC	30	101	70 - 130
8920721	Total Chromium (Cr)	2023/09/15	103	75 - 125	98	75 - 125	<0.50	mg/kg	20	30	100	70 - 130
8920721	Total Cobalt (Co)	2023/09/15	95	75 - 125	97	75 - 125	<0.10	mg/kg	7.2	30	95	70 - 130
8920721	Total Copper (Cu)	2023/09/15	96	75 - 125	99	75 - 125	<0.50	mg/kg	24	30	100	70 - 130
8920721	Total Lead (Pb)	2023/09/15	101	75 - 125	100	75 - 125	<0.10	mg/kg	7.4	40	112	70 - 130
8920721	Total Nickel (Ni)	2023/09/15	93	75 - 125	93	75 - 125	<0.50	mg/kg	4.0	30	100	70 - 130
8920721	Total Zinc (Zn)	2023/09/15	93	75 - 125	95	75 - 125	<1.0	mg/kg	9.1	30	98	70 - 130

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere, Senior Scientific Specialist

David Huang, BBY Scientific Specialist

Bureau Veritas Proprietary Software
Logiciel Propriétaire de Bureau Veritas

Automated Statchk

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Temperature SIF

High temperature on only CJ120

MW08-25-S
MW08-25-D
MW06-20-soil-D
MW07-21-soi-D

High temperature on only vials (Both vials)

MW06-19-soil-S
MW23-S-110
MW05-09-soil-S
MW05-12-soil-S
MW09-26-soil-S
MW09-26-soil-D
MW09-27-soil-S
MW09-28-soil-S
MW09-28-soil-D
DM-20-D
DM-21-D
DM-24-D
DM-26-D
DM-27-S
DM-30-S
DM-30-D
MW12-02-D
MW23-S-50
DM-31-S
DM-31-D
DM-32-S
DM-32-D
DM-33-S
DM-33-D
DM-34-S
DM-34-D
DM-37-D
DM-38-S
DM-38-D
DM-39-S
DM-39-D
DM-44-D

High temperature on both CJ120 and vials

DM-37-S
DM-44-S
DM-18-S
DM-18-D
DM-19-S
DM-19-D
DM-20-S
DM-21-S
DM-22-S
DM-22-D
MW23-S-120
DM-23-S
DM-23-D
DM-24-S
DM-25-S
DM-25-D
DM-26-S
DM-27-D
DM-28-S
DM-28-D
DM-29-S
DM-29-D
MW23-S-130
MW23-S-135

Custody Tracking Form

eCOC Number: T758140

Received in Ottawa

Please use this form for custody tracking when submitting the work instructions via eCOC (electronic Chain of Custody). Please ensure your form **has a barcode or a Bureau Veritas eCOC confirmation number** in the top right hand side. This number links your electronic submission to your samples. This form should be **placed in the cooler with your samples.**

Relinquished By				Received By			
KIMBERLY CARLTON		Date	2023/08/29	AYSON LAWRENCE	Ayson Lawrence	Date	2023/09/05
		Time (24 HR)	10:00			Time (24 HR)	1135
		Date		NIRAL PATEL	Niral	Date	2023/09/06
		Time (24 HR)				Time (24 HR)	08:30
		Date				Date	
		Time (24 HR)				Time (24 HR)	

Unless otherwise agreed to, submissions and use of services are governed by Bureau Veritas' standard terms and conditions which can be found at www.bvna.com.

Triage Information

Sampled By (Print)	# of Coolers/Pkgs				
KIMBERLY CARLTON	4 Coolers	Rush ☐	Immediate Test ☐	Food Residue ☐	
		Micro ☐		Food Chemistry ☐	

***** Laboratory Use Only *****

Received At

Labeled By

Verified By

Lab Comments:

05-Sep-23 11:35
Christine Gripton
C3R2660
A1V ENV-1557

Custody Seal		Cooling Media	Temperature °C		
Present (Y/N)	Intact (Y/N)	Present (Y/N)	1	2	3
	Refer to ACTR		see ACTR		

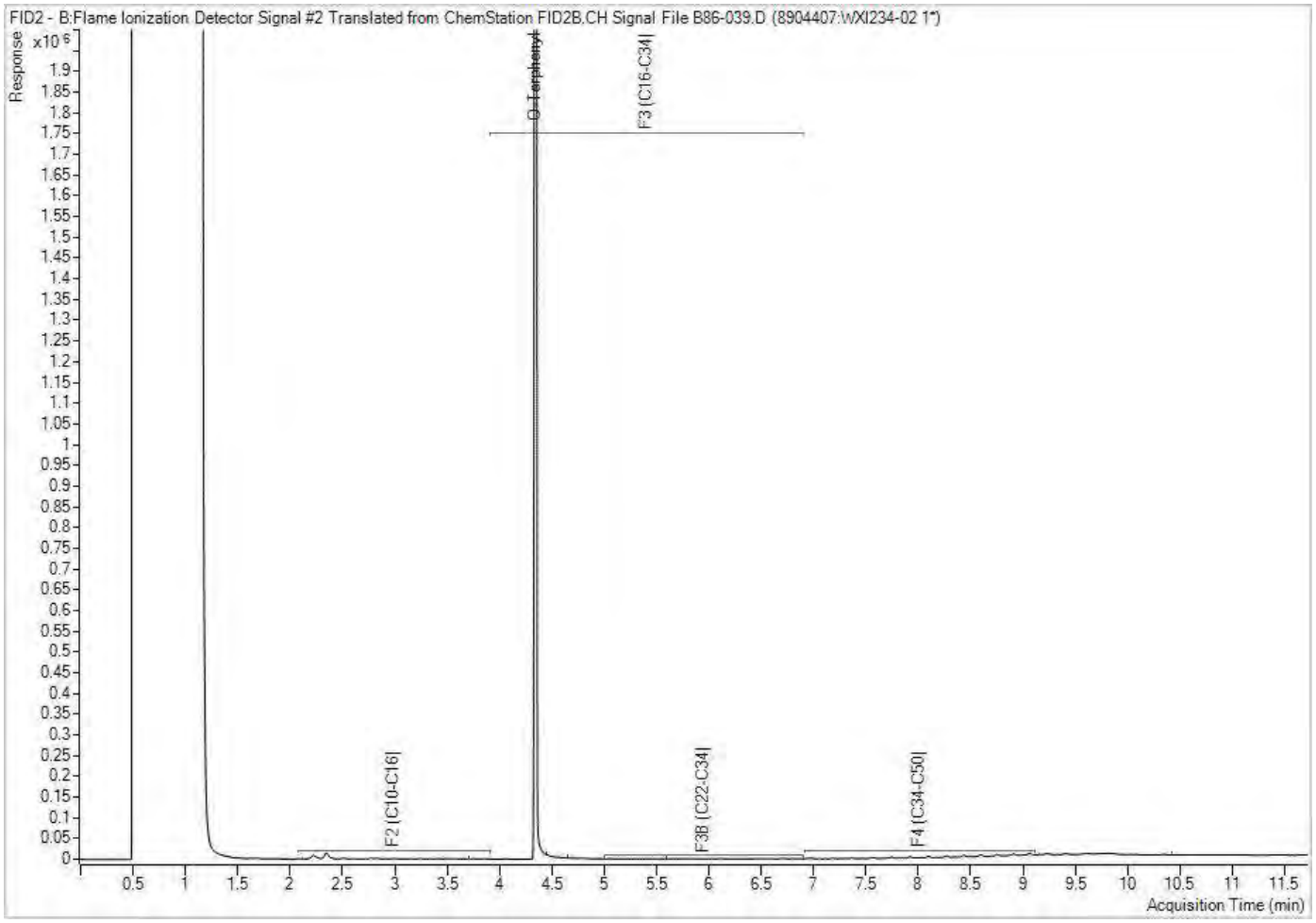
Drinking Water Metals Preservation Check Done (Circle) **YES** **NO**

COR FCD-00340 /5 PAGE 1 of 1

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI234

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW07-22-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

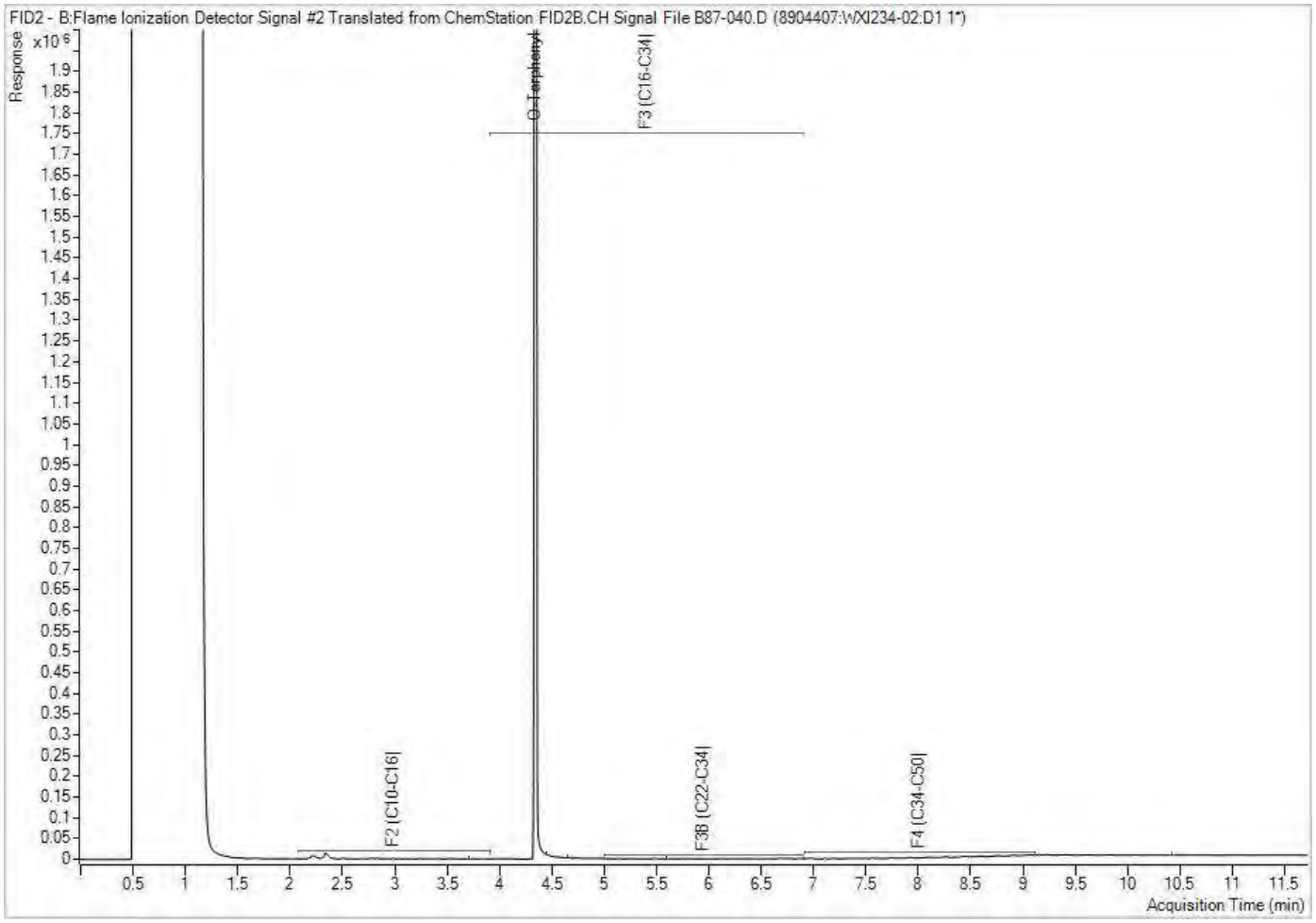


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI234 Lab-Dup

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW07-22-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

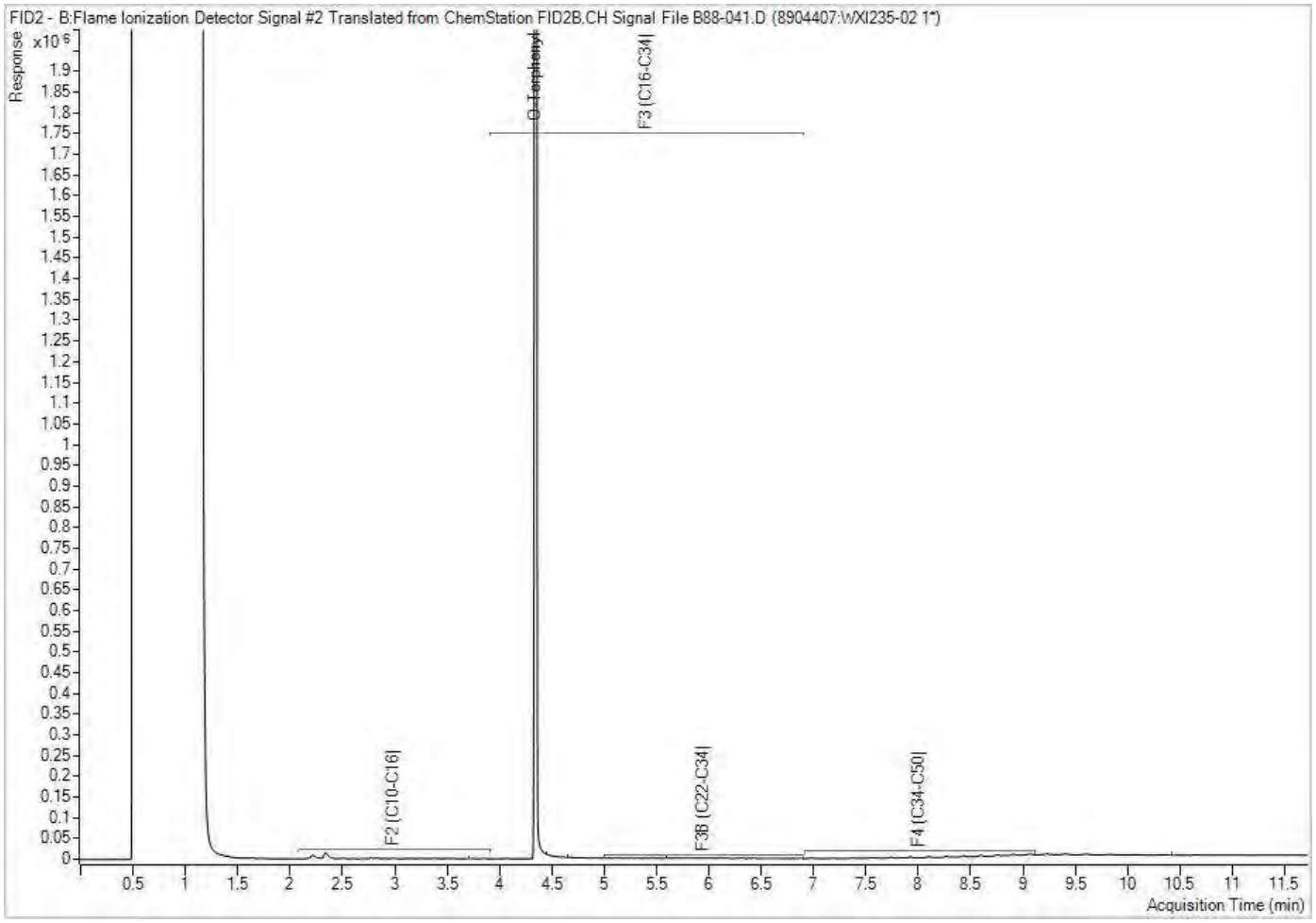


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI235

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW07-22-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

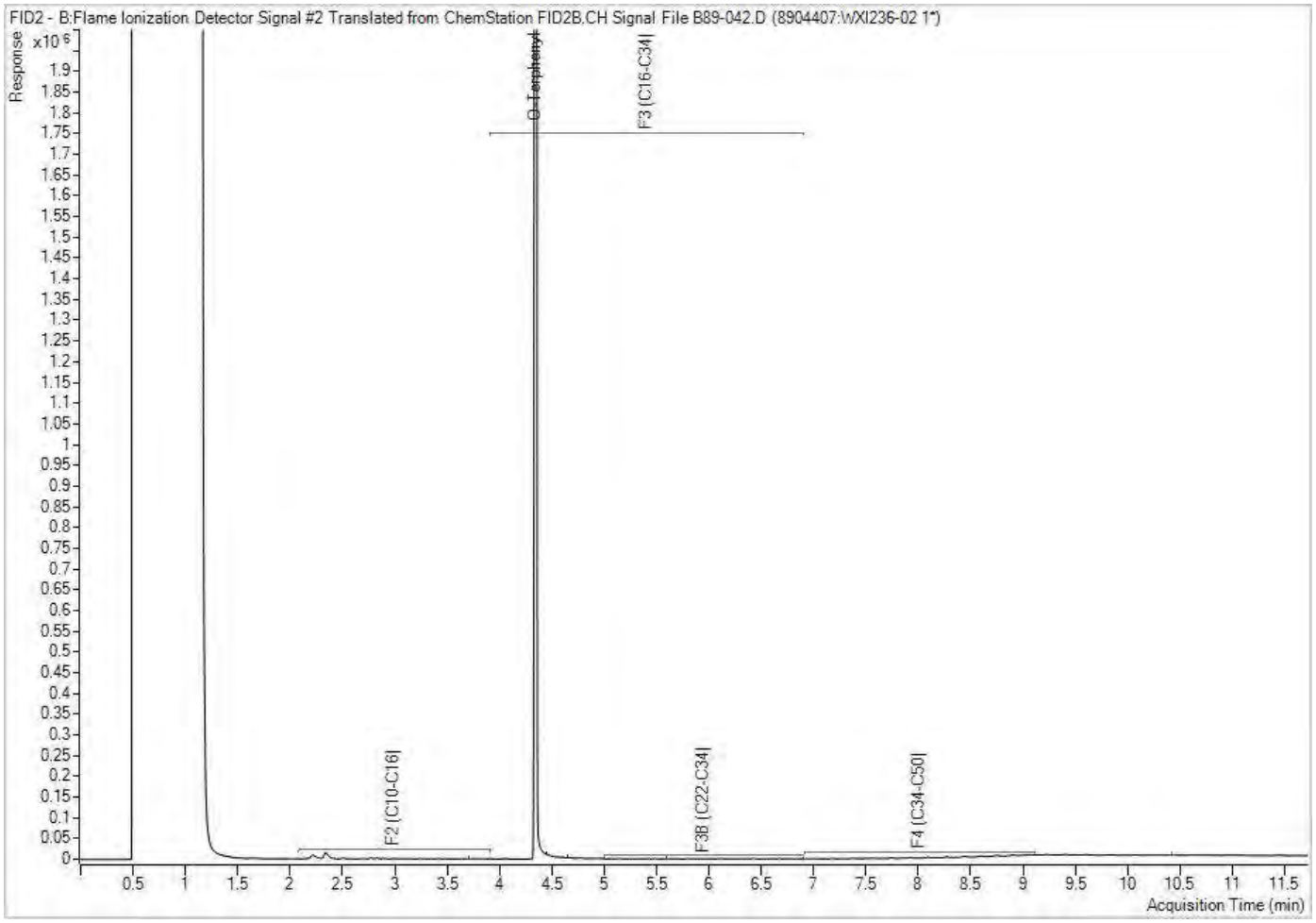


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI236

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW07-23-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

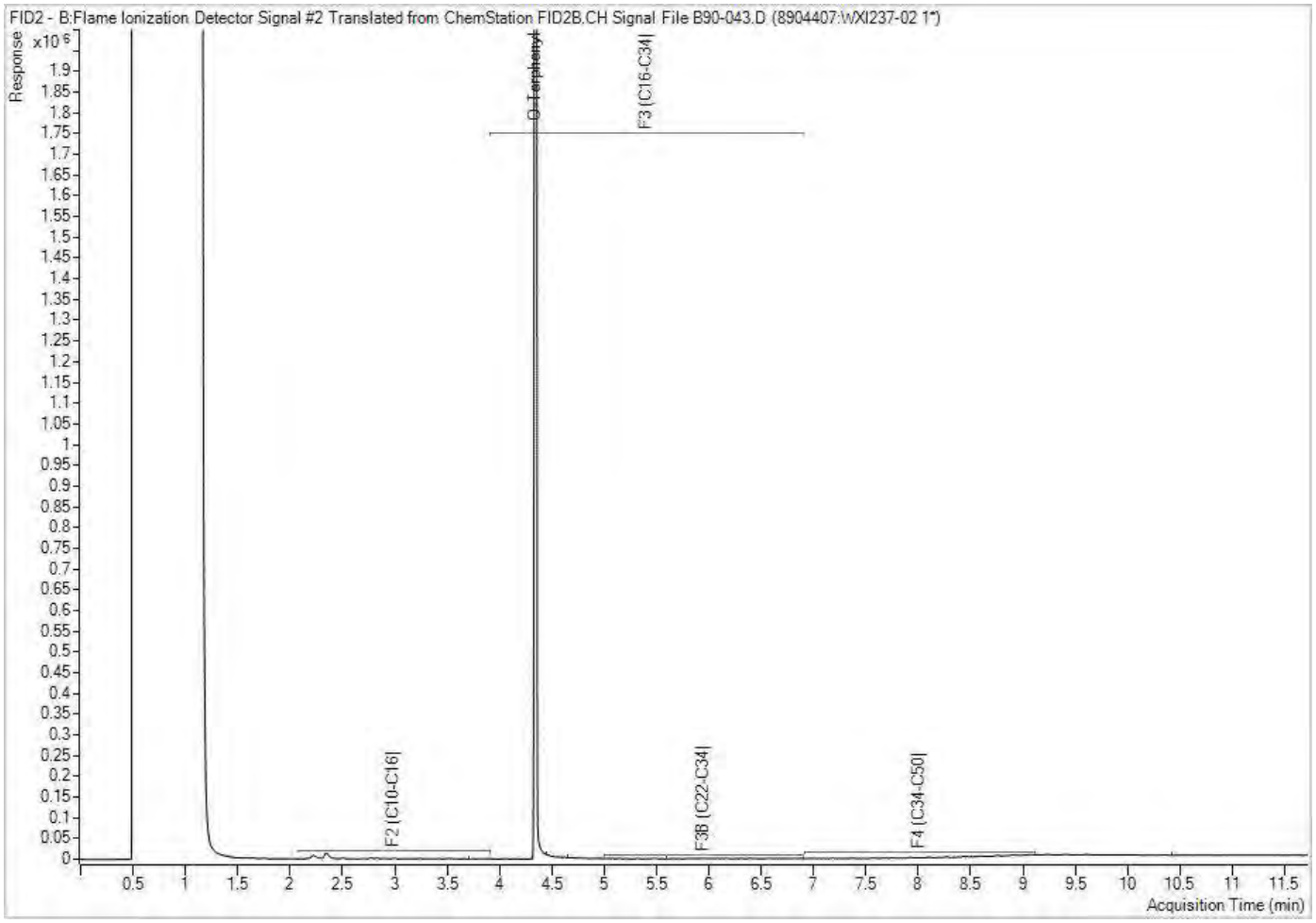


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI237

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW07-23-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

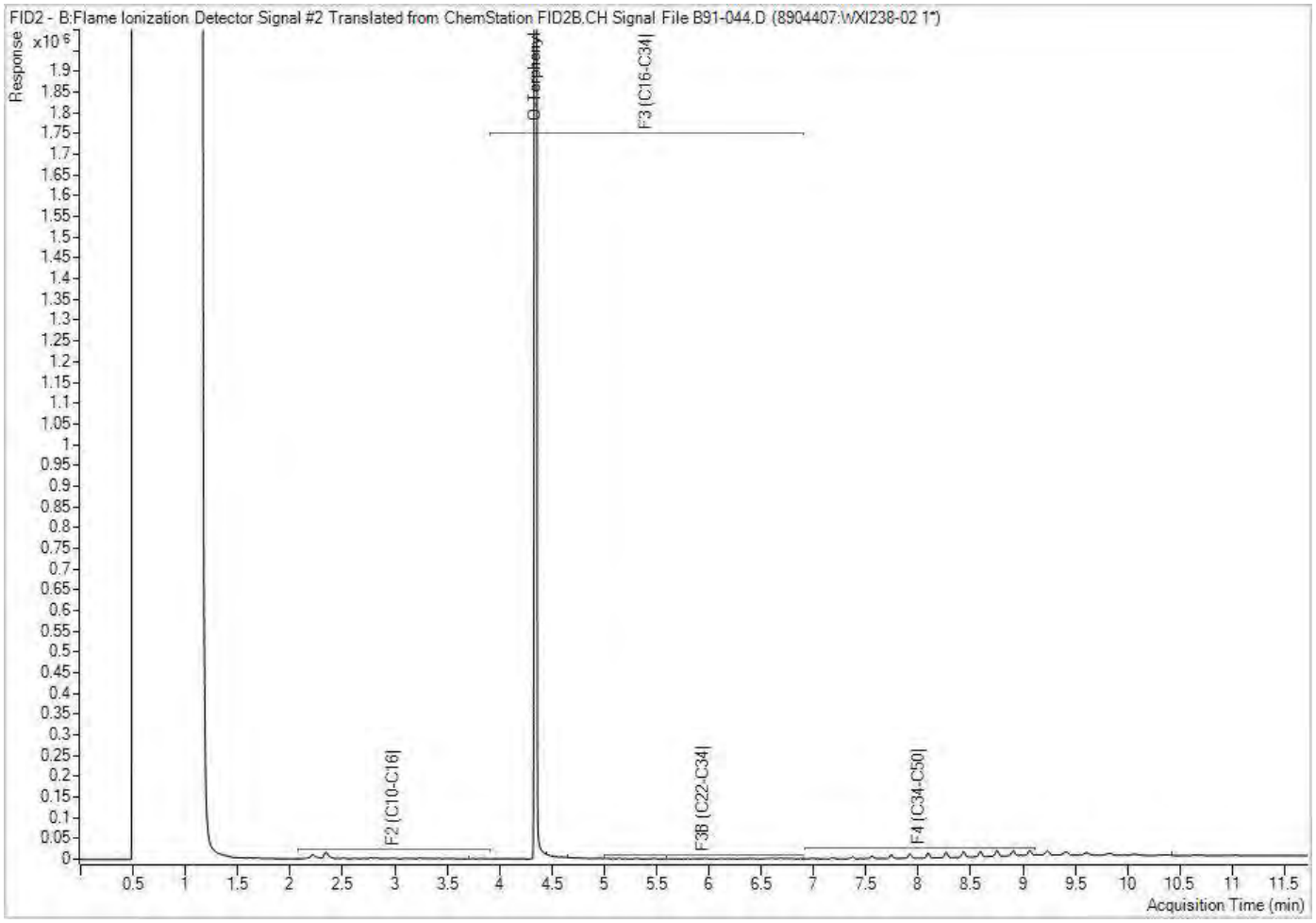


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI238

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW08-24-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

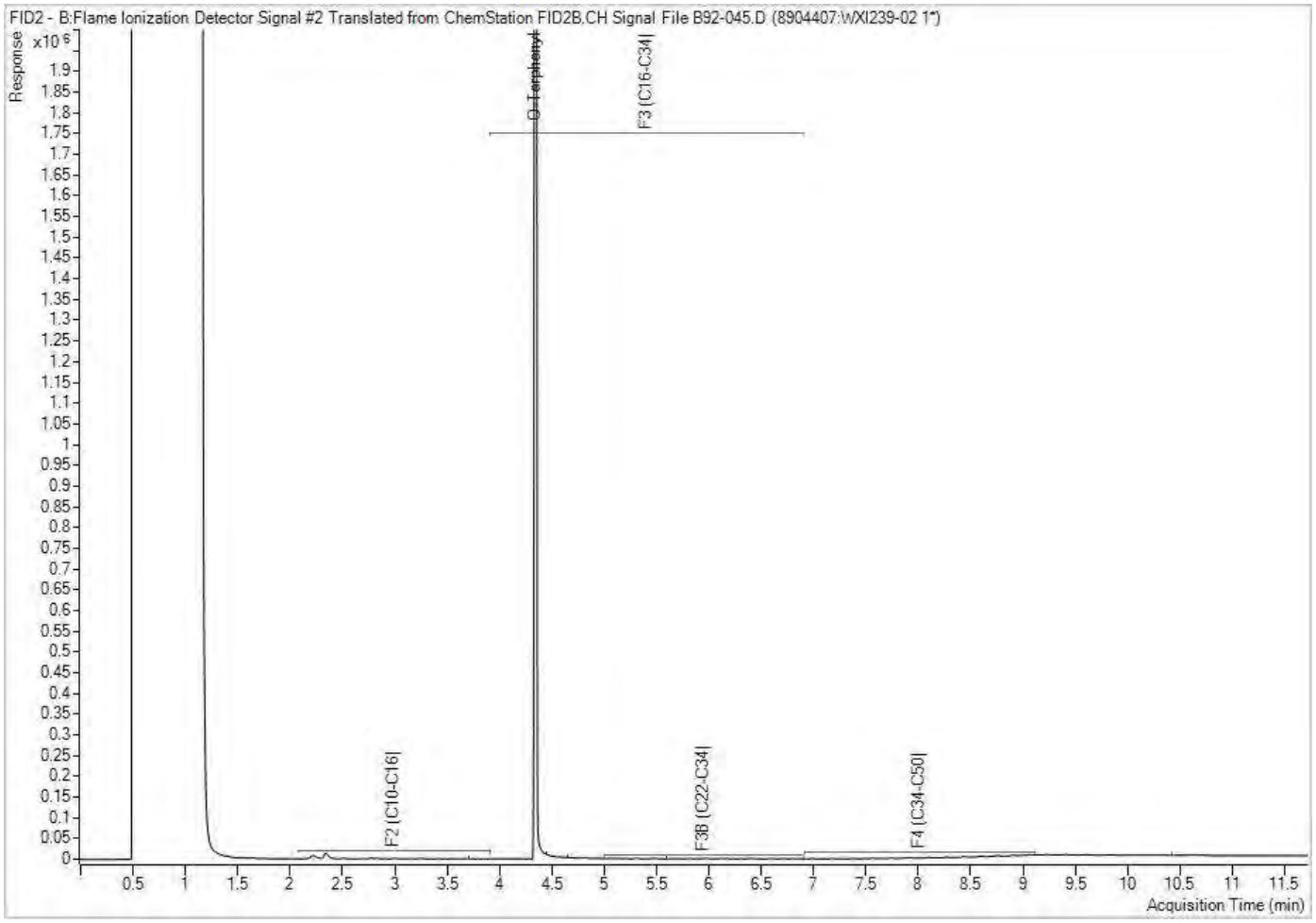


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI239

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW08-24-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

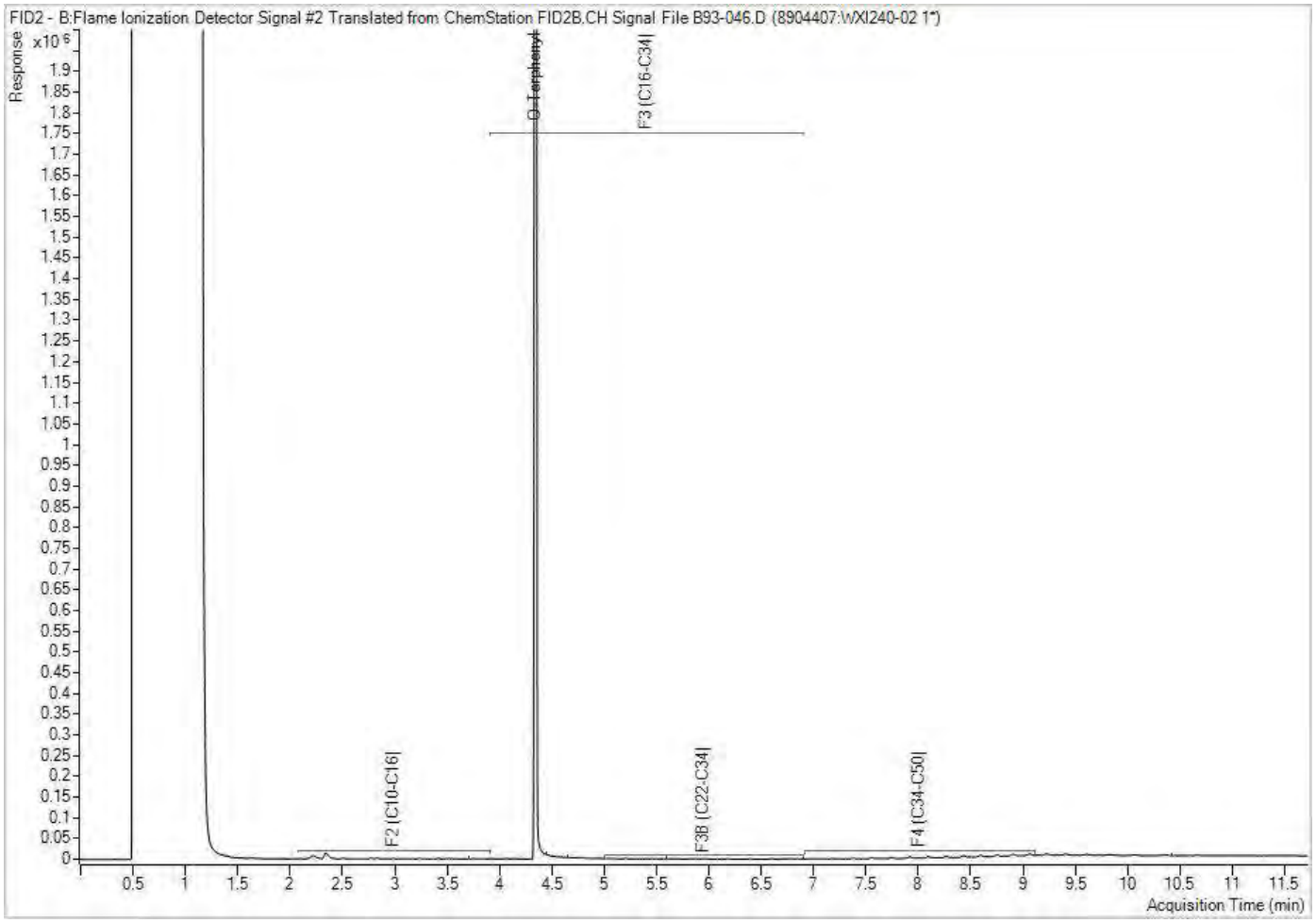


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI240

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW08-25-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

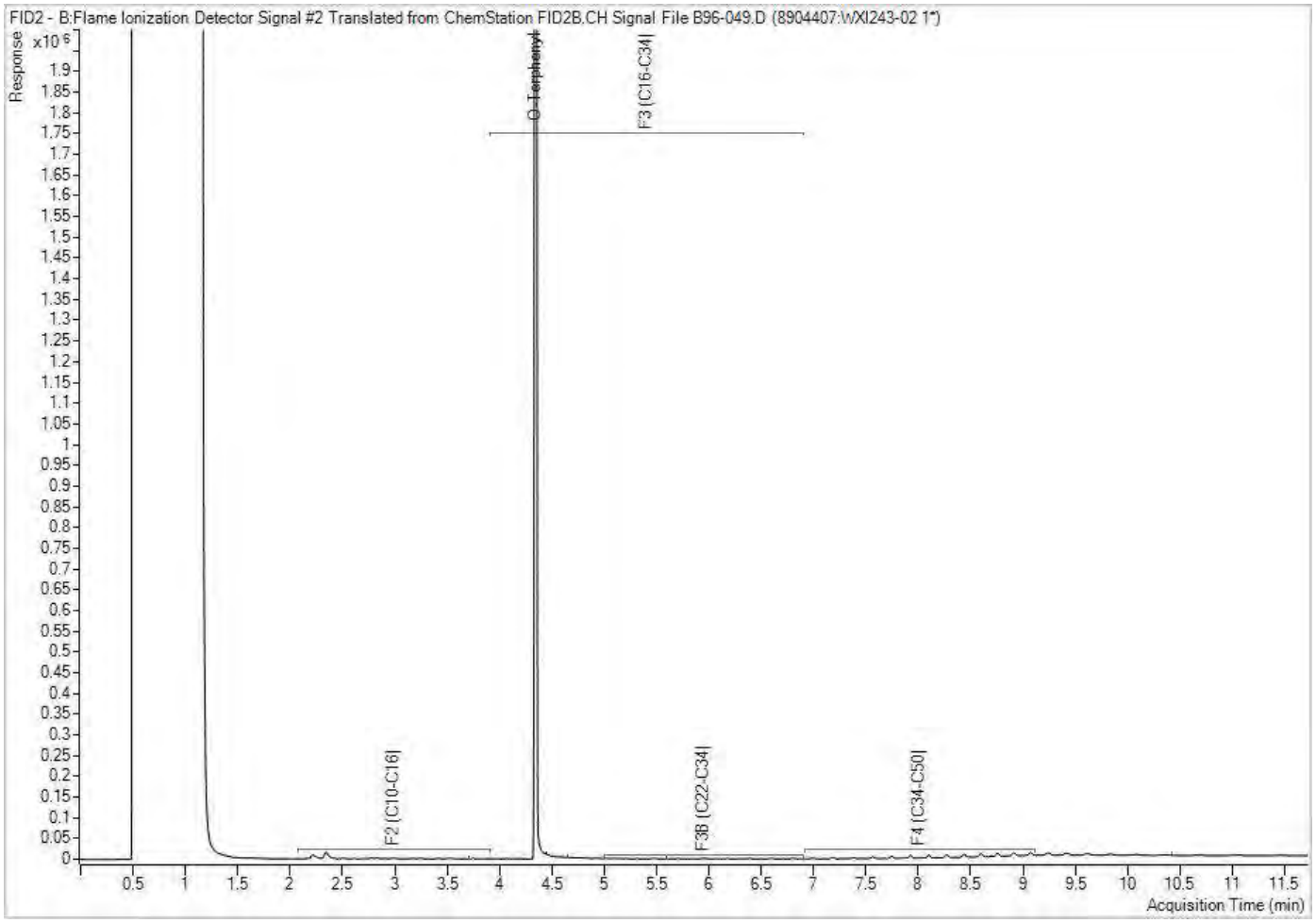


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI243

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW12-02-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

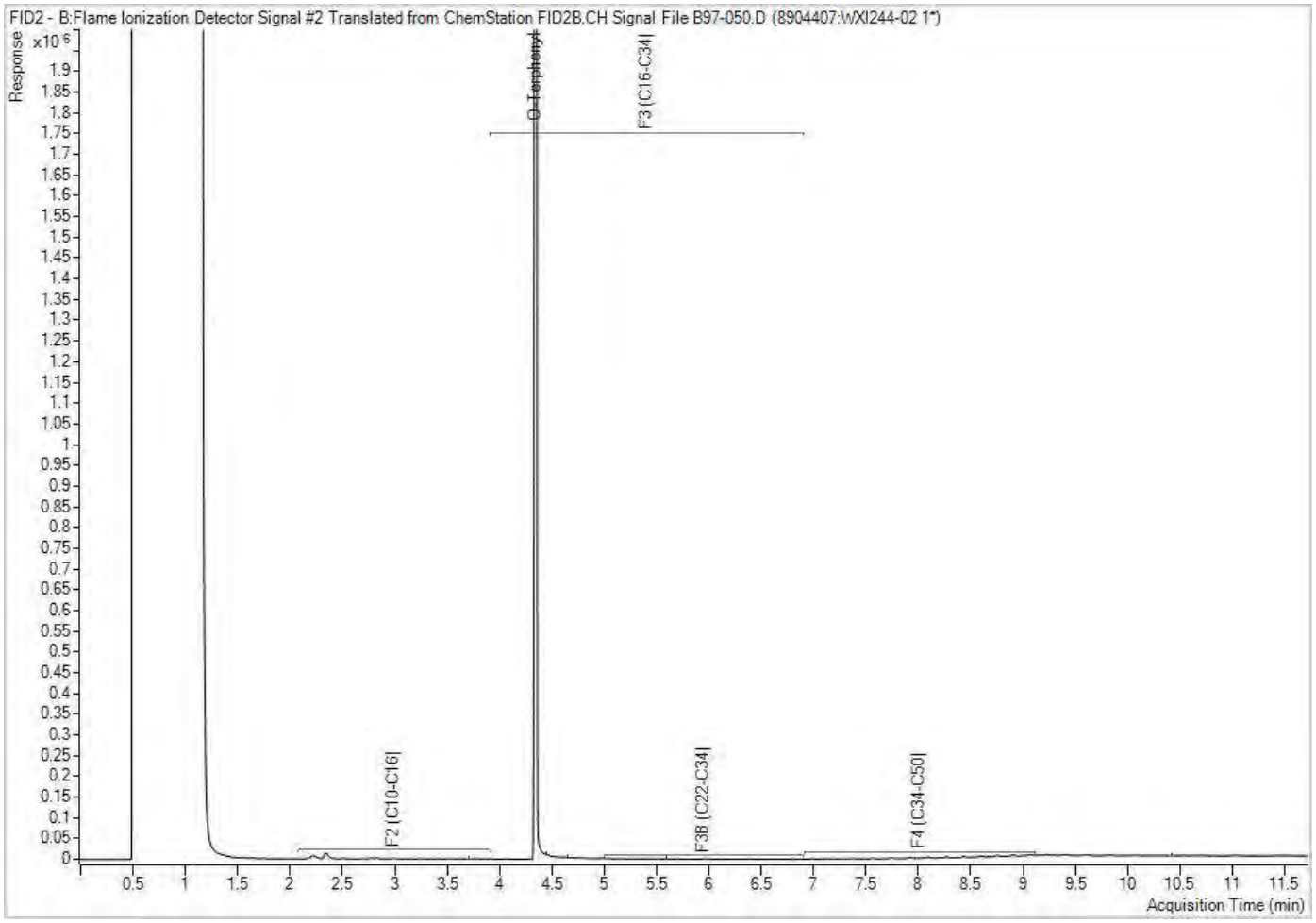


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI244

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-S-50

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

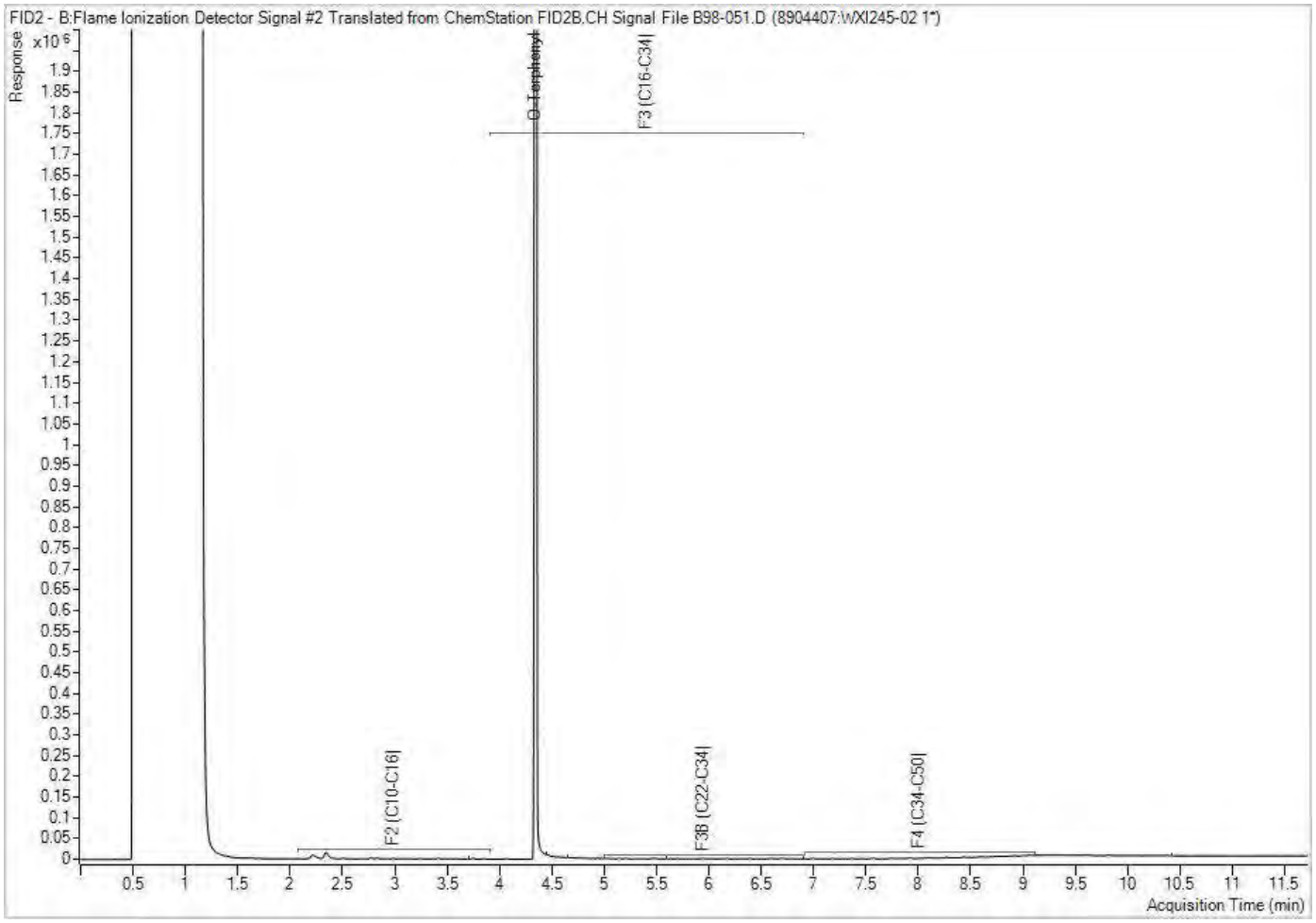


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI245

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-31-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

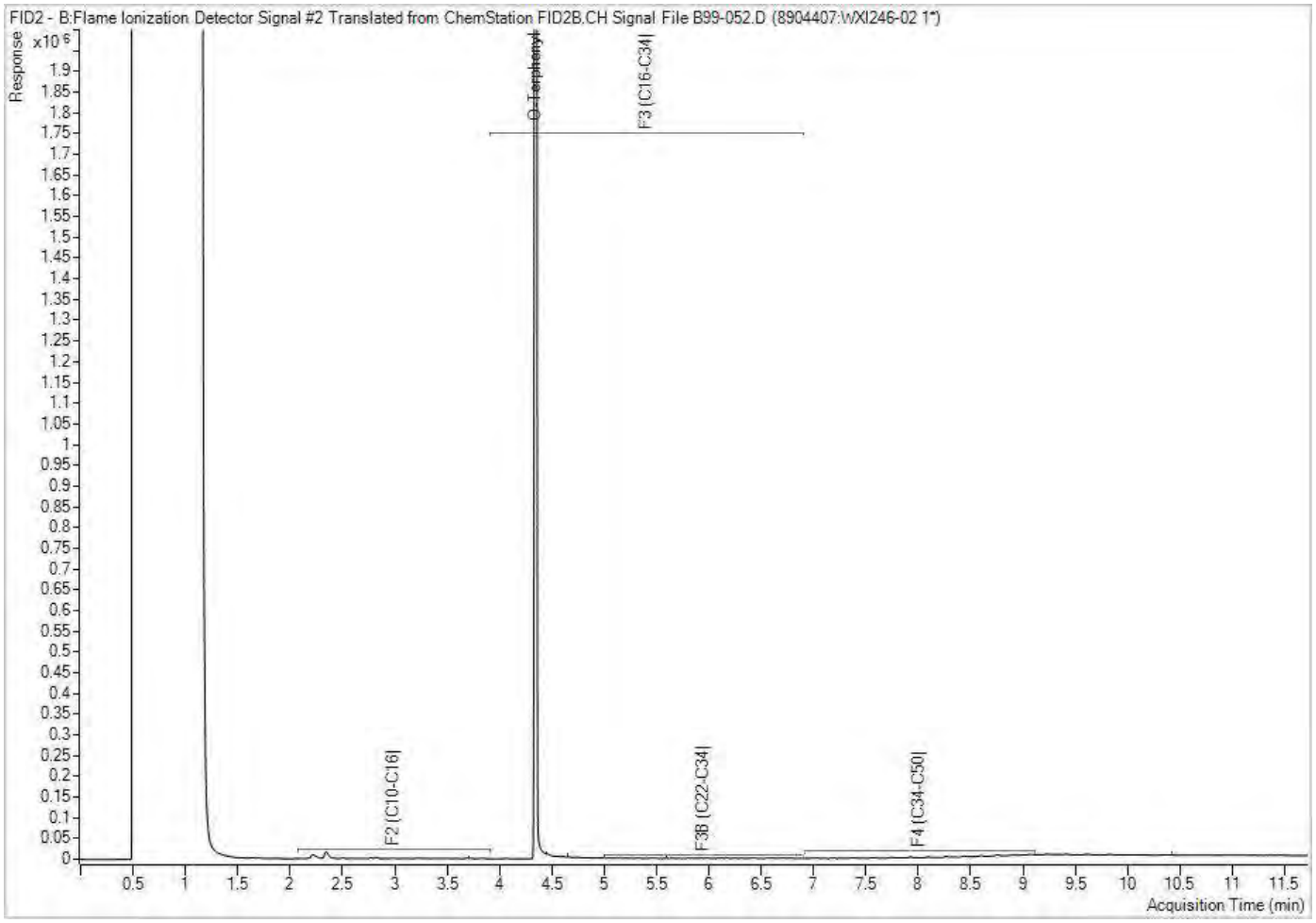


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI246

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-31-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

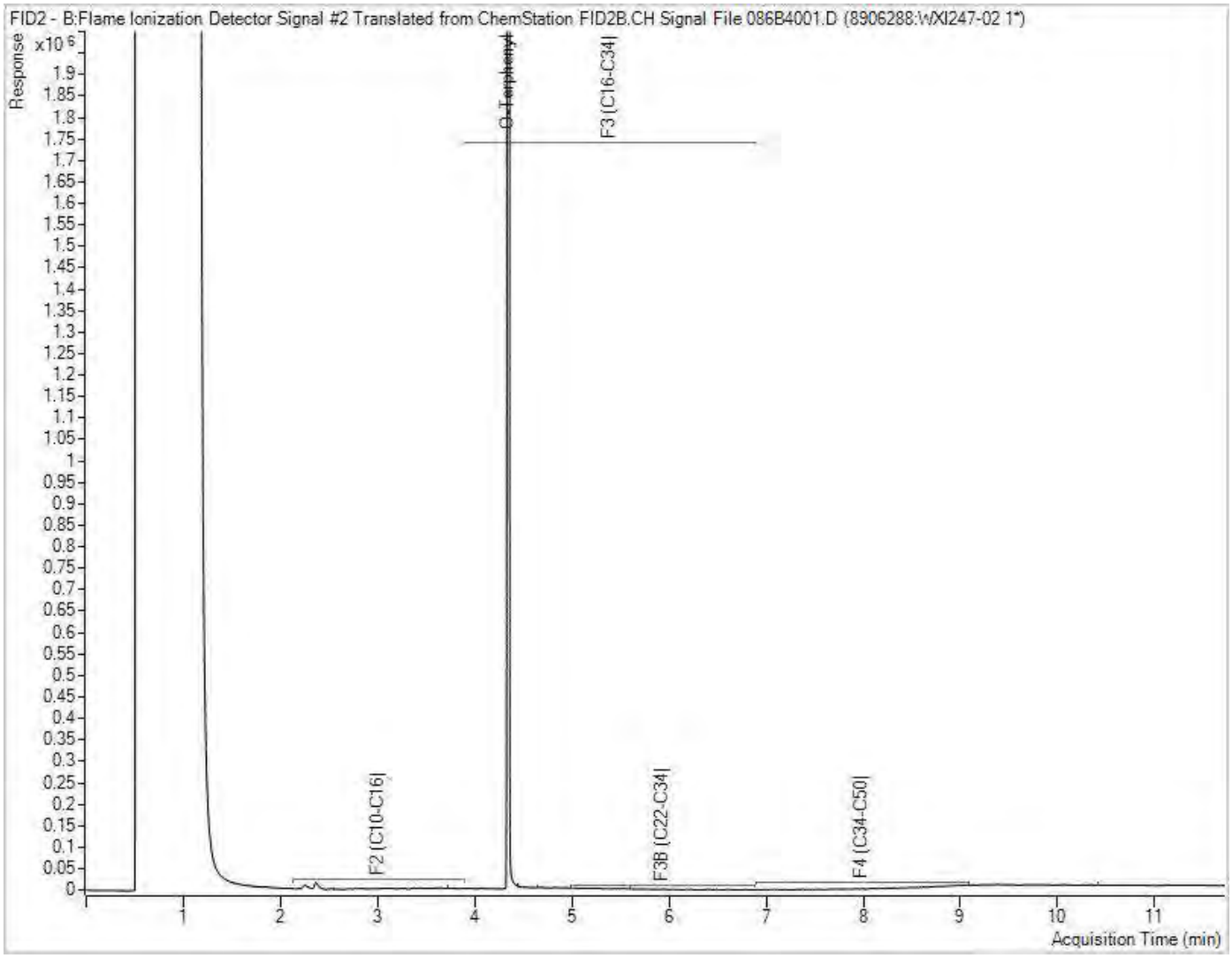


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI247

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-32-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

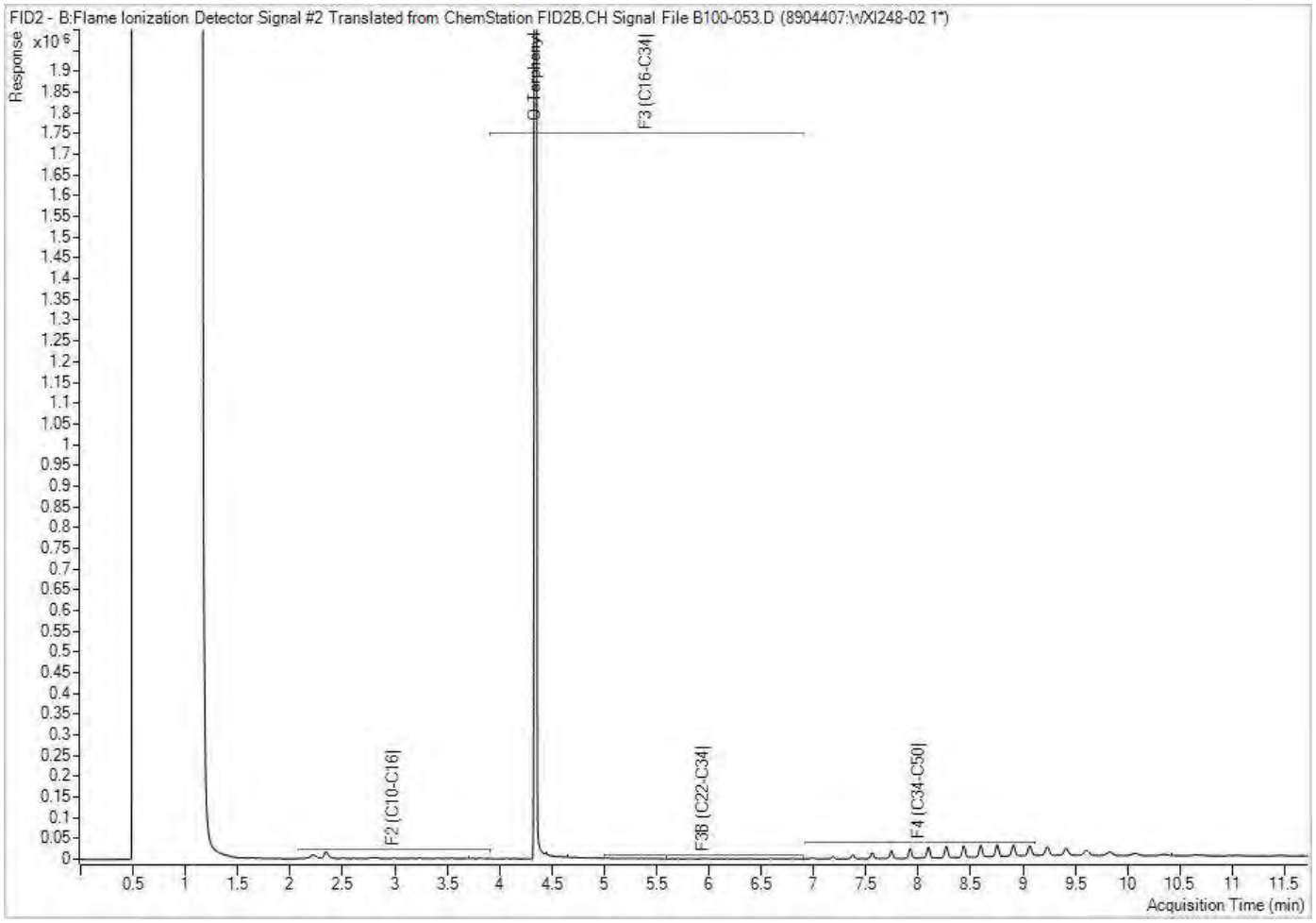


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI248

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-32-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

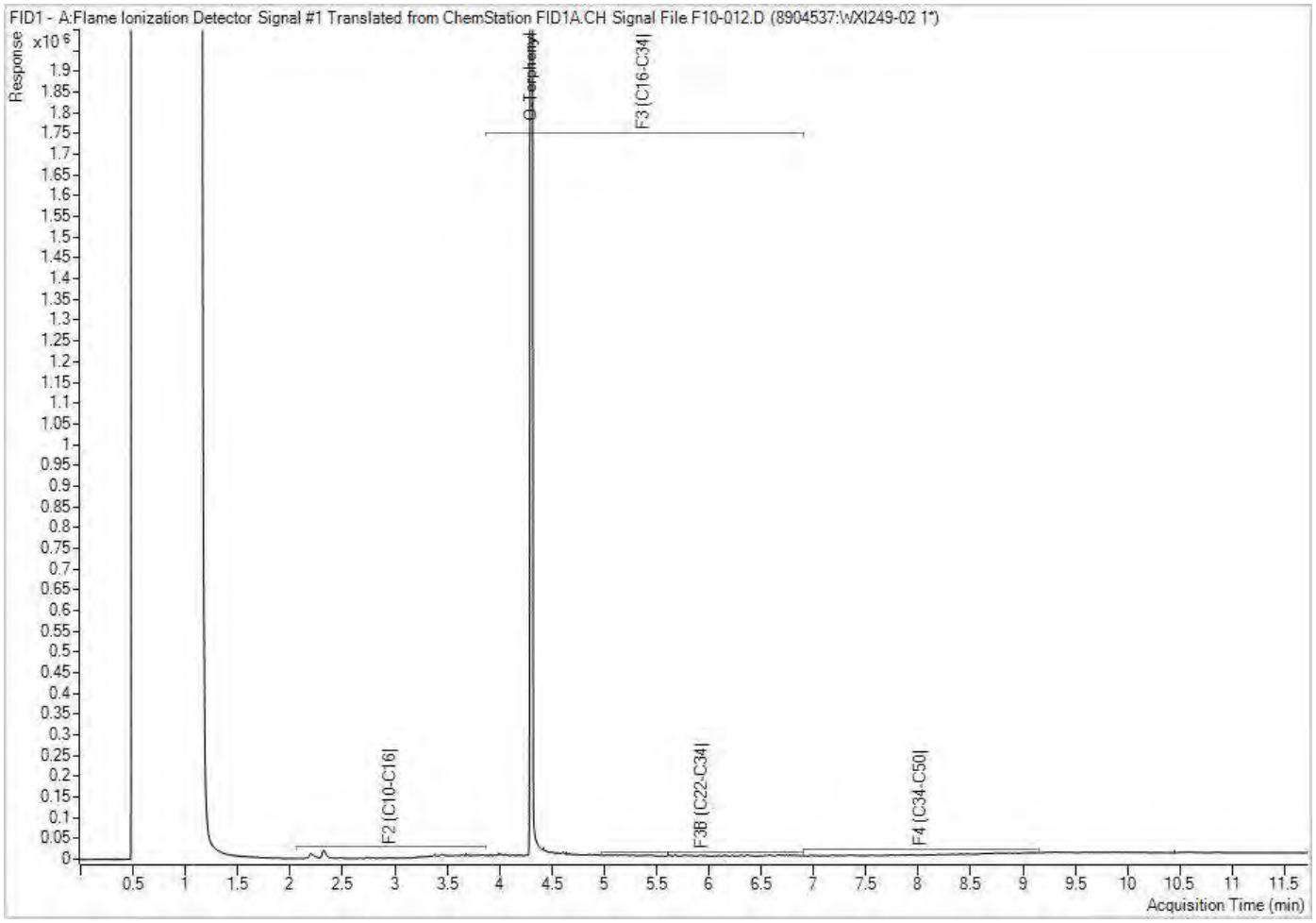


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI249

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-33-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

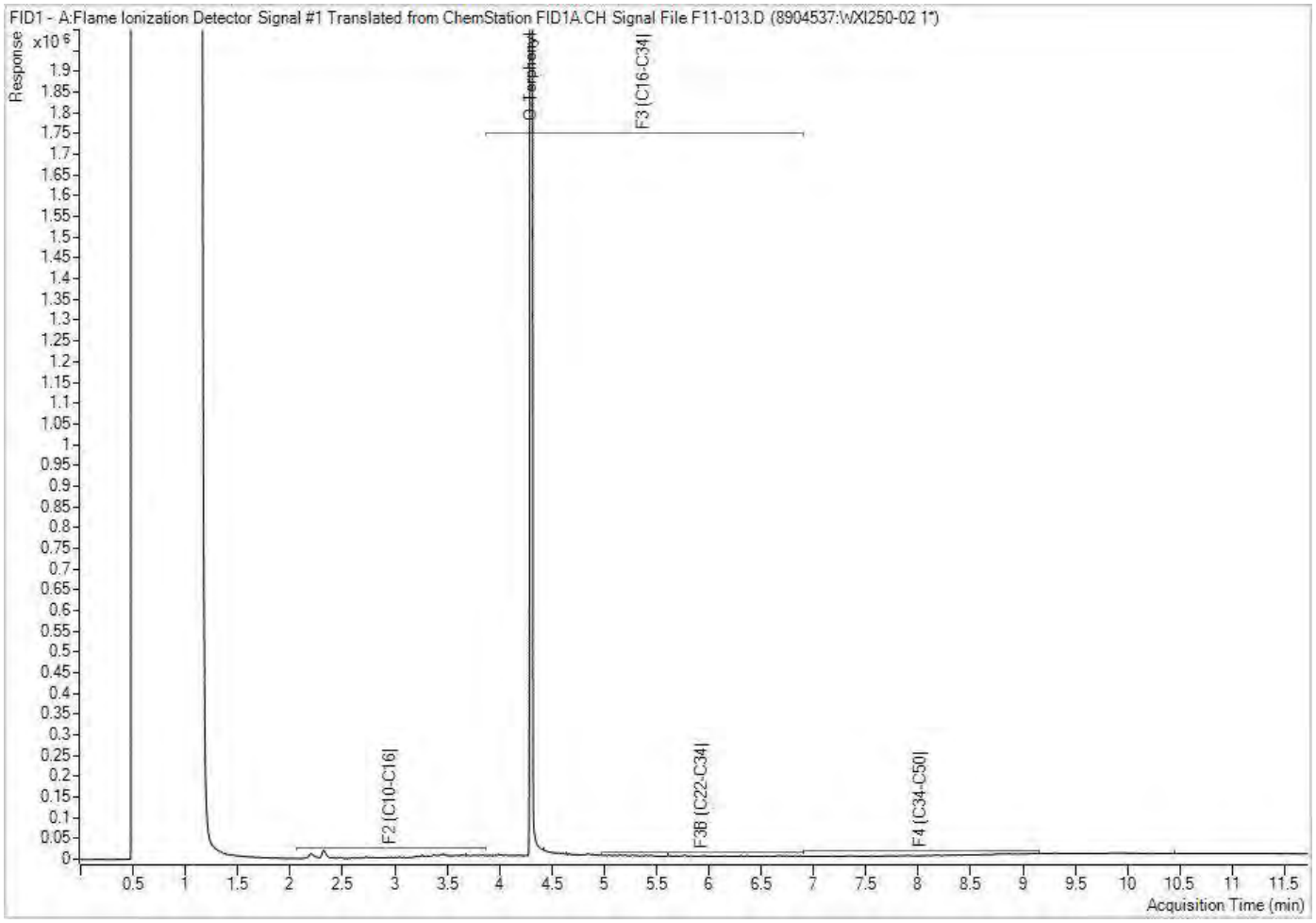


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI250

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-33-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

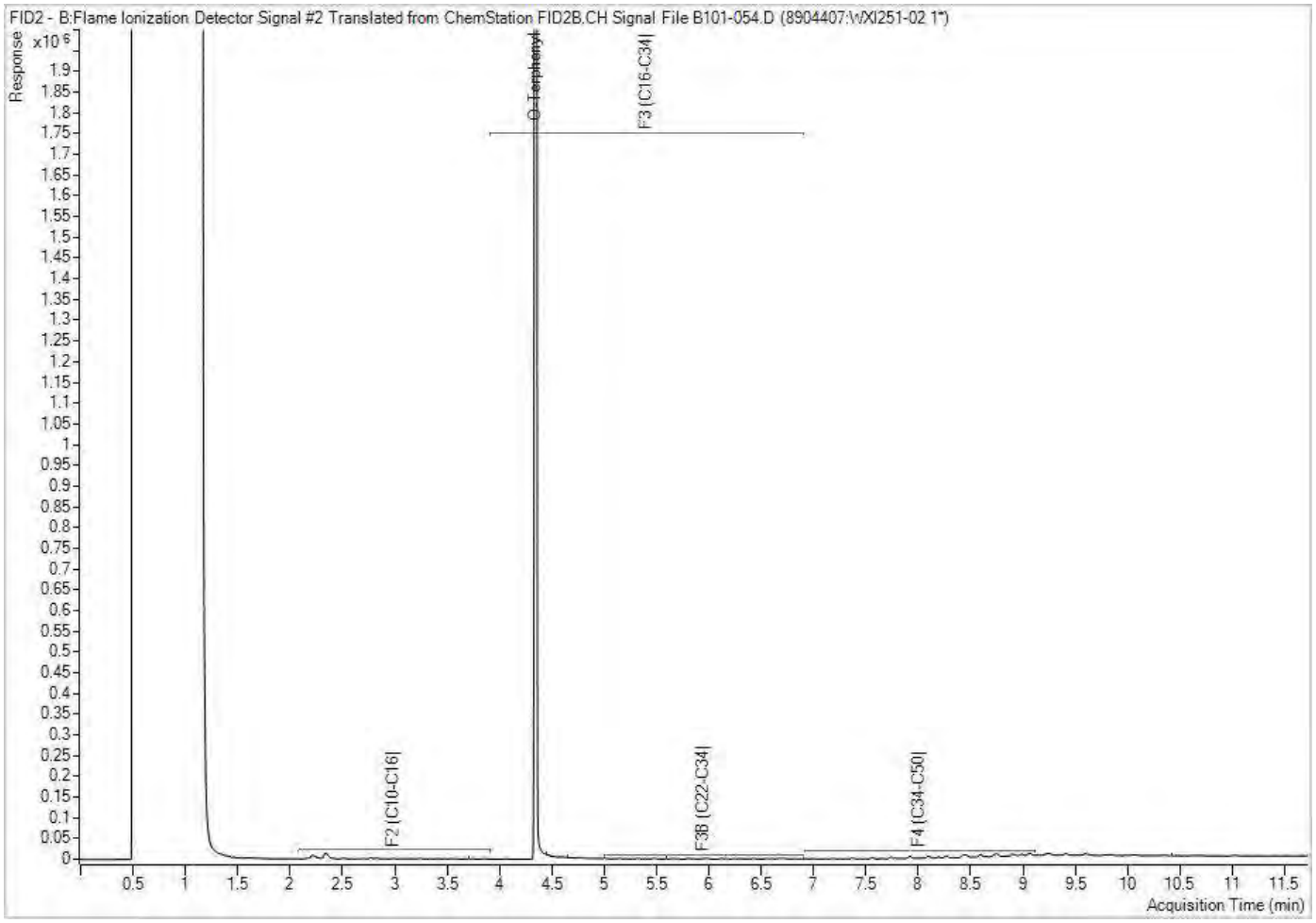


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI251

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-34-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

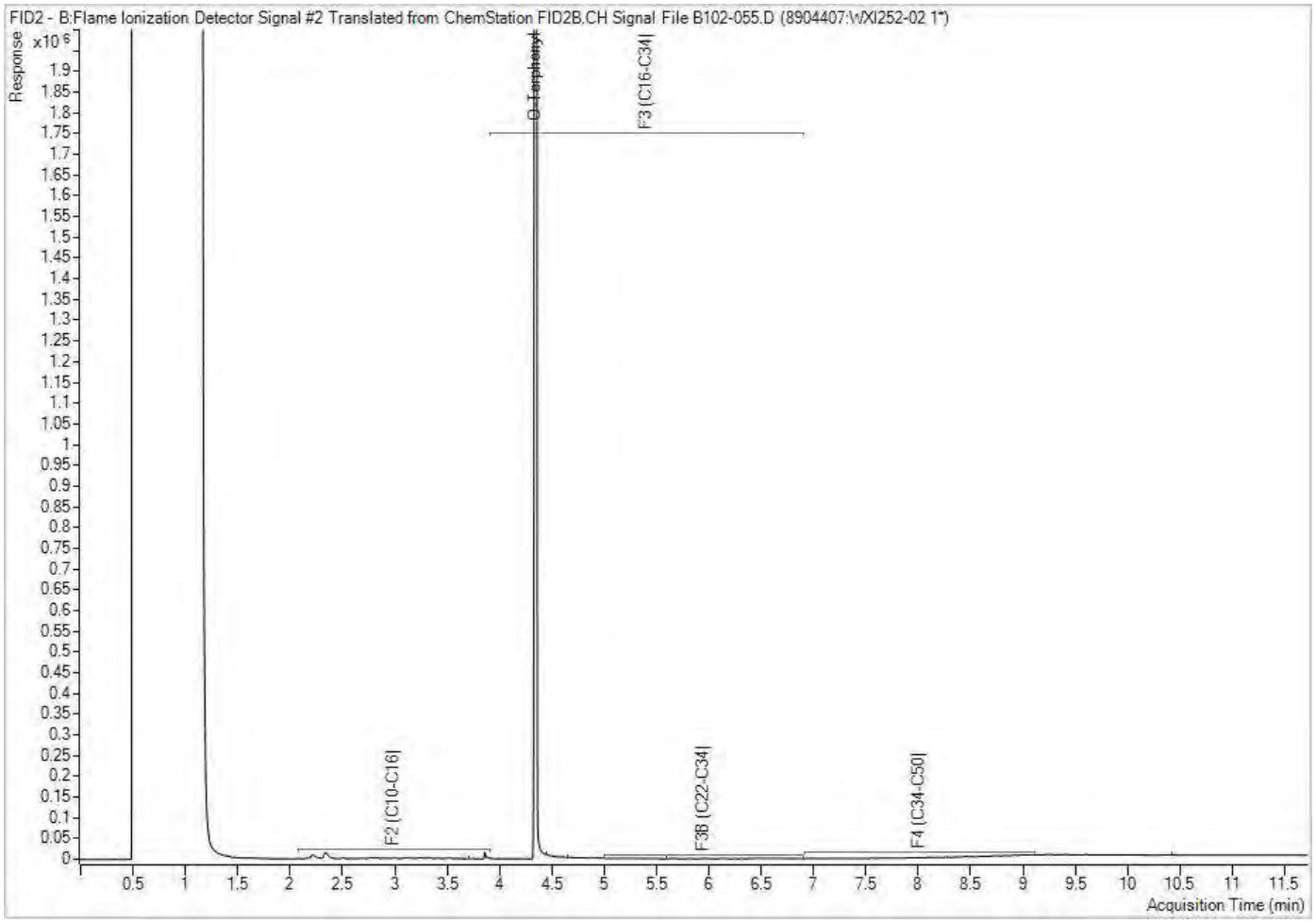


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI252

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-34-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

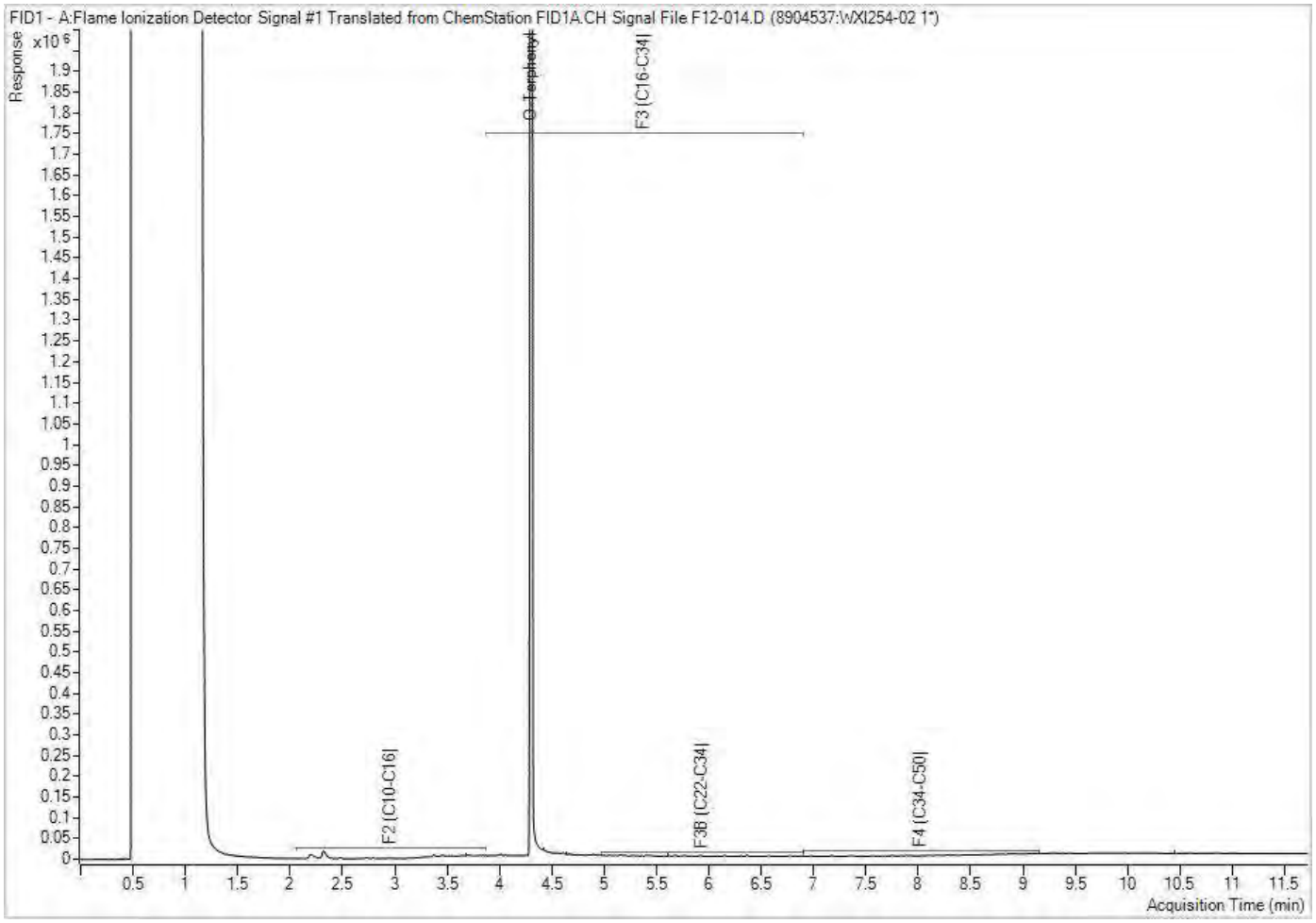


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI254

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-37-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

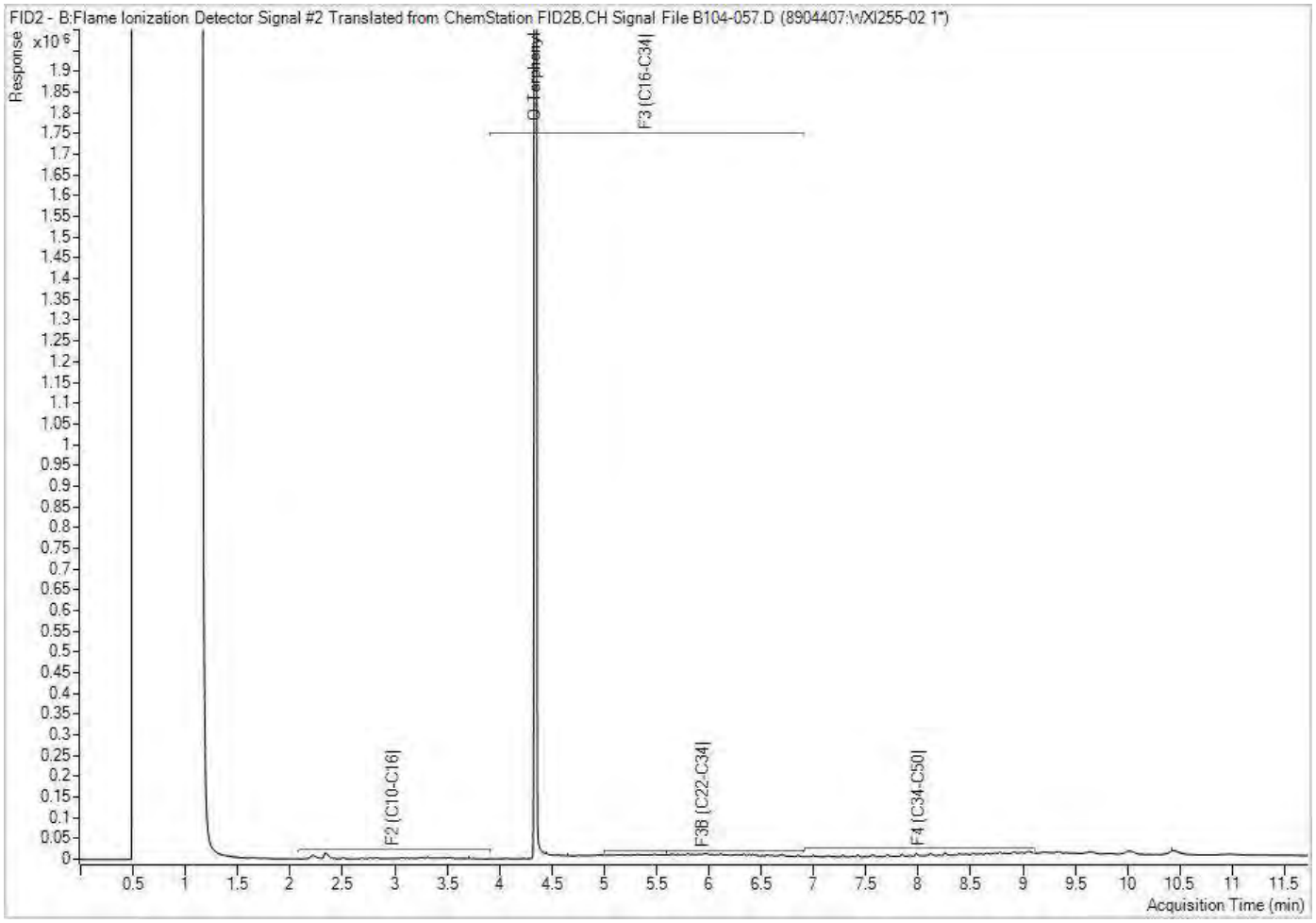


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI255

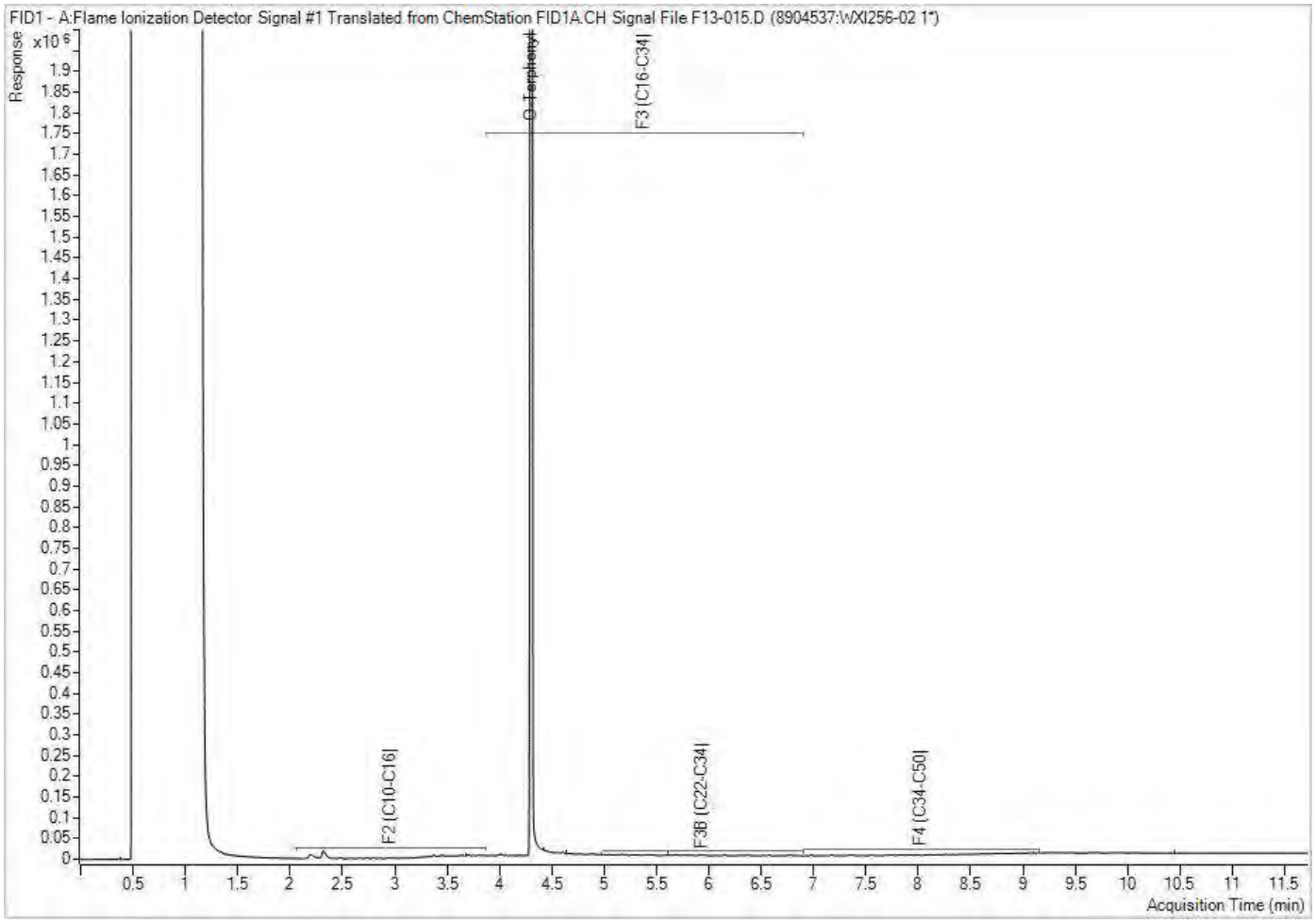
BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-38-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

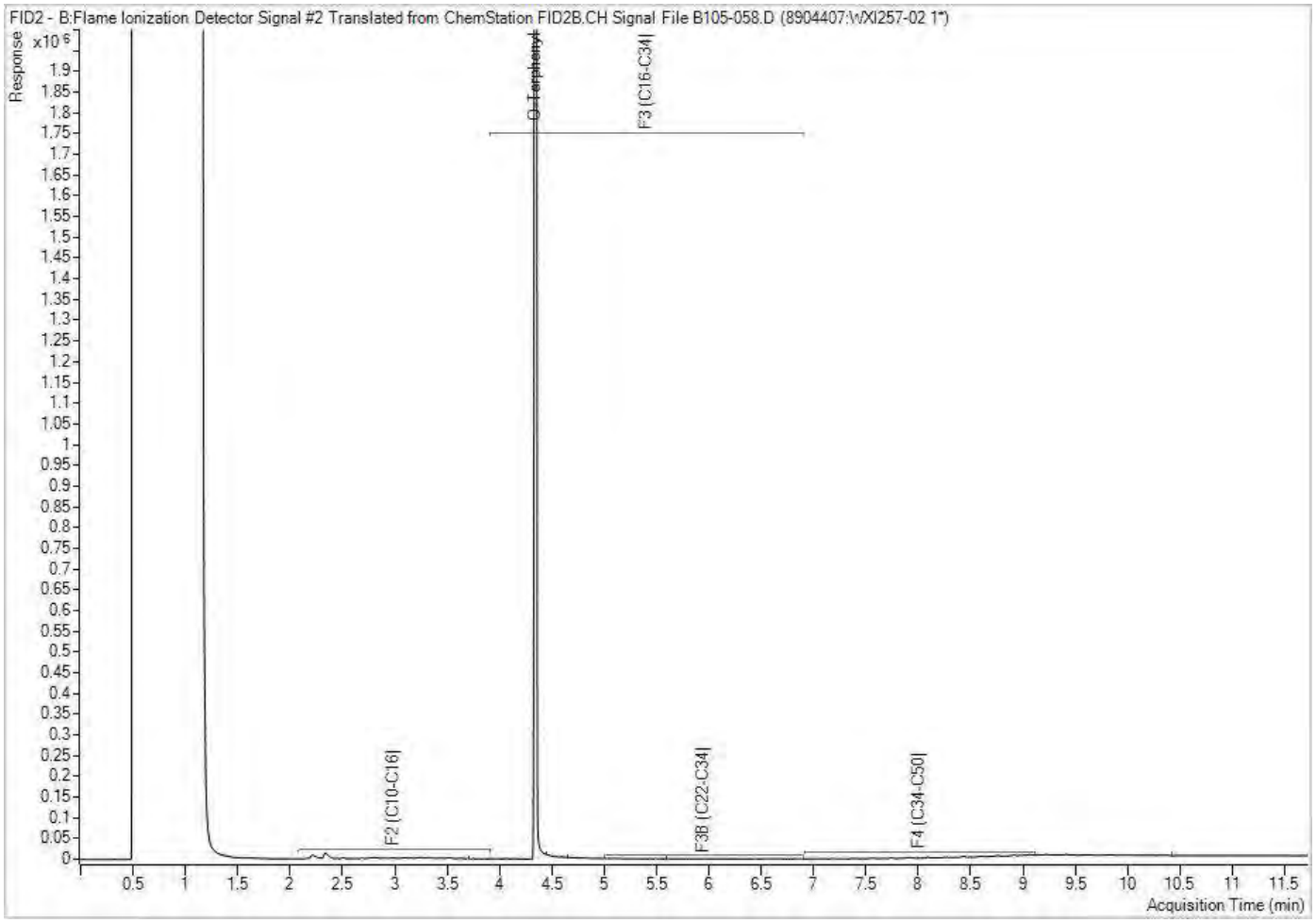


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI257

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-39-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

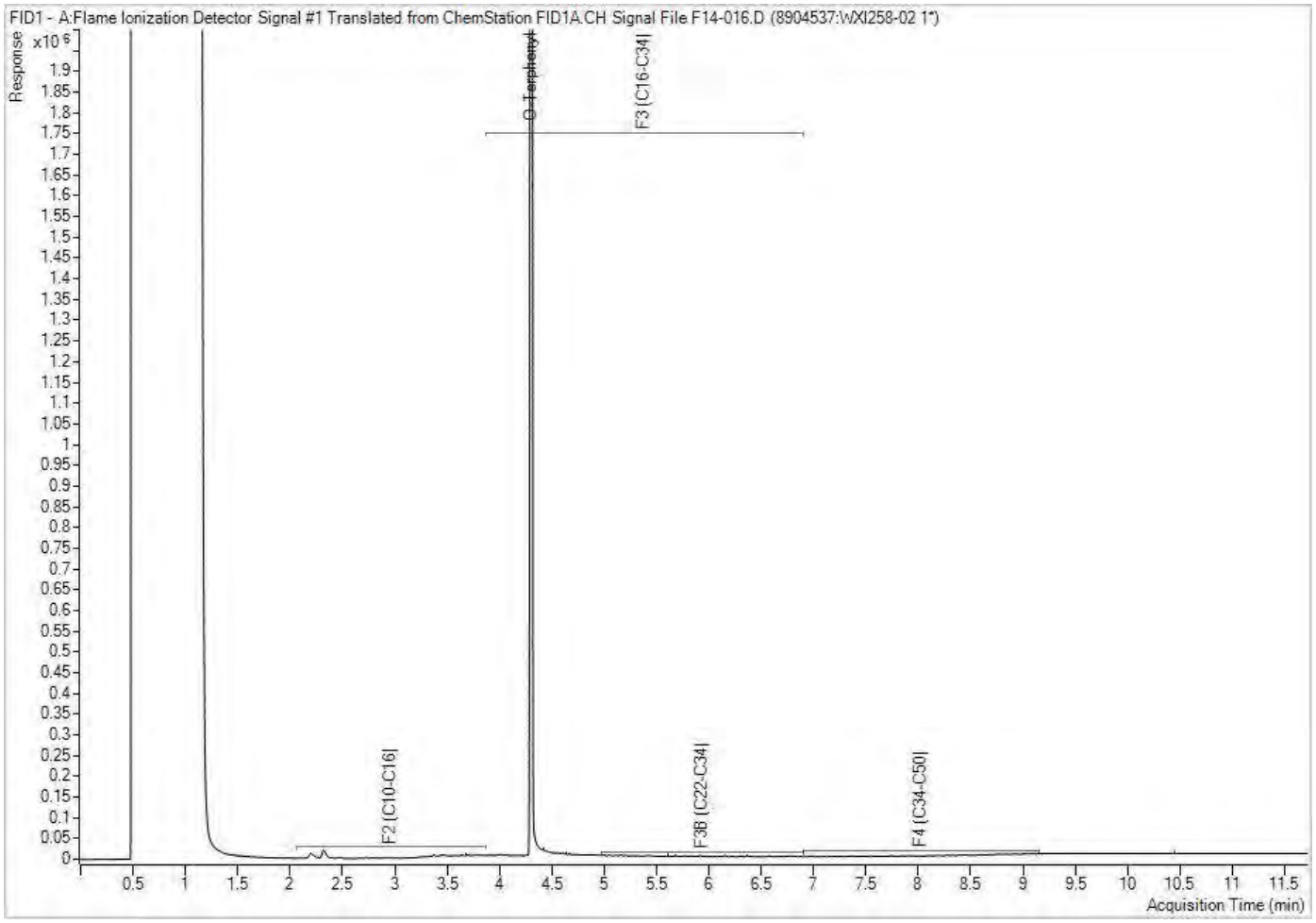


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI258

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-39-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

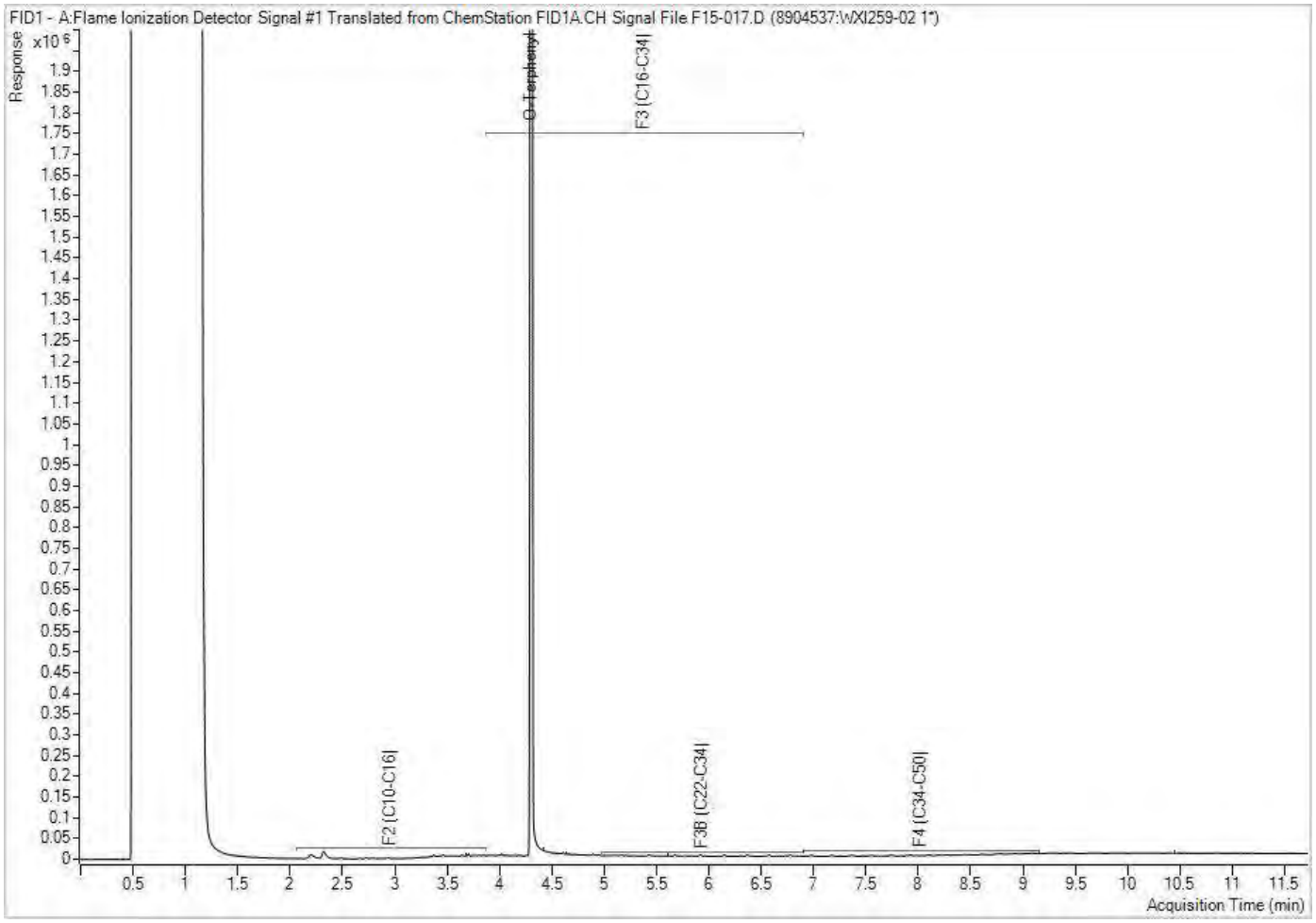


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI259

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-S-60

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

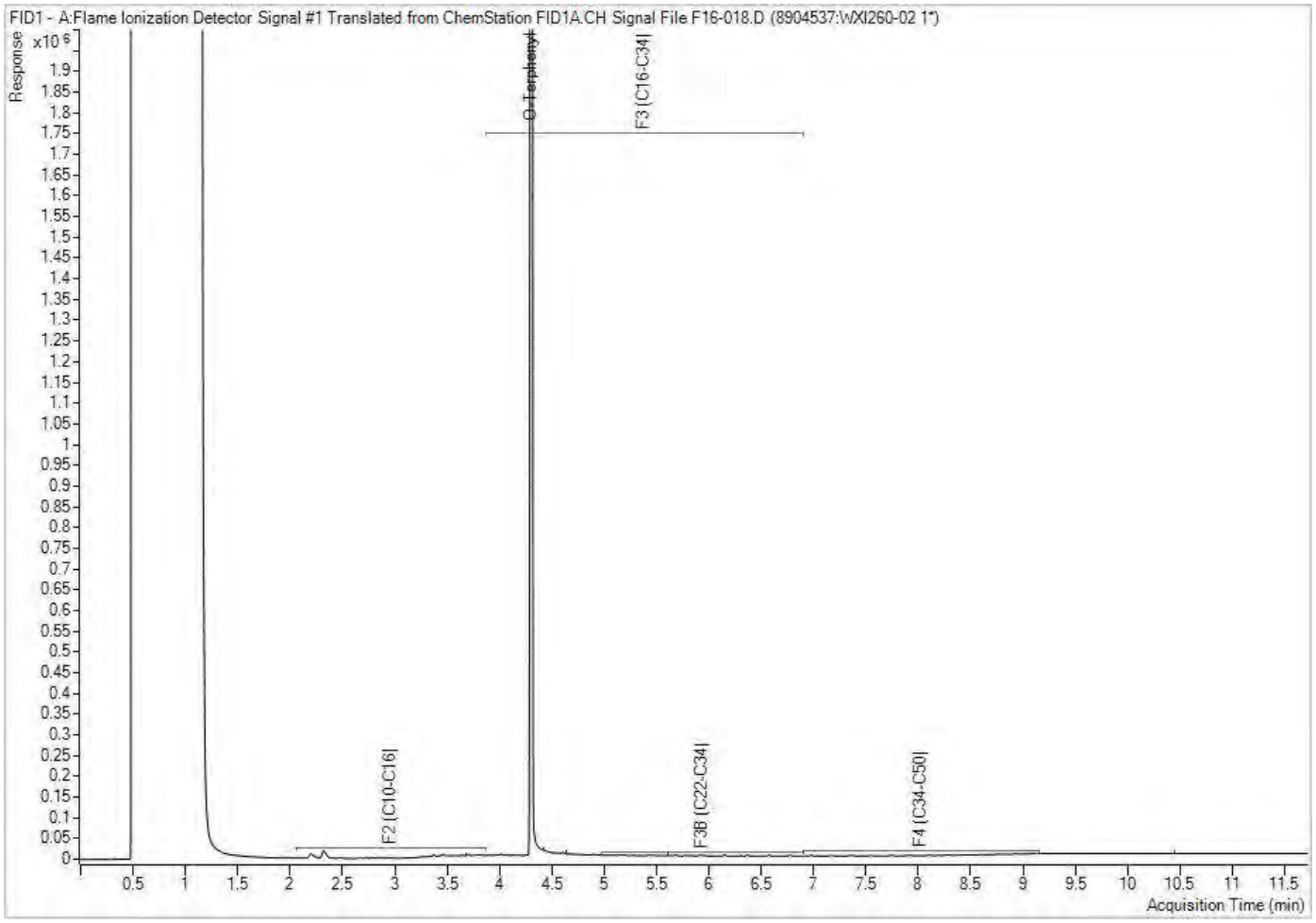


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI260

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-42-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

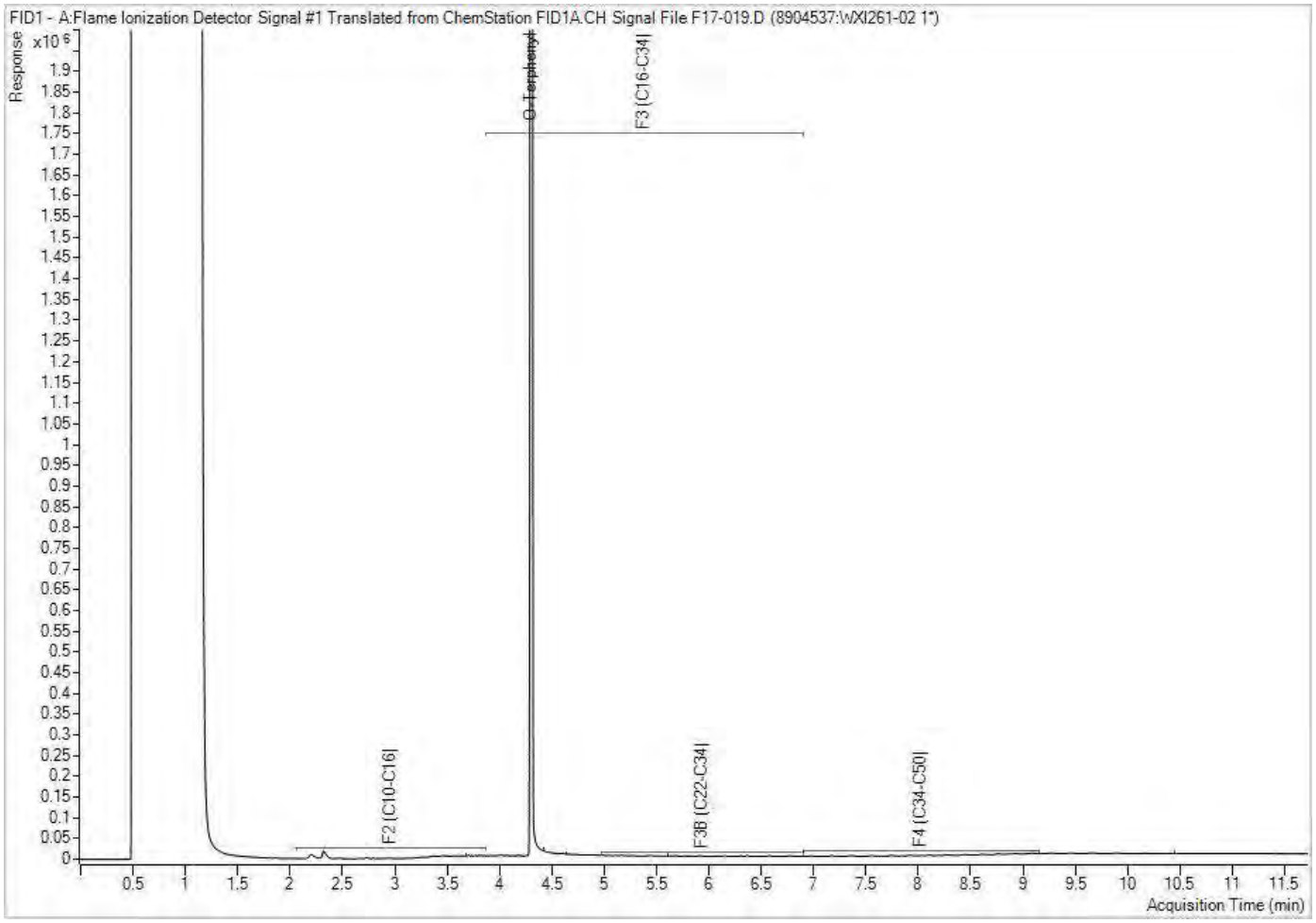


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI261

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-42-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

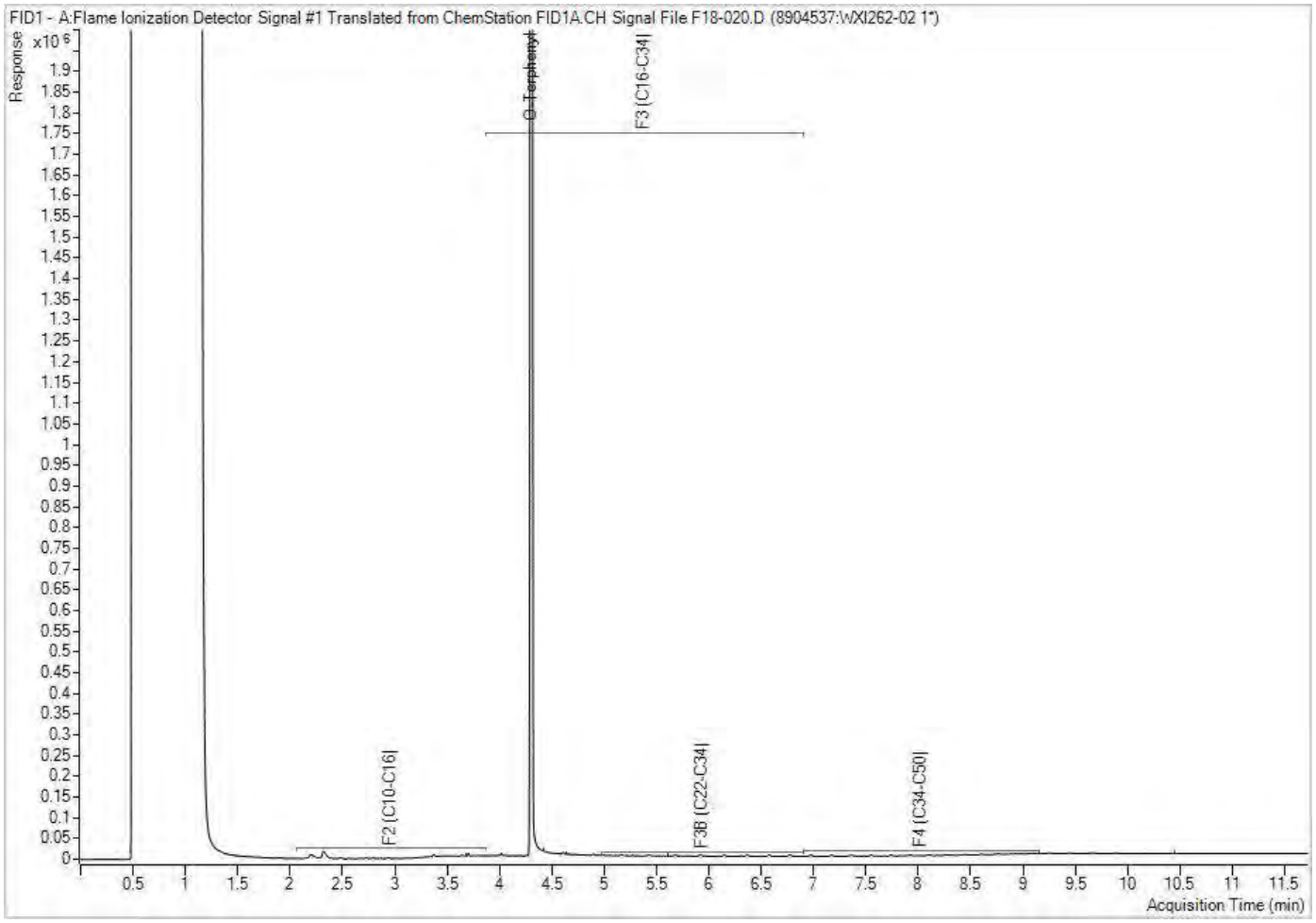


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI262

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-43-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

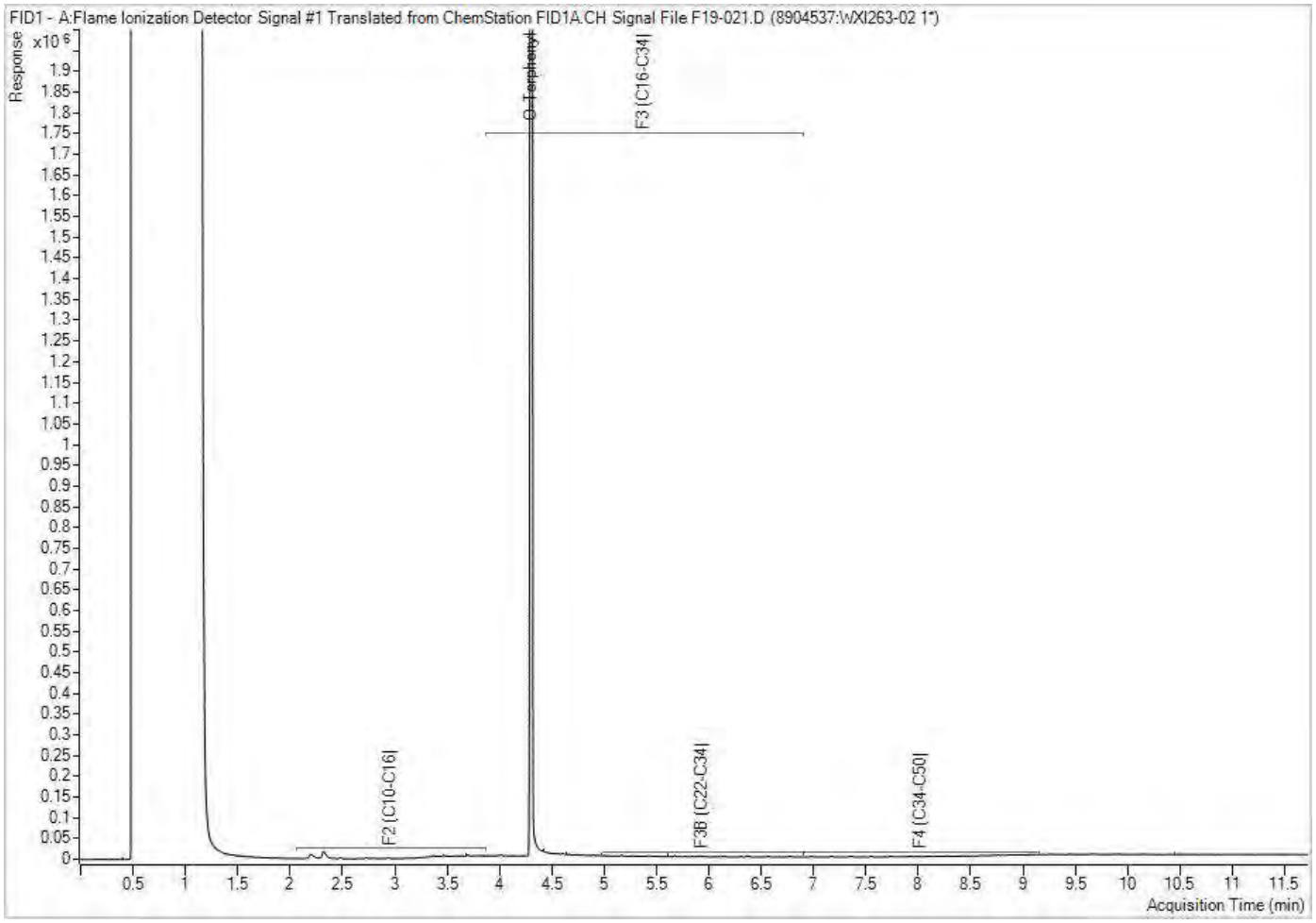


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI263

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-43-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

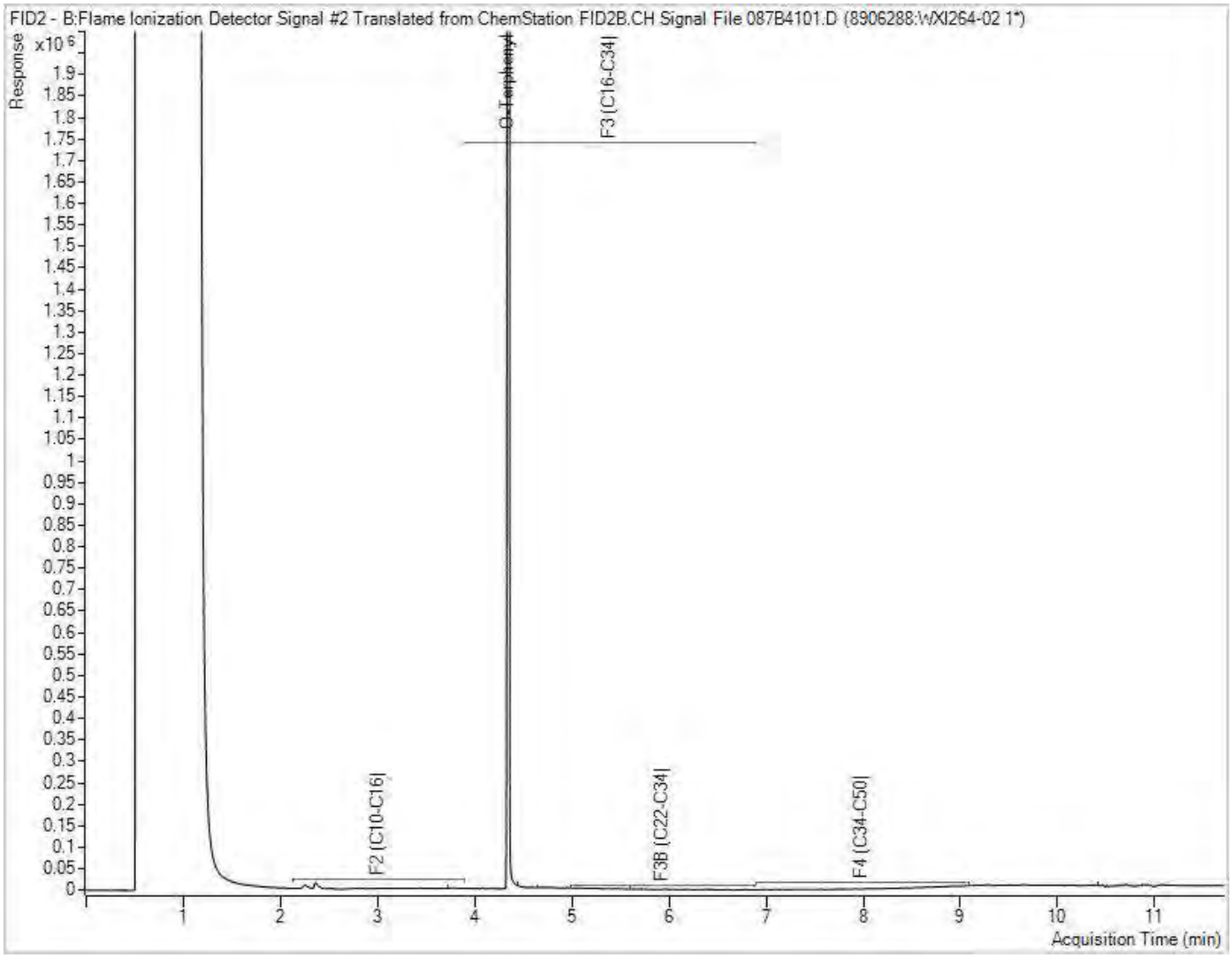


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI264

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-44-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

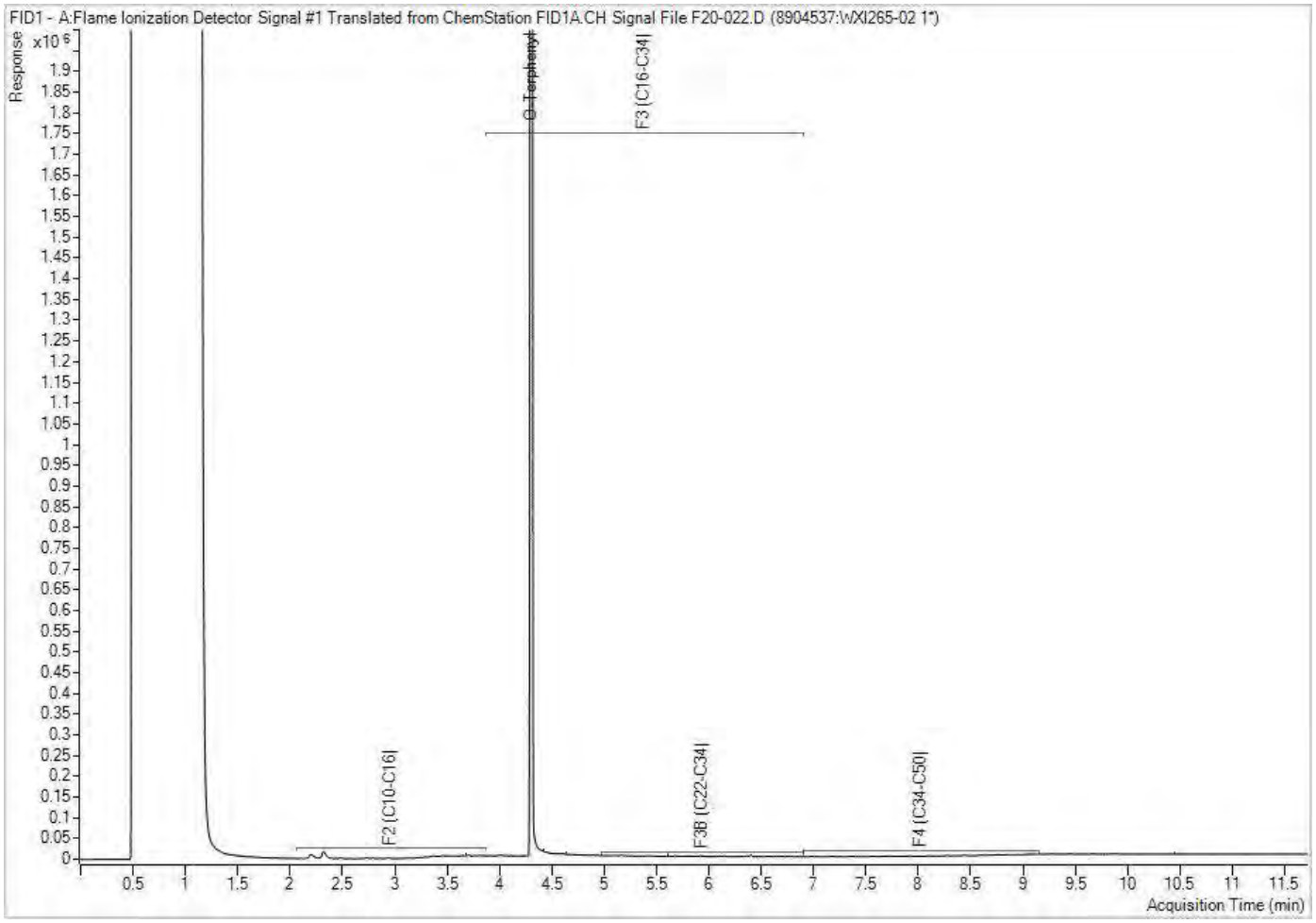


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI265

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-44-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

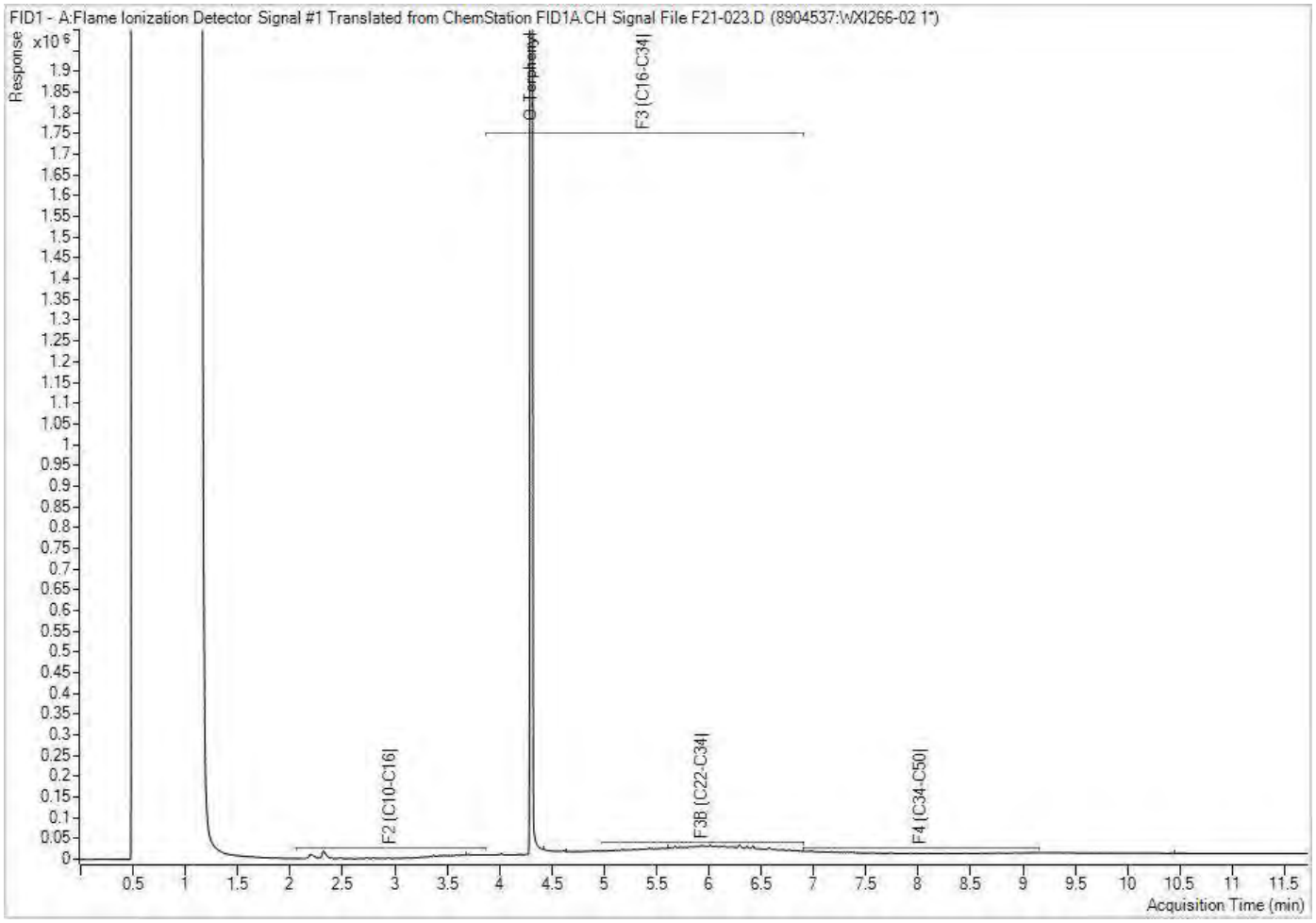


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI266

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW06-18-SOIL-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

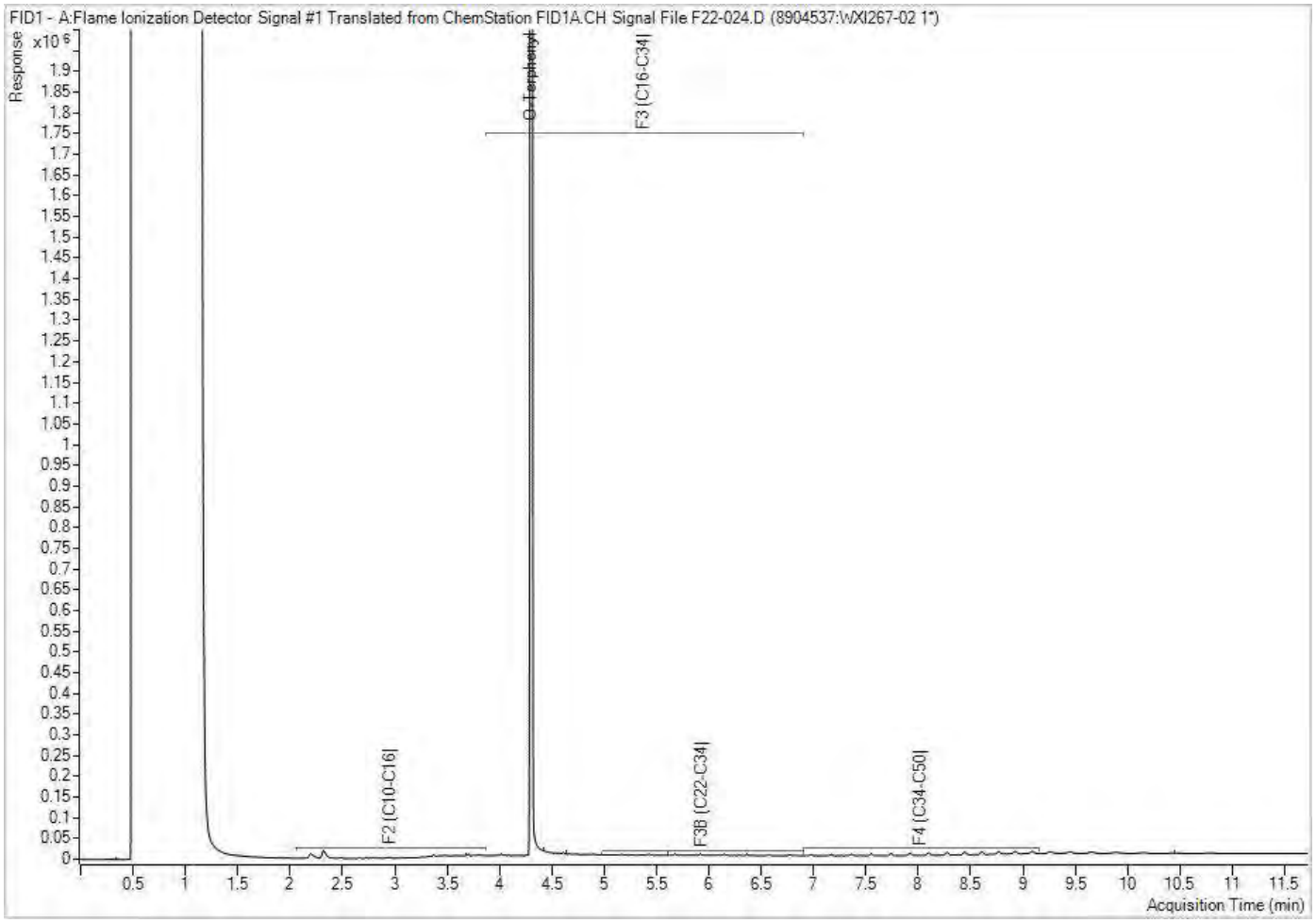


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI267

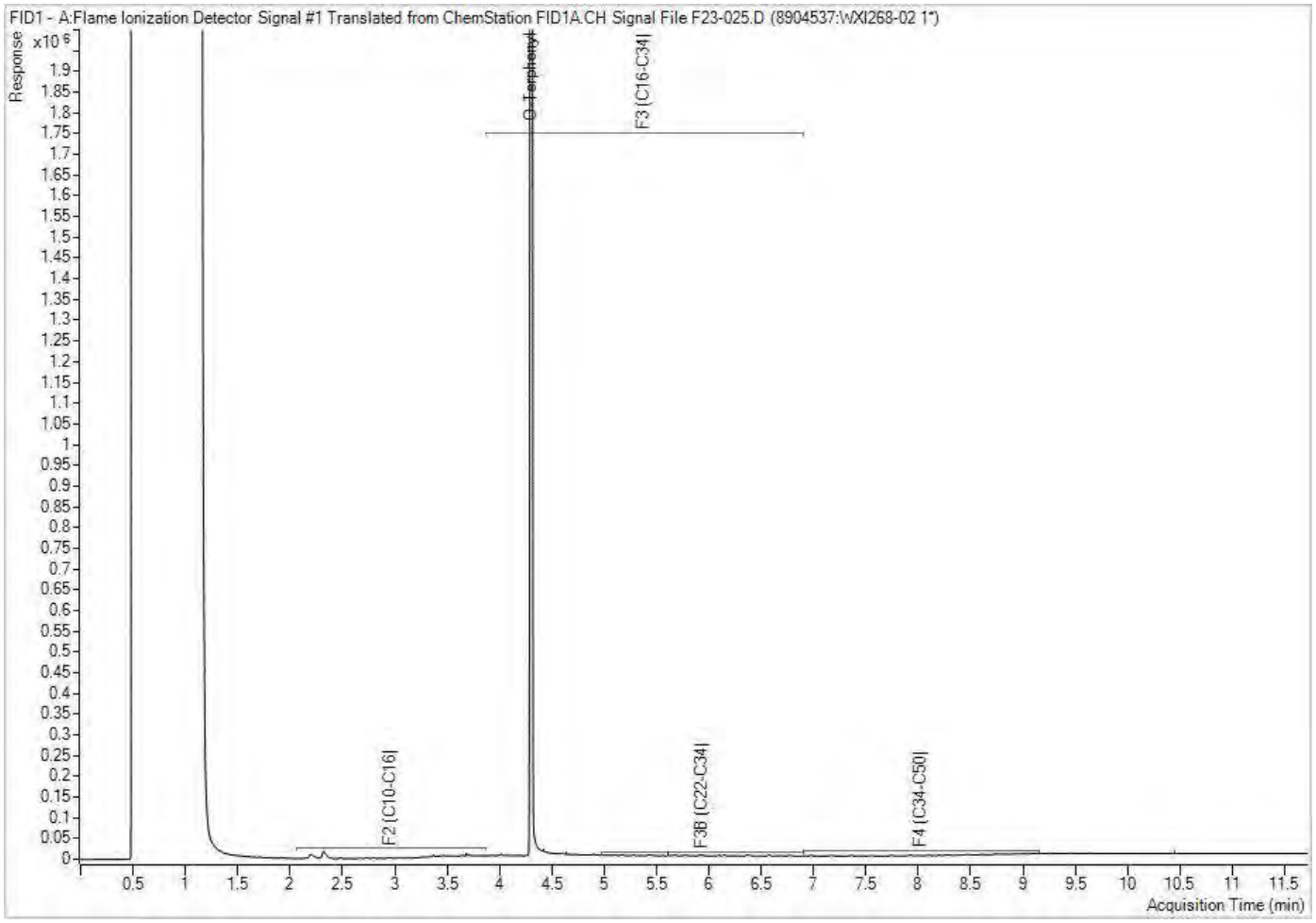
BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW06-18-SOIL-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

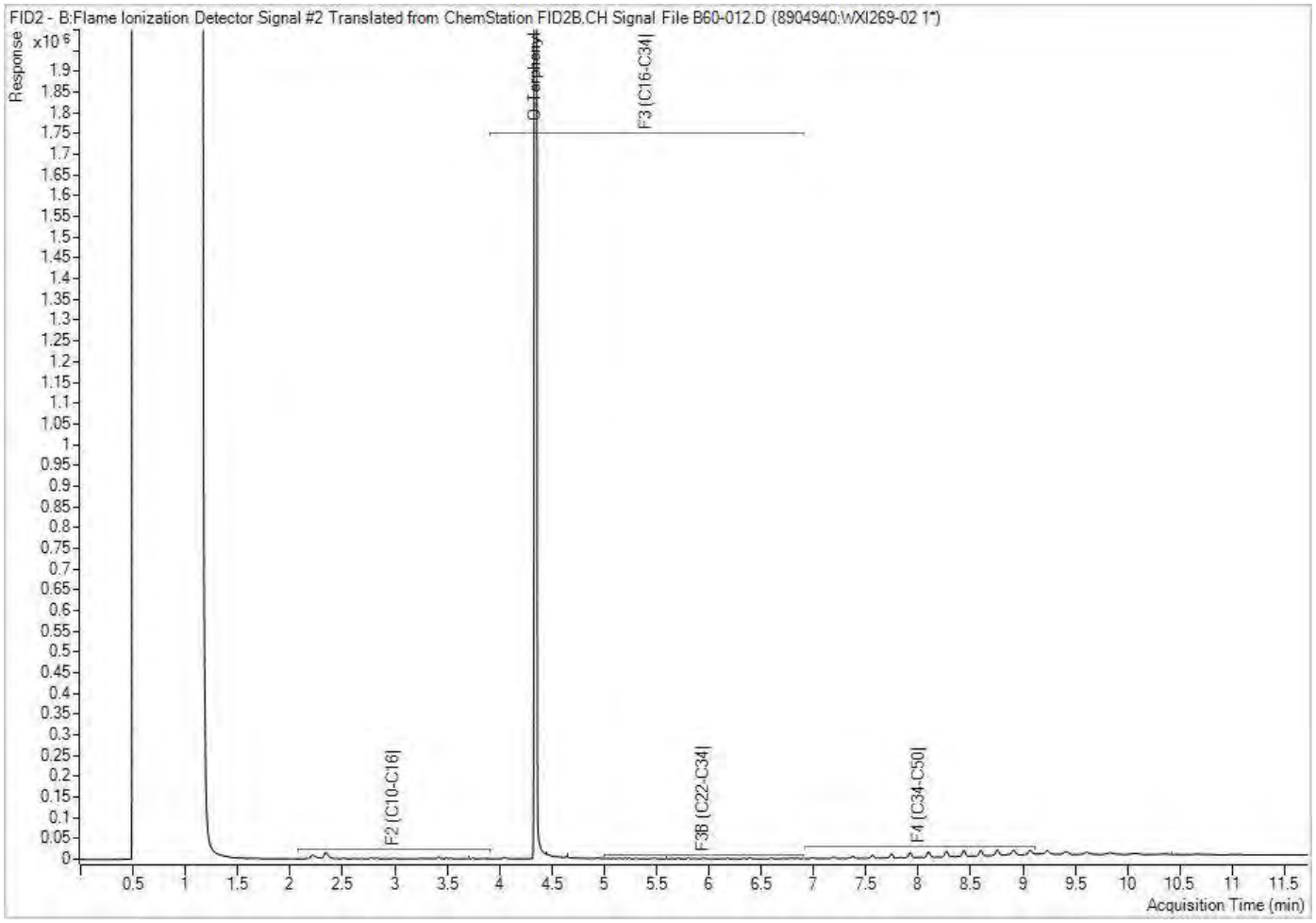


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI269

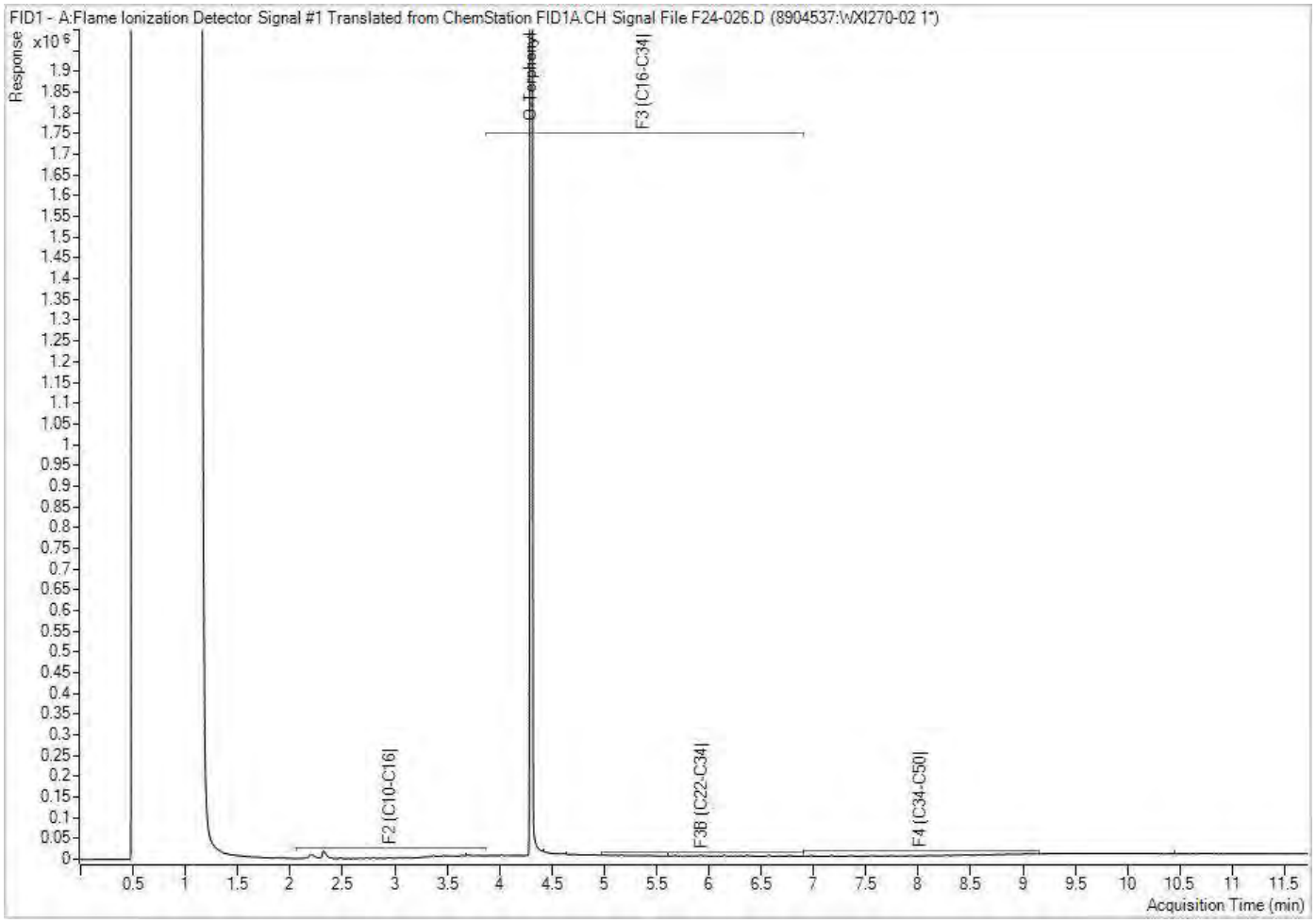
BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW06-20-SOIL-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

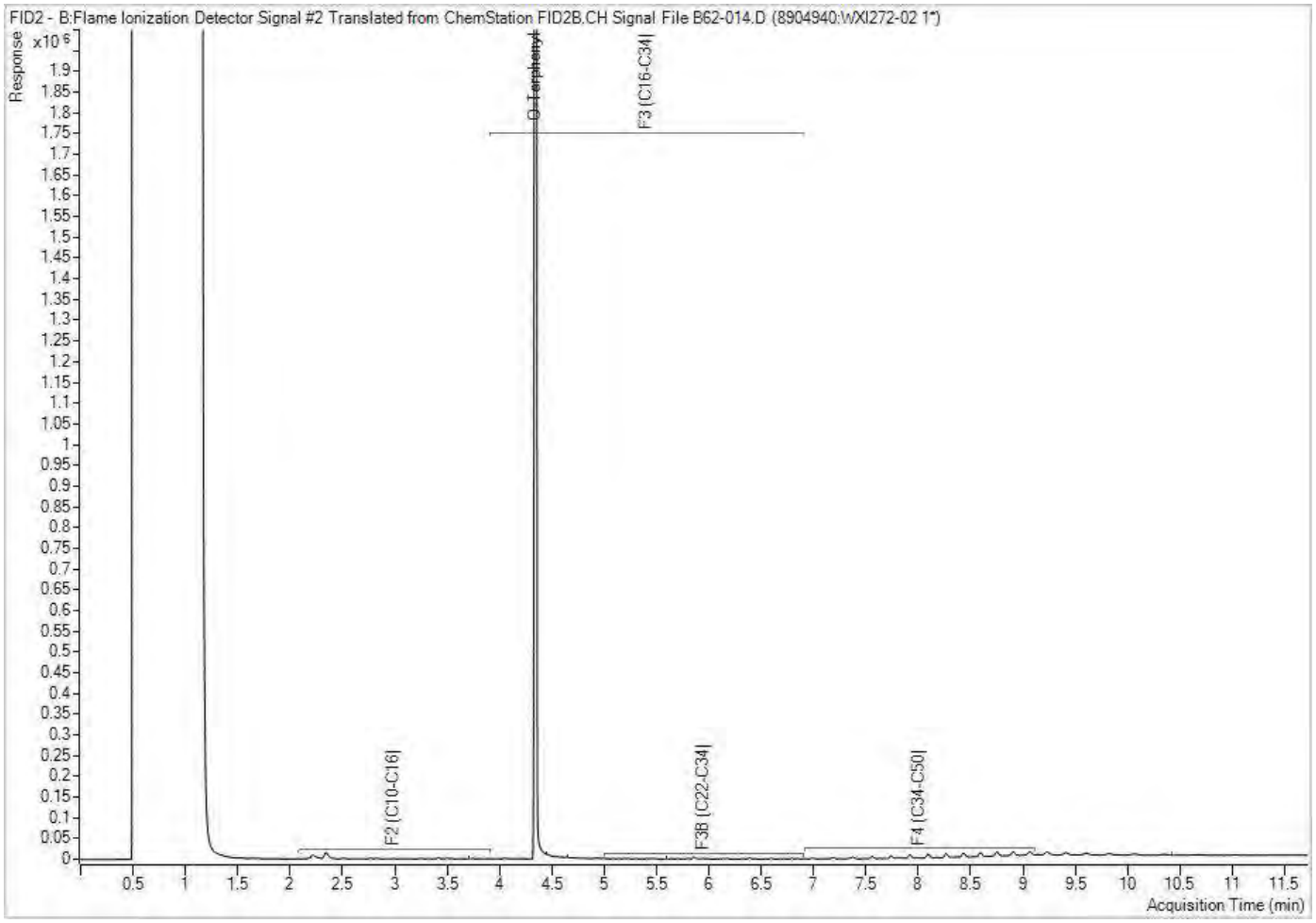


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI272

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW07-21-SOIL-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

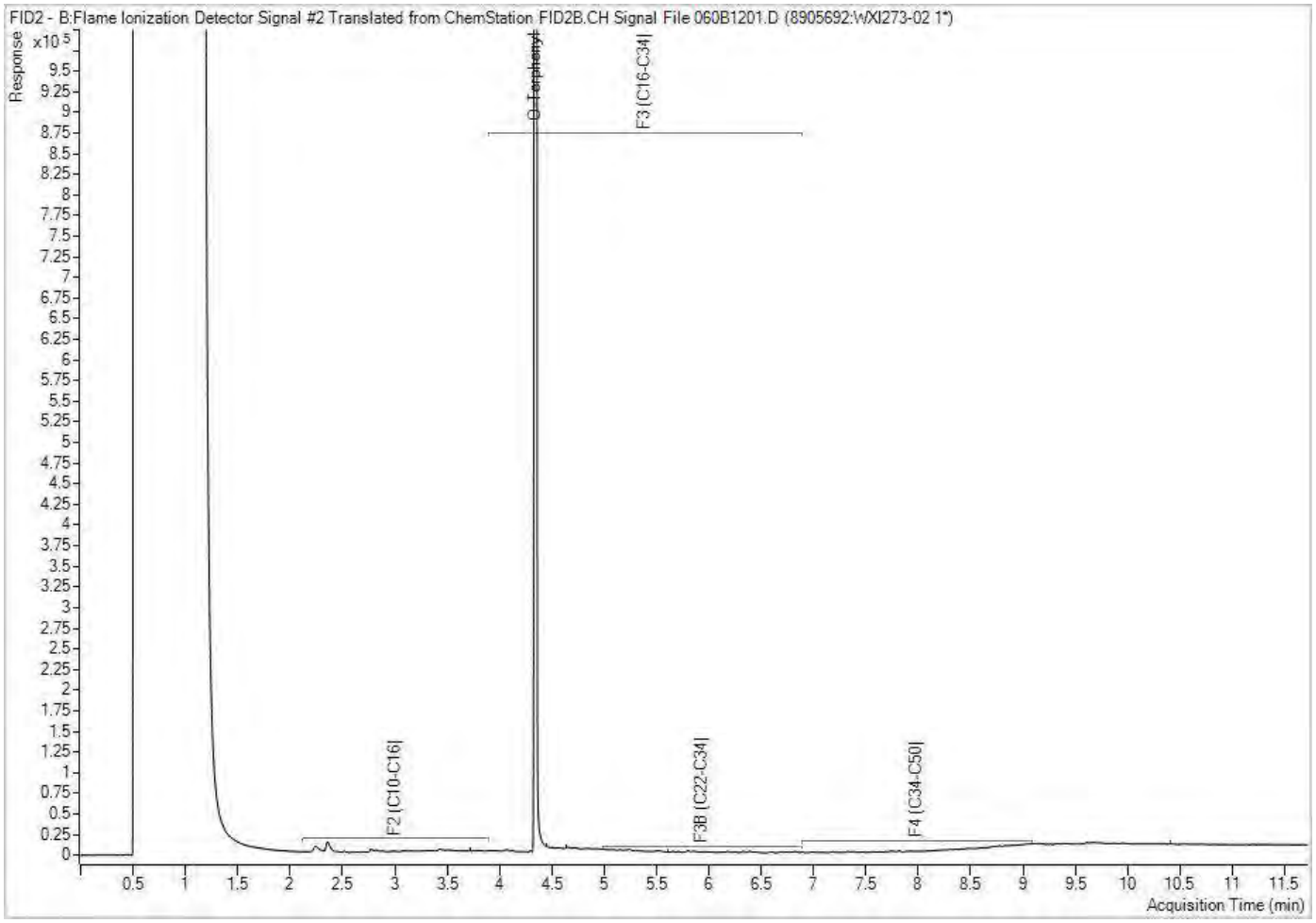


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI273

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-S-110

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

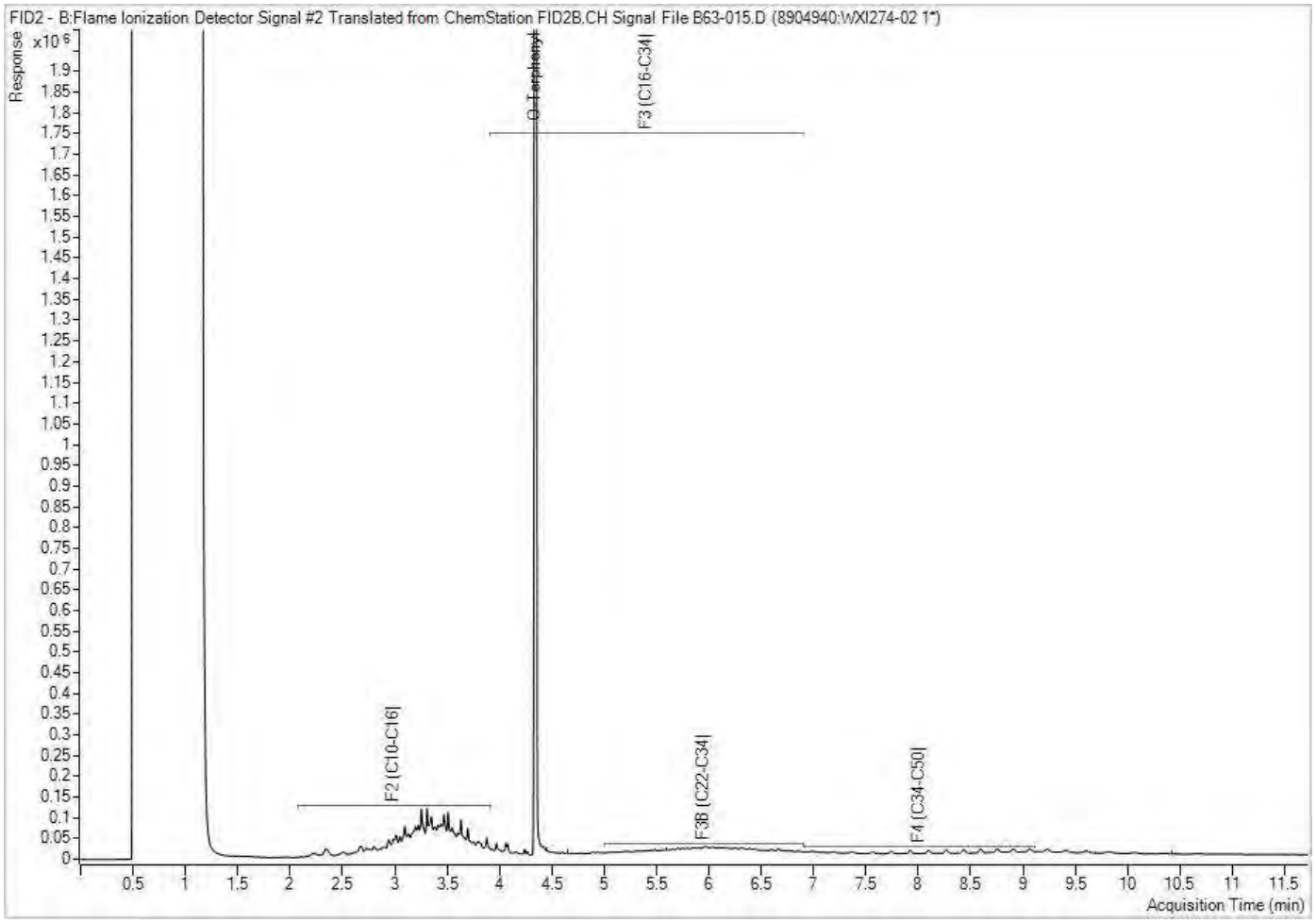


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI274

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW05-09-SOIL-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

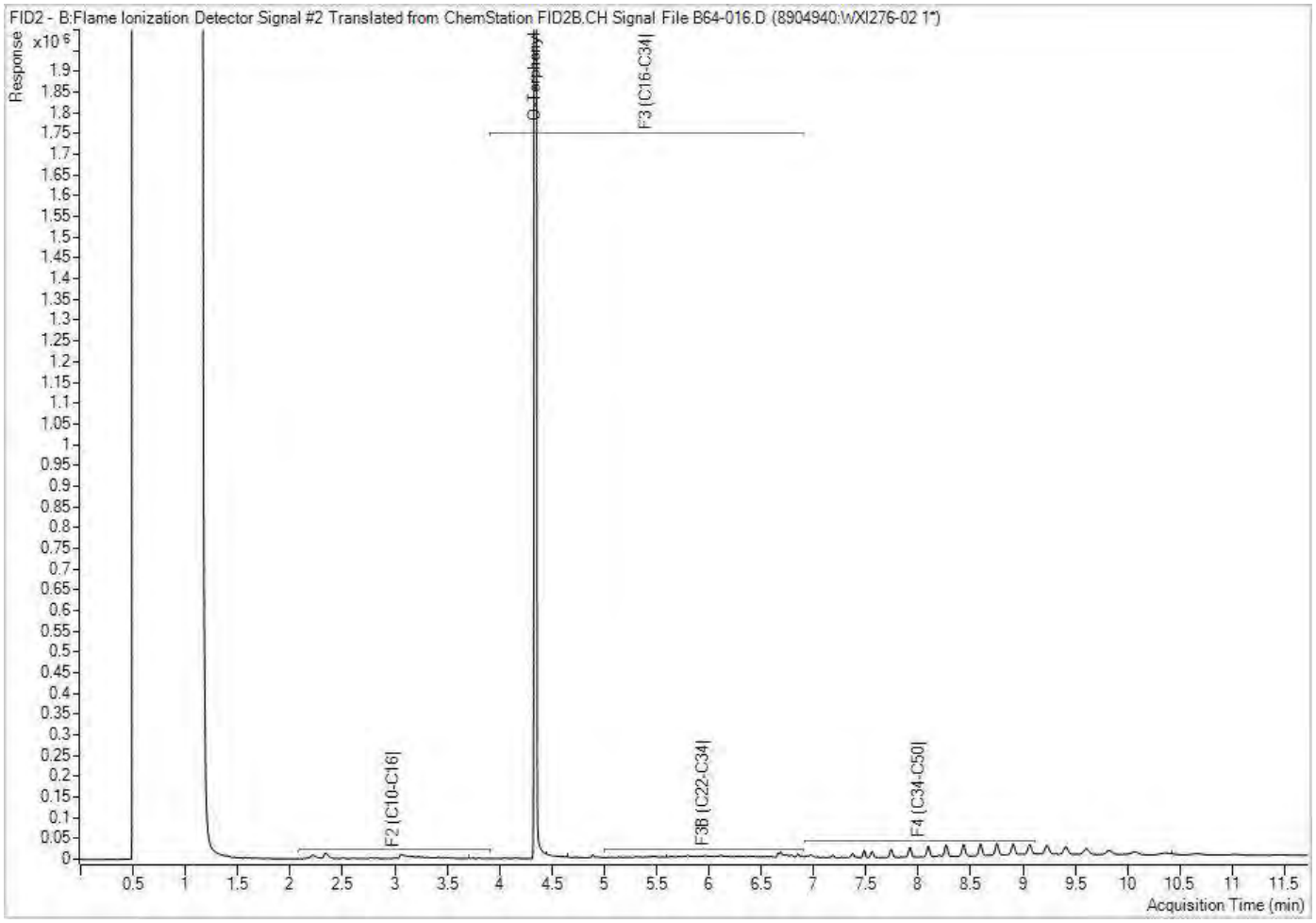


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI276

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW05-12-SOIL-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

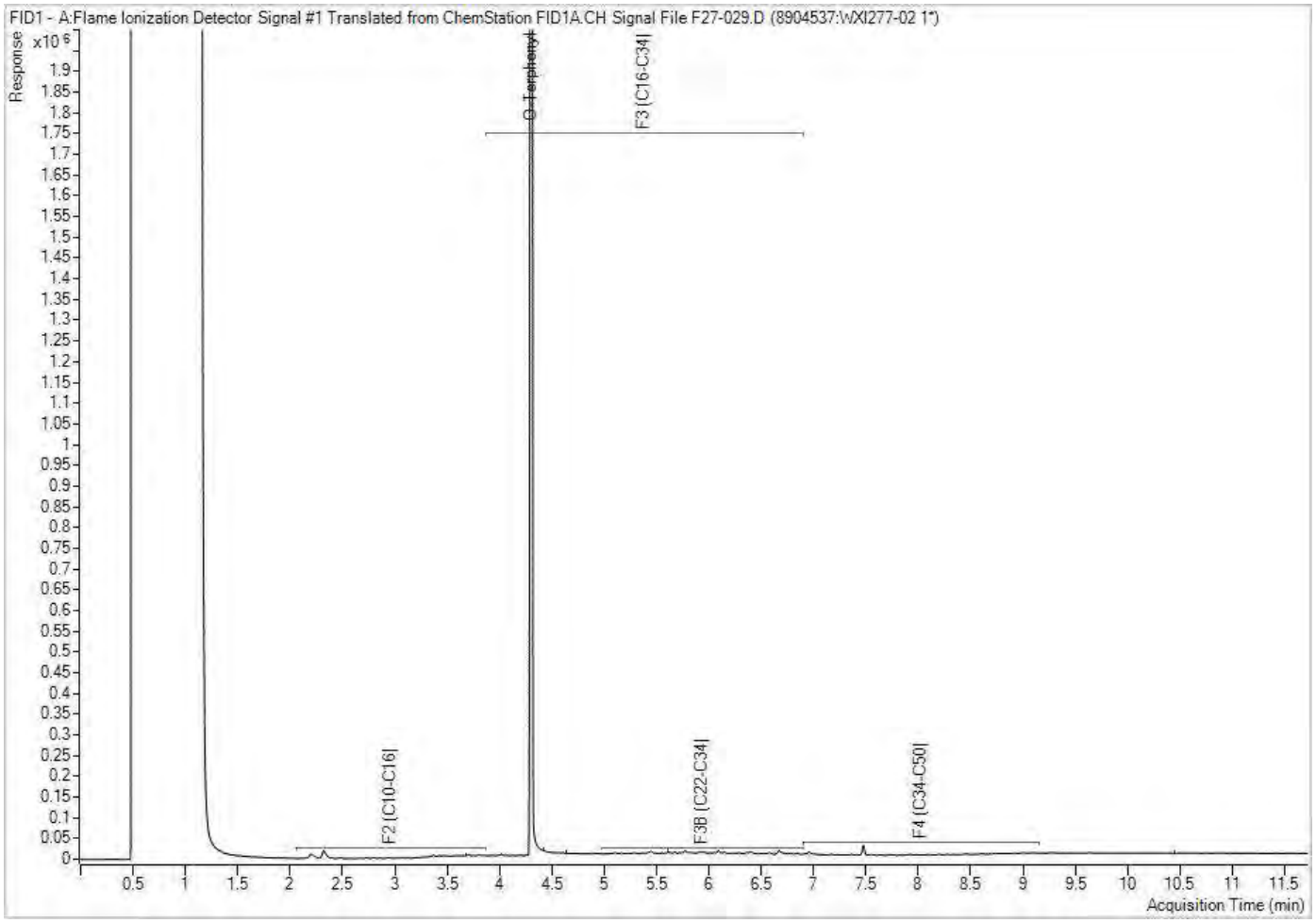


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI277

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW05-12-SOIL-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

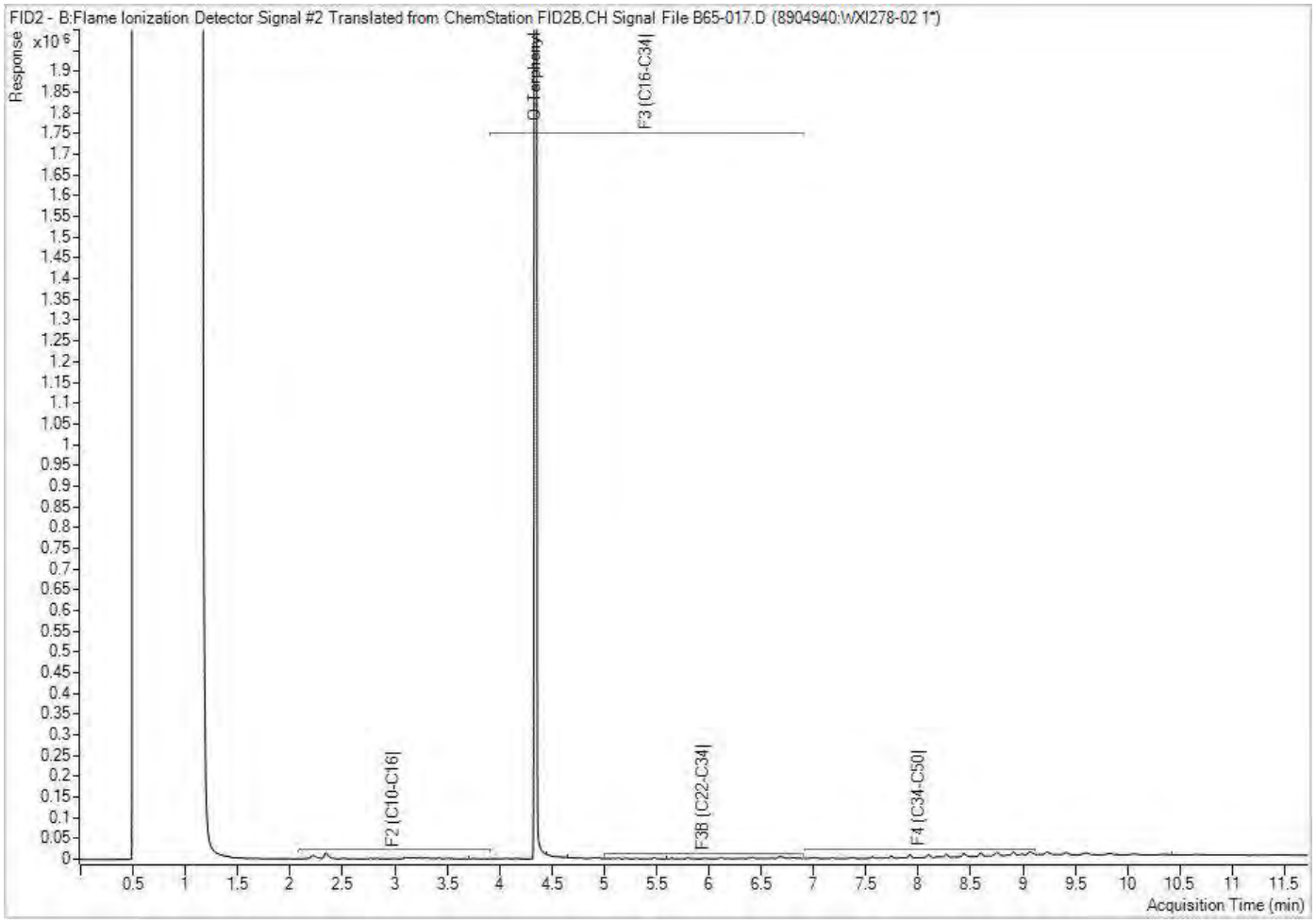


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI278

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW09-26-SOIL-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

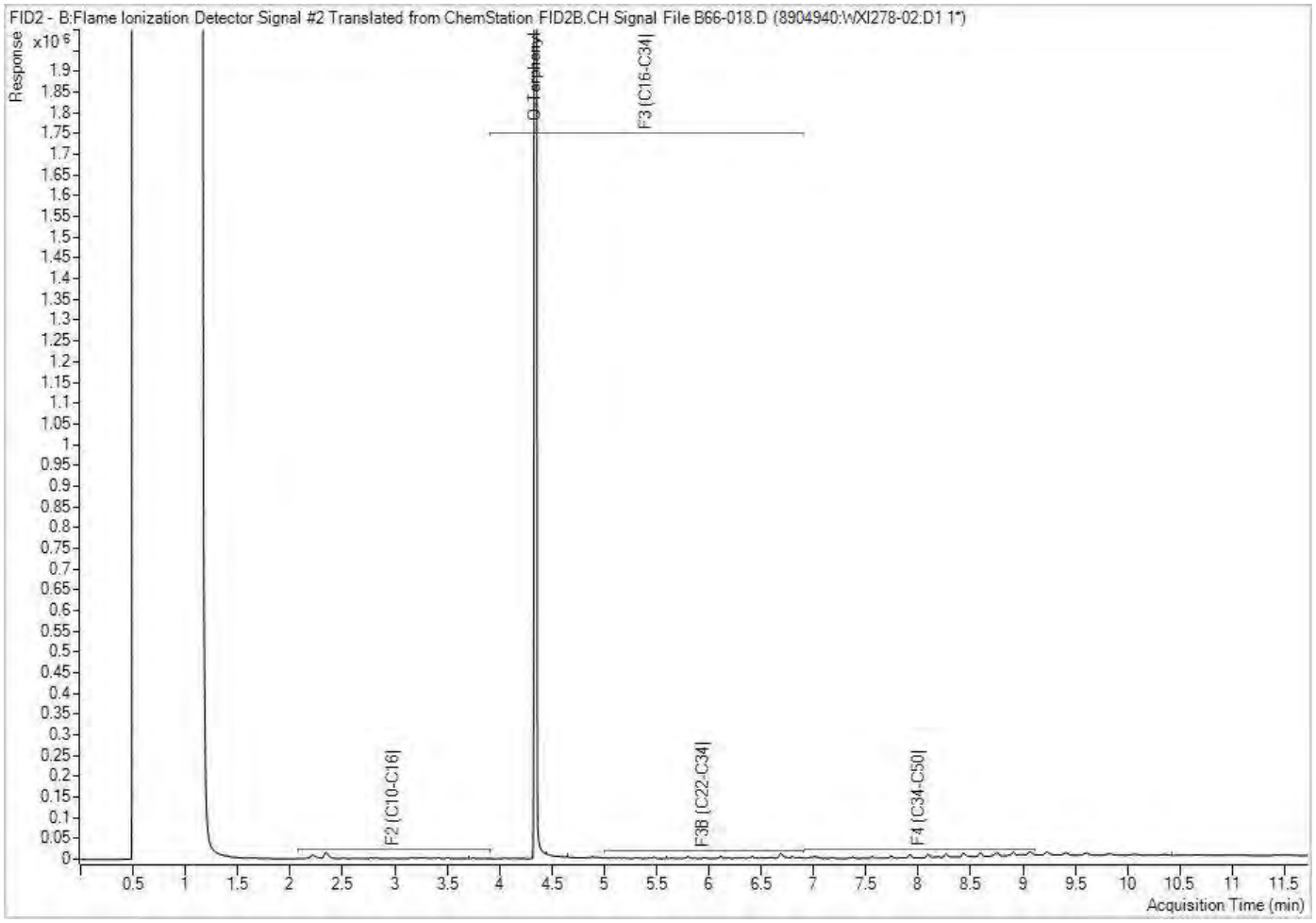


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI278 Lab-Dup

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW09-26-SOIL-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

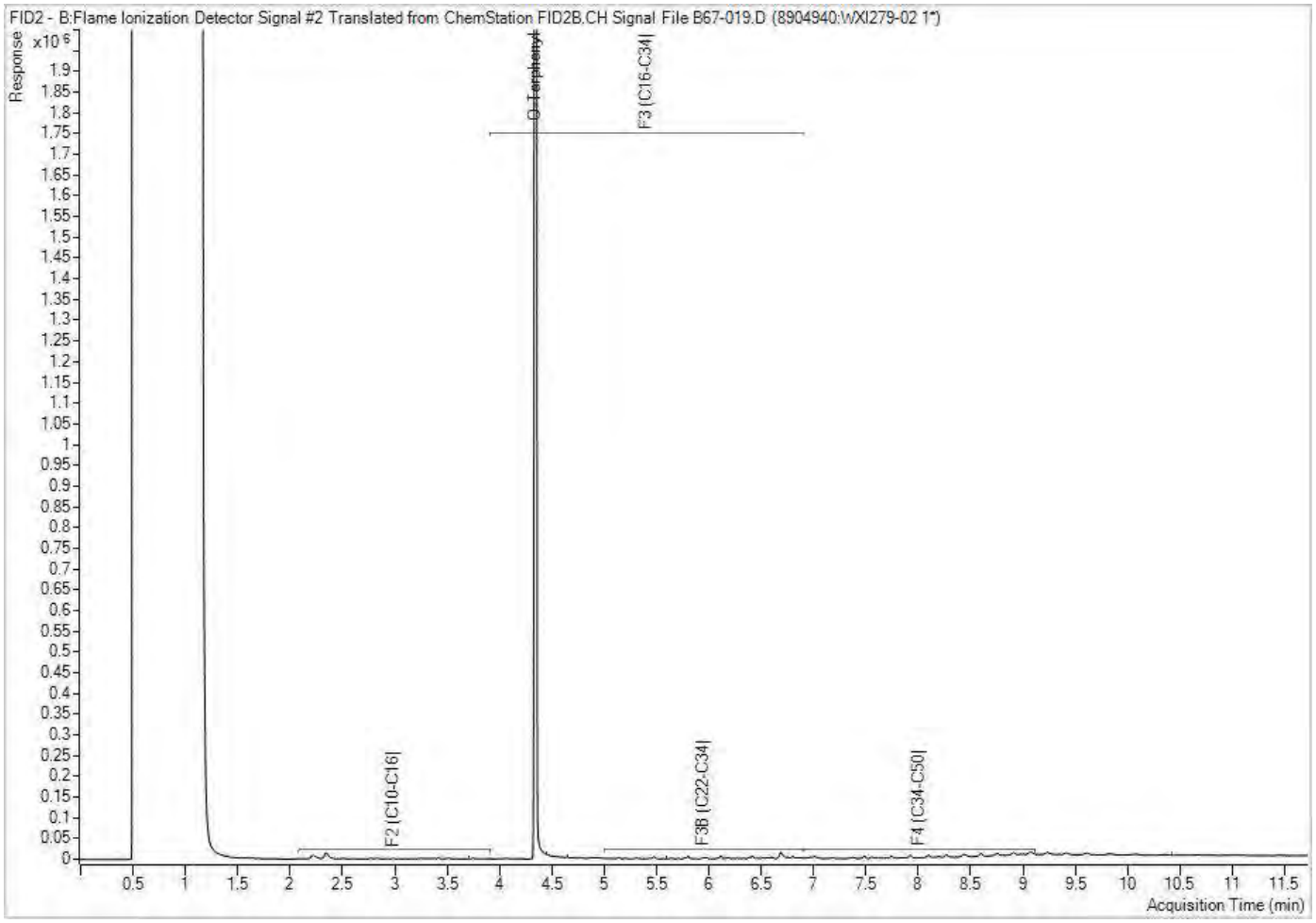


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI279

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW09-26-SOIL-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

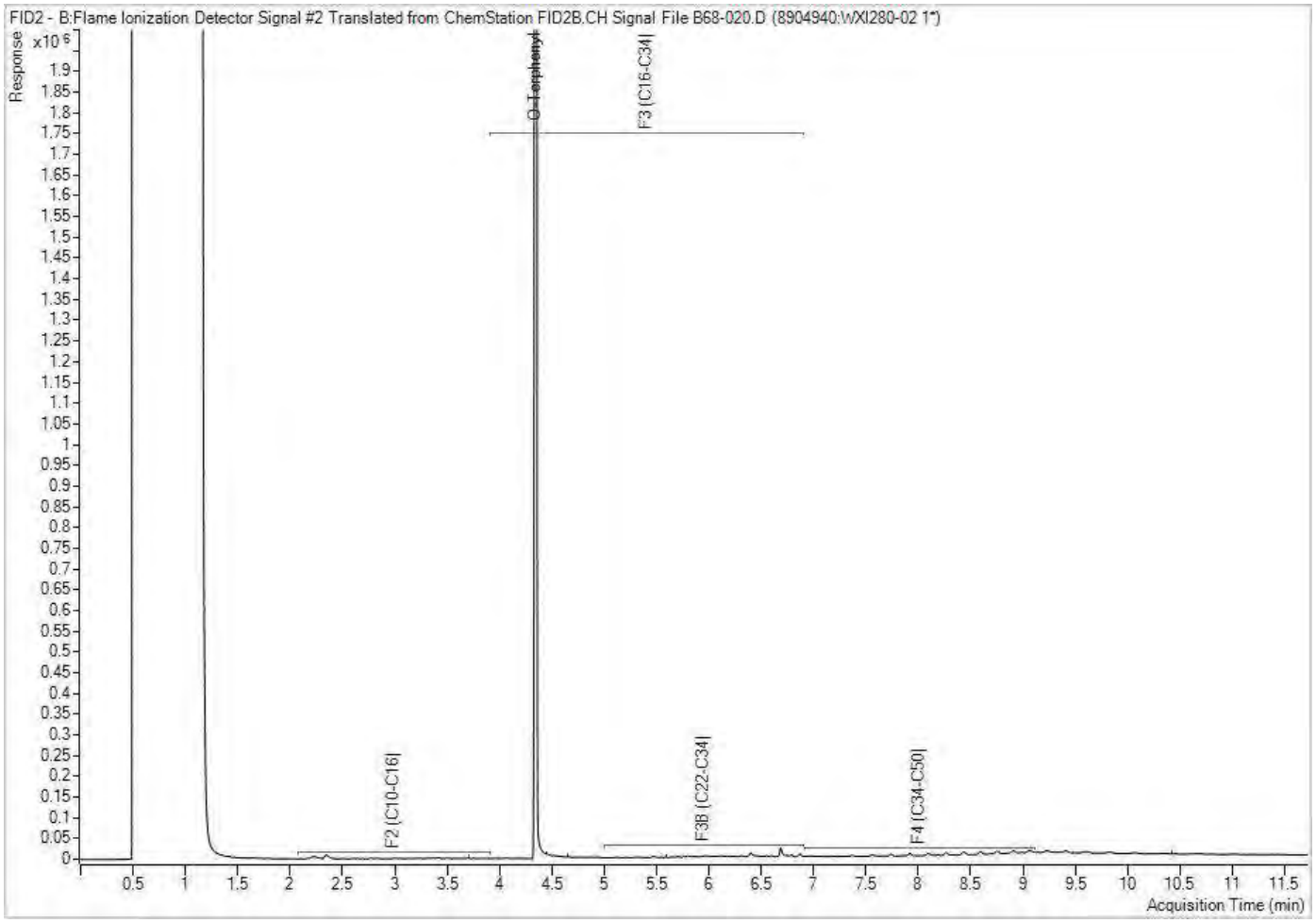


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI280

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW09-27-SOIL-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

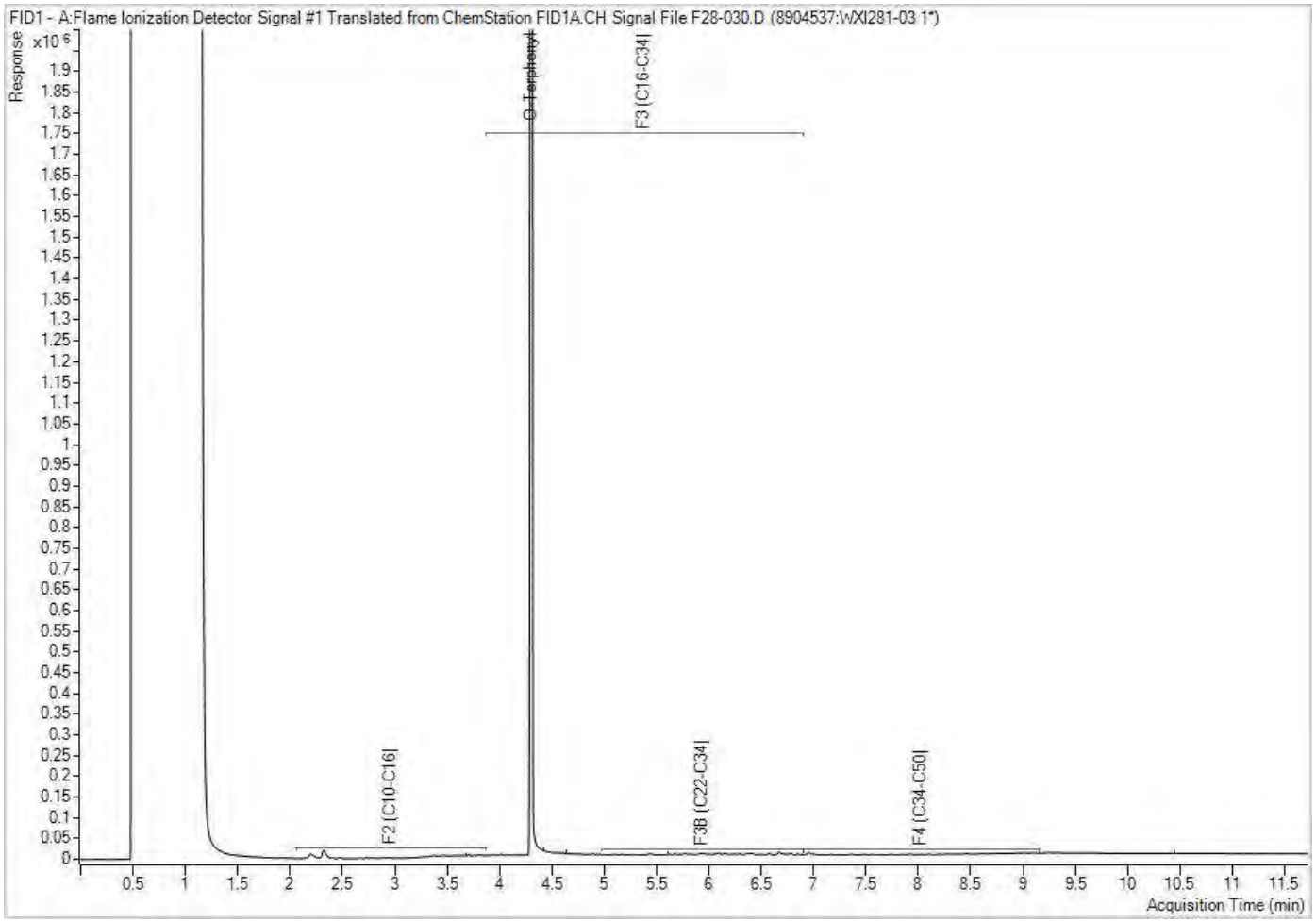


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI281

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW09-27-SOIL-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

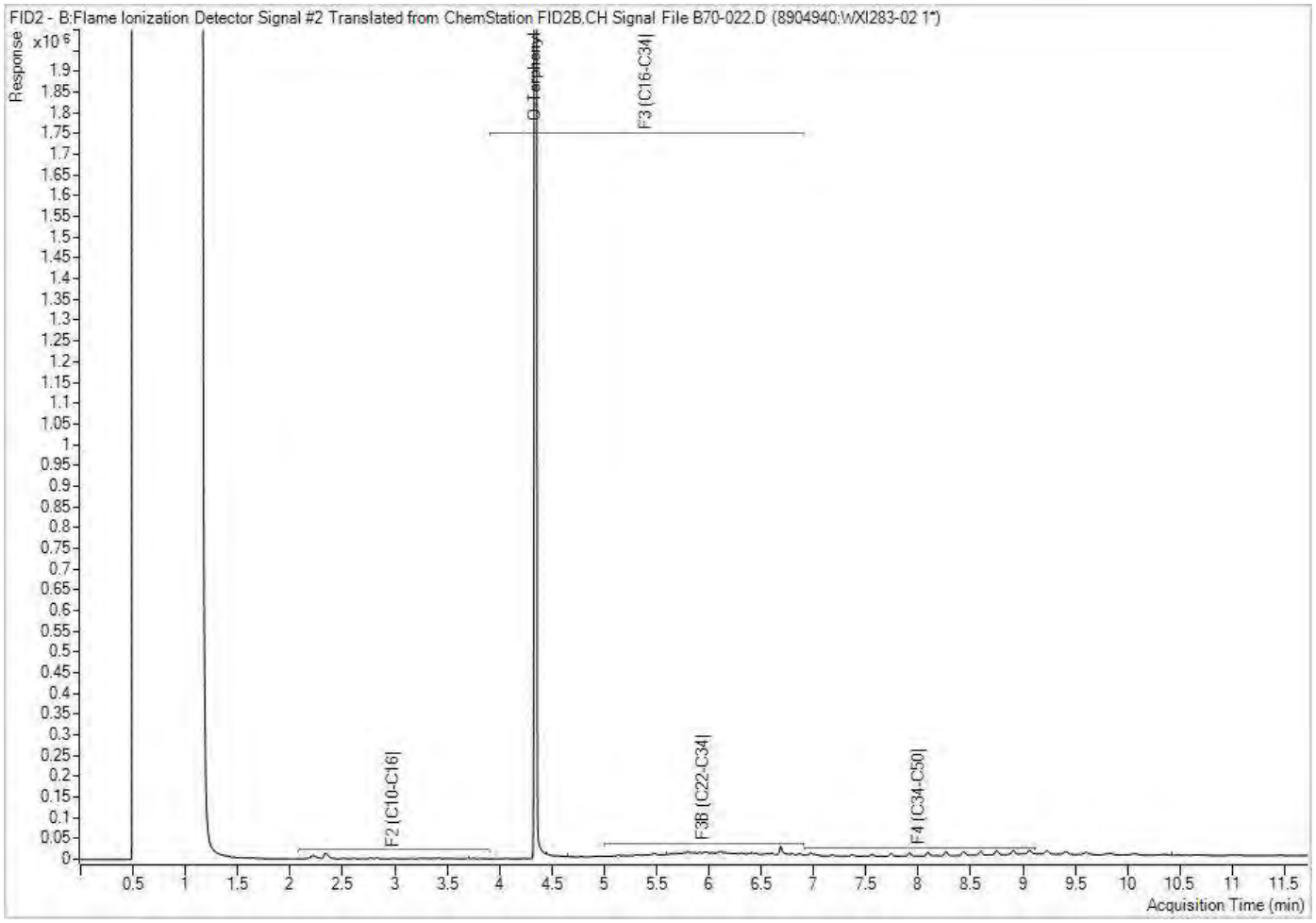


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI283

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW09-28-SOIL-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

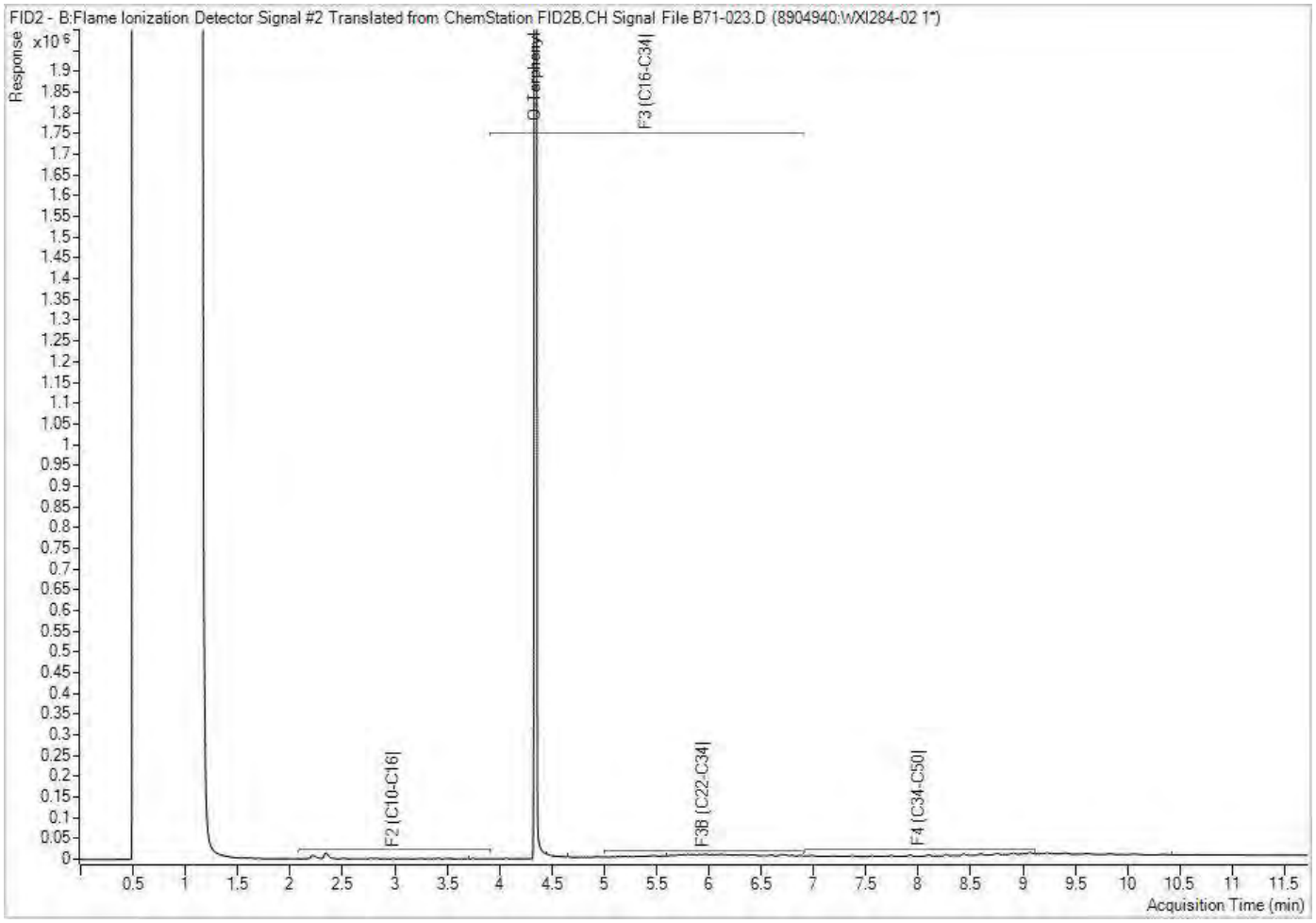


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI284

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-S-25

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

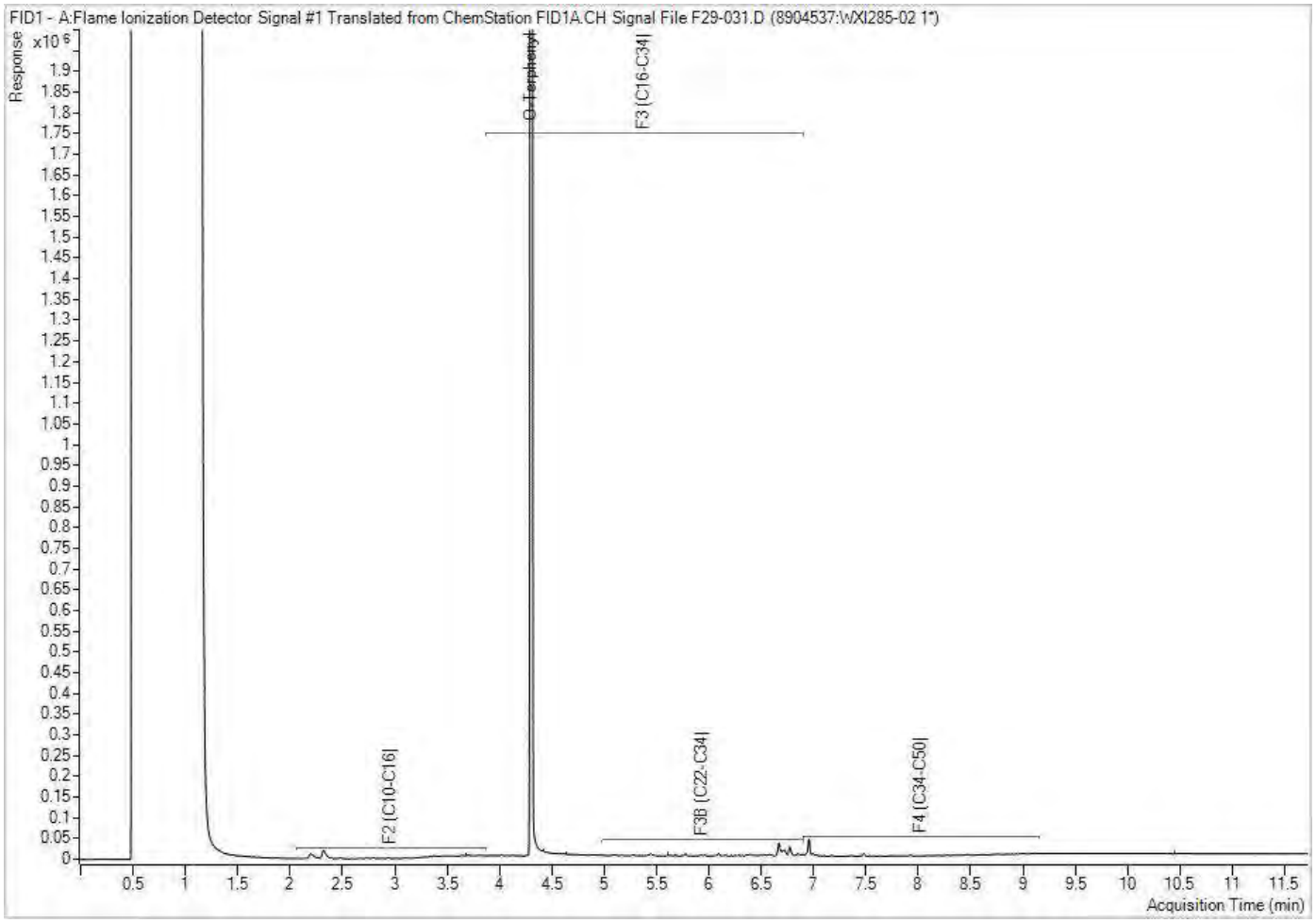


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI285

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-S-40

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

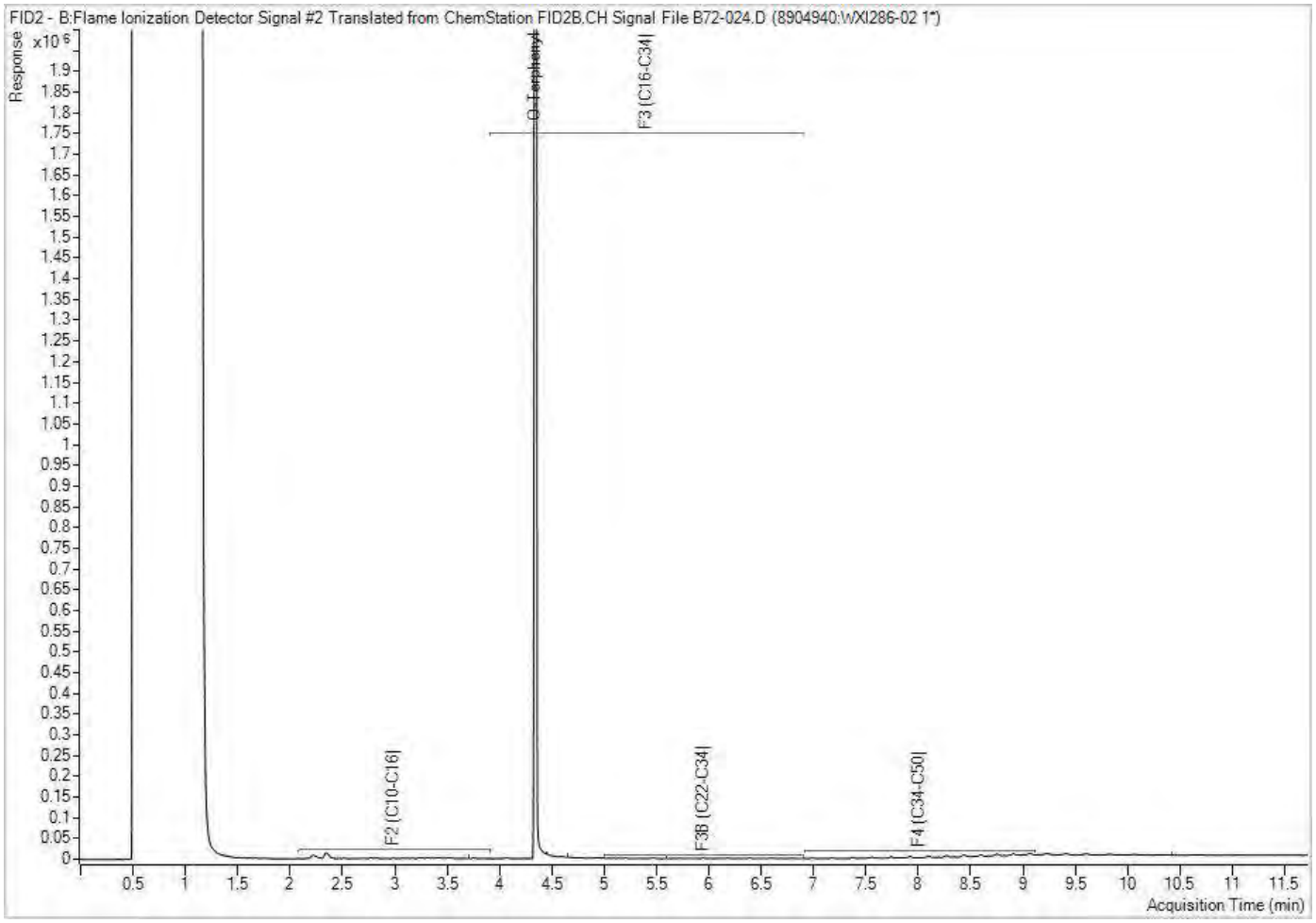


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI286

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-18-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

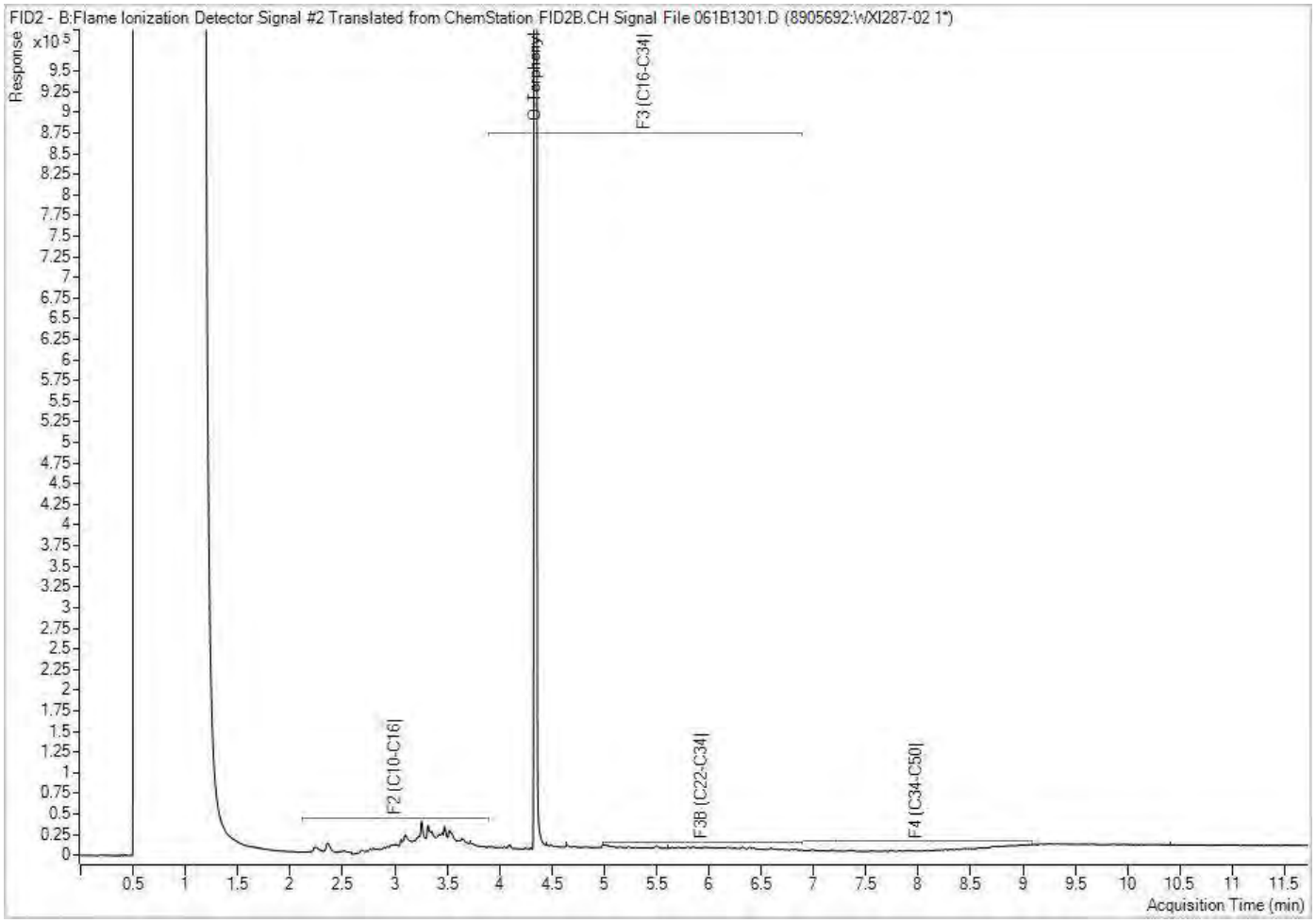


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI287

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-18-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

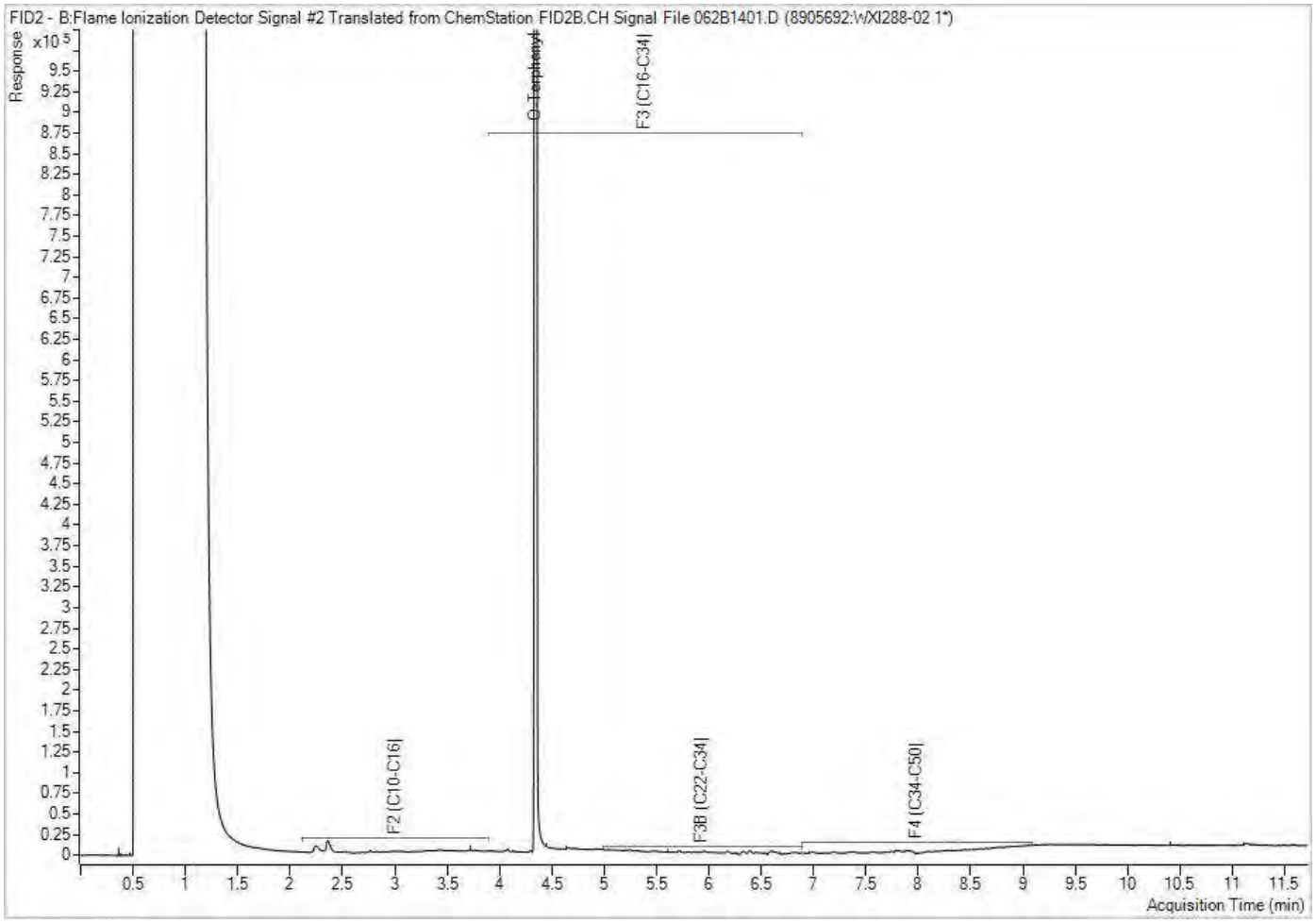


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI288

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-19-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

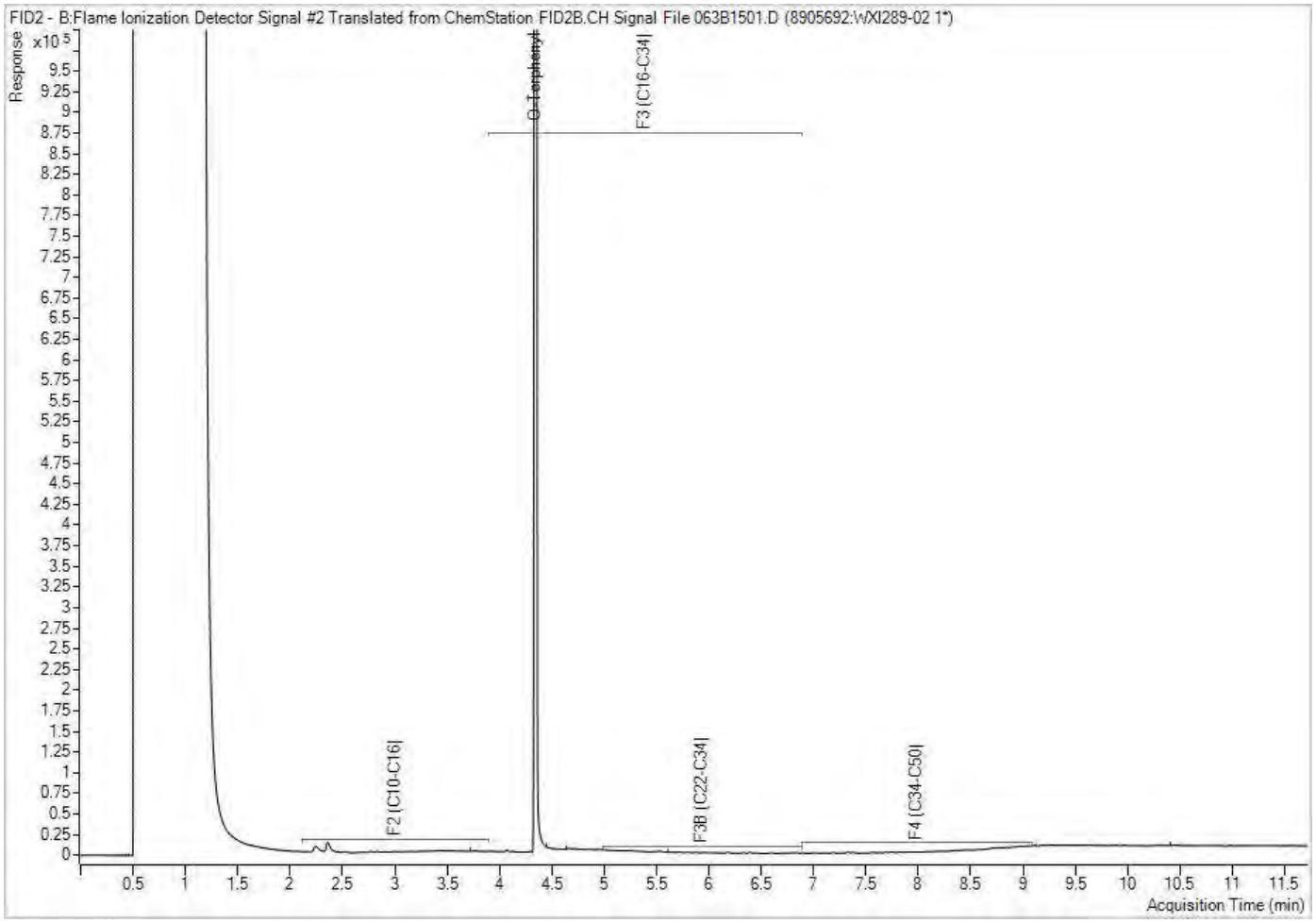


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI289

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-19-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

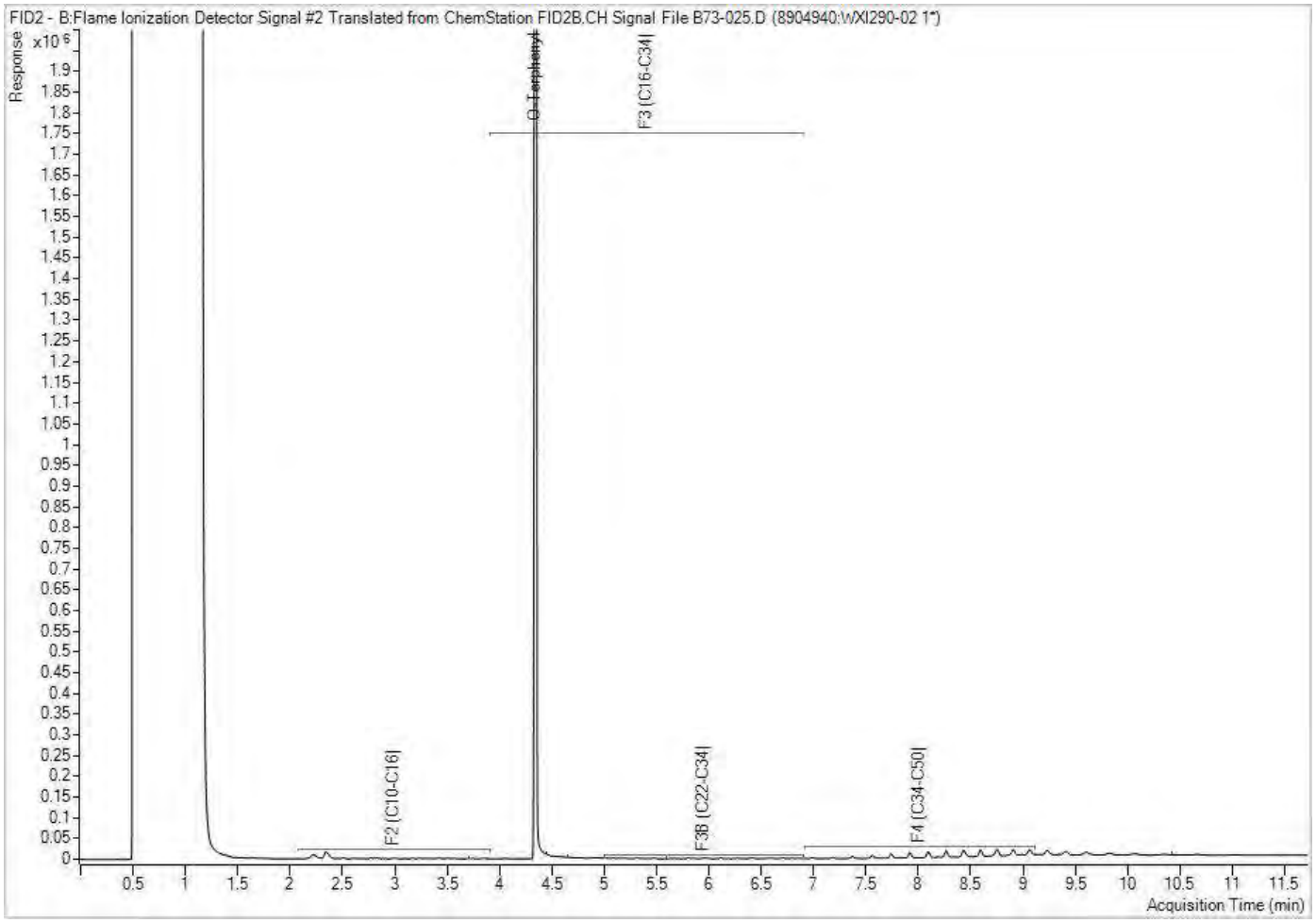


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI290

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-20-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

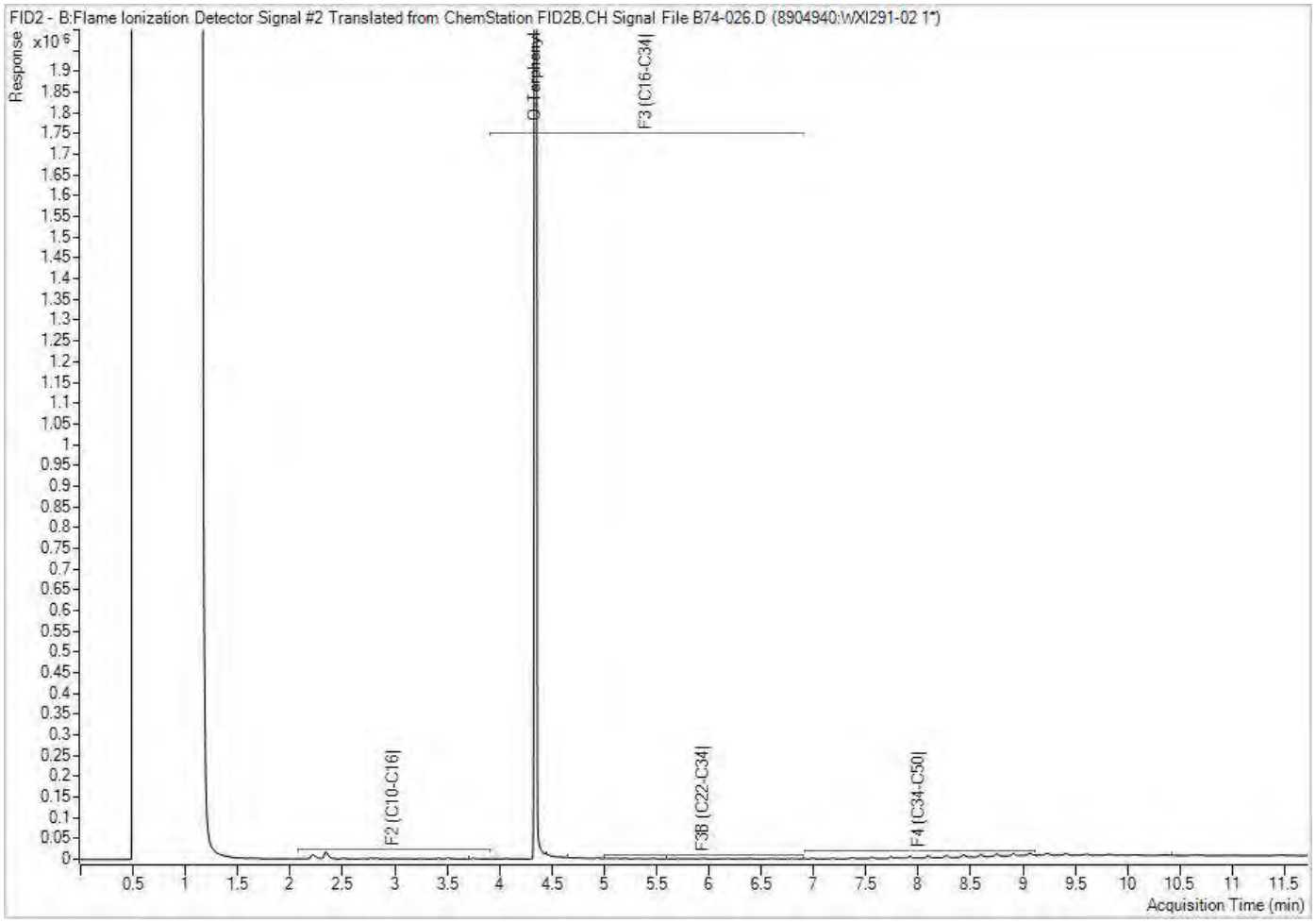


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI291

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-20-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

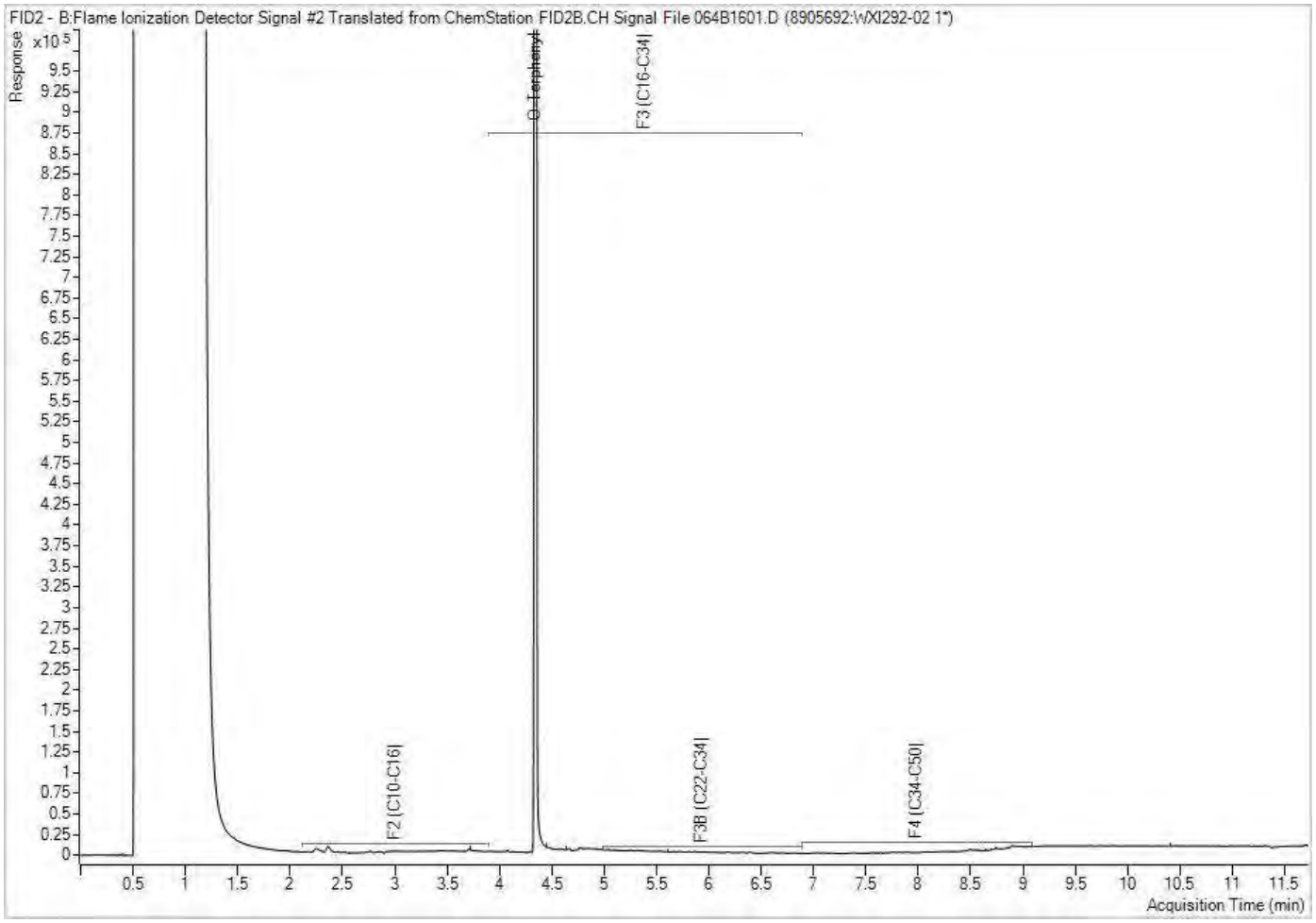


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI292

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-21-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

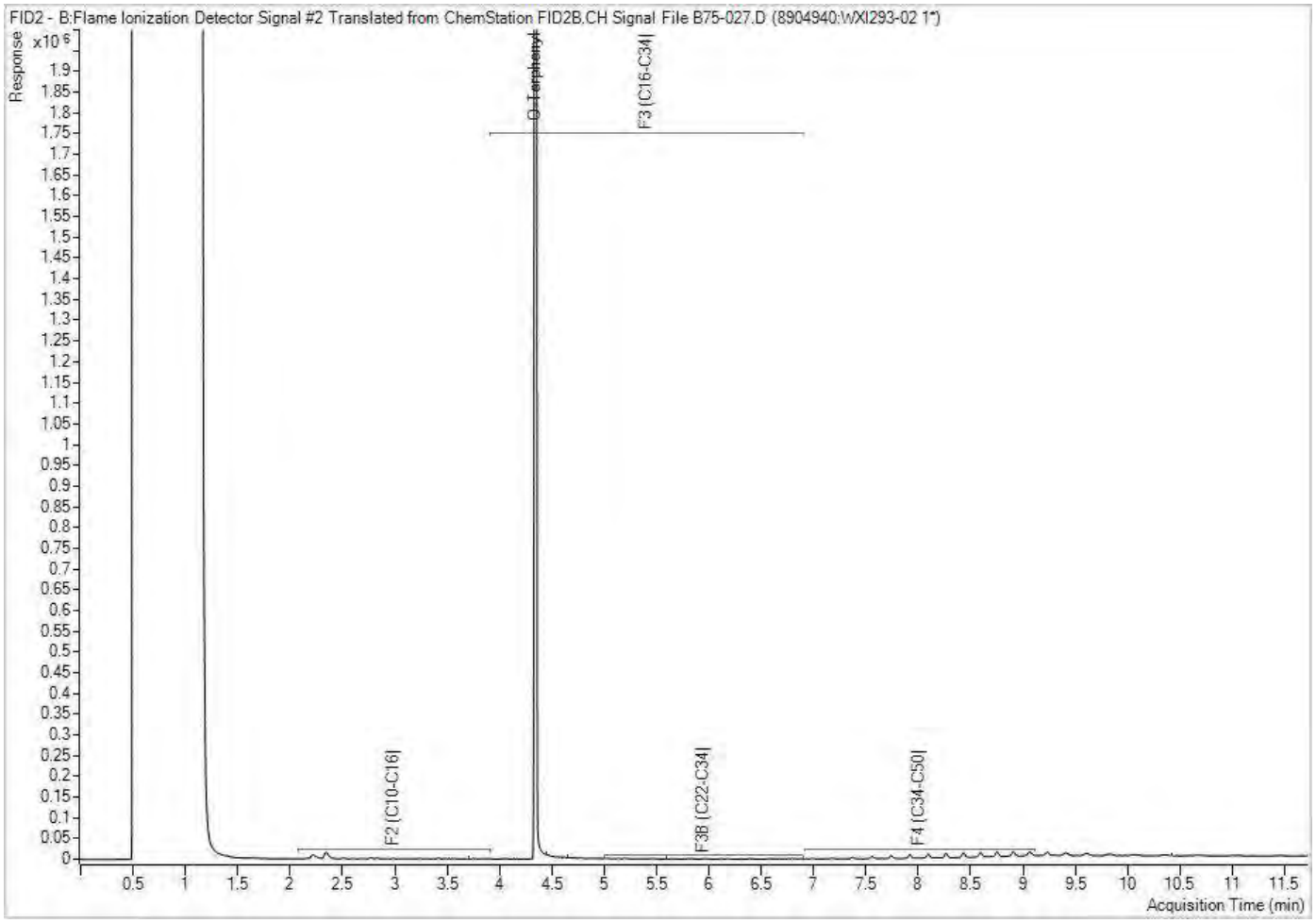


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI293

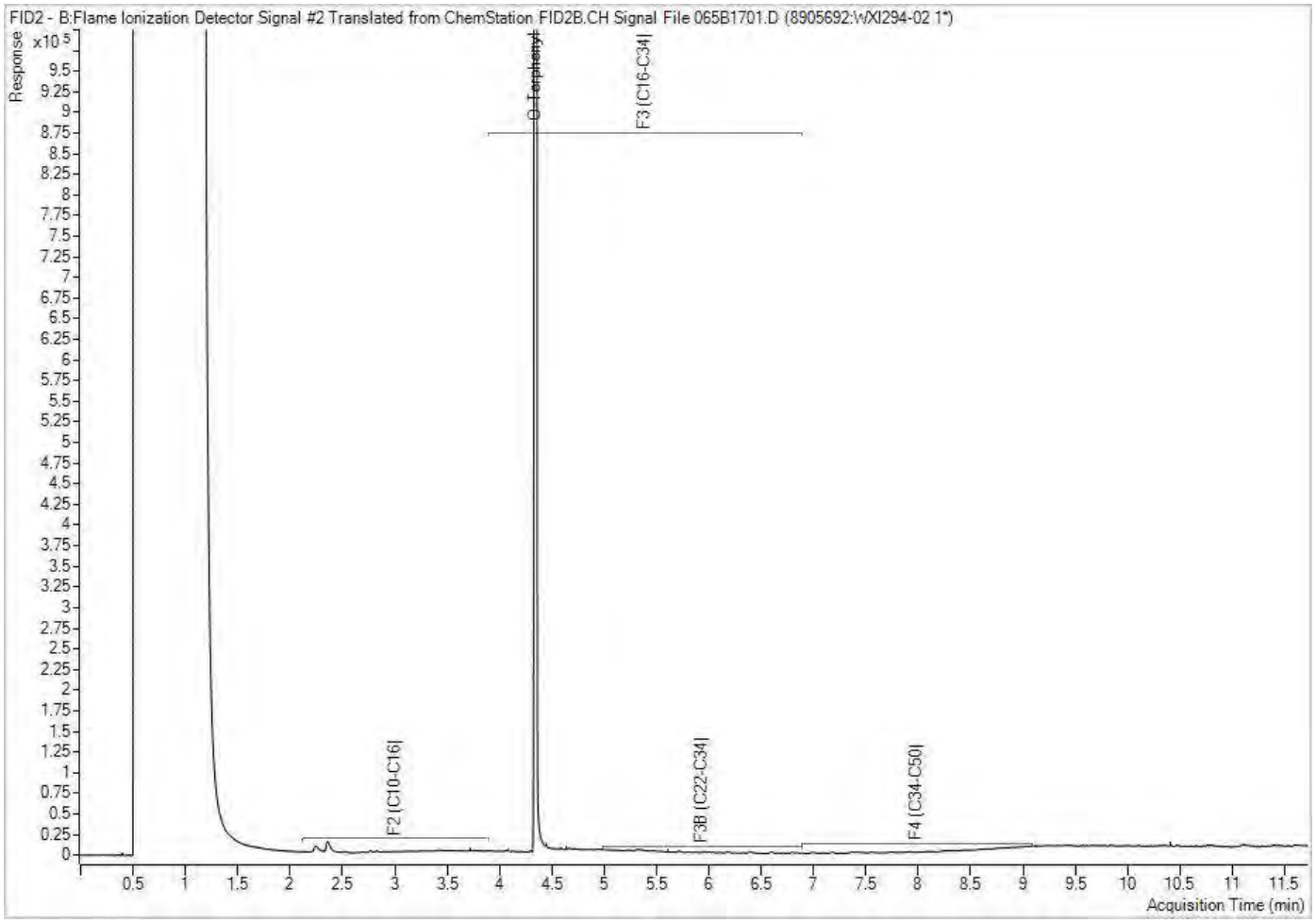
BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-21-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

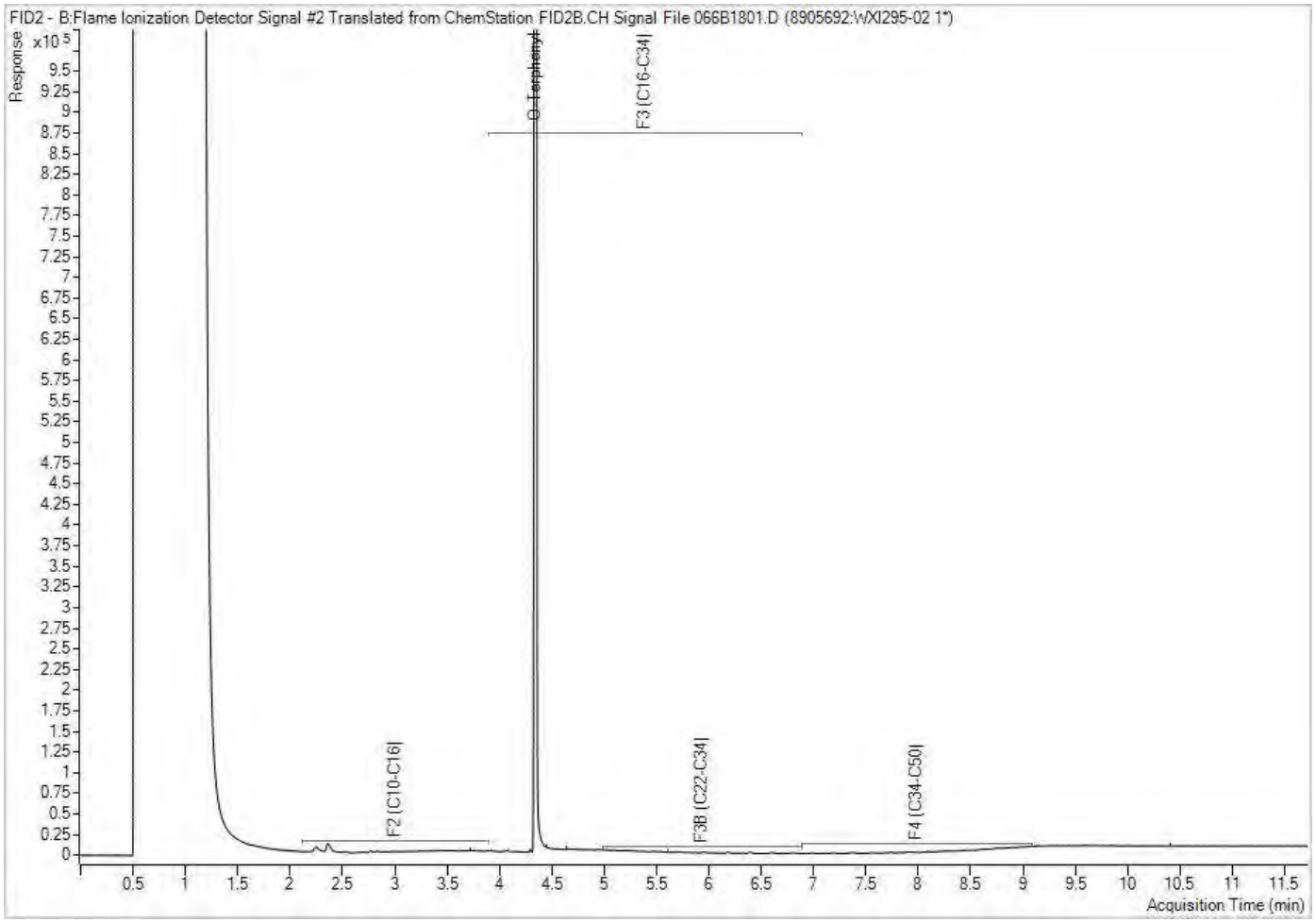


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI295

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-22-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

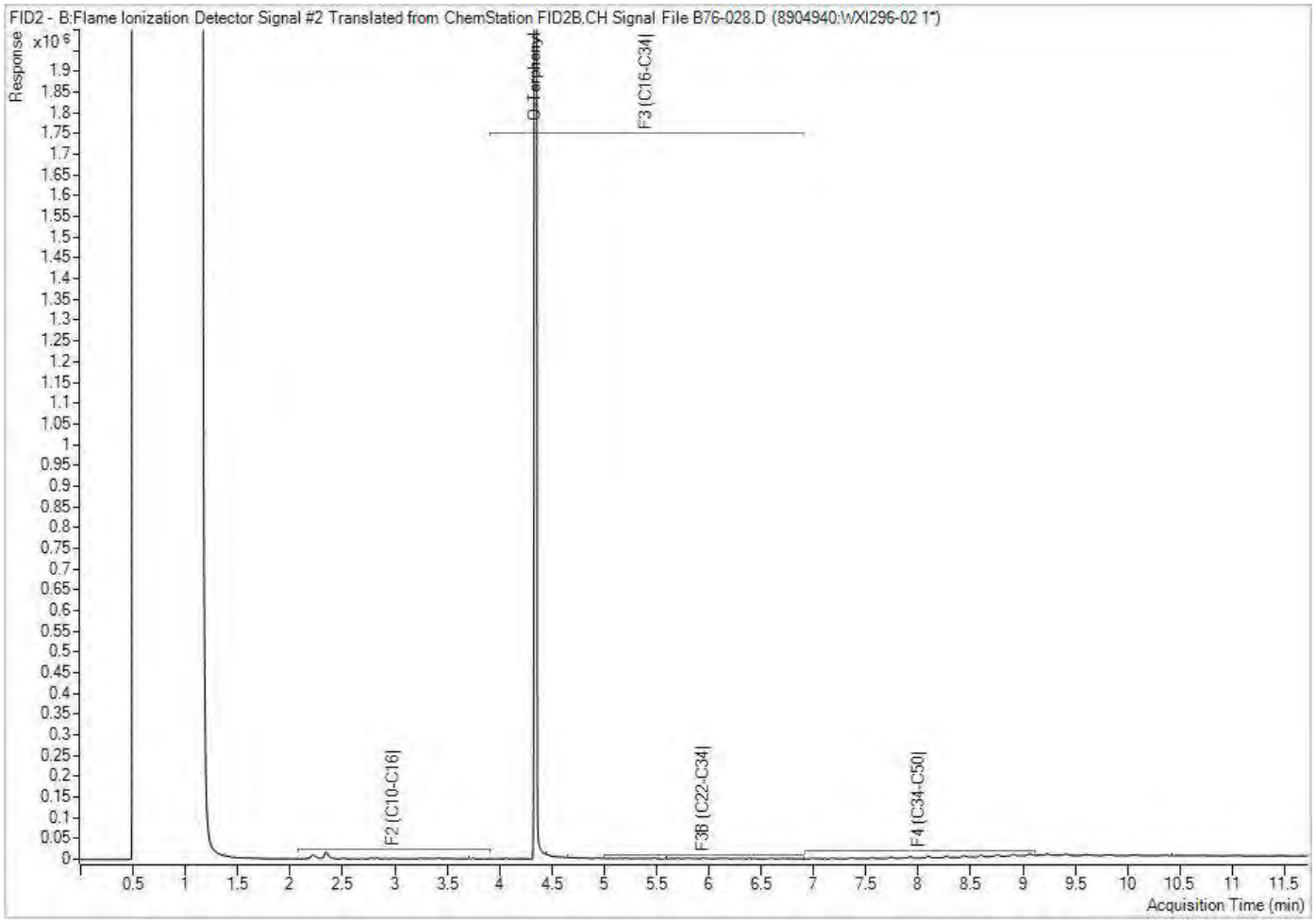


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI296

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-S-120

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

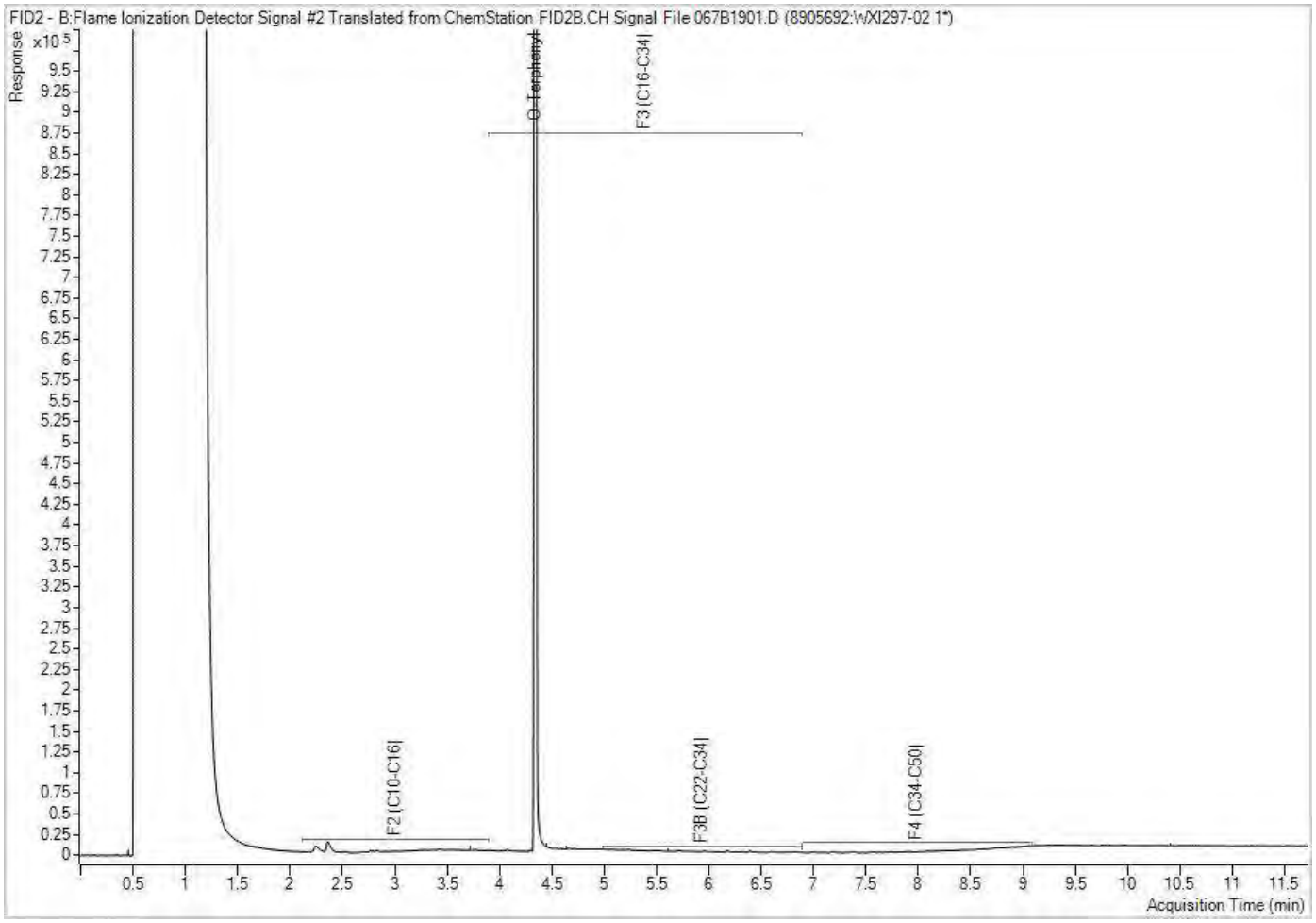


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI297

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-23-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

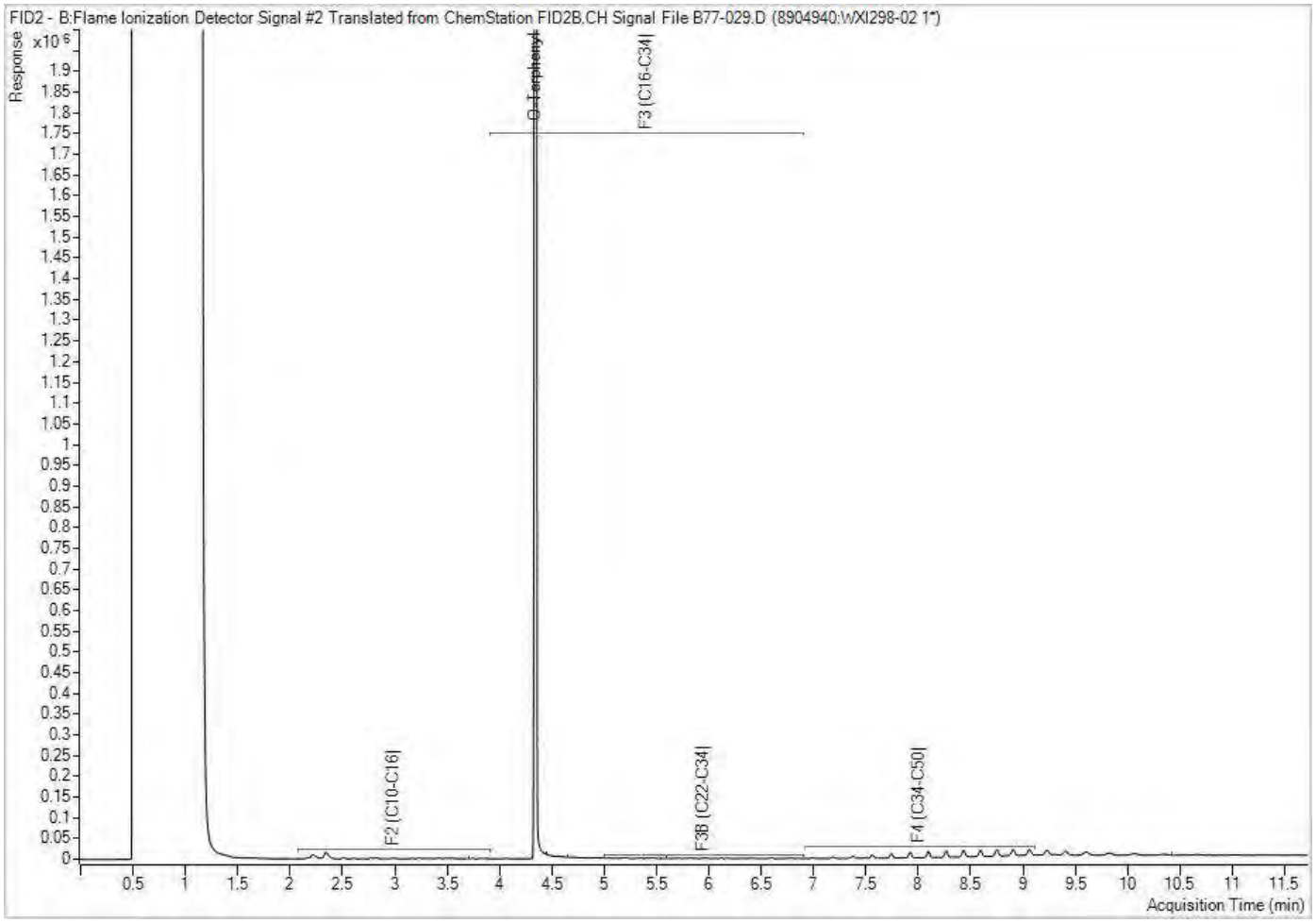


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI298

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-23-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

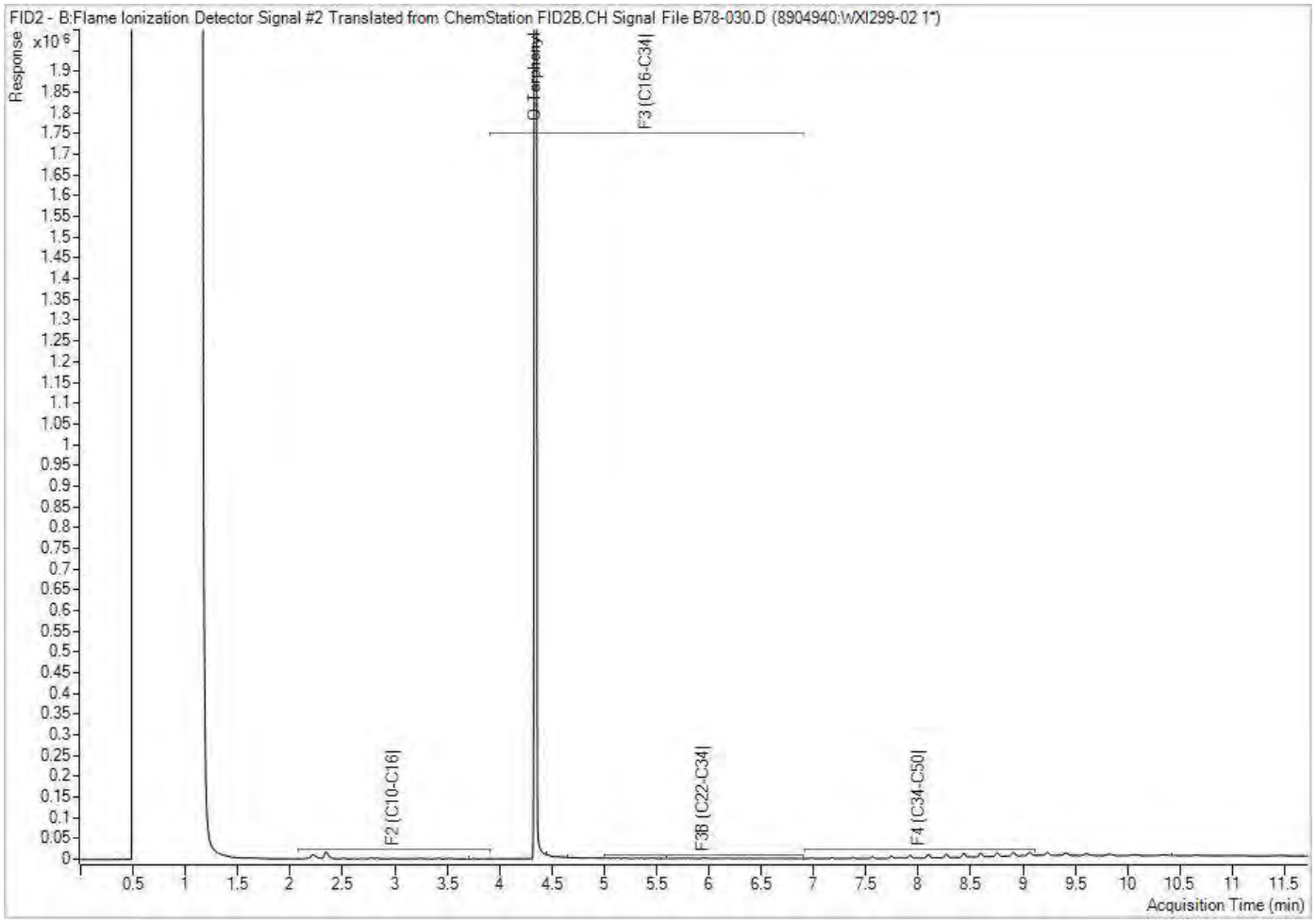


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI299

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-24-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

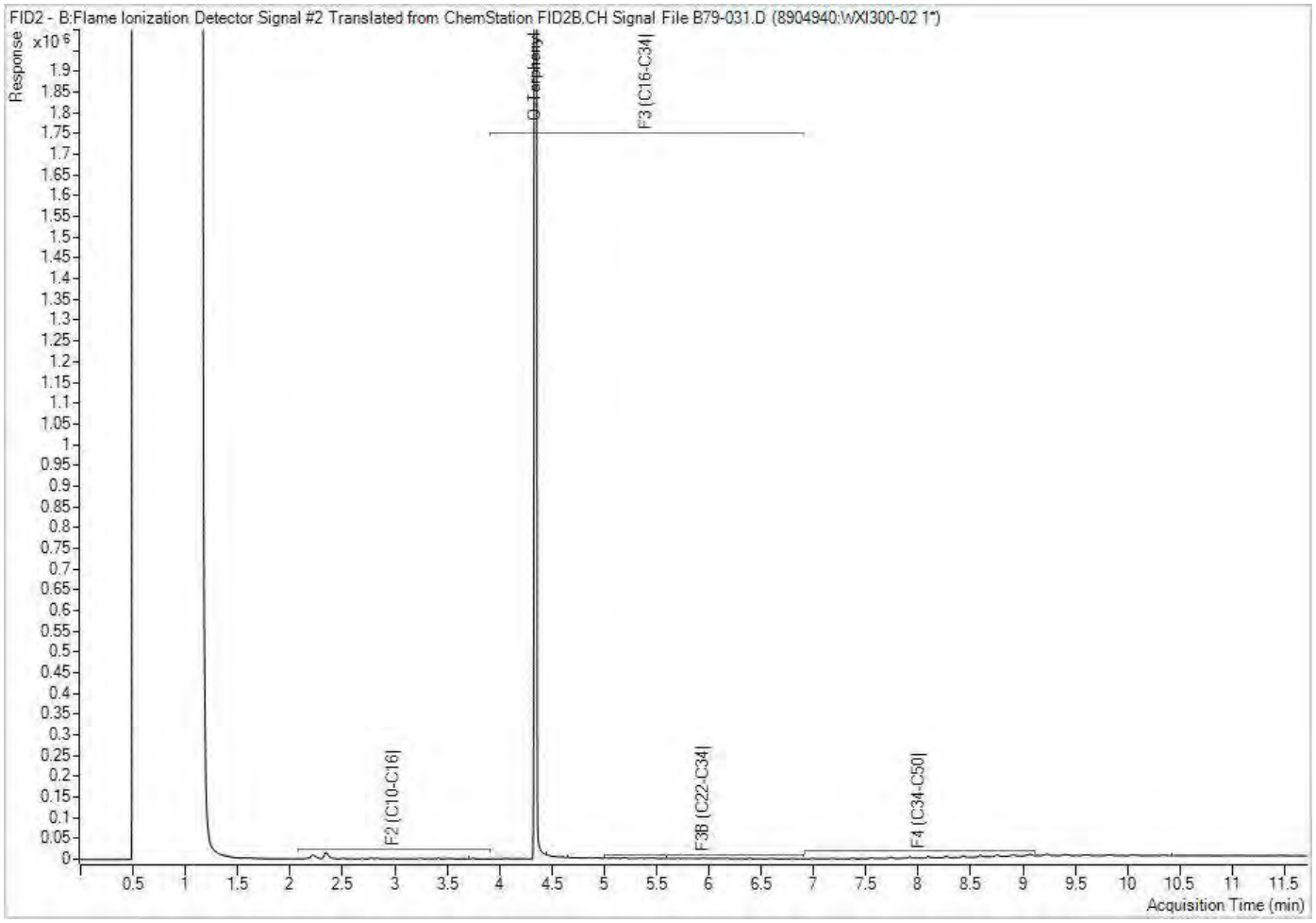


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI300

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-24-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

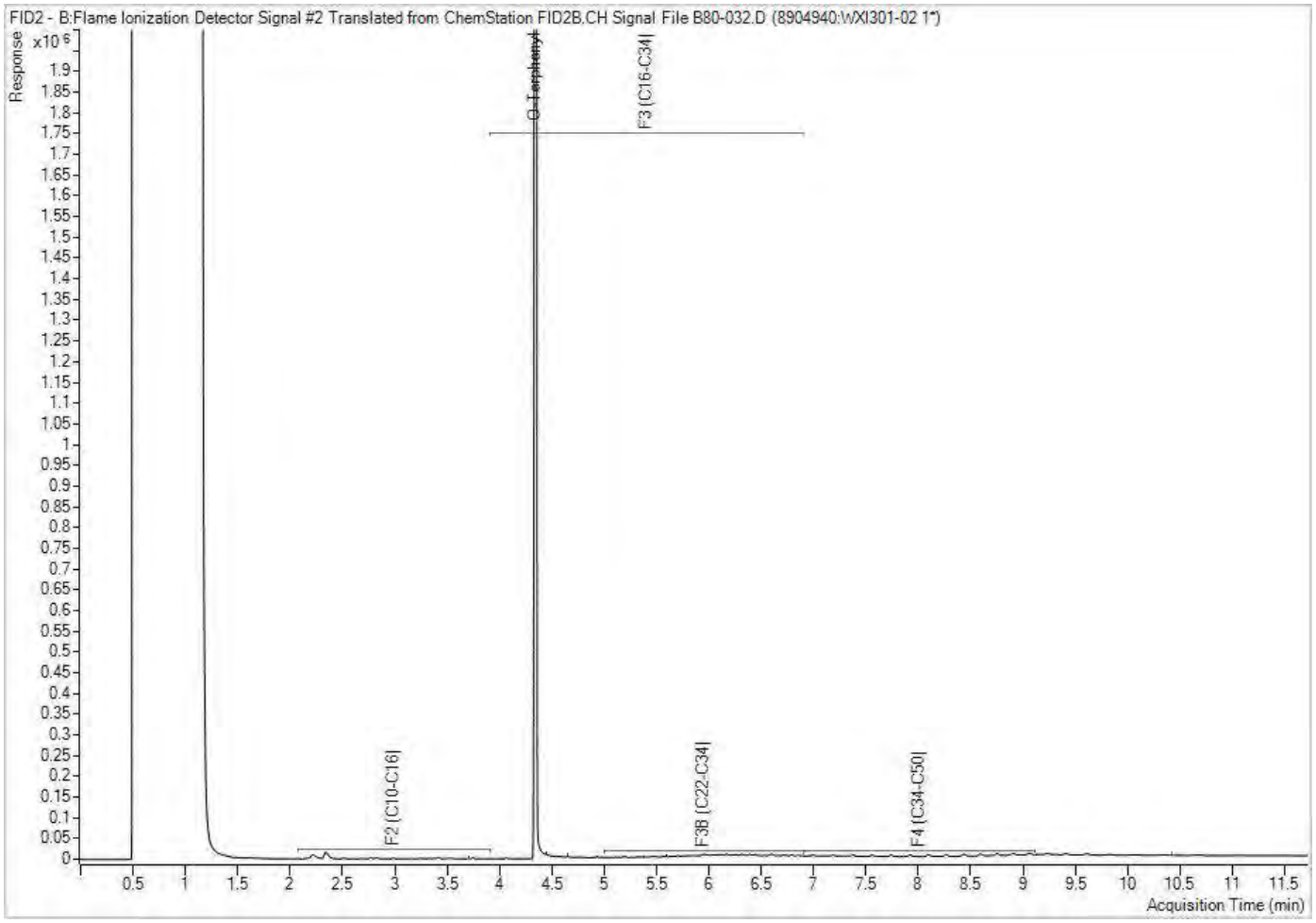


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI301

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-25-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

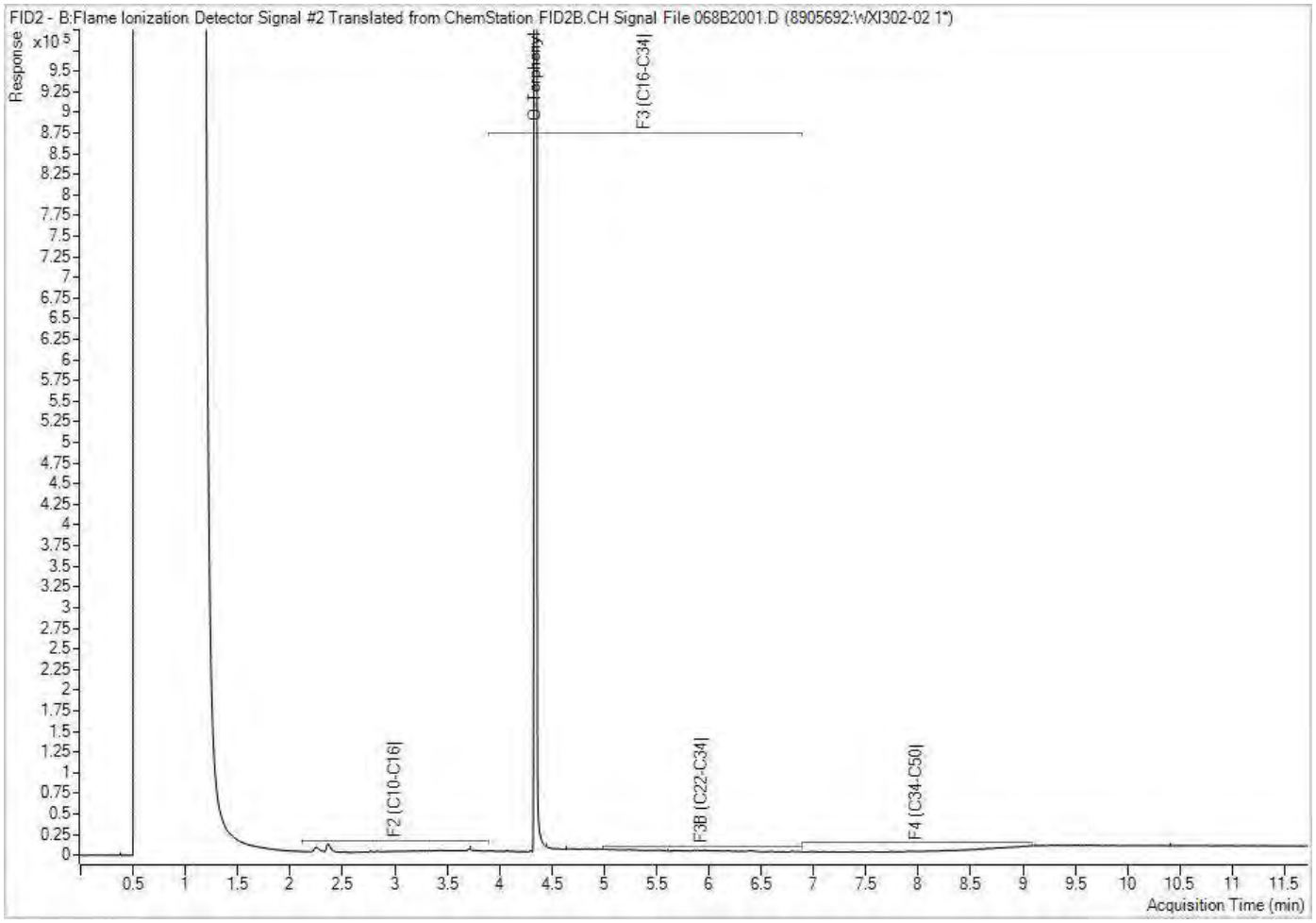


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI302

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-25-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

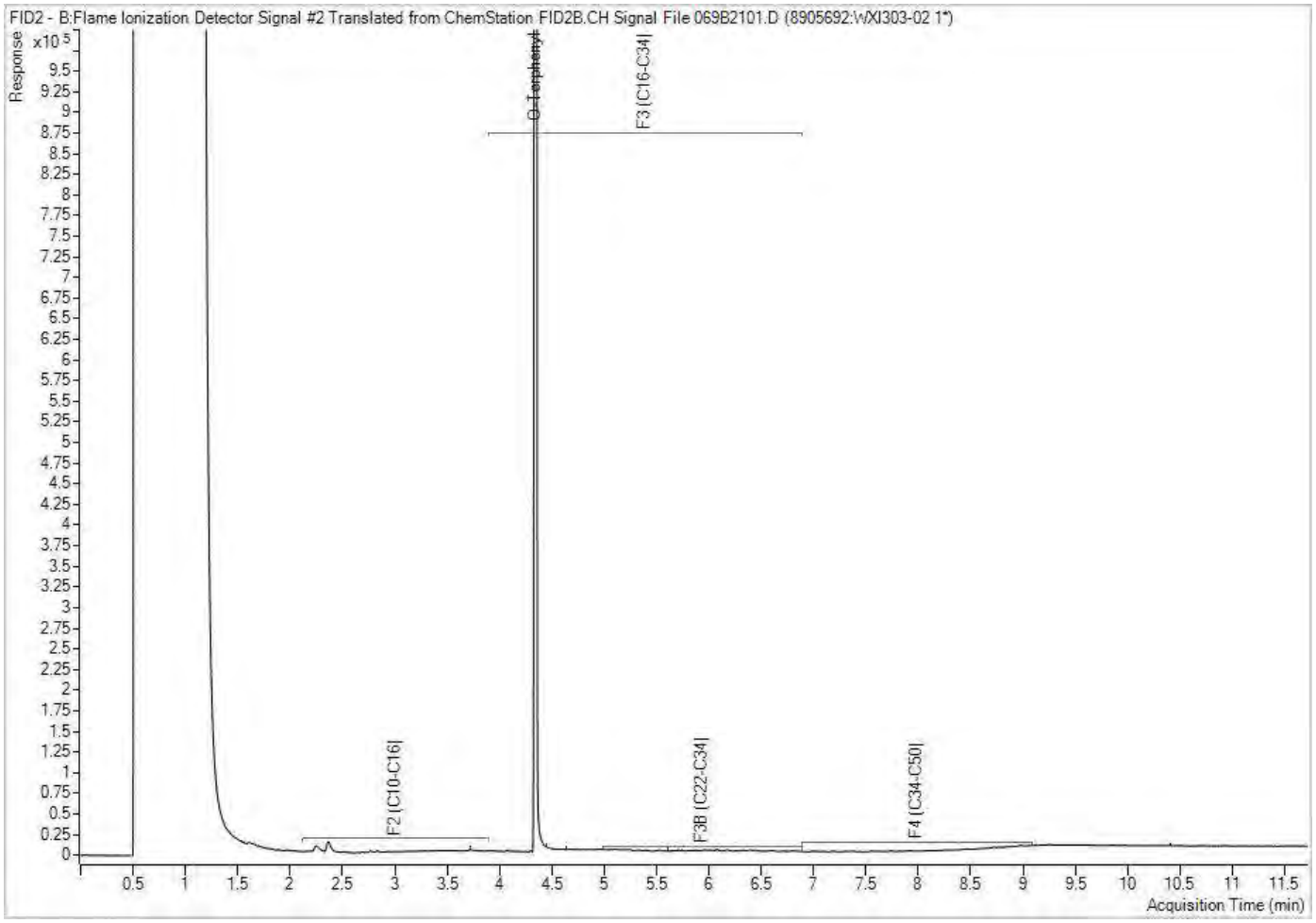


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI303

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-26-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

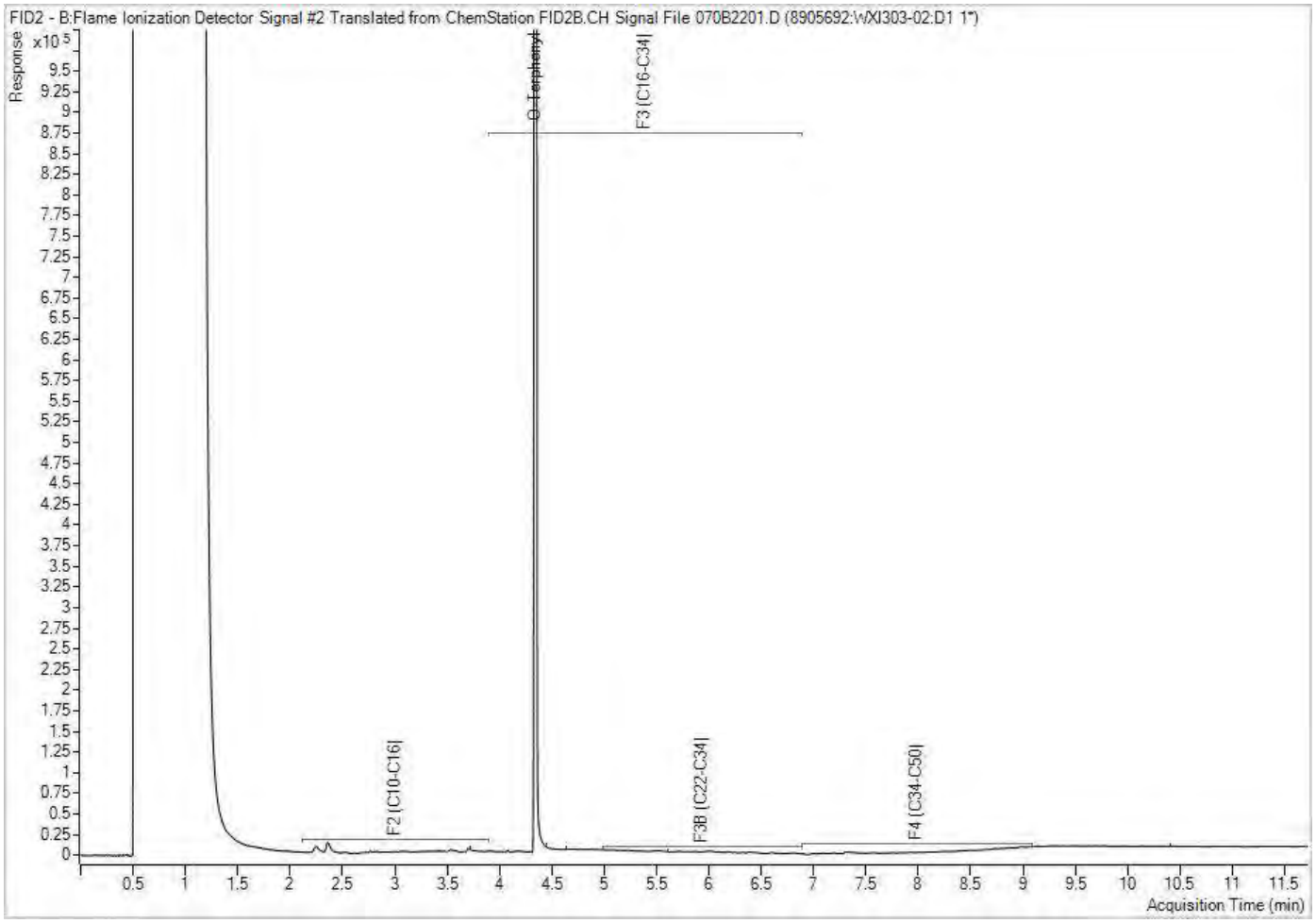


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI303 Lab-Dup

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-26-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

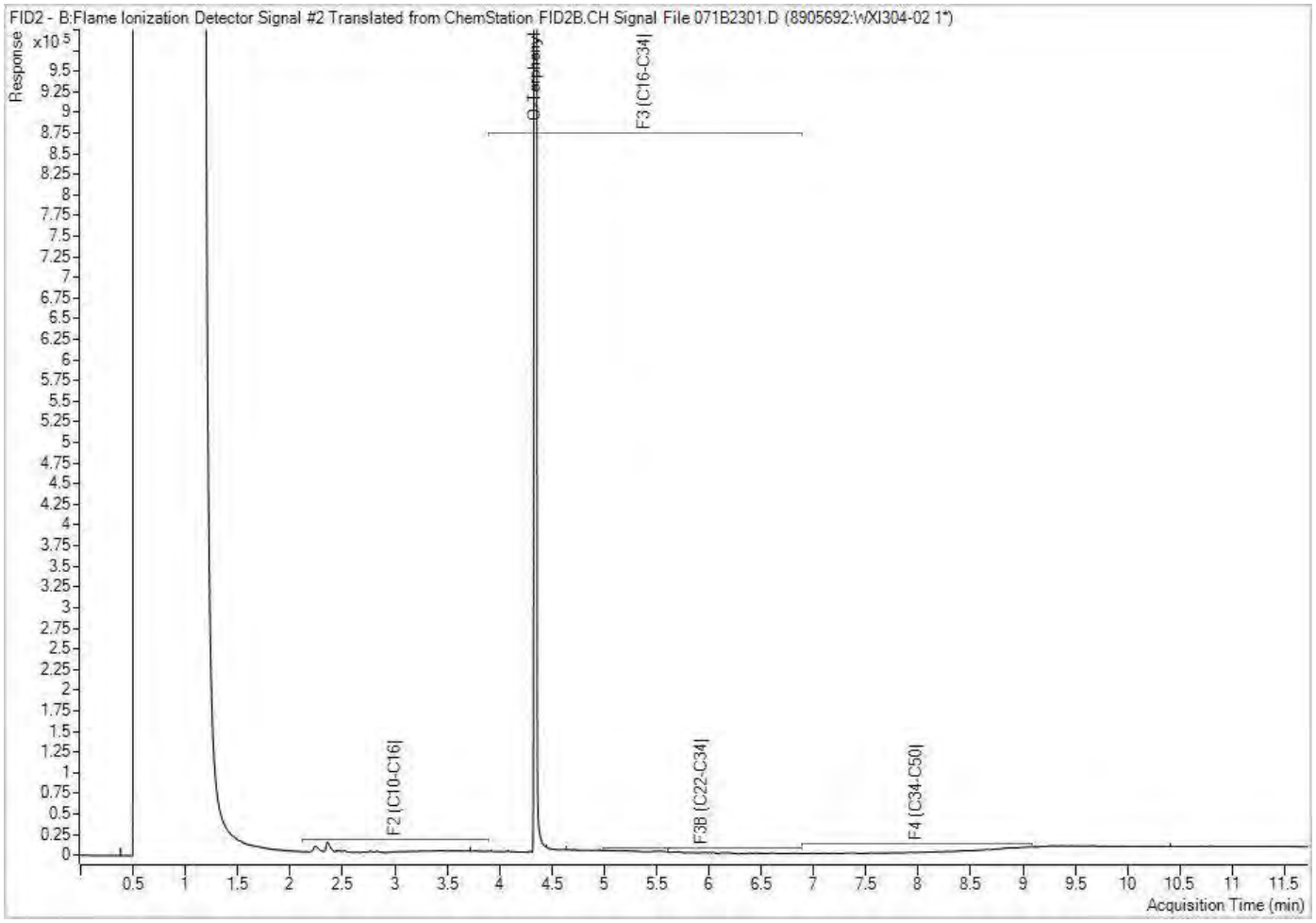


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI304

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-26-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

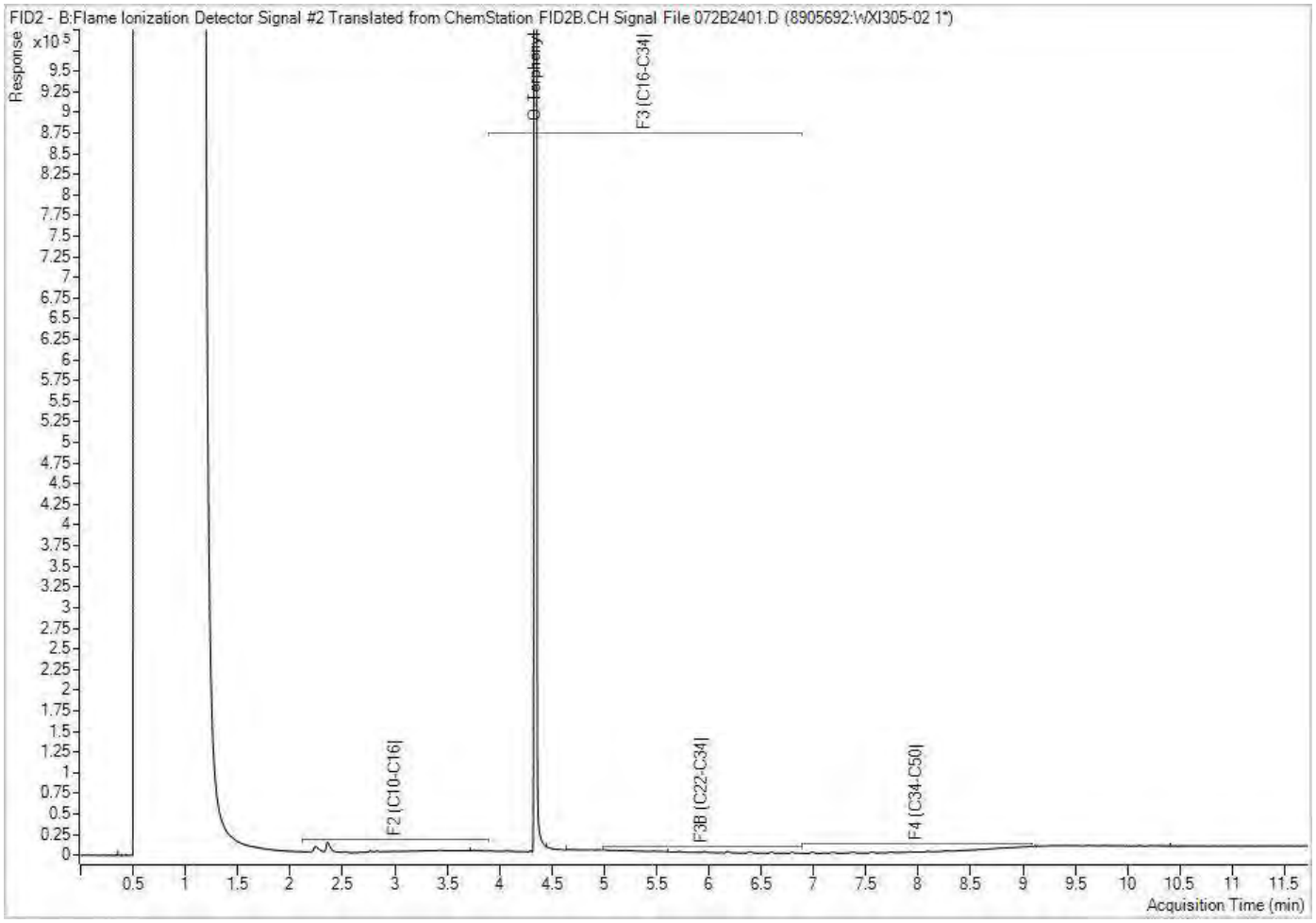


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI305

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-27-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

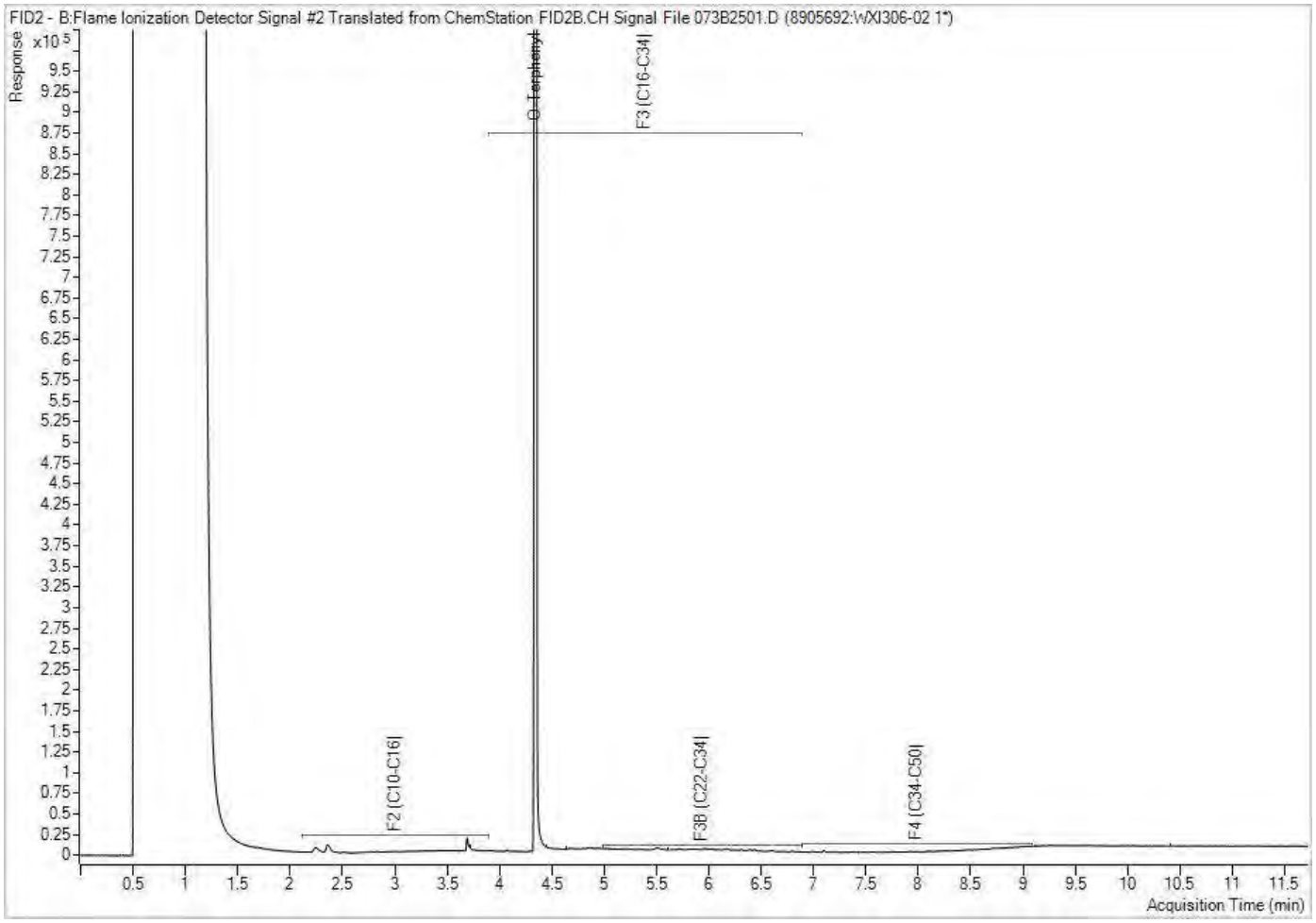


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI306

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-27-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

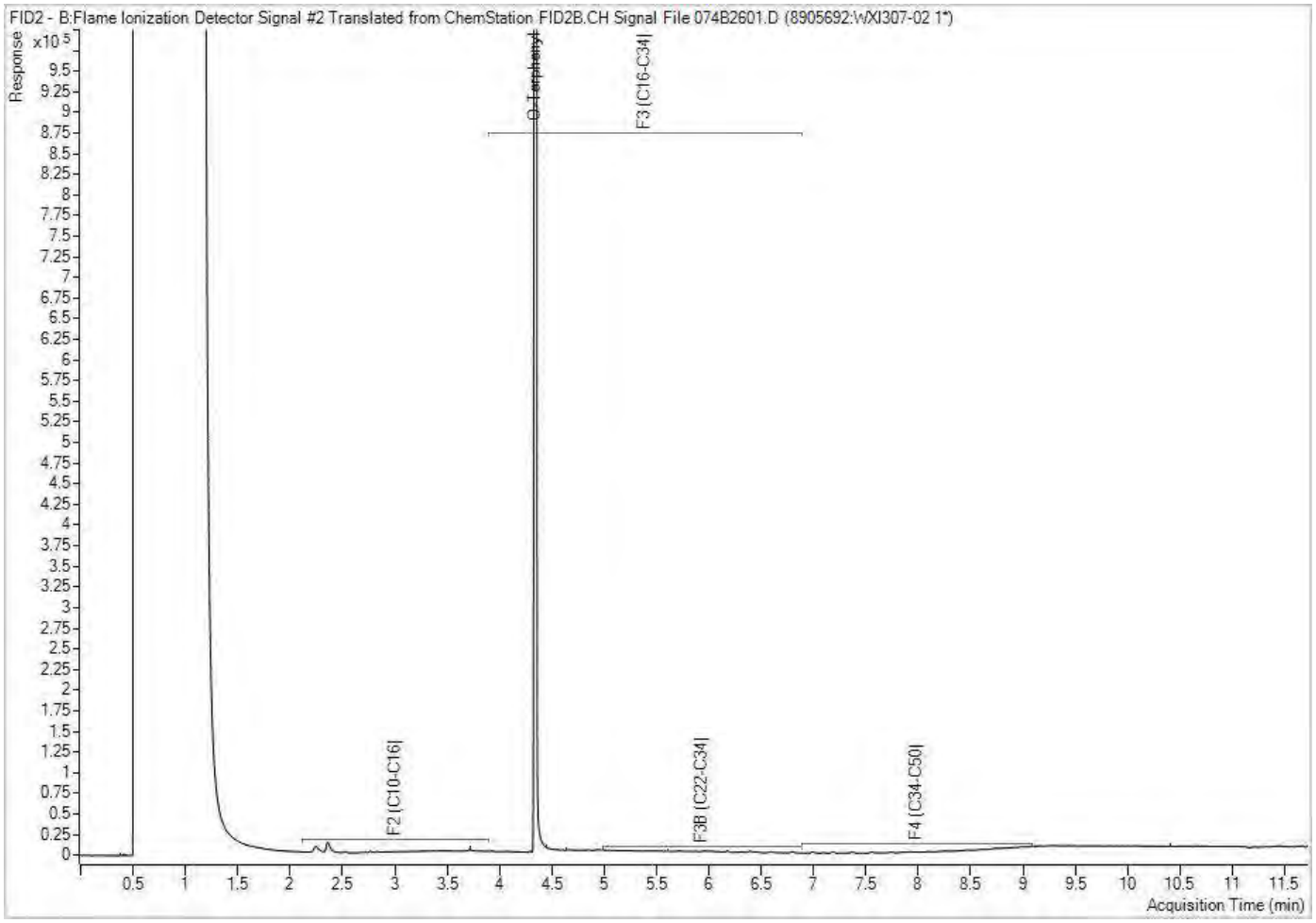


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI307

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-28-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

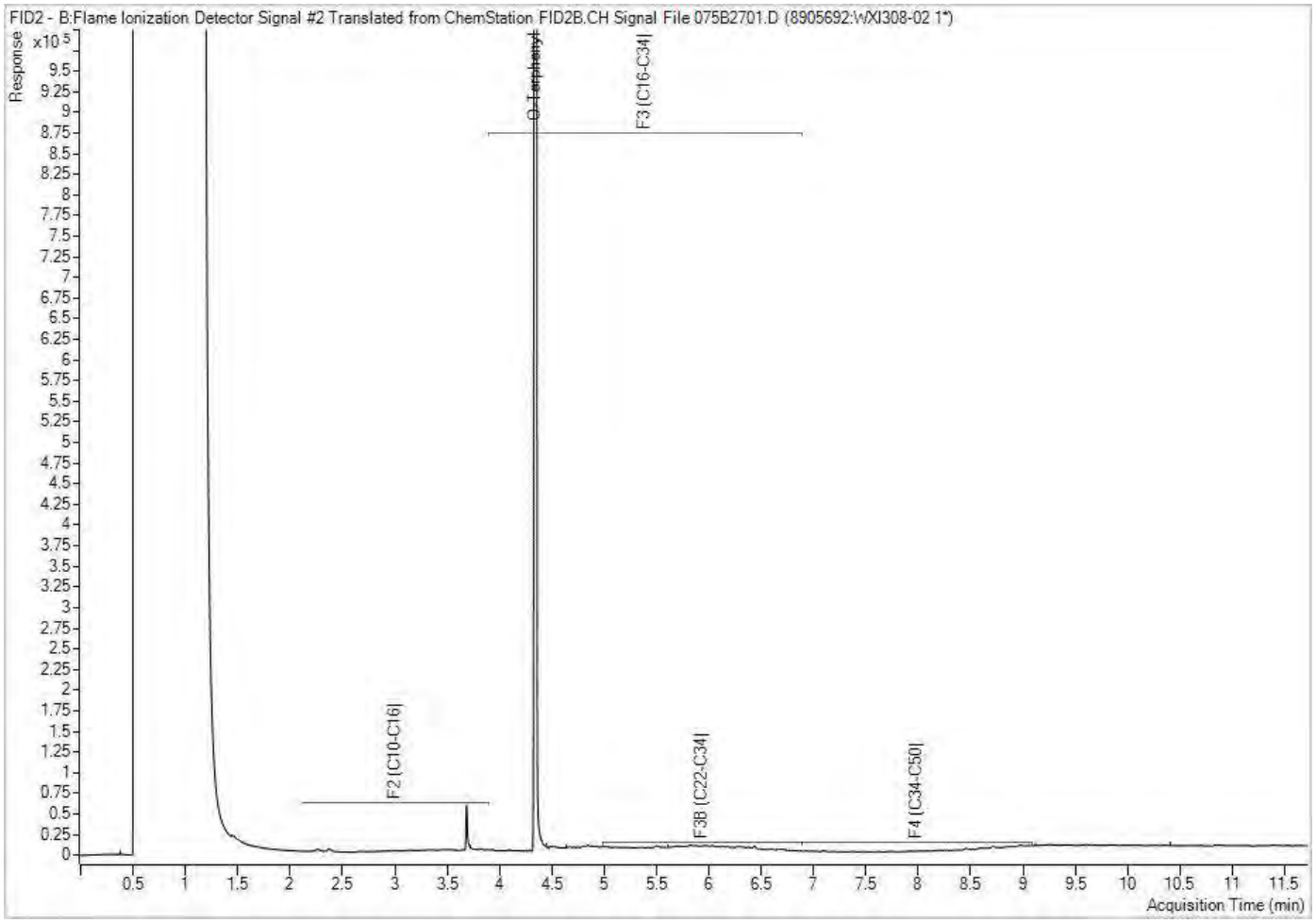


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI308

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-28-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

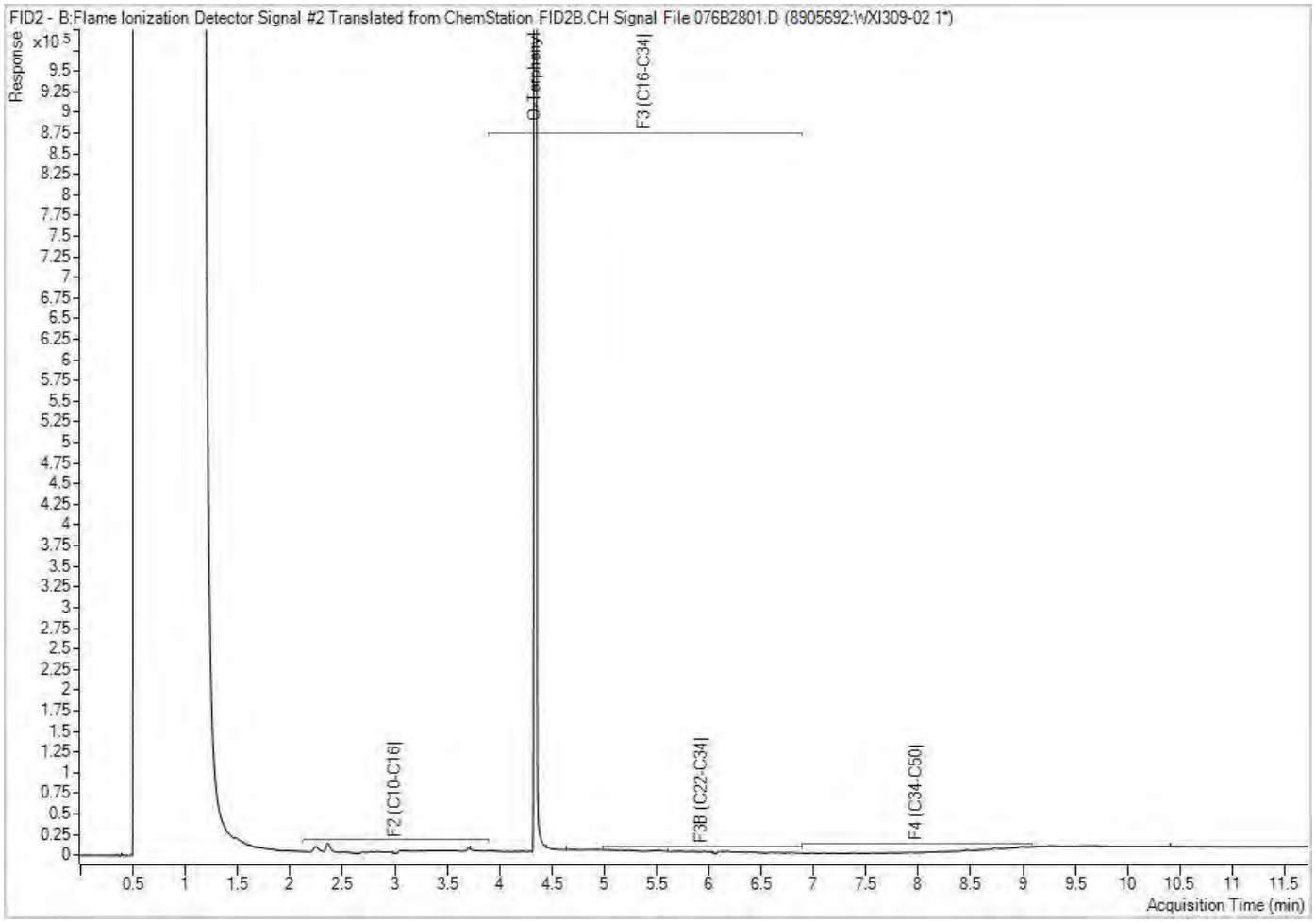


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI309

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-29-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

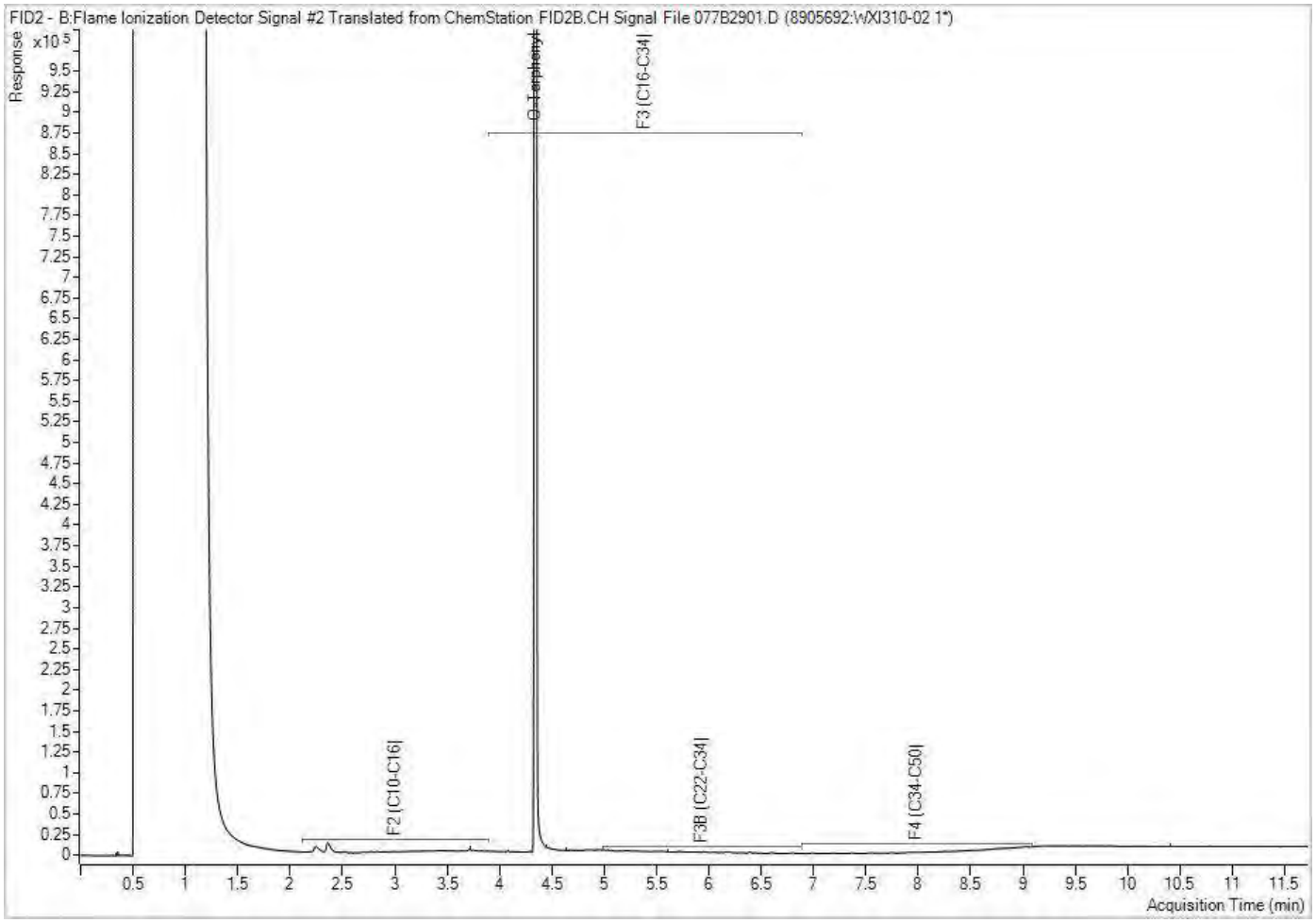


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI310

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-29-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

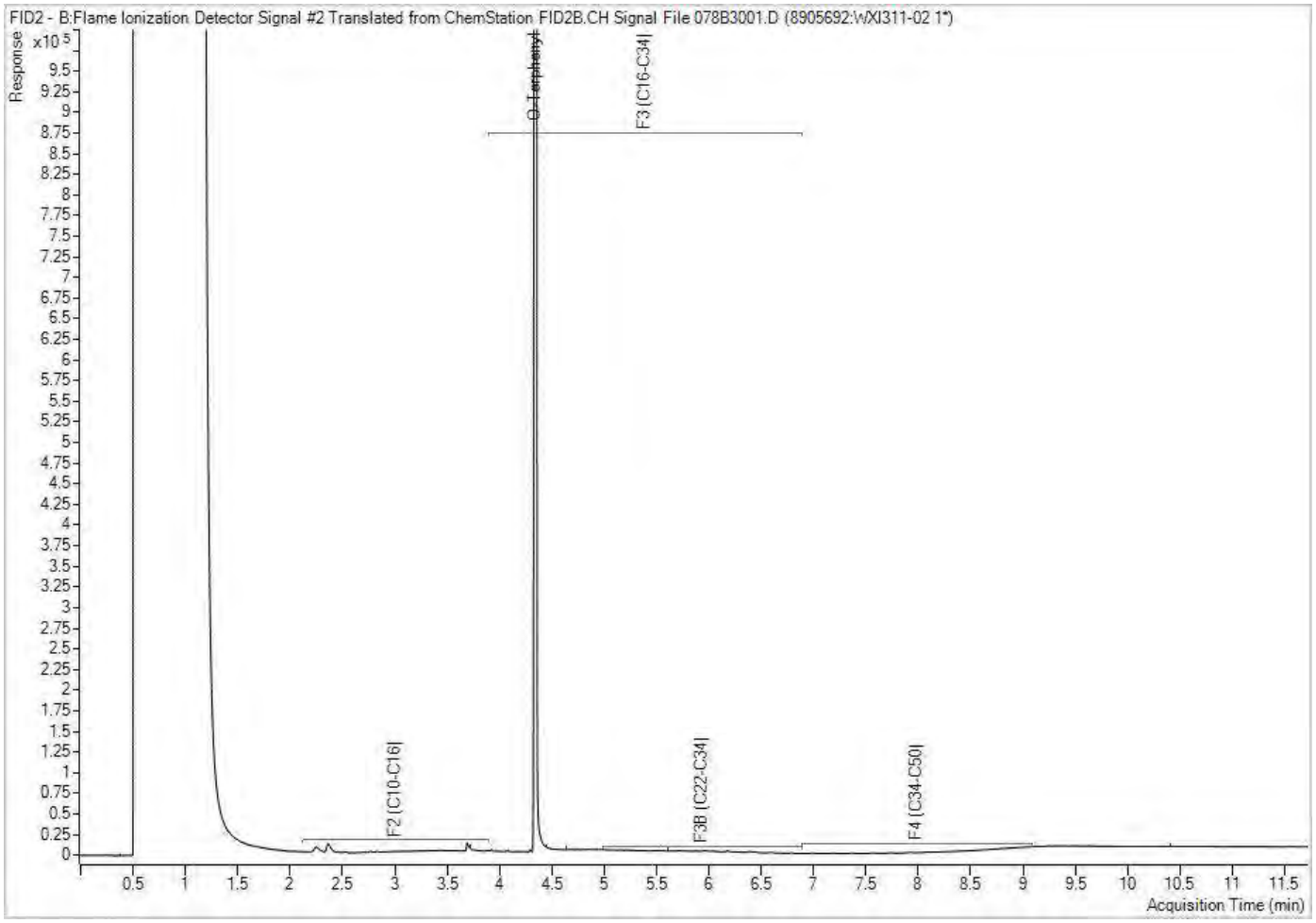


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI311

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-30-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

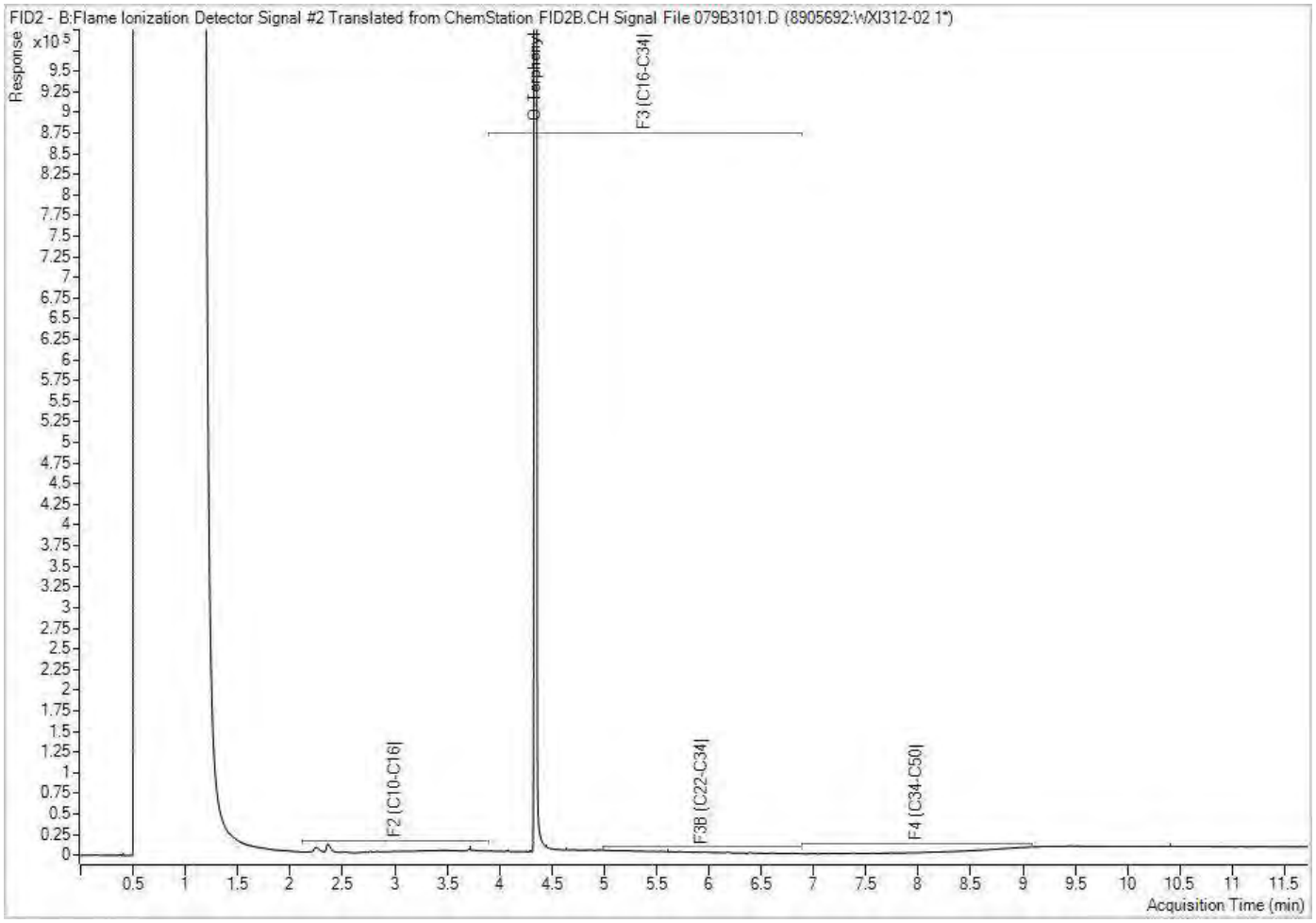


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI312

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-30-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

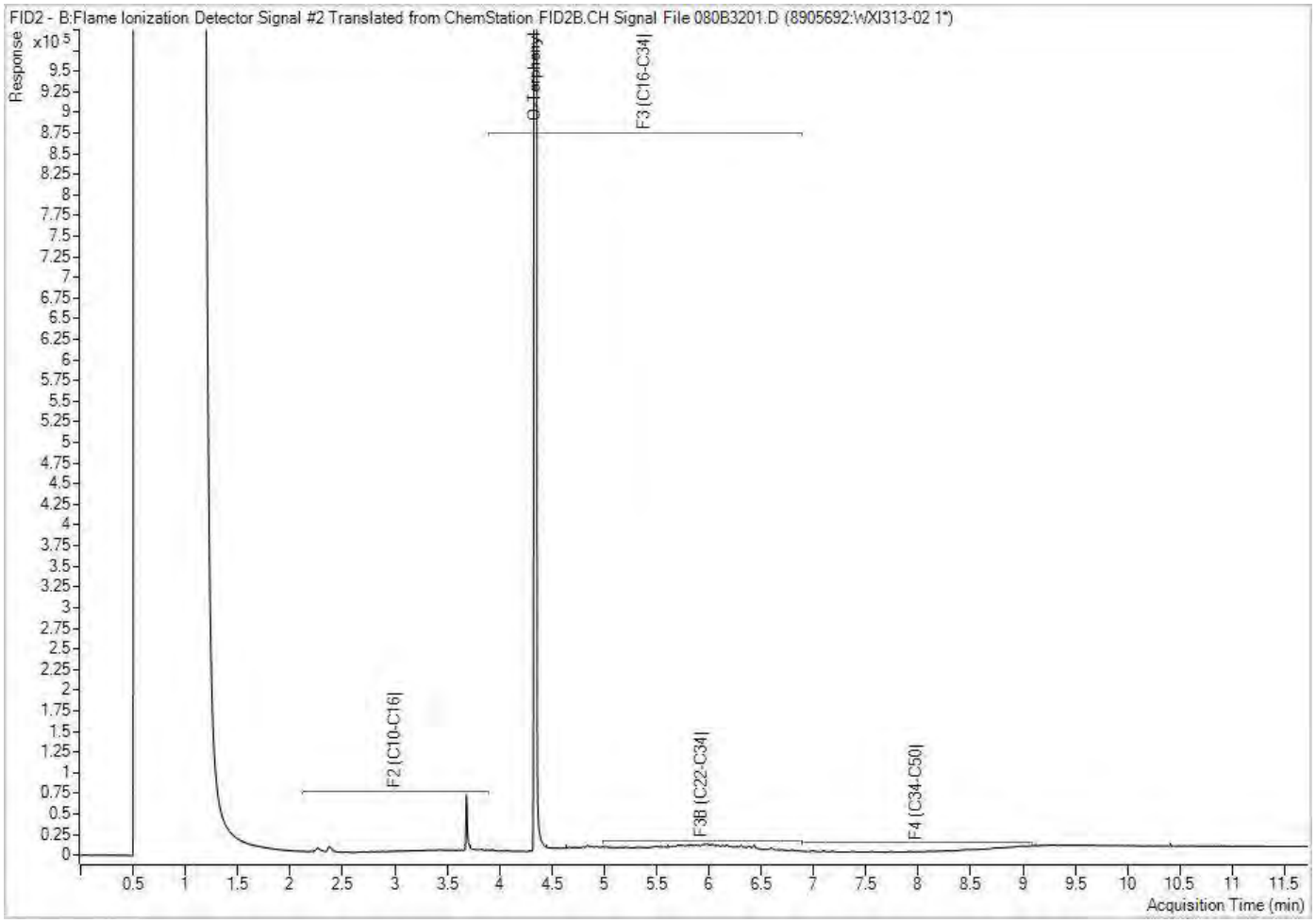


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI313

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-S-130

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

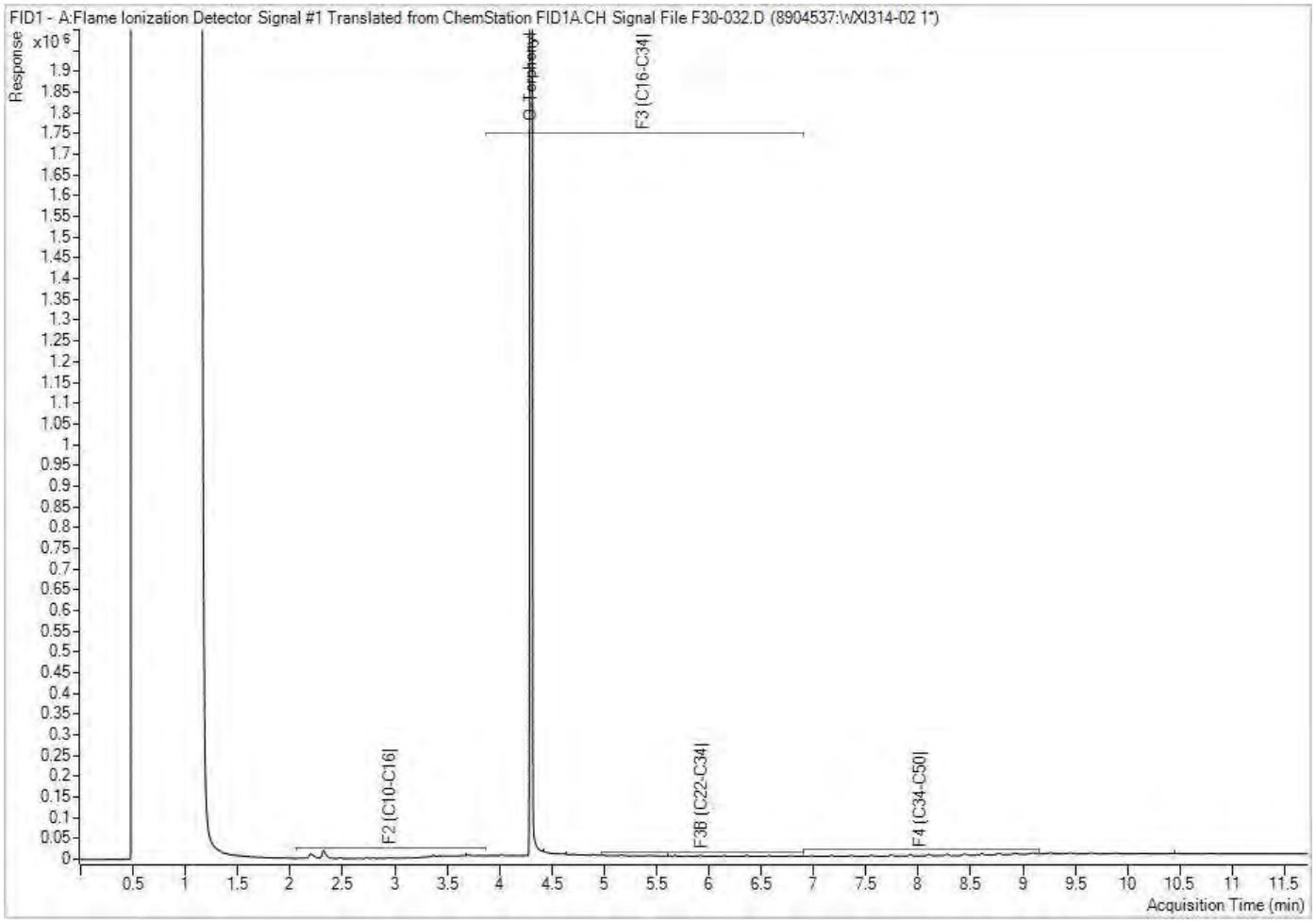


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3R2660
Report Date: 2023/09/18
Bureau Veritas Sample: WXI314

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-S-135

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Your Project #: 230394
Site Location: DYE-M
Your C.O.C. #: 763884

Attention: Heather Wolczanski

BluMetric Environmental Inc
1682 Woodward Dr
Ottawa, ON
CANADA K2C 3R8

Report Date: 2023/12/13
Report #: R7953563
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C3S0622
Received: 2023/09/12, 15:00

Sample Matrix: Soil
Samples Received: 44

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Petroleum Hydro. CCME F1 & BTEX in Soil (2)	36	N/A	2023/09/16	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydro. CCME F1 & BTEX in Soil (2)	4	N/A	2023/09/17	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydro. CCME F1 & BTEX in Soil (2)	4	N/A	2023/09/18	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (3)	40	2023/09/15	2023/09/17	CAM SOP-00316	CCME CWS m
Petroleum Hydrocarbons F2-F4 in Soil (3)	3	2023/09/15	2023/09/18	CAM SOP-00316	CCME CWS m
Elements by ICPMS (total) (1, 4)	43	2023/09/18	2023/09/19		
Moisture	43	N/A	2023/09/15	CAM SOP-00445	Carter 2nd ed 51.2 m
Polychlorinated Biphenyl in Soil	33	2023/09/16	2023/09/17	CAM SOP-00309	EPA 8082A m
Polychlorinated Biphenyl in Soil	7	2023/09/16	2023/09/19	CAM SOP-00309	EPA 8082A m
Polychlorinated Biphenyl in Soil	3	2023/09/17	2023/09/17	CAM SOP-00309	EPA 8082A m

Sample Matrix: Water
Samples Received: 10

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Petroleum Hydro. CCME F1 & BTEX in Water	9	N/A	2023/09/17	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydro. CCME F1 & BTEX in Water	1	N/A	2023/09/18	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (3)	10	2023/09/16	2023/09/18	CAM SOP-00316	CCME PHC-CWS m
Elements by ICPMS Low Level (total) (1)	8	N/A	2023/09/19	BBY7SOP-00002 / CAL SOP -00265	EPA 6020B R2 m
Elements by ICPMS Low Level (total) (1)	2	N/A	2023/09/20	BBY7SOP-00002 / CAL SOP -00265	EPA 6020B R2 m
Polychlorinated Biphenyl (PCB)	1	2023/09/16	2023/09/17	CAM SOP-00309	EPA 8082A m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCCFP, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Your Project #: 230394
Site Location: DYE-M
Your C.O.C. #: 763884

Attention: Heather Wolczanski

BluMetric Environmental Inc
1682 Woodward Dr
Ottawa, ON
CANADA K2C 3R8

Report Date: 2023/12/13
Report #: R7953563
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C3S0622
Received: 2023/09/12, 15:00

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Burnaby, 4606 Canada Way , Burnaby, BC, V5G 1K5
(2) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.
(3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
(4) The sample is prepaired per the BC MOE Lab Manual "Strong Acid Leachable Metals (SALM) in Soil - Prescriptive", Revision Nov 6, 2015.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Christine Gripton, Senior Project Manager
Email: Christine.Gripton@bureauveritas.com
Phone# (519)652-9444

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13

BluMetric Environmental Inc
Client Project #: 230394
Site Location: DYE-M
Sampler Initials: HW

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WYX808			WYX808			WYX809	WYX810		
Sampling Date		2023/09/02			2023/09/02			2023/09/02	2023/09/02		
COC Number		763884			763884			763884	763884		
	UNITS	DM-07-S	RDL	QC Batch	DM-07-S Lab-Dup	RDL	QC Batch	DM-07-D	DM-08-S	RDL	QC Batch
Inorganics											
Moisture	%	11	1.0	8920218				9.1	12	1.0	8920225
Metals											
Total Arsenic (As)	mg/kg	0.66	0.20	8932515	0.67	0.20	8932515	0.75	0.42	0.20	8932515
Total Cadmium (Cd)	mg/kg	0.053	0.050	8932515	<0.050	0.050	8932515	0.067	0.053	0.050	8932515
Total Chromium (Cr)	mg/kg	57.1	0.50	8932515	56.9	0.50	8932515	61.2	31.0	0.50	8932515
Total Cobalt (Co)	mg/kg	9.39	0.10	8932515	9.39	0.10	8932515	9.47	5.61	0.10	8932515
Total Copper (Cu)	mg/kg	22.5	0.50	8932515	22.4	0.50	8932515	24.3	13.7	0.50	8932515
Total Lead (Pb)	mg/kg	3.51	0.10	8932515	3.45	0.10	8932515	3.87	4.84	0.10	8932515
Total Nickel (Ni)	mg/kg	33.7	0.50	8932515	33.5	0.50	8932515	35.1	18.6	0.50	8932515
Total Zinc (Zn)	mg/kg	37.2	1.0	8932515	37.3	1.0	8932515	39.6	29.4	1.0	8932515

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WYX811		WYX812		WYX813		WYX814	WYX815		
Sampling Date		2023/09/02		2023/09/02		2023/09/02		2023/09/02	2023/09/02		
COC Number		763884		763884		763884		763884	763884		
	UNITS	DM-08-D	QC Batch	DM-09-S	QC Batch	DM-09-D	QC Batch	DM-10-S	DM-10-D	RDL	QC Batch
Inorganics											
Moisture	%	10	8920187	9.6	8920225	11	8920218	7.2	10	1.0	8920225
Metals											
Total Arsenic (As)	mg/kg	0.37	8932515	0.95	8932515	1.18	8932515	0.80	2.82	0.20	8932515
Total Cadmium (Cd)	mg/kg	<0.050	8932515	0.071	8932515	0.081	8932515	0.052	<0.050	0.050	8932515
Total Chromium (Cr)	mg/kg	35.3	8932515	78.5	8932515	94.4	8932515	55.7	66.6	0.50	8932515
Total Cobalt (Co)	mg/kg	5.59	8932515	13.8	8932515	14.9	8932515	8.81	11.6	0.10	8932515
Total Copper (Cu)	mg/kg	15.0	8932515	32.3	8932515	39.4	8932515	22.3	30.0	0.50	8932515
Total Lead (Pb)	mg/kg	4.11	8932515	5.34	8932515	5.70	8932515	5.17	6.72	0.10	8932515
Total Nickel (Ni)	mg/kg	19.9	8932515	45.7	8932515	53.1	8932515	31.4	40.4	0.50	8932515
Total Zinc (Zn)	mg/kg	29.8	8932515	56.3	8932515	67.1	8932515	40.3	51.7	1.0	8932515

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13

BluMetric Environmental Inc
Client Project #: 230394
Site Location: DYE-M
Sampler Initials: HW

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WYX816			WYX816			WYX817		
Sampling Date		2023/09/02			2023/09/02			2023/09/02		
COC Number		763884			763884			763884		
	UNITS	MW23-S-00	RDL	QC Batch	MW23-S-00 Lab-Dup	RDL	QC Batch	MW05-13-SOIL-S	RDL	QC Batch
Inorganics										
Moisture	%	7.8	1.0	8920225				10	1.0	8920225
Metals										
Total Arsenic (As)	mg/kg	0.98	0.20	8932524	0.97	0.20	8932524	0.49	0.20	8932524
Total Cadmium (Cd)	mg/kg	0.089	0.050	8932524	0.094	0.050	8932524	0.077	0.050	8932524
Total Chromium (Cr)	mg/kg	58.3	0.50	8932524	58.1	0.50	8932524	45.3	0.50	8932524
Total Cobalt (Co)	mg/kg	9.45	0.10	8932524	9.41	0.10	8932524	7.30	0.10	8932524
Total Copper (Cu)	mg/kg	24.9	0.50	8932524	25.0	0.50	8932524	16.1	0.50	8932524
Total Lead (Pb)	mg/kg	5.38	0.10	8932524	5.39	0.10	8932524	2.63	0.10	8932524
Total Nickel (Ni)	mg/kg	34.4	0.50	8932524	34.0	0.50	8932524	27.1	0.50	8932524
Total Zinc (Zn)	mg/kg	43.4	1.0	8932524	42.6	1.0	8932524	30.2	1.0	8932524

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WYX818		WYX819		WYX820	WYX821		
Sampling Date		2023/09/02		2023/09/02		2023/09/02	2023/09/02		
COC Number		763884		763884		763884	763884		
	UNITS	MW05-13-SOIL-D	QC Batch	MW05-15-SOIL-S	QC Batch	MW05-15-SOIL-D	MW05-16-SOIL-S	RDL	QC Batch
Inorganics									
Moisture	%	11	8920225	14	8920218	15	10	1.0	8920225
Metals									
Total Arsenic (As)	mg/kg	0.52	8932524	0.99	8932524	0.78	0.53	0.20	8932524
Total Cadmium (Cd)	mg/kg	0.072	8932524	0.059	8932524	<0.050	0.058	0.050	8932524
Total Chromium (Cr)	mg/kg	41.1	8932524	63.9	8932524	54.8	59.2	0.50	8932524
Total Cobalt (Co)	mg/kg	6.73	8932524	9.58	8932524	8.26	8.61	0.10	8932524
Total Copper (Cu)	mg/kg	16.2	8932524	30.5	8932524	23.0	23.3	0.50	8932524
Total Lead (Pb)	mg/kg	2.44	8932524	3.61	8932524	3.08	3.27	0.10	8932524
Total Nickel (Ni)	mg/kg	24.5	8932524	35.5	8932524	29.5	30.3	0.50	8932524
Total Zinc (Zn)	mg/kg	28.5	8932524	43.9	8932524	38.1	38.7	1.0	8932524

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13

BluMetric Environmental Inc
Client Project #: 230394
Site Location: DYE-M
Sampler Initials: HW

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WYX822		WYX823		WYX824	WYX825		
Sampling Date		2023/09/02		2023/09/02		2023/09/02	2023/09/02		
COC Number		763884		763884		763884	763884		
	UNITS	MW05-16-SOIL-D	QC Batch	MW12-01-SOIL-S	QC Batch	MW12-01-SOIL-D	MW23-S-10	RDL	QC Batch
Inorganics									
Moisture	%	9.7	8920187	15	8920218	13	9.3	1.0	8920225
Metals									
Total Arsenic (As)	mg/kg	0.55	8932524	0.95	8932524	0.77	0.71	0.20	8932524
Total Cadmium (Cd)	mg/kg	0.053	8932524	0.097	8932524	0.066	0.065	0.050	8932524
Total Chromium (Cr)	mg/kg	64.5	8932524	67.9	8932524	61.5	64.9	0.50	8932524
Total Cobalt (Co)	mg/kg	9.26	8932524	9.59	8932524	8.62	9.65	0.10	8932524
Total Copper (Cu)	mg/kg	26.4	8932524	30.0	8932524	26.1	26.5	0.50	8932524
Total Lead (Pb)	mg/kg	3.58	8932524	3.63	8932524	3.41	4.82	0.10	8932524
Total Nickel (Ni)	mg/kg	33.9	8932524	35.8	8932524	31.9	35.5	0.50	8932524
Total Zinc (Zn)	mg/kg	42.1	8932524	45.9	8932524	41.3	44.7	1.0	8932524

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WYX826		WYX827	WYX828	WYX829		WYX830		
Sampling Date		2023/09/01		2023/09/01	2023/09/01	2023/09/01		2023/09/01		
COC Number		763884		763884	763884	763884		763884		
	UNITS	DM-01-S	QC Batch	DM-01-D	DM-02-S	DM-02-D	QC Batch	DM-03-S	RDL	QC Batch
Inorganics										
Moisture	%	9.0	8920218	10	14	15	8920225	16	1.0	8920218
Metals										
Total Arsenic (As)	mg/kg	2.61	8932524	1.80	0.93	0.83	8932524	1.00	0.20	8932524
Total Cadmium (Cd)	mg/kg	0.764	8932524	0.761	0.061	<0.050	8932524	<0.050	0.050	8932524
Total Chromium (Cr)	mg/kg	91.8	8932524	80.0	65.8	54.1	8932524	60.4	0.50	8932524
Total Cobalt (Co)	mg/kg	11.7	8932524	11.2	9.70	7.61	8932524	9.54	0.10	8932524
Total Copper (Cu)	mg/kg	71.8	8932524	71.8	32.1	28.0	8932524	34.2	0.50	8932524
Total Lead (Pb)	mg/kg	112	8932524	140	4.46	2.75	8932524	3.11	0.10	8932524
Total Nickel (Ni)	mg/kg	47.1	8932524	43.6	38.3	32.1	8932524	39.5	0.50	8932524
Total Zinc (Zn)	mg/kg	138	8932524	140	45.5	33.9	8932524	38.4	1.0	8932524

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13

BluMetric Environmental Inc
Client Project #: 230394
Site Location: DYE-M
Sampler Initials: HW

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WYX831		WYX832		WYX833		WYX834		
Sampling Date		2023/09/01		2023/09/01		2023/09/01		2023/09/01		
COC Number		763884		763884		763884		763884		
	UNITS	DM-03-D	QC Batch	MW23-S-15	QC Batch	DM-04-S	QC Batch	DM-04-D	RDL	QC Batch
Inorganics										
Moisture	%	15	8920225	16	8920187	12	8920218	13	1.0	8920218
Metals										
Total Arsenic (As)	mg/kg	1.54	8932524	1.06	8932524	0.70	8932524	0.47	0.20	8932526
Total Cadmium (Cd)	mg/kg	0.058	8932524	<0.050	8932524	0.087	8932524	0.066	0.050	8932526
Total Chromium (Cr)	mg/kg	59.7	8932524	56.0	8932524	57.6	8932524	44.0	0.50	8932526
Total Cobalt (Co)	mg/kg	8.54	8932524	9.02	8932524	8.16	8932524	6.13	0.10	8932526
Total Copper (Cu)	mg/kg	29.6	8932524	30.1	8932524	26.1	8932524	18.6	0.50	8932526
Total Lead (Pb)	mg/kg	4.27	8932524	2.94	8932524	14.8	8932524	2.99	0.10	8932526
Total Nickel (Ni)	mg/kg	35.6	8932524	38.6	8932524	31.9	8932524	24.4	0.50	8932526
Total Zinc (Zn)	mg/kg	41.2	8932524	36.1	8932524	42.5	8932524	28.1	1.0	8932526

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WYX834			WYX835	WYX836		WYX837		
Sampling Date		2023/09/01			2023/09/01	2023/09/01		2023/09/01		
COC Number		763884			763884	763884		763884		
	UNITS	DM-04-D Lab-Dup	RDL	QC Batch	DM-05-S	DM-05-D	QC Batch	DM-06-S	RDL	QC Batch
Inorganics										
Moisture	%	13	1.0	8920218	17	12	8920218	11	1.0	8920225
Metals										
Total Arsenic (As)	mg/kg				0.70	1.10	8932526	0.75	0.20	8932526
Total Cadmium (Cd)	mg/kg				0.203	0.103	8932526	0.053	0.050	8932526
Total Chromium (Cr)	mg/kg				55.9	77.2	8932526	59.6	0.50	8932526
Total Cobalt (Co)	mg/kg				8.31	11.6	8932526	9.50	0.10	8932526
Total Copper (Cu)	mg/kg				29.0	38.0	8932526	28.2	0.50	8932526
Total Lead (Pb)	mg/kg				30.5	9.92	8932526	3.34	0.10	8932526
Total Nickel (Ni)	mg/kg				31.7	45.3	8932526	35.3	0.50	8932526
Total Zinc (Zn)	mg/kg				47.5	53.7	8932526	39.0	1.0	8932526

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13

BluMetric Environmental Inc
Client Project #: 230394
Site Location: DYE-M
Sampler Initials: HW

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WYX838			WYX838			WYX839	WYX840		
Sampling Date		2023/09/01			2023/09/01			2023/09/01	2023/09/01		
COC Number		763884			763884			763884	763884		
	UNITS	DM-06-D	RDL	QC Batch	DM-06-D Lab-Dup	RDL	QC Batch	MW23-S-20	MW05-05-SOIL-S	RDL	QC Batch
Inorganics											
Moisture	%	11	1.0	8920218				15	12	1.0	8920218
Metals											
Total Arsenic (As)	mg/kg	0.89	0.20	8932526	0.91	0.20	8932526	0.60	0.90	0.20	8932526
Total Cadmium (Cd)	mg/kg	0.054	0.050	8932526	0.054	0.050	8932526	0.051	0.108	0.050	8932526
Total Chromium (Cr)	mg/kg	63.6	0.50	8932526	64.6	0.50	8932526	44.2	60.7	0.50	8932526
Total Cobalt (Co)	mg/kg	9.82	0.10	8932526	9.93	0.10	8932526	6.41	8.20	0.10	8932526
Total Copper (Cu)	mg/kg	30.3	0.50	8932526	30.7	0.50	8932526	19.8	28.0	0.50	8932526
Total Lead (Pb)	mg/kg	3.58	0.10	8932526	3.63	0.10	8932526	3.71	16.2	0.10	8932526
Total Nickel (Ni)	mg/kg	37.7	0.50	8932526	38.1	0.50	8932526	25.3	32.2	0.50	8932526
Total Zinc (Zn)	mg/kg	42.5	1.0	8932526	42.7	1.0	8932526	30.0	48.2	1.0	8932526

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WYX841	WYX842	WYX843	WYX844	WYX845		
Sampling Date		2023/09/01	2023/09/01	2023/09/01	2023/09/01	2023/09/01		
COC Number		763884	763884	763884	763884	763884		
	UNITS	MW05-05-SOIL-D	MW05-06-SOIL-S	MW05-06-SOIL-D	MW05-07-SOIL-S	MW05-07-SOIL-D	RDL	QC Batch
Inorganics								
Moisture	%	12	12	15	12	12	1.0	8920218
Metals								
Total Arsenic (As)	mg/kg	0.75	0.40	0.87	1.02	0.59	0.20	8932526
Total Cadmium (Cd)	mg/kg	0.083	<0.050	<0.050	0.133	<0.050	0.050	8932526
Total Chromium (Cr)	mg/kg	53.4	41.6	52.0	57.1	48.3	0.50	8932526
Total Cobalt (Co)	mg/kg	7.66	6.78	7.83	7.97	7.45	0.10	8932526
Total Copper (Cu)	mg/kg	24.7	16.3	23.5	27.3	21.8	0.50	8932526
Total Lead (Pb)	mg/kg	29.0	2.61	3.83	13.6	7.05	0.10	8932526
Total Nickel (Ni)	mg/kg	29.7	27.8	31.4	31.6	28.1	0.50	8932526
Total Zinc (Zn)	mg/kg	42.7	27.1	35.7	50.8	33.8	1.0	8932526

RDL = Reportable Detection Limit
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Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13

BluMetric Environmental Inc
Client Project #: 230394
Site Location: DYE-M
Sampler Initials: HW

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WYX846		WYX847		WYX848		WYX849		
Sampling Date		2023/09/01		2023/09/01		2023/09/01		2023/08/30		
COC Number		763884		763884		763884		763884		
	UNITS	MW05-08-SOIL-S	QC Batch	MW05-08-SOIL-D	QC Batch	MW23-S-30	QC Batch	DM-53-S	RDL	QC Batch
Inorganics										
Moisture	%	15	8920218	11	8920187	14	8920218	10	1.0	8920225
Metals										
Total Arsenic (As)	mg/kg	0.60	8932526	0.57	8932526	0.60	8932526	1.16	0.20	8932526
Total Cadmium (Cd)	mg/kg	<0.050	8932526	<0.050	8932526	<0.050	8932526	0.072	0.050	8932526
Total Chromium (Cr)	mg/kg	51.7	8932526	47.6	8932526	50.4	8932526	88.3	0.50	8932526
Total Cobalt (Co)	mg/kg	7.58	8932526	6.72	8932526	7.23	8932526	10.3	0.10	8932526
Total Copper (Cu)	mg/kg	23.1	8932526	20.1	8932526	21.6	8932526	41.2	0.50	8932526
Total Lead (Pb)	mg/kg	6.59	8932526	3.49	8932526	8.10	8932526	13.0	0.10	8932526
Total Nickel (Ni)	mg/kg	30.1	8932526	26.5	8932526	30.0	8932526	53.8	0.50	8932526
Total Zinc (Zn)	mg/kg	36.7	8932526	33.0	8932526	34.1	8932526	79.9	1.0	8932526

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WYX850		
Sampling Date		2023/08/30		
COC Number		763884		
	UNITS	DM-53-D	RDL	QC Batch
Inorganics				
Moisture	%	13	1.0	8920187
Metals				
Total Arsenic (As)	mg/kg	1.06	0.20	8932526
Total Cadmium (Cd)	mg/kg	0.063	0.050	8932526
Total Chromium (Cr)	mg/kg	143	0.50	8932526
Total Cobalt (Co)	mg/kg	12.3	0.10	8932526
Total Copper (Cu)	mg/kg	50.2	0.50	8932526
Total Lead (Pb)	mg/kg	12.6	0.10	8932526
Total Nickel (Ni)	mg/kg	60.4	0.50	8932526
Total Zinc (Zn)	mg/kg	107	1.0	8932526

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WYX808	WYX809		WYX810			WYX810		
Sampling Date		2023/09/02	2023/09/02		2023/09/02			2023/09/02		
COC Number		763884	763884		763884			763884		
	UNITS	DM-07-S	DM-07-D	QC Batch	DM-08-S	RDL	QC Batch	DM-08-S Lab-Dup	RDL	QC Batch
BTEX & F1 Hydrocarbons										
F1 (C6-C10)	ug/g	<10	<10	8920374	<10	10	8920545	<10	10	8920545
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	8920248	<10	10	8920248			
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	8920248	<50	50	8920248			
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	8920248	<50	50	8920248			
Reached Baseline at C50	ug/g	Yes	Yes	8920248	Yes		8920248			
Surrogate Recovery (%)										
1,4-Difluorobenzene	%	109	112	8920374	100		8920545	100		8920545
4-Bromofluorobenzene	%	88	84	8920374	96		8920545	97		8920545
D10-o-Xylene	%	117	107	8920374	120		8920545	130		8920545
D4-1,2-Dichloroethane	%	86	87	8920374	95		8920545	95		8920545
o-Terphenyl	%	103	100	8920248	101		8920248			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WYX811		WYX812		WYX813		WYX814		
Sampling Date		2023/09/02		2023/09/02		2023/09/02		2023/09/02		
COC Number		763884		763884		763884		763884		
	UNITS	DM-08-D	QC Batch	DM-09-S	QC Batch	DM-09-D	QC Batch	DM-10-S	RDL	QC Batch
BTEX & F1 Hydrocarbons										
F1 (C6-C10)	ug/g	<10	8920374	<10	8920545	<10	8920545	<10	10	8920545
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/g	<10	8920248	<10	8920248	<10	8920833	<10	10	8920248
F3 (C16-C34 Hydrocarbons)	ug/g	<50	8920248	<50	8920248	<50	8920833	<50	50	8920248
F4 (C34-C50 Hydrocarbons)	ug/g	<50	8920248	<50	8920248	<50	8920833	<50	50	8920248
Reached Baseline at C50	ug/g	Yes	8920248	Yes	8920248	Yes	8920833	Yes		8920248
Surrogate Recovery (%)										
1,4-Difluorobenzene	%	111	8920374	95	8920545	100	8920545	102		8920545
4-Bromofluorobenzene	%	86	8920374	101	8920545	98	8920545	98		8920545
D10-o-Xylene	%	95	8920374	125	8920545	119	8920545	116		8920545
D4-1,2-Dichloroethane	%	88	8920374	96	8920545	95	8920545	94		8920545
o-Terphenyl	%	103	8920248	104	8920248	99	8920833	101		8920248

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Sampler Initials: HW

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WYX814			WYX815		WYX816		WYX817		
Sampling Date		2023/09/02			2023/09/02		2023/09/02		2023/09/02		
COC Number		763884			763884		763884		763884		
	UNITS	DM-10-S Lab-Dup	RDL	QC Batch	DM-10-D	QC Batch	MW23-S-00	QC Batch	MW05-13-SOIL-S	RDL	QC Batch
BTEX & F1 Hydrocarbons											
F1 (C6-C10)	ug/g				<10	8920545	<10	8920374	<10	10	8920545
F2-F4 Hydrocarbons											
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	8920248	<10	8920248	<10	8920248	<10	10	8920248
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	8920248	<50	8920248	<50	8920248	<50	50	8920248
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	8920248	<50	8920248	<50	8920248	<50	50	8920248
Reached Baseline at C50	ug/g	Yes		8920248	Yes	8920248	Yes	8920248	Yes		8920248
Surrogate Recovery (%)											
1,4-Difluorobenzene	%				100	8920545	111	8920374	98		8920545
4-Bromofluorobenzene	%				97	8920545	86	8920374	95		8920545
D10-o-Xylene	%				112	8920545	158 (1)	8920374	93		8920545
D4-1,2-Dichloroethane	%				97	8920545	88	8920374	99		8920545
o-Terphenyl	%	101		8920248	103	8920248	100	8920248	100		8920248

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
(1) The recovery of the extraction surrogate compound was above the upper control limit. Visible loss of methanol was observed in this sample. As a result, there is an increased level of uncertainty.

Bureau Veritas ID		WYX818		WYX819		WYX820		
Sampling Date		2023/09/02		2023/09/02		2023/09/02		
COC Number		763884		763884		763884		
	UNITS	MW05-13-SOIL-D	QC Batch	MW05-15-SOIL-S	QC Batch	MW05-15-SOIL-D	RDL	QC Batch
BTEX & F1 Hydrocarbons								
F1 (C6-C10)	ug/g	<10	8920374	<10	8920545	<10	10	8920374
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/g	<10	8920248	<10	8920833	<10	10	8920248
F3 (C16-C34 Hydrocarbons)	ug/g	<50	8920248	<50	8920833	<50	50	8920248
F4 (C34-C50 Hydrocarbons)	ug/g	<50	8920248	<50	8920833	<50	50	8920248
Reached Baseline at C50	ug/g	Yes	8920248	Yes	8920833	Yes		8920248
Surrogate Recovery (%)								
1,4-Difluorobenzene	%	110	8920374	99	8920545	110		8920374
4-Bromofluorobenzene	%	89	8920374	96	8920545	84		8920374
D10-o-Xylene	%	107	8920374	119	8920545	100		8920374
D4-1,2-Dichloroethane	%	88	8920374	97	8920545	87		8920374
o-Terphenyl	%	101	8920248	95	8920833	97		8920248

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WYX821	WYX822		WYX823		WYX824		
Sampling Date		2023/09/02	2023/09/02		2023/09/02		2023/09/02		
COC Number		763884	763884		763884		763884		
	UNITS	MW05-16-SOIL-S	MW05-16-SOIL-D	QC Batch	MW12-01-SOIL-S	QC Batch	MW12-01-SOIL-D	RDL	QC Batch
BTEX & F1 Hydrocarbons									
F1 (C6-C10)	ug/g	<10	<10	8920545	<10	8920545	<10	10	8920374
F2-F4 Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	8920248	<10	8920833	<10	10	8920833
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	8920248	<50	8920833	<50	50	8920833
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	8920248	<50	8920833	<50	50	8920833
Reached Baseline at C50	ug/g	Yes	Yes	8920248	Yes	8920833	Yes		8920833
Surrogate Recovery (%)									
1,4-Difluorobenzene	%	100	94	8920545	100	8920545	109		8920374
4-Bromofluorobenzene	%	97	102	8920545	99	8920545	92		8920374
D10-o-Xylene	%	114	136	8920545	119	8920545	99		8920374
D4-1,2-Dichloroethane	%	96	97	8920545	97	8920545	86		8920374
o-Terphenyl	%	99	100	8920248	99	8920833	95		8920833

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WYX824			WYX825	WYX826		WYX827		
Sampling Date		2023/09/02			2023/09/02	2023/09/01		2023/09/01		
COC Number		763884			763884	763884		763884		
	UNITS	MW12-01-SOIL-D Lab-Dup	RDL	QC Batch	MW23-S-10	DM-01-S	QC Batch	DM-01-D	RDL	QC Batch
BTEX & F1 Hydrocarbons										
F1 (C6-C10)	ug/g				<10	<10	8920374	<10	10	8920374
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	8920833	<10	<10	8920833	<10	10	8920248
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	8920833	<50	180	8920833	200	50	8920248
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	8920833	<50	110	8920833	130	50	8920248
Reached Baseline at C50	ug/g	Yes		8920833	Yes	Yes	8920833	Yes		8920248
Surrogate Recovery (%)										
1,4-Difluorobenzene	%				109	110	8920374	109		8920374
4-Bromofluorobenzene	%				90	86	8920374	93		8920374
D10-o-Xylene	%				112	98	8920374	100		8920374
D4-1,2-Dichloroethane	%				88	88	8920374	85		8920374
o-Terphenyl	%	96		8920833	99	96	8920833	102		8920248

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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BluMetric Environmental Inc
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Sampler Initials: HW

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WYX828		WYX829			WYX829			WYX830		
Sampling Date		2023/09/01		2023/09/01			2023/09/01			2023/09/01		
COC Number		763884		763884			763884			763884		
	UNITS	DM-02-S	QC Batch	DM-02-D	RDL	QC Batch	DM-02-D Lab-Dup	RDL	QC Batch	DM-03-S	RDL	QC Batch
BTEX & F1 Hydrocarbons												
F1 (C6-C10)	ug/g	<10	8920545	<10	10	8920374	<10	10	8920374	<10	10	8920374
F2-F4 Hydrocarbons												
F2 (C10-C16 Hydrocarbons)	ug/g	<10	8920248	<10	10	8920248				<10	10	8920833
F3 (C16-C34 Hydrocarbons)	ug/g	<50	8920248	<50	50	8920248				<50	50	8920833
F4 (C34-C50 Hydrocarbons)	ug/g	<50	8920248	<50	50	8920248				<50	50	8920833
Reached Baseline at C50	ug/g	Yes	8920248	Yes		8920248				Yes		8920833
Surrogate Recovery (%)												
1,4-Difluorobenzene	%	101	8920545	100		8920374	100		8920374	107		8920374
4-Bromofluorobenzene	%	93	8920545	92		8920374	89		8920374	90		8920374
D10-o-Xylene	%	135	8920545	110		8920374	103		8920374	112		8920374
D4-1,2-Dichloroethane	%	95	8920545	97		8920374	96		8920374	85		8920374
o-Terphenyl	%	97	8920248	100		8920248				95		8920833

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WYX831	WYX832		WYX833		WYX834		WYX835		
Sampling Date		2023/09/01	2023/09/01		2023/09/01		2023/09/01		2023/09/01		
COC Number		763884	763884		763884		763884		763884		
	UNITS	DM-03-D	MW23-S-15	QC Batch	DM-04-S	QC Batch	DM-04-D	QC Batch	DM-05-S	RDL	QC Batch
BTEX & F1 Hydrocarbons											
F1 (C6-C10)	ug/g	<10	<10	8920374	<10	8920374	<10	8920374	<10	10	8920374
F2-F4 Hydrocarbons											
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	8920248	<10	8920833	<10	8920248	11	10	8920833
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	8920248	91	8920833	80	8920248	700	50	8920833
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	8920248	<50	8920833	<50	8920248	220	50	8920833
Reached Baseline at C50	ug/g	Yes	Yes	8920248	Yes	8920833	Yes	8920248	Yes		8920833
Surrogate Recovery (%)											
1,4-Difluorobenzene	%	110	109	8920374	111	8920374	110	8920374	112		8920374
4-Bromofluorobenzene	%	90	90	8920374	89	8920374	89	8920374	87		8920374
D10-o-Xylene	%	104	132	8920374	106	8920374	100	8920374	107		8920374
D4-1,2-Dichloroethane	%	86	86	8920374	85	8920374	86	8920374	87		8920374
o-Terphenyl	%	100	98	8920248	97	8920833	101	8920248	97		8920833

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WYX836		WYX837		WYX838		WYX839		
Sampling Date		2023/09/01		2023/09/01		2023/09/01		2023/09/01		
COC Number		763884		763884		763884		763884		
	UNITS	DM-05-D	QC Batch	DM-06-S	QC Batch	DM-06-D	QC Batch	MW23-S-20	RDL	QC Batch
BTEX & F1 Hydrocarbons										
F1 (C6-C10)	ug/g	<10	8920545	<10	8920374	<10	8920545	<10	10	8920545
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/g	<10	8920833	<10	8920833	<10	8920248	<10	10	8920833
F3 (C16-C34 Hydrocarbons)	ug/g	<50	8920833	<50	8920833	<50	8920248	68	50	8920833
F4 (C34-C50 Hydrocarbons)	ug/g	<50	8920833	<50	8920833	<50	8920248	<50	50	8920833
Reached Baseline at C50	ug/g	Yes	8920833	Yes	8920833	Yes	8920248	Yes		8920833
Surrogate Recovery (%)										
1,4-Difluorobenzene	%	102	8920545	106	8920374	99	8920545	98		8920545
4-Bromofluorobenzene	%	97	8920545	87	8920374	96	8920545	98		8920545
D10-o-Xylene	%	123	8920545	123	8920374	138	8920545	209 (1)		8920545
D4-1,2-Dichloroethane	%	97	8920545	91	8920374	95	8920545	94		8920545
o-Terphenyl	%	97	8920833	99	8920833	100	8920248	93		8920833

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) The recovery of the extraction surrogate compound was above the upper control limit. Visible loss of methanol was observed in this sample. As a result, there is an increased level of uncertainty.

Bureau Veritas ID		WYX840	WYX841		WYX842	WYX843		
Sampling Date		2023/09/01	2023/09/01		2023/09/01	2023/09/01		
COC Number		763884	763884		763884	763884		
	UNITS	MW05-05-SOIL-S	MW05-05-SOIL-D	QC Batch	MW05-06-SOIL-S	MW05-06-SOIL-D	RDL	QC Batch
BTEX & F1 Hydrocarbons								
F1 (C6-C10)	ug/g	<10	<10	8920374	<10	<10	10	8920545
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/g	12	<10	8920833	<10	<10	10	8920833
F3 (C16-C34 Hydrocarbons)	ug/g	87	100	8920833	57	<50	50	8920833
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	8920833	<50	<50	50	8920833
Reached Baseline at C50	ug/g	Yes	Yes	8920833	Yes	Yes		8920833
Surrogate Recovery (%)								
1,4-Difluorobenzene	%	109	110	8920374	100	96		8920545
4-Bromofluorobenzene	%	93	90	8920374	98	99		8920545
D10-o-Xylene	%	129	118	8920374	137	137		8920545
D4-1,2-Dichloroethane	%	86	86	8920374	96	97		8920545
o-Terphenyl	%	95	96	8920833	99	97		8920833

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WYX844	WYX845		WYX846	WYX847		
Sampling Date		2023/09/01	2023/09/01		2023/09/01	2023/09/01		
COC Number		763884	763884		763884	763884		
	UNITS	MW05-07-SOIL-S	MW05-07-SOIL-D	QC Batch	MW05-08-SOIL-S	MW05-08-SOIL-D	RDL	QC Batch
BTEX & F1 Hydrocarbons								
F1 (C6-C10)	ug/g	<10	<10	8920545	<10	<10	10	8920545
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/g	<10	390	8920833	<10	<10	10	8921175
F3 (C16-C34 Hydrocarbons)	ug/g	95	640	8920833	110	<50	50	8921175
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	8920833	<50	<50	50	8921175
Reached Baseline at C50	ug/g	Yes	Yes	8920833	Yes	Yes		8921175
Surrogate Recovery (%)								
1,4-Difluorobenzene	%	99	99	8920545	101	100		8920545
4-Bromofluorobenzene	%	100	99	8920545	97	97		8920545
D10-o-Xylene	%	206 (1)	134	8920545	118	138		8920545
D4-1,2-Dichloroethane	%	95	95	8920545	94	95		8920545
o-Terphenyl	%	97	101	8920833	96	89		8921175

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) The recovery of the extraction surrogate compound was above the upper control limit. Visible loss of methanol was observed in this sample. As a result, there is an increased level of uncertainty.

Bureau Veritas ID		WYX848	WYX849		WYX850			WYX851		
Sampling Date		2023/09/01	2023/08/30		2023/08/30			2023/09/06		
COC Number		763884	763884		763884			763884		
	UNITS	MW23-S-30	DM-53-S	QC Batch	DM-53-D	RDL	QC Batch	DM-12-S	RDL	QC Batch
BTEX & F1 Hydrocarbons										
F1 (C6-C10)	ug/g	<10	<10	8920852	<10	10	8920852	<10	10	8920852
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	8920833	<10	10	8921175			
F3 (C16-C34 Hydrocarbons)	ug/g	120	<50	8920833	<50	50	8921175			
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	8920833	<50	50	8921175			
Reached Baseline at C50	ug/g	Yes	Yes	8920833	Yes		8921175			
Surrogate Recovery (%)										
1,4-Difluorobenzene	%	104	102	8920852	104		8920852	103		8920852
4-Bromofluorobenzene	%	91	92	8920852	95		8920852	91		8920852
D10-o-Xylene	%	98	92	8920852	93		8920852	131		8920852
D4-1,2-Dichloroethane	%	94	94	8920852	94		8920852	92		8920852
o-Terphenyl	%	95	94	8920833	88		8921175			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13

BluMetric Environmental Inc
Client Project #: 230394
Site Location: DYE-M
Sampler Initials: HW

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Bureau Veritas ID		WYX808	WYX809	WYX810	WYX811	WYX812	WYX813	WYX814		
Sampling Date		2023/09/02	2023/09/02	2023/09/02	2023/09/02	2023/09/02	2023/09/02	2023/09/02		
COC Number		763884	763884	763884	763884	763884	763884	763884		
	UNITS	DM-07-S	DM-07-D	DM-08-S	DM-08-D	DM-09-S	DM-09-D	DM-10-S	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1221	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1232	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1242	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1248	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1254	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1260	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1262	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1268	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921453
Total PCB	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921453
Surrogate Recovery (%)										
Decachlorobiphenyl	%	107	111	107	110	111	113	101		8921453

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WYX814	WYX815	WYX816	WYX817	WYX818		
Sampling Date		2023/09/02	2023/09/02	2023/09/02	2023/09/02	2023/09/02		
COC Number		763884	763884	763884	763884	763884		
	UNITS	DM-10-S Lab-Dup	DM-10-D	MW23-S-00	MW05-13-SOIL-S	MW05-13-SOIL-D	RDL	QC Batch
PCBs								
Aroclor 1016	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1221	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1232	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1242	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1248	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1254	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1260	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1262	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1268	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921453
Total PCB	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921453
Surrogate Recovery (%)								
Decachlorobiphenyl	%	98	105	112	111	102		8921453

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Bureau Veritas ID		WYX819		WYX820	WYX821	WYX822		
Sampling Date		2023/09/02		2023/09/02	2023/09/02	2023/09/02		
COC Number		763884		763884	763884	763884		
	UNITS	MW05-15-SOIL-S	QC Batch	MW05-15-SOIL-D	MW05-16-SOIL-S	MW05-16-SOIL-D	RDL	QC Batch
PCBs								
Aroclor 1016	ug/g	<0.010	8921452	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1221	ug/g	<0.010	8921452	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1232	ug/g	<0.010	8921452	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1242	ug/g	<0.010	8921452	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1248	ug/g	<0.010	8921452	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1254	ug/g	<0.010	8921452	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1260	ug/g	<0.010	8921452	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1262	ug/g	<0.010	8921452	<0.010	<0.010	<0.010	0.010	8921453
Aroclor 1268	ug/g	<0.010	8921452	<0.010	<0.010	<0.010	0.010	8921453
Total PCB	ug/g	<0.010	8921452	<0.010	<0.010	<0.010	0.010	8921453
Surrogate Recovery (%)								
Decachlorobiphenyl	%	100	8921452	109	114	114		8921453

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WYX823		WYX824		WYX825		
Sampling Date		2023/09/02		2023/09/02		2023/09/02		
COC Number		763884		763884		763884		
	UNITS	MW12-01-SOIL-S	QC Batch	MW12-01-SOIL-D	QC Batch	MW23-S-10	RDL	QC Batch
PCBs								
Aroclor 1016	ug/g	<0.010	8921452	<0.010	8921453	<0.010	0.010	8922555
Aroclor 1221	ug/g	<0.010	8921452	<0.010	8921453	<0.010	0.010	8922555
Aroclor 1232	ug/g	<0.010	8921452	<0.010	8921453	<0.010	0.010	8922555
Aroclor 1242	ug/g	<0.010	8921452	<0.010	8921453	<0.010	0.010	8922555
Aroclor 1248	ug/g	<0.010	8921452	<0.010	8921453	<0.010	0.010	8922555
Aroclor 1254	ug/g	<0.010	8921452	<0.010	8921453	<0.010	0.010	8922555
Aroclor 1260	ug/g	<0.010	8921452	<0.010	8921453	<0.010	0.010	8922555
Aroclor 1262	ug/g	<0.010	8921452	<0.010	8921453	<0.010	0.010	8922555
Aroclor 1268	ug/g	<0.010	8921452	<0.010	8921453	<0.010	0.010	8922555
Total PCB	ug/g	<0.010	8921452	<0.010	8921453	<0.010	0.010	8922555
Surrogate Recovery (%)								
Decachlorobiphenyl	%	102	8921452	115	8921453	120		8922555

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Bureau Veritas ID		WYX826	WYX827			WYX828		WYX829		
Sampling Date		2023/09/01	2023/09/01			2023/09/01		2023/09/01		
COC Number		763884	763884			763884		763884		
	UNITS	DM-01-S	DM-01-D	RDL	QC Batch	DM-02-S	QC Batch	DM-02-D	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.10	<0.10	0.10	8921453	<0.010	8921452	<0.010	0.010	8921453
Aroclor 1221	ug/g	<0.10	<0.10	0.10	8921453	<0.010	8921452	<0.010	0.010	8921453
Aroclor 1232	ug/g	<0.10	<0.10	0.10	8921453	<0.010	8921452	<0.010	0.010	8921453
Aroclor 1242	ug/g	<0.10	<0.10	0.10	8921453	<0.010	8921452	<0.010	0.010	8921453
Aroclor 1248	ug/g	<0.10	<0.10	0.10	8921453	<0.010	8921452	<0.010	0.010	8921453
Aroclor 1254	ug/g	1.2	0.87	0.10	8921453	<0.010	8921452	<0.010	0.010	8921453
Aroclor 1260	ug/g	2.1	1.7	0.10	8921453	<0.010	8921452	<0.010	0.010	8921453
Aroclor 1262	ug/g	<0.10	<0.10	0.10	8921453	<0.010	8921452	<0.010	0.010	8921453
Aroclor 1268	ug/g	<0.10	<0.10	0.10	8921453	<0.010	8921452	<0.010	0.010	8921453
Total PCB	ug/g	3.3	2.6	0.10	8921453	<0.010	8921452	<0.010	0.010	8921453
Surrogate Recovery (%)										
Decachlorobiphenyl	%	100	111		8921453	93	8921452	119		8921453

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WYX830		WYX831	WYX832			WYX833		
Sampling Date		2023/09/01		2023/09/01	2023/09/01			2023/09/01		
COC Number		763884		763884	763884			763884		
	UNITS	DM-03-S	QC Batch	DM-03-D	MW23-S-15	RDL	QC Batch	DM-04-S	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	8921452	<0.010	<0.010	0.010	8921453	<0.10	0.10	8921452
Aroclor 1221	ug/g	<0.010	8921452	<0.010	<0.010	0.010	8921453	<0.10	0.10	8921452
Aroclor 1232	ug/g	<0.010	8921452	<0.010	<0.010	0.010	8921453	<0.10	0.10	8921452
Aroclor 1242	ug/g	<0.010	8921452	<0.010	<0.010	0.010	8921453	<0.10	0.10	8921452
Aroclor 1248	ug/g	<0.010	8921452	<0.010	<0.010	0.010	8921453	<0.10	0.10	8921452
Aroclor 1254	ug/g	<0.010	8921452	<0.010	<0.010	0.010	8921453	2.6	0.10	8921452
Aroclor 1260	ug/g	<0.010	8921452	<0.010	<0.010	0.010	8921453	<0.10	0.10	8921452
Aroclor 1262	ug/g	<0.010	8921452	<0.010	<0.010	0.010	8921453	<0.10	0.10	8921452
Aroclor 1268	ug/g	<0.010	8921452	<0.010	<0.010	0.010	8921453	<0.10	0.10	8921452
Total PCB	ug/g	<0.010	8921452	<0.010	<0.010	0.010	8921453	2.6	0.10	8921452
Surrogate Recovery (%)										
Decachlorobiphenyl	%	98	8921452	128	129		8921453	114		8921452

RDL = Reportable Detection Limit
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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13

BluMetric Environmental Inc
Client Project #: 230394
Site Location: DYE-M
Sampler Initials: HW

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Bureau Veritas ID		WYX834	WYX835	WYX836	WYX837	WYX838	WYX839	WYX840		
Sampling Date		2023/09/01	2023/09/01	2023/09/01	2023/09/01	2023/09/01	2023/09/01	2023/09/01		
COC Number		763884	763884	763884	763884	763884	763884	763884		
	UNITS	DM-04-D	DM-05-S	DM-05-D	DM-06-S	DM-06-D	MW23-S-20	MW05-05-SOIL-S	RDL	QC Batch
PCBs										
Aroclor 1016	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921452
Aroclor 1221	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921452
Aroclor 1232	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921452
Aroclor 1242	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921452
Aroclor 1248	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921452
Aroclor 1254	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.053	0.010	8921452
Aroclor 1260	ug/g	<0.010	0.084	<0.010	<0.010	<0.010	<0.010	0.031	0.010	8921452
Aroclor 1262	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921452
Aroclor 1268	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921452
Total PCB	ug/g	<0.010	0.084	<0.010	<0.010	<0.010	<0.010	0.084	0.010	8921452
Surrogate Recovery (%)										
Decachlorobiphenyl	%	88	97	106	105	93	91	92		8921452

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WYX841	WYX842	WYX843	WYX844	WYX845		
Sampling Date		2023/09/01	2023/09/01	2023/09/01	2023/09/01	2023/09/01		
COC Number		763884	763884	763884	763884	763884		
	UNITS	MW05-05-SOIL-D	MW05-06-SOIL-S	MW05-06-SOIL-D	MW05-07-SOIL-S	MW05-07-SOIL-D	RDL	QC Batch
PCBs								
Aroclor 1016	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921452
Aroclor 1221	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921452
Aroclor 1232	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921452
Aroclor 1242	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921452
Aroclor 1248	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921452
Aroclor 1254	ug/g	0.25	<0.010	<0.010	0.18	<0.010	0.010	8921452
Aroclor 1260	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921452
Aroclor 1262	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921452
Aroclor 1268	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8921452
Total PCB	ug/g	0.25	<0.010	<0.010	0.18	<0.010	0.010	8921452
Surrogate Recovery (%)								
Decachlorobiphenyl	%	121	89	104	101	89		8921452

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13

BluMetric Environmental Inc
Client Project #: 230394
Site Location: DYE-M
Sampler Initials: HW

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Bureau Veritas ID		WYX846	WYX847	WYX848	WYX848		WYX849		
Sampling Date		2023/09/01	2023/09/01	2023/09/01	2023/09/01		2023/08/30		
COC Number		763884	763884	763884	763884		763884		
	UNITS	MW05-08-SOIL-S	MW05-08-SOIL-D	MW23-S-30	MW23-S-30 Lab-Dup	QC Batch	DM-53-S	RDL	QC Batch
PCBs									
Aroclor 1016	ug/g	<0.010	<0.010	<0.010	<0.010	8921452	<0.010	0.010	8922555
Aroclor 1221	ug/g	<0.010	<0.010	<0.010	<0.010	8921452	<0.010	0.010	8922555
Aroclor 1232	ug/g	<0.010	<0.010	<0.010	<0.010	8921452	<0.010	0.010	8922555
Aroclor 1242	ug/g	<0.010	<0.010	<0.010	<0.010	8921452	<0.010	0.010	8922555
Aroclor 1248	ug/g	<0.010	<0.010	<0.010	<0.010	8921452	<0.010	0.010	8922555
Aroclor 1254	ug/g	<0.010	<0.010	<0.010	<0.010	8921452	<0.010	0.010	8922555
Aroclor 1260	ug/g	<0.010	<0.010	0.021	0.022	8921452	0.031	0.010	8922555
Aroclor 1262	ug/g	<0.010	<0.010	<0.010	<0.010	8921452	<0.010	0.010	8922555
Aroclor 1268	ug/g	<0.010	<0.010	<0.010	<0.010	8921452	<0.010	0.010	8922555
Total PCB	ug/g	<0.010	<0.010	0.021	0.022	8921452	0.031	0.010	8922555
Surrogate Recovery (%)									
Decachlorobiphenyl	%	104	101	92	92	8921452	116		8922555

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		WYX850		
Sampling Date		2023/08/30		
COC Number		763884		
	UNITS	DM-53-D	RDL	QC Batch
PCBs				
Aroclor 1016	ug/g	<0.010	0.010	8922555
Aroclor 1221	ug/g	<0.010	0.010	8922555
Aroclor 1232	ug/g	<0.010	0.010	8922555
Aroclor 1242	ug/g	<0.010	0.010	8922555
Aroclor 1248	ug/g	<0.010	0.010	8922555
Aroclor 1254	ug/g	<0.010	0.010	8922555
Aroclor 1260	ug/g	0.023	0.010	8922555
Aroclor 1262	ug/g	<0.010	0.010	8922555
Aroclor 1268	ug/g	<0.010	0.010	8922555
Total PCB	ug/g	0.023	0.010	8922555
Surrogate Recovery (%)				
Decachlorobiphenyl	%	111		8922555

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13

BluMetric Environmental Inc
Client Project #: 230394
Site Location: DYE-M
Sampler Initials: HW

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		WYX852		WYX853		WYX854	WYX855	WYX856	WYX857		
Sampling Date		2023/09/02		2023/09/02		2023/09/02	2023/09/02	2023/09/02	2023/09/02		
COC Number		763884		763884		763884	763884	763884	763884		
	UNITS	MW05-13	RDL	MW05-15	RDL	MW05-16	MW12-01	MW09-26	MW05-12	RDL	QC Batch
Metals											
Total Arsenic (As)	ug/L	0.209	0.020	0.169	0.040	0.191	0.094	0.090	0.069	0.020	8932527
Total Cadmium (Cd)	ug/L	0.0976	0.0050	0.093	0.010	0.0544	0.203	0.0857	0.0420	0.0050	8932527
Total Chromium (Cr)	ug/L	3.31	0.10	2.25	0.20	12.5	10.5	64.8	1.22	0.10	8932527
Total Cobalt (Co)	ug/L	0.392	0.0050	0.737	0.010	0.867	5.50	0.807	0.302	0.0050	8932527
Total Copper (Cu)	ug/L	1.74	0.050	2.54	0.10	3.96	8.13	9.00	1.69	0.050	8932527
Total Lead (Pb)	ug/L	1.56	0.0050	1.39	0.010	1.55	0.910	0.341	1.31	0.0050	8932527
Total Nickel (Ni)	ug/L	3.94	0.020	8.94	0.040	9.26	28.7	55.3	7.00	0.020	8932527
Total Zinc (Zn)	ug/L	4740	0.10	11300	0.20	6180	25.0	1980	4700	0.10	8932527

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WYX858	WYX859	WYX860	WYX861		
Sampling Date		2023/09/02	2023/08/23	2023/09/06	2023/09/06		
COC Number		763884	763884	763884	763884		
	UNITS	MW23-10	Trip Blank	MW23-03	MW23-13	RDL	QC Batch
Metals							
Total Arsenic (As)	ug/L	0.071	<0.020	<0.020	<0.020	0.020	8932527
Total Cadmium (Cd)	ug/L	0.0412	<0.0050	<0.0050	<0.0050	0.0050	8932527
Total Chromium (Cr)	ug/L	0.92	<0.10	<0.10	0.32	0.10	8932527
Total Cobalt (Co)	ug/L	0.278	<0.0050	<0.0050	0.0087	0.0050	8932527
Total Copper (Cu)	ug/L	1.66	<0.050	<0.050	0.264	0.050	8932527
Total Lead (Pb)	ug/L	1.25	<0.0050	<0.0050	0.0811	0.0050	8932527
Total Nickel (Ni)	ug/L	7.00	<0.020	<0.020	0.110	0.020	8932527
Total Zinc (Zn)	ug/L	4620	0.81	1.22	1.17	0.10	8932527

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13

BluMetric Environmental Inc
Client Project #: 230394
Site Location: DYE-M
Sampler Initials: HW

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		WYX852	WYX853	WYX854	WYX855	WYX856	WYX857	WYX858		
Sampling Date		2023/09/02	2023/09/02	2023/09/02	2023/09/02	2023/09/02	2023/09/02	2023/09/02		
COC Number		763884	763884	763884	763884	763884	763884	763884		
	UNITS	MW05-13	MW05-15	MW05-16	MW12-01	MW09-26	MW05-12	MW23-10	RDL	QC Batch
BTEX & F1 Hydrocarbons										
F1 (C6-C10)	ug/L	<25	<25	<25	<25	<25	<25	<25	25	8920291
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	<100	<100	<100	<100	100	8921471
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	<200	<200	<200	<200	200	8921471
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	<200	<200	<200	<200	200	8921471
Reached Baseline at C50	ug/L	Yes	Yes	Yes	Yes	Yes	Yes	Yes		8921471
Surrogate Recovery (%)										
1,4-Difluorobenzene	%	101	103	100	102	103	103	104		8920291
4-Bromofluorobenzene	%	95	95	95	96	94	95	96		8920291
D10-o-Xylene	%	84	85	84	84	85	83	85		8920291
D4-1,2-Dichloroethane	%	99	98	99	100	98	99	97		8920291
o-Terphenyl	%	106	104	105	103	104	102	105		8921471

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WYX859	WYX860	WYX861		
Sampling Date		2023/08/23	2023/09/06	2023/09/06		
COC Number		763884	763884	763884		
	UNITS	Trip Blank	MW23-03	MW23-13	RDL	QC Batch
BTEX & F1 Hydrocarbons						
F1 (C6-C10)	ug/L	<25	<25	<25	25	8920291
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	100	8921471
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	200	8921471
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	200	8921471
Reached Baseline at C50	ug/L	Yes	Yes	Yes		8921471
Surrogate Recovery (%)						
1,4-Difluorobenzene	%	103	104	101		8920291
4-Bromofluorobenzene	%	93	95	96		8920291
D10-o-Xylene	%	83	85	84		8920291
D4-1,2-Dichloroethane	%	99	102	100		8920291
o-Terphenyl	%	103	105	109		8921471

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Bureau Veritas ID		WYX861		
Sampling Date		2023/09/06		
COC Number		763884		
	UNITS	MW23-13	RDL	QC Batch
PCBs				
Aroclor 1016	ug/L	<0.01	0.01	8921466
Aroclor 1221	ug/L	<0.01	0.01	8921466
Aroclor 1232	ug/L	<0.01	0.01	8921466
Aroclor 1262	ug/L	<0.01	0.01	8921466
Aroclor 1268	ug/L	<0.01	0.01	8921466
Aroclor 1242	ug/L	<0.01	0.01	8921466
Aroclor 1248	ug/L	<0.01	0.01	8921466
Aroclor 1254	ug/L	<0.01	0.01	8921466
Aroclor 1260	ug/L	<0.01	0.01	8921466
Total PCB	ug/L	<0.01	0.01	8921466
Surrogate Recovery (%)				
Decachlorobiphenyl	%	62		8921466

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	7.0°C
Package 2	4.7°C
Package 3	5.7°C
Package 4	5.7°C

Revised report (2023/12/13): Includes amended IDs for DM-53-S and DM-53-D.

PCB Analysis: Due to high concentrations of the target analytes, sample required dilution. Detection limits were adjusted accordingly.

Sample WYX808 [DM-07-S] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WYX809 [DM-07-D] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WYX810 [DM-08-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WYX811 [DM-08-D] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WYX813 [DM-09-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WYX814 [DM-10-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WYX815 [DM-10-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WYX817 [MW05-13-SOIL-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WYX818 [MW05-13-SOIL-D] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WYX819 [MW05-15-SOIL-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WYX820 [MW05-15-SOIL-D] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WYX821 [MW05-16-SOIL-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WYX822 [MW05-16-SOIL-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WYX823 [MW12-01-SOIL-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

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Sample WYX824 [MW12-01-SOIL-D] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WYX825 [MW23-S-10] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WYX826 [DM-01-S] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WYX827 [DM-01-D] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WYX828 [DM-02-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WYX829 [DM-02-D] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WYX830 [DM-03-S] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WYX831 [DM-03-D] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WYX832 [MW23-S-15] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WYX833 [DM-04-S] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency
PCB Analysis: Due to high concentrations of the target analytes, sample required dilution. Detection limits were adjusted accordingly.

Sample WYX834 [DM-04-D] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WYX835 [DM-05-S] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WYX836 [DM-05-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WYX837 [DM-06-S] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WYX838 [DM-06-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WYX840 [MW05-05-SOIL-S] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WYX841 [MW05-05-SOIL-D] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample WYX842 [MW05-06-SOIL-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

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Sample WYX843 [MW05-06-SOIL-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WYX845 [MW05-07-SOIL-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WYX846 [MW05-08-SOIL-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WYX847 [MW05-08-SOIL-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample WYX848 [MW23-S-30] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

F1/BTEX Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.

Sample WYX849 [DM-53-S] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

F1/BTEX and F2-F4 Analysis: Analysis was performed past the sample holding time. This may increase the variability associated with these results.

Sample WYX850 [DM-53-D] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

F1/BTEX and F2-F4 Analysis: Analysis was performed past the sample holding time. This may increase the variability associated with these results.

Sample WYX851 [DM-12-S] : F1/ BTEX Analysis: Due to limited amount of sample available, moisture content was not determined. Results are reported on a wet weight basis.

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13

QUALITY ASSURANCE REPORT

BluMetric Environmental Inc
Client Project #: 230394
Site Location: DYE-M
Sampler Initials: HW

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8920248	o-Terphenyl	2023/09/17	104	60 - 130	102	60 - 130	100	%				
8920291	1,4-Difluorobenzene	2023/09/17	97	70 - 130	106	70 - 130	104	%				
8920291	4-Bromofluorobenzene	2023/09/17	98	70 - 130	96	70 - 130	94	%				
8920291	D10-o-Xylene	2023/09/17	86	70 - 130	87	70 - 130	82	%				
8920291	D4-1,2-Dichloroethane	2023/09/17	96	70 - 130	99	70 - 130	95	%				
8920374	1,4-Difluorobenzene	2023/09/16	100	60 - 140	110	60 - 140	112	%				
8920374	4-Bromofluorobenzene	2023/09/16	98	60 - 140	93	60 - 140	90	%				
8920374	D10-o-Xylene	2023/09/16	121	60 - 140	99	60 - 140	93	%				
8920374	D4-1,2-Dichloroethane	2023/09/16	96	60 - 140	86	60 - 140	87	%				
8920545	1,4-Difluorobenzene	2023/09/16	97	60 - 140	99	60 - 140	100	%				
8920545	4-Bromofluorobenzene	2023/09/16	100	60 - 140	99	60 - 140	95	%				
8920545	D10-o-Xylene	2023/09/16	122	60 - 140	117	60 - 140	116	%				
8920545	D4-1,2-Dichloroethane	2023/09/16	93	60 - 140	93	60 - 140	96	%				
8920833	o-Terphenyl	2023/09/17	102	60 - 130	98	60 - 130	100	%				
8920852	1,4-Difluorobenzene	2023/09/17	102	60 - 140	103	60 - 140	105	%				
8920852	4-Bromofluorobenzene	2023/09/17	96	60 - 140	96	60 - 140	94	%				
8920852	D10-o-Xylene	2023/09/17	97	60 - 140	95	60 - 140	89	%				
8920852	D4-1,2-Dichloroethane	2023/09/17	91	60 - 140	90	60 - 140	96	%				
8921175	o-Terphenyl	2023/09/18			102	60 - 130	95	%				
8921452	Decachlorobiphenyl	2023/09/17	97	60 - 130	92	60 - 130	81	%				
8921453	Decachlorobiphenyl	2023/09/17	98	60 - 130	106	60 - 130	103	%				
8921466	Decachlorobiphenyl	2023/09/17	78	60 - 130	68	60 - 130	67	%				
8921471	o-Terphenyl	2023/09/18	109	60 - 130	105	60 - 130	105	%				
8922555	Decachlorobiphenyl	2023/09/17	105	60 - 130	103	60 - 130	107	%				
8920187	Moisture	2023/09/15							4.4	20		
8920218	Moisture	2023/09/15							0.75	20		
8920225	Moisture	2023/09/15							5.3	20		
8920248	F2 (C10-C16 Hydrocarbons)	2023/09/17	108	60 - 130	105	80 - 120	<10	ug/g	NC	30		
8920248	F3 (C16-C34 Hydrocarbons)	2023/09/17	107	60 - 130	105	80 - 120	<50	ug/g	NC	30		
8920248	F4 (C34-C50 Hydrocarbons)	2023/09/17	107	60 - 130	105	80 - 120	<50	ug/g	NC	30		
8920291	F1 (C6-C10)	2023/09/17	122	60 - 140	123	60 - 140	<25	ug/L	NC	30		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8920374	F1 (C6-C10)	2023/09/18	109	60 - 140	96	80 - 120	<10	ug/g	NC	30		
8920545	F1 (C6-C10)	2023/09/16	122	60 - 140	116	80 - 120	<10	ug/g	NC	30		
8920833	F2 (C10-C16 Hydrocarbons)	2023/09/17	109	60 - 130	104	80 - 120	<10	ug/g	NC	30		
8920833	F3 (C16-C34 Hydrocarbons)	2023/09/17	105	60 - 130	98	80 - 120	<50	ug/g	NC	30		
8920833	F4 (C34-C50 Hydrocarbons)	2023/09/17	106	60 - 130	95	80 - 120	<50	ug/g	NC	30		
8920852	F1 (C6-C10)	2023/09/17	96	60 - 140	87	80 - 120	<10	ug/g	NC	30		
8921175	F2 (C10-C16 Hydrocarbons)	2023/09/18			102	80 - 120	<10	ug/g	1.3	30		
8921175	F3 (C16-C34 Hydrocarbons)	2023/09/18			102	80 - 120	<50	ug/g	0	30		
8921175	F4 (C34-C50 Hydrocarbons)	2023/09/18			104	80 - 120	<50	ug/g	1.2	30		
8921452	Aroclor 1016	2023/09/17					<0.010	ug/g	NC	50		
8921452	Aroclor 1221	2023/09/17					<0.010	ug/g	NC	50		
8921452	Aroclor 1232	2023/09/17					<0.010	ug/g	NC	50		
8921452	Aroclor 1242	2023/09/17					<0.010	ug/g	NC	50		
8921452	Aroclor 1248	2023/09/17					<0.010	ug/g	NC	50		
8921452	Aroclor 1254	2023/09/17					<0.010	ug/g	NC	50		
8921452	Aroclor 1260	2023/09/17	110	30 - 130	107	30 - 130	<0.010	ug/g	3.9	50		
8921452	Aroclor 1262	2023/09/17					<0.010	ug/g	NC	50		
8921452	Aroclor 1268	2023/09/17					<0.010	ug/g	NC	50		
8921452	Total PCB	2023/09/17	110	30 - 130	107	30 - 130	<0.010	ug/g	3.9	50		
8921453	Aroclor 1016	2023/09/17					<0.010	ug/g	NC	50		
8921453	Aroclor 1221	2023/09/17					<0.010	ug/g	NC	50		
8921453	Aroclor 1232	2023/09/17					<0.010	ug/g	NC	50		
8921453	Aroclor 1242	2023/09/17					<0.010	ug/g	NC	50		
8921453	Aroclor 1248	2023/09/17					<0.010	ug/g	NC	50		
8921453	Aroclor 1254	2023/09/17					<0.010	ug/g	NC	50		
8921453	Aroclor 1260	2023/09/17	113	30 - 130	117	30 - 130	<0.010	ug/g	NC	50		
8921453	Aroclor 1262	2023/09/17					<0.010	ug/g	NC	50		
8921453	Aroclor 1268	2023/09/17					<0.010	ug/g	NC	50		
8921453	Total PCB	2023/09/17	113	30 - 130	117	30 - 130	<0.010	ug/g	NC	50		
8921466	Aroclor 1016	2023/09/17					<0.01	ug/L	NC	40		
8921466	Aroclor 1221	2023/09/17					<0.01	ug/L	NC	40		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8921466	Aroclor 1232	2023/09/17					<0.01	ug/L	NC	40		
8921466	Aroclor 1242	2023/09/17					<0.01	ug/L	NC	40		
8921466	Aroclor 1248	2023/09/17					<0.01	ug/L	NC	40		
8921466	Aroclor 1254	2023/09/17					<0.01	ug/L	NC	40		
8921466	Aroclor 1260	2023/09/17	88	60 - 130	79	60 - 130	<0.01	ug/L	NC	40		
8921466	Aroclor 1262	2023/09/17					<0.01	ug/L	NC	40		
8921466	Aroclor 1268	2023/09/17					<0.01	ug/L	NC	40		
8921466	Total PCB	2023/09/17	88	60 - 130	79	60 - 130	<0.01	ug/L	NC	40		
8921471	F2 (C10-C16 Hydrocarbons)	2023/09/18	100	60 - 130	98	60 - 130	<100	ug/L	NC	30		
8921471	F3 (C16-C34 Hydrocarbons)	2023/09/18	100	60 - 130	100	60 - 130	<200	ug/L	NC	30		
8921471	F4 (C34-C50 Hydrocarbons)	2023/09/18	101	60 - 130	99	60 - 130	<200	ug/L	NC	30		
8922555	Aroclor 1016	2023/09/17					<0.010	ug/g				
8922555	Aroclor 1221	2023/09/17					<0.010	ug/g				
8922555	Aroclor 1232	2023/09/17					<0.010	ug/g				
8922555	Aroclor 1242	2023/09/17					<0.010	ug/g	NC	50		
8922555	Aroclor 1248	2023/09/17					<0.010	ug/g	NC	50		
8922555	Aroclor 1254	2023/09/17					<0.010	ug/g	NC	50		
8922555	Aroclor 1260	2023/09/17	117	30 - 130	114	30 - 130	<0.010	ug/g	NC	50		
8922555	Aroclor 1262	2023/09/17					<0.010	ug/g				
8922555	Aroclor 1268	2023/09/17					<0.010	ug/g				
8922555	Total PCB	2023/09/17	117	30 - 130	114	30 - 130	<0.010	ug/g	NC	50		
8932515	Total Arsenic (As)	2023/09/19	98	75 - 125	101	75 - 125	<0.20	mg/kg	2.7	30	89	70 - 130
8932515	Total Cadmium (Cd)	2023/09/19	96	75 - 125	99	75 - 125	<0.050	mg/kg	5.2	30	116	70 - 130
8932515	Total Chromium (Cr)	2023/09/19	101	75 - 125	103	75 - 125	<0.50	mg/kg	0.45	30	100	70 - 130
8932515	Total Cobalt (Co)	2023/09/19	95	75 - 125	101	75 - 125	<0.10	mg/kg	0.0013	30	97	70 - 130
8932515	Total Copper (Cu)	2023/09/19	94	75 - 125	102	75 - 125	<0.50	mg/kg	0.57	30	101	70 - 130
8932515	Total Lead (Pb)	2023/09/19	96	75 - 125	99	75 - 125	<0.10	mg/kg	1.7	40	107	70 - 130
8932515	Total Nickel (Ni)	2023/09/19	91	75 - 125	97	75 - 125	<0.50	mg/kg	0.69	30	111	70 - 130
8932515	Total Zinc (Zn)	2023/09/19	90	75 - 125	96	75 - 125	<1.0	mg/kg	0.45	30	98	70 - 130
8932524	Total Arsenic (As)	2023/09/19	102	75 - 125	95	75 - 125	<0.20	mg/kg	1.1	30	88	70 - 130
8932524	Total Cadmium (Cd)	2023/09/19	100	75 - 125	92	75 - 125	<0.050	mg/kg	5.4	30	99	70 - 130

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8932524	Total Chromium (Cr)	2023/09/19	104	75 - 125	95	75 - 125	<0.50	mg/kg	0.29	30	103	70 - 130
8932524	Total Cobalt (Co)	2023/09/19	98	75 - 125	96	75 - 125	<0.10	mg/kg	0.39	30	99	70 - 130
8932524	Total Copper (Cu)	2023/09/19	98	75 - 125	96	75 - 125	<0.50	mg/kg	0.32	30	99	70 - 130
8932524	Total Lead (Pb)	2023/09/19	99	75 - 125	94	75 - 125	<0.10	mg/kg	0.22	40	110	70 - 130
8932524	Total Nickel (Ni)	2023/09/19	94	75 - 125	91	75 - 125	<0.50	mg/kg	1.3	30	104	70 - 130
8932524	Total Zinc (Zn)	2023/09/19	93	75 - 125	90	75 - 125	<1.0	mg/kg	2.0	30	101	70 - 130
8932526	Total Arsenic (As)	2023/09/19	98	75 - 125	100	75 - 125	<0.20	mg/kg	1.7	30	88	70 - 130
8932526	Total Cadmium (Cd)	2023/09/19	96	75 - 125	98	75 - 125	<0.050	mg/kg	0	30	102	70 - 130
8932526	Total Chromium (Cr)	2023/09/19	98	75 - 125	102	75 - 125	<0.50	mg/kg	1.5	30	99	70 - 130
8932526	Total Cobalt (Co)	2023/09/19	94	75 - 125	102	75 - 125	<0.10	mg/kg	1.1	30	97	70 - 130
8932526	Total Copper (Cu)	2023/09/19	96	75 - 125	103	75 - 125	<0.50	mg/kg	1.1	30	103	70 - 130
8932526	Total Lead (Pb)	2023/09/19	98	75 - 125	98	75 - 125	<0.10	mg/kg	1.4	40	110	70 - 130
8932526	Total Nickel (Ni)	2023/09/19	90	75 - 125	95	75 - 125	<0.50	mg/kg	0.83	30	103	70 - 130
8932526	Total Zinc (Zn)	2023/09/19	90	75 - 125	95	75 - 125	<1.0	mg/kg	0.45	30	103	70 - 130
8932527	Total Arsenic (As)	2023/09/19	102	80 - 120	107	80 - 120	<0.020	ug/L				
8932527	Total Cadmium (Cd)	2023/09/19	102	80 - 120	108	80 - 120	<0.0050	ug/L				
8932527	Total Chromium (Cr)	2023/09/19	99	80 - 120	105	80 - 120	<0.10	ug/L				
8932527	Total Cobalt (Co)	2023/09/19	96	80 - 120	102	80 - 120	<0.0050	ug/L				
8932527	Total Copper (Cu)	2023/09/19	97	80 - 120	103	80 - 120	<0.050	ug/L				
8932527	Total Lead (Pb)	2023/09/19	99	80 - 120	104	80 - 120	<0.0050	ug/L				
8932527	Total Nickel (Ni)	2023/09/19	97	80 - 120	103	80 - 120	<0.020	ug/L				
8932527	Total Zinc (Zn)	2023/09/19	103	80 - 120	108	80 - 120	<0.10	ug/L				

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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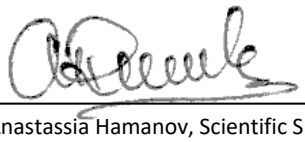
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13

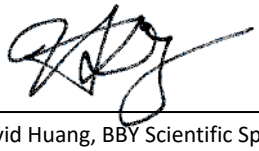
BluMetric Environmental Inc
Client Project #: 230394
Site Location: DYE-M
Sampler Initials: HW

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:



Anastassia Hamanov, Scientific Specialist



David Huang, BBY Scientific Specialist



Automated Statchk

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Custody Tracking Form

Received in Ottawa

eCOC Number
T763884

Please use this form for custody tracking when submitting the work instructions via eCOC (electronic Chain of Custody). Please ensure your form **has a barcode or a Bureau Veritas eCOC confirmation number** in the top right hand side. This number links your electronic submission to your samples. This form should be **placed in the cooler with your samples.**

Relinquished By				Received By			
KIM CARLTON		Date	2023/09/08	Ron Forbes		Date	23/09/08
		Time (24 HR)	16:30			Time (24 HR)	16:30
		Date		Samuel Durand		Date	2023/09/12
		Time (24 HR)				Time (24 HR)	15:00
		Date				Date	2023/09/13
		Time (24 HR)		ANERI	Aneri	Time (24 HR)	08:45

OH-ana

Unless otherwise agreed to, submissions and use of services are governed by Bureau Veritas' standard terms and conditions which can be found at www.bvna.com.

Triage Information

Sampled By (Print)	# of Coolers/Pkgs				
KIMBERLY CARLTON	4	Rush ☐	Immediate Test ☐	Food Residue ☐	
		Micro ☐		Food Chemistry ☐	

***** Laboratory Use Only *****

Received At

Labeled By

Verified By

Lab Comments:

12-Sep-23 15:00
Christine Gripton
C3S0622
.PK ENV-1998

Custody Seal		Cooling Media	Temperature °C		
Present (Y/N)	Intact (Y/N)	Present (Y/N)	1	2	3
N	N	Y - ice	See ACTR		
	Refer to ACTR				

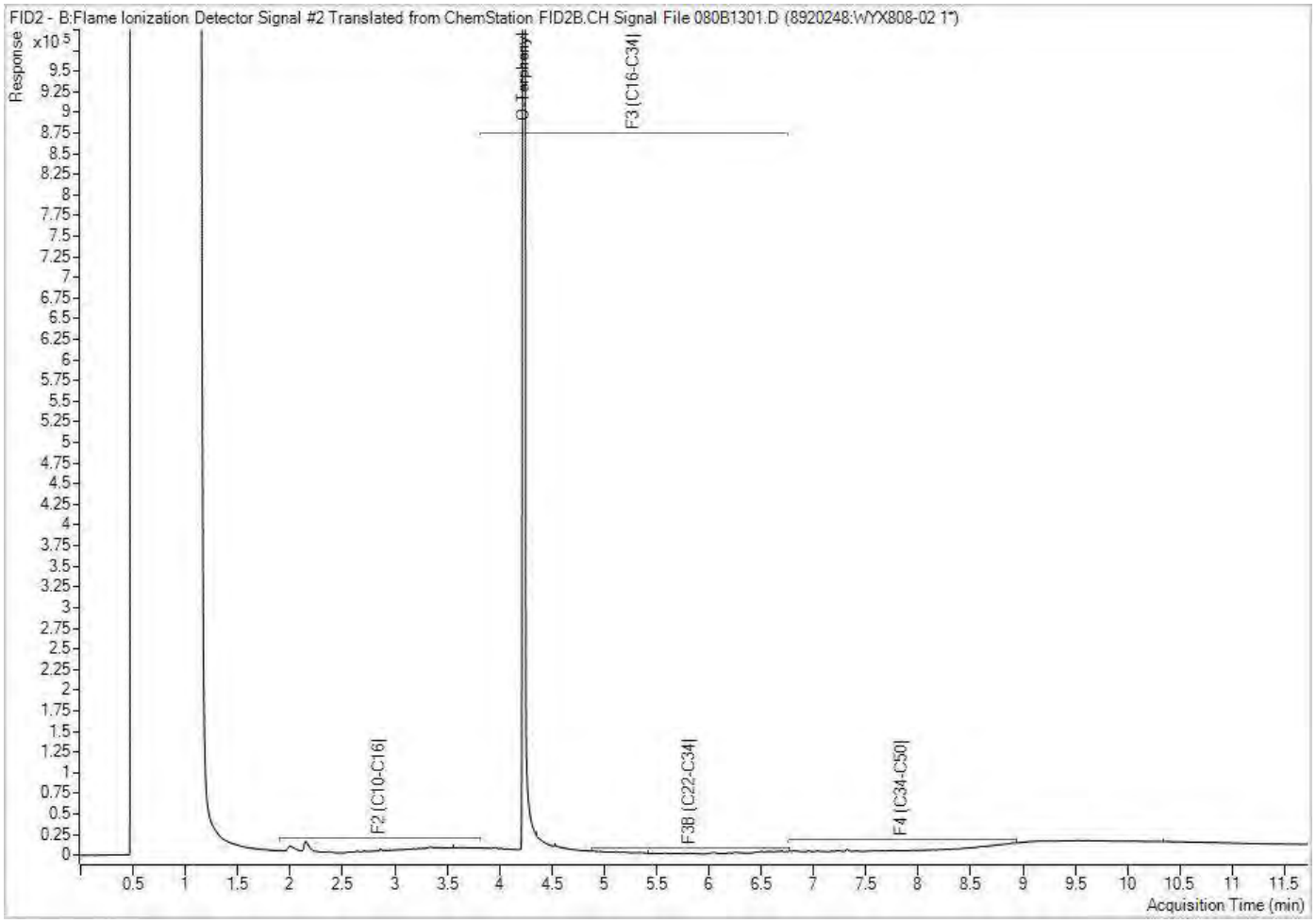
Drinking Water Metals Preservation Check Done (Circle) **YES** **NO**

COR FCD-00340 /5 PAGE 1 of 1

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX808

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-07-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

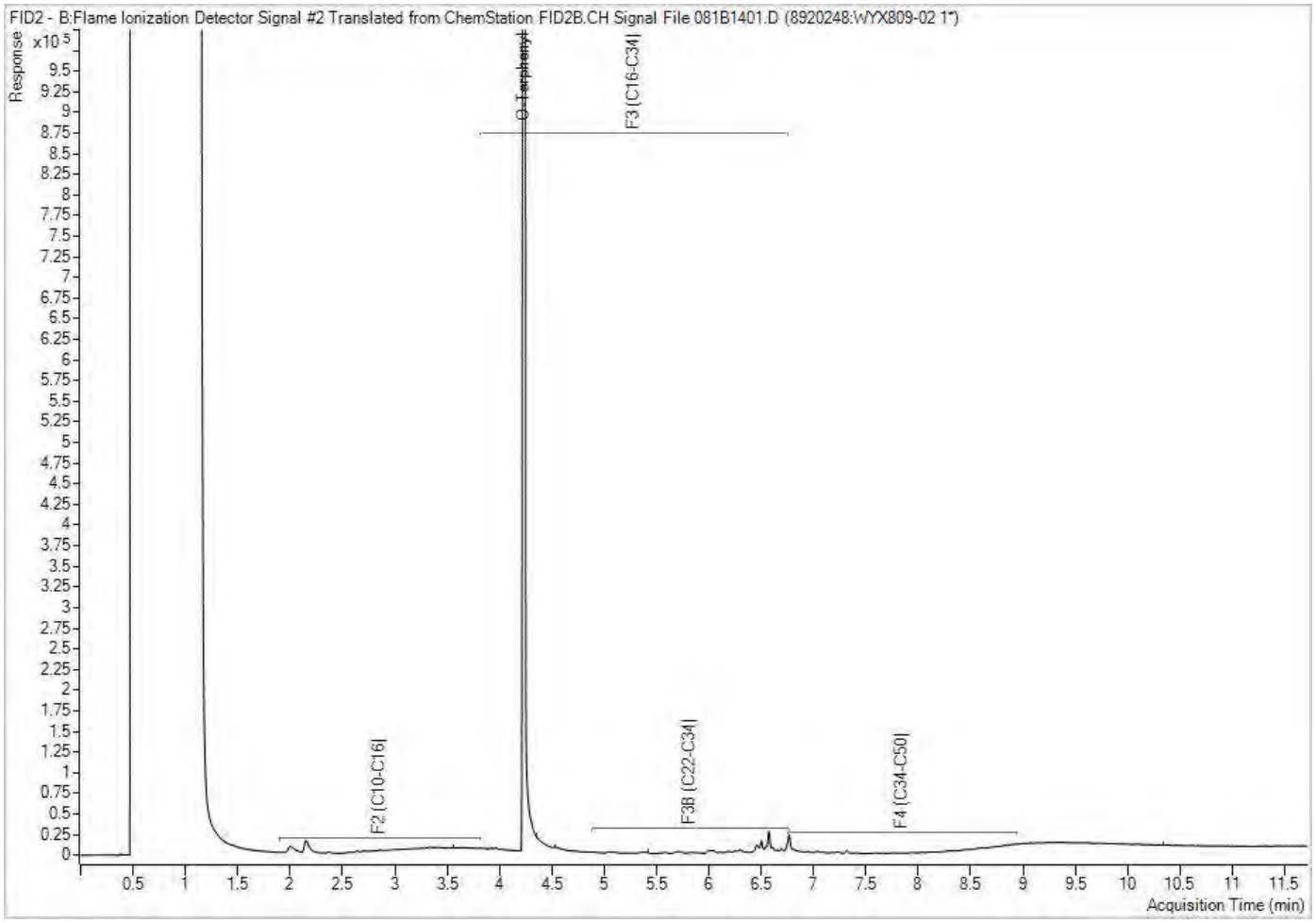


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX809

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-07-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

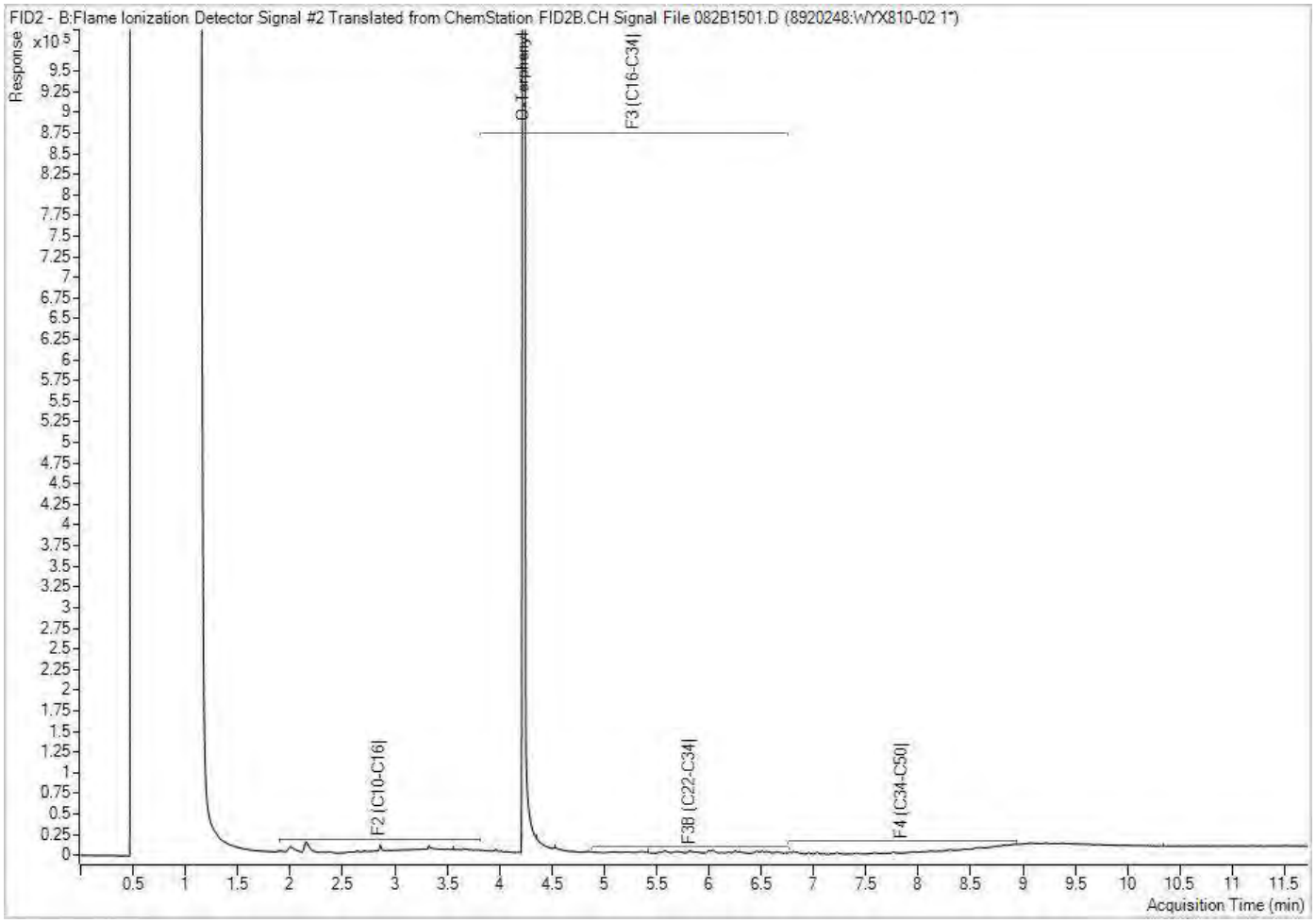


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX810

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-08-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

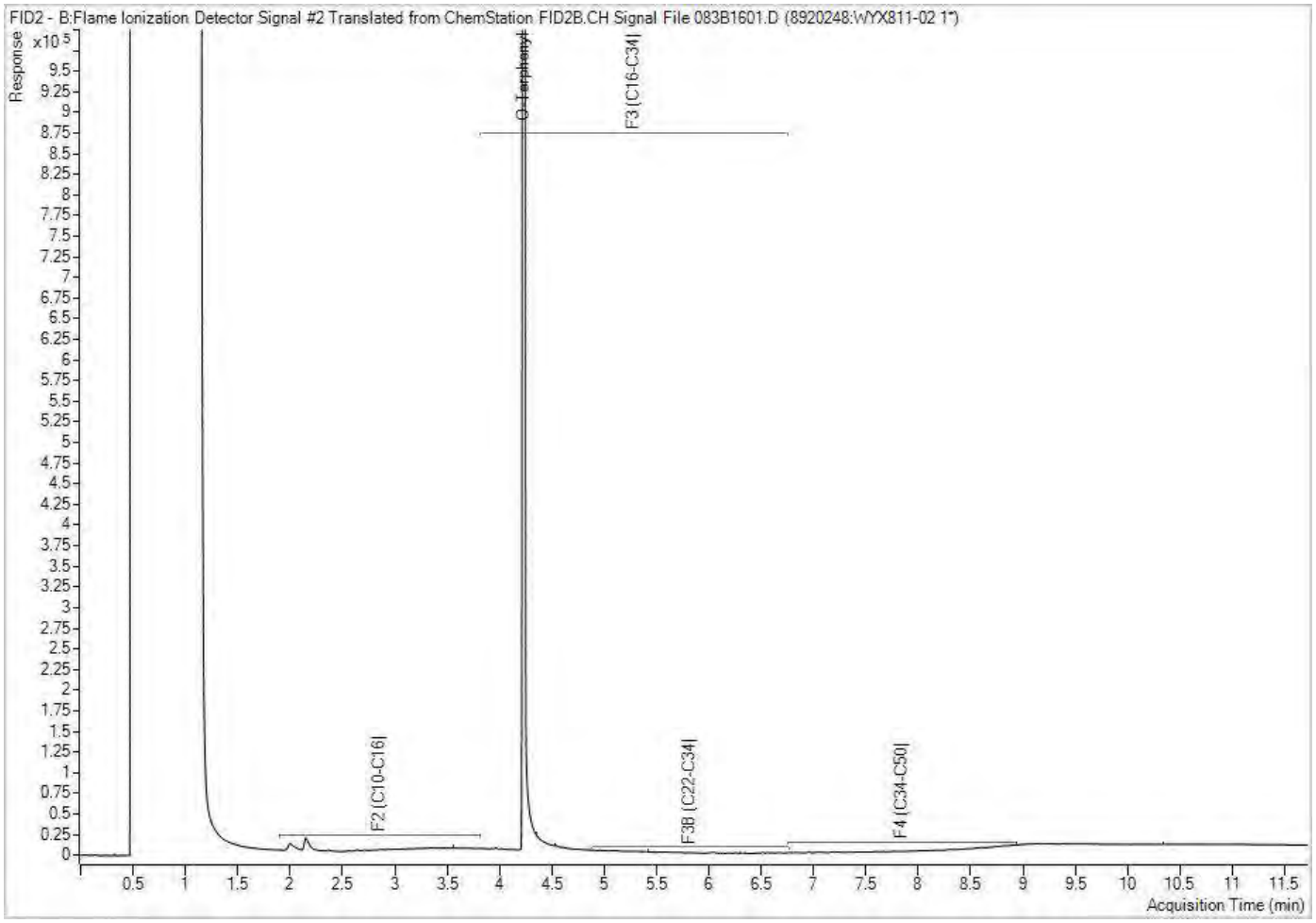


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX811

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-08-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

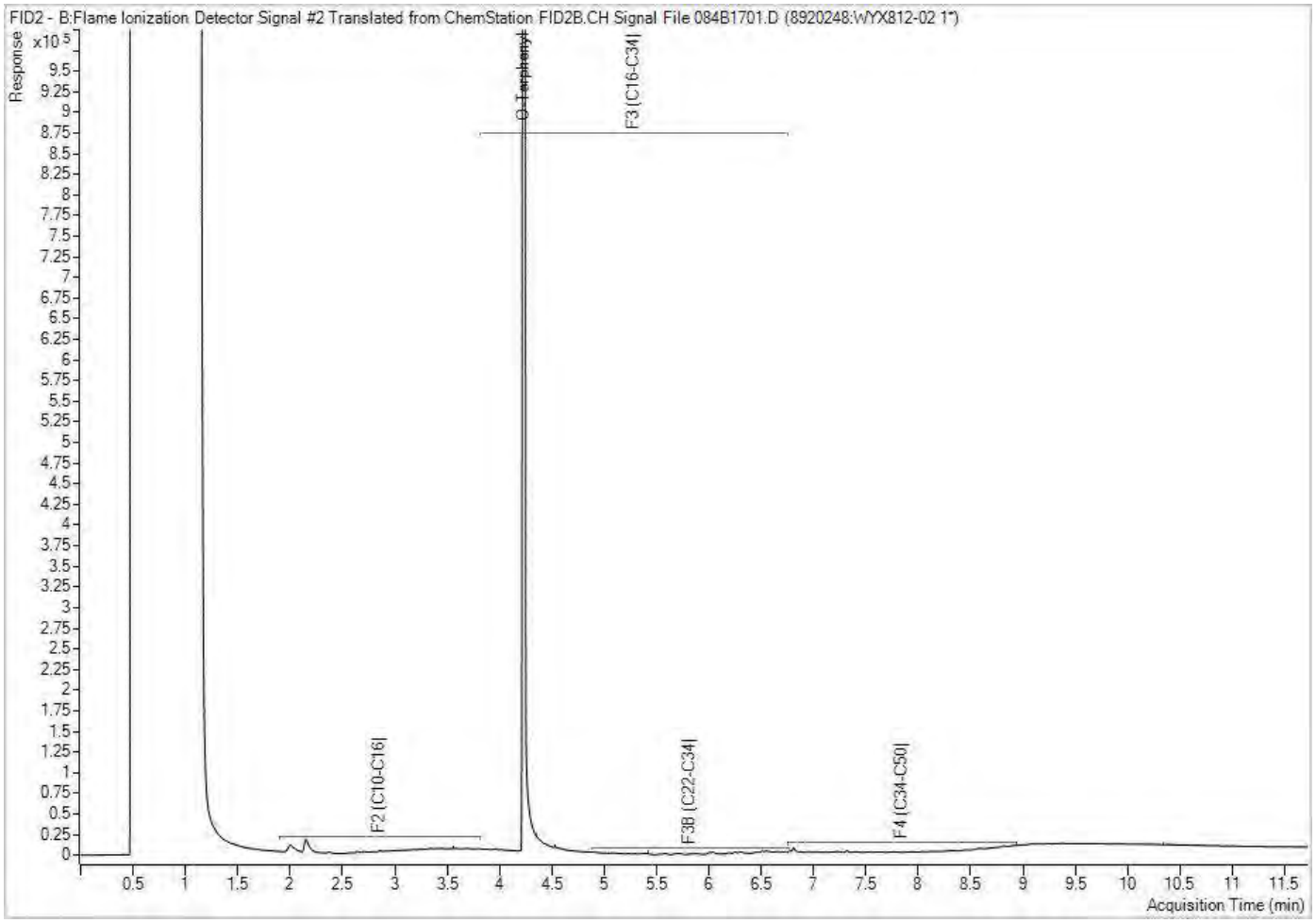


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX812

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-09-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

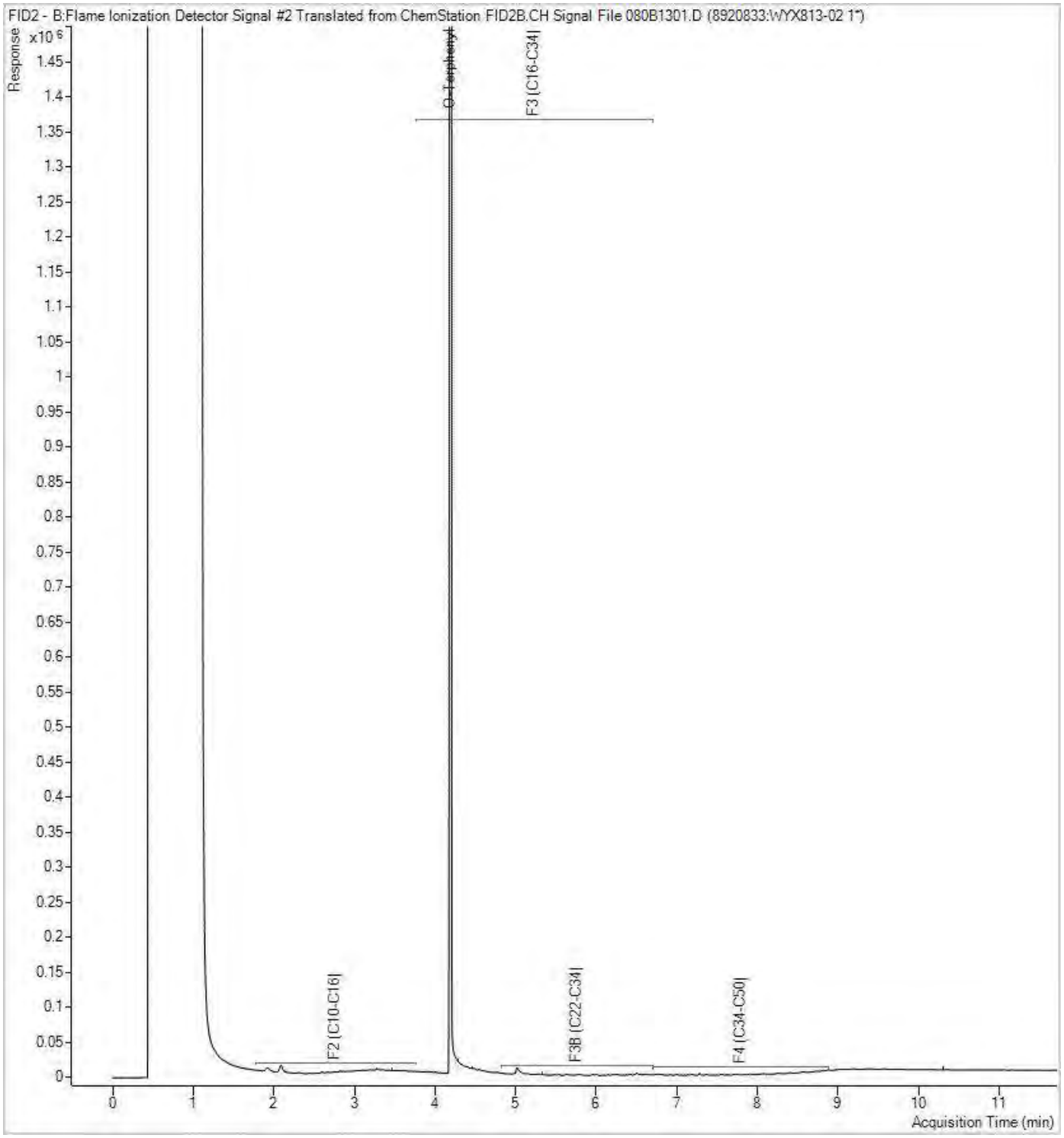


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX813

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-09-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

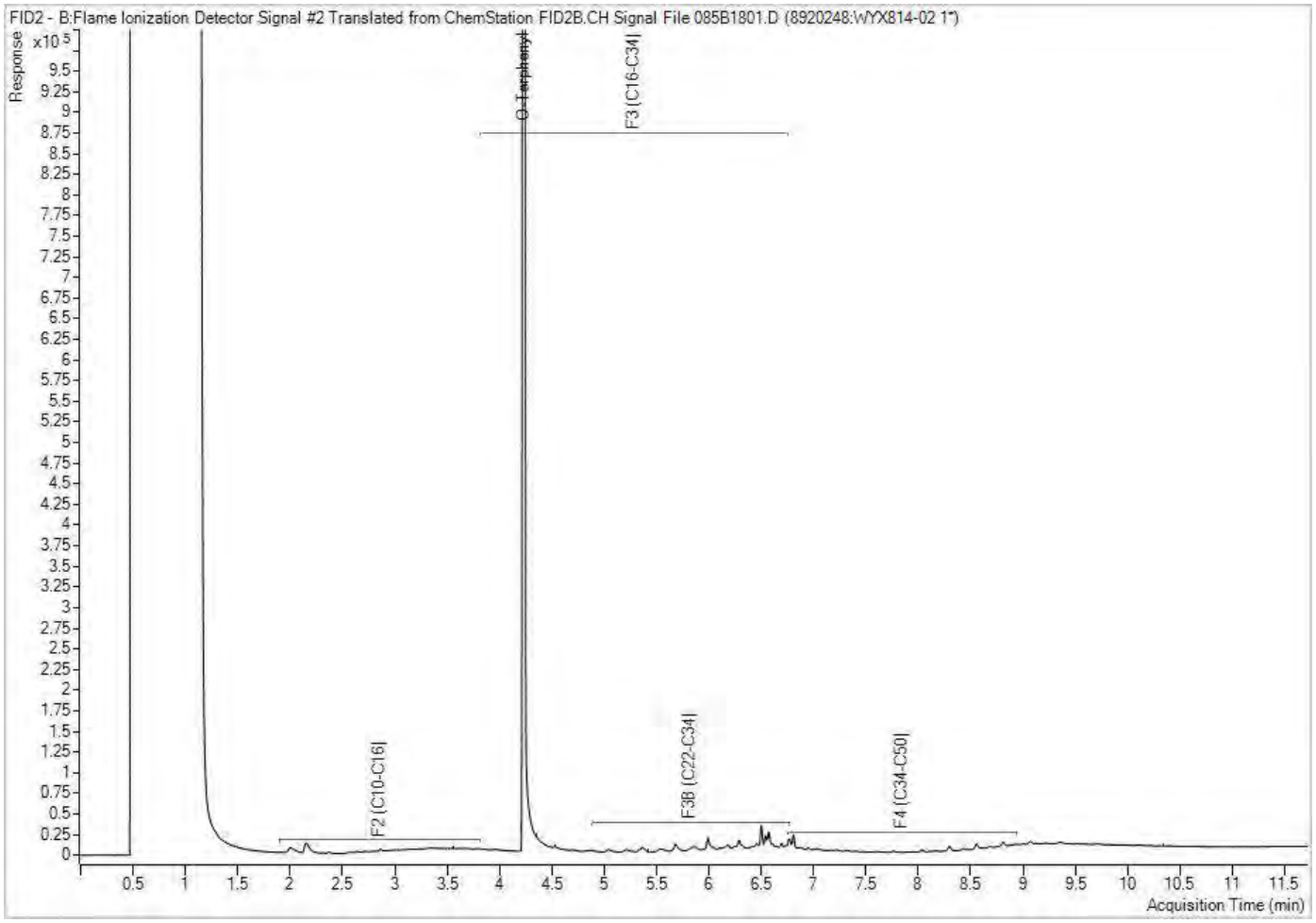


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX814

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-10-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

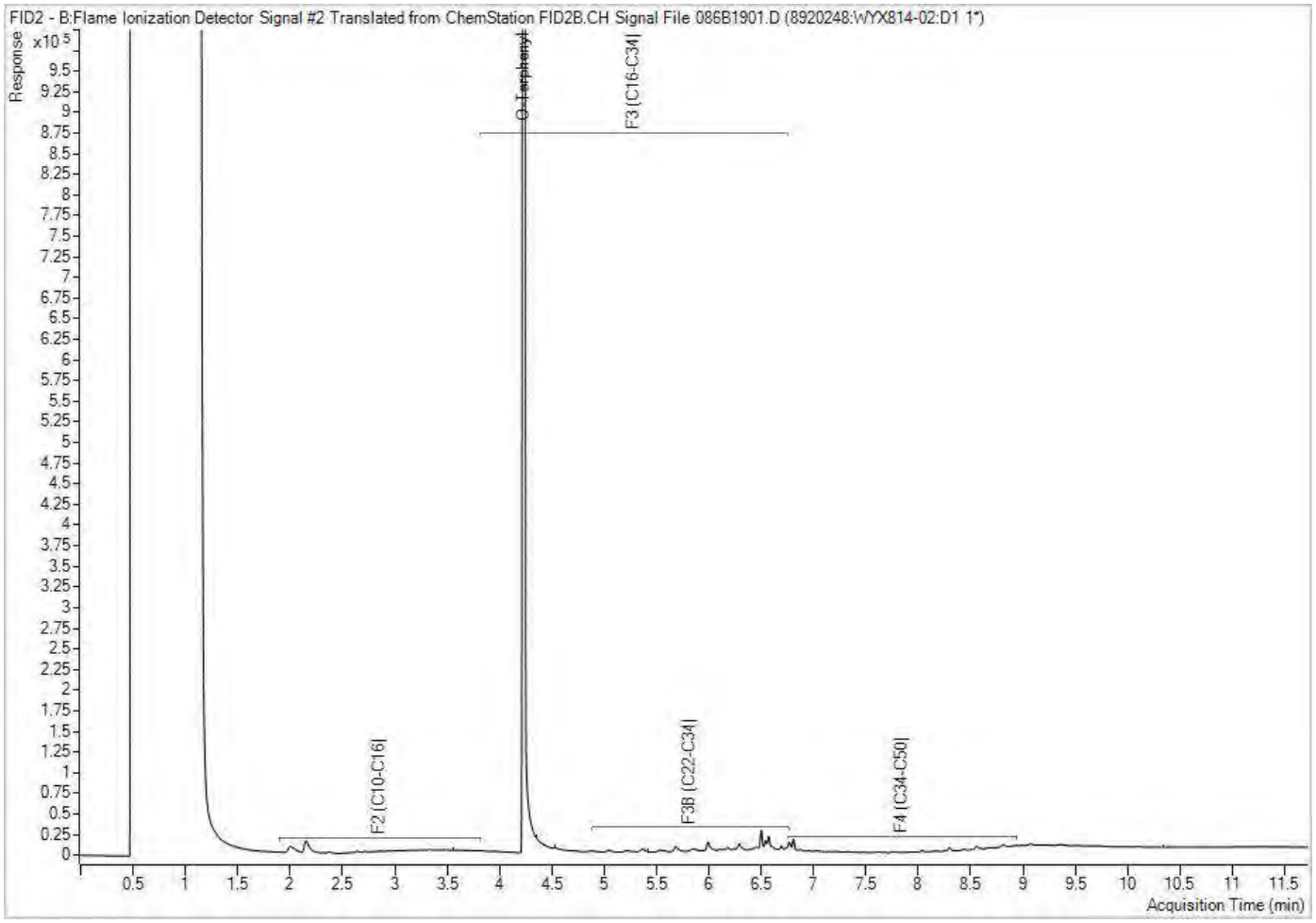


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX814 Lab-Dup

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-10-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

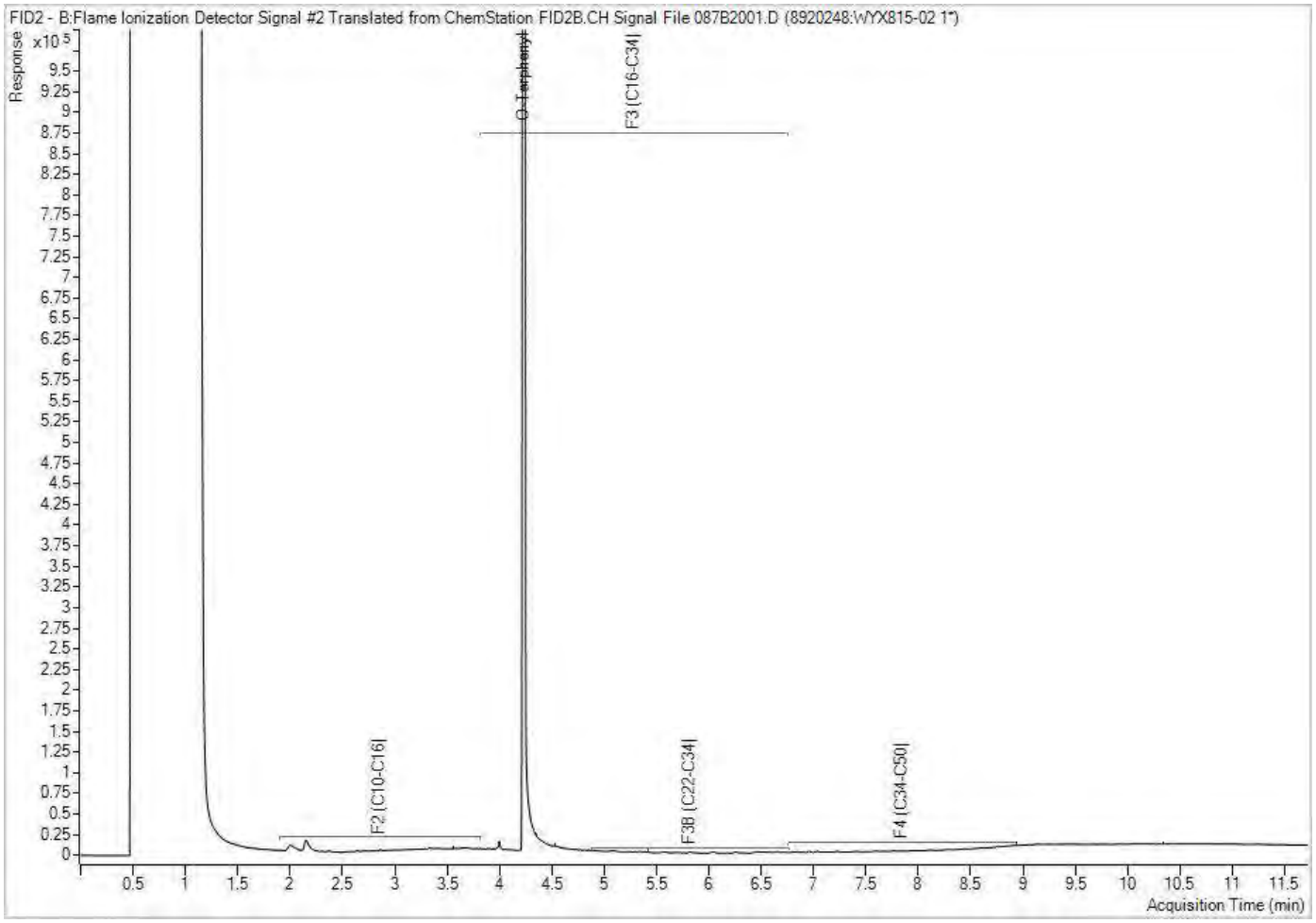


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX815

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-10-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

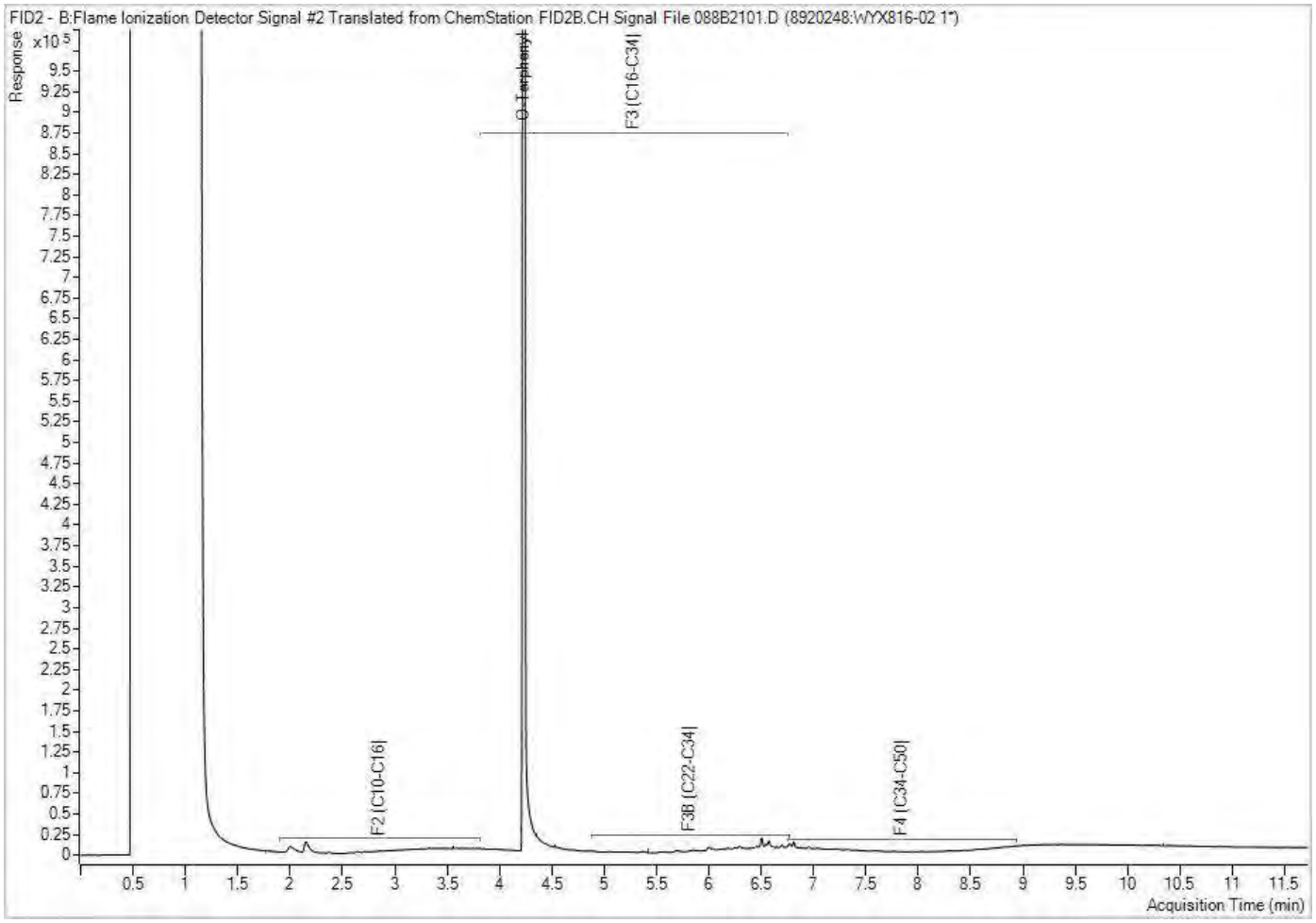


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX816

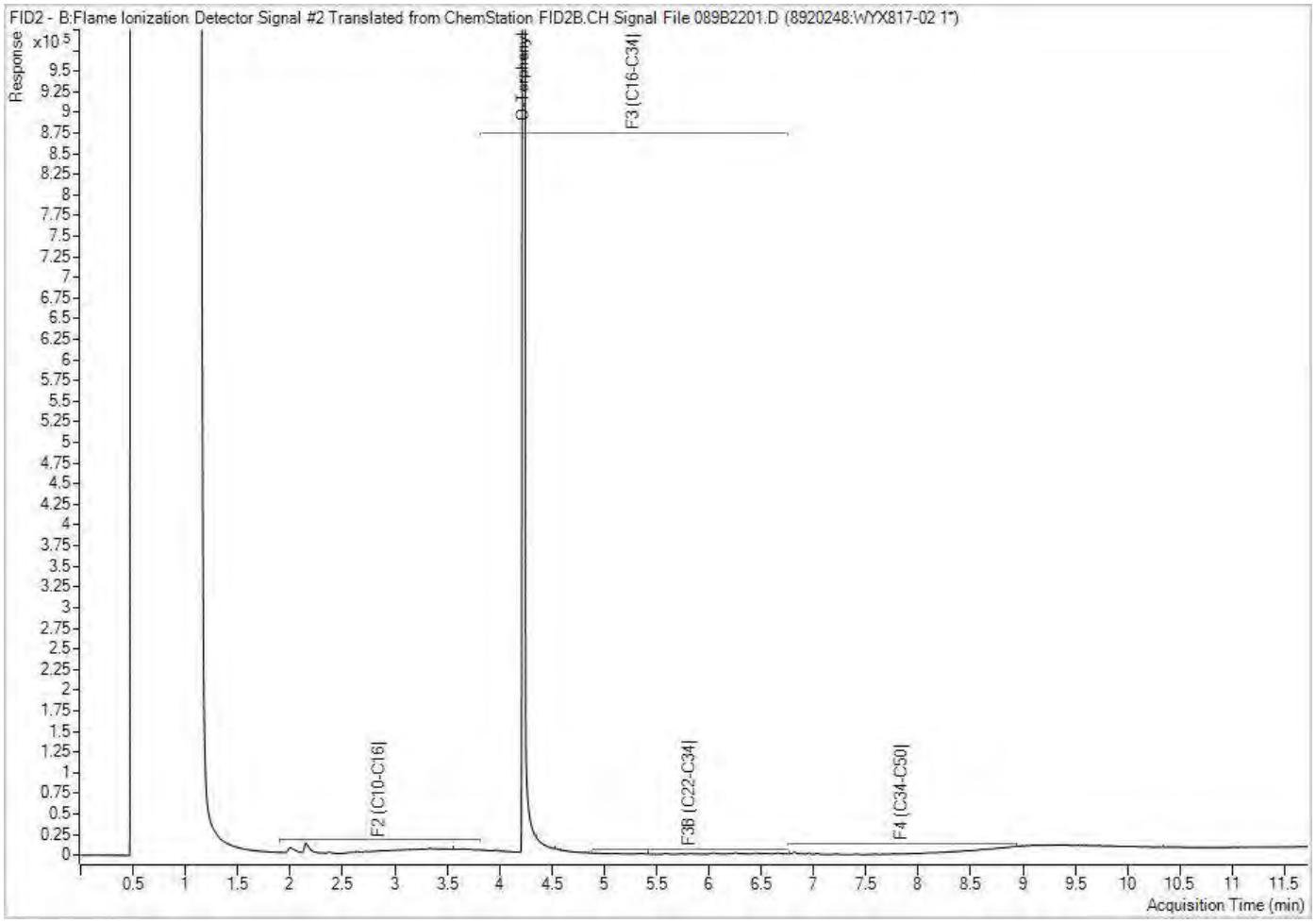
BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-S-00

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



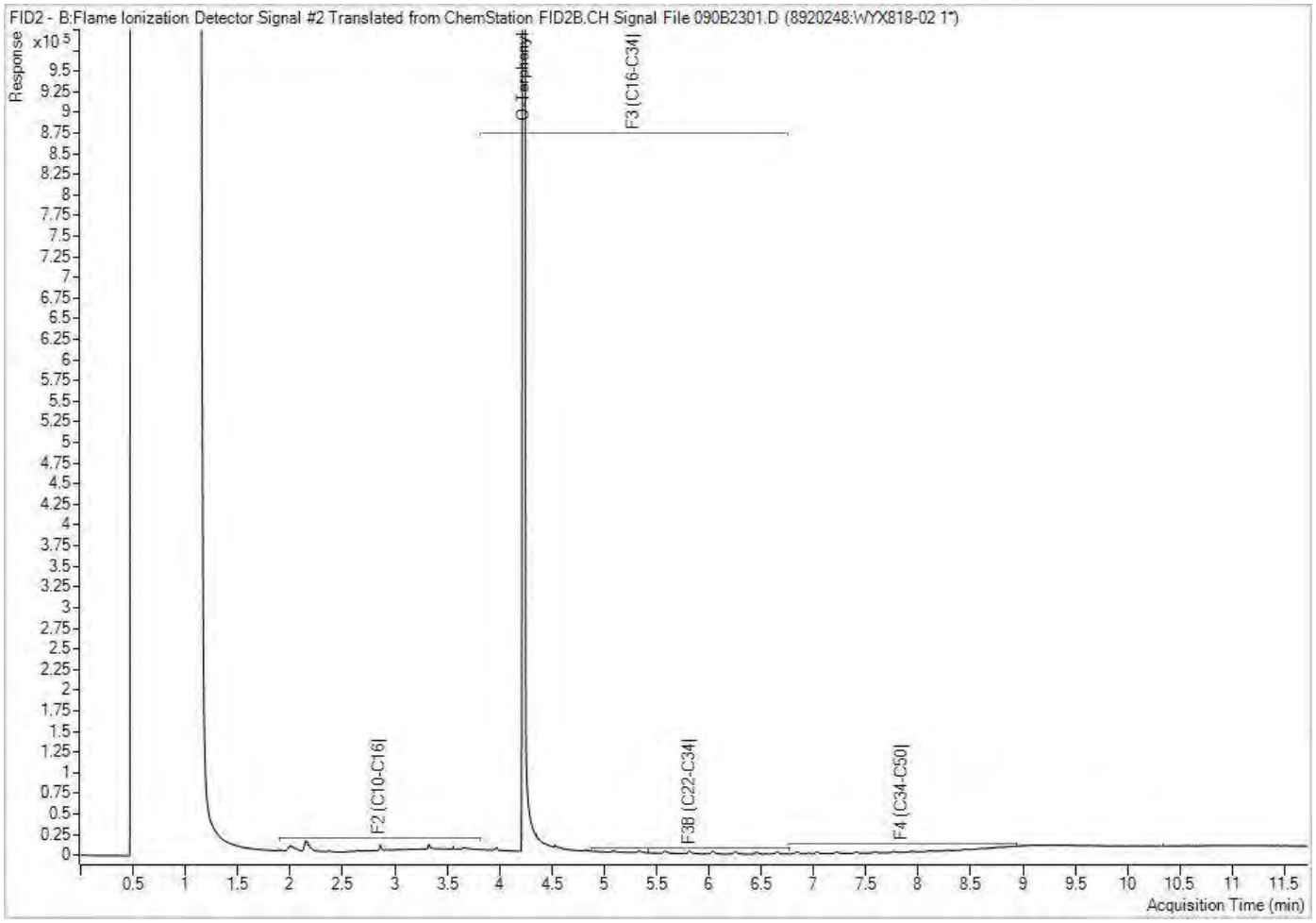
Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

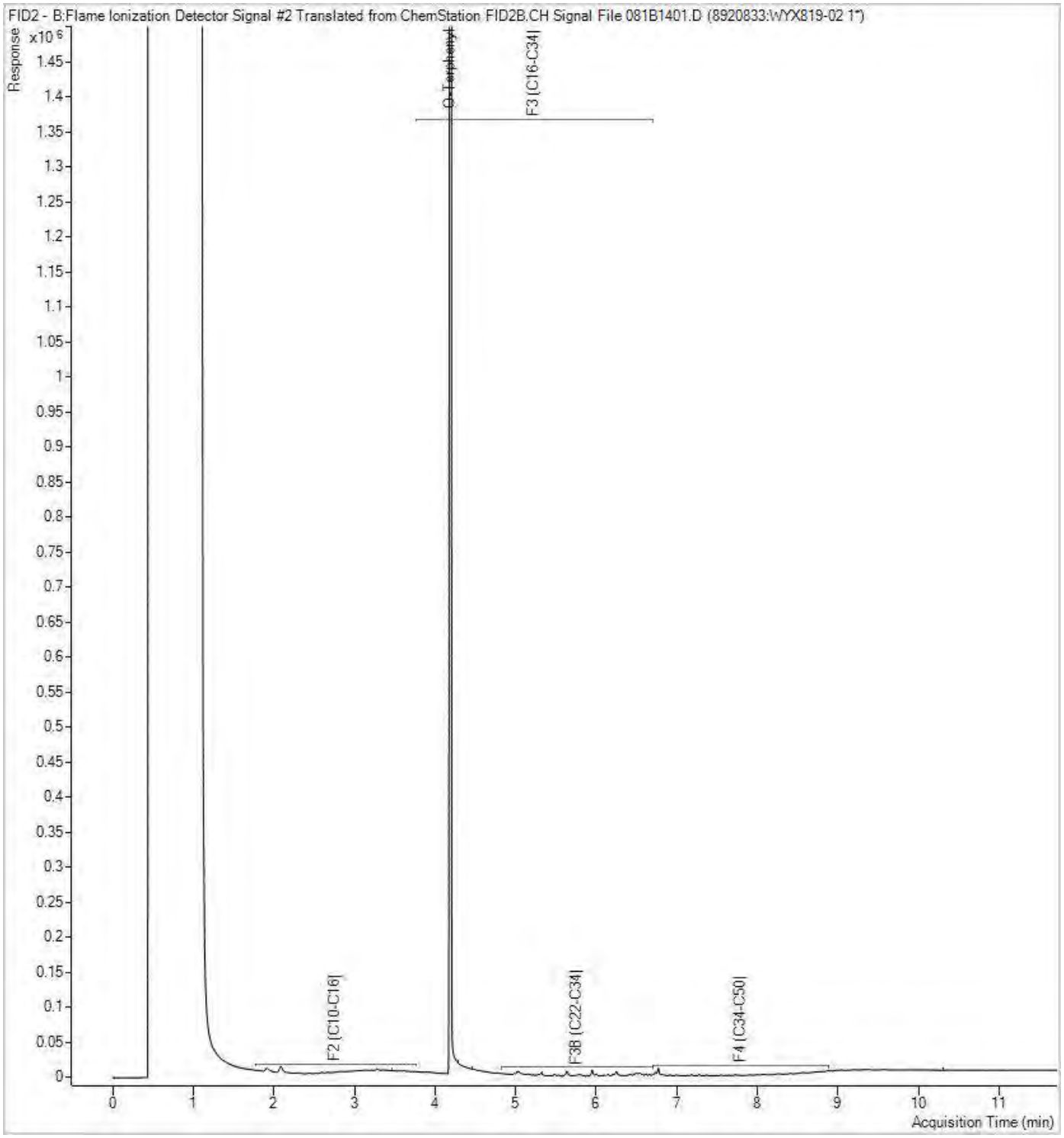


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX819

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW05-15-SOIL-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

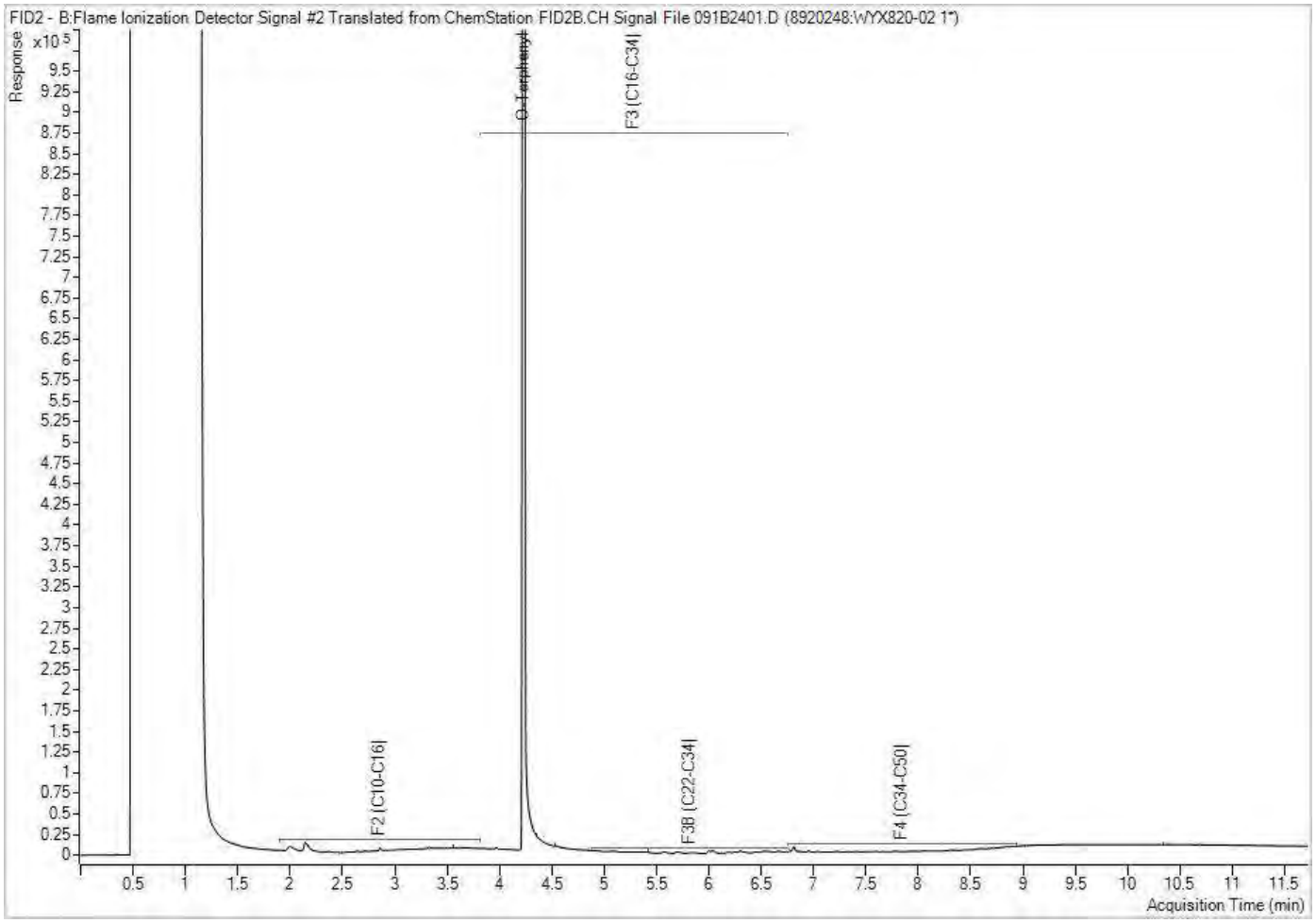


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX820

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW05-15-SOIL-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

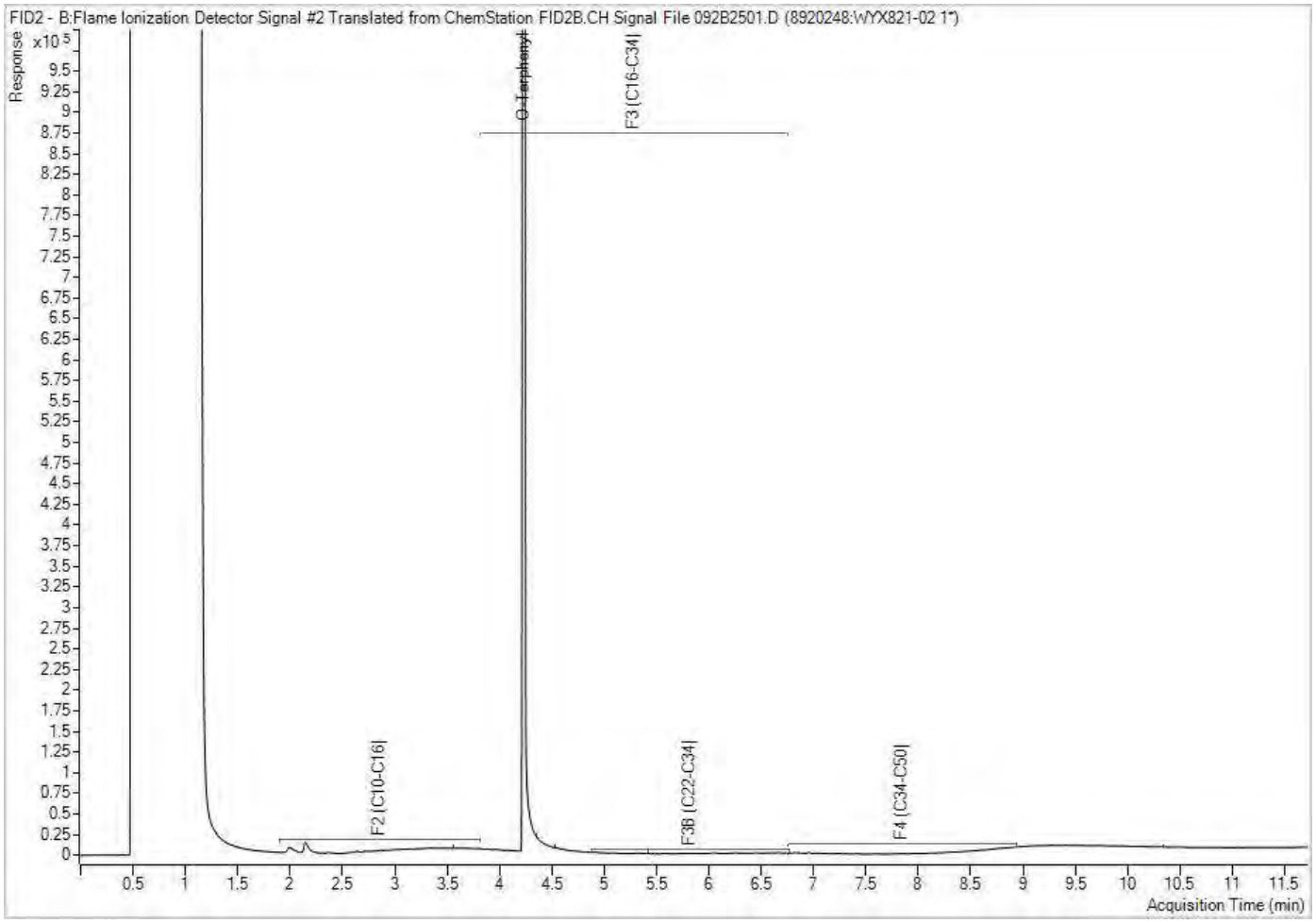


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX821

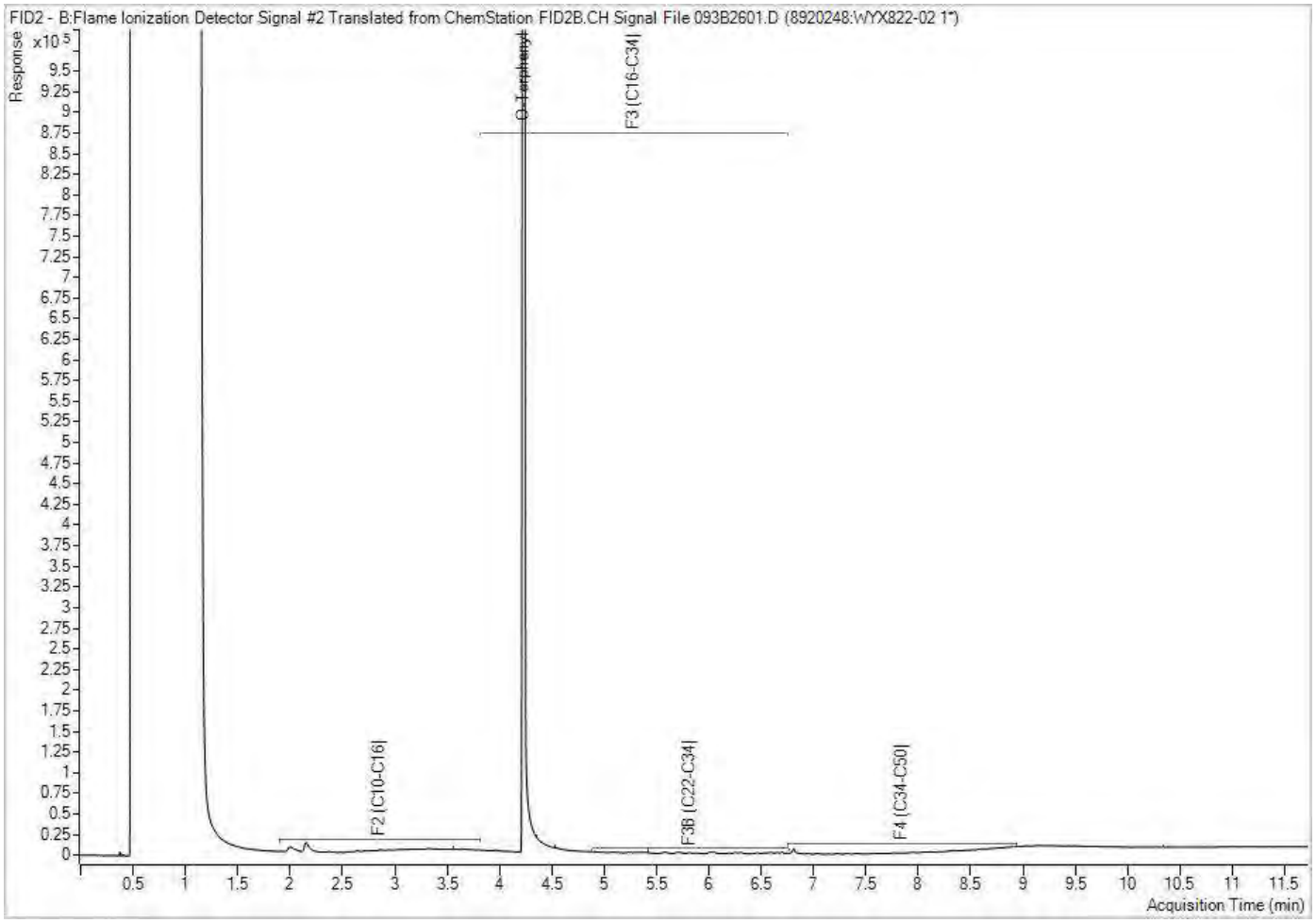
BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW05-16-SOIL-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



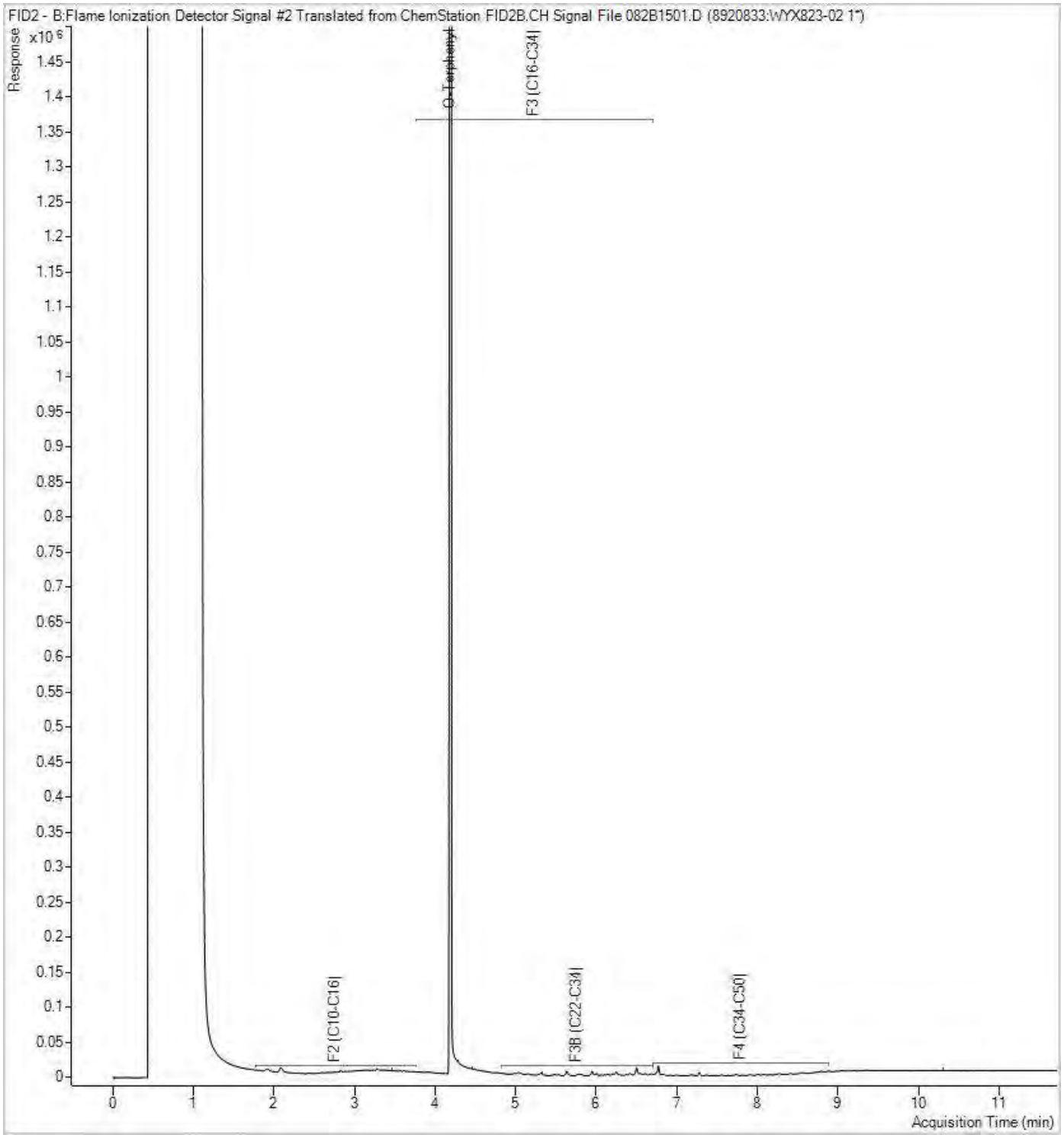
Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



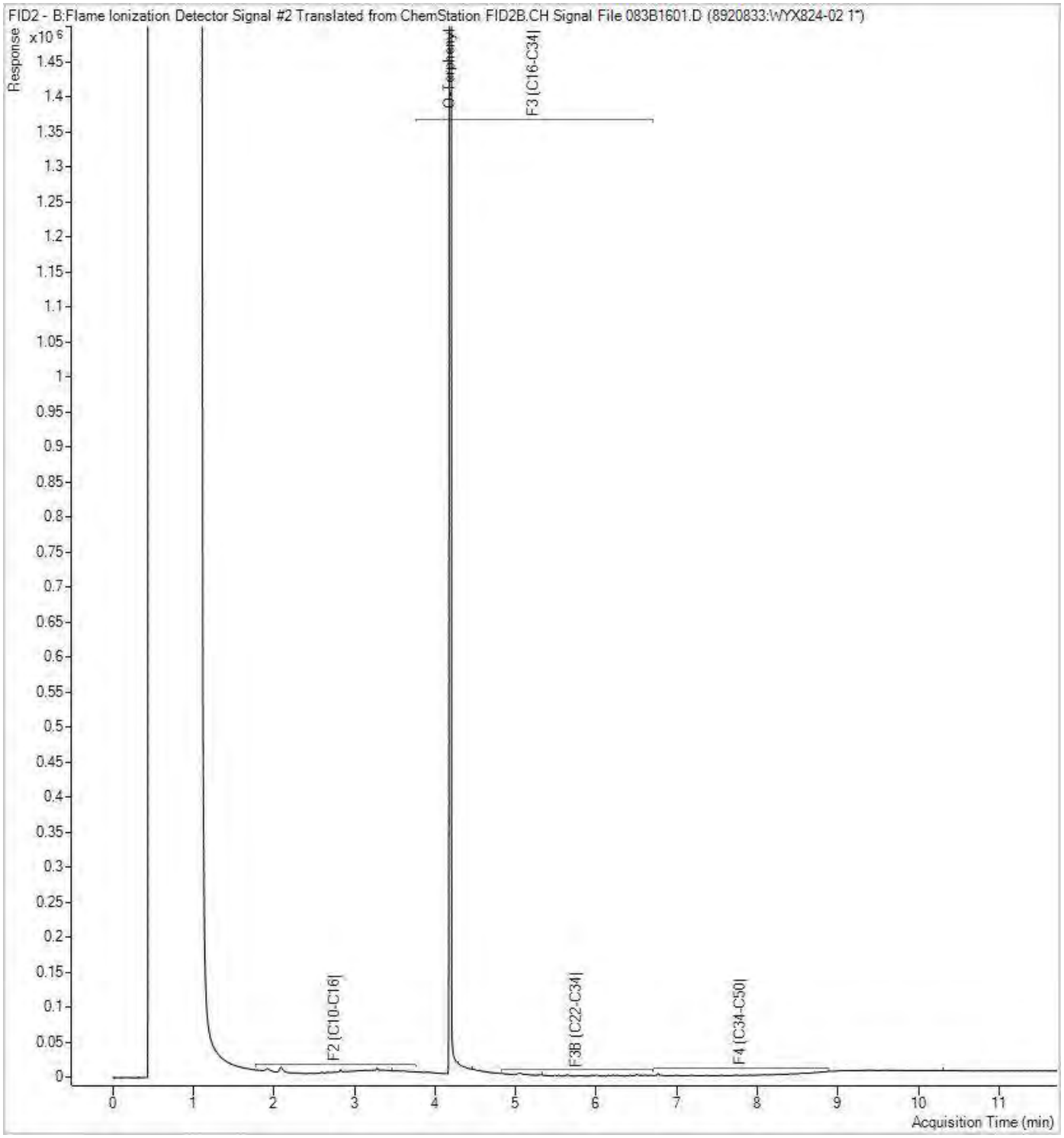
Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

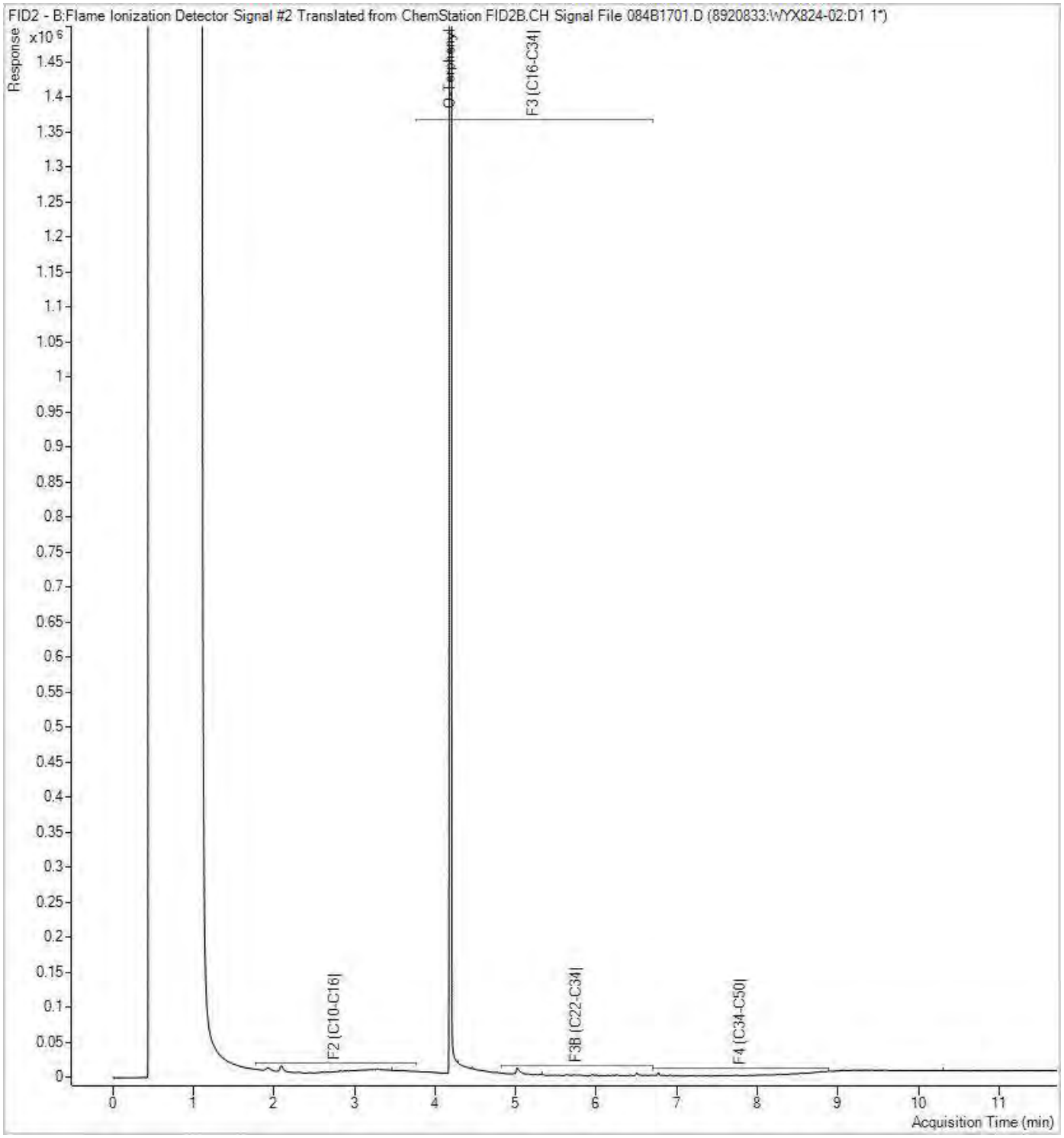


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX824 Lab-Dup

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW12-01-SOIL-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

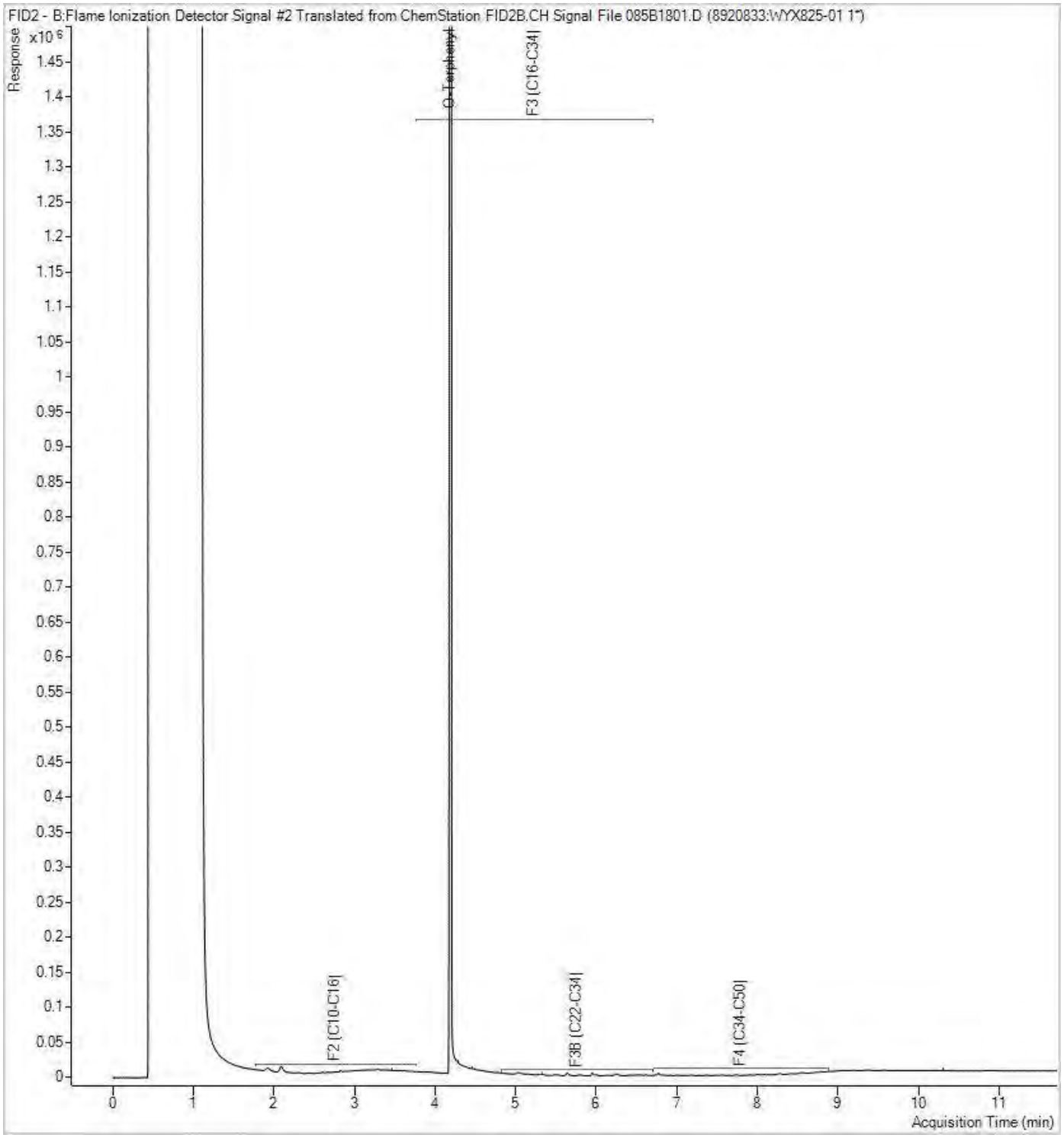


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX825

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-S-10

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

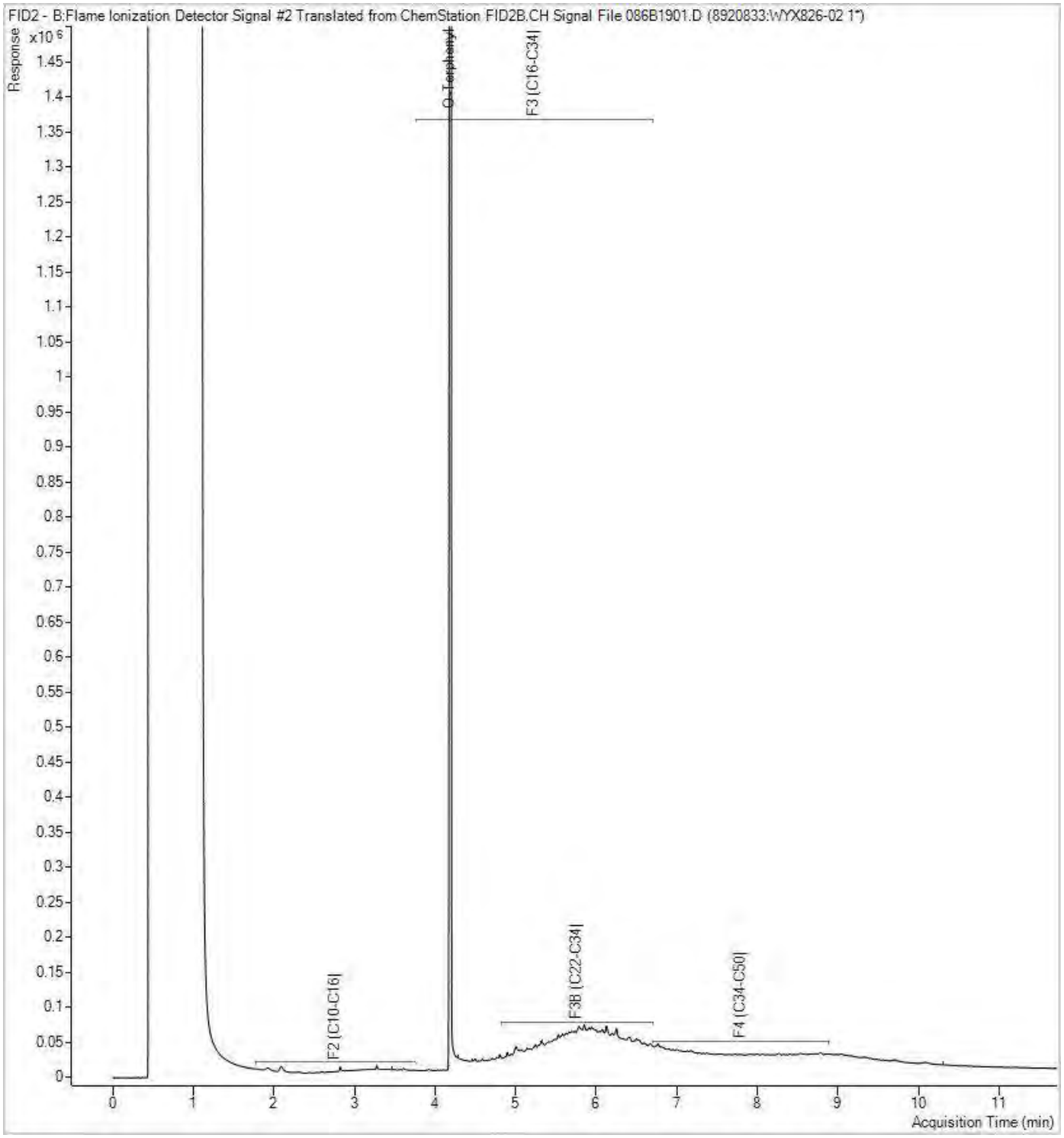


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX826

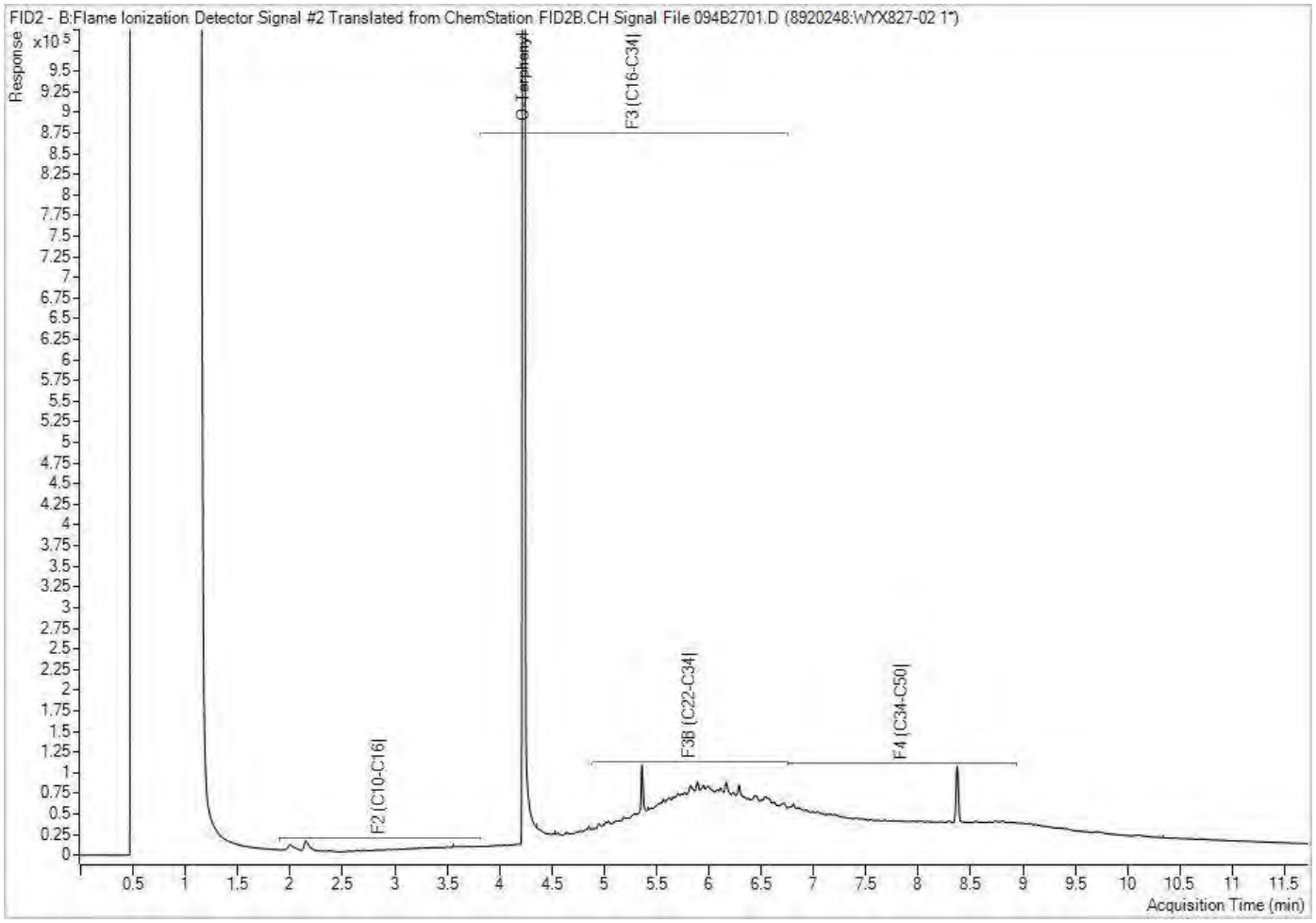
BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-01-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

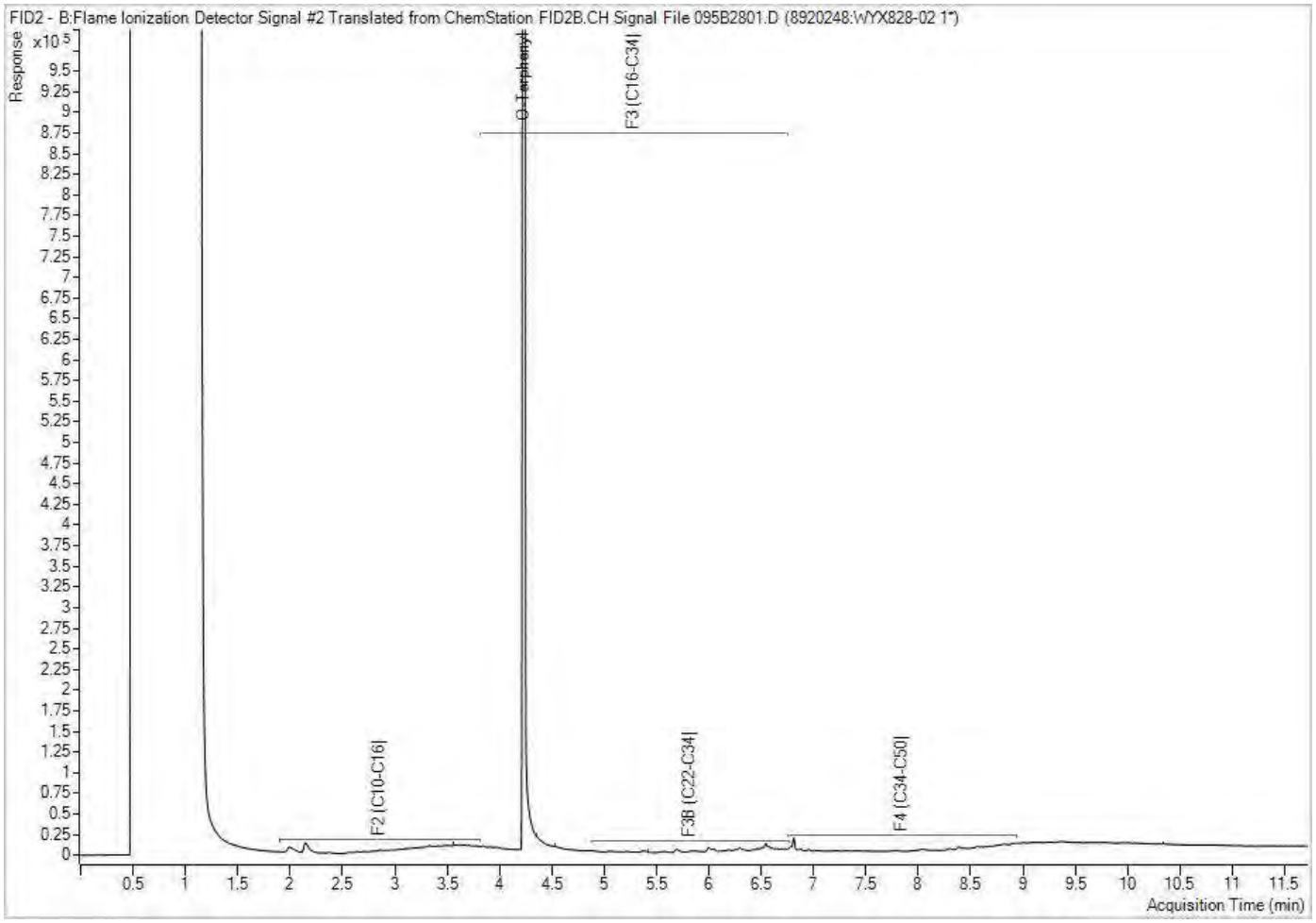


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX828

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-02-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

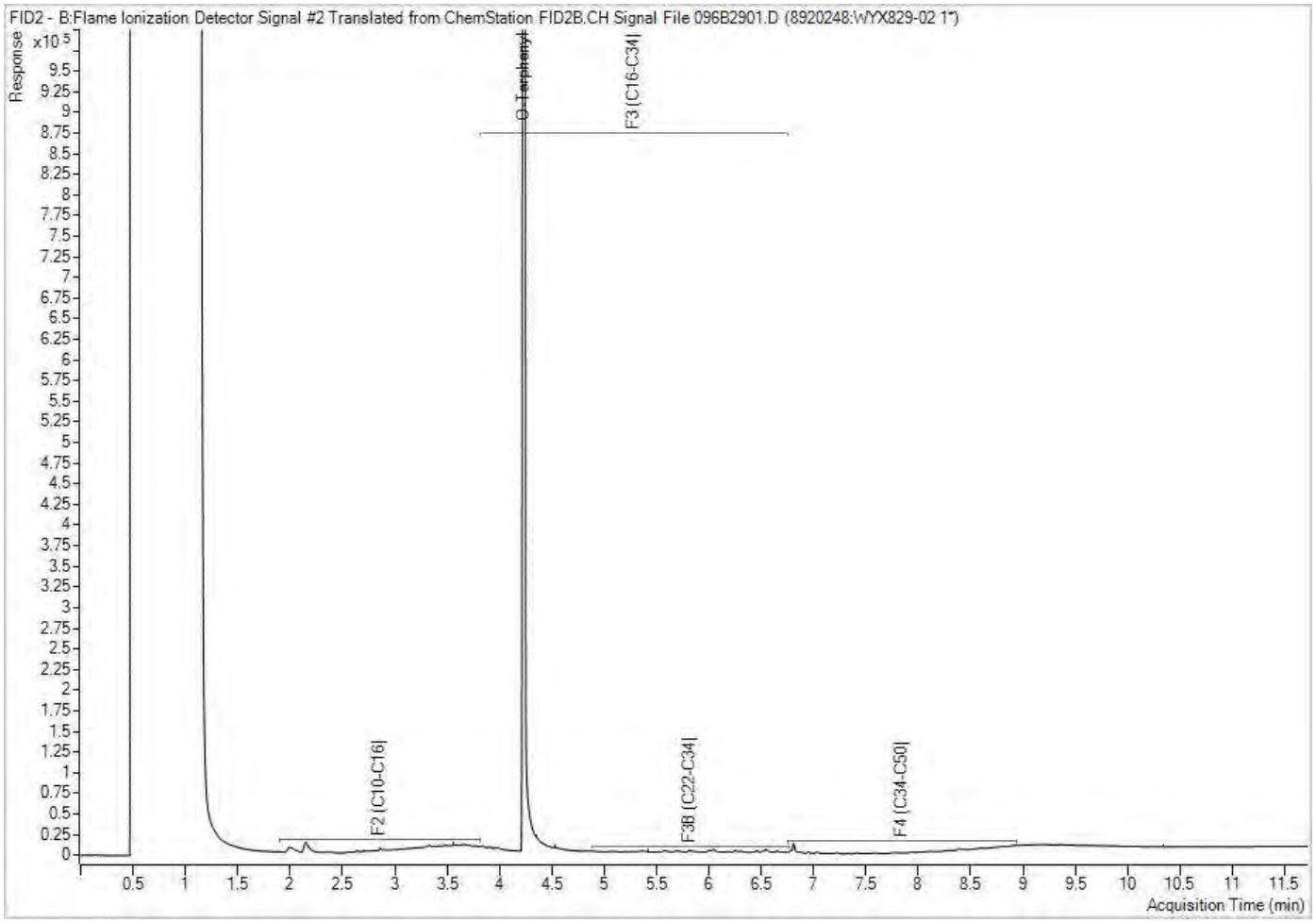


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX829

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-02-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

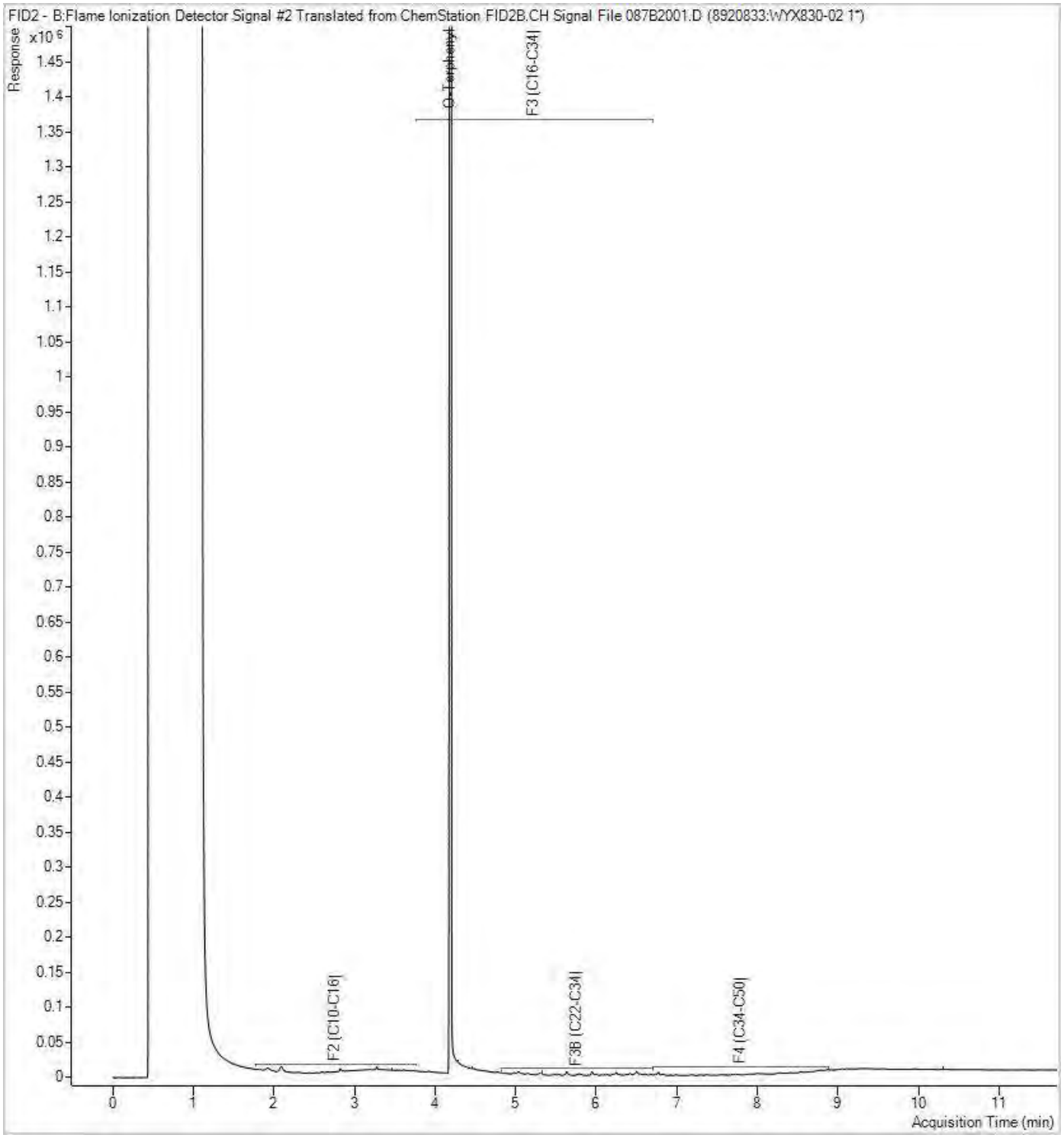


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX830

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-03-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

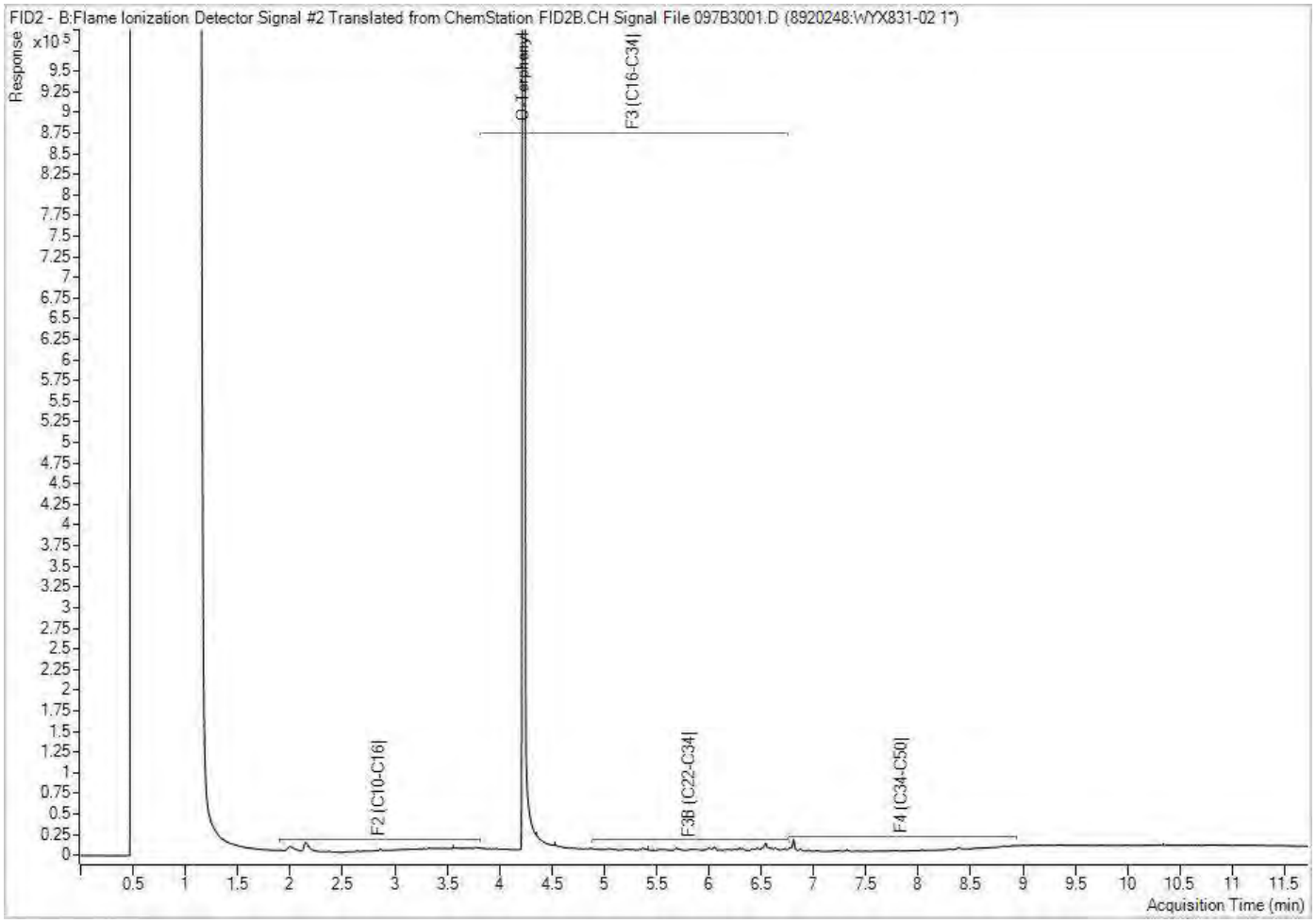


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX831

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-03-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

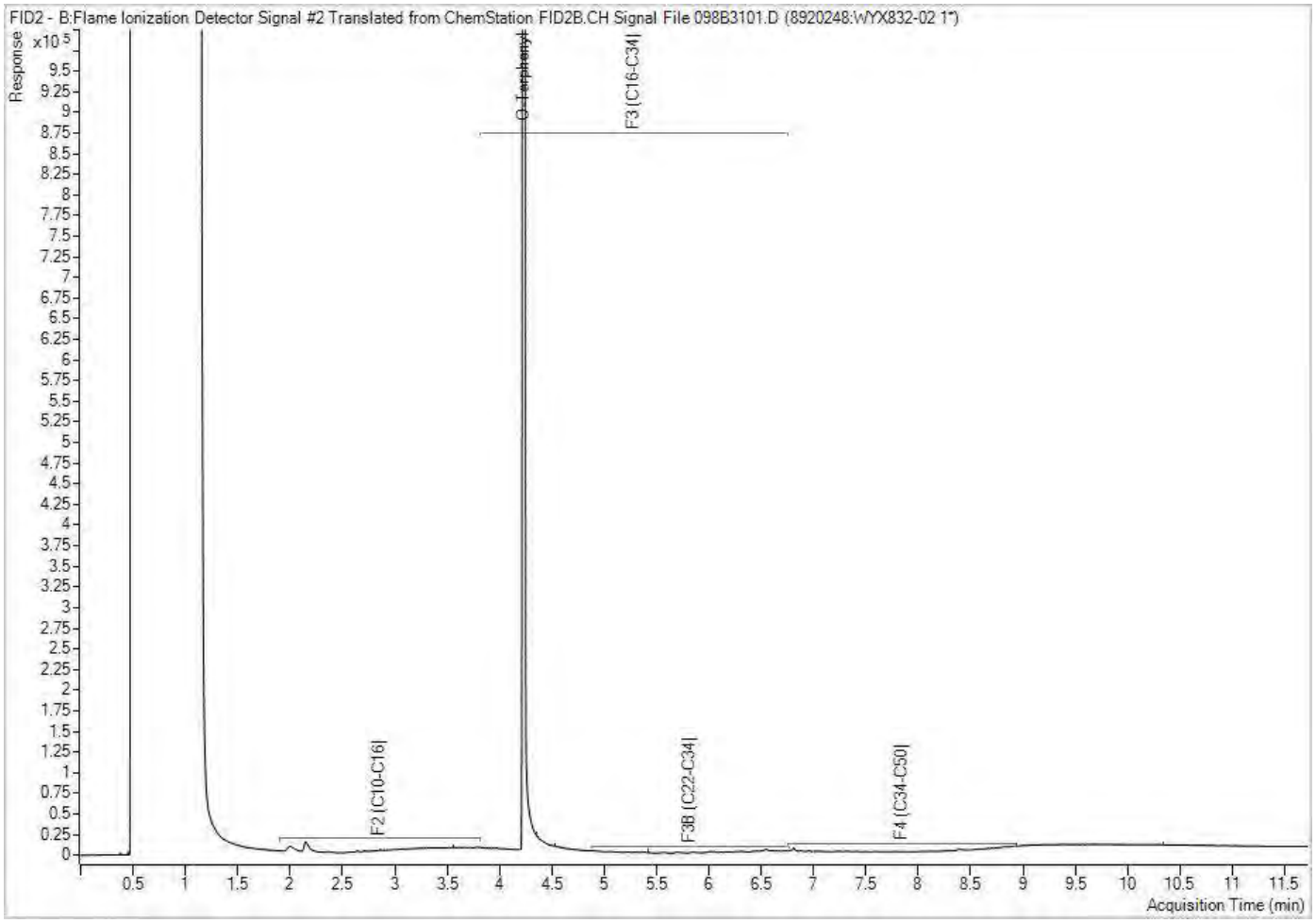


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX832

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-S-15

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

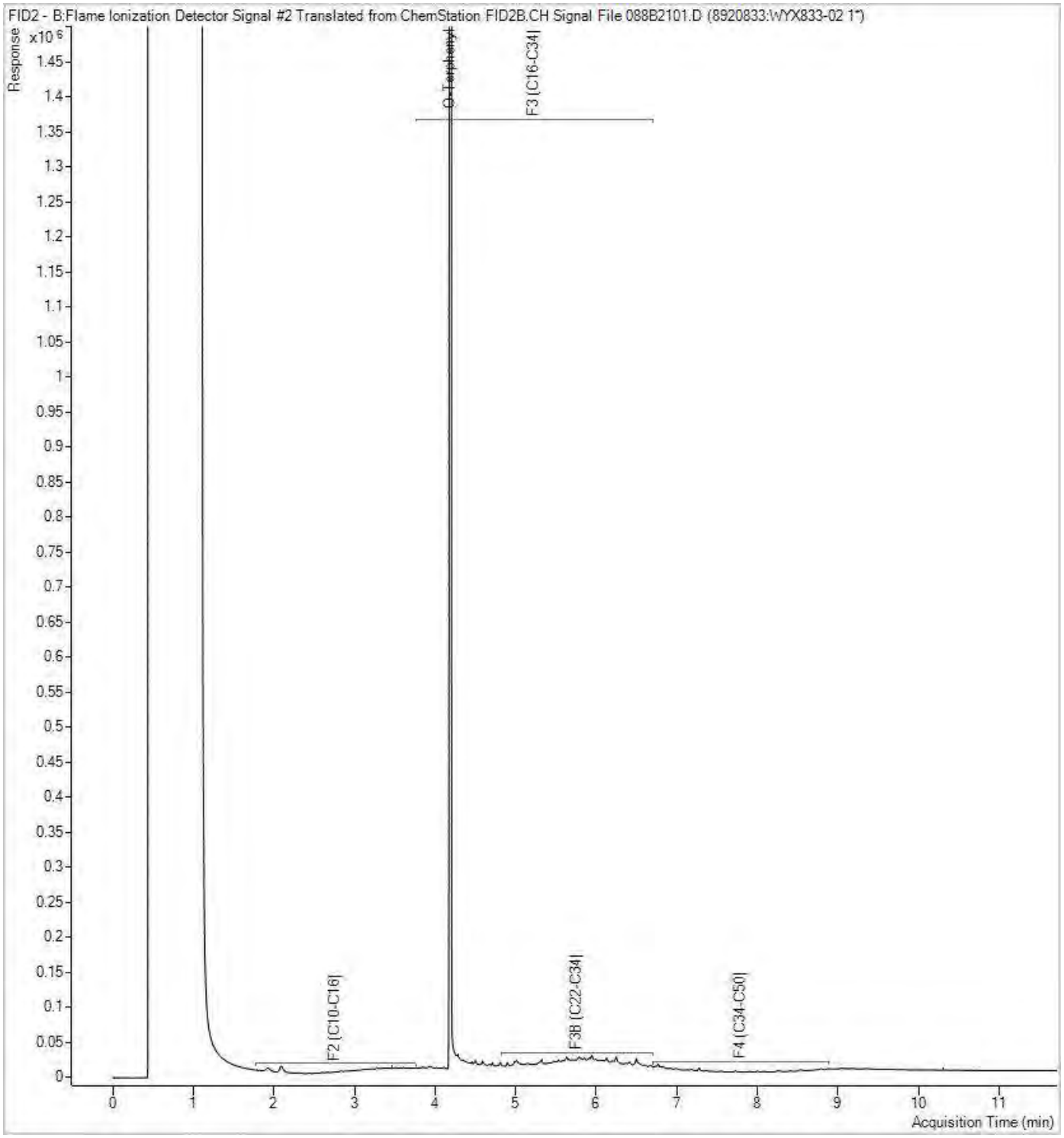


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX833

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-04-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

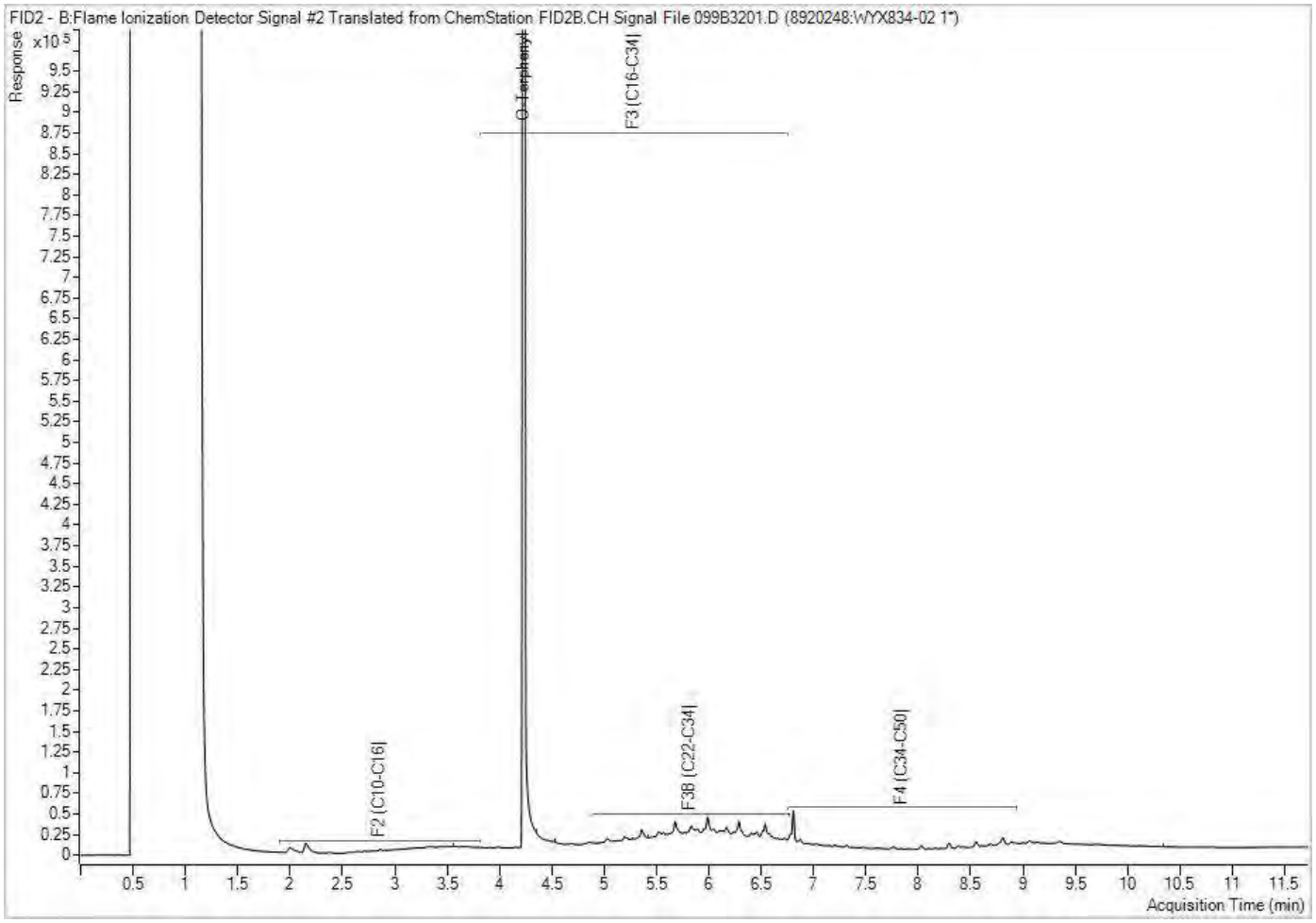


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX834

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-04-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

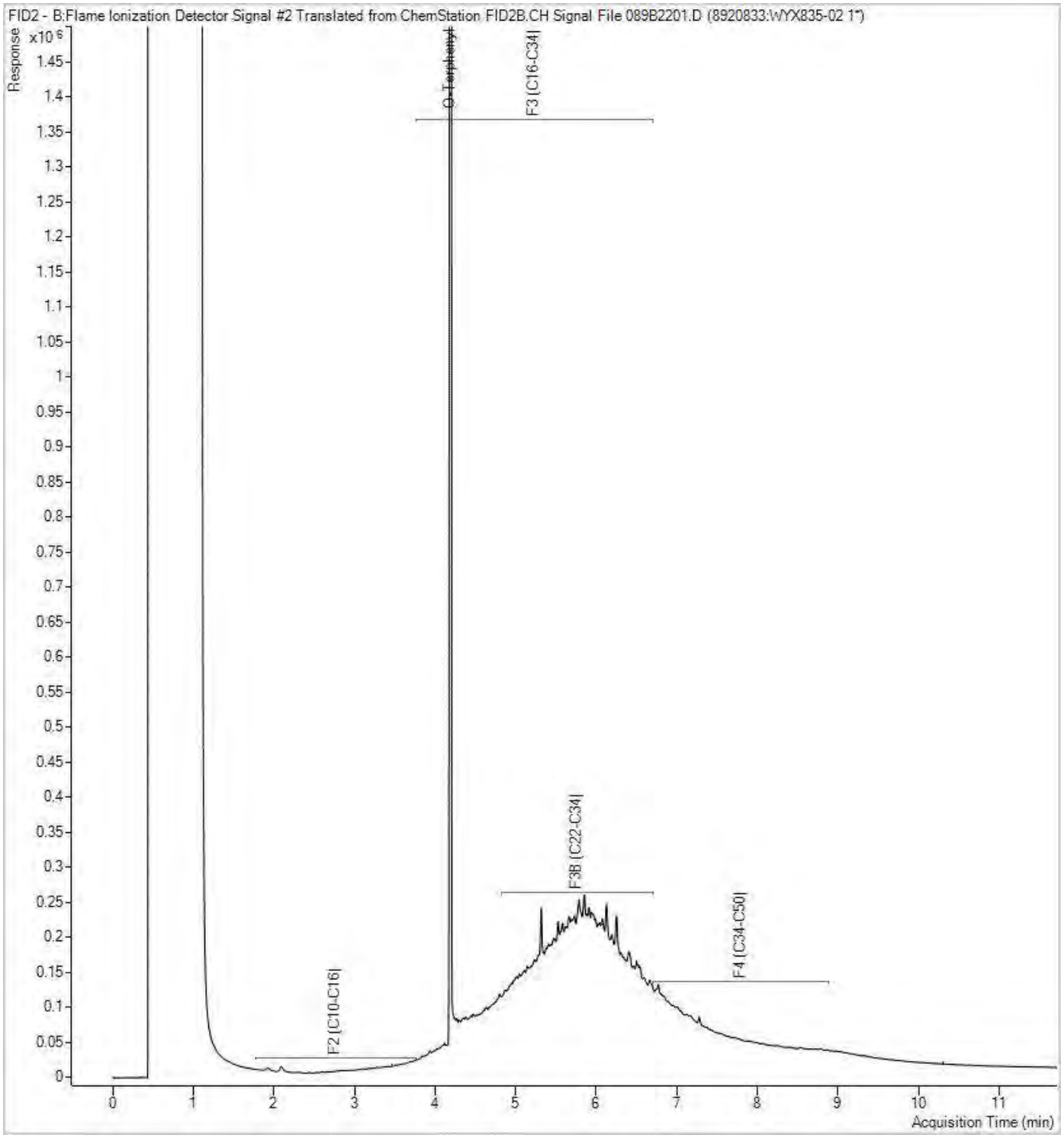


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX835

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-05-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

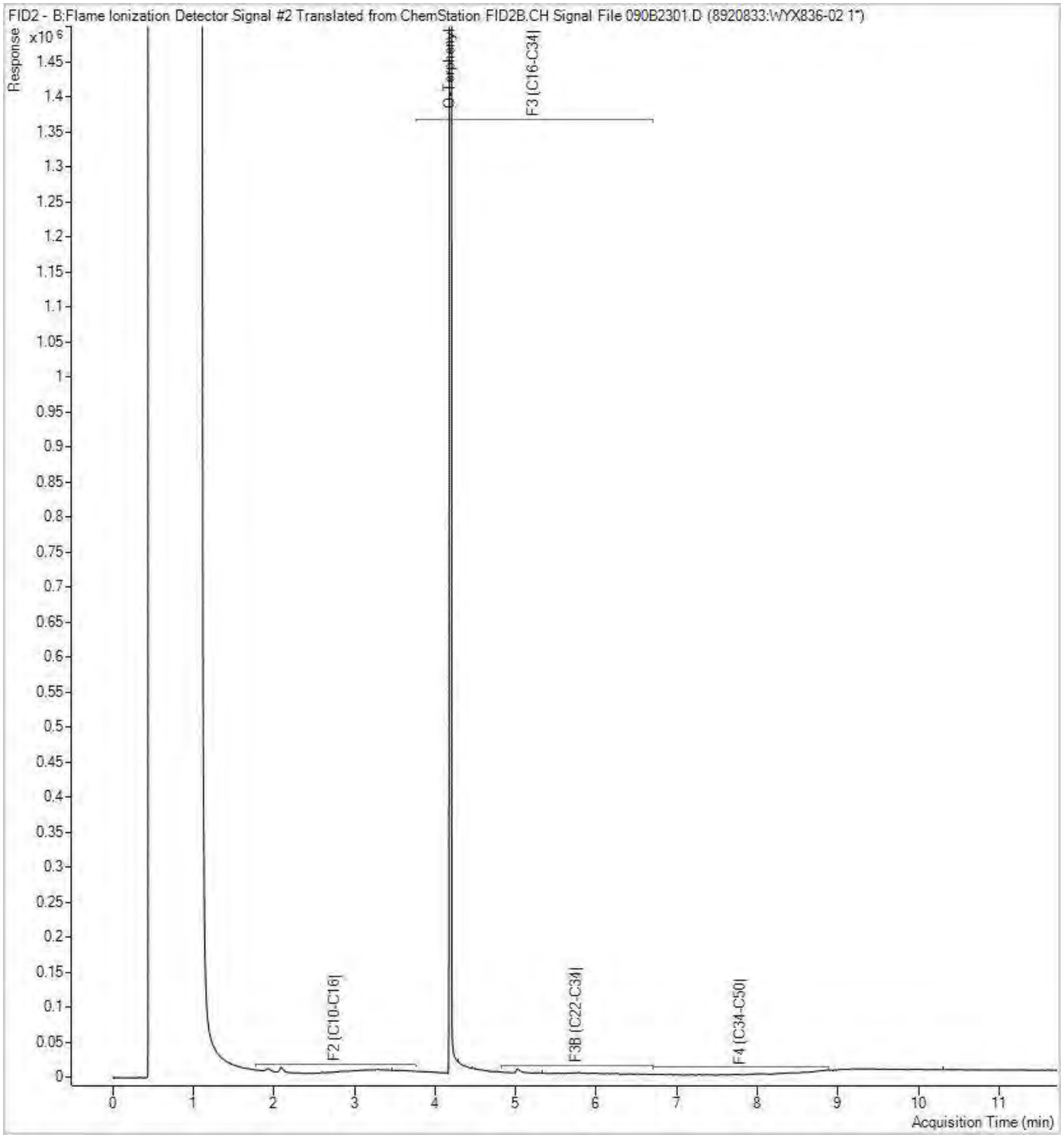


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX836

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-05-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

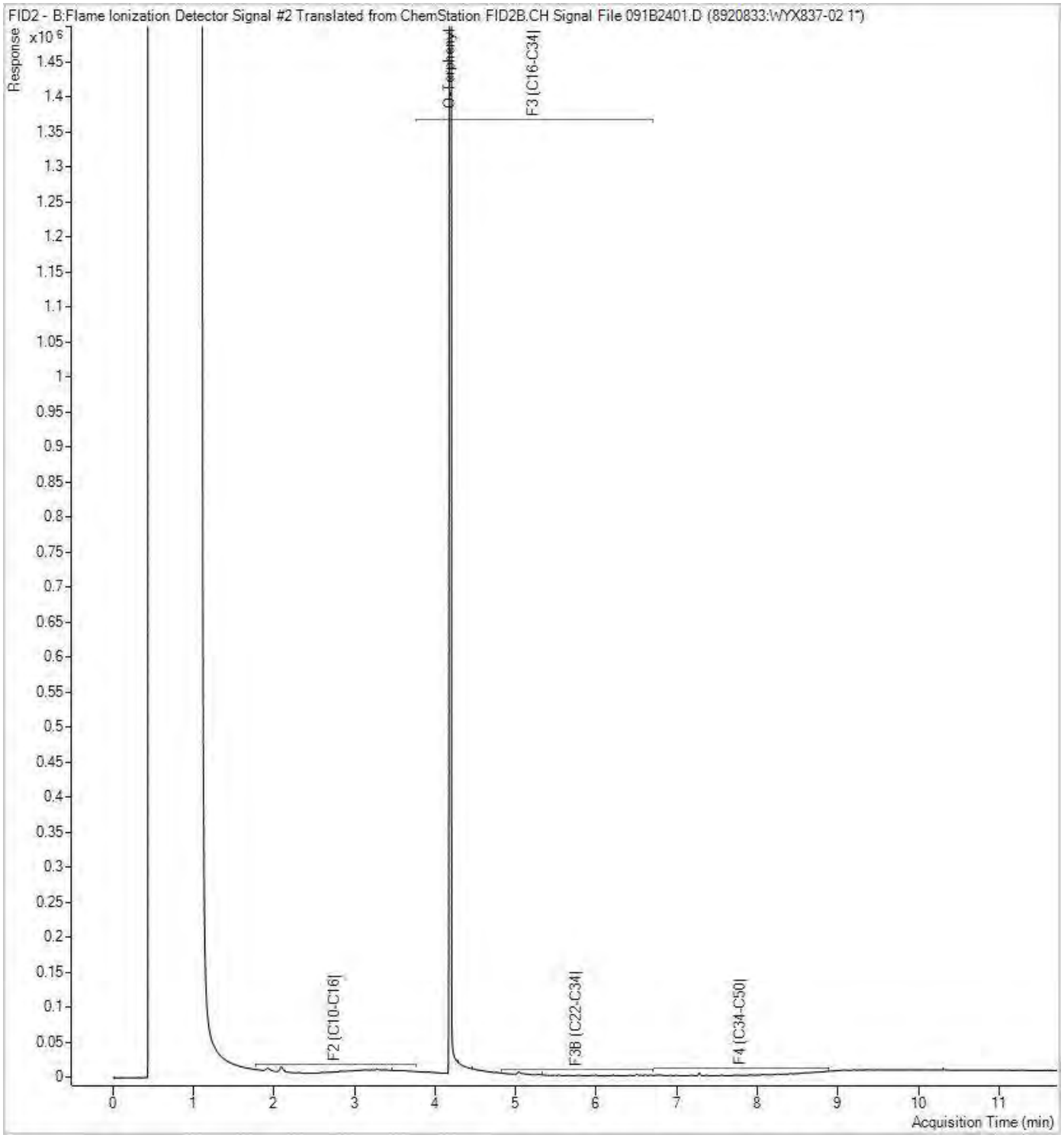


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX837

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-06-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

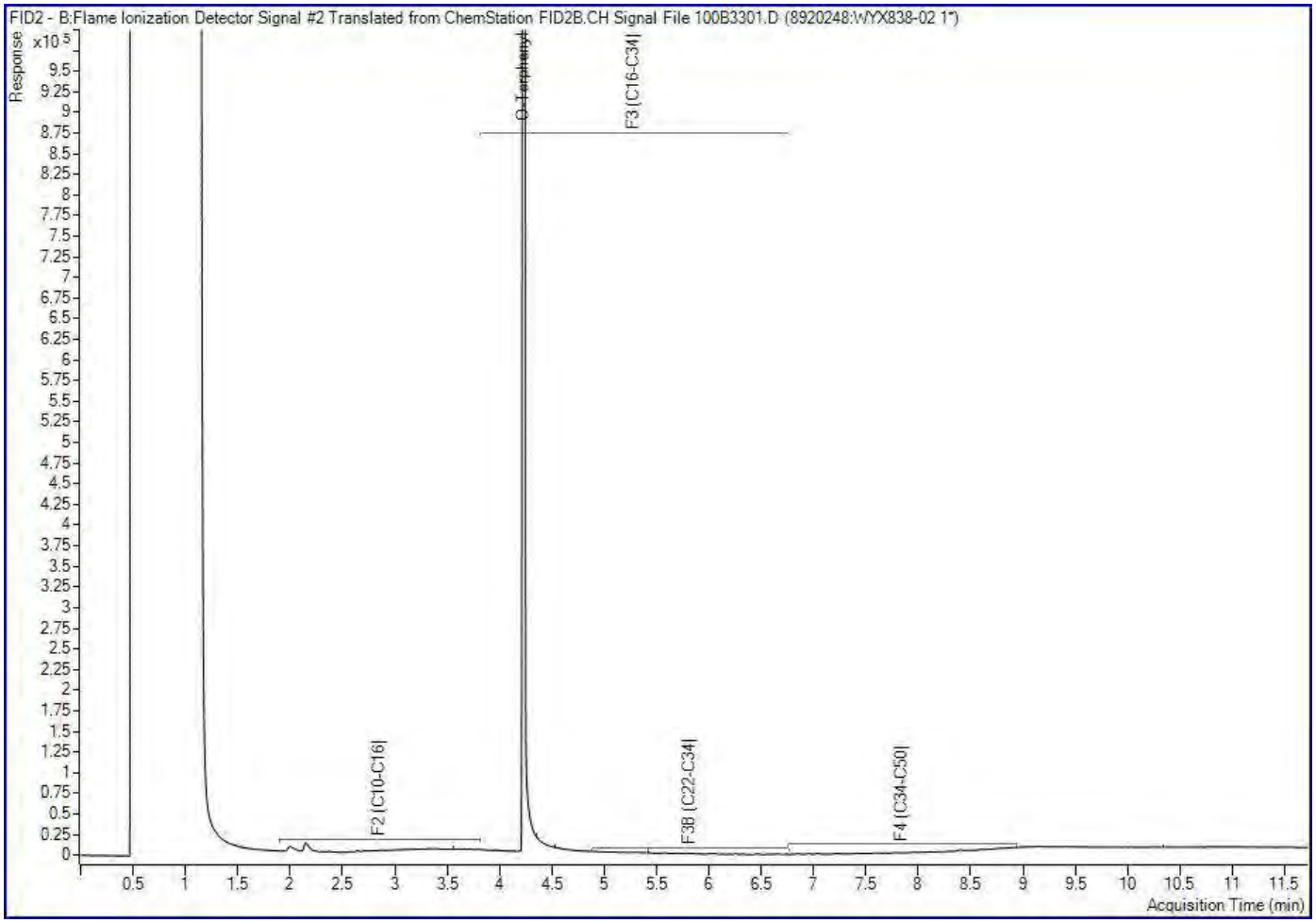


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX838

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-06-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

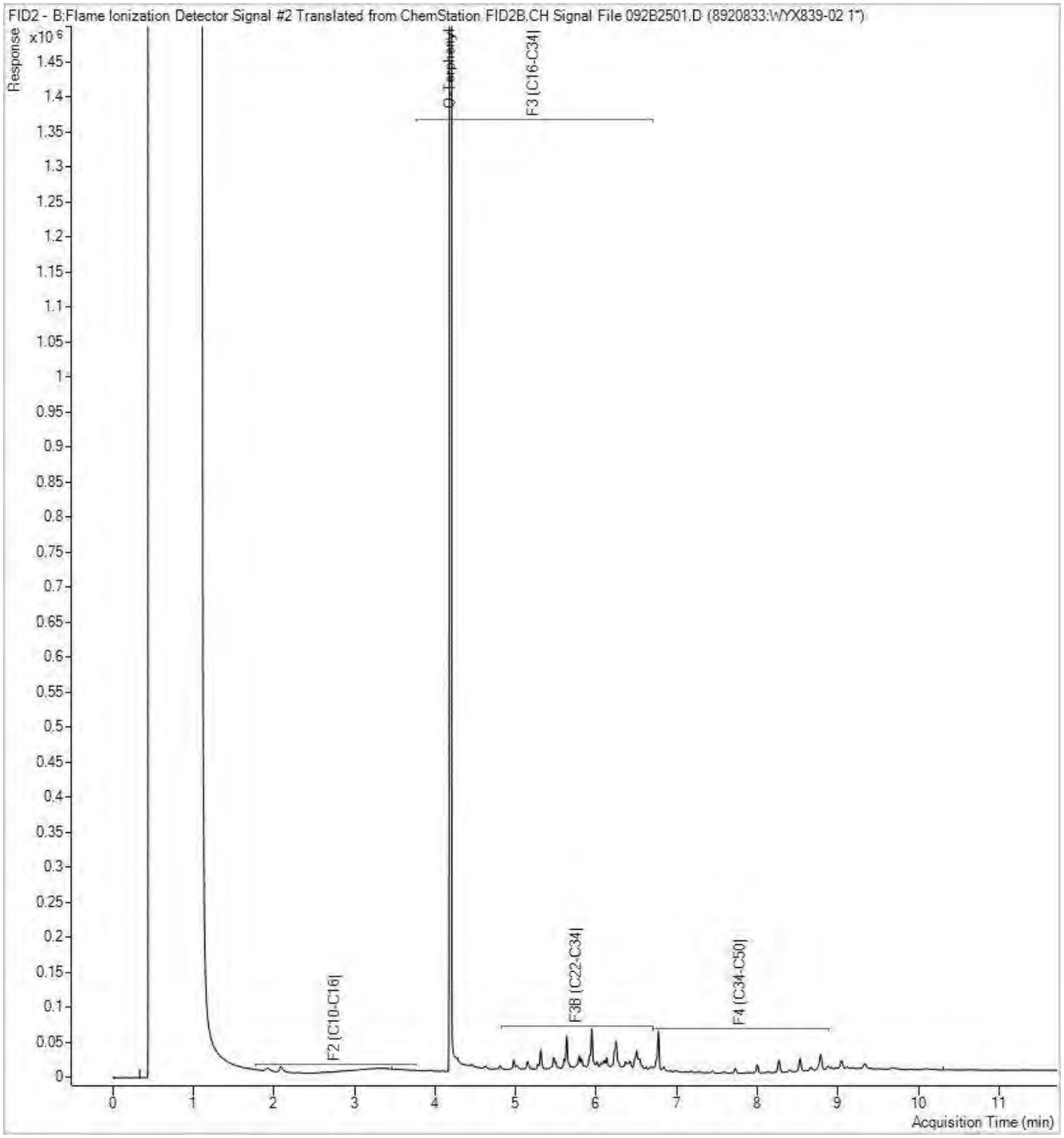


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX839

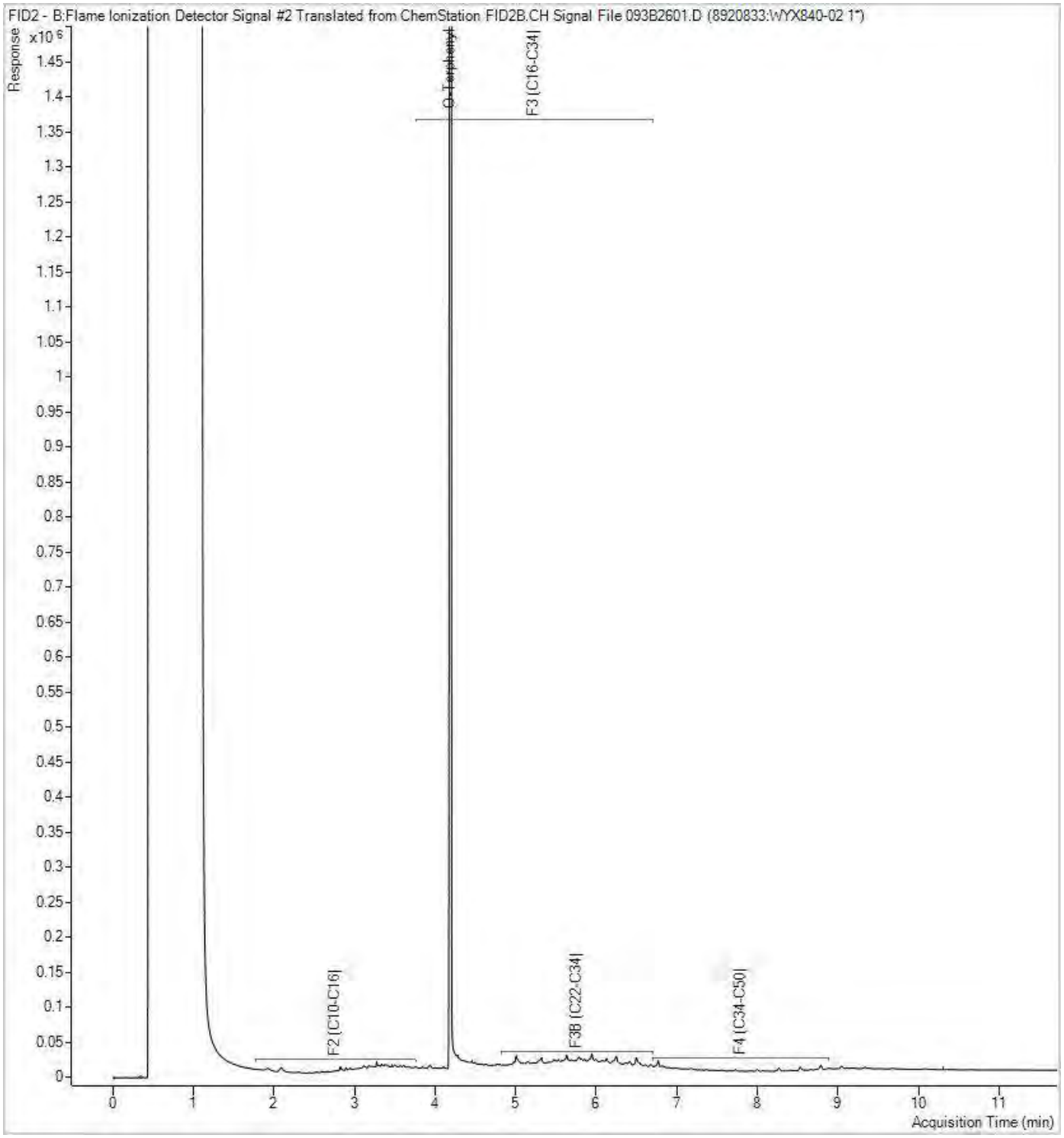
BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-S-20

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



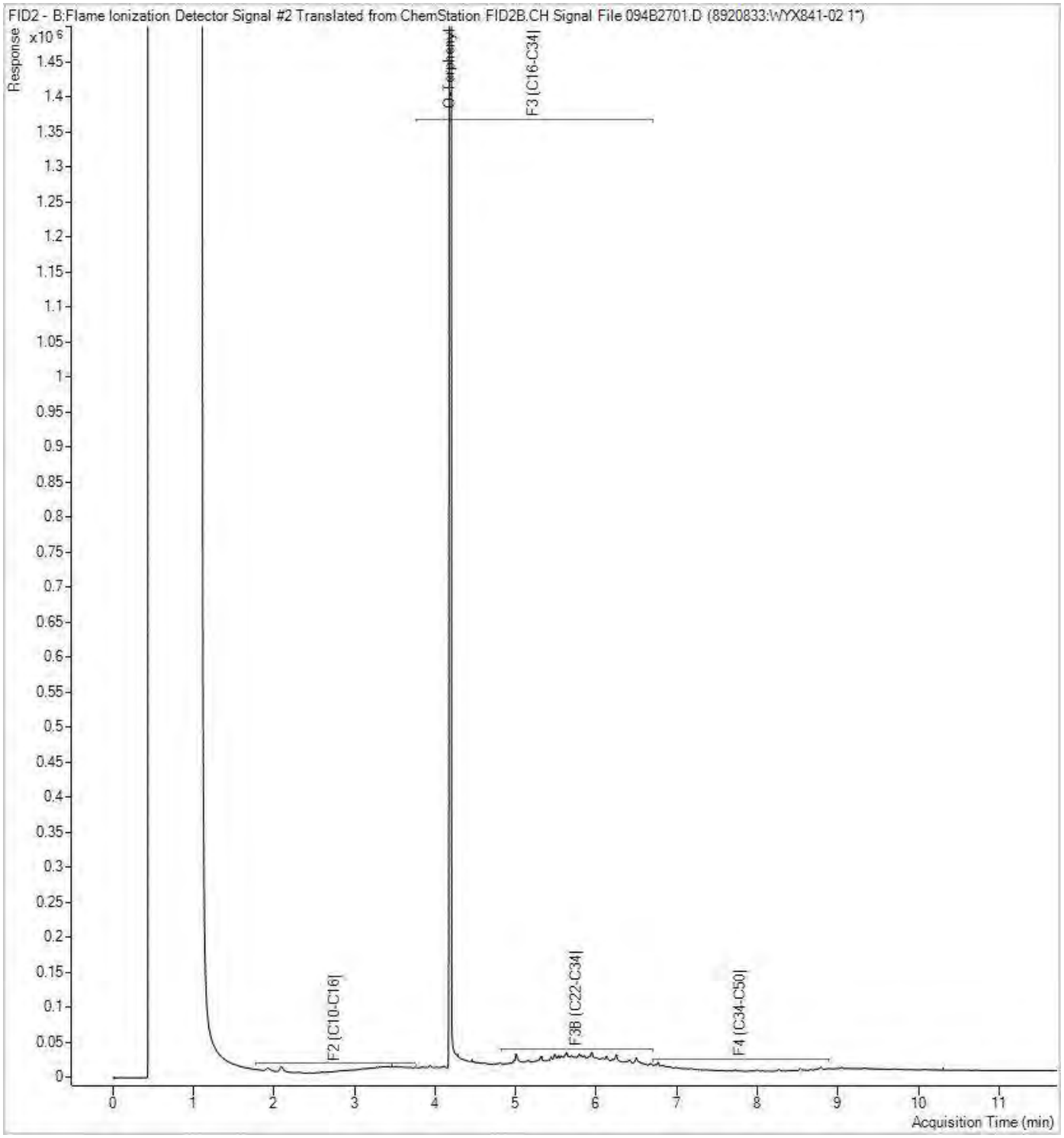
Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

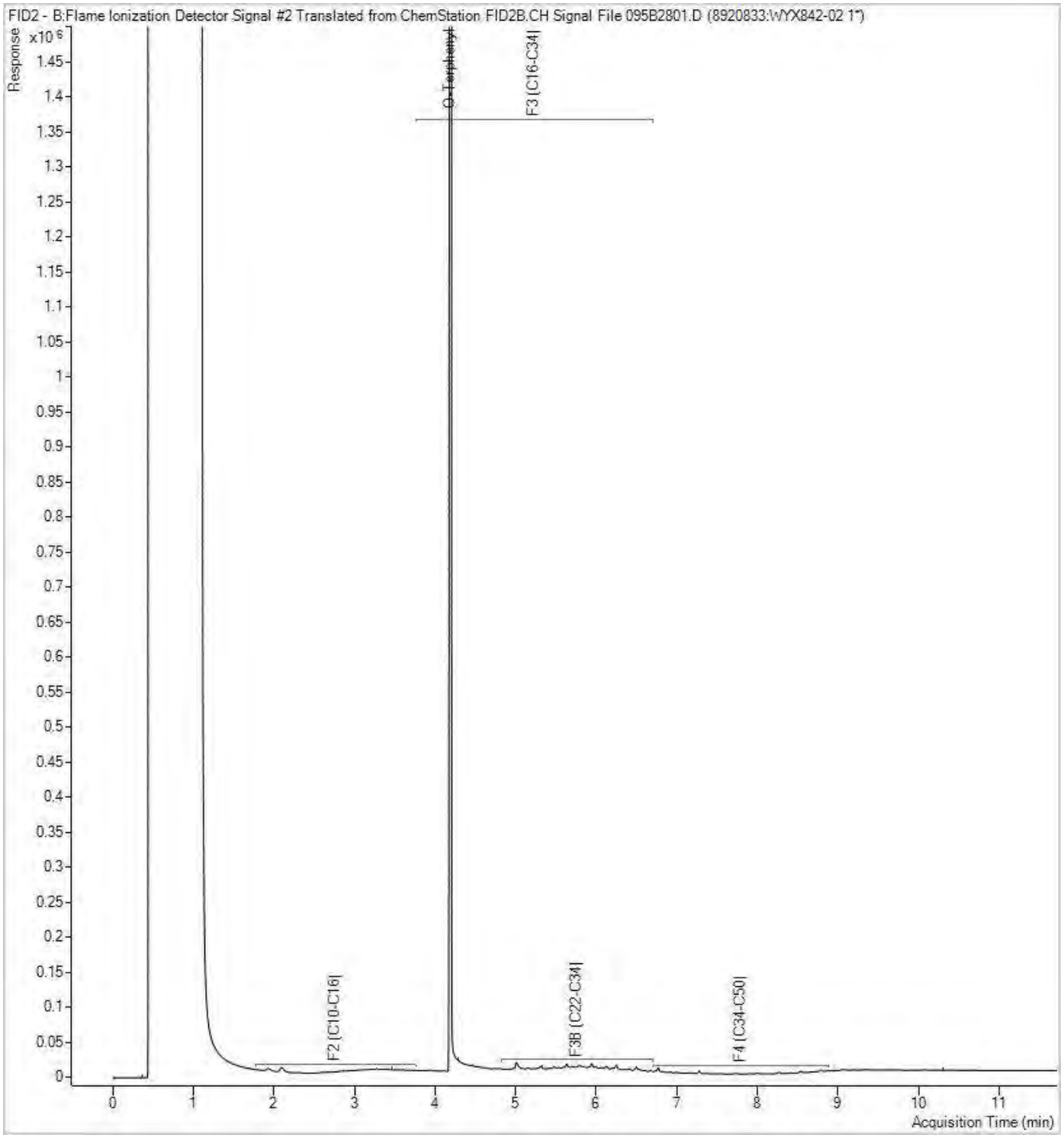


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX842

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW05-06-SOIL-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

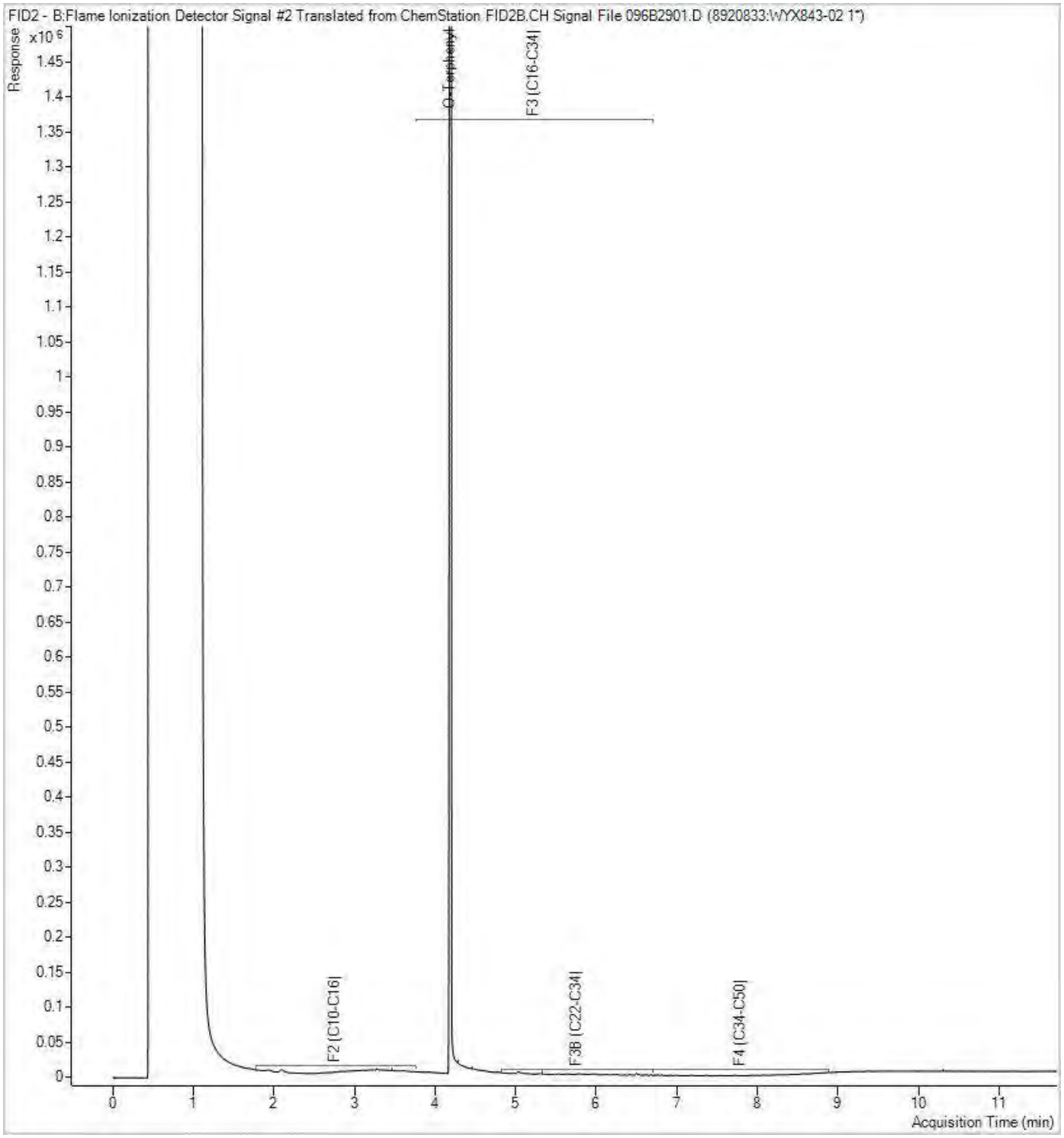


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX843

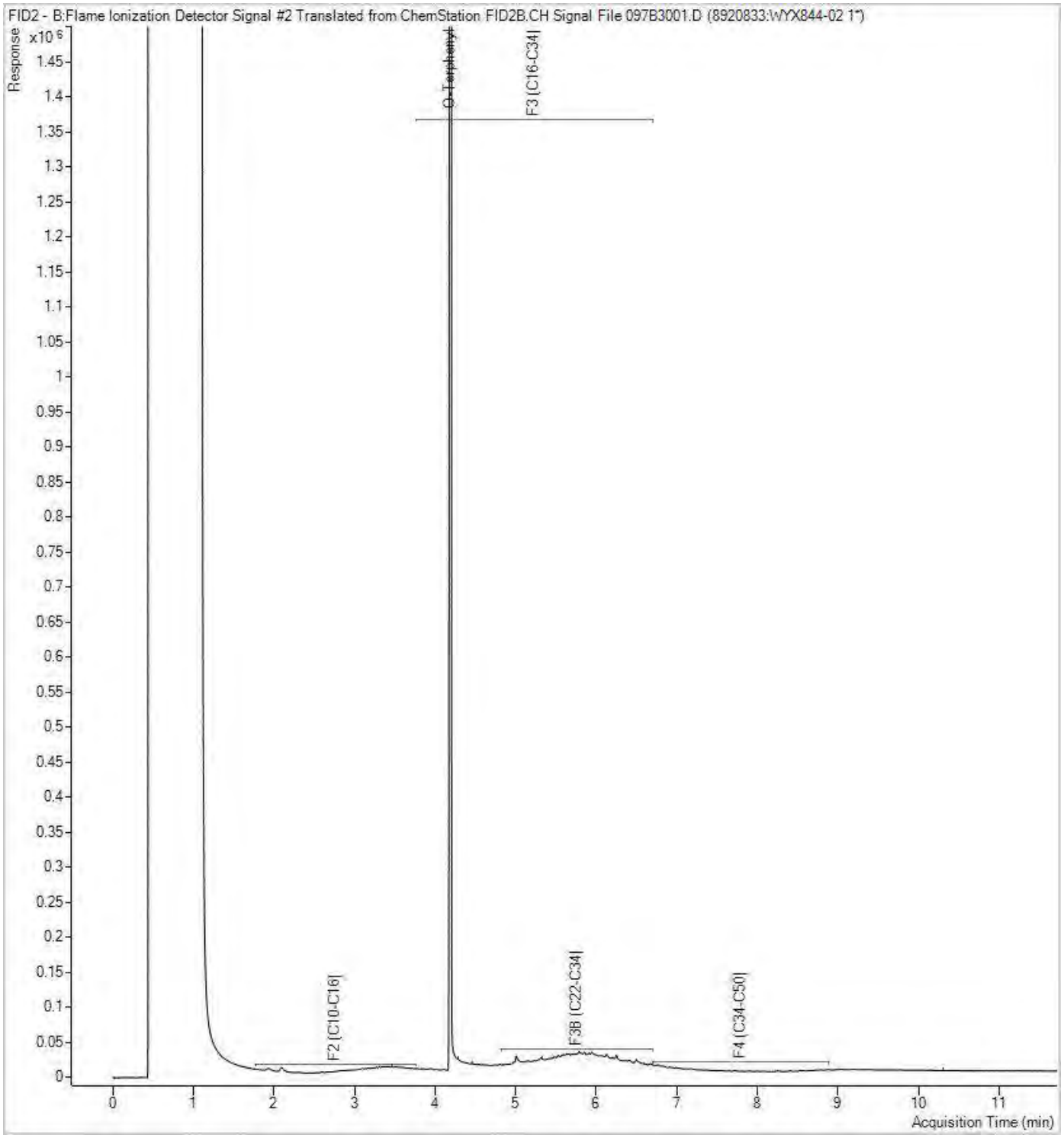
BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW05-06-SOIL-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



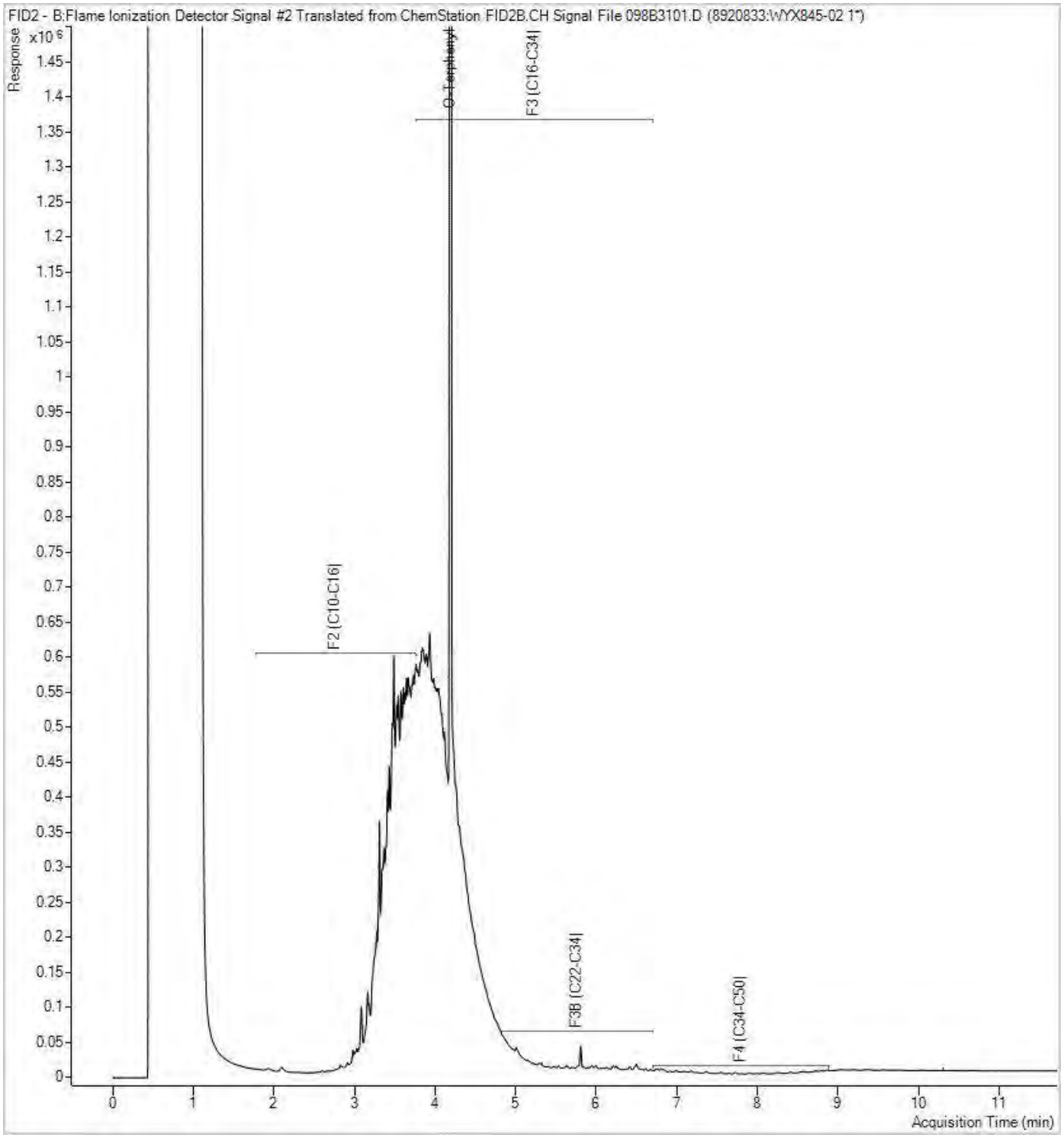
Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



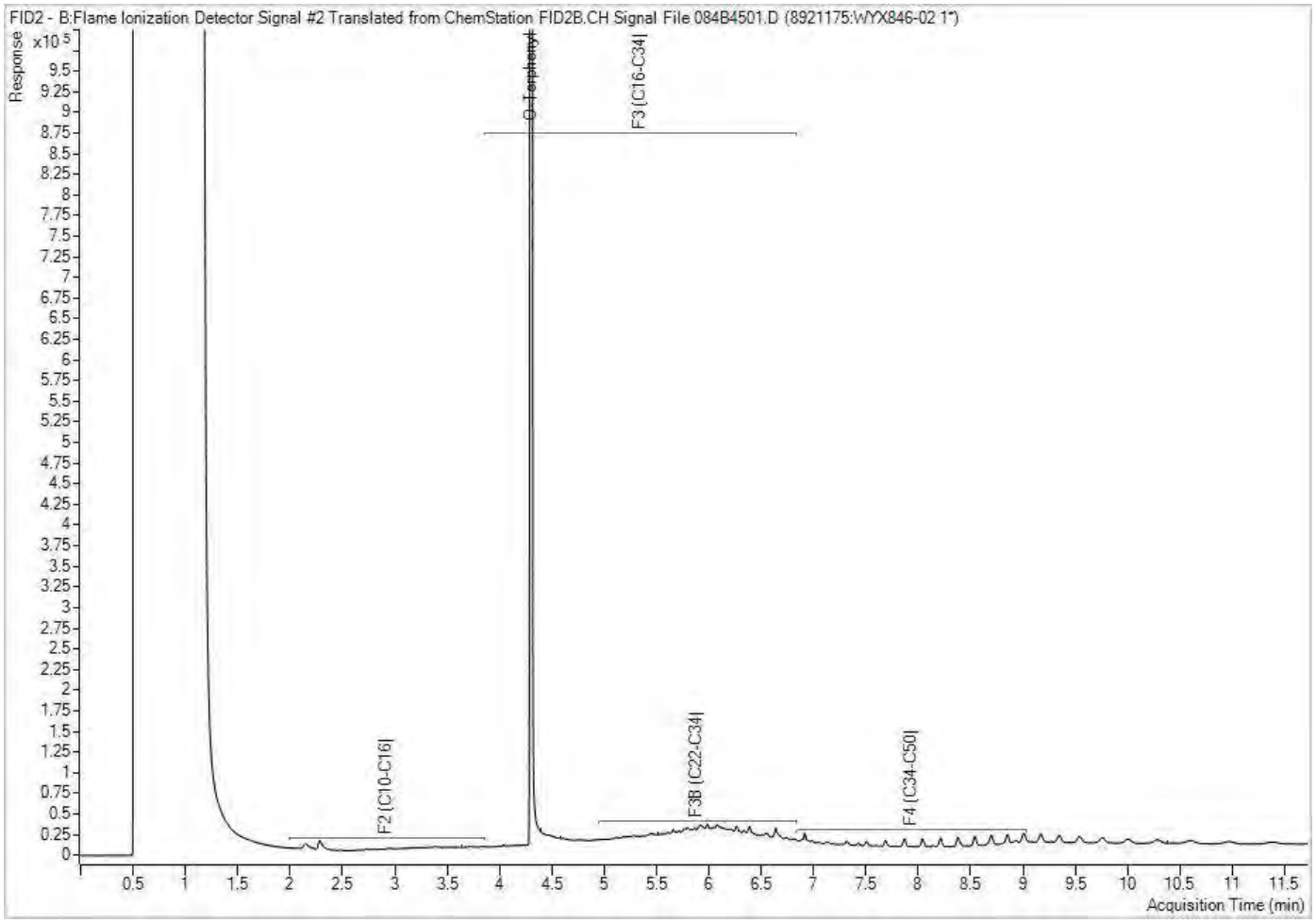
Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

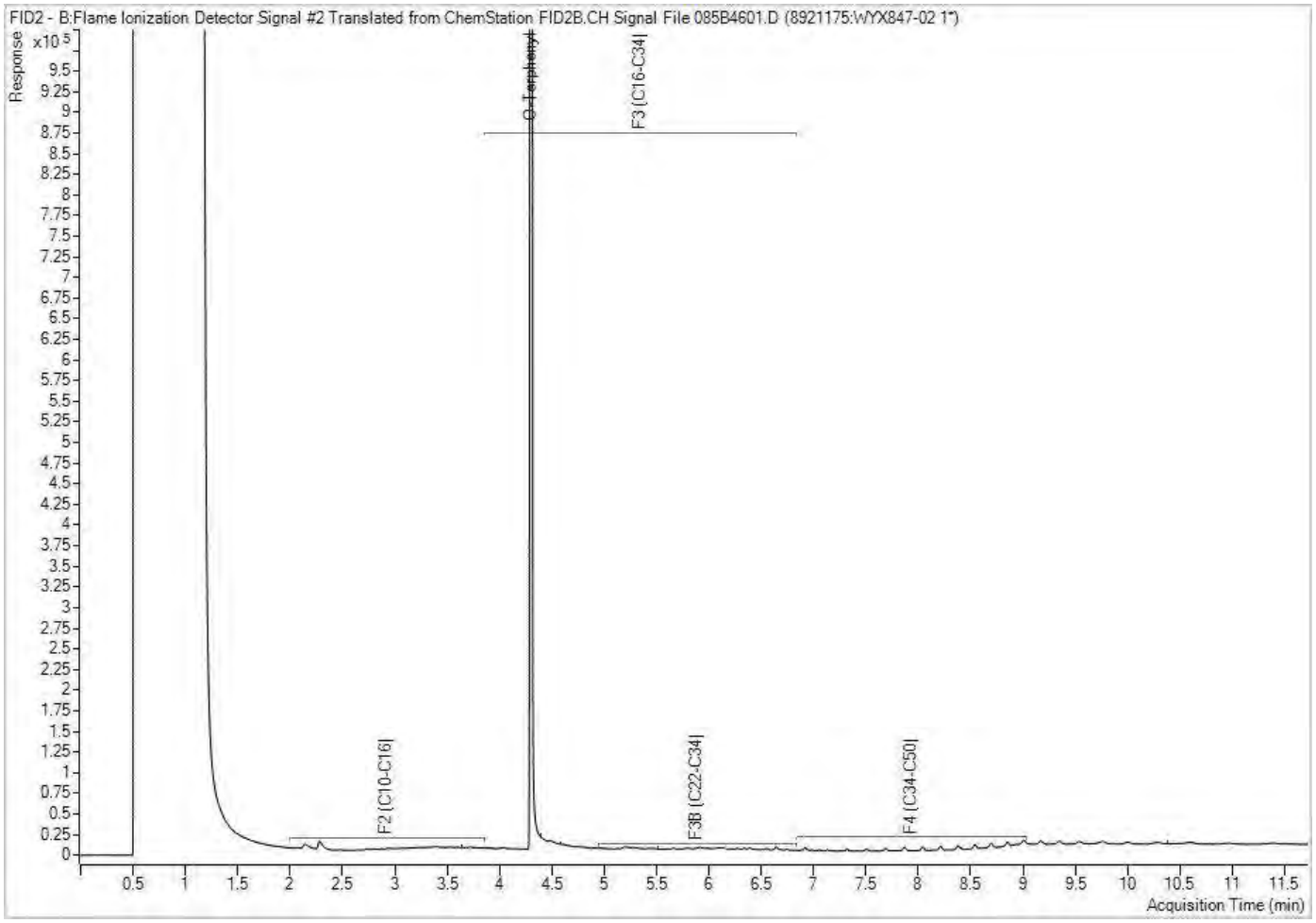


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX847

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW05-08-SOIL-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

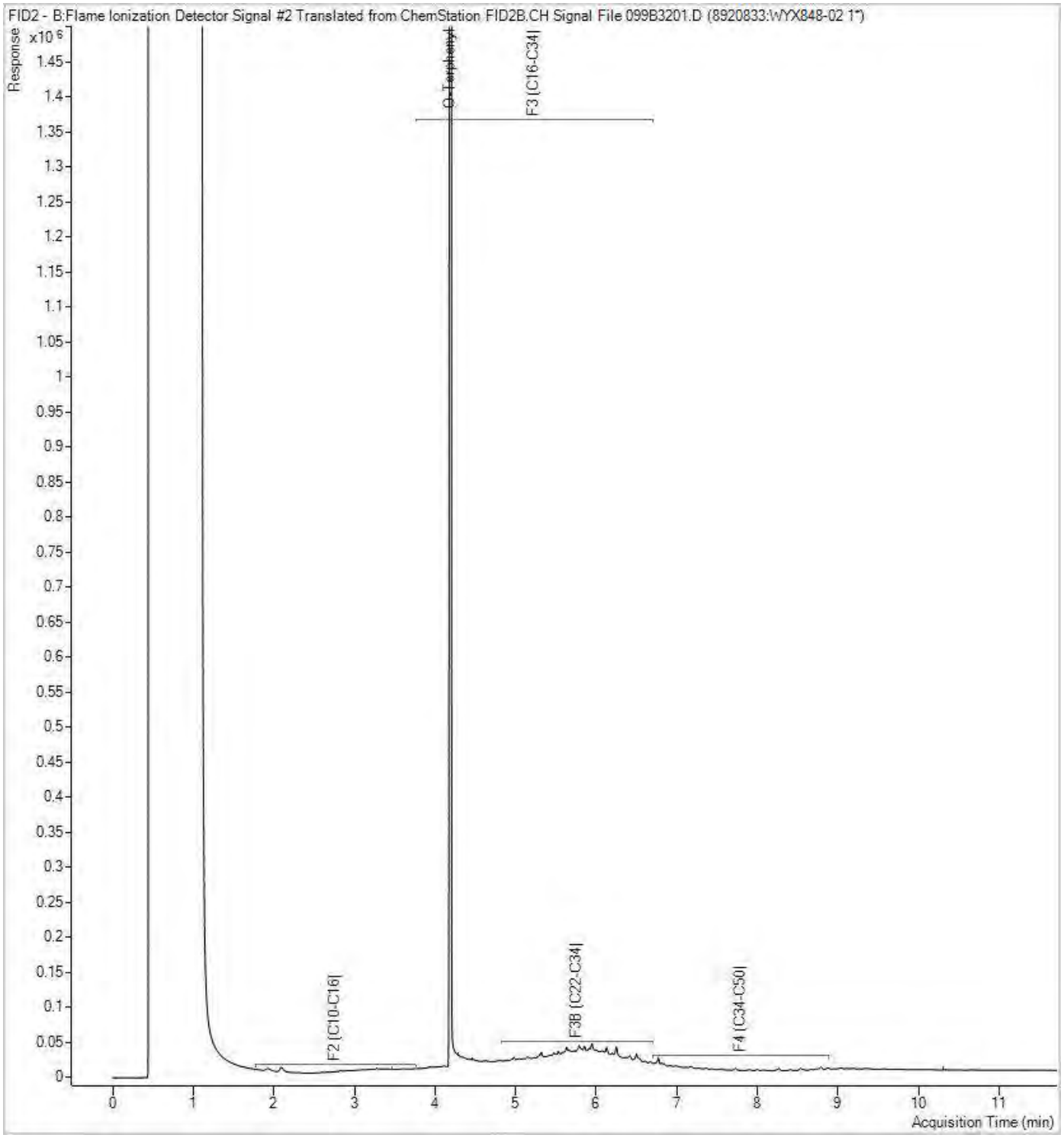


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX848

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-S-30

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

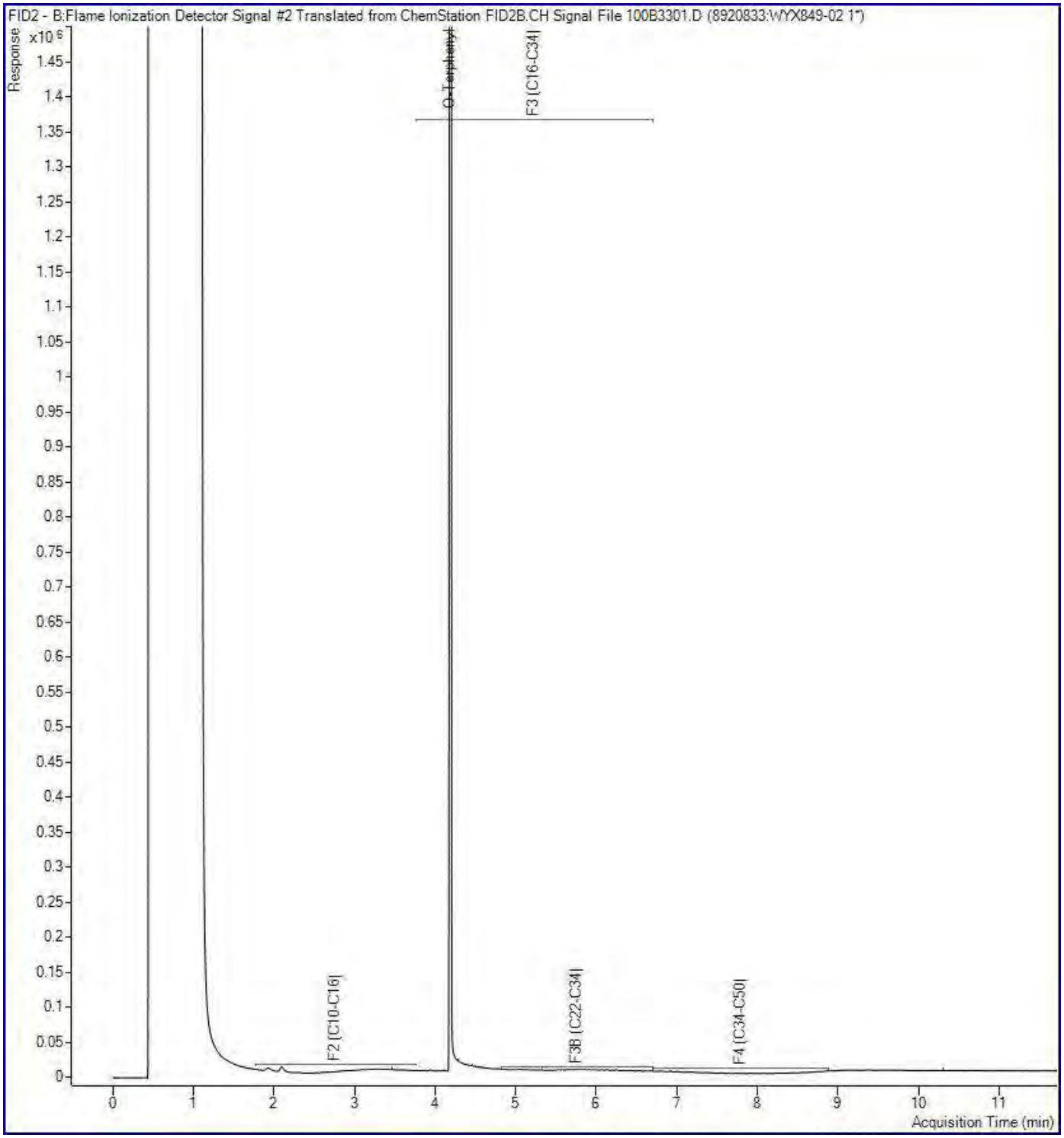


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX849

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-53-S

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

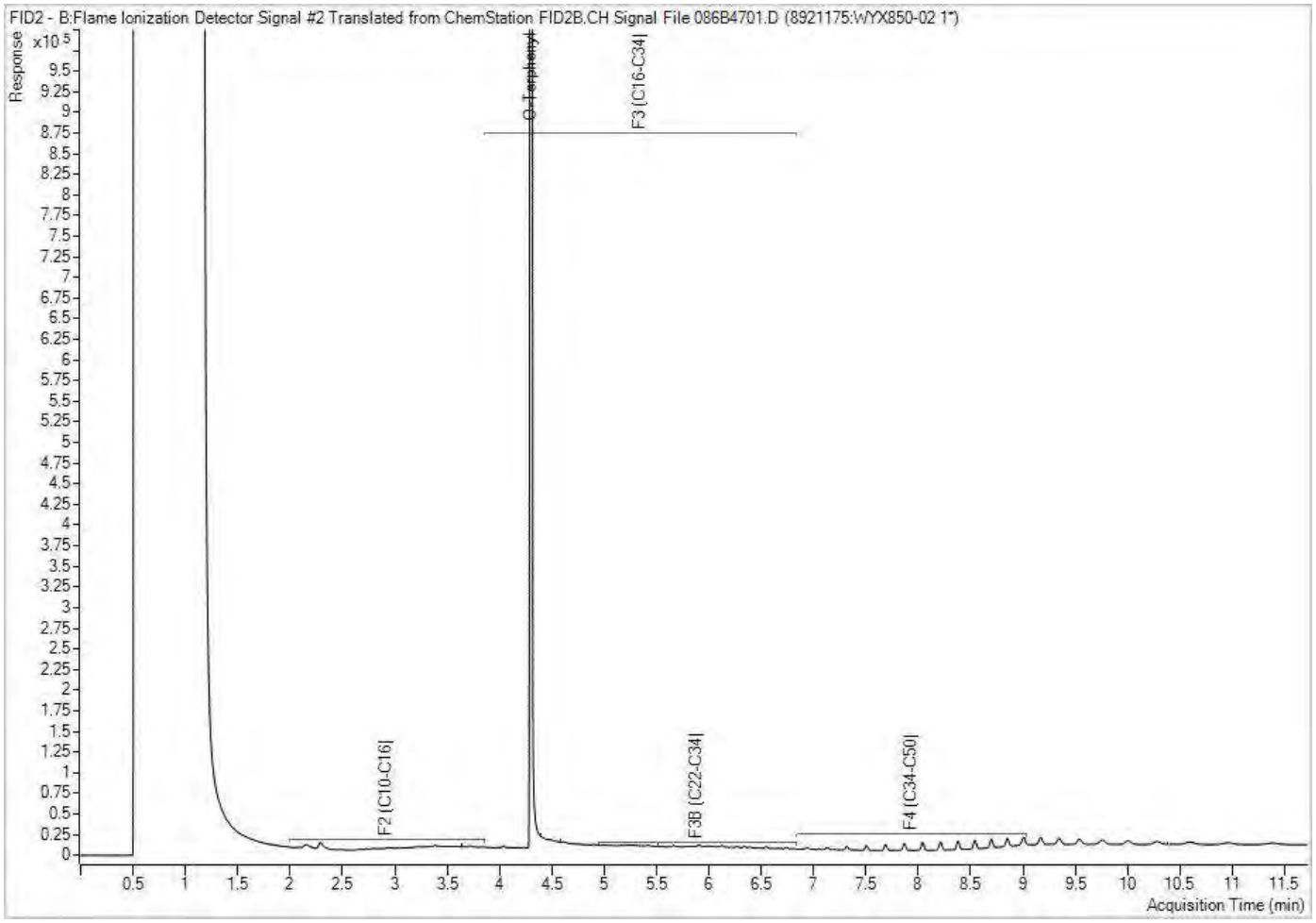


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX850

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: DM-53-D

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

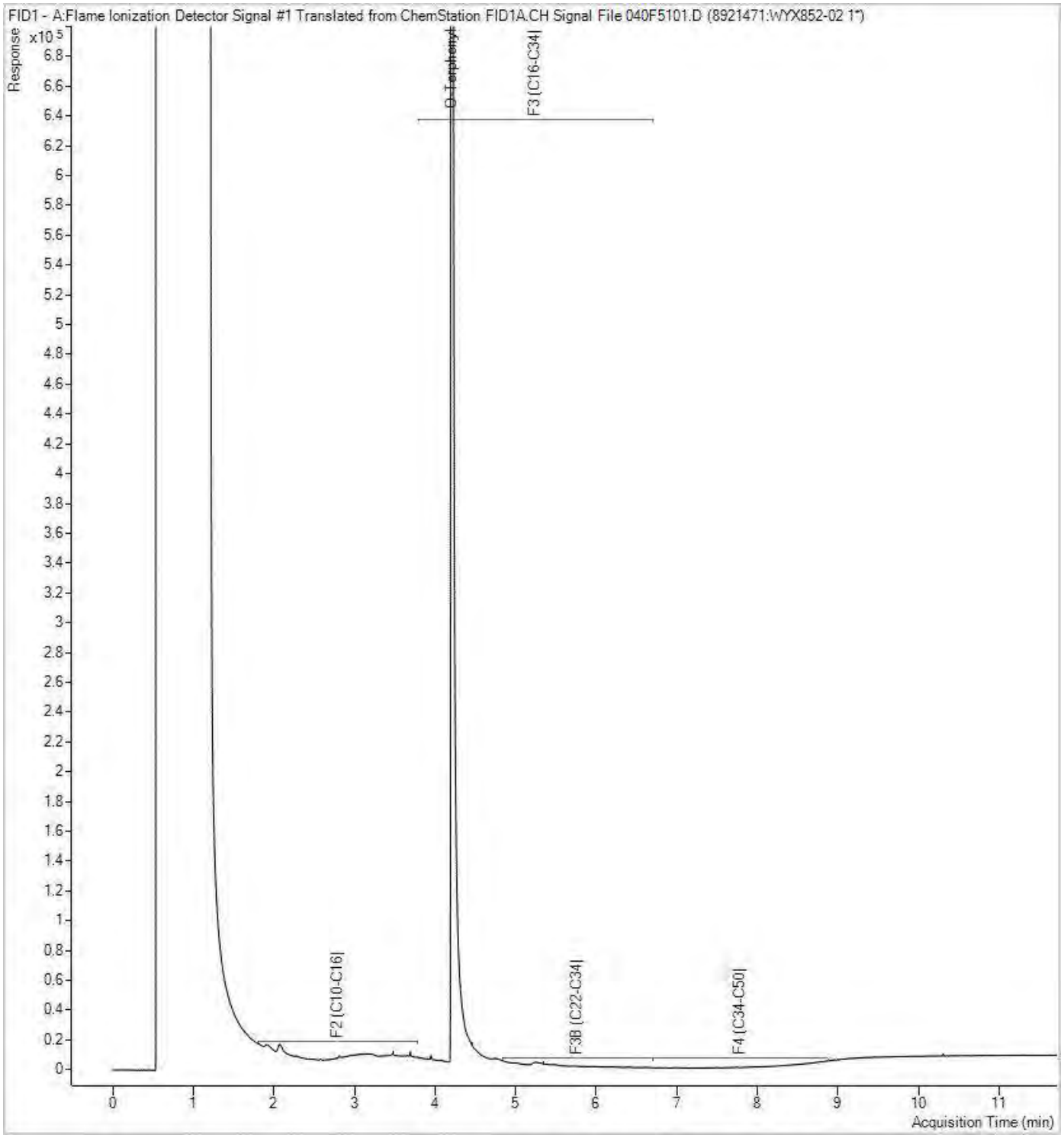


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX852

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW05-13

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

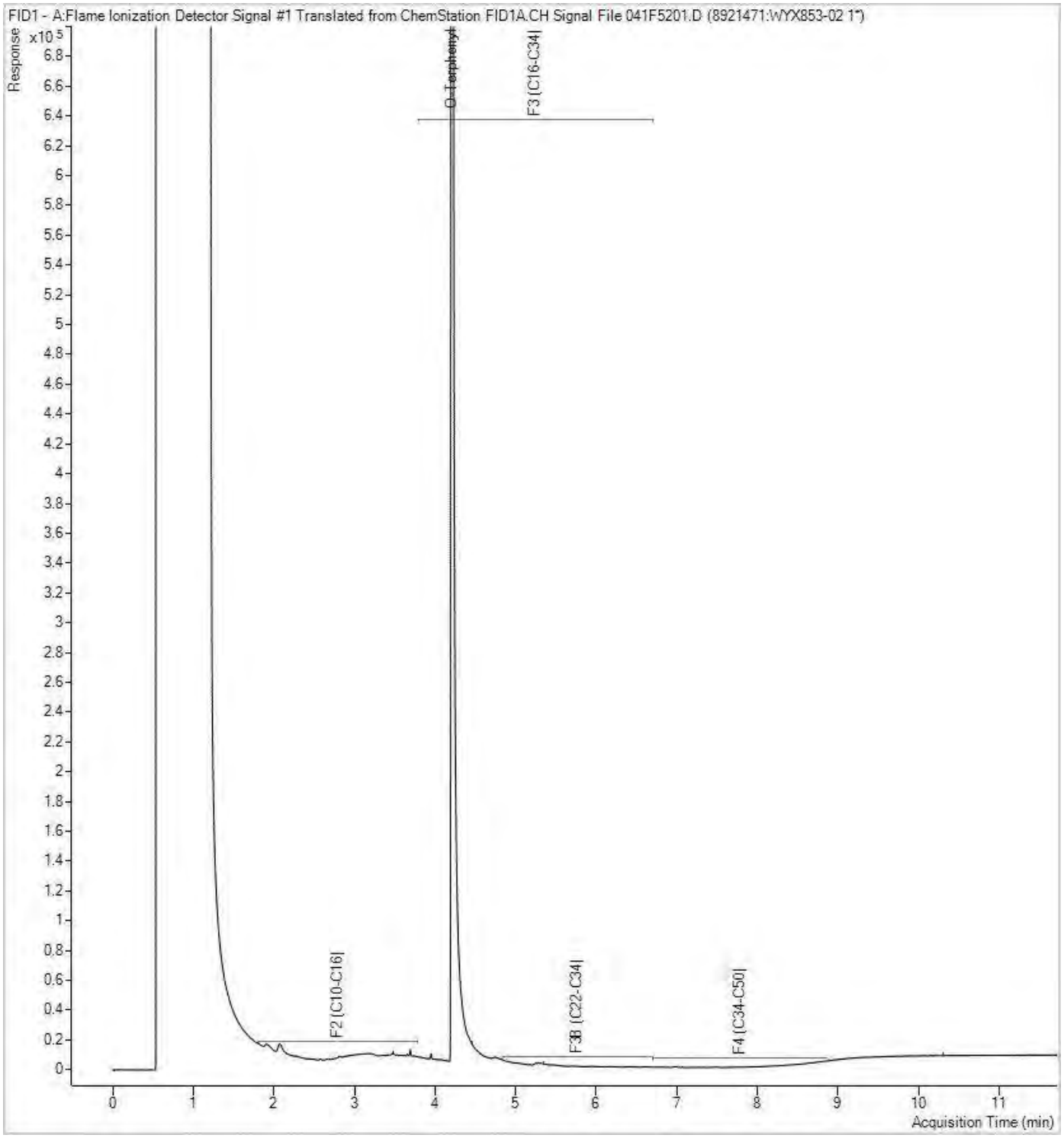


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX853

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW05-15

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

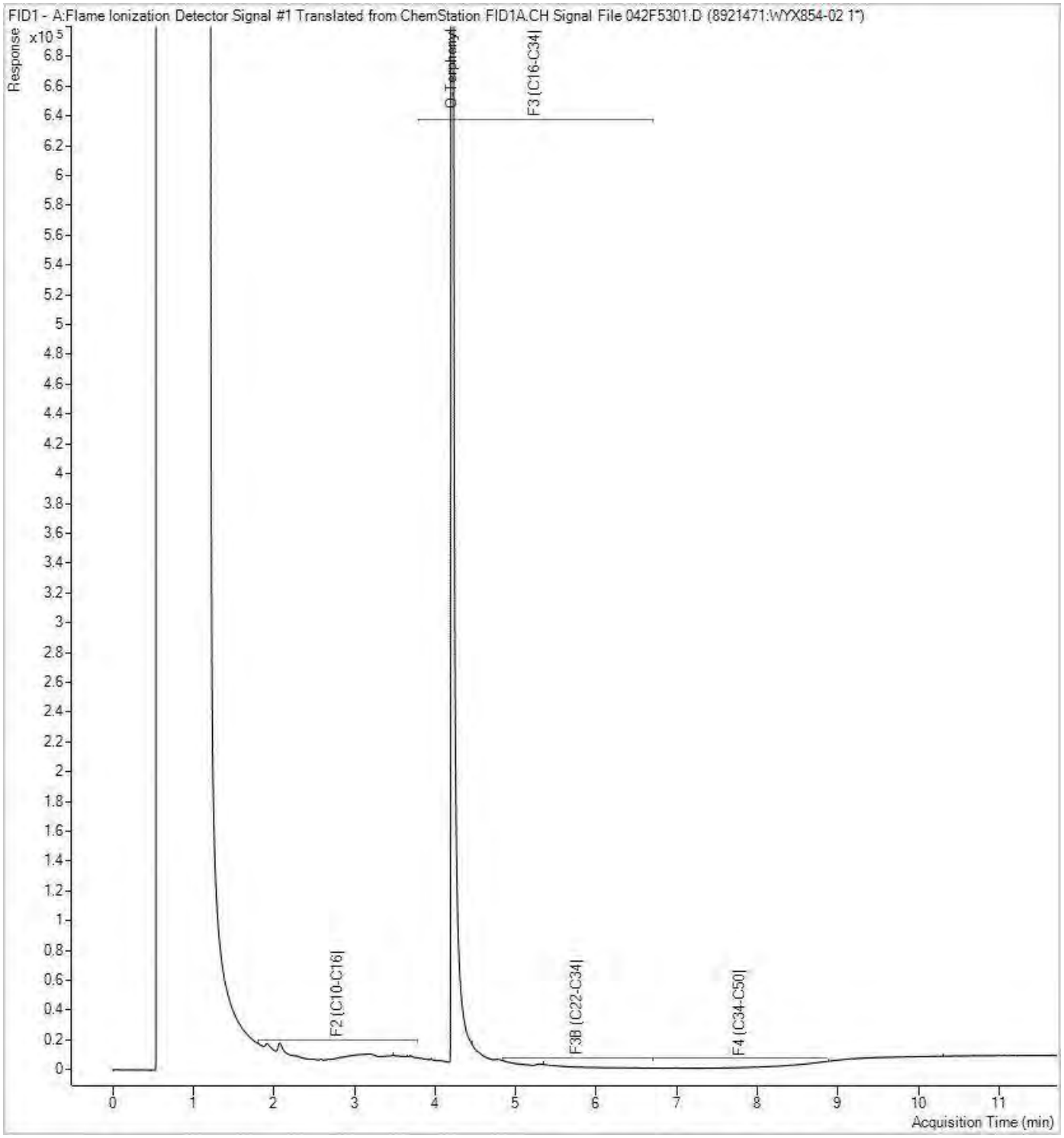


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX854

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW05-16

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

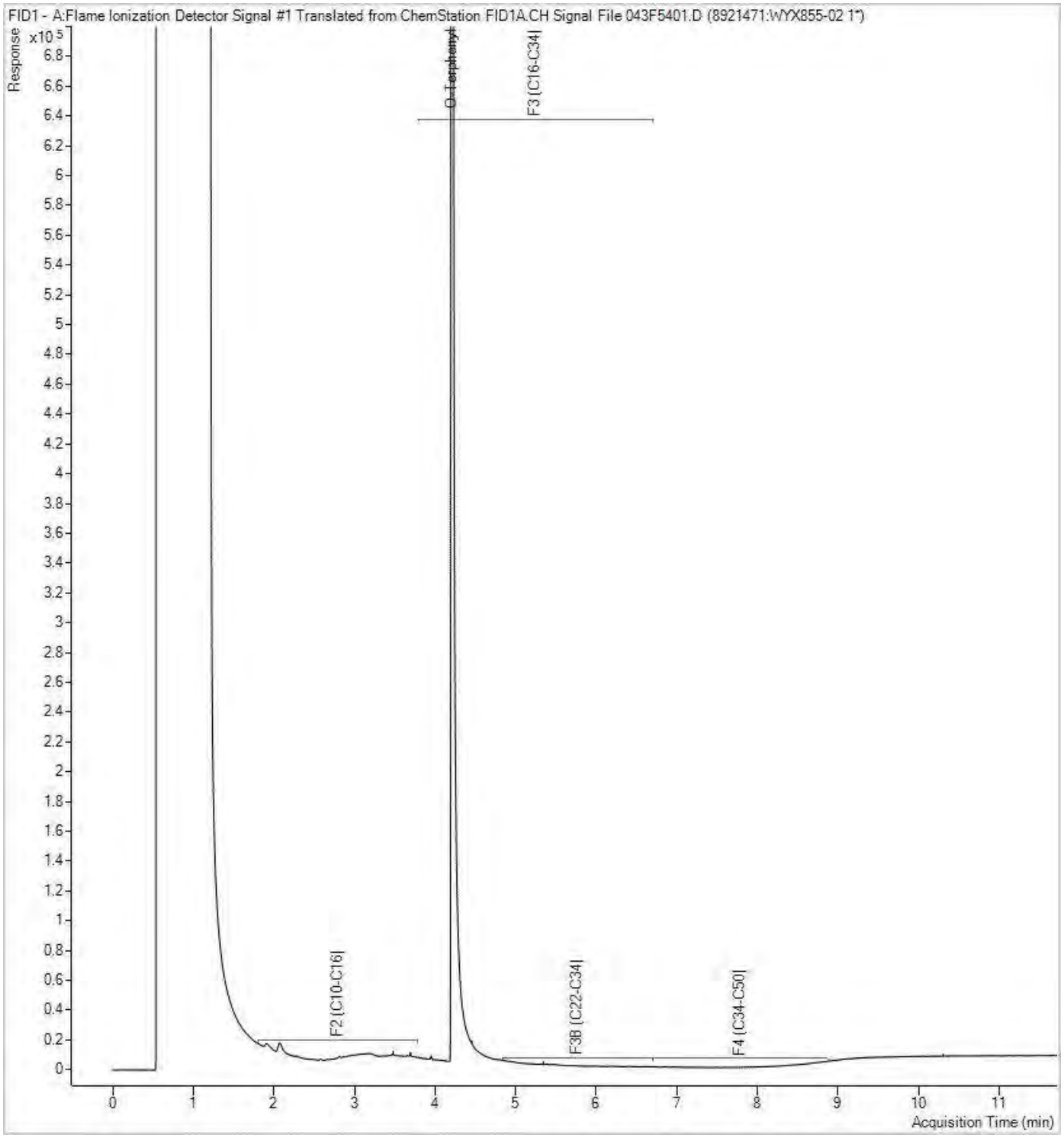


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX855

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW12-01

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

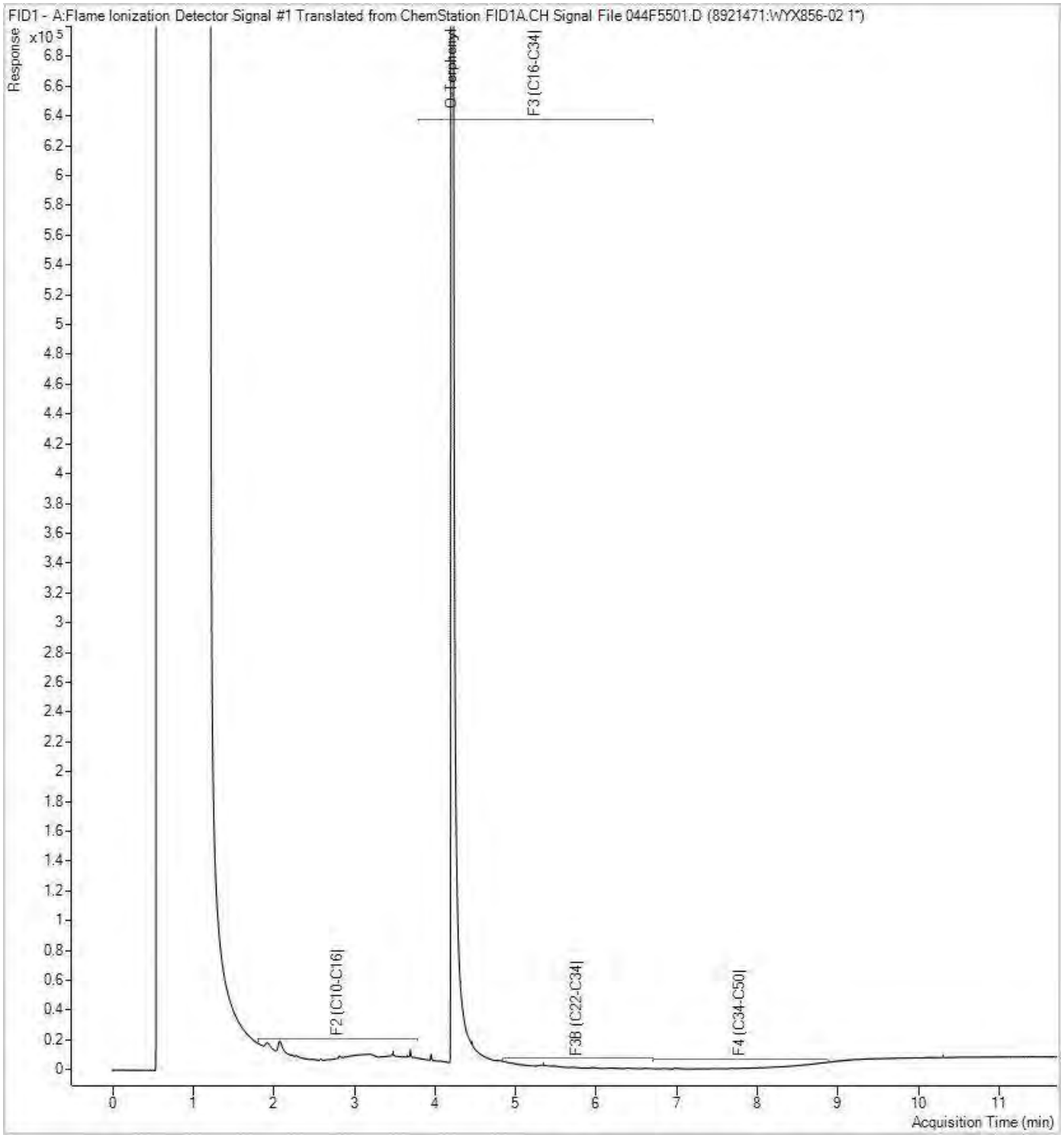


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX856

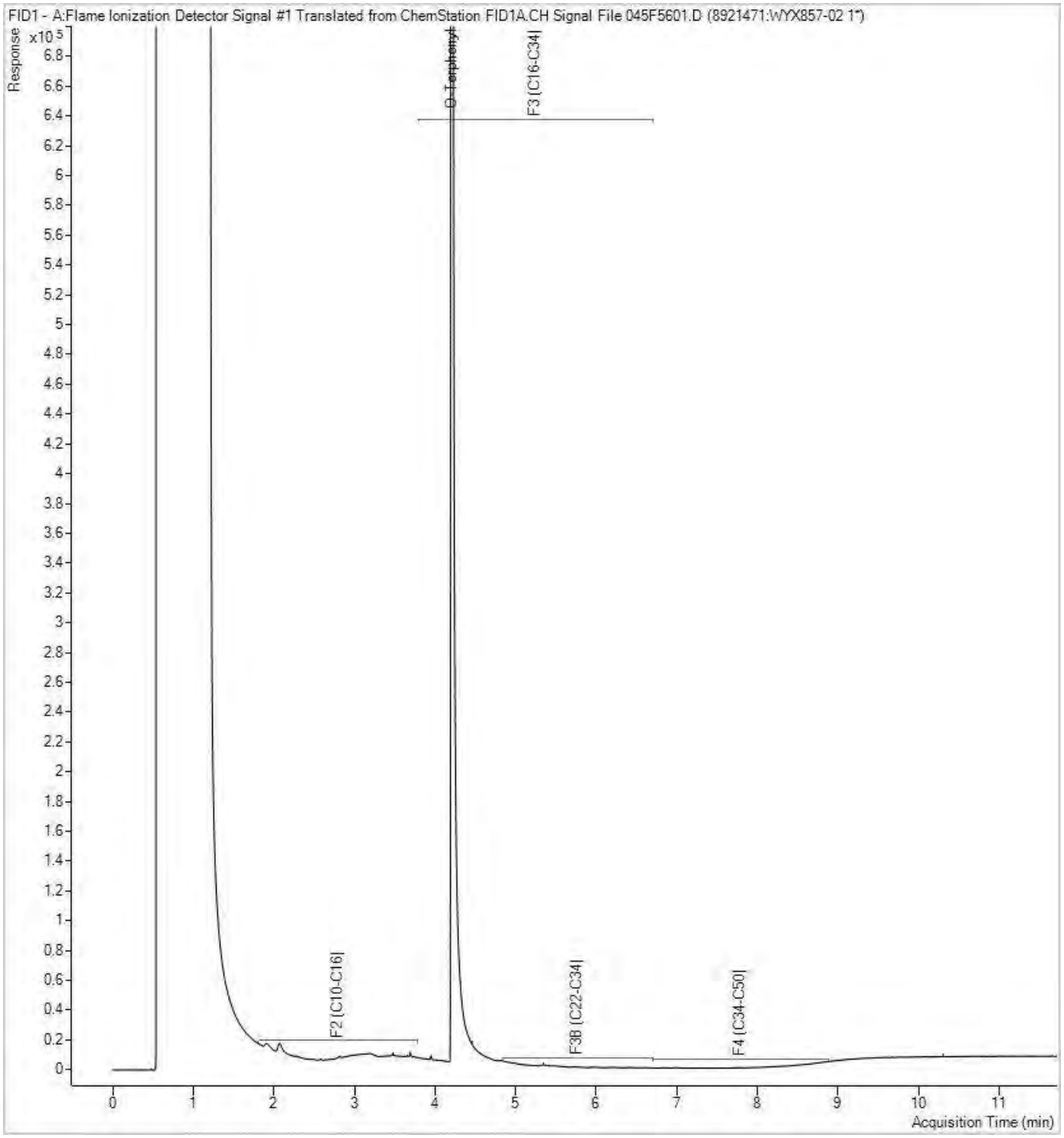
BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW09-26

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



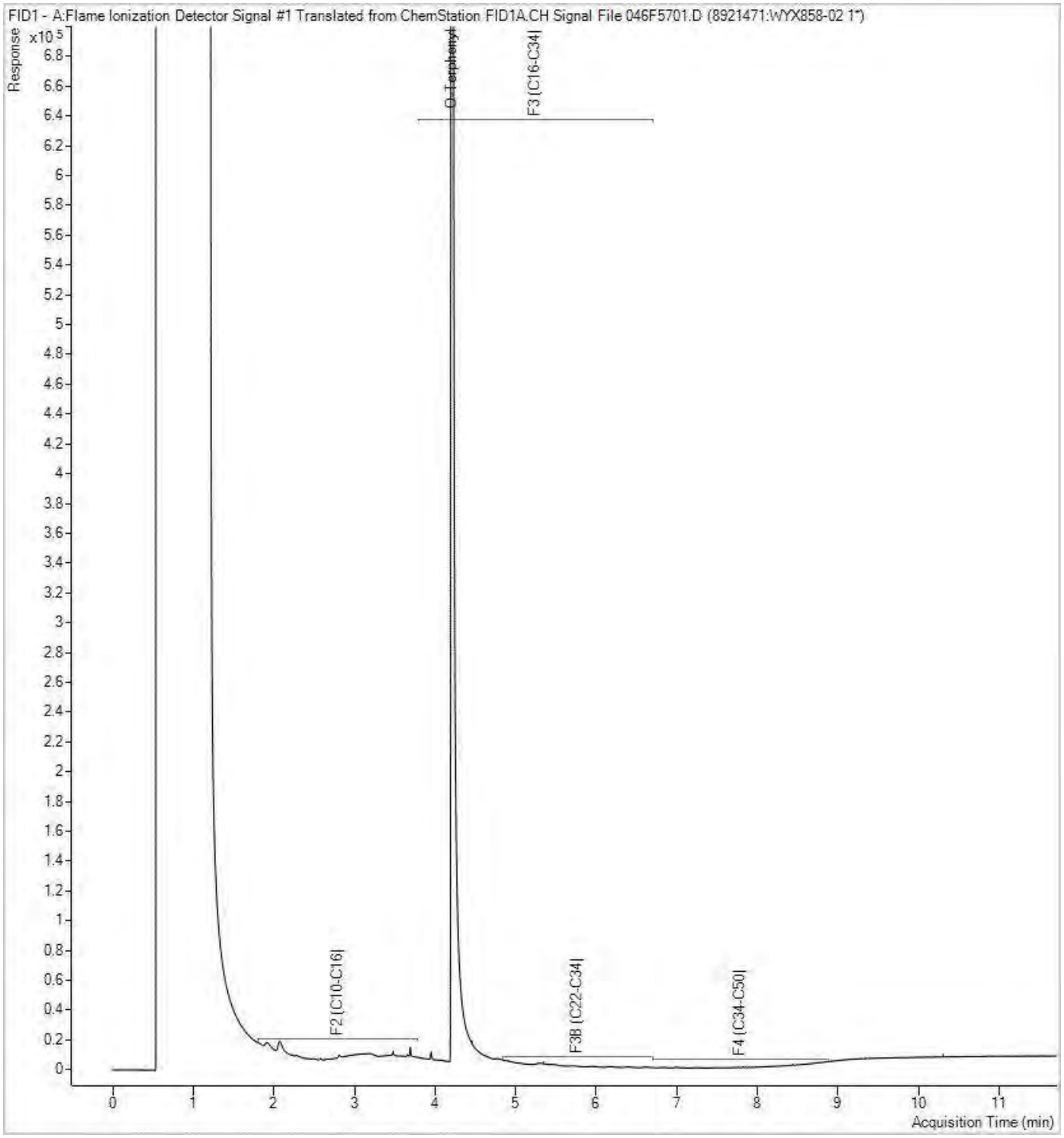
Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

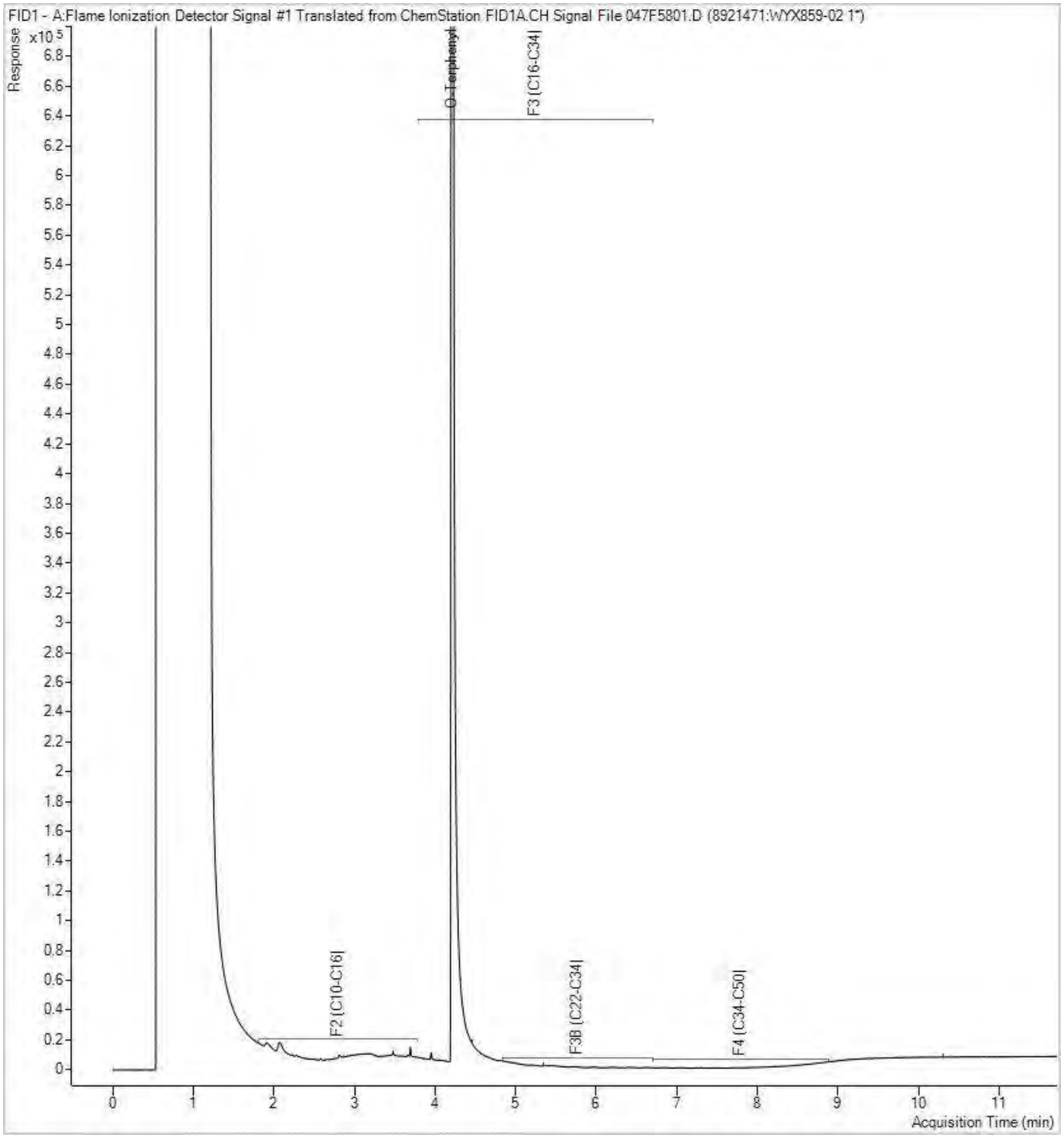


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX859

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: Trip Blank

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

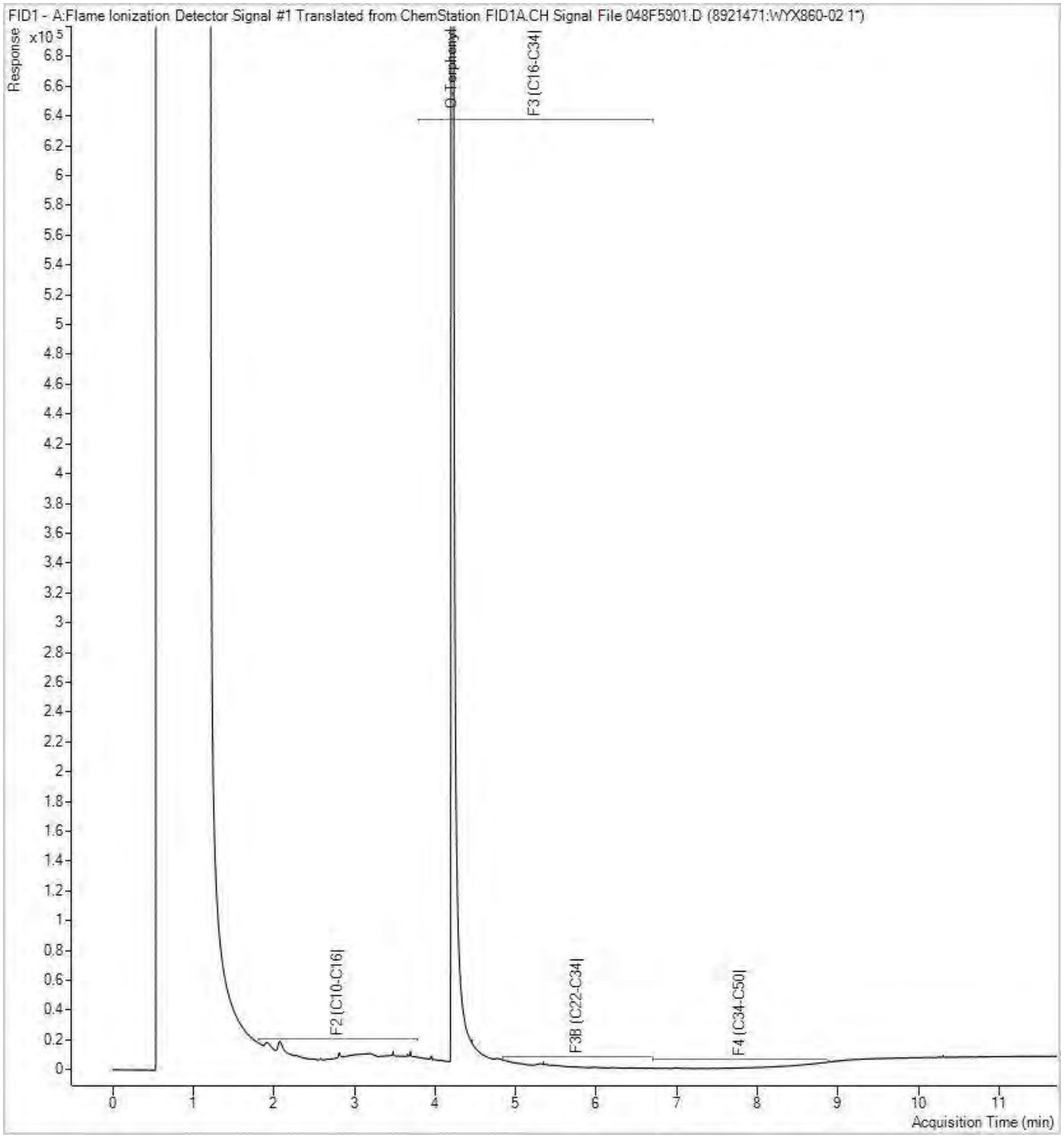


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX860

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-03

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

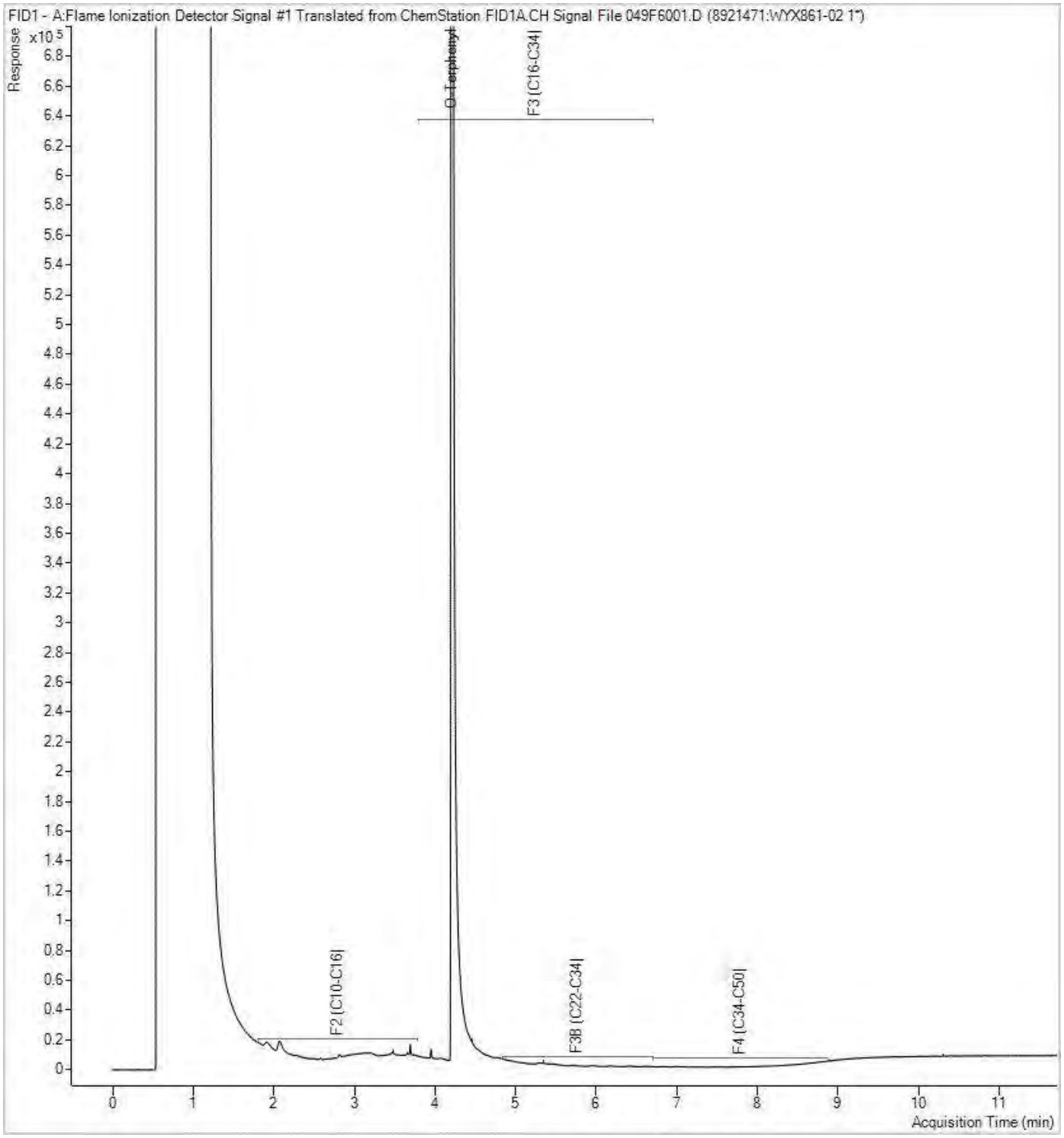


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C3S0622
Report Date: 2023/12/13
Bureau Veritas Sample: WYX861

BluMetric Environmental Inc
Client Project #: 230394
Project name: DYE-M
Client ID: MW23-13

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

APPENDIX C

Quality Assurance/Quality Control

Appendix C

Quality Assurance and Quality Control Discussion

1 Quality Assurance/Quality Control Program

The Quality Assurance and Quality Control (QA/QC) program is in place to monitor the quality of analytical results. The main objective of the program is to ensure sampling data and analytical results are complete, precise, representative and comparable. Outliers were identified and discussion of results and their impact to data integrity are presented in the following sections.

Soil and groundwater analysis was completed by Bureau Veritas Laboratories (BV labs), an accredited laboratory by the International Organization for Standardization/ International Electrotechnical Commission Standard 17025 (ISO/IEC 17025), for analysis of total metals, specifically Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Co), Lead (Pb), Nickel (Ni), and Zinc (Zn) as well as Total PCBs (soil and equipment blank only) and Petroleum Hydrocarbons F1 to F4.

2 Shipping and Transportation

Soil samples were stored in an NWS facility provided refrigerator during the DYE-M field program. Once shipped off-site to Iqaluit, soil and water samples were placed into a cooler with ice to keep the samples at the optimal temperature of 4 °C. Sarvaq Matrix expedited the shipping of samples from their Iqaluit base to Bureau Veritas in Ottawa on behalf of JV-60.

2.1 Sample Temperatures

Sample temperatures logged upon receipt at the analytical laboratory are shown in the Table C.1 below.

Table C. 1: Sample Temperatures Received at Bureau Veritas Laboratory

COC #	Date Shipped from Iqaluit	Date Received at Lab	Temperature
C3R2660	August 29, 2023	September 5, 2023	Package 1: 7.0 ◦C
			Package 2: **16.7** ◦C
			Package 3: 3.7 ◦C
			Package 4: 1.0 ◦C
			Package 5: -1.0 ◦C
			Package 6: -1.0 ◦C
			Package 7: 0.0 ◦C
			Package 8: 9.7 ◦C
			Package 9: 0.0 ◦C
C3R2454	September 2, 2023	September 5, 2023	Package 1: 0.7 ◦C
			Package 2: 2.3 ◦C
			Package 3: 2.3 ◦C
			Package 4: 1.7 ◦C
C3R2252	September 2, 2023	September 5, 2023	Package 1: 0.7 ◦C
			Package 2: 2.3 ◦C
			Package 3: 2.3 ◦C
			Package 4: 1.7 ◦C
C3S0622	September 8, 2023	September 12, 2023	Package 1: 7.0 ◦C
			Package 2: 4.7 ◦C
			Package 3: 5.7 ◦C
			Package 4: 5.7 ◦C

Note: Temperatures in **bold** are greater than 10◦C

The first sample shipment from DYE-M was received by Sarvaq-Matrix on August 29. One (1) cooler of the four (4) coolers in the shipment was not repackaged with cooling media prior to shipping to Ottawa and consequently was received above 10 °C at the laboratory. All samples from the remaining shipments were received by Bureau Veritas within the appropriate temperature range.

The increase in temperature can effect the preservative's ability to maintain the concentration at collection for the volatile organic compounds (BTEX) and PHC F1-F4, possibly reducing the concentration by the time of analysis due to degradation or other chemical activity. The increased temperature would not effect the analytical concentration at the time of analysis for metal samples. Given that the samples left the site at the appropriate temperature, the period of time where the sample temperature exceeded 10 °C is expected to be less than 48 hours which has been found to have no appreciable effects on sample integrity (BV Technical Bulletin, September 2021), The temperature exceedance is not considered to impact the data integrity in a significant way.

2.2 Sample Hold Times

Every effort was made to ensure that analytical hold times were not exceeded. This includes the addition of preservatives at the time of collection, where applicable, and in accordance with relevant guidance, to increase hold times.

Hold times for each type of soil analysis for this program are summarized in Table C.2 below.

Table C. 2: Hold Time Summary by Analysis

Analytical Parameter	Preservative	Hold Times
Soil Analysis		
PHC F1	Field preserved, methanol	14 days
PHC F2-4	None	14 days
Total PCBs	None	365 days
Metals	None	180 days
Groundwater Analysis		
PHC F1	Field preserved, Sodium Bisulfate	14 days
PHC F2-F4	Field preserved, Sodium Bisulfate	14 days
Total Metals	None	60 days

Hold times were exceeded for PHC F1-F4 in the following samples:

- Groundwater trip blank (lab provided) dated August 23rd (start of field program) and received at lab September 12
- DM-53-S; soil sample taken on August 30 and received at lab September 12
- DM-53-D; soil sample taken on August 30 and received at lab September 12
- MW23-S-30, soil sample taken on September 1 and received at lab September 12

The hold time exceedance for the trip blank could have resulted in an underestimate of volatiles in water in the sample. No detections of F1-F4 PHCs were found in the groundwater samples at DYE-M which suggests that the impact of the exceeded hold time on data integrity of the groundwater samples is low.

Soil samples DM-53-S, DM-53-D and MW23-S-30 exceeded hold times which may have resulted in a slight under representation of volatile components of the F1-F4 PHC concentrations. MW23-S-30 was a duplicate of soil sample MW05-08. The RPD for this duplicate pair was acceptable and the general agreement between the results of the regular and duplicate sample suggest that the impacts of the exceeded hold time were

minimal for the PHC concentrations in soil. The overall impact of these exceeded hold times on data integrity is considered to be low.

2.3 Sample Containers

All soil and groundwater samples were collected in containers provided by BV Labs. Empty containers were shipped to Iqaluit prior to the field program for mobilization to the site with other required equipment for the field program. Expiry dates for preservation methods were checked on the containers prior to the sampling program starting. Samples were packaged to prevent breakage during transit from the site to the laboratory.

The analytical laboratory indicated that methanol vials were found to have a weight of soil greater than the recommended 5g for the following samples: DM-11-S, DM-11-D, DM-12-D, DM-13-S, DM-13-D, DM-14-S, DM-14-D, DM-15-S, DM-15-D, DM-16-S, DM-16-D, DM-17-D, MW23-S-150, DM-35-S, DM-35-D, DM-36-S, DM-36-D, DM-40-S, DM-40-D, DM-41-S, DM-41-D, DM-45-S, DM-45-D, DM-46-S, DM-46-D, DM-47-S, DM-48-S, DM-48-D, DM-49-S, DM-52-S, DM-52-D, DM-50-S, DM-50-D, DM-51-S, DM-51-D, MW23-S-70, MW23-S-80, DM-54-S, DM-54-D, DM-55-S, DM-55-D, DM-56-S, DM-56-D and MW23-S-90. This resulted in the lab addition of methanol to the vials to complete the sample extraction according to the methods. This may have been the result of soil conditions where the Terracore samplers were overfilled slightly due to the soil matrix but unlikely given the number of samples affected. Another possible cause is that the vials were underfilled at the analytical laboratory, resulting in the total overall vial weight with the 5g soil plug added being less than anticipated upon receipt back at the lab. The general impact of additional methanol being added at the lab is some uncertainty with the F1 PHC results, specifically a potential under-representation of the concentration in soil. Some soil may have been exposed in the vial and not covered in methanol, increasing the potential for loss of volatiles. The addition of methanol at the lab mitigated some bias in the analytical results and the overall impact on data integrity is expected to be low. It is recommended that for future sampling rounds that methanol vials are inspected closely to ensure that the volume of methanol in the vials is at the required level prior to sampling.

3 Sample Preservation

Soil samples collected at DYE-M were preserved with methanol. Groundwater samples for inorganics were not preserved in the field and were not field filtered as specified in the SOW. Groundwater samples analyzed for PHCs were preserved with sodium bisulfate.

No issues with sample preservation were identified during the DYE-M field program. Hold times were exceeded for some samples as was discussed in Section 2.2.

4 Sample Method Detection Limits

Analytical requests were made to ensure that the minimum detection limits for each analyte was achieved. The laboratory was provided a copy of Annex E of the SOW which outlined the QA/QC requirements for the samples. The minimum detection limits were confirmed during the analytical bottle order prior to the field program and through the analytical request process.

The only detection limit which exceeded the program requirements was for Total PCBs in DM-47-S which had an RDL of 0.05 mg/kg compared to the recommended minimum detection limit of 0.02 mg/kg. The RDL was adjusted due to dilution to ensure the result for Arochlor 1260 was within the calibration range as high concentrations of the target analyte were present. The baseline data with variation criterion for Total PCBs at this location is 0.3 mg/kg and the Total PCB concentration in the sample is reported as 1 mg/kg which is over 3 times the criterion and 20 times the RDL. The dilution of the sample was required due to the presence of an elevated PCB concentration for Arochlor 1260. The impact to data integrity for this analysis is low as the analyte is well over its respective criterion.

5 QA/QC Results for Field Duplicates

The collection of duplicate samples provides a measure of precision/repeatability of the sampling procedure and analytical technique, and the heterogeneity of the sample. The number of duplicates scheduled for this program was 10% of the overall total for each site. For the soil sampling program 167 soil samples were collected with 20 field duplicates, providing a 12% ratio which exceeds the target of 10%. For the groundwater sampling program 16 samples were collected with 2 field duplicates, providing a 12% ratio which exceeds the target of 10%.

Precision is measure by calculating the relative percentage difference (RPD) for the duplicate samples. If the contaminant concentrations are greater than 5 times the reportable detection limit (RDL), an RPD is calculated. Concentration results less than 5 times the RDL become increasingly imprecise. RPD is calculated as follows:

RPD (%) = [|Dup_1 – Dup_2|/(average of Dup_1+Dup_2)] *100

The *Guidance Manual for Environmental Site Characterization in Support of Human Health Risk*

Assessment, Volume I (CCME, 2016) recommends that RPDs for parameters of field duplicate groundwater samples not exceed 40% and RPDs for soil sample field duplicates not exceed 60%. The SOW Annex E.1.5 specifies that data will be evaluated based on these criteria, including when a blank reports a detection of any parameter above the laboratory detection limits.

Out of 22 soil blind field duplicates all were below the <60% RPD values, with the exception of soil samples DM-51-D and its duplicate MW23-S-70. The QA/QC Field Duplicate table is shown below.

Table C.3: Field Duplicates Exceeding RPD Criteria

	Field Duplicate Pair - Soil Sample Concentrations (mg/kg)		RPD (%)
Parameter	**DM-51-D**	**MW23-S-70**	
Pb	20.3	47.1	**79.53**
F2 PHC	180	81	**75.86**
F3 PHC	750	370	**67.86**

Exceeds Criteria of RPD <60% as stated in SOW Annex E

The variability between DM-51-D and MW23-S-70 is likely attributed to heterogeneity of the soil. This sample was a medium brown sand and was observed to have some heterogeneity of the substrate. Field staff alternated the placements of small amounts of the soil samples into between both sample jars, however this does not guarantee heterogeneity. All soil field duplicate data is presented in Table C.6 following the text.

The RPDs for the two groundwater field duplicates were below the 40% RPD criterion for groundwater. All groundwater field duplicate results are presented in Table C.7 following the text.

6 QA/QC Results for Blanks

Travel blanks, or trip blank, are used to check for background contamination, contamination from transport and handling, or for the presence of container or preservative contamination. Appropriate bottles were filled with distilled water and any preservatives were added to the field samples and then sealed by the lab prior to shipping. Blanks were labelled clearly Trip Blank and shipped with the empty sample bottles. The blanks were not opened in the field and were returned together with the field samples to the laboratory. Trip blanks were used for water samples only and they were analyzed in the laboratory for the analytes of interest at a rate of one travel blank per site. The Trip Blank for the DYE-M site had concentrations of metals and PHCs that were less than the RDL with the exception of Zn which exhibited a concentration of 0.81

µg/L, more than 8 times the RDL of 0.1 µg/L. No other metals were detected in the sample.

A field blank was prepared on site using clean de-ionized or distilled water provided in sterile sealed containers by the laboratory. It was prepared following regular sampling techniques and labelled with a unique unbiased identifier, MW23-01. The field blank was packed in coolers and shipped with other samples. Field blanks provide a measure of how "clean" the water sampling techniques are, and whether cross-contamination or contamination from exposure to the air has occurred. Field blanks were used for water samples only and were analyzed for the analytes of concern at a rate of one field blank per site. Detectable concentrations of nickel and zinc were found to be 1 times and 4.4 times their respective RDLs. Zinc did exceed in some soils at the site and has been found to be elevated and therefore contamination from the site's atmosphere or from sampling handling may have occurred. The concentration of nickel is equal to the RDL for nickel in water and therefore is less likely to have had a significant impact on data integrity. No exceedances of the baseline plus variation for zinc in groundwater were found at the site so the impact of cross-contamination from site dust and/or sample handling is not expected to significantly impact data integrity.

Equipment blanks are used to check for cross contamination from improper cleaning of equipment. An equipment blank for groundwater was collected following decontamination of the peristaltic pump used for sampling of MW23-03. An equipment blank for soil sampling was collected following decontamination of a trowel used to sample soil at MW23-13. The equipment blanks were prepared by rinsing the equipment with deionized water, collecting the rinse water into the appropriate sample containers, and labelling with a unique unbiased identifier. Equipment blanks were packed in coolers and shipped with other samples. Equipment blanks were analyzed for the analytes of concern at a rate of one equipment blank per site, with one collected per peristaltic pump used and another for a trowel.

A detectable concentration of chromium, cobalt, copper, lead, nickel and zinc was measured

in equipment blank MW23-13 which was collected from a decontaminated trowel. The detectable concentrations of each parameter were between 1.7 and 16 times their respective RDLs. The metals detections in the equipment blank are considered trace amounts and are not expected to have had a significant impact on the soil sample concentrations. The detections do suggest that some metals are likely present in the sampling trowel but transfer from the trowel to soils in a meaningful quantity is considered unlikely.

A detectable concentration of zinc was measured in equipment blank MW-23-03 which was collected from the peristaltic pump tubing and which was 12.2x the RDL for zinc in water. No other detections were identified in the equipment blank. The metals detections in this equipment blank are considered trace amounts and are not expected to have had a significant impact on the groundwater concentrations. There are no exceedances of the baseline plus variation for zinc in groundwater at the Site. Therefore, the impact of this detection in the equipment blank on the groundwater data integrity is considered to be minimal.

A summary of the detections in the trip, field and equipment blanks is presented in Table C.4 below.

Table C.4: Field Blanks Exceeding Detection Limits

Parameter	RDL	Units	Trip Blank	Field Blank	Equipment Blank: Pump	Equipment Blank: Trowel
				MW23-01	MW23-03	MW23-13
Cr	0.10	ug/L	<0.10	<0.10	<0.10	**0.32 (3.2x)**
Co	0.005	ug/L	<0.0050	<0.0050	<0.0050	**0.0087 (1.7x)**
Cu	0.05	ug/L	<0.050	<0.050	<0.050	**0.264 (5.3x)**
Pb	0.005	ug/L	<0.0050	<0.0050	<0.0050	**0.0811 (16x)**
Ni	0.02	ug/L	<0.020	**0.02 (1x)**	<0.020	**0.11 (5.5x)**
Zn	0.10	ug/L	**0.81 (8.1x)**	**0.44 (4.4x)**	**1.22 (12.2x)**	**1.17 (11.7x)**

Less than the RDL

Detectable concentration of analyte in blank

7 Laboratory QA/QC Results

7.1 Accreditation

The laboratory that was used for analyses of soil and water samples was Bureau Veritas, which is an accredited laboratory by the International Organization for Standardization/International Electrotechnical Commission Standard 17025 (ISO/IEC 17025). The methods used for analysis at the laboratory was provided in valid scopes of accreditation.

7.2 Internal Laboratory QA/QC

Analytical duplicates were prepared by the analyst and are included with each batch of samples that is analyzed by an instrument. These are typically prepared by drying, grinding and sieving the soil to obtain a homogenous sample. This homogeneous sample is then divided into two replicates and subjected to necessary processing

(digestion/extraction) required for the analysis type. Duplicate preparation for certain parameters, such as volatile compounds, may omit the drying step as it will bias the results.

These blanks provide a measure of the precision and repeatability of the analytical method. Precision is often evaluated by calculating a RPD, as described above.

Control spikes are used to identify analytical interference associated with the sample matrix. Analytical spikes were generated by the addition of a known amount of target analyte to a sample of clean matrix or by the use of a known reference standard. Low recoveries for analytical spikes may denote signal suppression which should necessitate further investigation. Sources of signal suppression could be from matrix interference, instrument interference and/or sample preparation interference. Control spikes were evaluated by calculating a percent recovery as follows:

Recovery (%) = (measured concentration/certified concentration) *100

If analysis of sample of standard or certified reference material is not available, a spiked standard was used, at a rate of one per batch of samples.

Method blanks are included with each batch of samples that is analyzed by an instrument. These are processed through the same digestions and extraction steps as a site sample but using a known clean aliquot of the appropriate matrix. Method blanks give a measure of any contamination that may be introduced during sample handing and processing and can indicate whether results are falsely inflated. All analytical blanks are expected to be below detection limits. If they show detectable levels, the whole batch of samples is suspect and may require re-analysis.

Internal laboratory QA/QC reporting is included in the Laboratory Certificates of Analysis in Appendix B. The results show acceptability of the laboratory's QA/QC procedures and results with the following exceptions.

- Some F1 PHCs analysis surrogate recovery exceeded the upper control limit which resulted in uncertainty with results biased high. The F1 PHC sample results impacted by this were all observed to be non-detect with the exception of MW05-09-SOIL-D which had a concentration of 260 mg/kg. MW05-09-SOIL-D exceeded the F1 PHC Baseline Data with Variation criterion of 30 mg/kg by 8.6 times which is unlikely to be the result of any bias resulting from the analytical process. It is not expected that the uncertainty with the data would have created a false positive in this case. Also, concentrations of F2-F4 PHCs also exceeded the Baseline Data with Variation criteria for this sample so the overall data interpretation for the soil at this location would not change.
- PCBs in soil had a matrix spike recovery above the upper control limit which was associated with matrix interference. This correlates with the elevated RDL due to high concentrations of a specific arochlor in the sample. The lab deemed that the overall quality control for this analysis meets acceptability criteria and therefore no impact to data integrity is anticipated.
- Total nickel in groundwater analysis had a method blank that exceeded the acceptance limits by 2 times the RDL. The lab considered this acceptable given the low level metals determination and therefore no impact to data integrity is anticipated.
- As noted in Section 2.2, hold times were exceeded for a few soil samples. The impact on the results of MW23-S-30 for the F1-PHC analyses is an increase in data variability. Soil samples DM-53-S (all < RDL) and DM-53-D (all < RDL) were analyzed for F1 and F2-F4 PHCs after hold times were exceeded and there may be increased variability with these results. The results for these samples were reviewed. There is potential that the results at DM-53-S and DM-53-D could be biased low since some degradation of PHCs could have occurred. This is not anticipated to impact the overall outcomes for this area of the site.

7.3 PHC Chromatogram Review

Chromatograms were received from the analytical laboratory for each F1-F4 PHC analysis requested. Chromatograms were all found to reach baseline at C50 during the F4 analysis and therefore gravimetric analyses were not required.

8 Conclusions & Recommendations

The QA/QC measures that were conducted as part of the 2023 Monitoring at the DYE-M site included the collection of field duplicates, field blanks, trip blanks and equipment blanks. The results of these analyses were reviewed based on QA/QC protocols and were not found to have a significant impact on the soil and groundwater sample integrity at the site.

Internal laboratory QA/QC data was reviewed and no significant impacts to soil and groundwater data integrity were identified.

It is recommended that for future sampling events, methanol vials should be inspected to ensure that the required volume of methanol is present and that no methanol has leaked from the vials during transport prior to sampling.

Table C.5: Soil Sample QAQC - Field Duplicates- DYE-M

Parameter	As	Cd	Cr	Co	Cu	Pb	Ni	Zn	Total PCB	F1 PHC	F2 PHC	F3 PHC	F4 PHC
RDL	**0.2**	**0.05**	**0.05**	**0.1**	**0.5**	**0.1**	**0.5**	**1**	**0.01**	**10**	**10**	**50**	**50**
RDL x 5	*1*	*0.25*	*0.25*	*0.5*	*2.5*	*0.5*	*2.5*	*5*	*0.05*	*50*	*50*	*250*	*250*
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
DM-10-S	0.8	0.052	55.7	8.81	22.3	5.17	31.4	40.3	<0.010	<10	<10	<50	<50
MW23-S-00	0.98	0.089	58.3	9.45	24.9	5.38	34.4	43.4	<0.010	<10	<10	<50	<50
RPD (%)	NC	NC	4.6%	7.0%	11.0%	4.0%	9.1%	7.4%	-	-	-	-	-
Acceptable (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MW05-16-SOIL-D	0.55	0.053	64.5	9.26	26.4	3.58	33.9	42.1	<0.010	<10	<10	<50	<50
MW23-S-10	0.71	0.065	64.9	9.65	26.5	4.82	35.5	44.7	<0.010	<10	<10	<50	<50
RPD (%)	NC	NC	0.6%	4.1%	0.4%	29.5%	4.6%	6.0%	NC	NC	NC	NC	NC
Acceptable (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DM-03-S	1	<0.050	60.4	9.54	34.2	3.11	39.5	38.4	<0.010	<10	<10	<50	<50
MW23-S-15	1.06	<0.050	56	9.02	30.1	2.94	38.6	36.1	<0.010	<10	<10	<50	<50
RPD (%)	NC	NC	7.6%	5.6%	12.8%	5.6%	2.3%	6.2%	NC	NC	NC	NC	NC
Acceptable (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DM-04-D	0.47	0.066	44	6.13	18.6	2.99	24.4	28.1	<0.010	<10	<10	80	<50
MW23-S-20	0.6	0.051	44.2	6.41	19.8	3.71	25.3	30	<0.010	<10	<10	68	<50
RPD (%)	NC	NC	0.5%	4.5%	6.3%	21.5%	3.6%	6.5%	NC	NC	NC	NC	NC
Acceptable (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MW09-28-SOIL-S	1.9	0.138	78.6	9.79	40.9	15.9	38	64.5	0.11	<10	<10	<50	<50
MW23-S-25	2.03	0.142	73.7	10	39.8	15.4	37.7	63.1	0.086	<10	<10	<50	<50
RPD (%)	6.6%	NC	6.4%	2.1%	2.7%	3.2%	0.8%	2.2%	24%	NC	NC	NC	NC
Acceptable (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MW05-08-SOIL-S	0.6	<0.050	51.7	7.58	23.1	6.59	30.1	36.7	<0.010	<10	<10	110	<50
MW23-S-30	0.6	<0.050	50.4	7.23	21.6	8.1	30	34.1	0.021	<10	<10	120	<50
RPD (%)	NC	NC	2.5%	4.7%	6.7%	20.6%	0.3%	7.3%	NC	NC	NC	NC	NC
Acceptable (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MW09-26-SOIL-D	0.94	0.067	55.3	8.17	19.6	3.38	30	36.6	<0.010	<10	<10	<50	<50
MW23-S-40	0.94	<0.050	56.5	8.07	20.9	3.66	30.7	37.9	<0.010	<10	<10	<50	<50
RPD	NC	NC	2.1%	1.2%	6.4%	8.0%	2.3%	3.5%	NC	NC	NC	NC	NC
Acceptable (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MW08-24-D	0.54	<0.050	55	9.87	18.8	9.31	44.9	40.8	<0.010	<10	<10	<50	<50
MW23-S-50	0.48	<0.050	45.3	8.26	16.5	8.05	36	35	<0.010	<10	<10	<50	<50
RPD (%)	NC	NC	19.3%	17.8%	13.0%	14.5%	22.0%	15.3%	NC	NC	NC	NC	NC
Acceptable (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DM-33-D	0.54	<0.050	47.8	11.4	16.6	2.8	60.4	40.1	<0.010	<10	<10	<50	<50
MW23-S-60	0.48	<0.050	33.8	8.64	12.8	2.6	51	30.2	<0.010	<10	<10	<50	<50
RPD (%)	NC	NC	34.3%	27.5%	25.9%	7.4%	16.9%	28.2%	NC	NC	NC	NC	NC
Acceptable (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DM-51-D	1.21	0.081	110	12.1	43.8	20.3	51.9	88.6	<0.010	<10	180	750	66
MW23-S-70	1.07	0.087	115	11.4	42.5	47.1	44.8	87.4	<0.010	16	81	370	<50
RPD (%)	12.3%	NC	4.4%	6.0%	3.0%	**79.5%**	14.7%	1.4%	NC	NC	**76%**	**68%**	NC
Acceptable (Y/N)	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N	N	Y

Table C.5: Soil Sample QAQC - Field Duplicates- DYE-M

Parameter	As	Cd	Cr	Co	Cu	Pb	Ni	Zn	Total PCB	F1 PHC	F2 PHC	F3 PHC	F4 PHC
RDL	**0.2**	**0.05**	**0.05**	**0.1**	**0.5**	**0.1**	**0.5**	**1**	**0.01**	**10**	**10**	**50**	**50**
RDL x 5	*1*	*0.25*	*0.25*	*0.5*	*2.5*	*0.5*	*2.5*	*5*	*0.05*	*50*	*50*	*250*	*250*
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
DM-50	2.77	0.1	281	19.4	127	37.2	92.7	147	<0.010	<10	<10	<50	<50
MW23-S-80	3.05	<0.050	257	17	114	32.2	78.9	135	<0.010	<10	<10	<50	<50
RPD (%)	9.6%	NC	8.9%	13.2%	10.8%	14.4%	16.1%	8.5%	NC	NC	NC	NC	NC
Acceptable (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DM-54-S	1.43	<0.050	62.4	16.7	27.8	23.2	74	69.3	<0.010	<10	<10	<50	<50
MW23-S-90	1.32	<0.050	60.8	13.7	24.5	20.8	70.2	63.5	<0.010	<10	<10	<50	<50
RPD (%)	8.0%	NC	2.6%	19.7%	12.6%	10.9%	5.3%	8.7%	NC	NC	NC	NC	NC
Acceptable (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DM-62-S	0.51	0.06	40.5	16.2	26.7	5.71	126	39.4	<0.010	<10	<10	<50	<50
MW23-S-100	0.67	<0.050	45.9	15.8	33.1	6.92	106	44.2	<0.010	<10	<10	<50	<50
RPD (%)	NC	NC	12.5%	2.5%	21.4%	19.2%	17.2%	11.5%	NC	NC	NC	NC	NC
Acceptable (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MW07-21-SOIL-D	0.5	<0.050	27	11.5	19.2	5.01	68.4	32.5	<0.010	<10	<10	<50	<50
MW23-S-110	0.39	<0.050	20.2	8.95	14.6	3.89	52.2	26.6	<0.010	<10	<10	<50	<50
RPD (%)	NC	NC	28.8%	24.9%	27.2%	25.2%	26.9%	20.0%	NC	NC	NC	NC	NC
Acceptable (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DM-18-S	3.28	<0.050	68.1	15.2	50	3.93	97.9	32.4	<0.010	<10	<10	<50	<50
MW23-S-120	3.61	<0.050	84.3	18.3	60.3	4.76	134	37.7	<0.010	<10	<10	<50	<50
RPD (%)	9.6%	NC	21.3%	18.5%	18.7%	19.1%	31.1%	15.1%	NC	NC	NC	NC	NC
Acceptable (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DM-27-S	0.73	<0.050	23.2	9.92	13.2	4.81	21.4	62.7	<0.010	<10	<10	<50	<50
MW23-S-130	0.8	0.061	26.1	10.7	15.2	5.71	22.5	68.5	<0.010	<10	<10	<50	<50
RPD (%)	NC	NC	11.8%	7.6%	14.1%	17.1%	5.0%	8.8%	NC	NC	NC	NC	NC
Acceptable (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DM-29-S	0.48	<0.050	17.3	6.33	12.4	4.58	33.6	28.1	<0.010	<10	<10	<50	<50
MW23-S-135	0.51	<0.050	21.6	7.81	15.3	5.31	46.4	31.3	<0.010	<10	<10	<50	<50
RPD (%)	NC	NC	22.1%	20.9%	20.9%	14.8%	32.0%	10.8%	NC	NC	NC	NC	NC
Acceptable (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DM-15-D	<0.20	0.112	17.1	5.15	14.6	8.75	19.5	50.3	0.013	<10	1700	460	<50
MW23-S-140	0.53	0.086	15.7	4.73	13.7	8.29	16.2	46.1	0.04	<10	1900	430	<50
RPD (%)	NC	NC	8.5%	8.5%	6.4%	5.4%	18.5%	8.7%	NC	NC	11%	7%	NC
Acceptable (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DM-11-S	<0.20	0.052	33.4	11.8	29	6.05	75.3	45.6	0.012	<10	<10	<50	<50
MW23-S-150	<0.20	<0.050	26.8	11.9	29.2	5.38	81.5	39.1	<0.010	<10	<10	<50	<50
RPD (%)	NC	NC	21.9%	0.8%	0.7%	11.7%	7.9%	15.3%	NC	NC	NC	NC	NC
Acceptable (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DM-45-D	1.11	0.07	171	16.3	123	10.4	79.9	183	<0.010	<10	<10	<50	<50
MW23-S-160	1.57	<0.050	173	16.4	123	11.3	79.2	183	<0.010	<10	<10	<50	<50
RPD (%)	34.3%	NC	1.2%	0.6%	0.0%	8.3%	0.9%	0.0%	NC	NC	NC	NC	NC
Acceptable (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Notes:

NC- Not Calculated (primary/duplicate sample pair concentration are less than 5 times the RDL)

Meets Criteria of RPD <60% as stated in SOW Annex E

Exceeds <60%, but is <5x the detection limit

Does not meet criteria

Table C.6: Groundwater Sample QAQC - Field Duplicates- DYE-M

Parameter	As	Cd	Cr	Co	Cu	Pb	Ni	Zn	Total PCB	F1 PHC	F2 PHC	F3 PHC	F4 PHC
RDL	**0.020**	**0.005**	**0.10**	**0.005**	**0.050**	**0.005**	**0.020**	**0.10**	**0.01**	**25**	**100**	**200**	**200**
RDL x 5	*0.1*	*0.025*	*0.5*	*0.025*	*0.25*	*0.025*	*0.1*	*0.5*	*0.05*	*125*	*500*	*1000*	*1000*
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW05-06	0.282	0.0201	3.98	0.83	4.64	3.42	6.18	3560	NA	<25	<100	<200	<200
MW23-00	0.247	0.0205	3.52	0.737	4.17	3.05	5.6	3310	NA	<25	<100	<200	<200
RPD (%)	13%	NC	12%	12%	11%	11%	10%	7%	NA	NC	NC	NC	NC
Acceptable (Y/N)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NA	Yes	Yes	Yes	Yes
MW05-12	0.069	0.042	1.22	0.302	1.69	1.31	7.0	4700	NA	<25	<100	<200	<200
MW23-10	0.071	0.0412	0.92	0.278	1.66	1.25	7.0	4620	NA	<25	<100	<200	<200
RPD (%)	NC	2%	28%	8%	2%	5%	0%	2%	NA	NC	NC	NC	NC
Acceptable (Y/N)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NA	Yes	Yes	Yes	Yes

Notes:

NA Not Analyzed

NC- Not Calculated (primary/duplicate sample pair concentration are less than 5 times the RDL)

Meets Criteria of RPD <40% as stated in SOW Annex E

Exceeds RPD of 40%

Does not meet criteria

all Values are below 40% as stated in SOW Annex E

Table C.7: Field Blank QAQC - DYE-M

Parameter	RDL	Units	Trip Blank	Field Blank	Equipment Blank: Pump	Equipment Blank: Trowel
				MW23-01	MW23-03	MW23-13
As	**0.020**	ug/L	<0.020	<0.020	<0.020	<0.020
Cd	**0.005**	ug/L	<0.0050	<0.0050	<0.0050	<0.0050
Cr	**0.10**	ug/L	<0.10	<0.10	<0.10	**0.32**
Co	**0.005**	ug/L	<0.0050	<0.0050	<0.0050	**0.0087**
Cu	**0.050**	ug/L	<0.050	<0.050	<0.050	**0.264**
Pb	**0.005**	ug/L	<0.0050	<0.0050	<0.0050	**0.0811**
Ni	**0.020**	ug/L	<0.020	**0.02**	<0.020	**0.11**
Zn	**0.10**	ug/L	**0.81**	**0.44**	**1.22**	**1.17**
F1	**25**	ug/L	<25	<25	<25	<25
F2	**100**	ug/L	<100	<100	<100	<100
F3	**200**	ug/L	<200	<200	<200	<200
F4	**200**	ug/L	<200	<200	<200	<200
Total PCBs	**0.01**	ug/L	NA	NA	NA	<0.01

NA Not Analyzed

"- Not Calculated (meets RPD criteria)

Meets Criteria of RPD <40% as stated in SOW Annex E

Exceeds <40%, but is <5x the detection limit

Does not meet criteria

APPENDIX D

Soil and Groundwater Chemistry Tables and Graphs

DYE-M Lower Site North Warning System Landfill - Summary of Soil Monitoring Analytical Data

Link to: Table of Contents

Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	64.43	12.43	25.95	10.00	34.43	48.73	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	20.31	3.36	7.28	0.00	9.90	11.04	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	125.38	22.50	47.78	30.00	64.12	81.86	0.30	30.00	30.00	150.00	150.00
** If baseline or background arithmetic mean was below the detection limit, the mean has been modified to match the detection limit value.*																		
DEW Line Cleanup Tier I Criteria											*200*			*1*				
DEW Line Cleanup Tier II Criteria						*30*	*5*	*250*	*50*	*100*	*500*	*100*	*500*	*5*				
Monitoring Data																		
Upgradient																		
	DM-07 surface																	
14-8444	DM-07	2014	1	Phase I	5-10	1.30	<1	47.00	6.00	21.40	<10	29.20	35.00	<0.02	<10	<10	<10	<10
DM-07 (0-15)	DM-07	2015	2	Phase I	0-15	1.20	<0.5	68.30	11.30	23.50	3.80	37.00	39.50	<0.05	<7	<4	<8	<6
DM-07B	DM-07	2016	3	Phase I	0-15	<1	<0.5	61.30	9.50	25.60	5.10	33.10	34.90	<0.05	<7	<4	<8	<6
DM-07B (Interlab)	DM-07	2016	3	Phase I	0-15	1.00	<0.5	65.00	11.20	29.00	5.00	41.00	49.00	<0.05	<5	<10	<50	<50
DM-07 Shallow	DM-07	2017	4	Phase I	0-15	<1	<0.5	74.00	11.20	29.20	6.40	41.00	46.40	<0.05	<7	<4	<8	<6
DM-07 S	DM-07	2018	5	Phase I	0-15	<1	<0.5	63.00	10.00	25.00	5.00	38.00	36.00	<0.05	<7	<4	<8	<6
DM-07-S	DM-07	2023	10	Phase II	0-15	0.66	0.053	57.10	9.39	22.50	3.51	33.70	37.20	<0.010	<10	<10	<50	<50
DM-07-S (Interlab)	DM-07	2023	10	Phase II	0-15	0.67	<0.050	56.90	9.39	22.40	3.45	33.50	37.30					
	DM-07 depth																	
14-8445	DM-07	2014	1	Phase I	40-45	1.10	<1	58.00	7.00	24.80	<10	33.20	39.00	<0.02	<10	<10	<10	<10
DM-07 (40-50)	DM-07	2015	2	Phase I	40-50	<1	<0.5	67.00	11.20	23.80	4.90	37.60	38.70	<0.05	<7	<4	<8	<6
DM-07A	DM-07	2016	3	Phase I	40-50	<1	<0.5	69.50	10.10	26.00	5.60	33.90	36.60	<0.05	<7	<4	<8	<6
DM-07 Deep	DM-07	2017	4	Phase I	30-40	<1	<0.5	64.60	10.00	26.00	4.70	36.70	41.50	<0.05	<7	<4	<8	<6
DM-97 Deep (Dup)	DM-07	2017	4	Phase I	30-40	<1	<0.5	79.30	12.10	32.40	6.80	44.20	48.30	<0.05	<7	<4	<8	<6
DM-07 D	DM-07	2018	5	Phase I	40-50	<1	<0.5	63.00	10.00	25.00	5.00	38.00	36.00	<0.05	<7	<4	<8	<6
DM-07-D	DM-07	2023	10	Phase II	40-50	0.75	0.067	61.20	9.47	24.30	3.87	35.10	39.60	<0.010	<10	<10	<50	<50

DYE-M Lower Site North Warning System Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	64.43	12.43	25.95	10.00	34.43	48.73	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	20.31	3.36	7.28	0.00	9.90	11.04	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	125.38	22.50	47.78	30.00	64.12	81.86	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-08 surface																	
14-8453	DM-08	2014	1	Phase I	5-10	1.30	<1	54.00	6.90	17.70	11.00	31.50	49.00	<0.02	<10	<10	<10	<10
DM-08 (0-15)	DM-08	2015	2	Phase I	0-15	1.30	<0.5	58.30	9.90	22.50	10.50	29.60	48.10	<0.05	<7	<4	<8	<6
DM-08 (0-15) (Interlab)	DM-08	2015	2	Phase I	0-15	1.00	<0.5	52.00	8.70	24.00	11.00	31.00	52.00	<0.05	<5	<4	13	<6
DM-08A	DM-08	2016	3	Phase I	0-15	<1	<0.5	56.30	8.90	25.60	10.80	28.50	43.30	<0.05	<7	<4	<8	<6
DM-08 Shallow	DM-08	2017	4	Phase I	0-15	<1	<0.5	44.80	7.90	20.90	8.80	27.80	40.70	<0.05	<7	<4	<8	<6
DM-08 S	DM-08	2018	5	Phase I	0-15	<1	<0.5	49.00	8.00	22.00	10.00	28.00	40.00	<0.05	<7	<4	<8	<6
DM-08-S	DM-08	2023	10	Phase II	0-15	0.42	0.053	31.00	5.61	13.70	4.84	18.60	29.40	<0.010	<10	<10	<50	<50
DM-08-S (Interlab)	DM-08	2023	10	Phase II	0-15										<10			
	DM-08 depth																	
14-8454	DM-08	2014	1	Phase I	45-50	1.10	<1	50.00	6.30	15.00	<10	28.60	40.00	<0.02	<10	<10	<10	<10
Not sampled - refusal	DM-08	2015	2	Phase I														
Not sampled - refusal	DM-08	2016	3	Phase I														
Not sampled - refusal	DM-08	2017	4	Phase I														
DM-08 D	DM-08	2018	5	Phase I	30-40	<1	<0.5	58.00	9.00	24.00	6.00	33.00	45.00	<0.05	<7	<4	<8	<6
DM-08-D	DM-08	2023	10	Phase II	45-50	0.37	<0.050	35.30	5.59	15.00	4.11	19.90	29.80	<0.010	<10	<10	<50	<50

DYE-M Lower Site North Warning System Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	64.43	12.43	25.95	10.00	34.43	48.73	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	20.31	3.36	7.28	0.00	9.90	11.04	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	125.38	22.50	47.78	30.00	64.12	81.86	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-09 surface																	
14-8450	DM-09	2014	1	Phase I	5-10	2.00	<1	133.00	15.70	40.20	<10	74.20	91.00	<0.02	<10	<10	<10	<10
14-8451 (Dup)	DM-09	2014	1	Phase I	5-10	1.80	<1	113.00	13.60	33.50	<10	63.80	77.00	<0.02	<10	<10	<10	<10
DM-09 (0-15)	DM-09	2015	2	Phase I	0-15	1.80	<0.5	107.00	19.00	40.50	9.70	53.70	70.10	<0.05	<7	<4	<8	<6
DM-09A	DM-09	2016	3	Phase I	0-15	<1	<0.5	63.90	9.60	27.20	5.20	31.90	36.10	<0.05	<7	<4	<8	<6
DM-09 Shallow	DM-09	2017	4	Phase I	0-15	<1	<0.5	62.20	9.40	30.80	6.10	37.50	44.40	<0.05	<7	<4	<8	<6
DM-09 S	DM-09	2018	5	Phase I	0-15	1.00	<0.5	61.00	9.00	28.00	5.00	35.00	45.00	<0.05	<7	<4	<8	<6
QA/QC S9 (Dup)	DM-09	2018	5	Phase I	0-15	1.00	<0.5	74.00	10.00	34.00	7.00	41.00	53.00	<0.05	<7	<4	<8	<6
DM-09-S	DM-09	2023	10	Phase II	0-15	0.95	0.071	78.50	13.80	32.30	5.34	45.70	56.30	<0.010	<10	<10	<50	<50
	DM-09 depth																	
14-8452	DM-09	2014	1	Phase I	40-45	1.80	<1	124.00	14.80	38.20	<10	71.20	87.00	<0.02	<10	<10	<10	<10
Not sampled - refusal	DM-09	2015	2	Phase I														
Not sampled - refusal	DM-09	2016	3	Phase I														
DM-09 Deep	DM-09	2017	4	Phase I	20-30	<1	<0.5	64.90	8.90	31.00	5.10	36.90	40.20	<0.05	<7	<4	<8	<6
DM-09 D	DM-09	2018	5	Phase I	40-50	<1	<0.5	57.00	10.00	24.00	6.00	34.00	39.00	<0.05	<7	<4	<8	<6
DM-09-D	DM-09	2023	10	Phase II	40-50	1.18	0.081	94.40	14.90	39.40	5.70	53.10	67.10	<0.010	<10	<10	<50	<50

DYE-M Lower Site North Warning System Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	64.43	12.43	25.95	10.00	34.43	48.73	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	20.31	3.36	7.28	0.00	9.90	11.04	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	125.38	22.50	47.78	30.00	64.12	81.86	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-10 surface																	
14-8447	DM-10	2014	1	Phase I	5-10	1.10	<1	77.00	8.40	20.50	<10	39.80	48.00	<0.02	<10	<10	<10	<10
DM-10 (0-15)	DM-10	2015	2	Phase I	0-15	1.70	<0.5	74.70	14.50	30.80	8.90	39.20	55.70	<0.05	<7	<4	<8	<6
DM-10A	DM-10	2016	3	Phase I	0-15	<1	<0.5	64.70	10.00	28.70	6.30	31.50	41.10	<0.05	<7	<4	<8	<6
DM-10 Shallow	DM-10	2017	4	Phase I	0-15	<1	<0.5	71.90	11.10	32.30	9.00	39.00	53.50	<0.05	<7	<4	<8	<6
DM-10 S	DM-10	2018	5	Phase I	0-20	<1	<0.5	41.00	12.00	27.00	9.00	28.00	39.00	<0.05	<7	<4	<8	<6
DM-10-S	DM-10	2023	10	Phase II	0-15	0.80	0.052	55.70	8.81	22.30	5.17	31.40	40.30	<0.010	<10	<10	<50	<50
DM-10-S(Interlab)	DM-10	2023	10	Phase II	0-15									<0.010		<10	<50	<50
MW23-S-00 (Dup)	DM-10	2023	10	Phase II	0-15	0.98	0.089	58.30	9.45	24.90	5.38	34.40	43.40	<0.010	<10	<10	<50	<50
MW23-S-00 (Dup) (Interlab)	DM-10	2023	10	Phase II	0-15	0.97	0.094	58.10	9.41	25.00	5.39	34.00	42.60					
	DM-10 depth																	
14-8448	DM-10	2014	1	Phase I	30-35	0.80	<1	58.00	6.50	17.80	<10	31.10	37.00	<0.02	<10	<10	<10	<10
14-8449 (Interlab)	DM-10	2014	1	Phase I	30-35	0.97	<0.5	57.00	9.60	25.80	7.50	31.70	42.10	<0.10	<5	<10	<50	<50
Not sampled - refusal	DM-10	2015	2	Phase I														
Not sampled - refusal	DM-10	2016	3	Phase I														
Not sampled - refusal	DM-10	2017	4	Phase I														
Not sampled - refusal	DM-10	2018	5	Phase I														
DM-10-D	DM-10	2023	10	Phase II	40-50	2.82	<0.050	66.60	11.60	30.00	6.72	40.40	51.70	<0.010	<10	<10	<50	<50

N/A = not analyzed

Legend

XX	Sample exceeds baseline mean
XX	Sample exceeds baseline data with variation

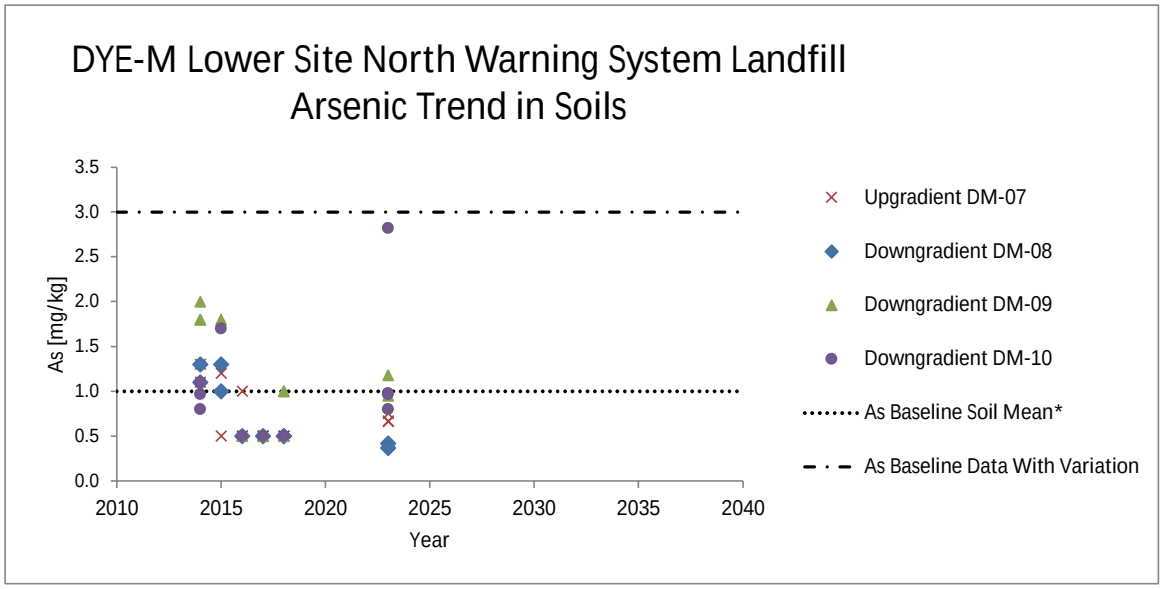
DYE-M Lower Site North Warning System Landfill Trends in Soil Inorganics, PCBs and PHCs

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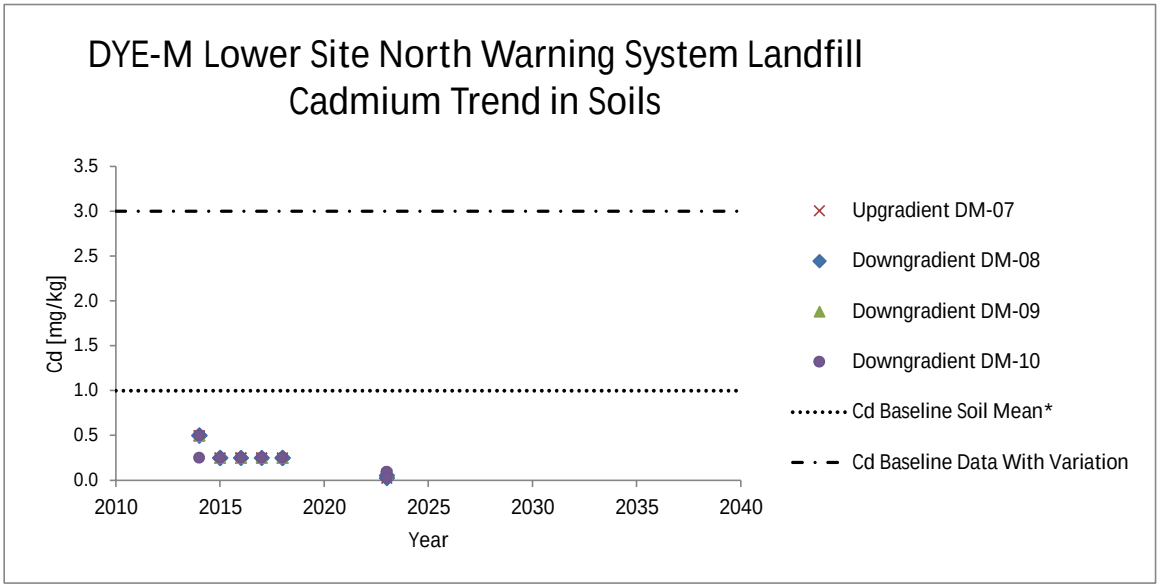
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* As baseline arithmetic mean is equal to the baseline detection limit



* Cd baseline arithmetic mean is equal to the baseline detection limit

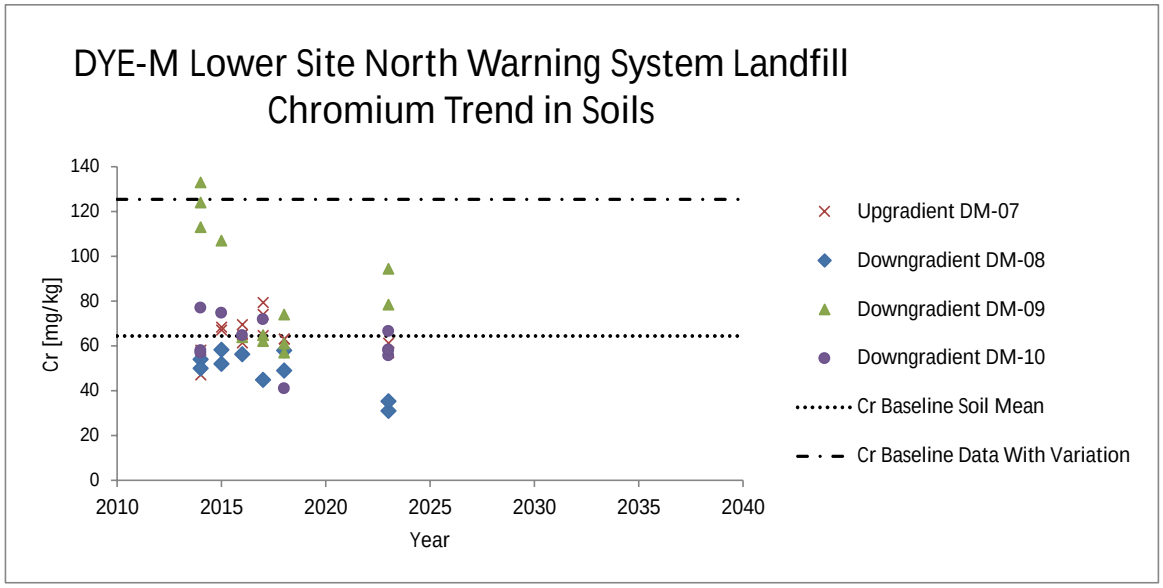
DYE-M Lower Site North Warning System Landfill Trends in Soil Inorganics, PCBs and PHCs

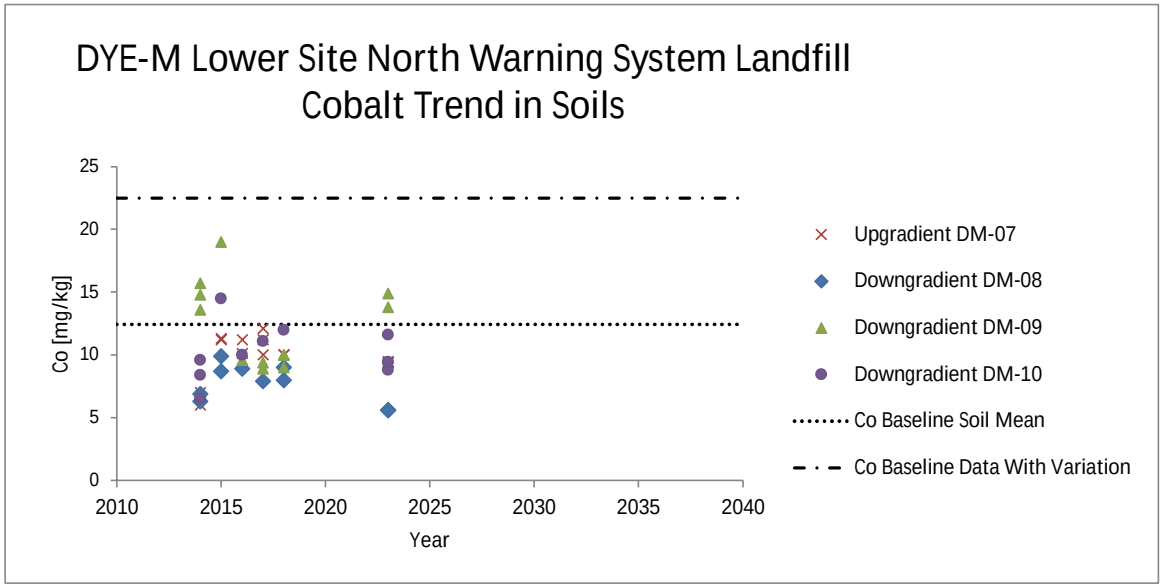
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





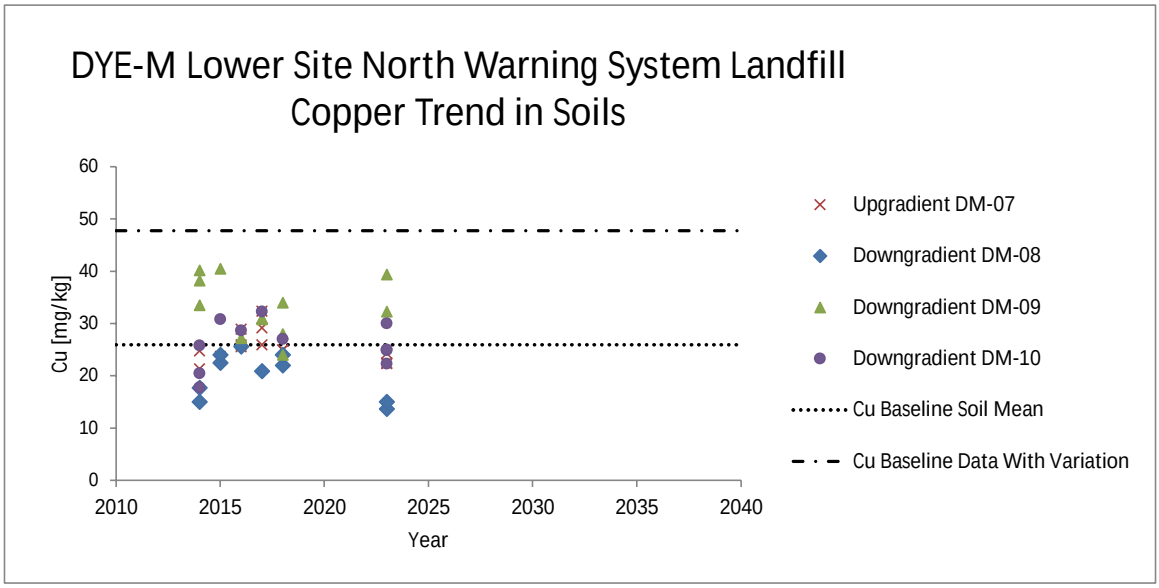
DYE-M Lower Site North Warning System Landfill Trends in Soil Inorganics, PCBs and PHCs

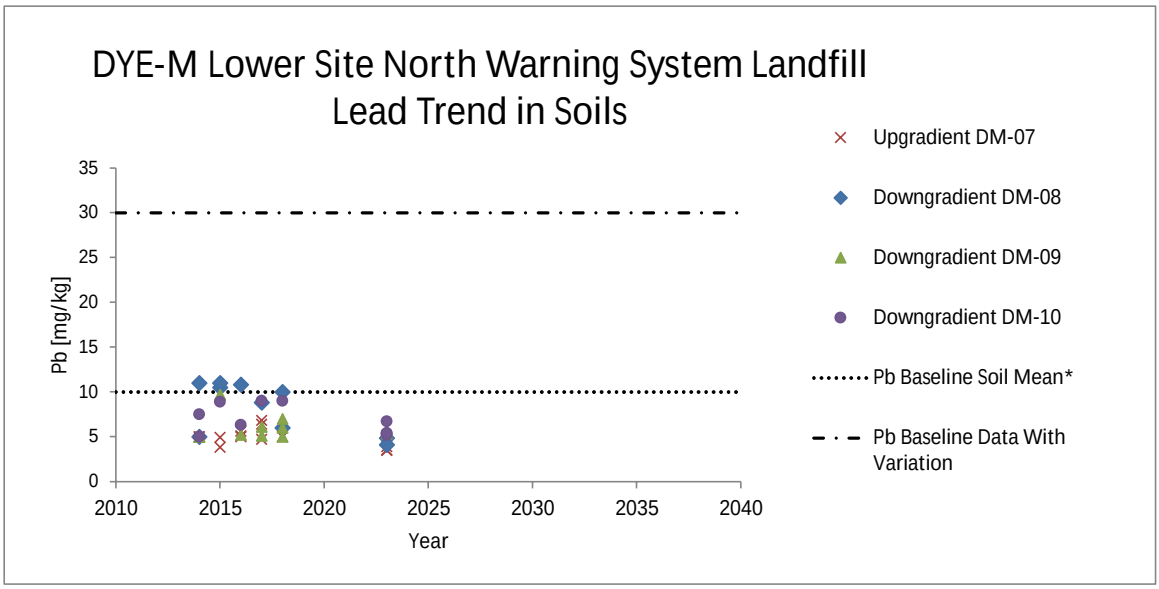
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





* Pb baseline arithmetic mean is equal to the baseline detection limit

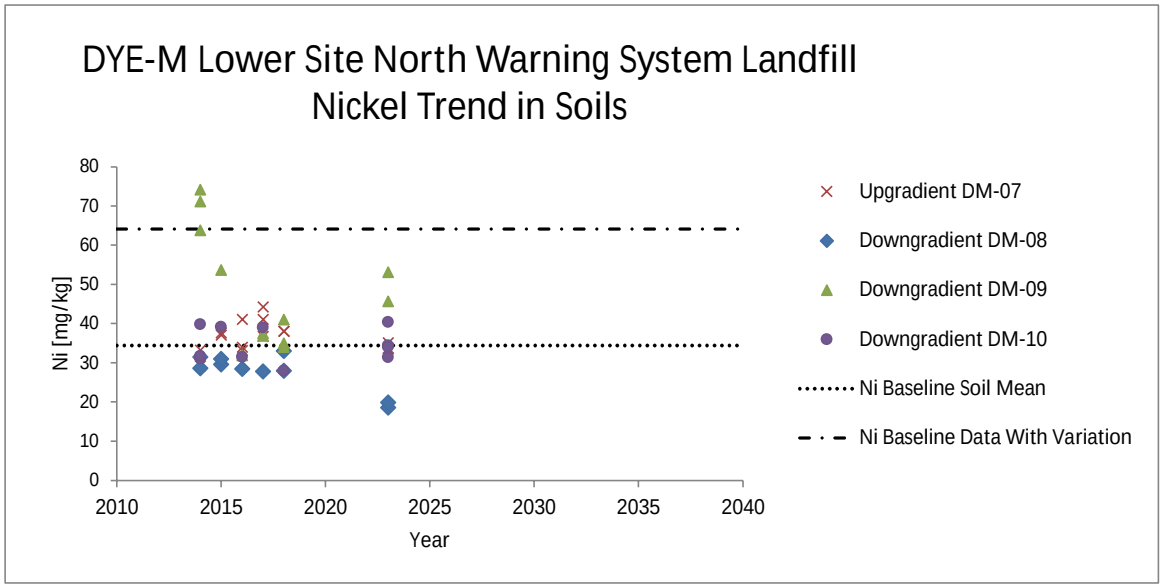
DYE-M Lower Site North Warning System Landfill Trends in Soil Inorganics, PCBs and PHCs

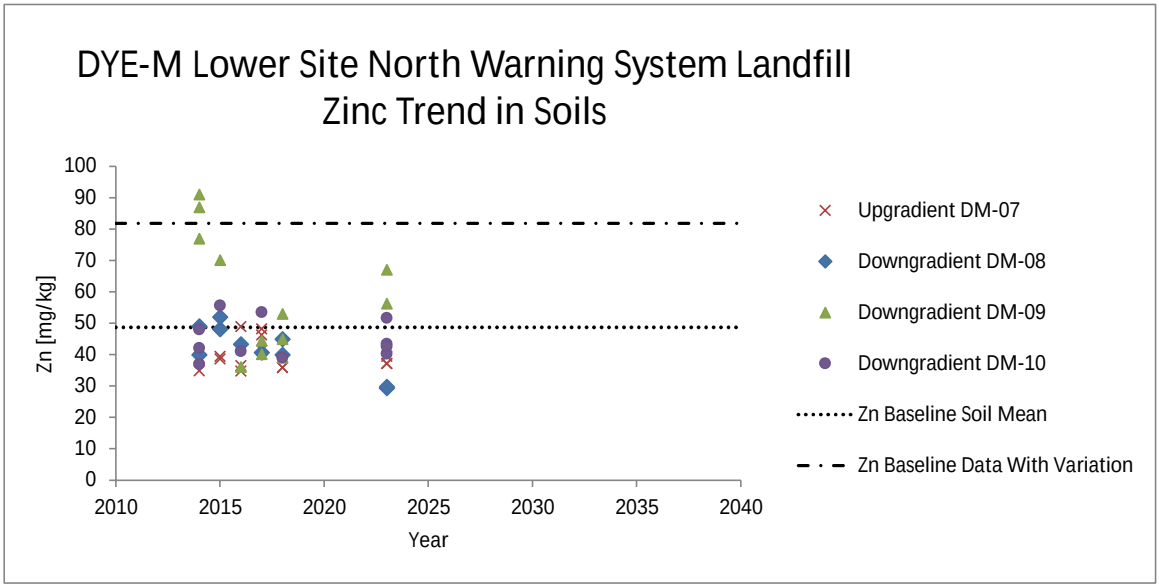
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





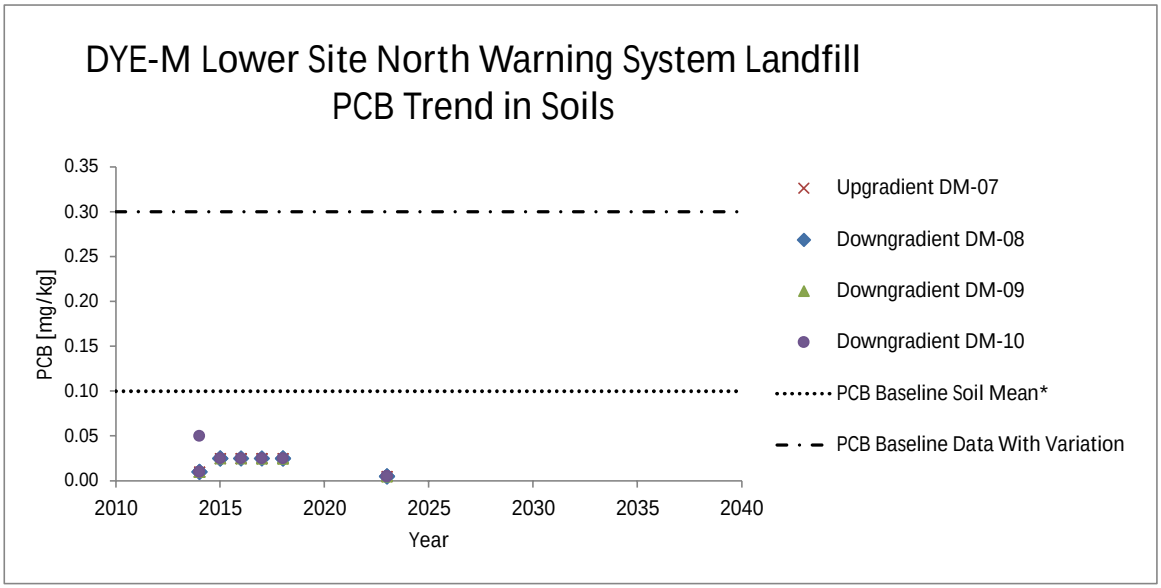
DYE-M Lower Site North Warning System Landfill Trends in Soil Inorganics, PCBs and PHCs

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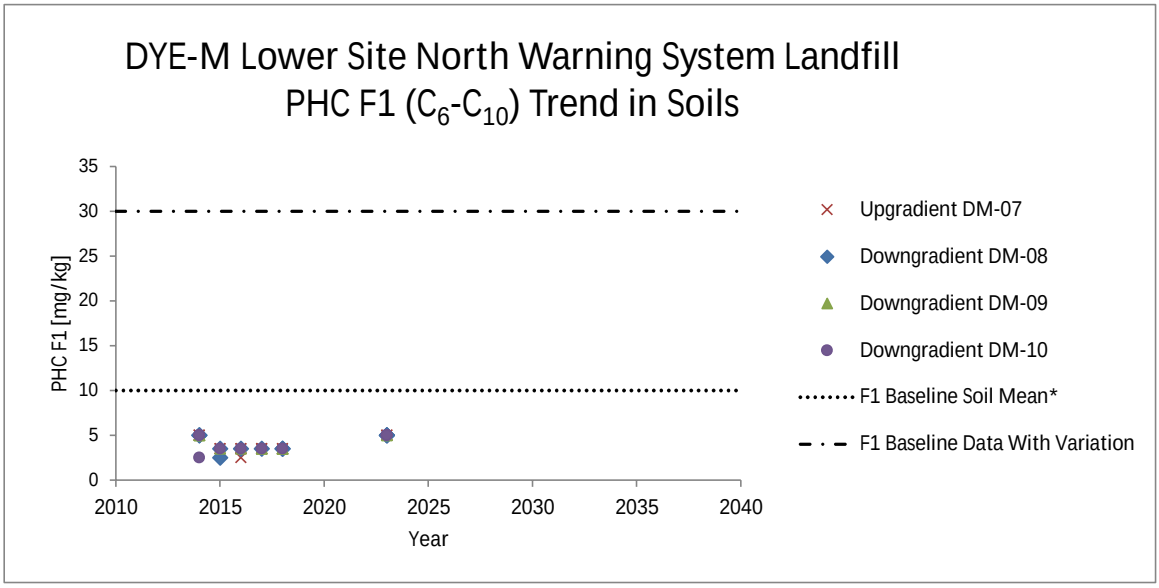
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* PCB baseline arithmetic mean is equal to the baseline detection limit



* F1 baseline arithmetic mean is equal to the detection limit

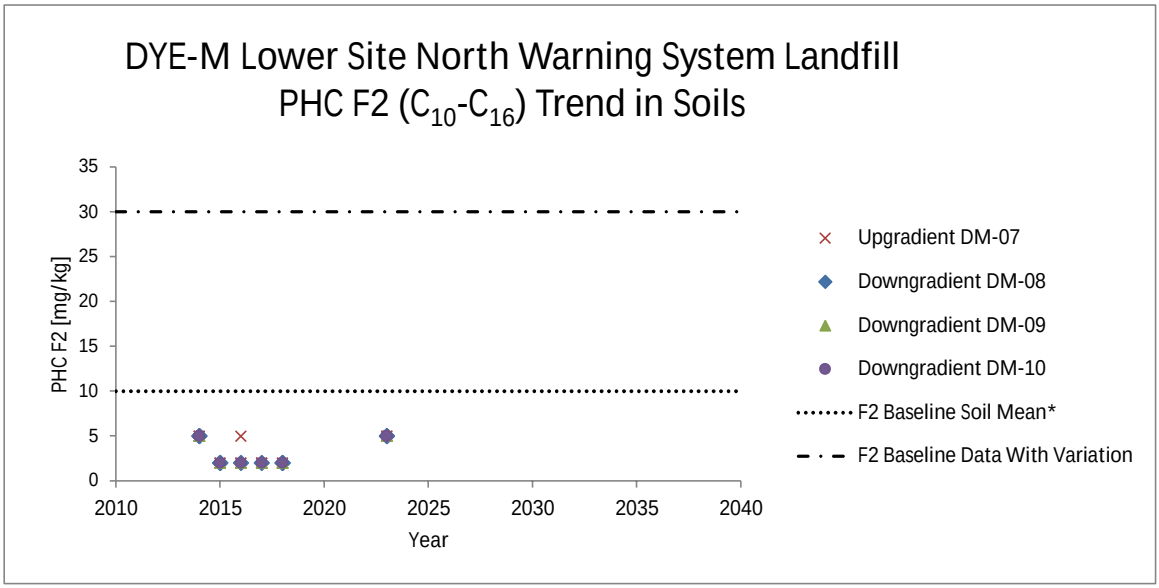
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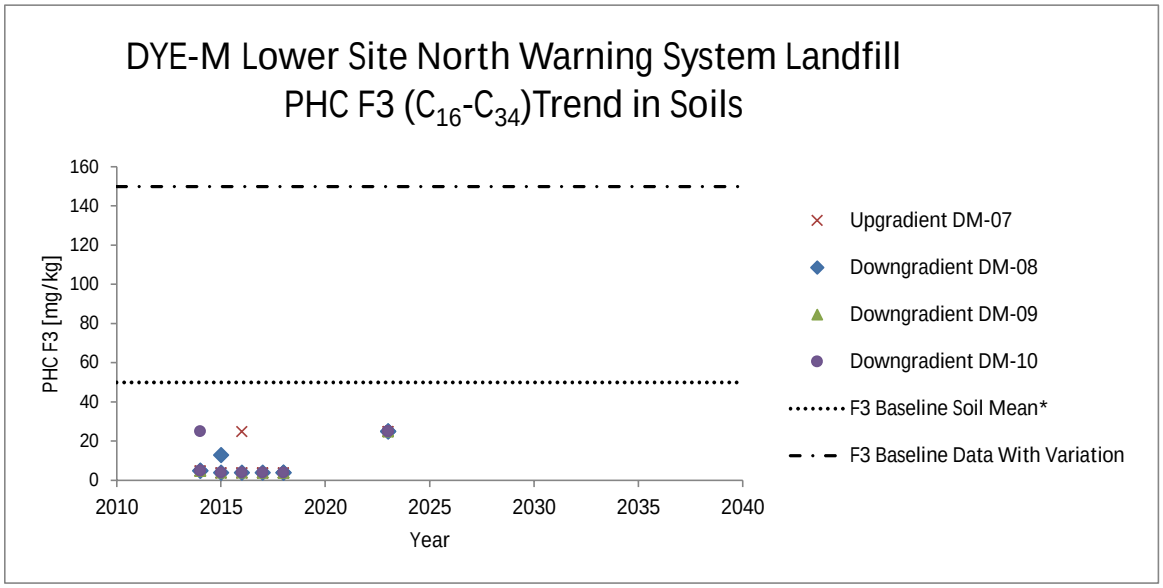
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F2 baseline arithmetic mean is equal to the detection limit



* F3 baseline arithmetic mean is equal to the detection limit

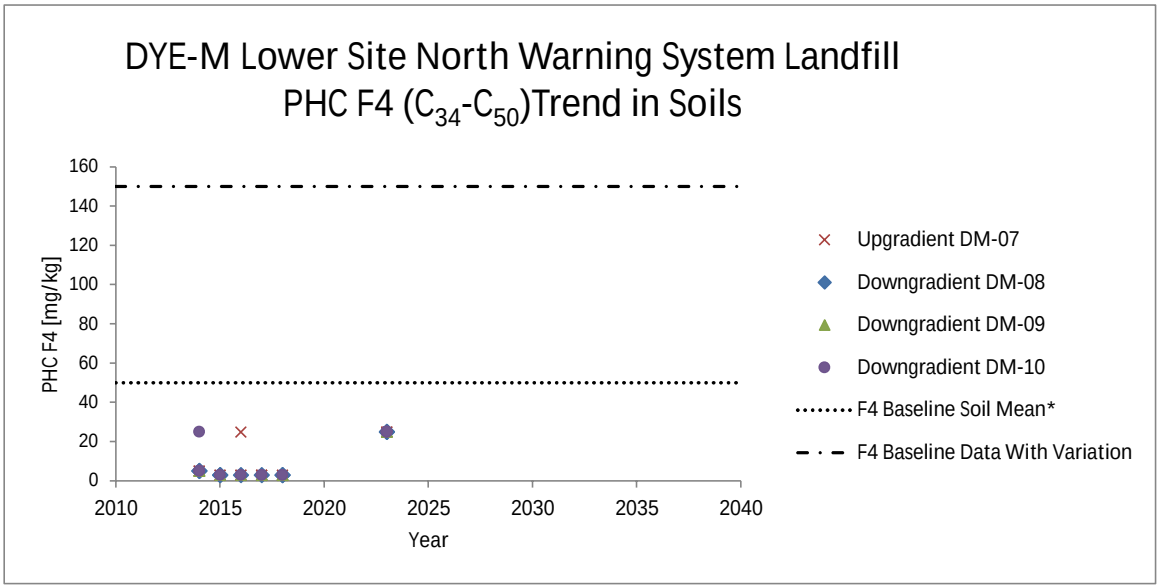
DYE-M Lower Site North Warning System Landfill Trends in Soil Inorganics, PCBs and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F4 baseline arithmetic mean is equal to the detection limit

DYE-M Lower Site Tier II Soil Disposal Facility - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	73.35	11.85	28.45	10.00	39.10	48.24	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	17.19	2.81	8.82	0.00	8.96	10.75	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	124.91	20.28	54.91	30.00	65.99	80.50	0.30	30.00	30.00	150.00	150.00
** If baseline or background arithmetic mean was below the detection limit, the mean has been modified to match the detection limit value.*																		
DEW Line Cleanup Tier I Criteria											*200*			*1*				
DEW Line Cleanup Tier II Criteria						*30*	*5*	*250*	*50*	*100*	*500*	*100*	*500*	*5*				
Monitoring Data																		
Upgradient																		
	MW05-16 surface																	
14-8455	MW05-16	2014	1	Phase I	5-10	1.00	<1	86.00	9.80	23.50	<10	44.20	51.00	<0.02	<10	<10	<10	<10
MW 05-16 (0-15)	MW05-16	2015	2	Phase I	0-15	1.60	<0.5	88.10	12.40	34.60	5.50	41.50	51.00	<0.05	<7	<4	<8	<6
MW05-16B	MW05-16	2016	3	Phase I	0-15	<1	<0.5	88.10	11.50	40.40	6.40	41.70	47.90	<0.05	<7	<4	34	26
MW05-16 Shallow	MW05-16	2017	4	Phase I	0-15	<1	<0.5	85.00	10.90	31.90	5.30	41.30	50.90	<0.05	<7	<4	<8	<6
MW05-16S	MW05-16	2018	5	Phase I	0-15	<1	<0.5	69.00	9.00	27.00	4.00	36.00	43.00	<0.05	<7	<4	<8	<6
MW05-16-Soil-S	MW05-16	2023	10	Phase II	0-15	0.53	0.058	59.20	8.61	23.30	3.27	30.30	38.70	<0.010	<10	<10	<50	<50
	MW05-16 depth																	
14-8457	MW05-16	2014	1	Phase I	45-50	1.70	<1	95.00	10.70	33.50	<10	51.80	69.00	<0.02	<10	<10	<10	<10
MW 05-16 (40-50)	MW05-16	2015	2	Phase I	40-50	1.40	<0.5	90.70	13.20	33.10	5.40	41.30	52.00	<0.05	<7	<4	<8	<6
MW05-16A	MW05-16	2016	3	Phase I	30-40	<1	<0.5	68.80	9.30	29.70	6.20	33.70	40.20	<0.05	<7	<4	<8	<6
MW05-16 Deep	MW05-16	2017	4	Phase I	40-50	<1	<0.5	71.20	9.70	28.10	5.10	35.20	44.20	<0.05	<7	<4	<8	<6
Not sampled - frozen	MW05-16	2018	5	Phase I														
MW05-16-Soil-D	MW05-16	2023	10	Phase II	40-50	0.55	0.053	64.50	9.26	26.40	3.58	33.90	42.10	<0.010	<10	<10	<50	<50
MW23-S-10 (Dup)	MW05-16	2023	10	Phase II	40-50	0.71	0.065	64.90	9.65	26.50	4.82	35.50	44.70	<0.010	<10	<10	<50	<50

DYE-M Lower Site Tier II Soil Disposal Facility - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	73.35	11.85	28.45	10.00	39.10	48.24	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	17.19	2.81	8.82	0.00	8.96	10.75	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	124.91	20.28	54.91	30.00	65.99	80.50	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	MW05-13 surface																	
14-8464	MW05-13	2014	1	Phase I	5-10	0.90	<1	49.00	5.40	13.70	<10	26.20	30.00	<0.02	<10	<10	<10	<10
MW 05-13 (0-15)	MW05-13	2015	2	Phase I	0-15	1.30	<0.5	60.40	8.90	21.80	3.70	33.70	35.90	<0.05	<7	<4	<8	<6
MW05-13A	MW05-13	2016	3	Phase I	0-15	<1	<0.5	47.10	6.90	18.90	3.70	24.80	26.90	<0.05	<7	<4	41	33
MW05-13 Shallow	MW05-13	2017	4	Phase I	0-15	<1	<0.5	47.30	7.10	21.80	5.20	27.40	33.50	<0.05	<7	<4	<8	<6
MW05-13S	MW05-13	2018	5	Phase I	0-15	<1	<0.5	53.00	8.00	24.00	4.00	32.00	36.00	<0.05	<7	<4	<8	<6
QA/QC 105 (Dup)	MW05-13	2018	5	Phase I	0-15	<1	<0.5	57.00	8.00	27.00	4.00	33.00	40.00	<0.05	<7	<4	<8	<6
MW05-13-Soil-S	MW05-13	2023	10	Phase II	0-15	0.49	0.077	45.30	7.30	16.10	2.63	27.10	30.20	<0.010	<10	<10	<50	<50
	MW05-13 depth																	
14-8465	MW05-13	2014	1	Phase I	45-50	0.90	<1	54.00	6.60	15.40	<10	29.90	36.00	<0.02	<10	<10	<10	<10
MW 05-13 (20-30)	MW05-13	2015	2	Phase I	20-30	<1	<0.5	56.30	8.60	20.80	3.50	30.70	33.60	<0.05	<7	<4	<8	<6
Not sampled - refusal	MW05-13	2016	3	Phase I														
MW05-13 Deep	MW05-13	2017	4	Phase I	20-30	<1	<0.5	45.30	6.50	18.60	3.20	26.10	31.30	<0.05	<7	<4	<8	<6
Not sampled - frozen	MW05-13	2018	5	Phase I														
MW05-13-Soil-D	MW05-13	2023	10	Phase II	45-50	0.52	0.072	41.10	6.73	16.20	2.44	24.50	28.50	<0.010	<10	<10	<50	<50

DYE-M Lower Site Tier II Soil Disposal Facility - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	73.35	11.85	28.45	10.00	39.10	48.24	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	17.19	2.81	8.82	0.00	8.96	10.75	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	124.91	20.28	54.91	30.00	65.99	80.50	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	MW05-15 surface																	
14-8458	MW05-15	2014	1	Phase I	5-10	1.50	<1	91.00	9.80	24.90	<10	44.40	55.00	<0.02	<10	<10	<10	<10
14-8459 (Interlab)	MW05-15	2014	1	Phase I	5-10	1.38	<0.5	82.90	12.00	33.60	4.10	42.20	54.00	<0.10	<5	<10	<50	<50
MW05-15 (0-15)	MW05-15	2015	2	Phase I	0-15	1.70	<0.5	92.80	14.10	35.50	4.90	44.80	55.20	<0.05	<7	<4	<8	<6
MW05-15 (0-15) (Interlab)	MW05-15	2015	2	Phase I	0-15	1.00	<0.5	94.00	13.70	43.00	4.95	51.00	66.00	<0.05	<5	<4	<8	<6
MW05-15B	MW05-15	2016	3	Phase I	0-15	<1	<0.5	91.30	13.00	45.90	7.40	44.10	50.60	<0.05	<7	<4	59	34
MW05-15 Shallow	MW05-15	2017	4	Phase I	0-15	<1	<0.5	79.30	11.50	37.70	6.00	44.30	51.30	<0.05	<7	<4	<8	<6
MW05-15S	MW05-15	2018	5	Phase I	0-15	<1	<0.5	66.00	10.00	28.00	4.00	36.00	42.00	<0.05	<7	<4	<8	<6
MW05-15-Soil-S	MW05-15	2023	10	Phase II	0-15	0.99	0.059	63.90	9.58	30.50	3.61	35.50	43.90	<0.010	<10	<10	<50	<50
	MW05-15 depth																	
14-8460	MW05-15	2014	1	Phase I	45-50	1.50	<1	74.00	8.60	23.50	<10	39.60	47.00	<0.02	<10	<10	<10	<10
14-8461 (Dup)	MW05-15	2014	1	Phase I	45-50	1.80	<1	77.00	9.60	25.90	<10	42.10	50.00	<0.02	<10	<10	<10	<10
MW05-15 (30-40)	MW05-15	2015	2	Phase I	30-40	1.60	<0.5	88.90	13.20	34.10	5.20	42.50	53.30	<0.05	<7	<4	<8	<6
MW05-15A	MW05-15	2016	3	Phase I	40-50	<1	<0.5	71.00	11.30	36.60	6.80	38.50	45.40	<0.05	<7	<4	<8	<6
MW05-15 Deep	MW05-15	2017	4	Phase I	40-50	<1	<0.5	87.90	12.50	40.20	6.00	46.30	55.80	<0.05	<7	<4	<8	<6
MW05-15D	MW05-15	2018	5	Phase I	15-25	1.00	<0.5	78.00	11.00	35.00	5.00	44.00	52.00	<0.05	<7	<4	<8	<6
MW05-15-Soil-D	MW05-15	2023	10	Phase II	40-50	0.78	<0.050	54.80	8.26	23.00	3.08	29.50	38.10	<0.010	<10	<10	<50	<50

DYE-M Lower Site Tier II Soil Disposal Facility - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	73.35	11.85	28.45	10.00	39.10	48.24	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	17.19	2.81	8.82	0.00	8.96	10.75	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	124.91	20.28	54.91	30.00	65.99	80.50	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	MW12-01 surface																	
14-8462	MW12-01	2014	1	Phase I	5-10	0.80	<1	51.00	5.70	14.30	<10	24.40	33.00	<0.02	<10	<10	<10	<10
MW 12-01 (0-15)	MW12-01	2015	2	Phase I	0-15	1.50	<0.5	69.00	9.60	27.70	4.40	32.80	42.00	<0.05	<7	<4	<8	<6
MW12-01A	MW12-01	2016	3	Phase I	0-15	<1	<0.5	64.00	8.40	27.10	5.10	29.60	36.40	<0.05	<7	<4	<8	<6
MW12-01 Shallow	MW12-01	2017	4	Phase I	0-15	<1	<0.5	72.00	9.50	29.30	5.30	35.00	42.80	<0.05	<7	<4	<8	<6
MW05-12S	MW12-01	2018	5	Phase I	0-15	<1	<0.5	57.00	8.00	25.00	4.00	31.00	37.00	<0.05	<7	<4	<8	<6
MW12-01-SOIL-S	MW12-01	2023	10	Phase II	0-15	0.95	0.097	67.90	9.59	30.00	3.63	35.80	45.90	<0.010	<10	<10	<50	<50
	MW12-01 depth																	
14-8463	MW12-01	2014	1	Phase I	40-45	1.20	<1	69.00	8.10	24.80	<10	39.20	47.00	<0.02	<10	<10	<10	<10
MW 12-01 (20-30)	MW12-01	2015	2	Phase I	20-30	1.00	<0.5	70.50	10.00	27.50	4.70	32.30	42.00	<0.05	<7	<4	<8	<6
Not sampled - refusal	MW12-01	2016	3	Phase I														
MW12-01 Deep	MW12-01	2017	4	Phase I	40-50	<1	<0.5	64.90	9.40	28.20	5.40	35.20	43.40	<0.05	<7	<4	<8	<6
MW12-901 Deep (Dup)	MW12-01	2017	4	Phase I	40-50	<1	<0.5	61.70	8.50	25.20	4.50	31.50	39.60	<0.05	<7	<4	<8	<6
MW05-12D	MW12-01	2018	5	Phase I	20-30	<1	<0.5	67.00	10.00	29.00	5.00	36.00	44.00	<0.05	<7	<4	<8	<6
MW12-01-SOIL-D	MW12-01	2023	10	Phase II	40-50	0.77	0.066	61.50	8.62	26.10	3.41	31.90	41.30	<0.010	<10	<10	<50	<50
MW12-01-SOIL-D (Interlab)	MW12-01	2023	10	Phase II	40-50											<10	<50	<50

N/A = not analyzed

Legend

XX	Sample exceeds baseline mean
XX	Sample exceeds baseline data with variation

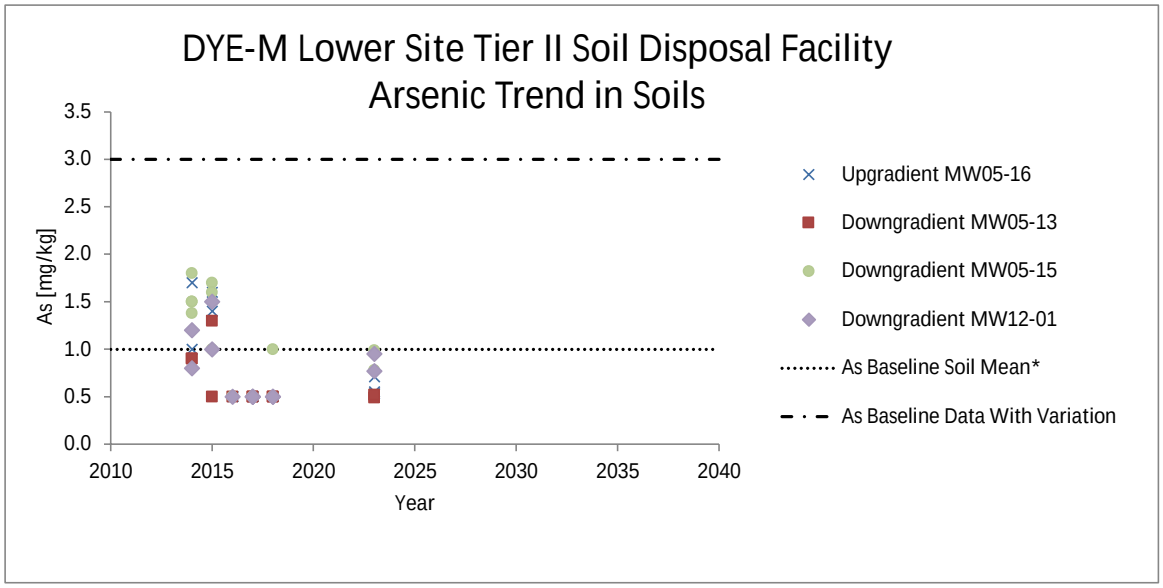
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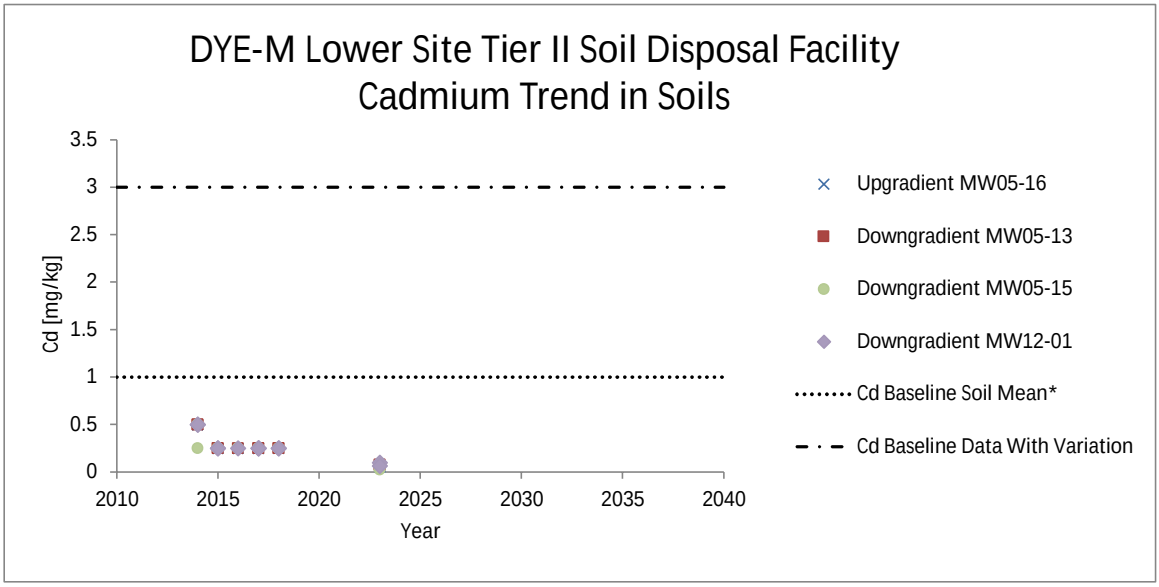
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* As baseline arithmetic mean is equal to the baseline detection limit



* Cd baseline arithmetic mean is equal to the baseline detection limit

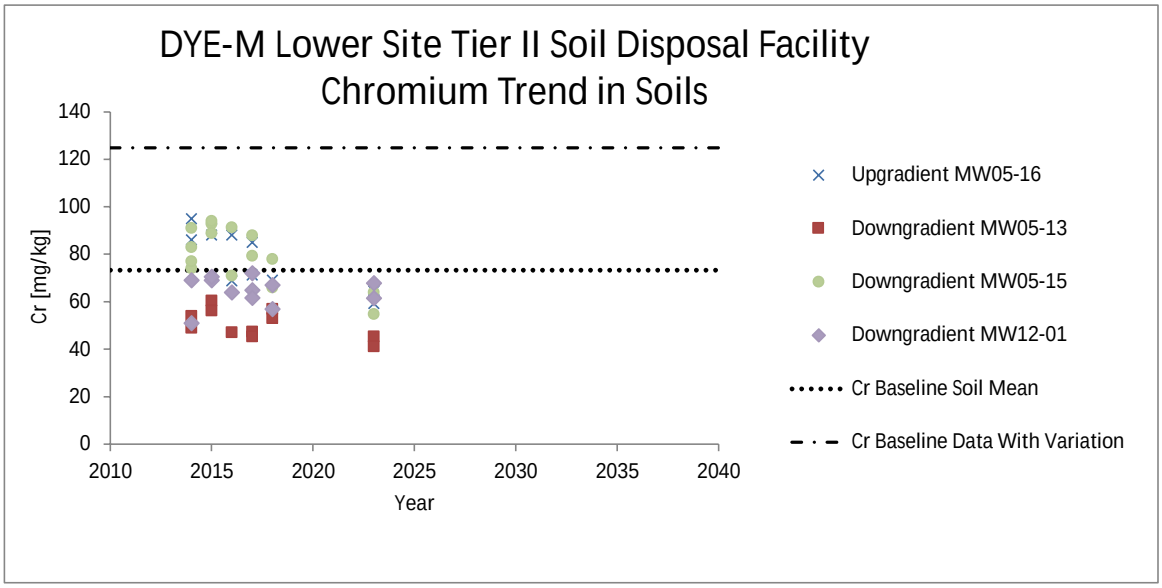
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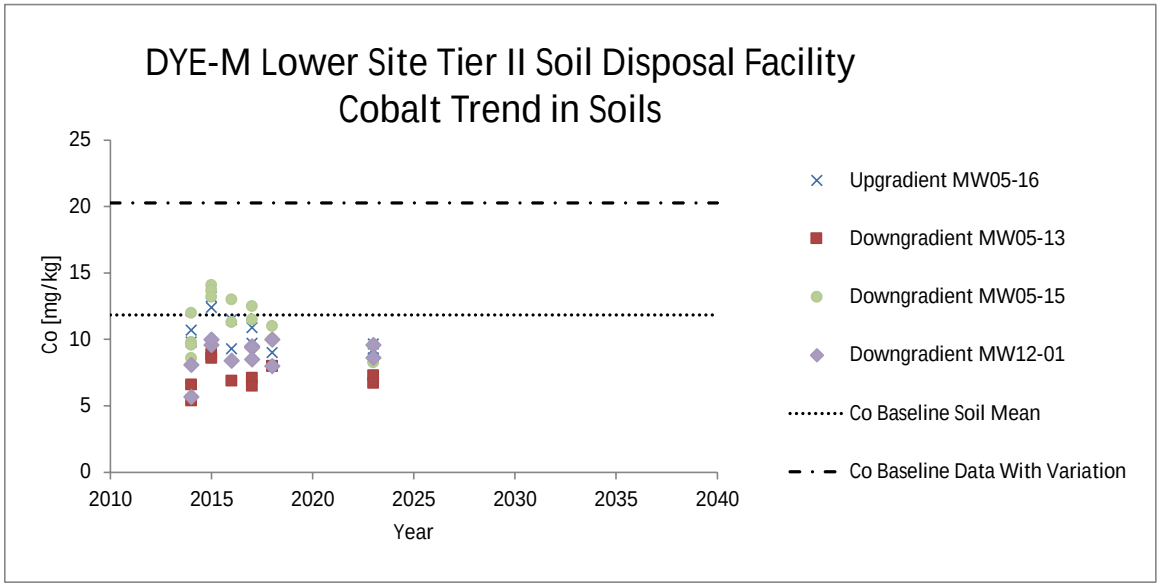
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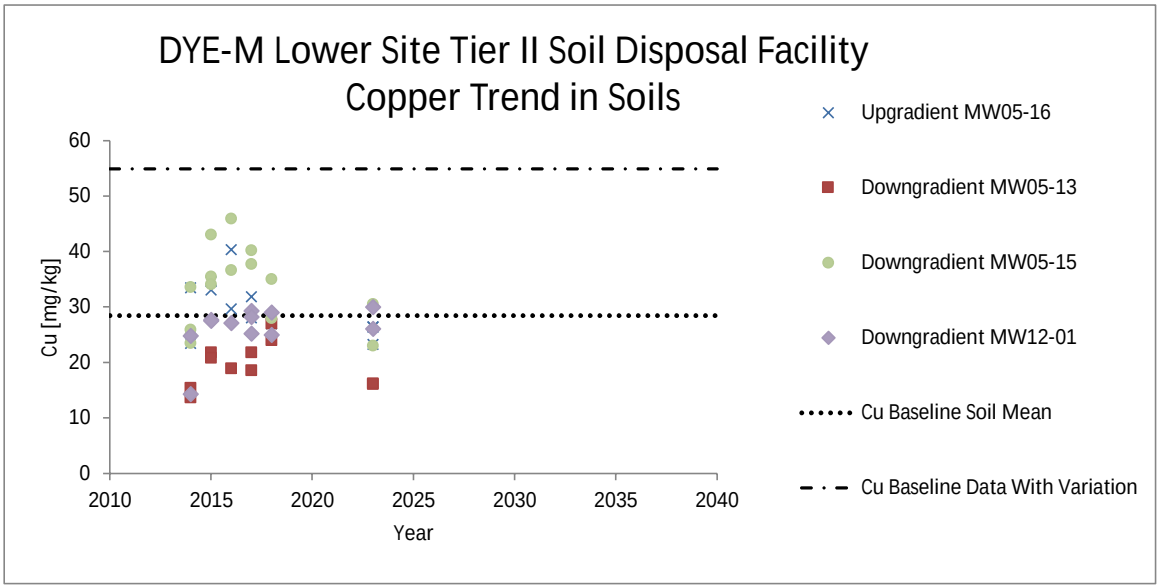
DYE-M Lower Site Tier II Soil Disposal Facility Trends in Soil Inorganics, PCBs and PHCs

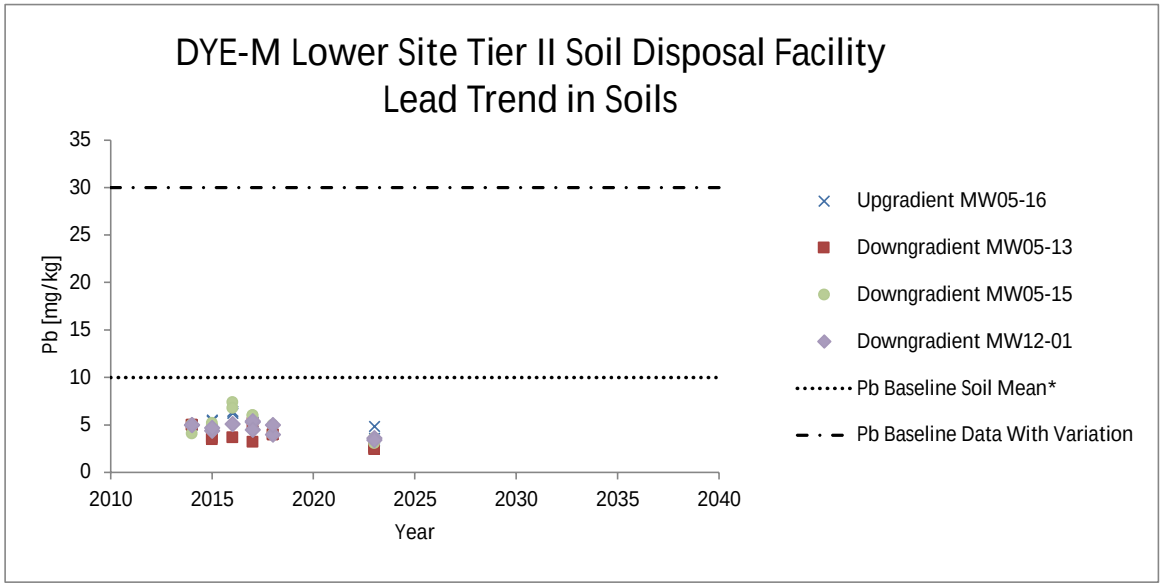
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When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





* Pb baseline arithmetic mean is equal to the baseline detection limit

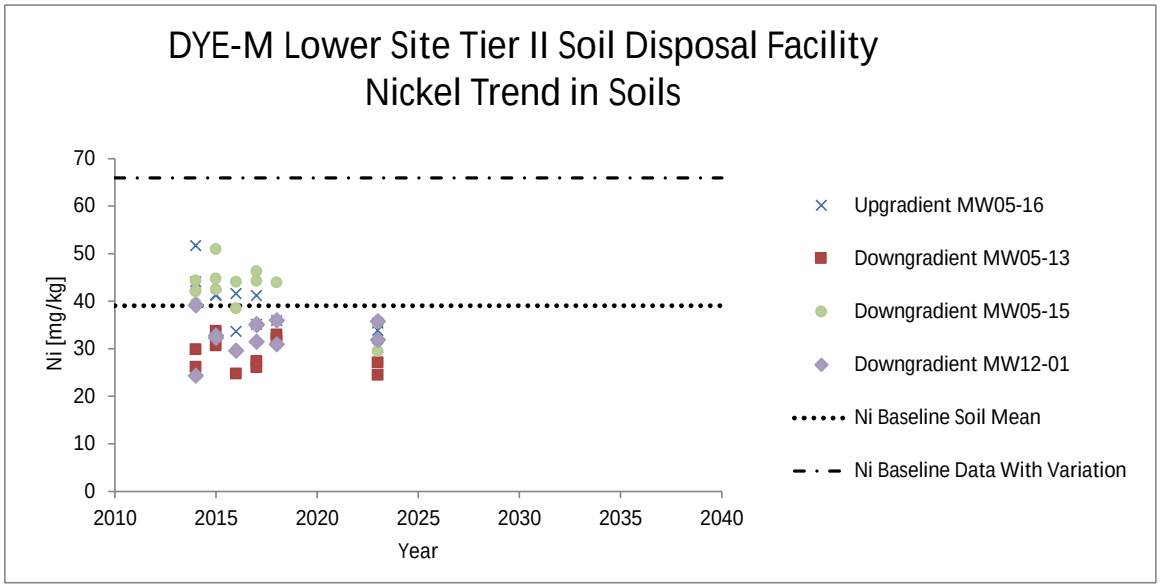
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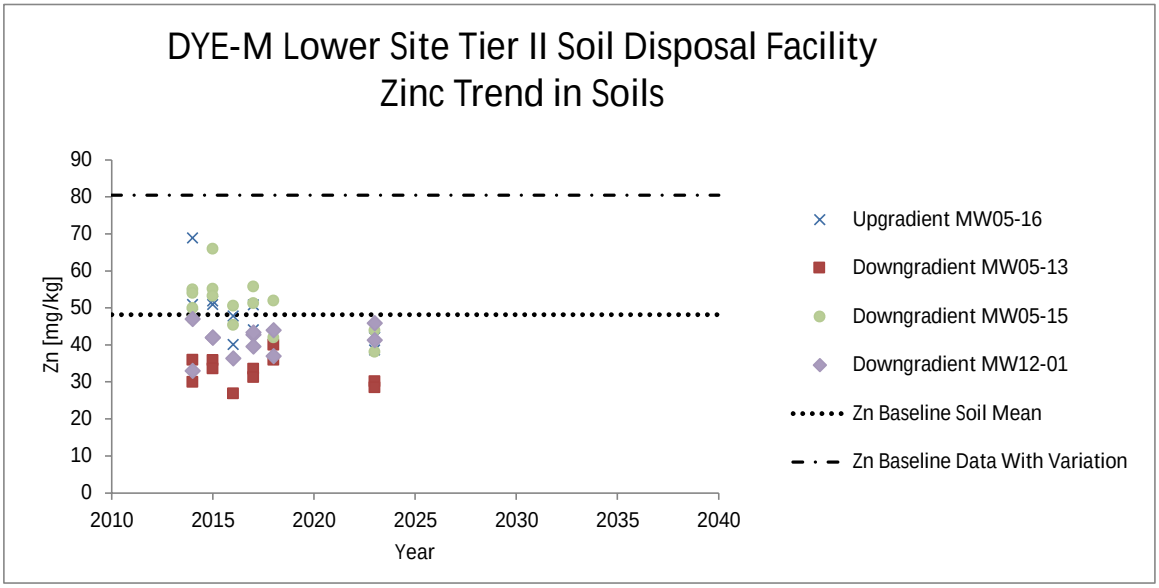
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





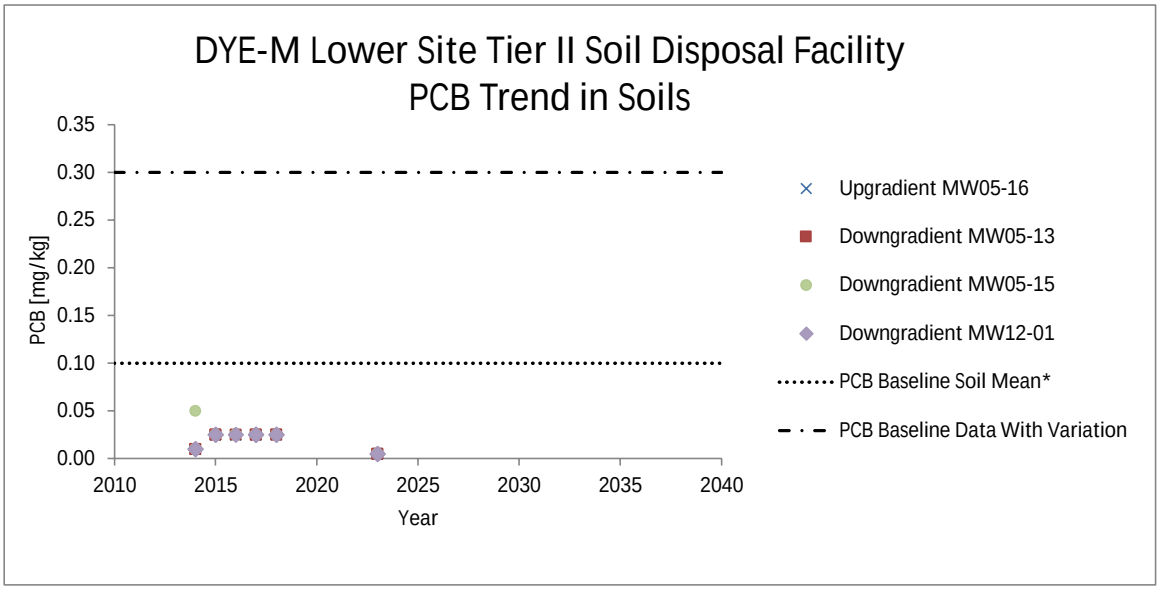
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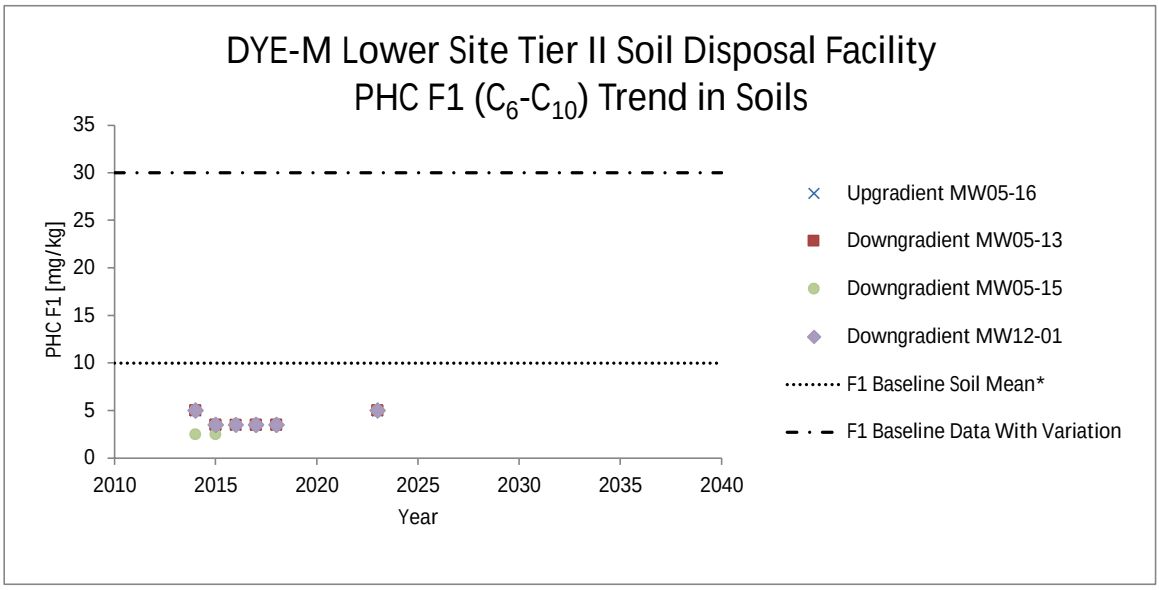
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* PCB baseline arithmetic mean is equal to the baseline detection limit



* F1 baseline arithmetic mean is equal to the detection limit

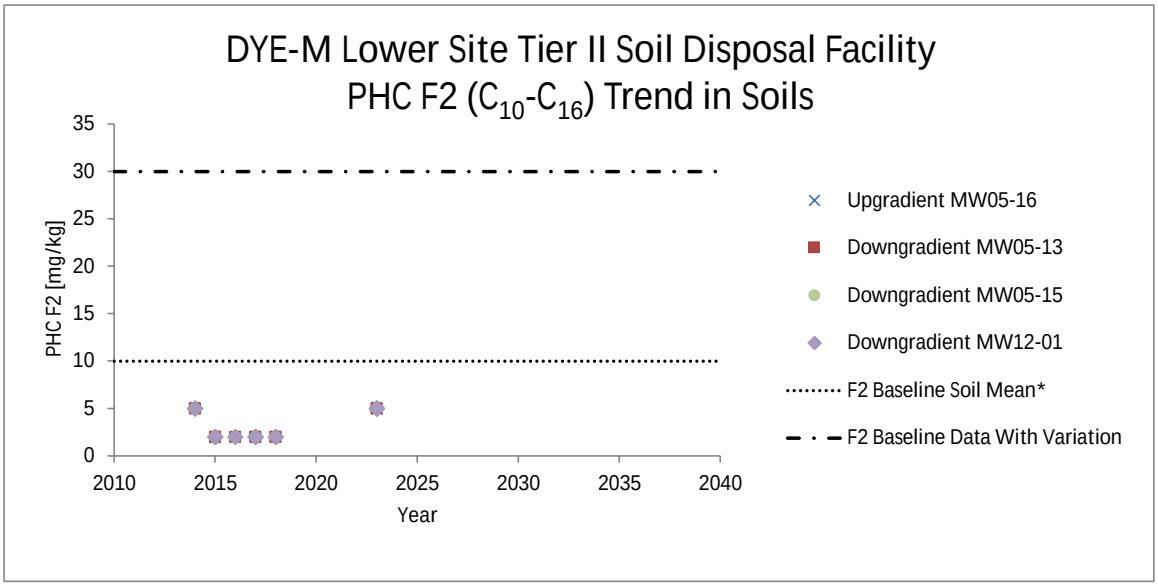
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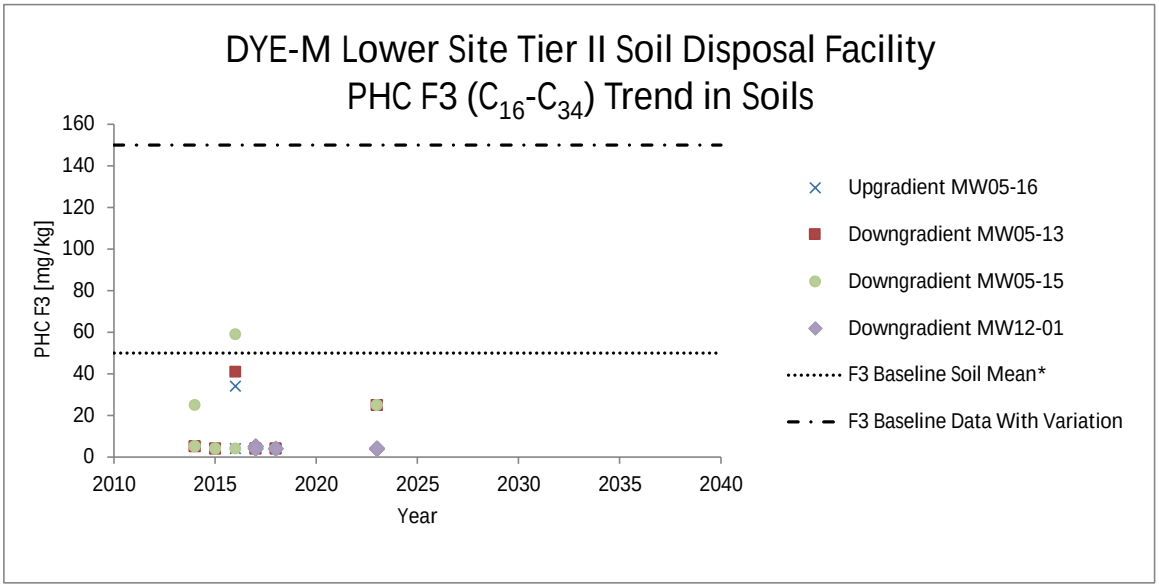
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F2 baseline arithmetic mean is equal to the detection limit



* F3 baseline arithmetic mean is equal to the detection limit

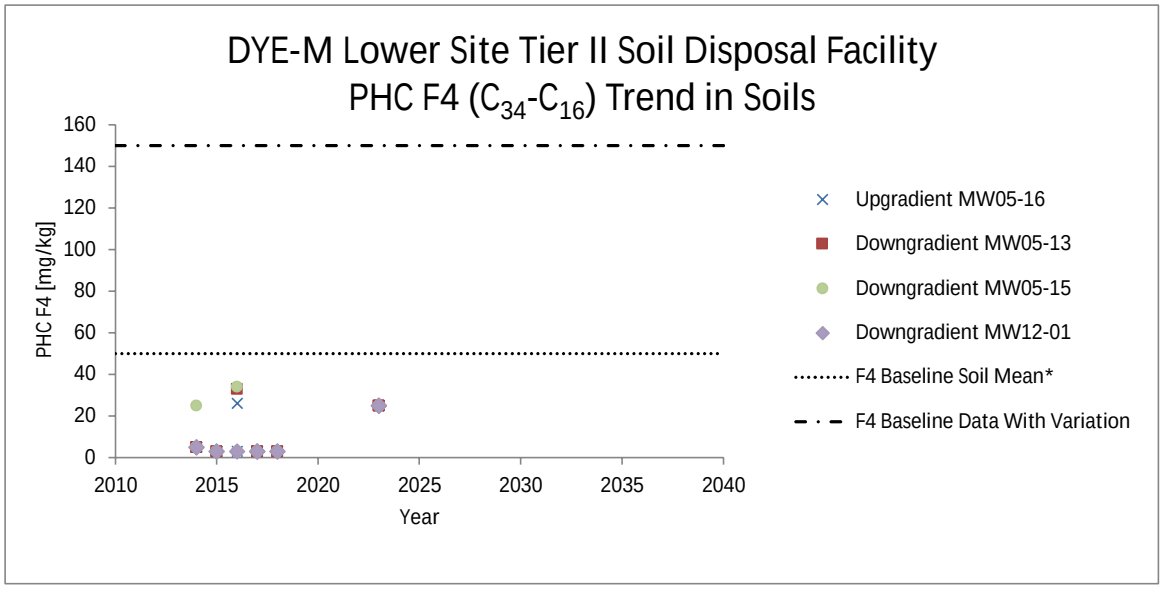
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F4 baseline arithmetic mean is equal to the detection limit

DYE-M Lower Site Tier II Soil Disposal Facility - Summary of Groundwater Monitoring Analytical Data

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Sample ID	Location	Date	Monitoring Year	Monitoring Phase	As* (mg/L)	Cd* (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Pb* (mg/L)	Ni (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0021	0.0006	0.2814	0.0160	0.0637	0.0080	0.1803	3.11	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					0.0030	0.0010	0.2814	0.0160	0.0637	0.0100	0.1803	3.11	0.05	0.50	1.00	1.00
Baseline Data - Standard Deviation					0.0000	0.0000	0.2076	0.0133	0.0535	0.0000	0.1130	3.69	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					0.0090	0.0030	0.9042	0.0559	0.2243	0.0300	0.5193	14.17	0.15	1.50	3.00	3.00
*If baseline or background arithmetic mean was below the detection limit, the mean has been modified to match the detection limit value.																
Dissolved metals results (italicized) have not been included in the calculation of N value, baseline arithmetic mean or standard deviation. Total metals results (i.e., those used in calculations) are not italicized.																
Monitoring Data																
Upgradient - MW05-16																
Not sampled - well dry/frozen	MW05-16	2014	1	Phase I												
MW05-16	MW05-16	2015	2	Phase I	<0.001	<0.0001	<0.001	<0.00050	0.00130	0.00200	0.00200	4.96000	<0.025	<0.1	<0.1	<0.1
Not sampled - well dry	MW05-16	2016	3	Phase I												
Not sampled - frozen	MW05-16	2017	4	Phase I												
Not sampled - frozen	MW05-16	2018	5	Phase I												
MW05-16	MW05-16	2023	10	Phase II	0.00019	0.0000544	0.01250	0.00087	0.00396	0.00155	0.00926	6.18000	<0.025	<0.1	<0.2	<0.2

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Sample ID	Location	Date	Monitoring Year	Monitoring Phase	As* (mg/L)	Cd* (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Pb* (mg/L)	Ni (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0021	0.0006	0.2814	0.0160	0.0637	0.0080	0.1803	3.11	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					0.0030	0.0010	0.2814	0.0160	0.0637	0.0100	0.1803	3.11	0.05	0.50	1.00	1.00
Baseline Data - Standard Deviation					0.0000	0.0000	0.2076	0.0133	0.0535	0.0000	0.1130	3.69	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					0.0090	0.0030	0.9042	0.0559	0.2243	0.0300	0.5193	14.17	0.15	1.50	3.00	3.00
Downgradient - MW05-13																
Not sampled - well dry/frozen	MW05-13	2014	1	Phase I												
MW05-13	MW05-13	2015	2	Phase I	<0.001	<0.0001	0.00100	<0.0005	<0.0005	0.00070	0.00200	2.84000	<0.025	<0.1	<0.1	<0.1
MW05-13 (Interlab)	MW05-13	2015	2	Phase I	<0.001	0.0017000	<0.002	<0.001	0.00200	<0.001	0.00300	2.90000	<0.025	<0.1	<0.1	<0.1
MW05-13 (low volume)	MW05-13	2016	3	Phase I	<0.001	<0.0001	<0.001	0.00060	0.00100	<0.0001	0.01500	2.38000	<0.025	N/A	N/A	N/A
MW05-13	MW05-13	2017	4	Phase I	*<0.001*	*<0.0001*	*<0.001*	*<0.0005*	*0.00130*	*<0.0001*	*0.00300*	*2.36000*	<0.025	*<0.1*	*<0.1*	*<0.1*
Not sampled - frozen	MW05-13	2018	5	Phase I												
MW05-13	MW05-13	2023	10	Phase II	0.00021	0.0000976	0.00331	0.00039	0.00174	0.00156	0.00394	4.74000	<0.025	<0.1	<0.2	<0.2

DYE-M Lower Site Tier II Soil Disposal Facility - Summary of Groundwater Monitoring Analytical Data

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Sample ID	Location	Date	Monitoring Year	Monitoring Phase	As* (mg/L)	Cd* (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Pb* (mg/L)	Ni (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0021	0.0006	0.2814	0.0160	0.0637	0.0080	0.1803	3.11	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					0.0030	0.0010	0.2814	0.0160	0.0637	0.0100	0.1803	3.11	0.05	0.50	1.00	1.00
Baseline Data - Standard Deviation					0.0000	0.0000	0.2076	0.0133	0.0535	0.0000	0.1130	3.69	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					0.0090	0.0030	0.9042	0.0559	0.2243	0.0300	0.5193	14.17	0.15	1.50	3.00	3.00
Downgradient - MW05-15																
Not sampled - well dry/frozen	MW05-15	2014	1	Phase I												
MW05-15	MW05-15	2015	2	Phase I	<0.001	0.0001000	<0.001	0.00120	0.00170	0.00220	0.01000	18.70000	<0.025	<0.1	<0.1	<0.1
MW05-15	MW05-15	2016	3	Phase I	<0.001	<0.0001	<0.001	<0.0005	<0.0005	<0.0001	0.00700	2.52000	<0.025	<0.1	<0.1	<0.1
Not sampled - frozen	MW05-15	2017	4	Phase I												
Not sampled - well dry/bentonite	MW05-15	2018	5	Phase I												
MW05-15	MW05-15	2023	10	Phase II	0.00017	0.0000930	0.00225	0.00074	0.00254	0.00139	0.00894	11.30000	<0.025	<0.1	<0.2	<0.2

DYE-M Lower Site Tier II Soil Disposal Facility - Summary of Groundwater Monitoring Analytical Data

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Sample ID	Location	Date	Monitoring Year	Monitoring Phase	As* (mg/L)	Cd* (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Pb* (mg/L)	Ni (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0021	0.0006	0.2814	0.0160	0.0637	0.0080	0.1803	3.11	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					0.0030	0.0010	0.2814	0.0160	0.0637	0.0100	0.1803	3.11	0.05	0.50	1.00	1.00
Baseline Data - Standard Deviation					0.0000	0.0000	0.2076	0.0133	0.0535	0.0000	0.1130	3.69	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					0.0090	0.0030	0.9042	0.0559	0.2243	0.0300	0.5193	14.17	0.15	1.50	3.00	3.00
Downgradient - MW12-01 (Baseline well MW-14 was damaged in 2009; replaced in 2012 by MW12-01)																
14-8185	MW12-01	2014	1	Phase I	*<0.001*	*<0.00009*	*<0.0005*	*0.00037*	*<0.001*	*<0.0005*	*0.01290*	*<0.003*	<0.025	*<0.1*	*<0.25*	*<0.25*
MW12-01	MW12-01	2015	2	Phase I	<0.001	<0.0001	<0.001	0.00180	0.00050	<0.0001	0.02000	0.01800	<0.025	<0.1	<0.1	<0.1
MW12-01	MW12-01	2016	3	Phase I	<0.001	<0.0001	<0.001	0.00060	<0.0005	<0.0001	0.04000	<0.005	<0.025	<0.1	<0.1	<0.1
MW12-01 (Interlab)	MW12-01	2016	3	Phase I	<0.001	<0.0001	0.00300	<0.0005	<0.005	0.00020	0.05700	<0.005	<0.025	<0.1	<0.1	<0.1
MW12-01	MW12-01	2017	4	Phase I	*<0.001*	*<0.0001*	*<0.001*	*0.00070*	*<0.0005*	*<0.0001*	*0.00700*	*0.00700*	<0.025	*<0.1*	*<0.1*	*<0.1*
Not sampled - frozen	MW12-01	2018	5	Phase I												
MW12-01	MW12-01	2023	10	Phase II	0.00009	0.0002030	0.01050	0.00550	0.00813	0.00091	0.02870	0.02500	<0.025	<0.1	<0.2	<0.2

N/A = not analyzed

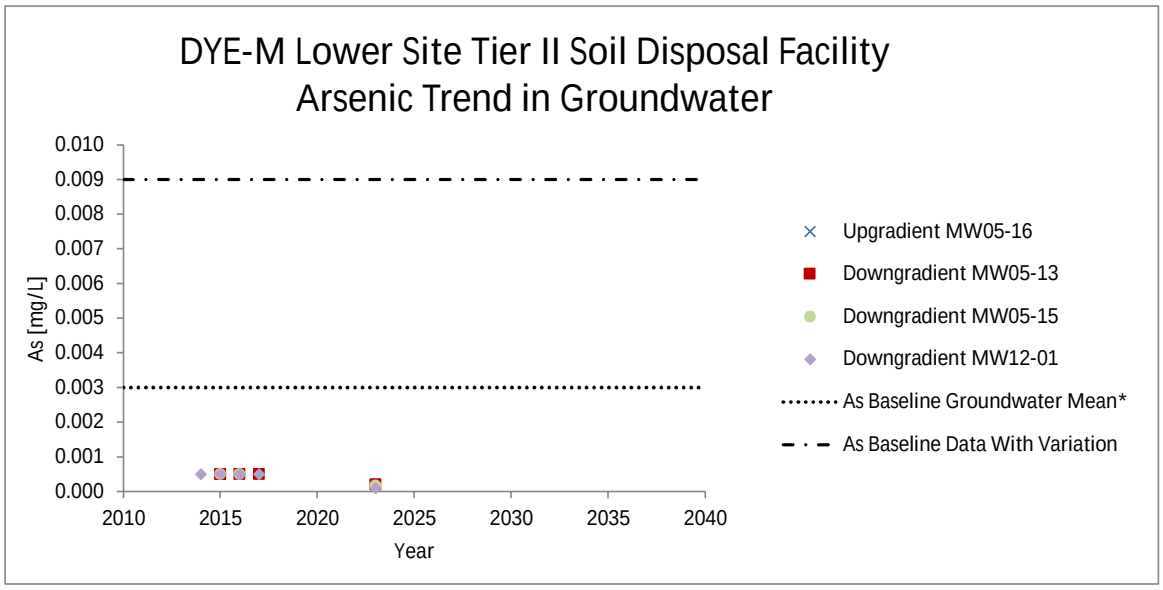
2014 and 2017 samples were accidentally analysis for dissolved metals instead of total metals.

Legend	
XX	Sample exceeds baseline mean
XX	Sample exceeds baseline data with variation
XX	*Dissolved metals results*

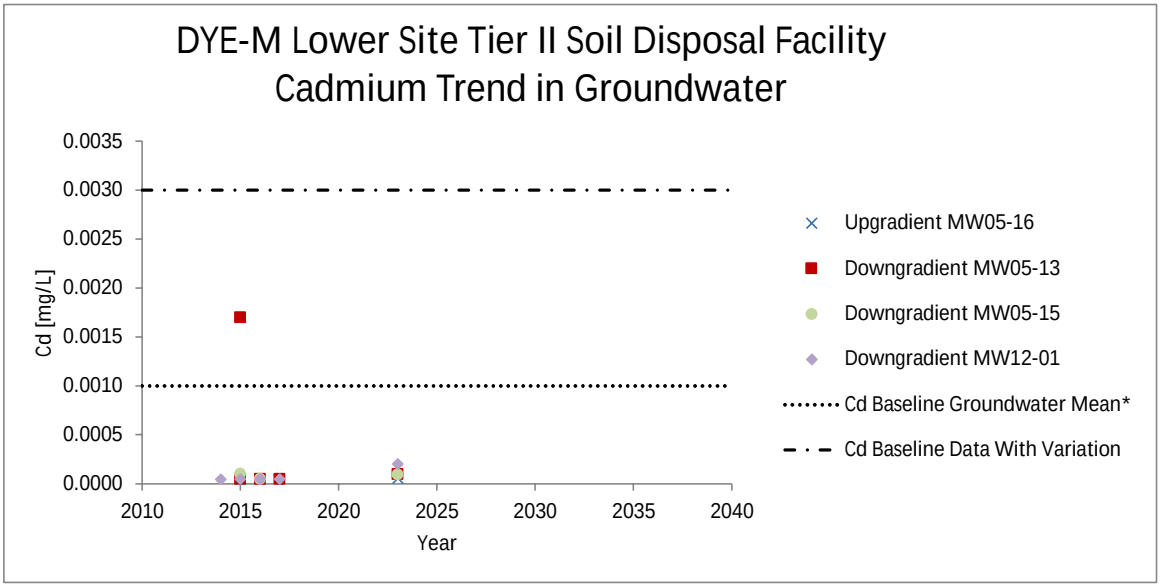
DYE-M Lower Site Tier II Soil Disposal Facility Trends in Groundwater Inorganics and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.
Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.
When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* As baseline arithmetic mean is equal to the baseline detection limit

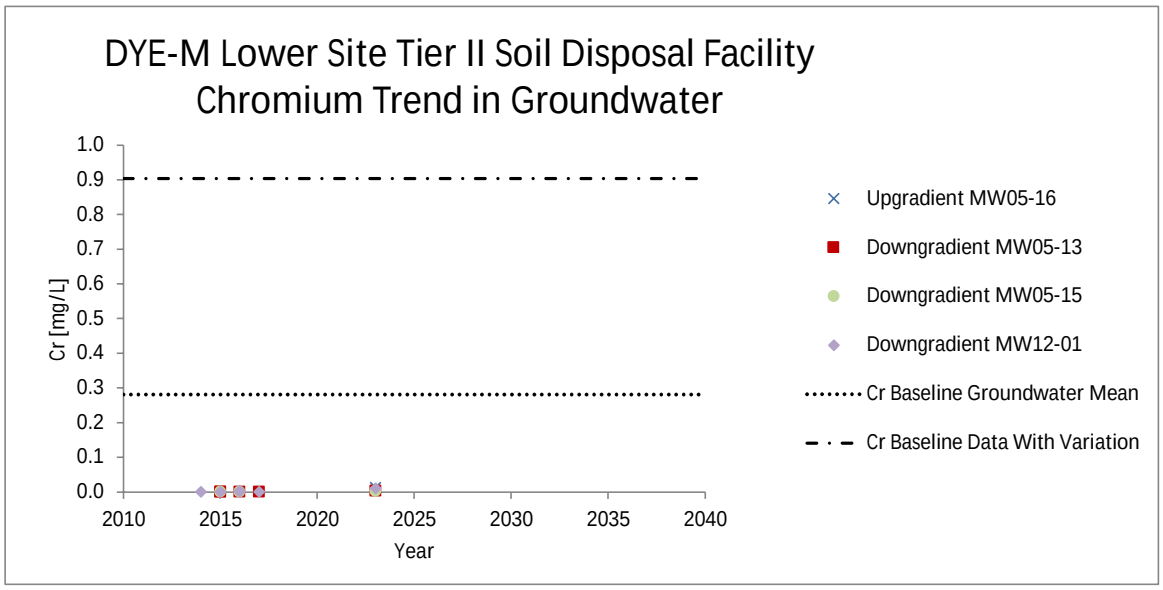


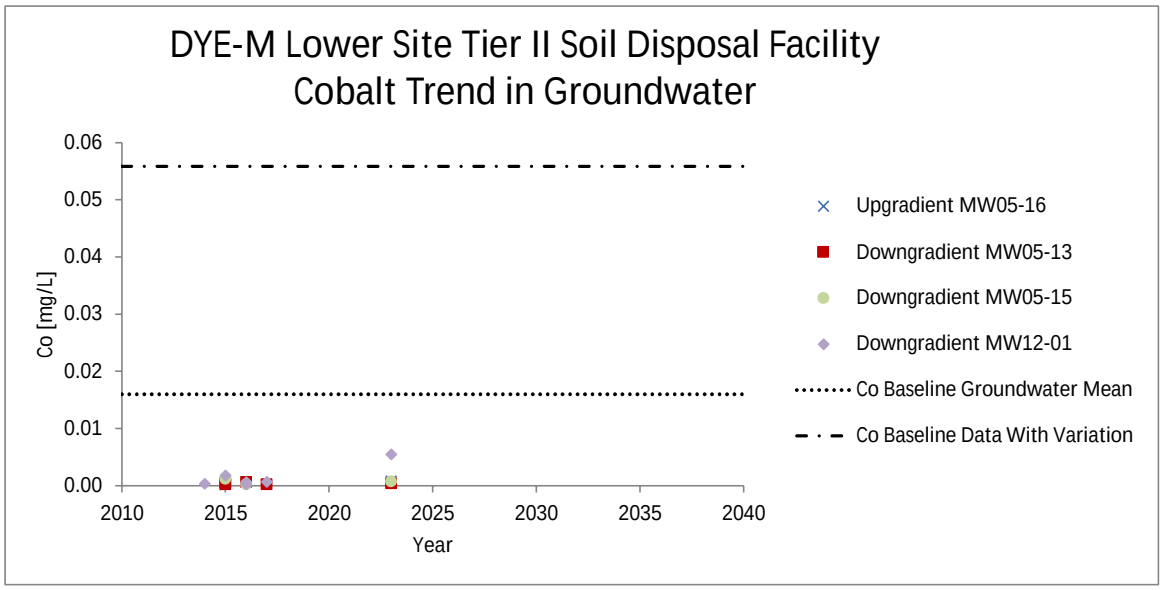
* Cd baseline arithmetic mean is equal to the baseline detection limit

DYE-M Lower Site Tier II Soil Disposal Facility Trends in Groundwater Inorganics and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.
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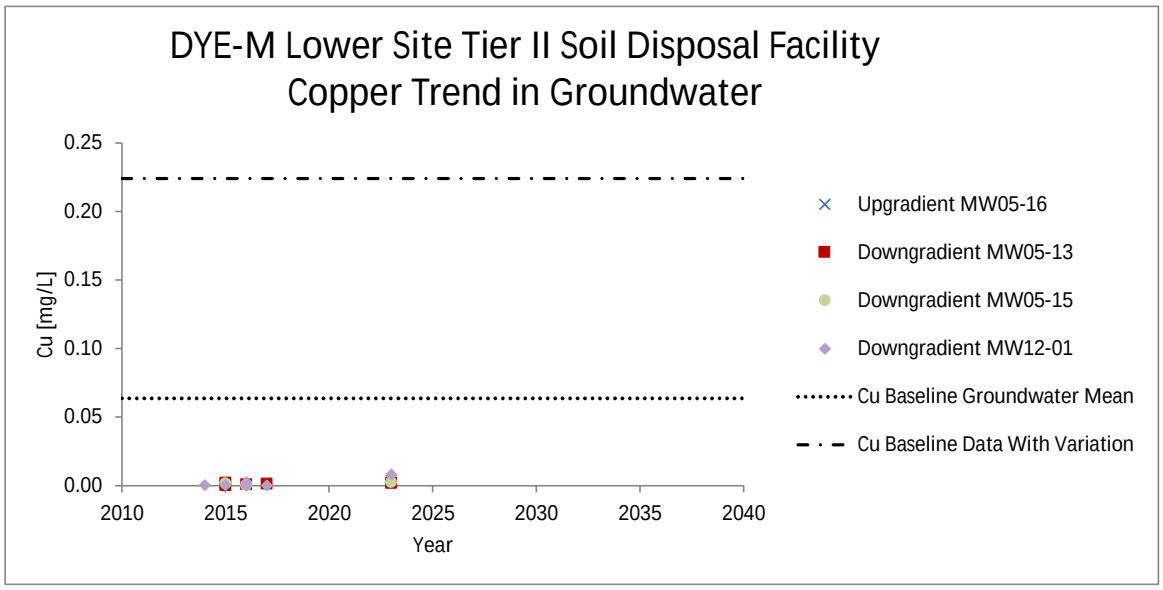


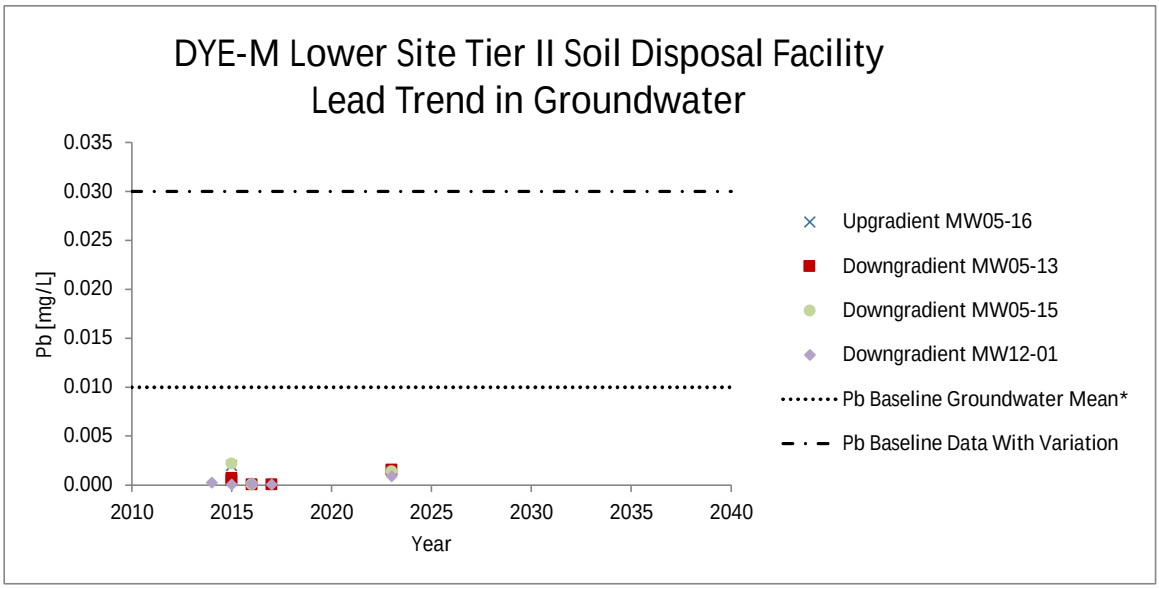


DYE-M Lower Site Tier II Soil Disposal Facility Trends in Groundwater Inorganics and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.
Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.
When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



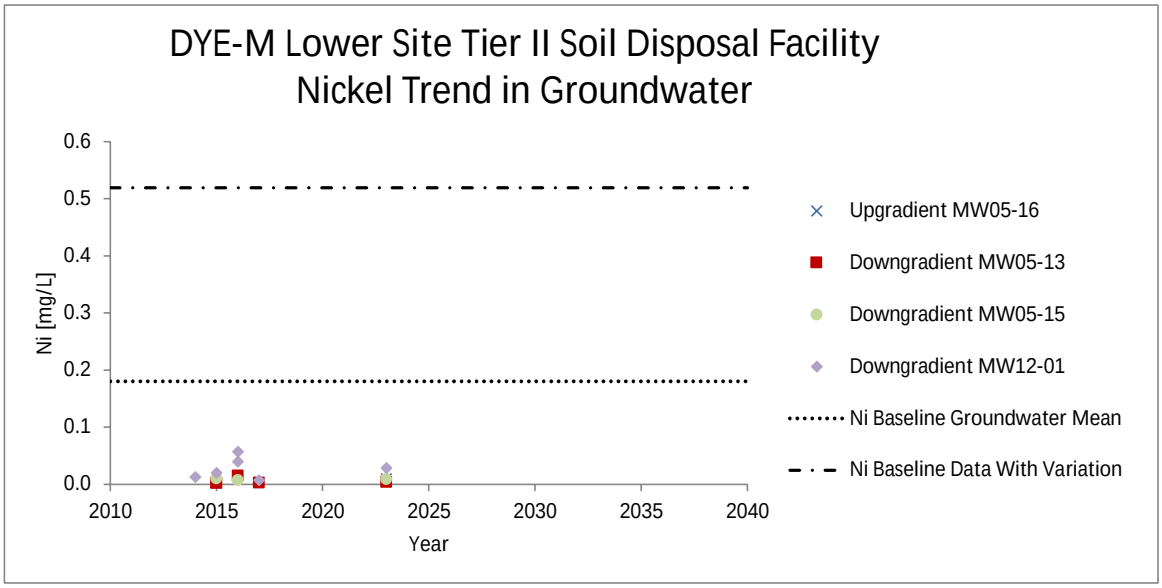


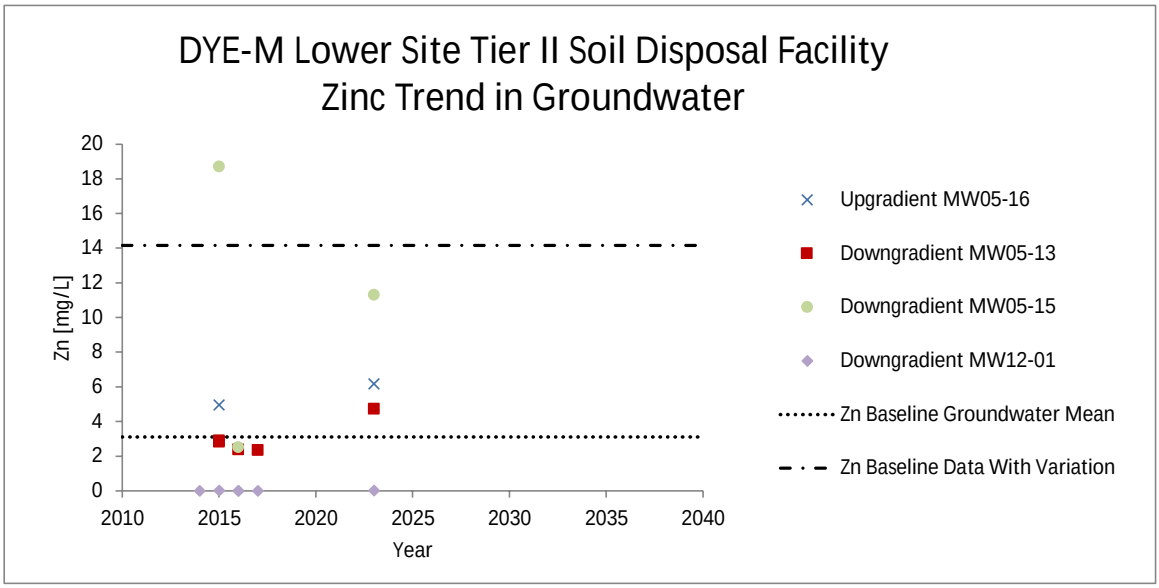
* Pb baseline arithmetic mean is equal to the baseline detection limit

DYE-M Lower Site Tier II Soil Disposal Facility Trends in Groundwater Inorganics and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.
Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.
When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.

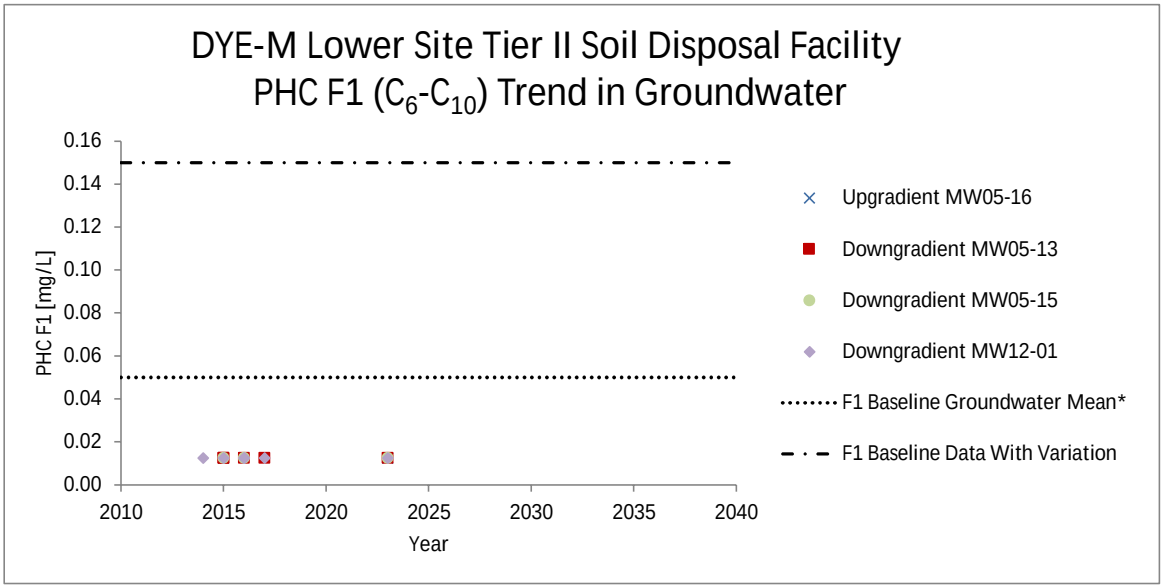




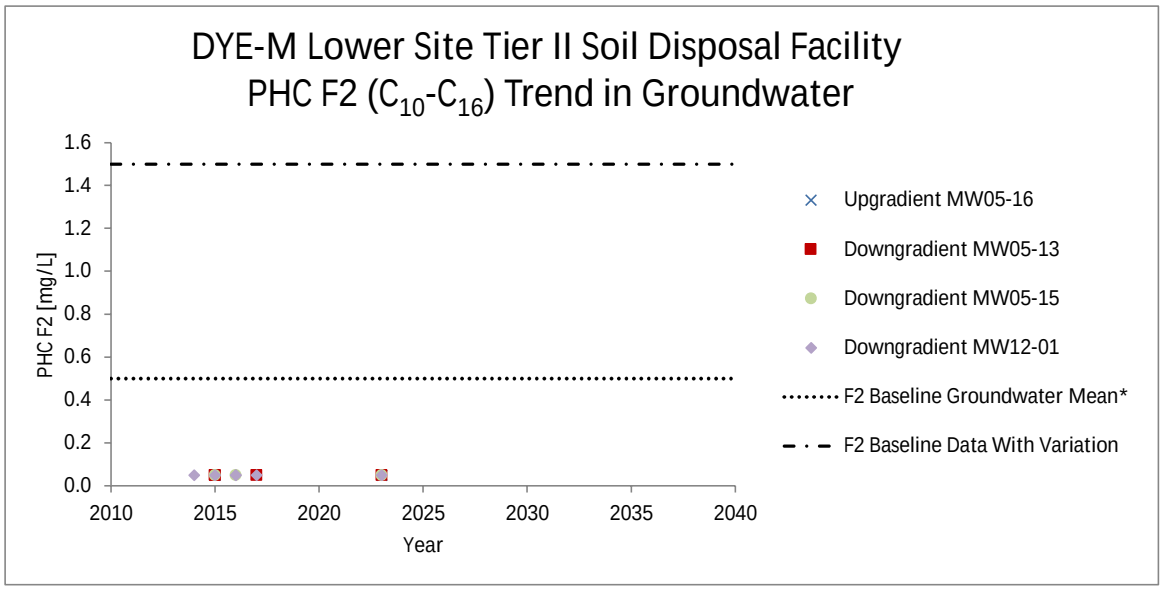
DYE-M Lower Site Tier II Soil Disposal Facility Trends in Groundwater Inorganics and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.
Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.
When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F1 baseline arithmetic mean is equal to the detection limit

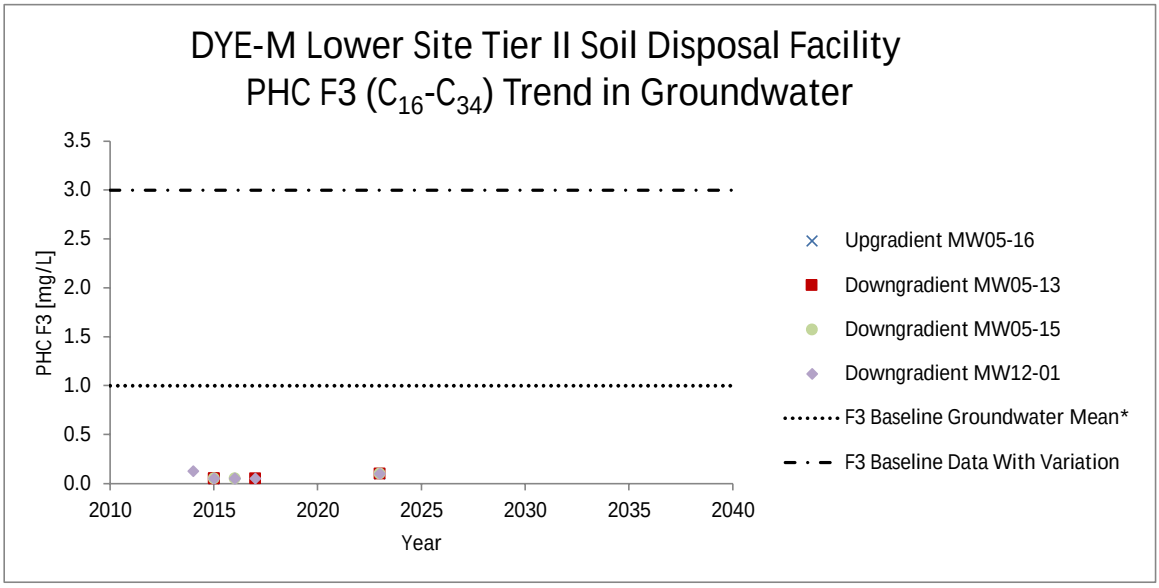


* F2 baseline arithmetic mean is equal to the detection limit

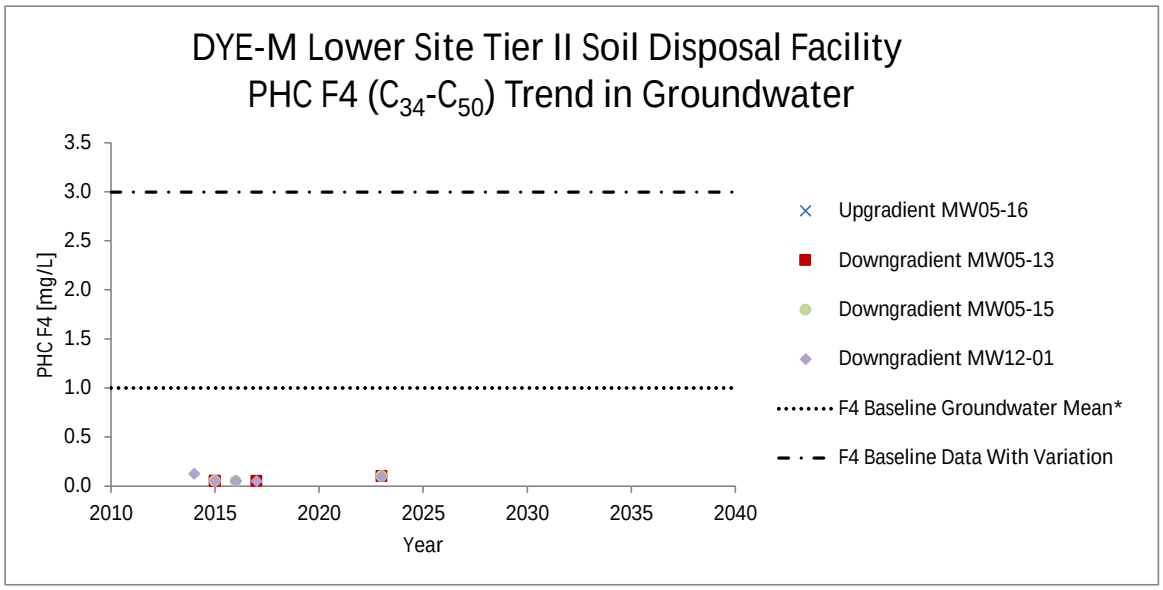
DYE-M Lower Site Tier II Soil Disposal Facility Trends in Groundwater Inorganics and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.
Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.
When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F3 baseline arithmetic mean is equal to the detection limit



* F4 baseline arithmetic mean is equal to the detection limit

DYE-M Lower Site Crossroads Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2 C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4 C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	69.07	11.09	29.70	10.00	37.30	47.00	0.10	10.00	13.78	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	12.04	2.38	7.32	0.00	7.35	8.04	0.00	0.00	20.63	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	105.17	18.24	51.67	30.00	59.34	71.11	0.30	30.00	75.66	150.00	150.00
** If baseline or background arithmetic mean was below the detection limit, the mean has been modified to match the detection limit value.*																		
DEW Line Cleanup Tier I Criteria											*200*			*1*				
DEW Line Cleanup Tier II Criteria						*30*	*5*	*250*	*50*	*100*	*500*	*100*	*500*	*5*				
Monitoring Data																		
Upgradient																		
	DM-01 surface																	
14-8330	DM-01	2014	1	Phase I	5-10	1.30	<1	69.00	8.60	27.10	<10	38.50	40.00	<0.02	<10	<10	<10	<10
14-8331 (Dup)	DM-01	2014	1	Phase I	5-10	1.00	<1	62.00	7.40	23.70	<10	32.50	37.00	<0.02	<10	<10	<10	<10
DM-01 (0-15)	DM-01	2015	2	Phase I	0-15	1.20	<0.5	53.70	8.20	24.20	5.10	30.10	32.20	<0.05	<7	65	10	<6
DM-01A	DM-01	2016	3	Phase I	0-15	<1	<0.5	70.30	8.60	30.70	9.20	32.00	37.90	<0.05	<7	<4	78	17
DM-01 Shallow	DM-01	2017	4	Phase I	0-15	<1	<0.5	69.40	10.10	37.20	9.30	40.30	48.80	<0.05	<7	<4	65	7
DM-01 S	DM-01	2018	5	Phase I	0-15	1.00	<0.5	64.00	9.00	32.00	8.00	37.00	41.00	<0.05	<7	<4	9	<6
QA/QC S8 (Dup)	DM-01	2018	5	Phase I	0-15	1.00	<0.5	64.00	9.00	50.00	9.00	38.00	45.00	<0.05	<7	<4	21	<6
DM-01-S	DM-01	2023	10	Phase II	0-15	2.61	0.764	91.80	11.70	71.80	112.00	47.10	138.00	3.300	<10	<10	180	110
	DM-01 depth																	
14-8332	DM-01	2014	1	Phase I	45-50	3.30	<1	61.00	7.80	23.20	<10	35.50	34.00	<0.02	<10	<10	<10	<10
DM-01 (40-50)	DM-01	2015	2	Phase I	40-50	1.30	<0.5	51.10	7.90	20.90	4.20	29.50	28.90	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-01	2016	3	Phase I														
DM-01 Deep	DM-01	2017	4	Phase I	20-30	<1	<0.5	64.70	8.90	31.20	7.40	36.10	41.70	<0.05	<7	<4	46	<6
DM-01 D	DM-01	2018	5	Phase I	40-50	1.00	<0.5	63.00	9.00	31.00	6.00	36.00	39.00	<0.05	<7	<4	31	12
DM-01-D	DM-01	2023	10	Phase II	40-50	1.80	0.761	80.00	11.20	71.80	140.00	43.60	140.00	2.600	<10	<10	200	130

DYE-M Lower Site Crossroads Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2 C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4 C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	69.07	11.09	29.70	10.00	37.30	47.00	0.10	10.00	13.78	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	12.04	2.38	7.32	0.00	7.35	8.04	0.00	0.00	20.63	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	105.17	18.24	51.67	30.00	59.34	71.11	0.30	30.00	75.66	150.00	150.00
Downgradient																		
	DM-02 surface																	
14-8333	DM-02	2014	1	Phase I	5-10	1.60	<1	80.00	9.60	33.10	<10	40.60	49.00	<0.02	<10	<10	<10	<10
DM-02 (0-15)	DM-02	2015	2	Phase I	0-15	1.40	<0.5	67.50	9.90	31.70	8.10	35.80	43.80	<0.05	<7	<4	35	<6
DM-02A	DM-02	2016	3	Phase I	0-15	<1	<0.5	56.40	8.20	31.80	6.70	32.80	35.40	<0.05	<7	23	44	31
DM-02A (Interlab)	DM-02	2016	3	Phase I	0-15	2.00	<0.5	59.00	8.20	32.00	5.00	38.00	42.00	<0.05	<5	<10	<50	<50
DM-02 Shallow	DM-02	2017	4	Phase I	0-15	<1	<0.5	70.90	10.40	35.50	6.30	41.40	45.30	<0.05	<7	<4	<8	<6
DM-02 S	DM-02	2018	5	Phase I	0-15	<1	<0.5	67.00	10.00	33.00	11.00	38.00	42.00	<0.05	<7	<4	<8	<6
DM-02-S	DM-02	2023	10	Phase II	0-15	0.93	0.061	65.80	9.70	32.10	4.46	38.30	45.50	<0.010	<10	<10	<50	<50
	DM-02 depth																	
14-8334	DM-02	2014	1	Phase I	45-50	1.60	<1	94.00	10.90	41.70	11.00	45.40	54.00	<0.02	<10	56	<10	<10
DM-02 (15-30)	DM-02	2015	2	Phase I	15-30	1.30	<0.5	64.70	9.10	31.30	6.10	34.10	40.00	<0.05	<7	39	57	10
Not sampled - refusal	DM-02	2016	3	Phase I														
Not sampled - refusal	DM-02	2017	4	Phase I														
DM-02 D	DM-02	2018	5	Phase I	40-50	1.00	<0.5	64.00	9.00	32.00	6.00	38.00	42.00	<0.05	<7	11	<8	<6
DM-02-D	DM-02	2023	10	Phase II	40-50	0.83	<0.050	54.10	7.61	28.00	2.75	32.10	33.90	<0.010	<10	<10	<50	<50
DM-02-D (Interlab)	DM-02	2023	10	Phase II	40-50										<10			

DYE-M Lower Site Crossroads Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2 C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4 C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	69.07	11.09	29.70	10.00	37.30	47.00	0.10	10.00	13.78	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	12.04	2.38	7.32	0.00	7.35	8.04	0.00	0.00	20.63	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	105.17	18.24	51.67	30.00	59.34	71.11	0.30	30.00	75.66	150.00	150.00
Downgradient																		
	DM-03 surface																	
14-8335	DM-03	2014	1	Phase I	5-10	1.40	<1	68.00	8.60	27.60	<10	34.80	41.00	<0.02	<10	<10	<10	<10
DM-03 (0-15)	DM-03	2015	2	Phase I	0-15	1.20	<0.5	47.80	7.70	26.60	3.10	27.70	29.40	<0.05	<7	<4	41	8
DM-03A	DM-03	2016	3	Phase I	0-15	<1	<0.5	52.30	7.70	28.10	5.60	28.80	29.50	<0.05	<7	<4	<8	<6
DM-03 Shallow	DM-03	2017	4	Phase I	0-15	<1	<0.5	56.10	8.60	31.90	4.60	40.30	33.80	<0.05	<7	<4	<8	<6
DM-03 S	DM-03	2018	5	Phase I	0-15	2.00	<0.5	75.00	10.00	37.00	6.00	45.00	47.00	<0.05	<7	<4	<8	<6
DM-03-S	DM-03	2023	10	Phase II	0-15	1.00	<0.050	60.40	9.54	34.20	3.11	39.50	38.40	<0.010	<10	<10	<50	<50
MW23-S-15 (Dup)	DM-03	2023	10	Phase II	0-15	1.06	<0.050	56.00	9.02	30.10	2.94	38.60	36.10	<0.010	<10	<10	<50	<50
	DM-03 depth																	
14-8337	DM-03	2014	1	Phase I	45-50	0.90	<1	59.00	7.20	21.10	<10	27.70	31.00	N/A	<10	<10	<10	<10
DM-03 (40-50)	DM-03	2015	2	Phase I	40-50	1.30	<0.5	51.10	8.10	29.00	3.90	28.90	32.00	<0.05	<7	<4	28	6
DM-03 (40-50) (Interlab)	DM-03	2015	2	Phase I	40-50	1.00	<0.5	48.00	7.60	28.00	3.00	29.00	33.00	<0.05	<5	<4	<8	<6
Not sampled - refusal	DM-03	2016	3	Phase I														
DM-03 Deep	DM-03	2017	4	Phase I	40-50	<1	<0.5	52.90	8.20	30.00	4.00	37.10	33.70	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-03	2018	5	Phase I														
DM-03-D	DM-03	2023	10	Phase II	40-50	1.54	0.058	59.70	8.54	29.60	4.27	35.60	41.20	<0.010	<10	<10	<50	<50

N/A = not analyzed

Legend

XX	Sample exceeds baseline mean
XX	Sample exceeds baseline data with variation

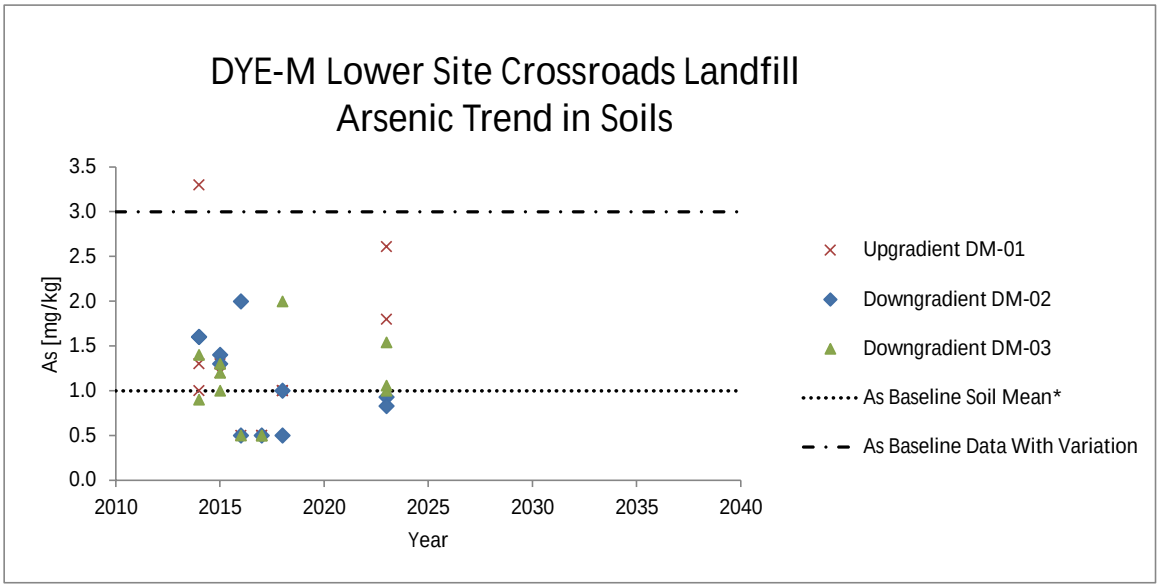
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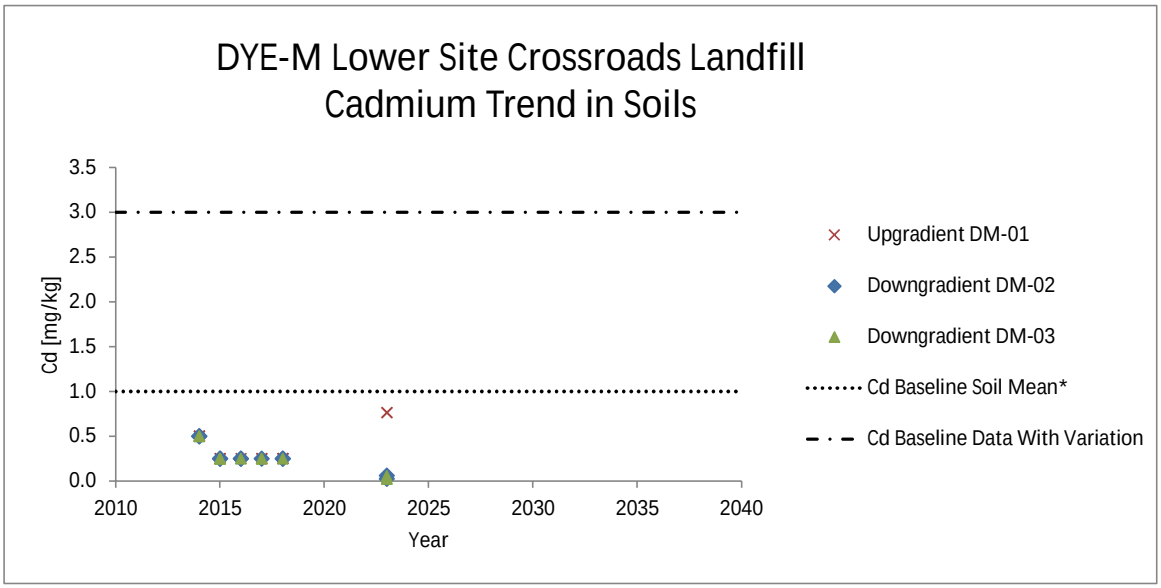
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* As baseline arithmetic mean is equal to the baseline detection limit



* Cd baseline arithmetic mean is equal to the baseline detection limit

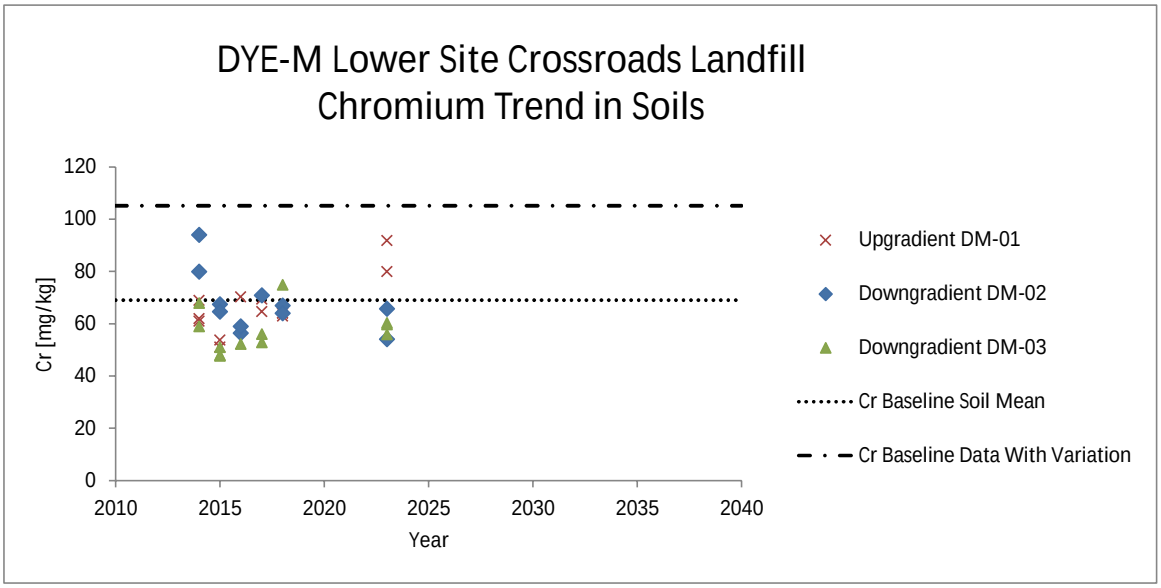
DYE-M Lower Site Crossroads Landfill Trends in Soil Inorganics, PCBs and PHCs

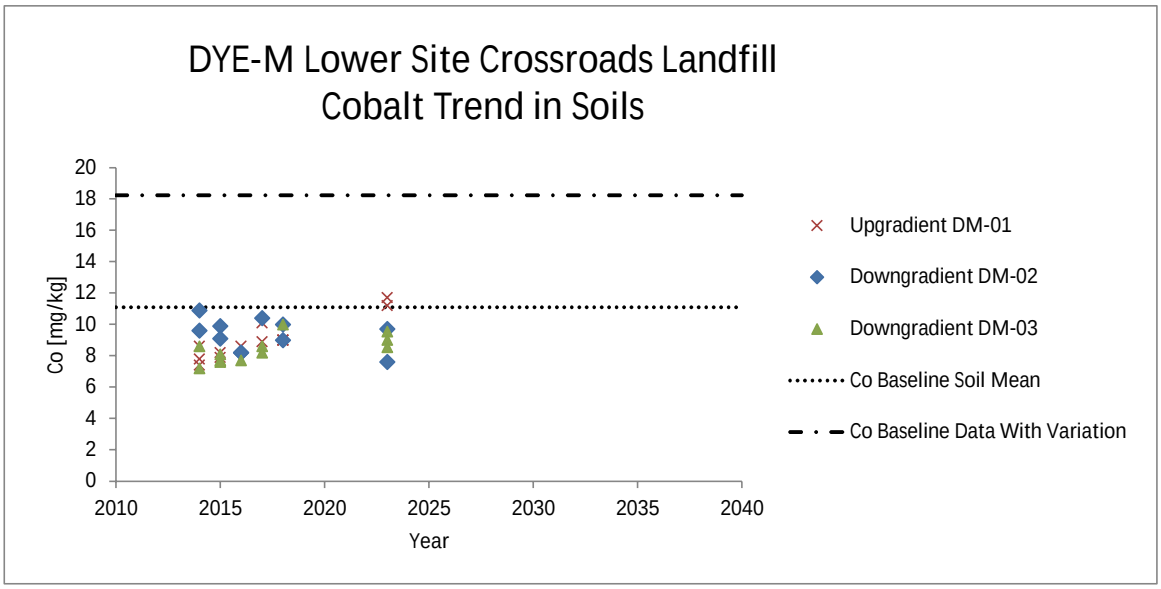
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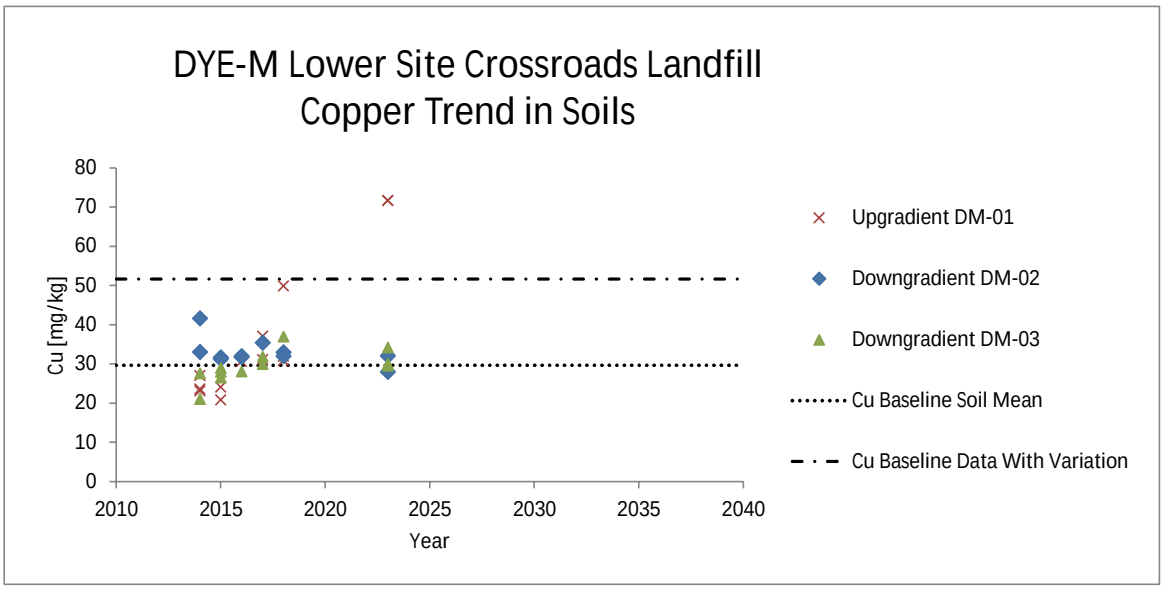
DYE-M Lower Site Crossroads Landfill Trends in Soil Inorganics, PCBs and PHCs

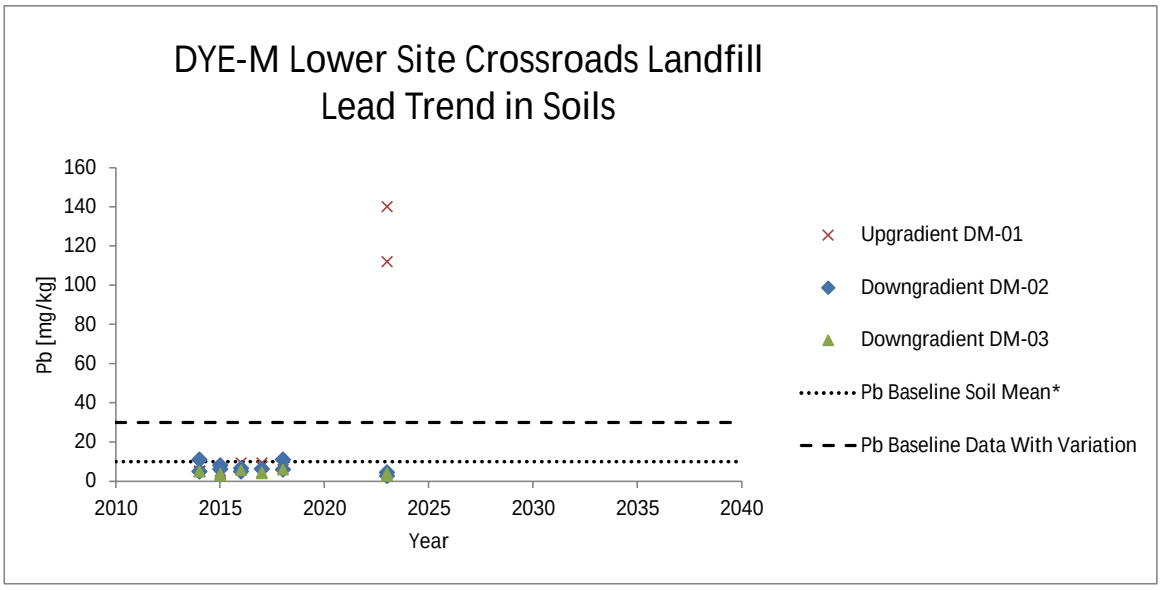
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





* Pb baseline arithmetic mean is equal to the baseline detection limit

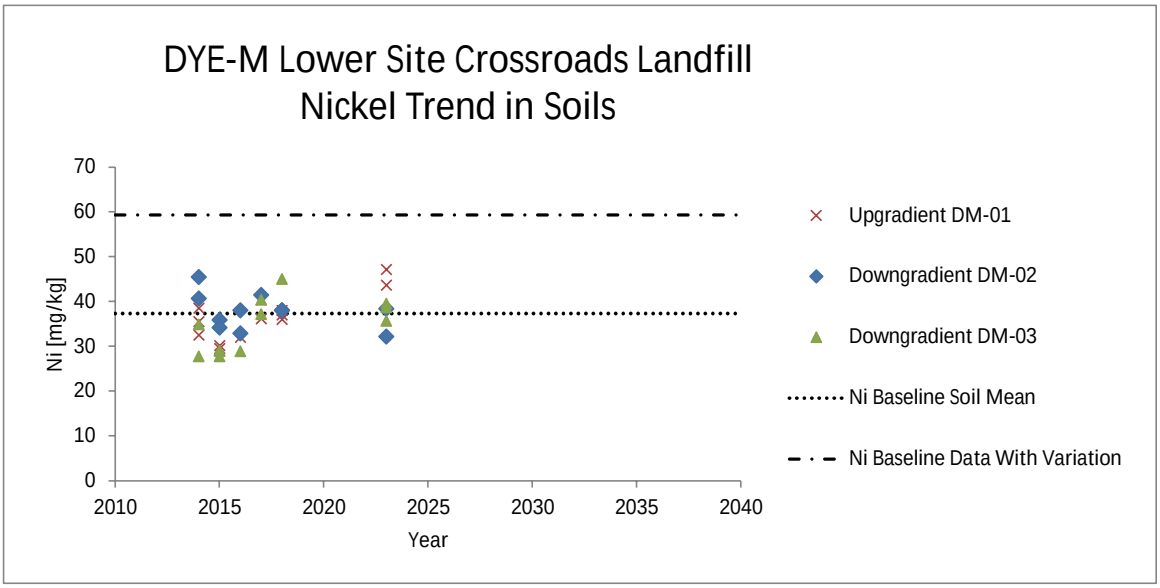
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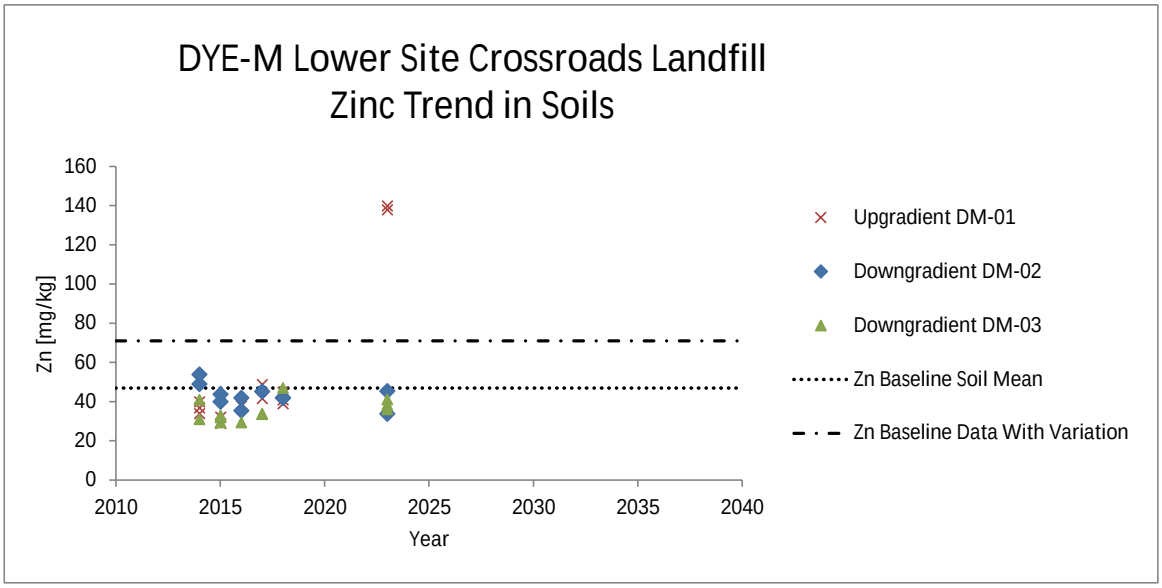
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





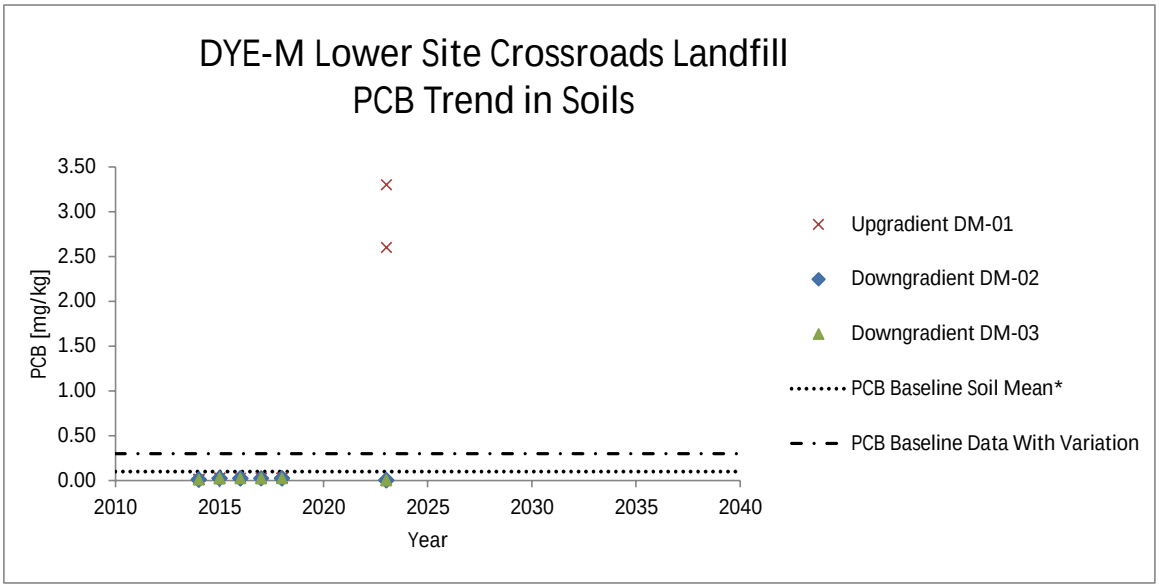
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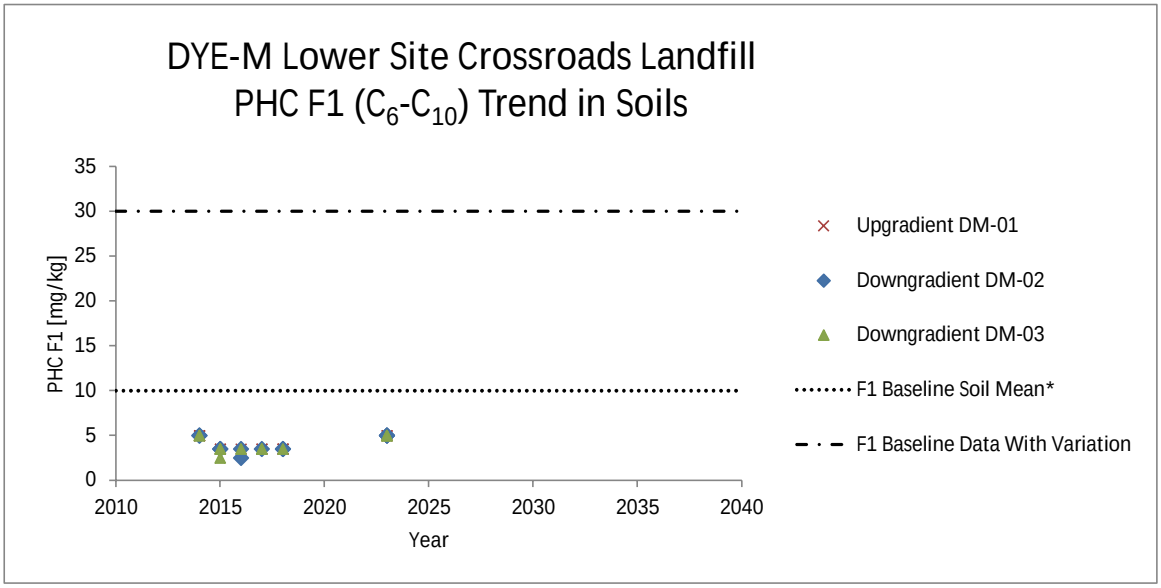
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* PCB baseline arithmetic mean is equal to the baseline detection limit



* F1 baseline arithmetic mean is equal to the detection limit

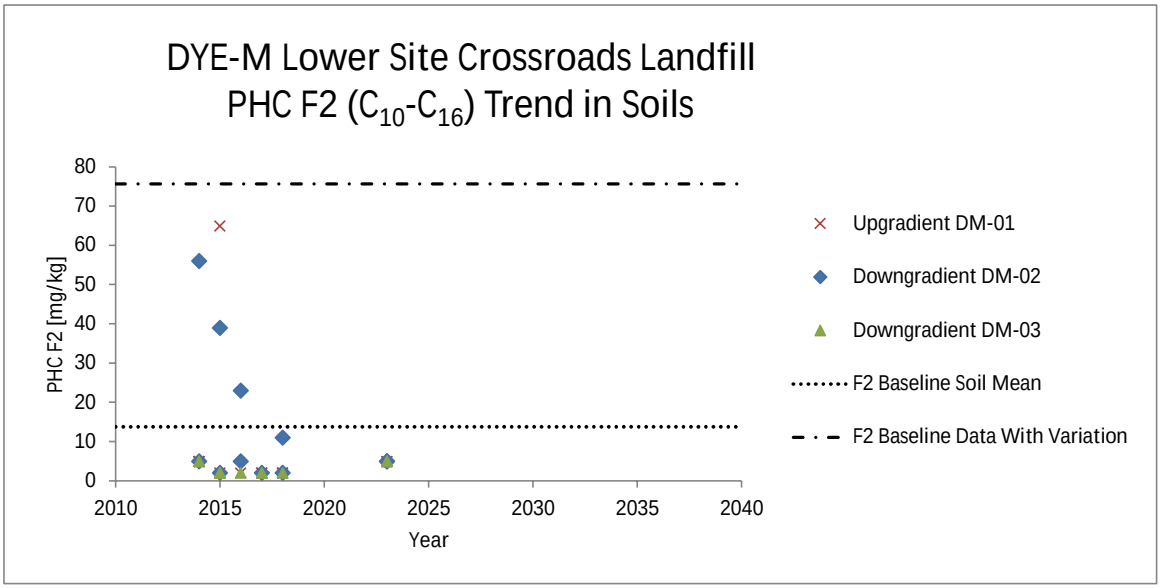
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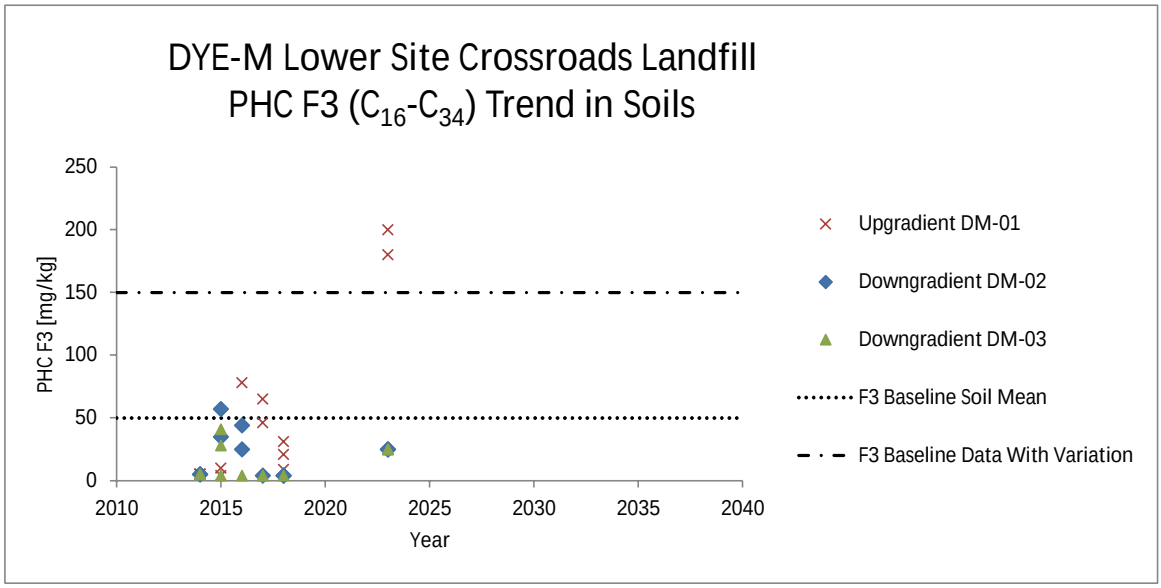
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F2 baseline arithmetic mean is equal to the detection limit



* F3 baseline arithmetic mean is equal to the detection limit

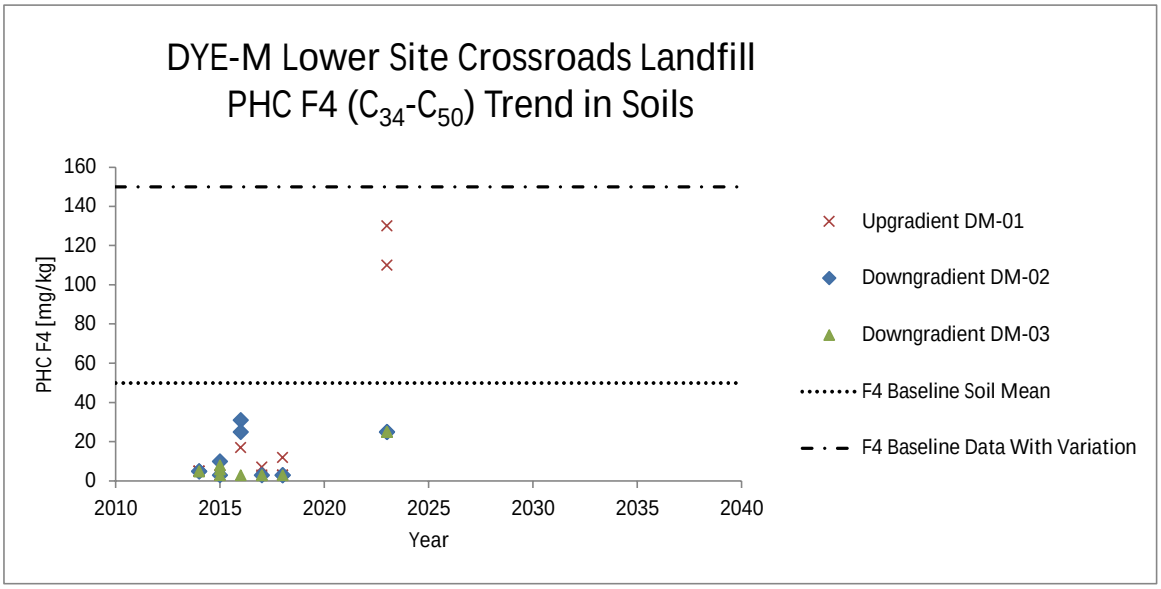
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F4 baseline arithmetic mean is equal to the detection limit

DYE-M Lower Site Foundation Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3 * C_{16}-C_{34} (mg/kg)	F4 * C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	67.14	10.85	28.47	10.00	35.18	61.87	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	10.18	2.12	12.52	0.00	5.93	40.44	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	97.68	17.22	66.02	30.00	52.96	183.20	0.30	30.00	30.00	150.00	150.00
** If baseline or background arithmetic mean was below the detection limit, the mean has been modified to match the detection limit value.*																		
DEW Line Cleanup Tier I Criteria											*200*			*1*				
DEW Line Cleanup Tier II Criteria						*30*	*5*	*250*	*50*	*100*	*500*	*100*	*500*	*5*				
Monitoring Data																		
Upgradient																		
	DM-04 surface																	
14-8322	DM-04	2014	1	Phase I	0-10	1.00	<1	68.00	7.70	25.90	<10	31.80	42.00	0.027	<10	<10	<10	<10
DM-04 (0-15)	DM-04	2015	2	Phase I	0-15	1.20	<0.5	61.30	9.30	25.30	9.10	31.20	41.60	0.090	<7	<4	38	30
DM-04B	DM-04	2016	3	Phase I	0-15	<1	<0.5	57.00	9.10	26.70	5.60	33.10	36.30	<0.05	<7	<4	<8	<6
DM-04 Shallow	DM-04	2017	4	Phase I	0-15	<1	<0.5	62.10	8.60	28.10	12.90	33.30	45.80	<0.05	<7	<4	102	15
DM-04 S	DM-04	2018	5	Phase I	0-15	<1	<0.5	58.00	8.00	27.00	12.00	33.00	43.00	<0.05	<7	<4	46	7
DM-04-S	DM-04	2023	10	Phase II		0.70	0.087	57.60	8.16	26.10	14.80	31.90	42.50	2.600	<10	<10	91	<50
	DM-04 depth																	
14-8323	DM-04	2014	1	Phase I	40-45	1.00	<1	59.00	7.20	19.90	<10	29.40	35.00	<0.02	<10	<10	<10	<10
DM-04 (40-50)	DM-04	2015	2	Phase I	40-50	<1	<0.5	49.30	7.40	18.50	6.80	24.80	31.40	<0.05	<7	<4	28	18
DM-04A	DM-04	2016	3	Phase I	30-40	<1	<0.5	66.80	10.20	30.70	6.50	37.30	40.50	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-04	2017	4	Phase I														
DM-04 D	DM-04	2018	5	Phase I	25-35	<1	<0.5	50.00	7.00	26.00	7.00	29.00	34.00	<0.05	<7	<4	33	11
DM-04-D	DM-04	2023	10	Phase II	40-50	0.47	0.066	44.00	6.13	18.60	2.99	24.40	28.10	<0.010	<10	<10	80	<50
MW23-S-20 (Dup)	DM-04	2023	10	Phase II	40-50	0.60	0.051	44.20	6.41	19.80	3.71	25.30	30.00	<0.010	<10	<10	68	<50

DYE-M Lower Site Foundation Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3 * C_{16}-C_{34} (mg/kg)	F4 * C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	67.14	10.85	28.47	10.00	35.18	61.87	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	10.18	2.12	12.52	0.00	5.93	40.44	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	97.68	17.22	66.02	30.00	52.96	183.20	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-05 surface																	
14-8324	DM-05	2014	1	Phase I	0-10	1.30	<1	75.00	8.40	26.30	19.00	35.40	49.00	0.052	<10	<10	171	19
DM-05 (0-15)	DM-05	2015	2	Phase I	0-15	2.10	<0.5	67.00	9.90	27.80	3.60	34.20	38.50	<0.05	<7	<4	<8	<6
DM-05A	DM-05	2016	3	Phase I	0-15	<1	<0.5	63.10	9.10	35.20	131.00	44.50	44.60	<0.05	<7	15	431	201
DM-05 Shallow	DM-05	2017	4	Phase I	0-15	<1	<0.5	50.30	7.60	26.20	8.70	29.10	35.10	<0.05	<7	<4	70	8
DM-05 S	DM-05	2018	5	Phase I	0-15	<1	<0.5	53.00	8.00	26.00	8.00	31.00	36.00	<0.05	<7	17	305	73
DM-05-S	DM-05	2023	10	Phase II	0-15	0.70	0.203	55.90	8.31	29.00	30.50	31.70	47.50	0.084	<10	11	700	220
	DM-05 depth																	
14-8325	DM-05	2014	1	Phase I	40-45	1.30	<1	75.00	9.50	30.40	<10	38.10	45.00	<0.02	<10	<10	<10	<10
DM-05 (40-50)	DM-05	2015	2	Phase I	40-50	<1	<0.5	45.00	6.90	17.40	2.40	23.60	24.80	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-05	2016	3	Phase I														
DM-05 Deep	DM-05	2017	4	Phase I	30-40	<1	<0.5	45.40	6.40	23.20	3.80	27.50	30.00	<0.05	<7	<4	<8	<6
DM-05 D	DM-05	2018	5	Phase I	15-30	<1	<0.5	41.00	6.00	19.00	3.00	23.00	24.00	<0.05	<7	<4	<8	<6
DM-05-D	DM-05	2023	10	Phase II	40-50	1.10	0.103	77.20	11.60	38.00	9.92	45.30	53.70	<0.010	<10	<10	<50	<50

DYE-M Lower Site Foundation Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3 * C_{16}-C_{34} (mg/kg)	F4 * C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	67.14	10.85	28.47	10.00	35.18	61.87	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	10.18	2.12	12.52	0.00	5.93	40.44	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	97.68	17.22	66.02	30.00	52.96	183.20	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-06 surface																	
14-8327	DM-06	2014	1	Phase I	0-10	1.60	<1	76.00	9.30	30.80	<10	38.10	46.00	<0.02	<10	<10	<10	<10
DM-06 (0-15)	DM-06	2015	2	Phase I	0-15	2.20	<0.5	71.80	11.10	29.70	4.60	36.30	42.40	<0.05	<7	<4	<8	<6
DM-06A	DM-06	2016	3	Phase I	0-15	<1	<0.5	51.60	7.10	24.10	5.40	27.50	33.10	<0.05	<7	<4	25	36
DM-06 Shallow	DM-06	2017	4	Phase I	0-15	<1	<0.5	69.60	9.80	31.20	4.60	39.30	44.80	<0.05	<7	<4	<8	<6
DM-906 Shallow (Dup)	DM-06	2017	4	Phase I	0-15	<1	<0.5	76.40	10.40	31.70	5.20	40.40	47.20	<0.05	<7	<4	<8	<6
DM-06 S	DM-06	2018	5	Phase I	0-15	<1	<0.5	47.00	7.00	21.00	6.00	27.00	28.00	<0.05	<7	<4	53	9
DM-06-S	DM-06	2023	10	Phase II	0-15	0.75	0.053	59.60	9.50	28.20	3.34	35.30	39.00	<0.010	<10	<10	<50	<50
	DM-06 depth																	
14-8328	DM-06	2014	1	Phase I	40-45	1.30	<1	86.00	10.50	30.30	<10	42.90	49.00	<0.02	<10	<10	<10	<10
14-8329 (Interlab)	DM-06	2014	1	Phase I	40-45	0.91	<0.5	58.00	8.00	23.80	3.20	29.80	38.20	<0.10	<5	<10	<50	<50
DM-06 (40-50)	DM-06	2015	2	Phase I	40-50	1.70	<0.5	59.30	8.90	27.80	3.40	30.80	38.30	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-06	2016	3	Phase I														
DM-06 Deep	DM-06	2017	4	Phase I	30-40	<1	<0.5	56.90	7.90	25.80	4.20	32.90	37.60	<0.05	<7	<4	<8	<6
DM-06 D	DM-06	2018	5	Phase I	15-30	<1	<0.5	47.00	7.00	20.00	4.00	27.00	27.00	<0.05	<7	<4	<8	<6
DM-06-D	DM-06	2023	10	Phase II	40-50	0.89	0.054	63.60	9.82	30.30	3.58	37.70	42.50	<0.010	<10	<10	<50	<50
DM-06-D (Interlab)	DM-06	2023	10	Phase II	40-50	0.91	0.054	64.60	9.93	30.70	3.63	38.10	42.70					

N/A = not analyzed

Legend	
XX	Sample exceeds baseline mean
XX	Sample exceeds baseline data with variation

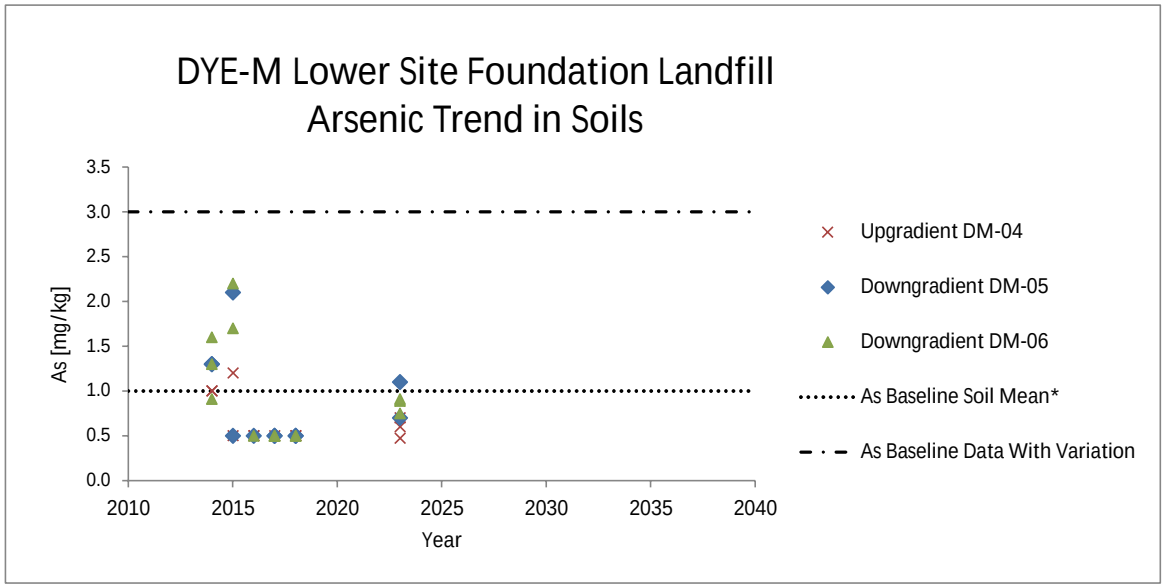
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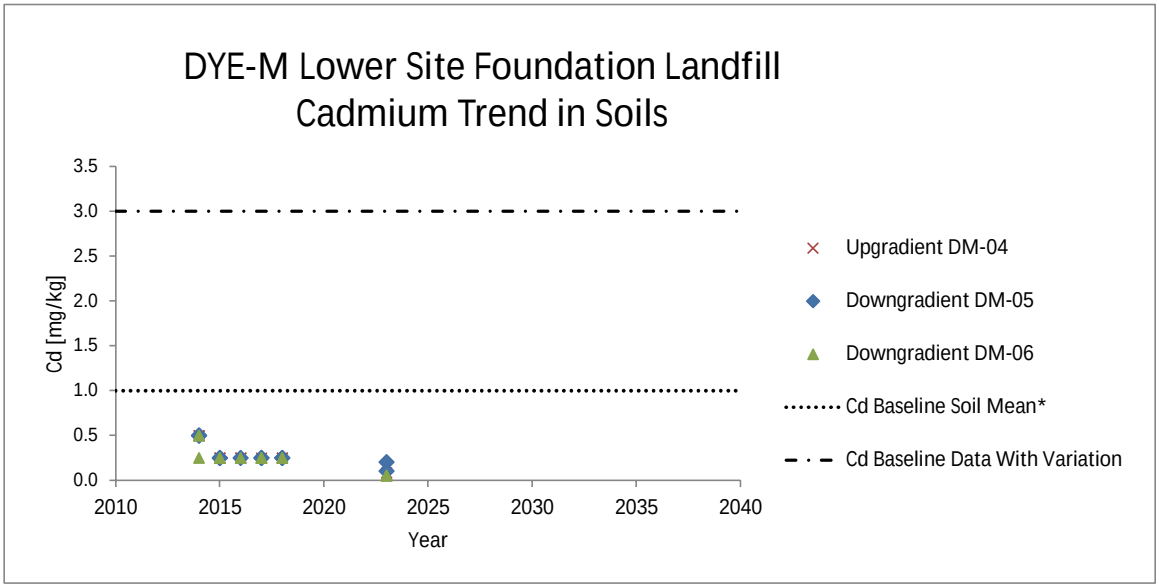
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* As baseline arithmetic mean is equal to the baseline detection limit



* Cd baseline arithmetic mean is equal to the baseline detection limit

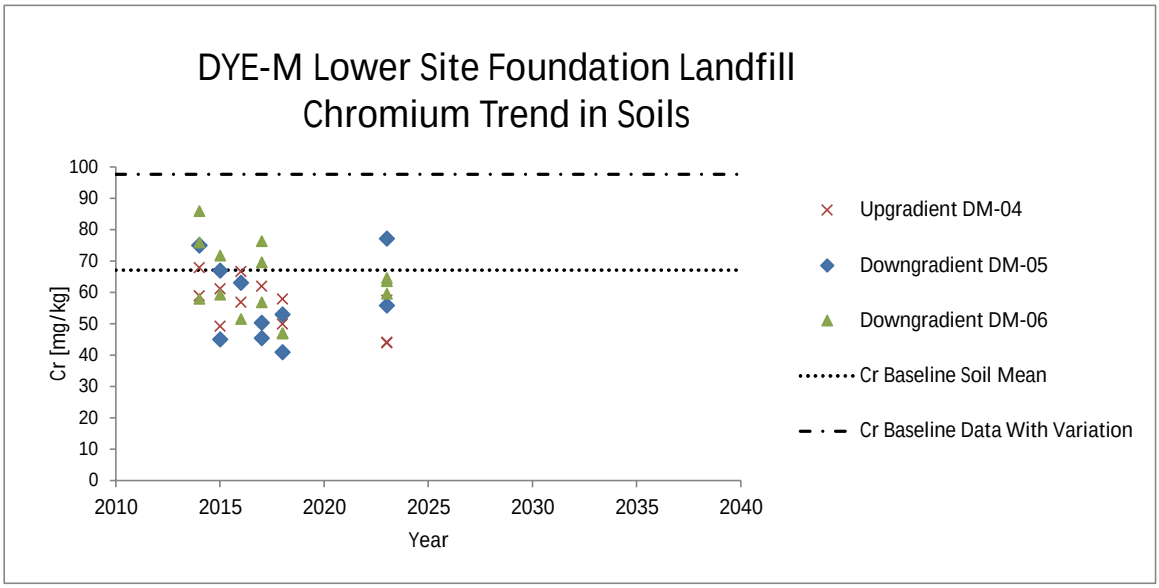
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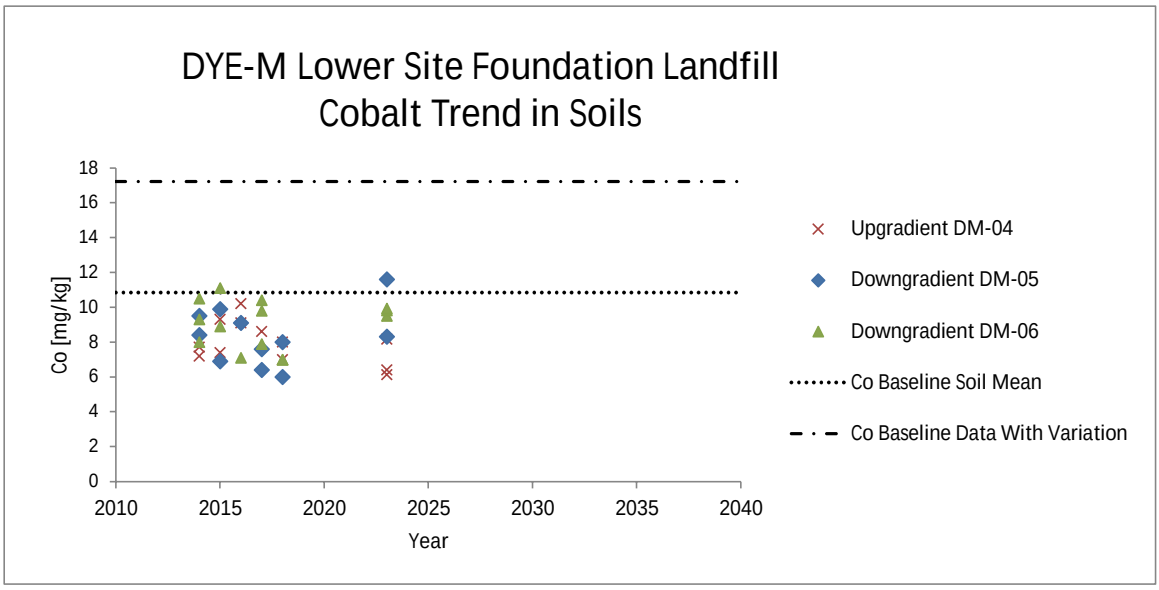
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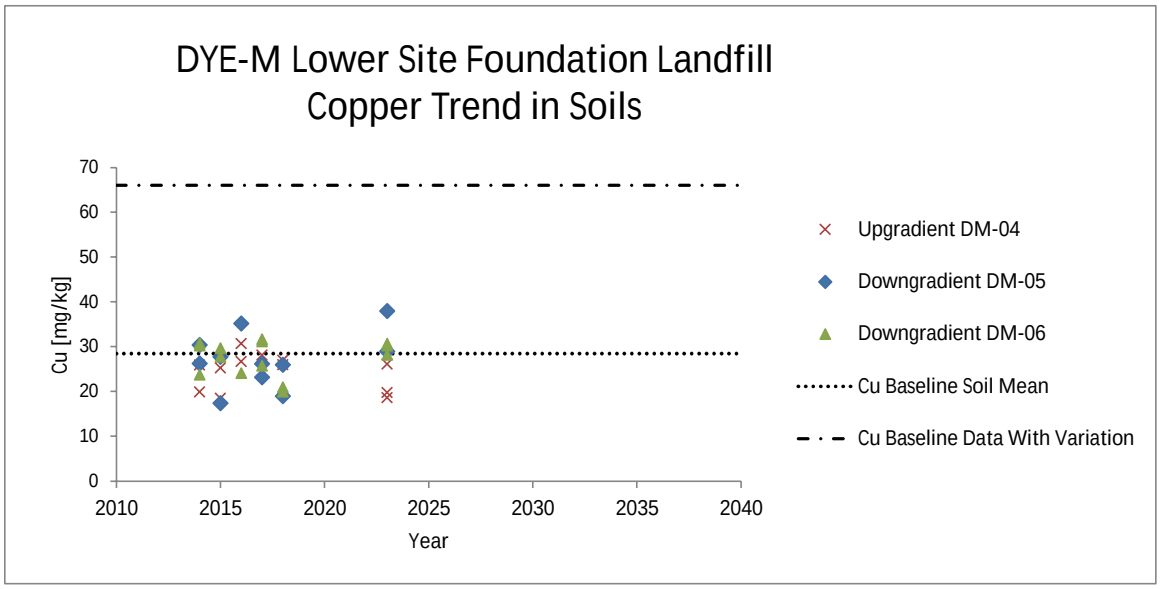
DYE-M Lower Site Foundation Landfill Trends in Soil Inorganics, PCBs and PHCs

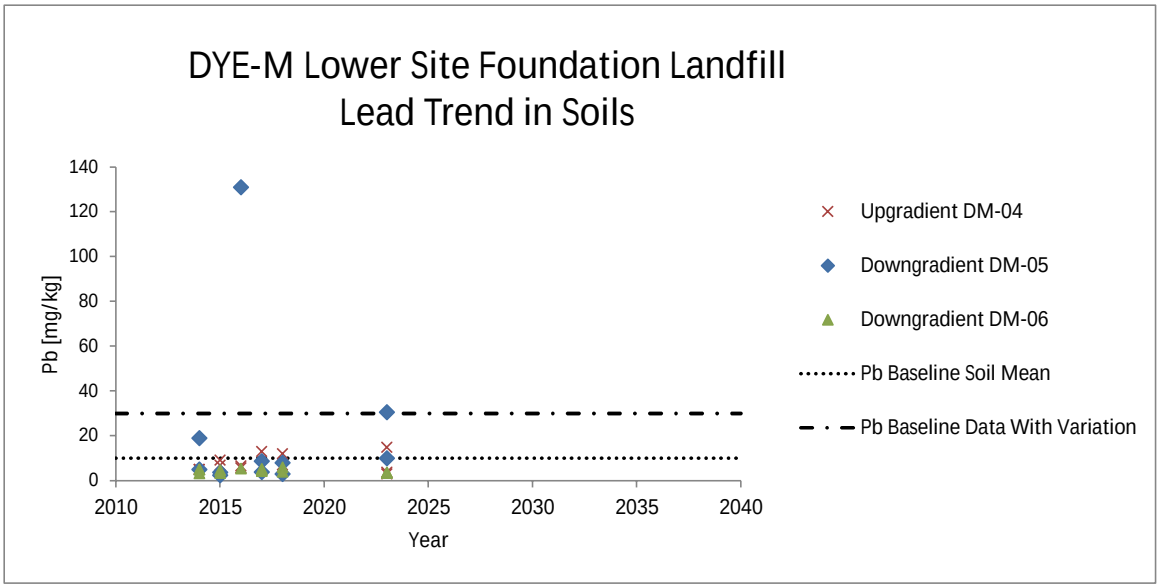
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





* Pb baseline arithmetic mean is equal to the baseline detection limit

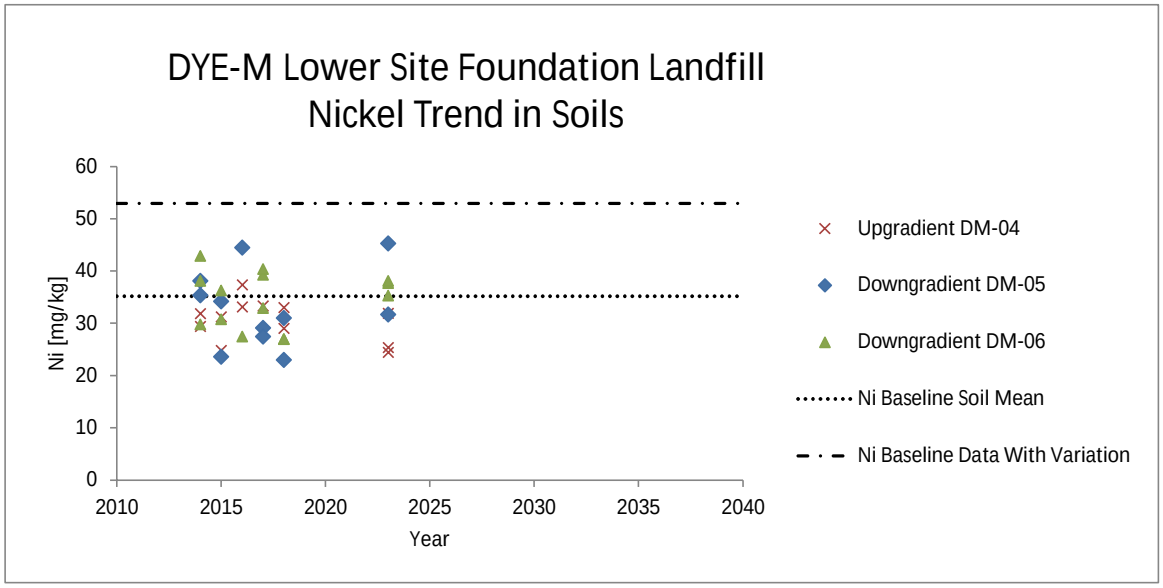
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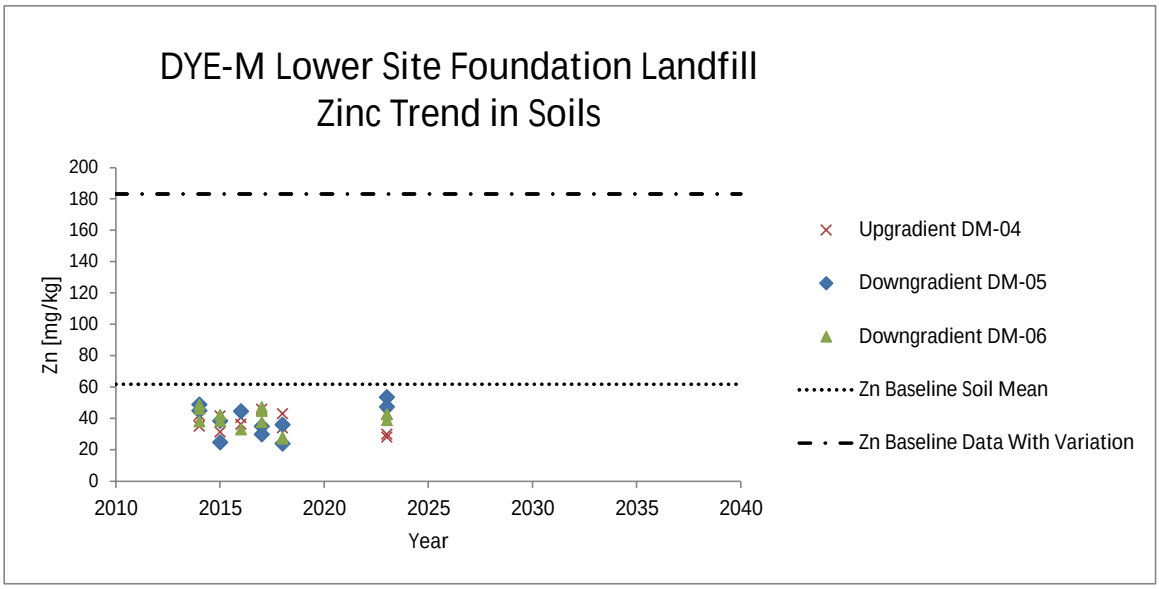
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





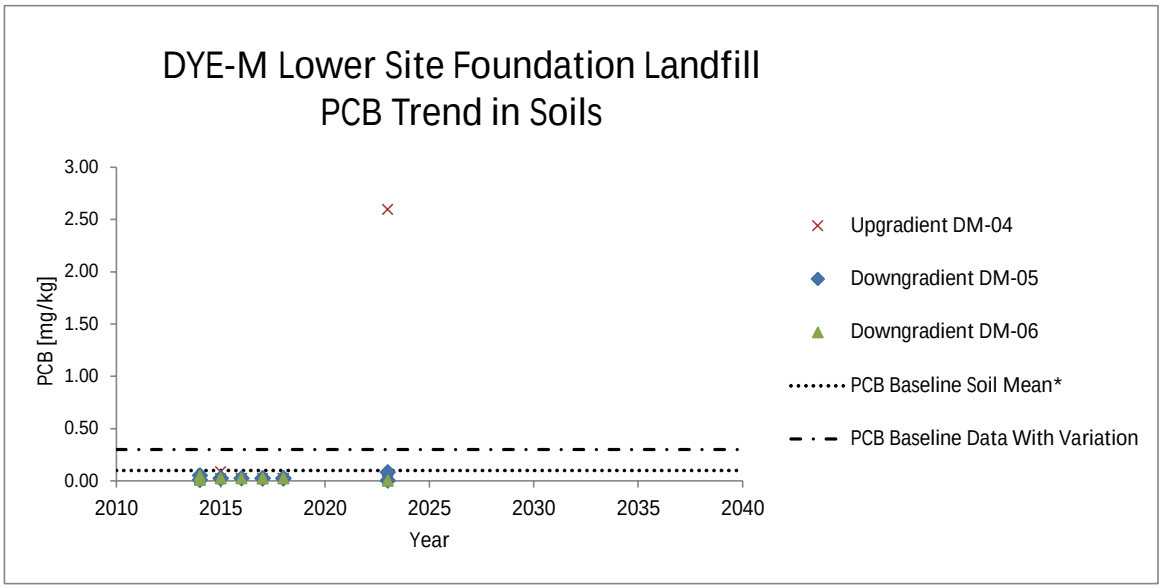
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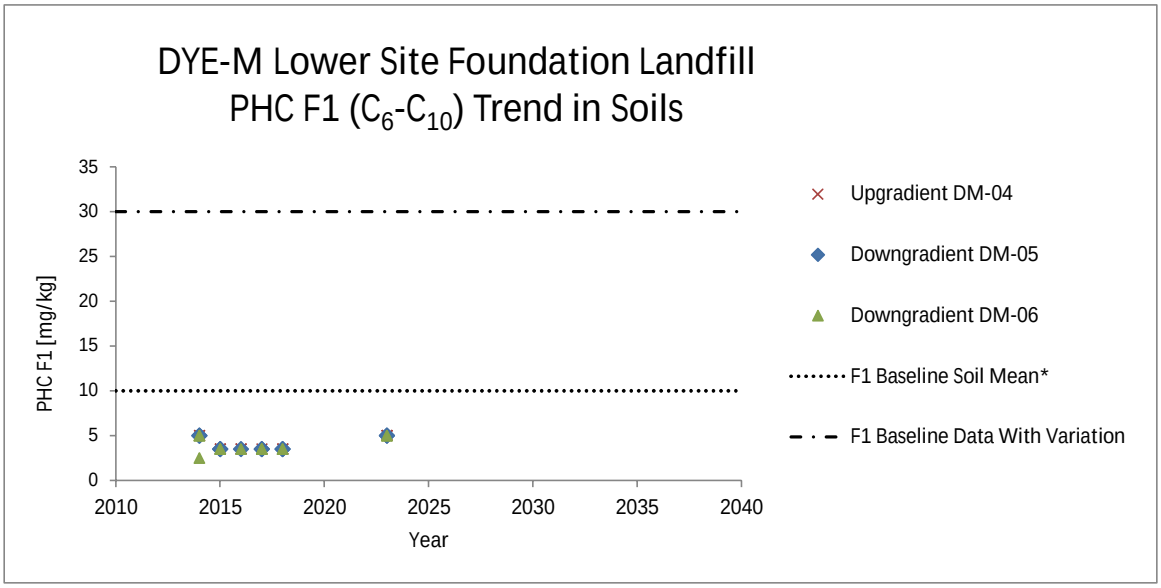
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* PCB baseline arithmetic mean is equal to the baseline detection limit



* F1 baseline arithmetic mean is equal to the detection limit

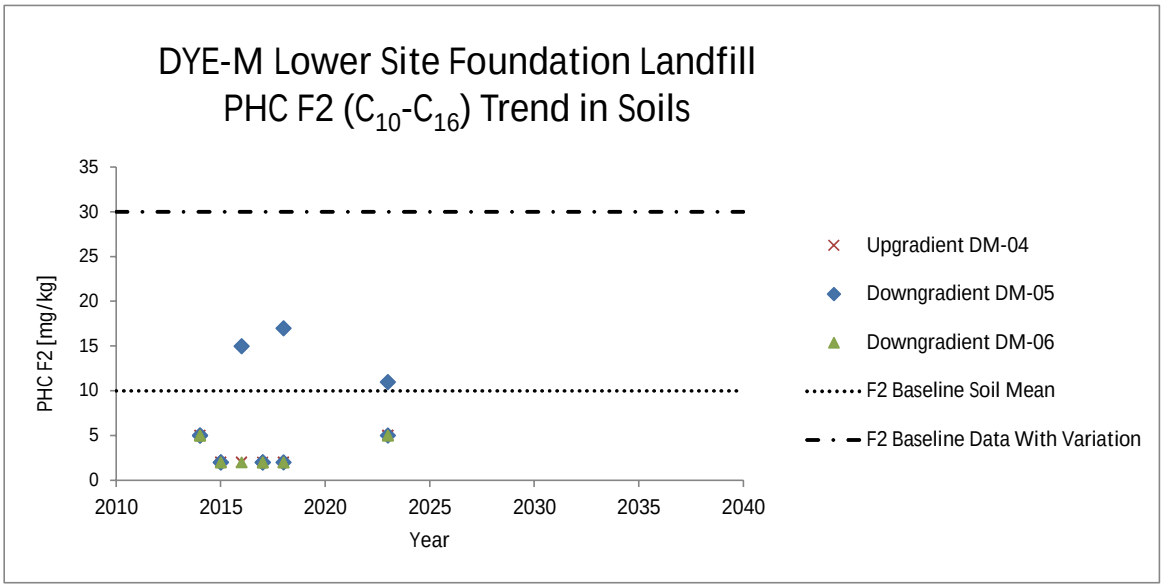
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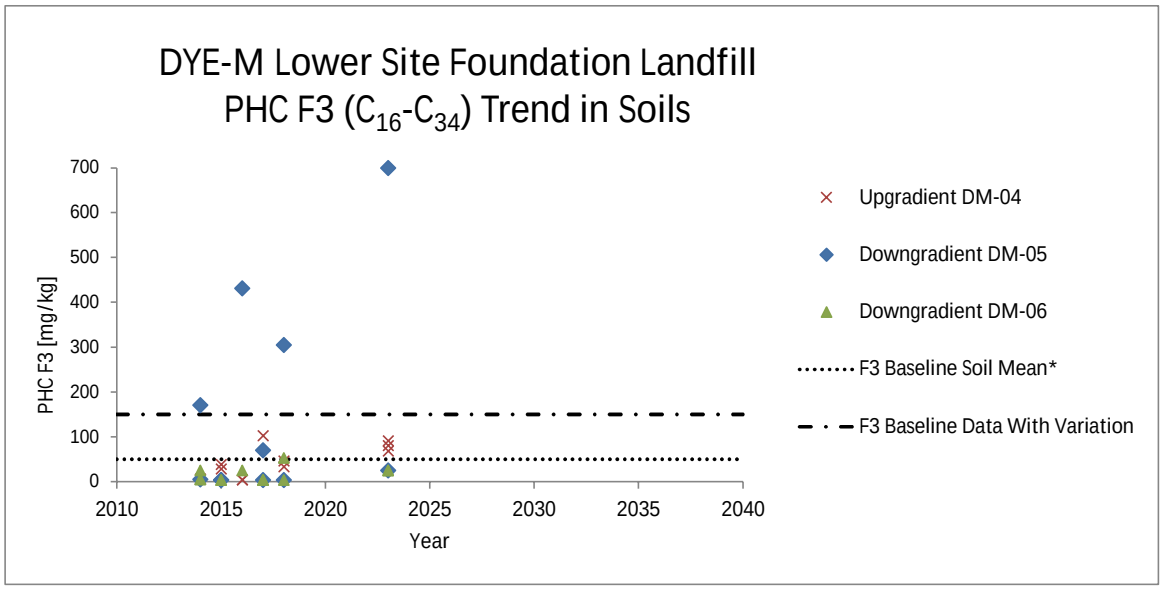
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F2 baseline arithmetic mean is equal to the detection limit



* F3 baseline arithmetic mean is equal to the detection limit

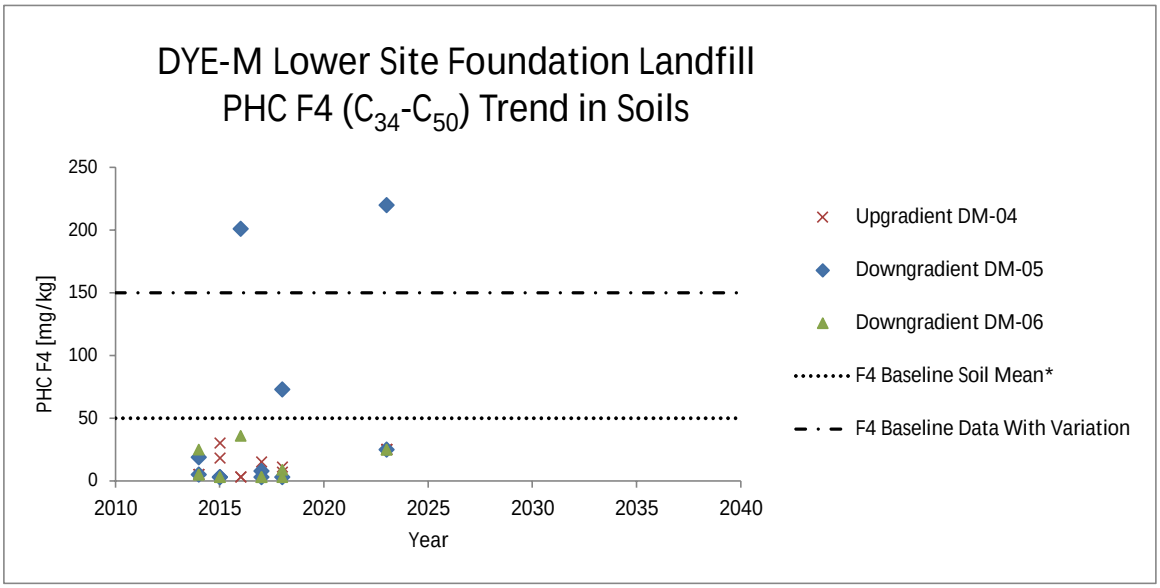
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F4 baseline arithmetic mean is equal to the detection limit

DYE-M Lower Site Powerhouse Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2 C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.23	1.00	64.11	10.46	26.36	10.00	34.34	53.44	0.16	10.00	25.10	50.00	50.00
Baseline Data - Standard Deviation						0.78	0.00	12.38	2.58	8.89	0.00	8.66	24.68	0.19	0.00	73.62	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.57	3.00	101.27	18.21	53.04	30.00	60.31	127.49	0.74	30.00	245.95	150.00	150.00
** If baseline or background arithmetic mean was below the detection limit, the mean has been modified to match the detection limit value.*																		
DEW Line Cleanup Tier I Criteria											*200*			*1*				
DEW Line Cleanup Tier II Criteria						*30*	*5*	*250*	*50*	*100*	*500*	*100*	*500*	*5*				
Monitoring Data																		
Upgradient																		
	MW05-08 surface																	
14-8475	MW05-08	2014	1	Phase I	5-10	1.20	<1	56.00	7.80	24.10	<10	30.70	48.00	0.463	<10	<10	21	<10
MW05-08 (0-15)	MW05-08	2015	2	Phase I	0-15	1.80	<0.5	68.20	9.30	32.90	17.00	34.50	53.90	0.240	<7	<4	109	15
MW05-08A	MW05-08	2016	3	Phase I	0-15	<1	<0.5	49.30	7.90	24.70	9.20	27.90	34.80	0.060	<7	<4	100	54
MW05-08 Shallow	MW05-08	2017	4	Phase I	0-15	<1	<0.5	53.00	8.30	24.90	10.20	31.70	40.80	<0.05	<7	7	91	21
MW-05-08S	MW05-08	2018	5	Phase I	0-15	1.00	<0.5	53.00	8.00	26.00	13.00	32.00	41.00	0.070	<7	<4	61	9
QA/QC S6 (Dup)	MW05-08	2018	5	Phase I	0-15	2.00	2.100	69.00	9.00	37.00	19.00	36.00	57.00	0.210	<7	<4	67	10
MW05-08-SOIL-S	MW05-08	2023	10	Phase II	0-15	0.60	<0.050	51.70	7.58	23.10	6.59	30.10	36.70	<0.010	<10	<10	110	<50
MW23-S-30	MW05-08	2023	10	Phase II	0-15	0.60	<0.050	50.40	7.23	21.60	8.10	30.00	34.10	0.021	<10	<10	120	<50
MW23-S-30 (Interlab)	MW05-08	2023	10	Phase II	0-15									0.022				
	MW05-08 depth																	
14-8477	MW05-08	2014	1	Phase I	40-45	0.80	<1	52.00	7.10	18.10	<10	29.40	33.00	<0.02	<10	<10	<10	<10
MW05-08 (40-50)	MW05-08	2015	2	Phase I	40-50	<1	<0.5	57.30	8.60	25.30	8.70	30.70	39.10	<0.05	<7	<4	59	<6
Not sampled - refusal	MW05-08	2016	3	Phase I														
Not sampled - refusal	MW05-08	2017	4	Phase I														
MW05-08D	MW05-08	2018	5	Phase I	20-30	<1	<0.5	55.00	8.00	23.00	5.00	32.00	34.00	<0.05	<7	<4	45	8
MW05-08-SOIL-D	MW05-08	2023	10	Phase II	40-50	0.57	<0.050	47.60	6.72	20.10	3.49	26.50	33.00	<0.010	<10	<10	<50	<50

DYE-M Lower Site Powerhouse Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2 C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.23	1.00	64.11	10.46	26.36	10.00	34.34	53.44	0.16	10.00	25.10	50.00	50.00
Baseline Data - Standard Deviation						0.78	0.00	12.38	2.58	8.89	0.00	8.66	24.68	0.19	0.00	73.62	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.57	3.00	101.27	18.21	53.04	30.00	60.31	127.49	0.74	30.00	245.95	150.00	150.00
Downgradient																		
	MW05-05 surface																	
14-8467	MW05-05	2014	1	Phase I	5-10	4.30	<1	130.00	22.00	69.10	<10	99.20	142.00	<0.02	<10	<10	<10	<10
MW05-05 (0-15)	MW05-05	2015	2	Phase I	0-15	1.00	<0.5	69.00	9.40	31.20	27.90	34.20	53.90	0.090	<7	<4	<8	<6
MW05-05A	MW05-05	2016	3	Phase I	0-15	<1	<0.5	48.10	6.70	21.40	4.40	24.70	27.50	<0.05	<7	<4	<8	<6
MW05-05 Shallow	MW05-05	2017	4	Phase I	0-15	<1	<0.5	59.60	8.20	26.50	9.50	32.10	43.30	<0.05	<7	<4	42	13
Not sampled - frozen	MW05-05	2018	5	Phase I														
MW05-05-SOIL-S	MW05-05	2023	10	Phase II	0-15	0.90	0.108	60.70	8.20	28.00	16.20	32.20	48.20	0.084	<10	12	87	<50
	MW05-05 depth																	
14-8468	MW05-05	2014	1	Phase I	40-45	1.30	<1	83.00	8.10	21.00	<10	38.90	50.00	<0.02	<10	<10	<10	<10
14-8469 (Interlab)	MW05-05	2014	1	Phase I	40-45	1.06	<0.5	58.90	8.30	24.00	5.50	30.70	45.90	<0.10	<5	<10	<50	<50
MW05-05 (40-50)	MW05-05	2015	2	Phase I	40-50	1.20	<0.5	62.00	8.40	27.20	14.40	31.10	43.40	0.110	<7	43	63	10
Not sampled - refusal	MW05-05	2016	3	Phase I														
Not sampled - refusal	MW05-05	2017	4	Phase I														
Not sampled - frozen	MW05-05	2018	5	Phase I														
MW05-05-SOIL-D	MW05-05	2023	10	Phase II	40-50	0.75	0.083	53.40	7.66	24.70	29.00	29.70	42.70	0.250	<10	<10	100	<50

DYE-M Lower Site Powerhouse Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2 C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.23	1.00	64.11	10.46	26.36	10.00	34.34	53.44	0.16	10.00	25.10	50.00	50.00
Baseline Data - Standard Deviation						0.78	0.00	12.38	2.58	8.89	0.00	8.66	24.68	0.19	0.00	73.62	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.57	3.00	101.27	18.21	53.04	30.00	60.31	127.49	0.74	30.00	245.95	150.00	150.00
Downgradient																		
	MW05-06 surface																	
14-8470	MW05-06	2014	1	Phase I	5-10	1.50	<1	71.00	7.40	23.70	12.00	33.70	53.00	0.063	<10	<10	13	<10
14-8471 (Dup)	MW05-06	2014	1	Phase I	5-10	1.70	<1	80.00	6.90	22.50	45.00	37.00	50.00	0.074	<10	<10	15	<10
MW05-06 (0-15)	MW05-06	2015	2	Phase I	0-15	<1	<0.5	38.50	5.70	15.40	3.00	20.40	23.40	<0.05	<7	<4	<8	<6
MW05-06A	MW05-06	2016	3	Phase I	0-15	<1	<0.5	49.60	7.00	22.10	8.80	25.60	31.00	<0.05	<7	458	243	42
MW05-06 Shallow	MW05-06	2017	4	Phase I	0-15	<1	<0.5	61.70	7.90	24.80	13.40	30.90	45.00	0.100	<7	653	293	56
MW05-906 Shallow (Dup)	MW05-06	2017	4	Phase I	0-15	<1	<0.5	57.90	7.00	33.10	15.20	28.10	45.20	0.110	<7	877	211	24
MW-05-06S	MW05-06	2018	5	Phase I	0-15	<1	<0.5	58.00	8.00	30.00	6.00	35.00	35.00	<0.05	<7	<4	35	<6
MW05-06-SOIL-S	MW05-06	2023	10	Phase II	0-15	0.40	<0.050	41.60	6.78	16.30	2.61	27.80	27.10	<0.010	<10	<10	57	<50
	MW05-06 depth																	
14-8472	MW05-06	2014	1	Phase I	35-40	1.20	<1	72.00	7.60	25.00	<10	39.80	52.00	<0.02	14	1990	50	<10
MW05-06 (40-50)	MW05-06	2015	2	Phase I	40-50	<1	<0.5	38.90	6.00	15.50	3.00	21.70	24.20	<0.05	<7	<4	<8	<6
Not sampled - refusal	MW05-06	2016	3	Phase I														
MW05-06 Deep	MW05-06	2017	4	Phase I	40-50	<1	<0.5	46.70	7.00	18.10	4.10	27.00	31.60	<0.05	40	1810	90	<6
MW05-06D	MW05-06	2018	5	Phase I	40-50	<1	<0.5	60.00	9.00	27.00	4.00	36.00	36.00	<0.05	<7	104	13	<6
MW05-06-SOIL-D	MW05-06	2023	10	Phase II	40-50	0.87	<0.050	52.00	7.83	23.50	3.83	31.40	35.70	<0.010	<10	<10	<50	<50

DYE-M Lower Site Powerhouse Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2 C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.23	1.00	64.11	10.46	26.36	10.00	34.34	53.44	0.16	10.00	25.10	50.00	50.00
Baseline Data - Standard Deviation						0.78	0.00	12.38	2.58	8.89	0.00	8.66	24.68	0.19	0.00	73.62	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.57	3.00	101.27	18.21	53.04	30.00	60.31	127.49	0.74	30.00	245.95	150.00	150.00
Downgradient																		
	MW05-07 surface																	
14-8473	MW05-07	2014	1	Phase I	5-10	1.10	<1	53.00	7.20	18.50	<10	28.30	40.00	<0.02	<10	<10	<10	<10
MW05-07 (0-15)	MW05-07	2015	2	Phase I	0-15	2.30	<0.5	64.00	9.20	29.80	14.80	33.10	48.80	0.100	<7	<4	101	<6
MW05-07A	MW05-07	2016	3	Phase I	0-15	<1	<0.5	56.60	8.10	26.10	5.90	29.30	33.50	<0.05	<7	<4	<8	<6
MW05-07 Shallow	MW05-07	2017	4	Phase I	0-15	<1	<0.5	56.10	8.40	26.60	9.20	32.90	45.60	<0.05	<7	<4	20	11
Not sampled - frozen	MW05-07	2018	5	Phase I														
MW05-07-SOIL-S	MW05-07	2023	10	Phase II	0-15	1.02	0.133	57.10	7.97	27.30	13.60	31.60	50.80	0.180	<10	<10	95	<50
	MW05-07 depth																	
14-8474	MW05-07	2014	1	Phase I	45-50	1.20	<1	55.00	7.30	19.30	<10	29.80	37.00	<0.02	51	2820	130	<10
MW05-07 (15-30)	MW05-07	2015	2	Phase I	15-30	<1	<0.5	34.80	5.10	12.90	4.30	18.60	22.60	<0.05	<7	<4	<8	<6
Not sampled - refusal	MW05-07	2016	3	Phase I														
MW05-07 Deep	MW05-07	2017	4	Phase I	30-40	<1	<0.5	71.30	10.50	32.20	5.70	41.20	47.50	<0.05	<7	<4	<8	<6
Not sampled - frozen	MW05-07	2018	5	Phase I														
MW05-07-SOIL-D	MW05-07	2023	10	Phase II	45-50	0.59	<0.050	48.30	7.45	21.80	7.05	28.10	33.80	<0.010	<10	390	640	<50

N/A = not analyzed

Legend

XX	Sample exceeds baseline mean
XX	Sample exceeds baseline data with variation

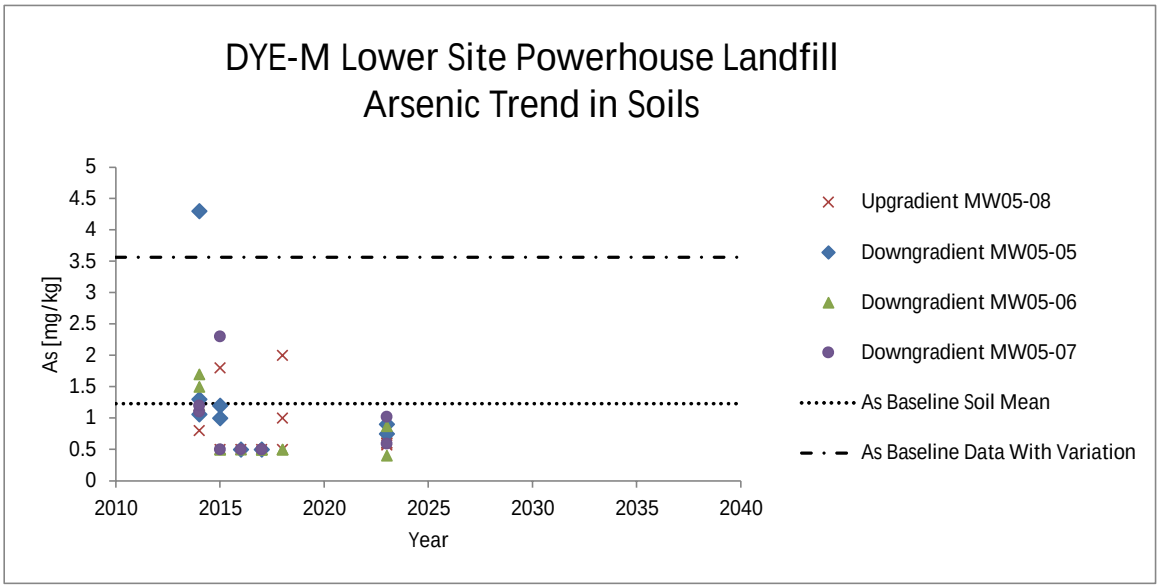
DYE-M Lower Site Powerhouse Landfill Trends in Soil Inorganics, PCBs and PHCs

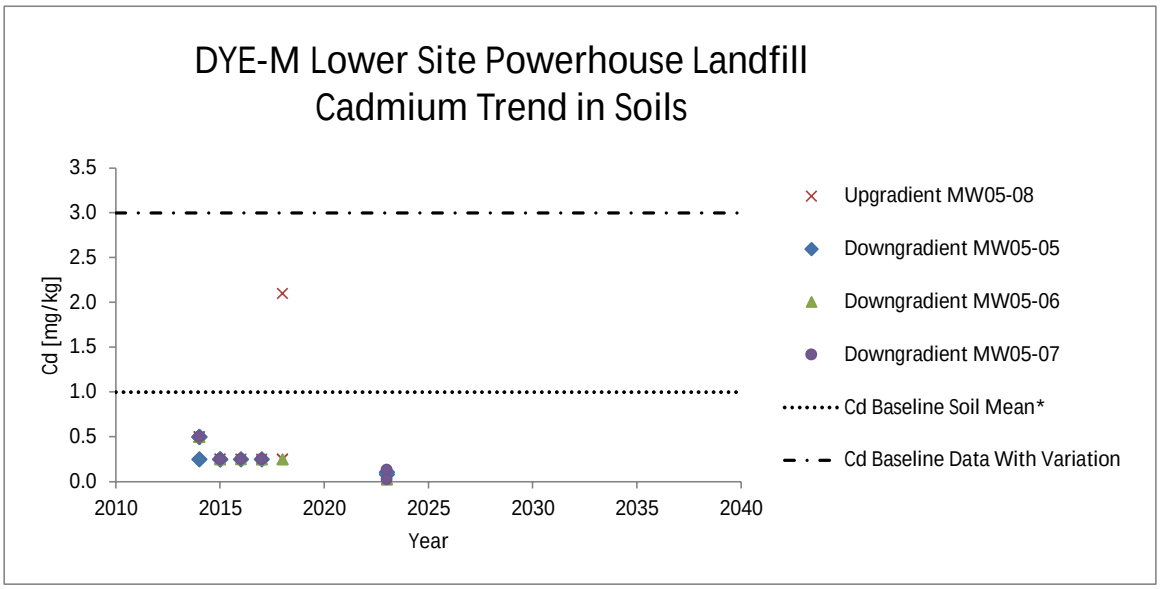
Link to: Table of Contents

Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





* Cd baseline arithmetic mean is equal to the baseline detection limit

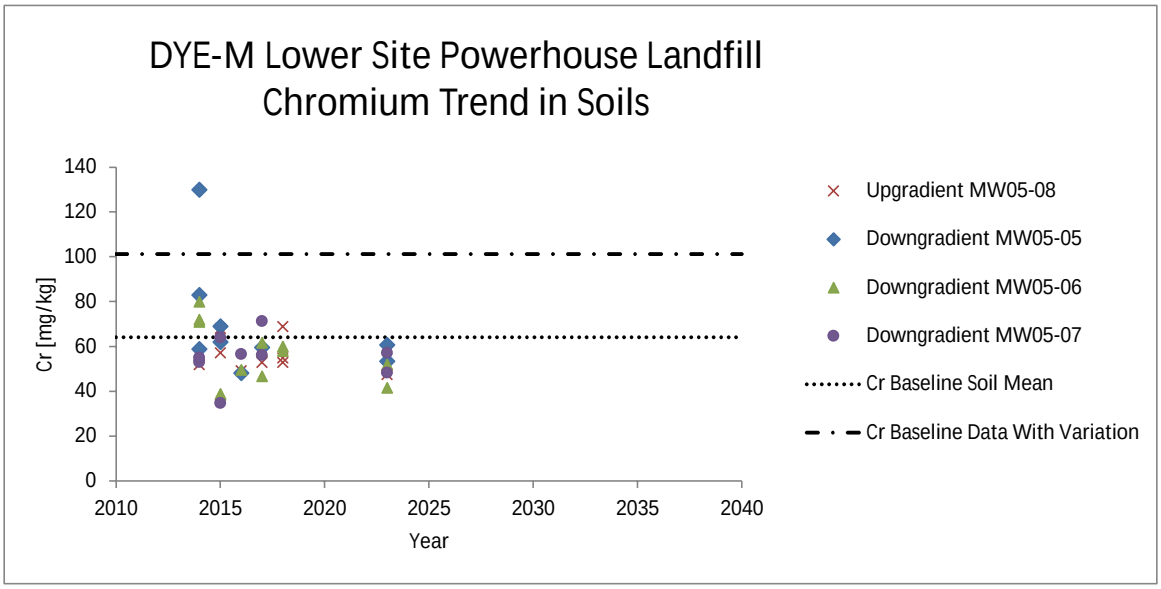
DYE-M Lower Site Powerhouse Landfill Trends in Soil Inorganics, PCBs and PHCs

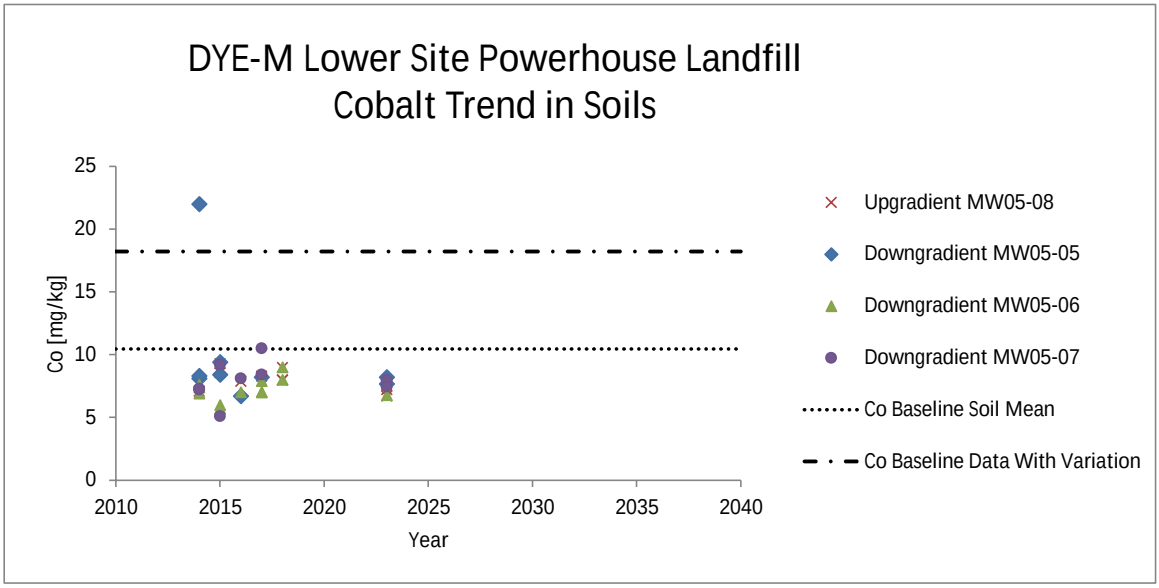
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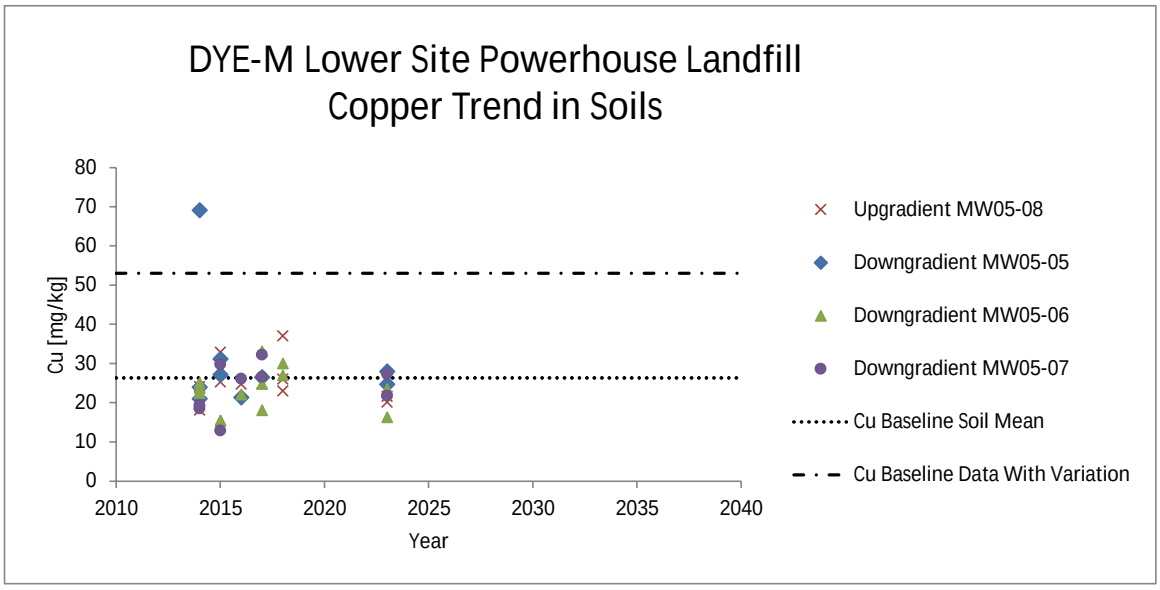
DYE-M Lower Site Powerhouse Landfill Trends in Soil Inorganics, PCBs and PHCs

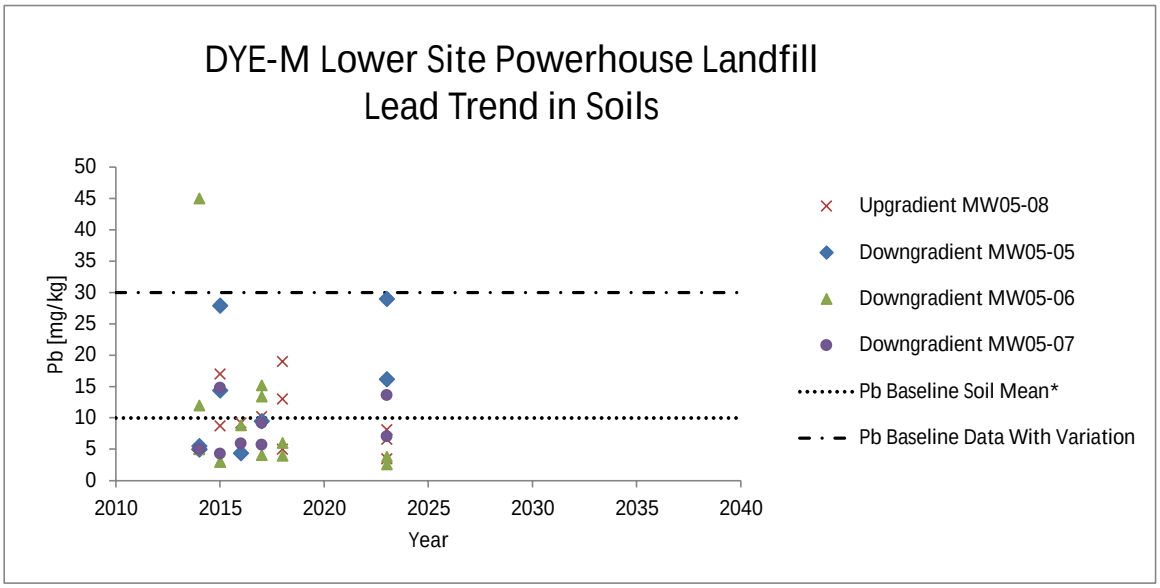
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* Pb baseline arithmetic mean is equal to the baseline detection limit

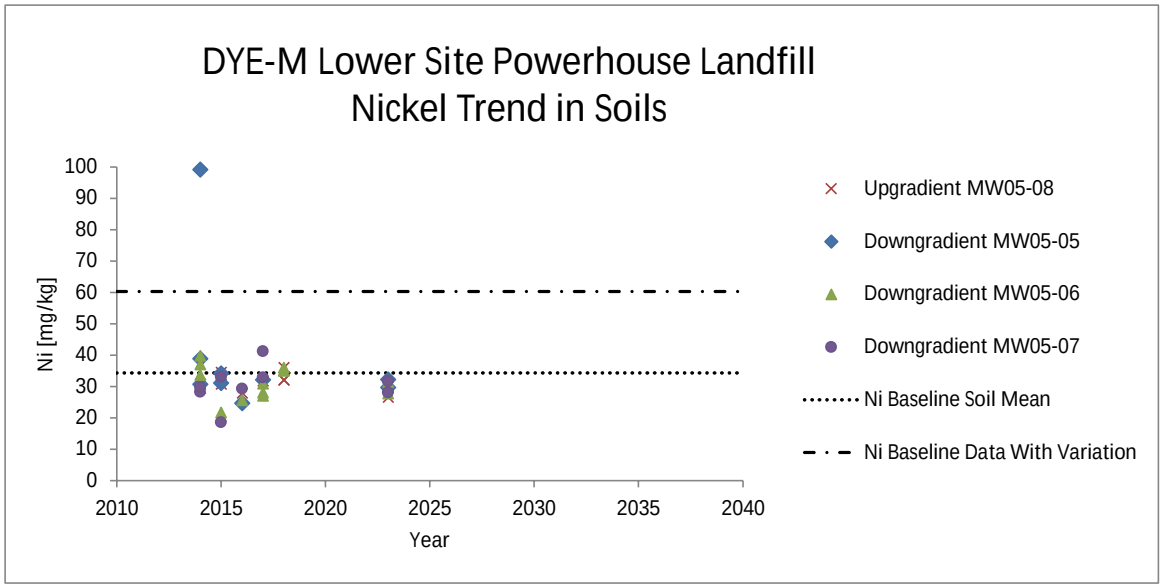
DYE-M Lower Site Powerhouse Landfill Trends in Soil Inorganics, PCBs and PHCs

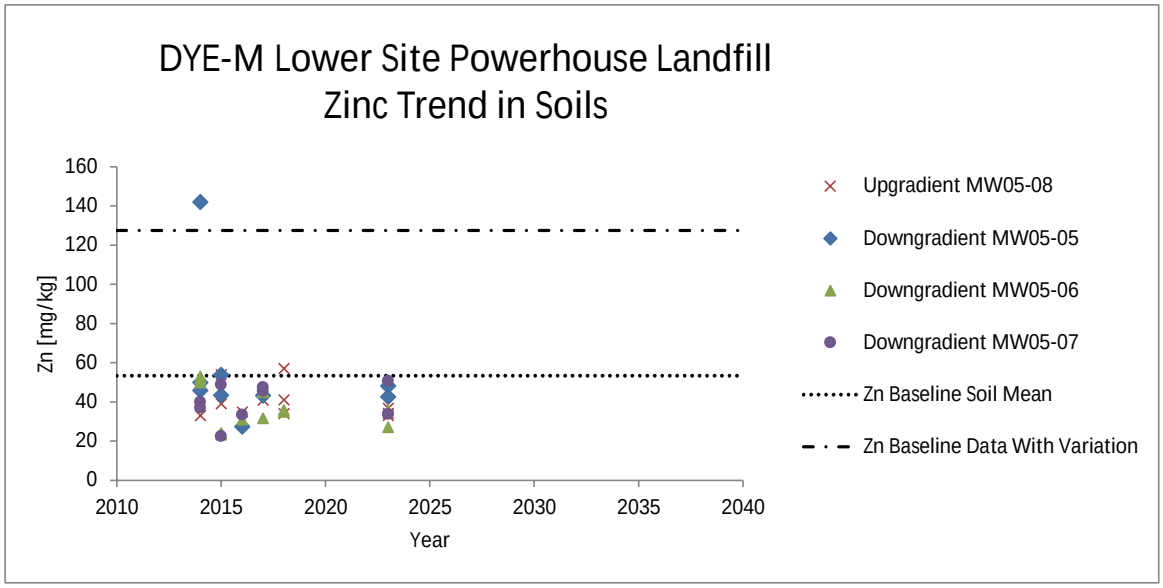
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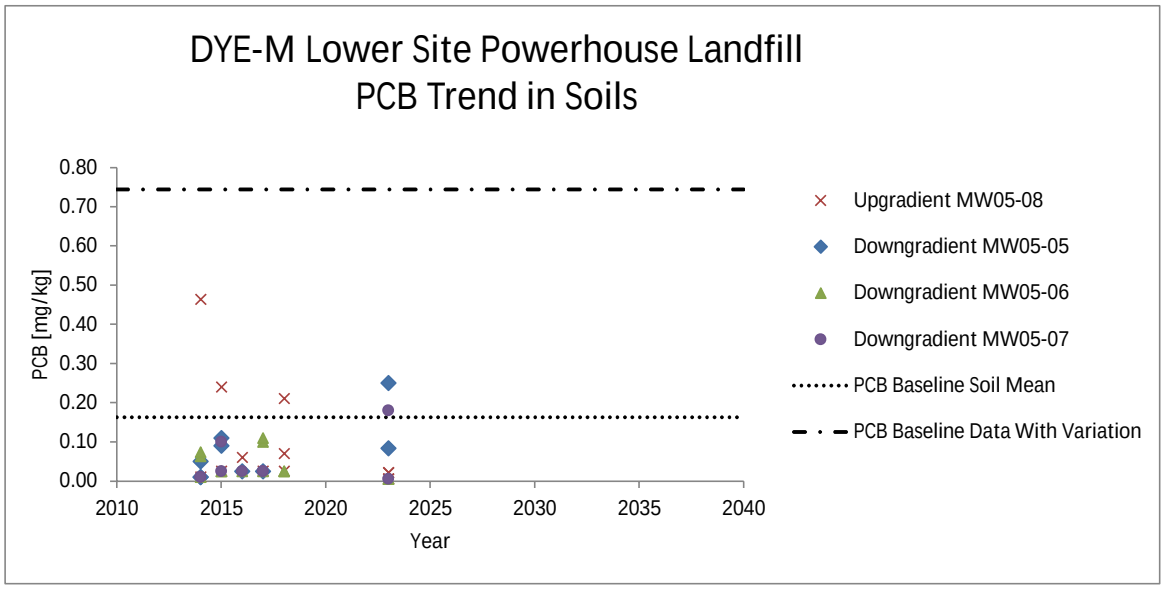
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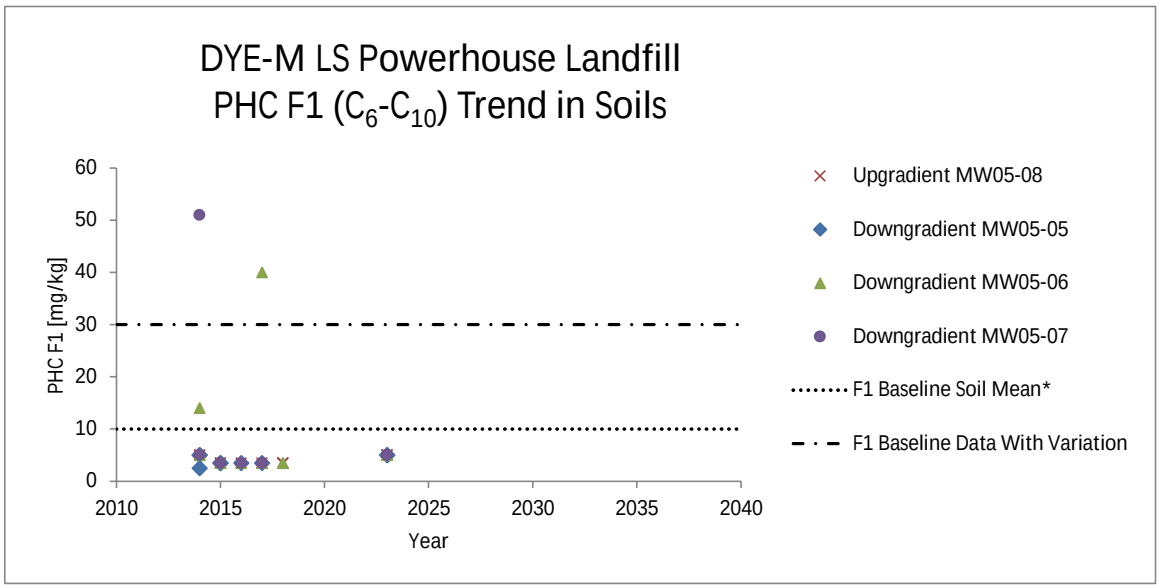
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* F1 baseline arithmetic mean is equal to the detection limit

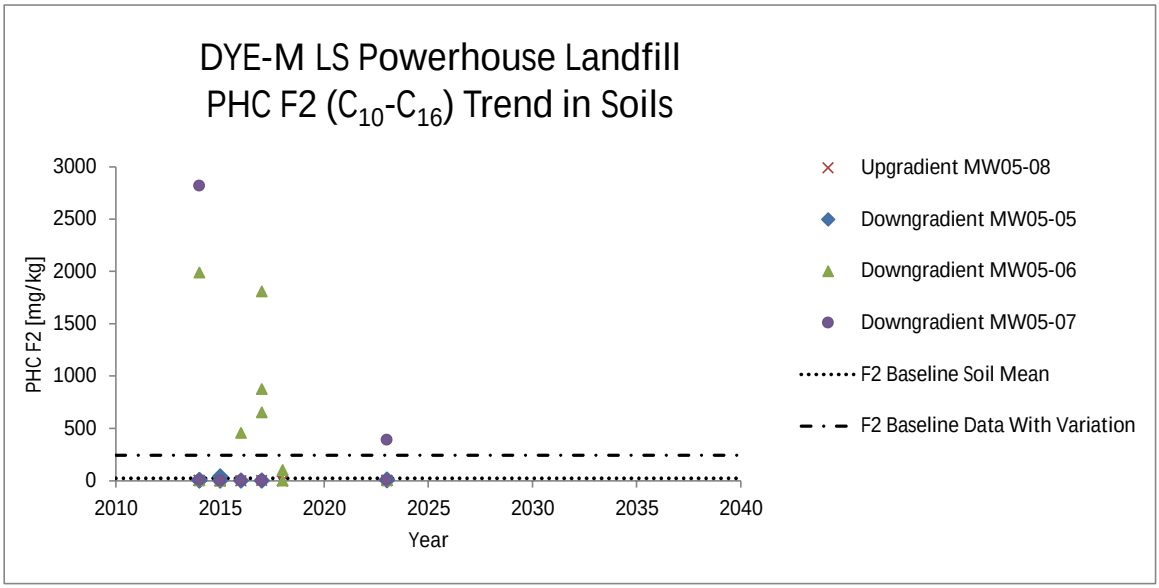
DYE-M Lower Site Powerhouse Landfill Trends in Soil Inorganics, PCBs and PHCs

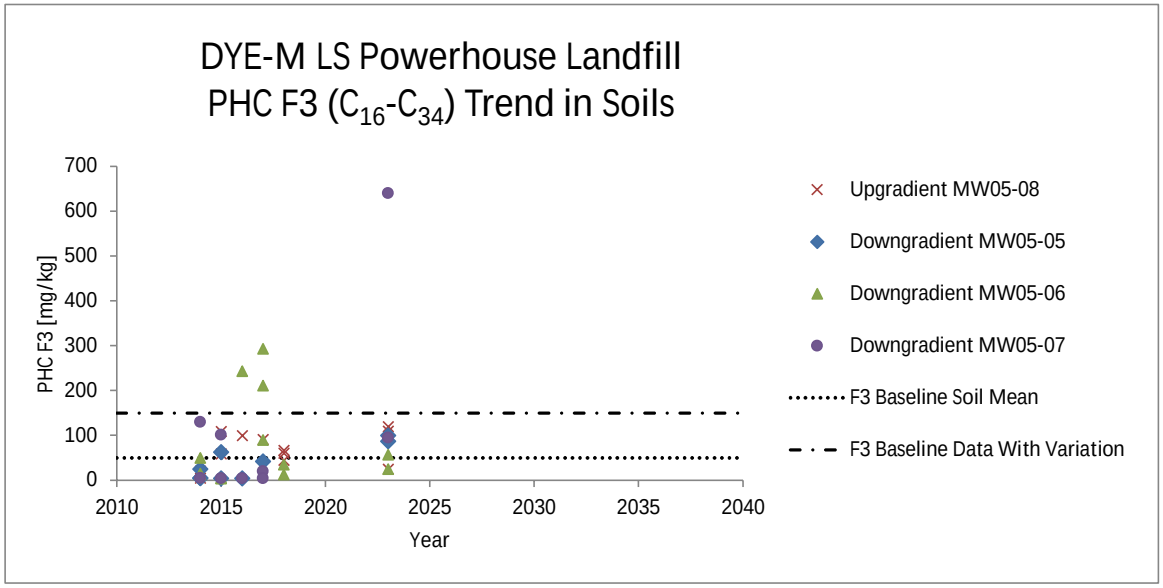
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* F3 baseline arithmetic mean is equal to the detection limit

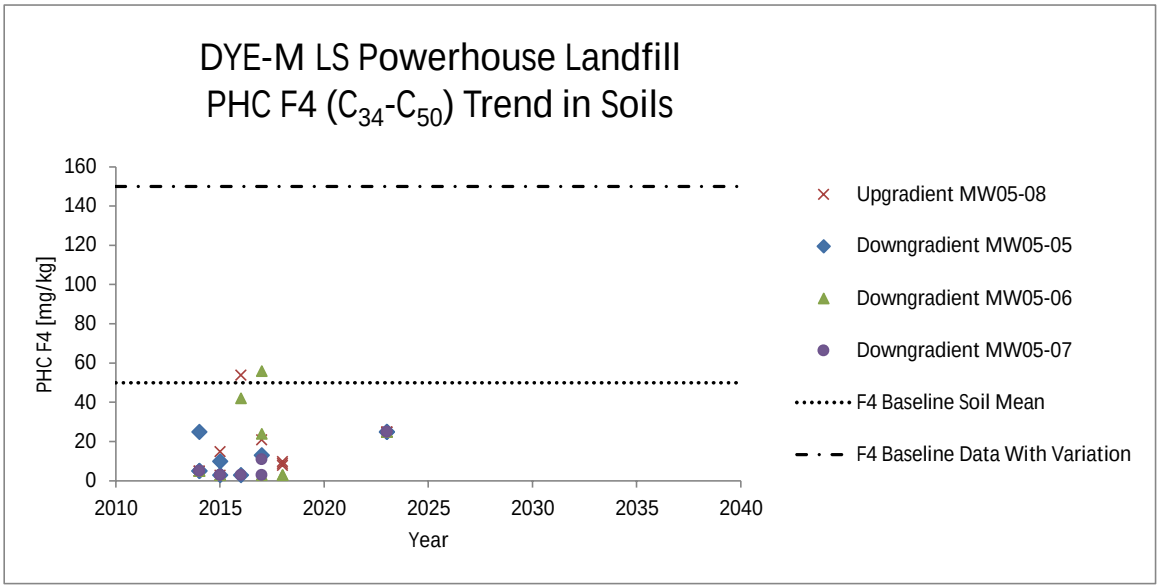
DYE-M Lower Site Powerhouse Landfill Trends in Soil Inorganics, PCBs and PHCs

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DYE-M Lower Site Powerhouse Landfill - Summary of Groundwater Monitoring Analytical Data

Link to: Table of Contents

Sample ID	Location	Year	Monitoring Year	Monitoring Phase	As (mg/L)	Cd* (mg/L)	Cr (mg/L)	Co* (mg/L)	Cu* (mg/L)	Pb* (mg/L)	Ni* (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0034	-	0.0914	-	-	-	-	4.92	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					**0.0034**	**0.0010**	**0.0914**	**0.0030**	**0.0050**	**0.0100**	**0.0050**	**4.92**	**0.05**	**0.50**	**1.00**	**1.00**
Baseline Data - Standard Deviation					0.0020	0.0000	0.0284	0.0000	0.0000	0.0000	0.0000	4.10	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					**0.0096**	**0.0030**	**0.1765**	**0.0090**	**0.0150**	**0.0300**	**0.0150**	**17.22**	**0.15**	**1.50**	**3.00**	**3.00**
Where only dissolved metals results are available, the baseline arithmetic mean has been set to the detection limit of the dissolved metals results.																
If baseline or background arithmetic mean was below the detection limit, the mean has been modified to match the detection limit value.																
Dissolved metals results (italicized) have not been included in the calculation of N value, baseline arithmetic mean or standard deviation. Total metals results (i.e., those used in calculations) are not italicized.																
Monitoring Data																
Upgradient - MW05-08																
Not sampled - well dry	MW05-08	2014	1	Phase I												
MW05-08	MW05-08	2015	2	Phase I	<0.001	0.00050	0.0010	0.0011	<0.0005	0.0006	**0.0160**	**12.10000**	<0.025	<0.1	<0.1	<0.1
Not sampled - well dry	MW05-08	2016	3	Phase I												
MW05-08	MW05-08	2017	4	Phase I	*<0.001*	*0.00030*	*<0.001*	*0.0011*	*0.0015*	*<0.0001*	***0.0150***	***7.86000***	<0.025	<0.1	<0.1	<0.1
Not sampled - frozen	MW05-08	2018	5	Phase I												
MW05-08	MW05-08	2023	10	Phase II	0.0002	0.0002	0.0882	0.0012	**0.0051**	0.0003	**0.0537**	3.96000	<0.025	<0.1	<0.2	<0.2

DYE-M Lower Site Powerhouse Landfill - Summary of Groundwater Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	As (mg/L)	Cd* (mg/L)	Cr (mg/L)	Co* (mg/L)	Cu* (mg/L)	Pb* (mg/L)	Ni* (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0034	-	0.0914	-	-	-	-	4.92	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					**0.0034**	**0.0010**	**0.0914**	**0.0030**	**0.0050**	**0.0100**	**0.0050**	**4.92**	**0.05**	**0.50**	**1.00**	**1.00**
Baseline Data - Standard Deviation					0.0020	0.0000	0.0284	0.0000	0.0000	0.0000	0.0000	4.10	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					**0.0096**	**0.0030**	**0.1765**	**0.0090**	**0.0150**	**0.0300**	**0.0150**	**17.22**	**0.15**	**1.50**	**3.00**	**3.00**
Downgradient - MW05-05																
Not sampled - well dry	MW05-05	2014	1	Phase I												
MW0505	MW05-05	2015	2	Phase I	<0.005	<0.0005	<0.005	0.00260	**0.00610**	**0.03650**	**0.01800**	4.79000	<0.025	<0.1	<0.1	<0.1
MW0505 (Interlab)	MW05-05	2015	2	Phase I	<0.001	0.0003300	<0.002	0.00100	0.00300	**0.02200**	**0.00900**	4.05000	<0.025	<0.1	<0.1	<0.1
Not sampled - frozen	MW05-05	2016	3	Phase I												
MW05-05	MW05-05	2017	4	Phase I	*<0.001*	*0.000100*	*<0.001*	*0.00070*	*0.00100*	*0.00030*	***0.00900***	*1.03000*	<0.025	<0.20	<0.20	<0.20
Not sampled - frozen	MW05-05	2018	5	Phase I												
MW05-05	MW05-05	2023	10	Phase II	0.00042	0.0001390	0.00355	0.00084	0.00275	**0.01410**	**0.00516**	0.53200	<0.025	<0.1	<0.2	<0.2
MW05-05 (Interlab)	MW05-05	2023	10	Phase II	0.00043	0.0001340	0.00329	0.00085	0.00283	**0.01470**	**0.00532**	0.55300				

DYE-M Lower Site Powerhouse Landfill - Summary of Groundwater Monitoring Analytical Data

Link to: Table of Contents

Sample ID	Location	Year	Monitoring Year	Monitoring Phase	As (mg/L)	Cd* (mg/L)	Cr (mg/L)	Co* (mg/L)	Cu* (mg/L)	Pb* (mg/L)	Ni* (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0034	-	0.0914	-	-	-	-	4.92	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					**0.0034**	**0.0010**	**0.0914**	**0.0030**	**0.0050**	**0.0100**	**0.0050**	**4.92**	**0.05**	**0.50**	**1.00**	**1.00**
Baseline Data - Standard Deviation					0.0020	0.0000	0.0284	0.0000	0.0000	0.0000	0.0000	4.10	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					**0.0096**	**0.0030**	**0.1765**	**0.0090**	**0.0150**	**0.0300**	**0.0150**	**17.22**	**0.15**	**1.50**	**3.00**	**3.00**
Downgradient - MW05-06																
Not sampled - well dry	MW05-06	2014	1	Phase I												
MW0506	MW05-06	2015	2	Phase I	<0.005	<0.0005	<0.005	<0.0025	**0.00970**	<0.0005	**0.00900**	**15.10000**	<0.025	<0.1	<0.1	<0.1
Not sampled - frozen	MW05-06	2016	3	Phase I												
Not sampled - frozen	MW05-06	2017	4	Phase I												
MW05-06	MW05-06	2018	5	Phase I	<0.001	<0.0001	<0.001	0.00100	0.00230	0.00090	**0.00600**	**21.50000**	<0.025	<0.1	<0.1	<0.1
MW05-06	MW05-06	2023	10	Phase II	0.00028	0.0000201	0.00398	0.00083	0.00464	0.00342	**0.00618**	3.56000	<0.025	<0.1	<0.2	<0.2

DYE-M Lower Site Powerhouse Landfill - Summary of Groundwater Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	As (mg/L)	Cd* (mg/L)	Cr (mg/L)	Co* (mg/L)	Cu* (mg/L)	Pb* (mg/L)	Ni* (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0034	-	0.0914	-	-	-	-	4.92	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					**0.0034**	**0.0010**	**0.0914**	**0.0030**	**0.0050**	**0.0100**	**0.0050**	**4.92**	**0.05**	**0.50**	**1.00**	**1.00**
Baseline Data - Standard Deviation					0.0020	0.0000	0.0284	0.0000	0.0000	0.0000	0.0000	4.10	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					**0.0096**	**0.0030**	**0.1765**	**0.0090**	**0.0150**	**0.0300**	**0.0150**	**17.22**	**0.15**	**1.50**	**3.00**	**3.00**
Downgradient - MW05-07																
Not sampled - well dry	MW05-07	2014	1	Phase I												
Not sampled - frozen	MW05-07	2015	2	Phase I												
Not sampled - well dry	MW05-07	2016	3	Phase I												
Not sampled - frozen	MW05-07	2017	4	Phase I												
Not sampled - frozen	MW05-07	2018	5	Phase I												
MW05-07	MW05-07	2023	10	Phase II	0.00028	0.0000411	0.01020	0.00060	**0.00589**	0.00166	**0.00837**	2.21000	<0.025	<0.1	<0.2	<0.2

N/A = not analyzed

2017 samples were accidentally analysis for dissolved metals instead of total metals.

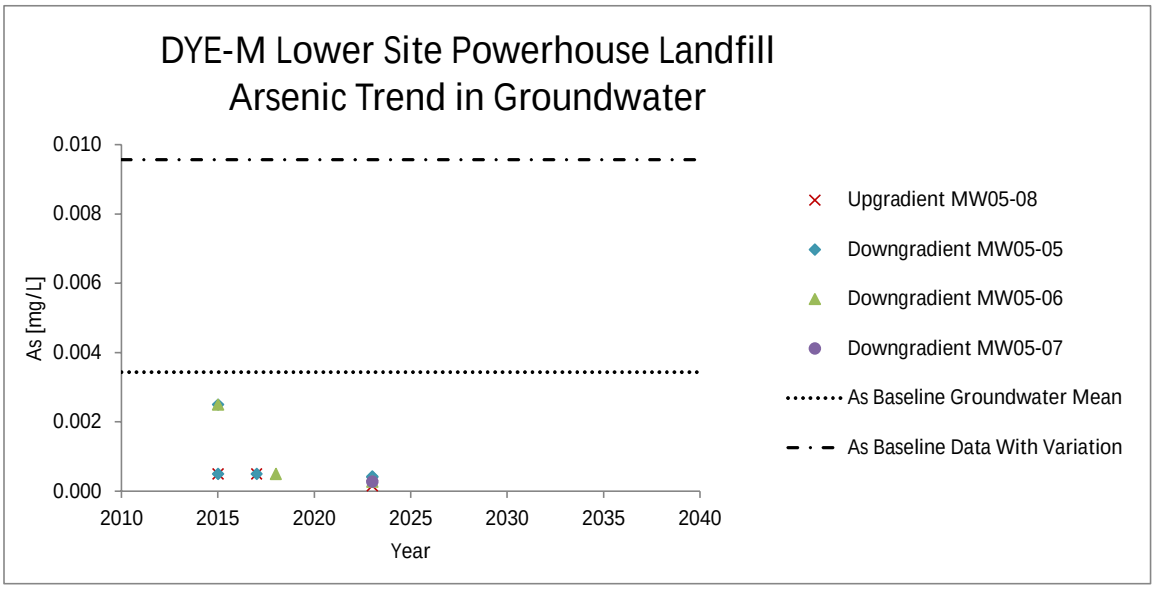
Legend

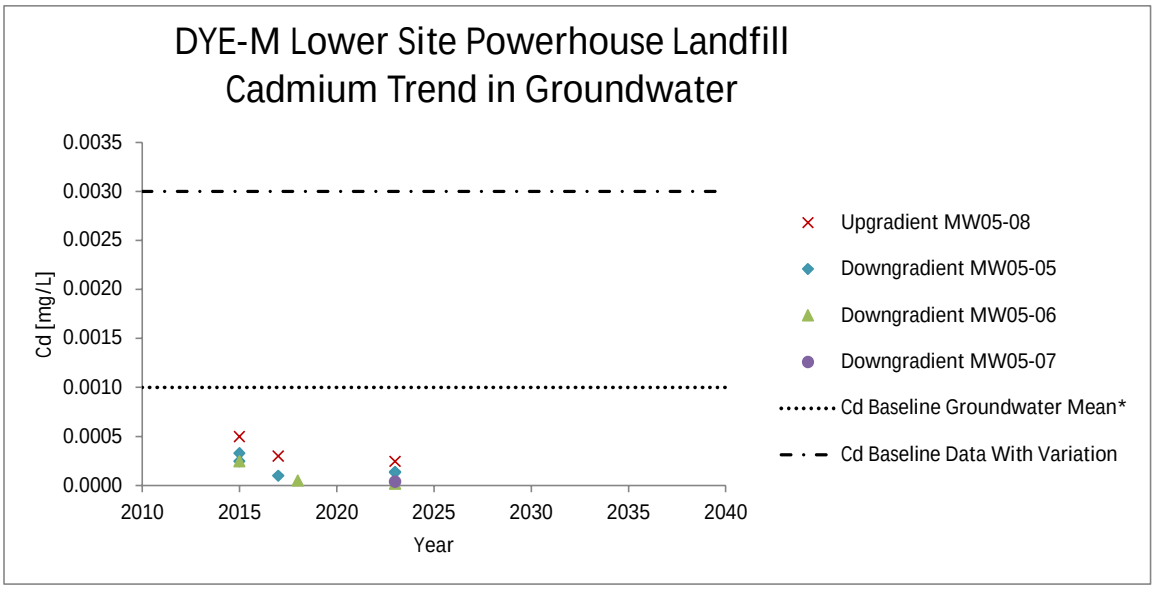
XX	**Sample exceeds baseline mean**
XX	**Sample exceeds baseline data with variation**
XX	*Dissolved metals results*

DYE-M Lower Site Powerhouse Landfill Trends in Groundwater Inorganics and PHCs

Link to: Table of Contents

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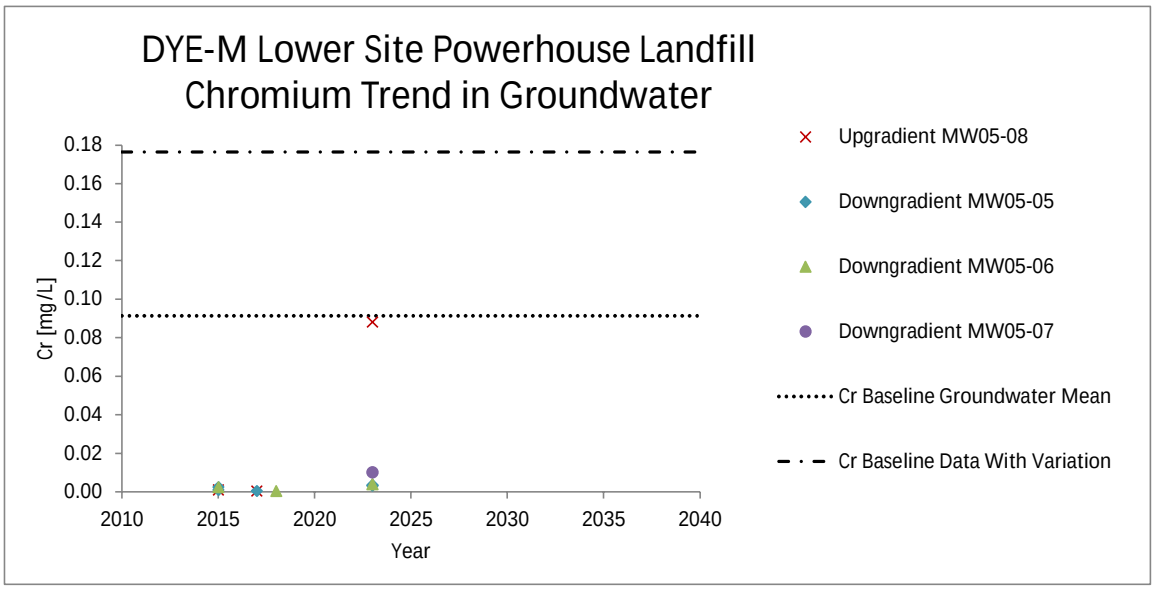


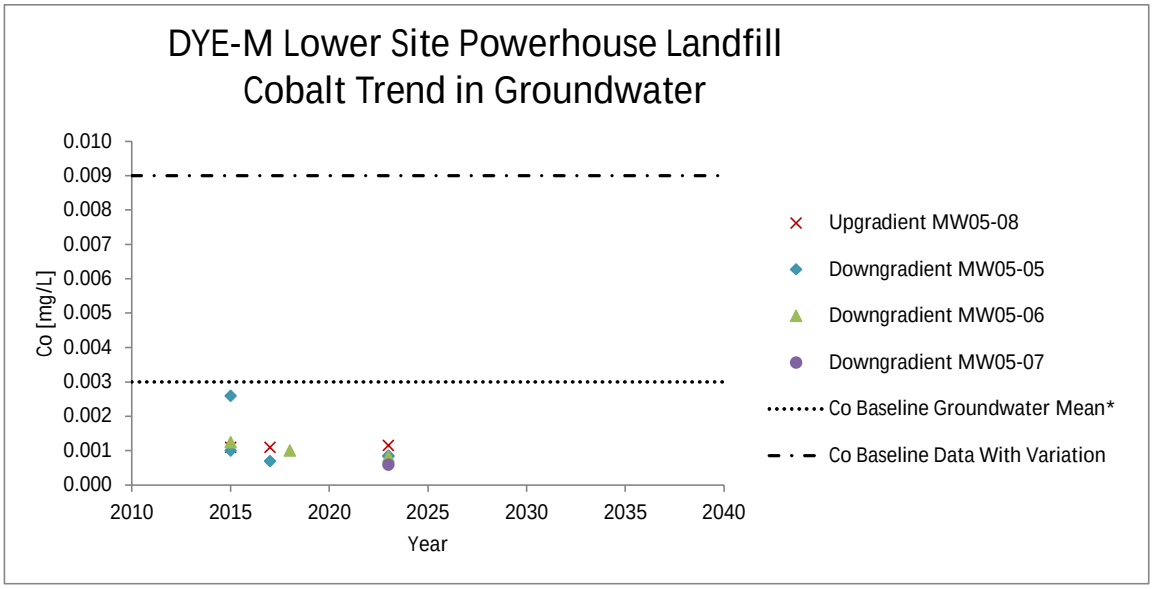
* Cd baseline arithmetic mean is equal to the baseline detection limit

DYE-M Lower Site Powerhouse Landfill Trends in Groundwater Inorganics and PHCs

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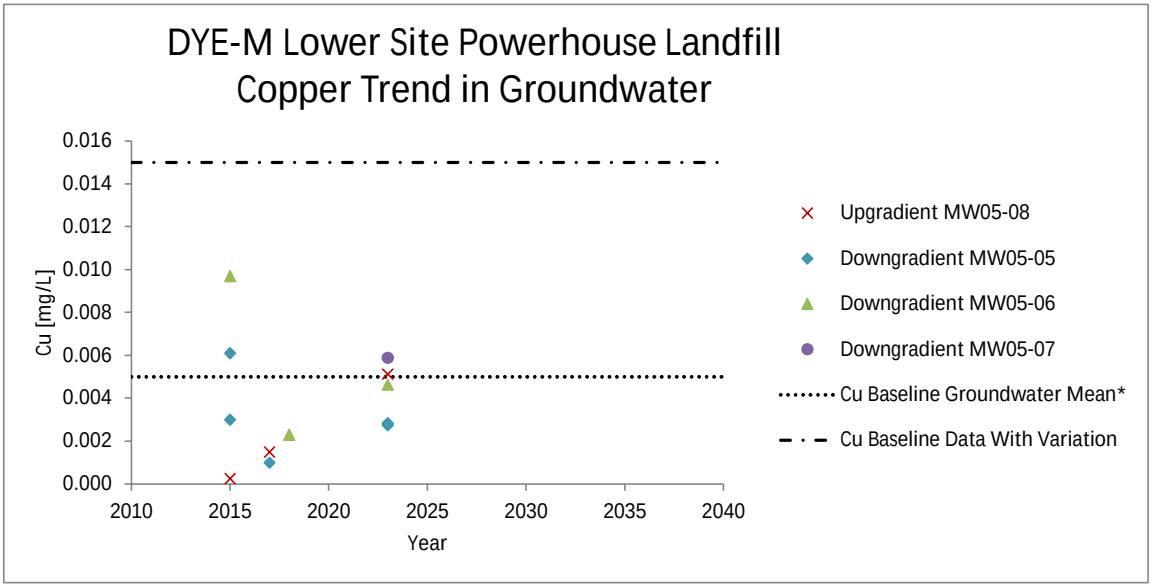


* Co baseline arithmetic mean is equal to the baseline detection limit

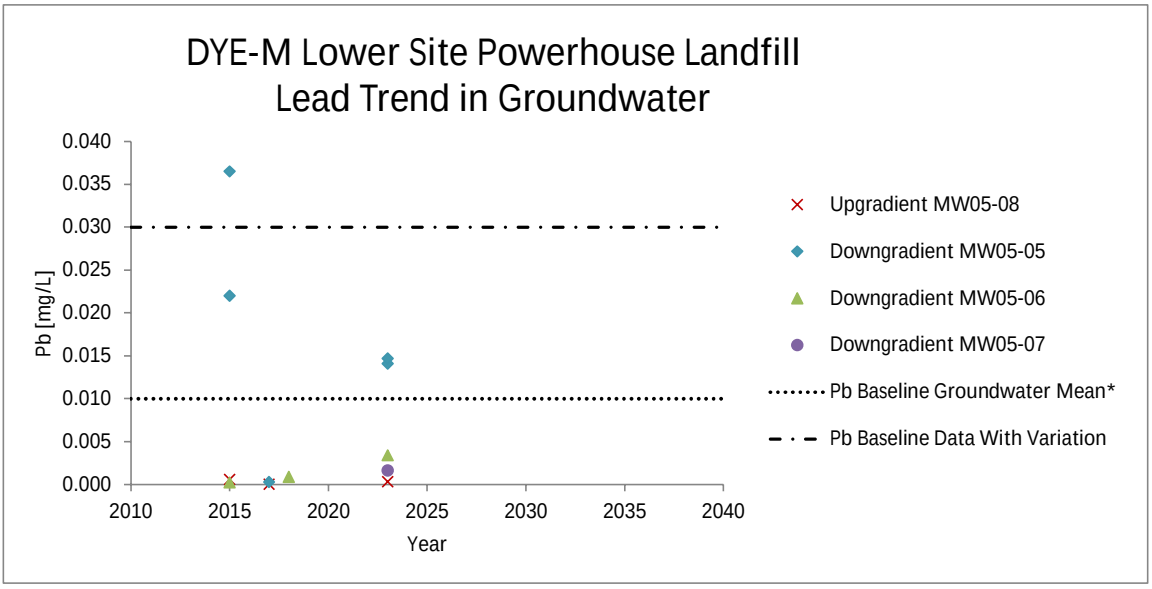
DYE-M Lower Site Powerhouse Landfill Trends in Groundwater Inorganics and PHCs

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When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* Cu baseline arithmetic mean is equal to the baseline detection limit

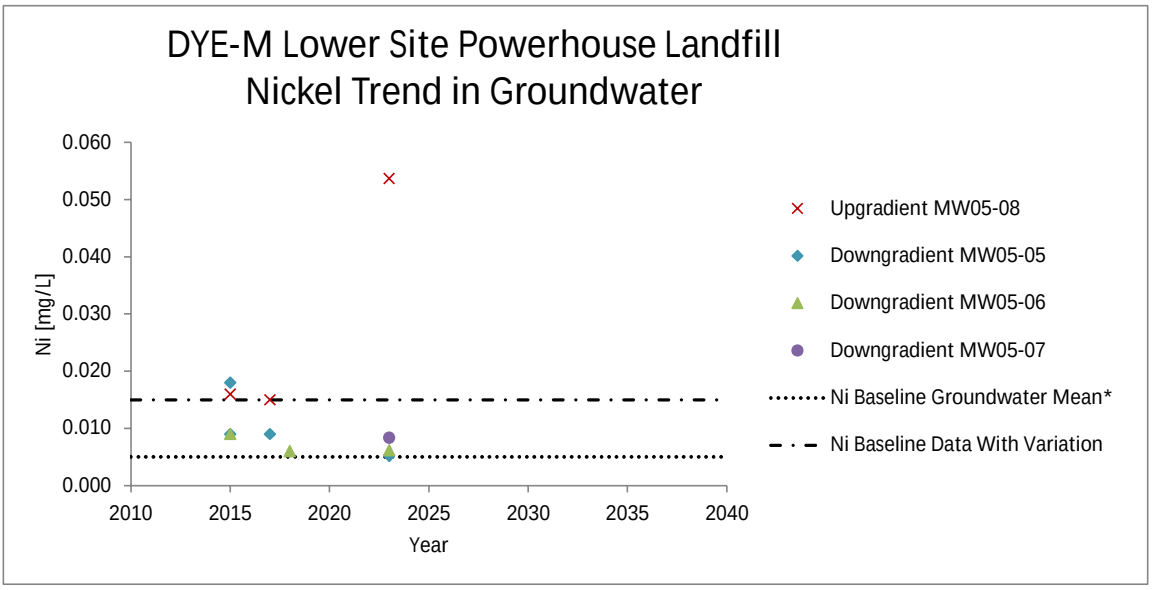


* Pb baseline arithmetic mean is equal to the baseline detection limit

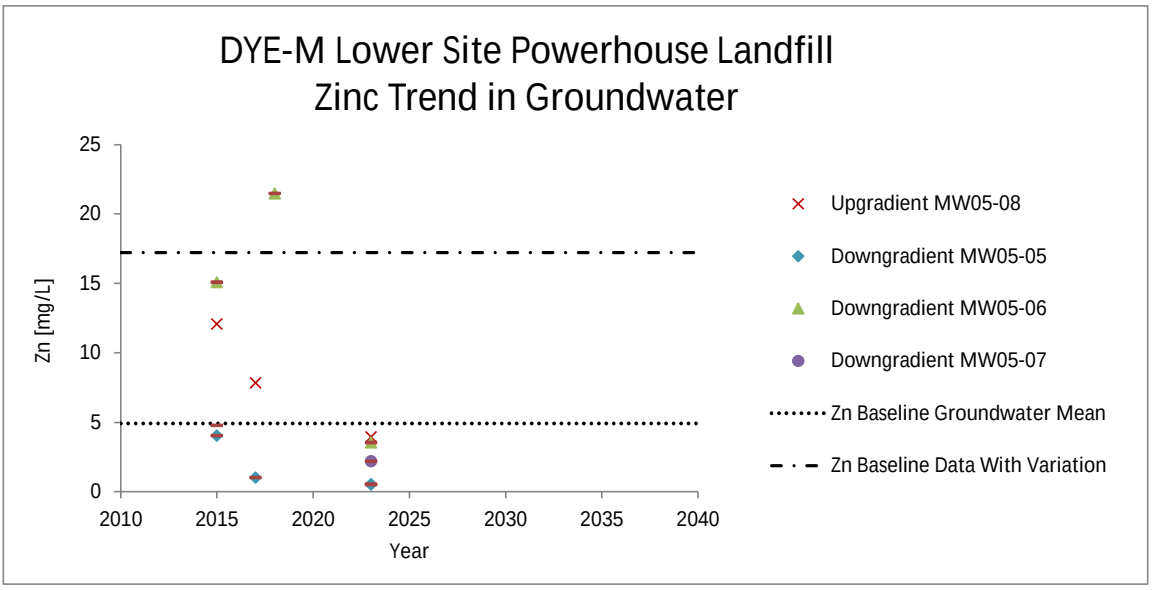
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.
Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.
When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



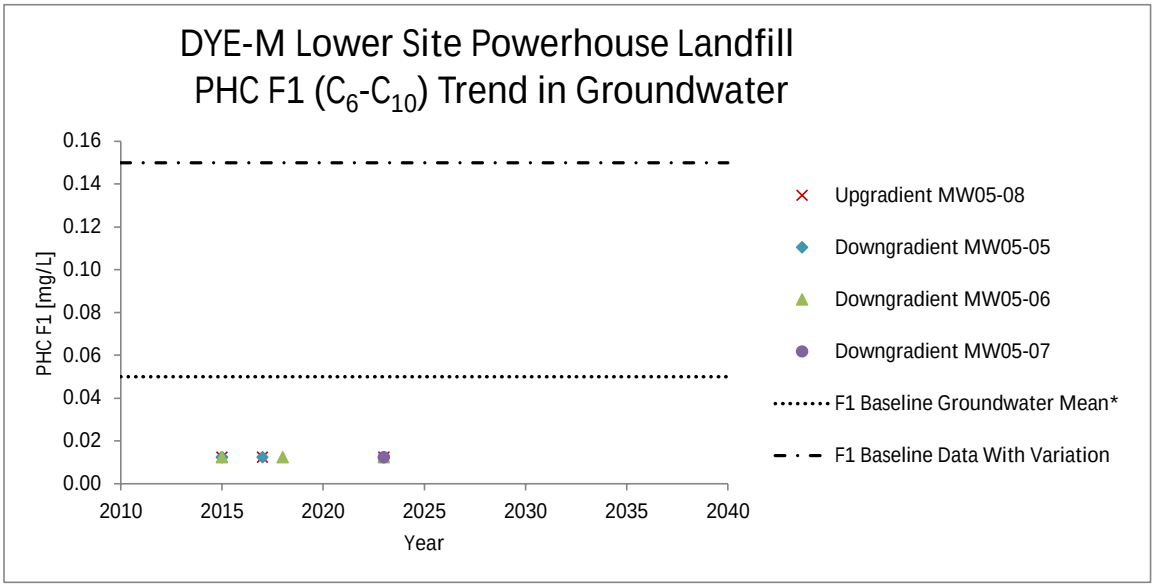
* Ni baseline arithmetic mean is equal to the baseline detection limit



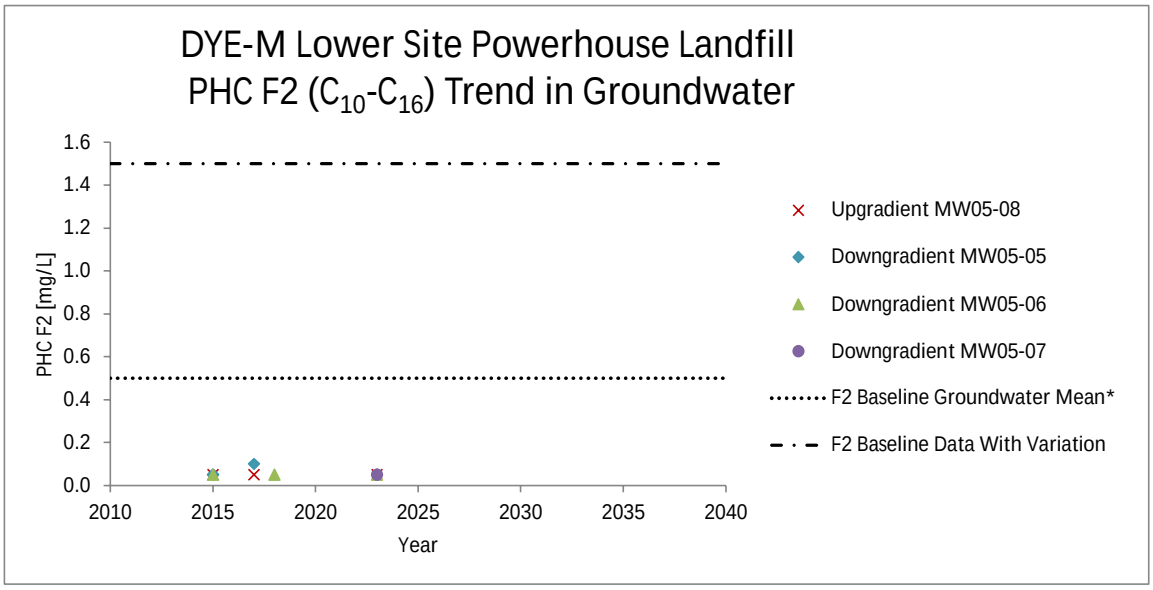
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.
Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.
When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F1 baseline arithmetic mean is equal to the detection limit

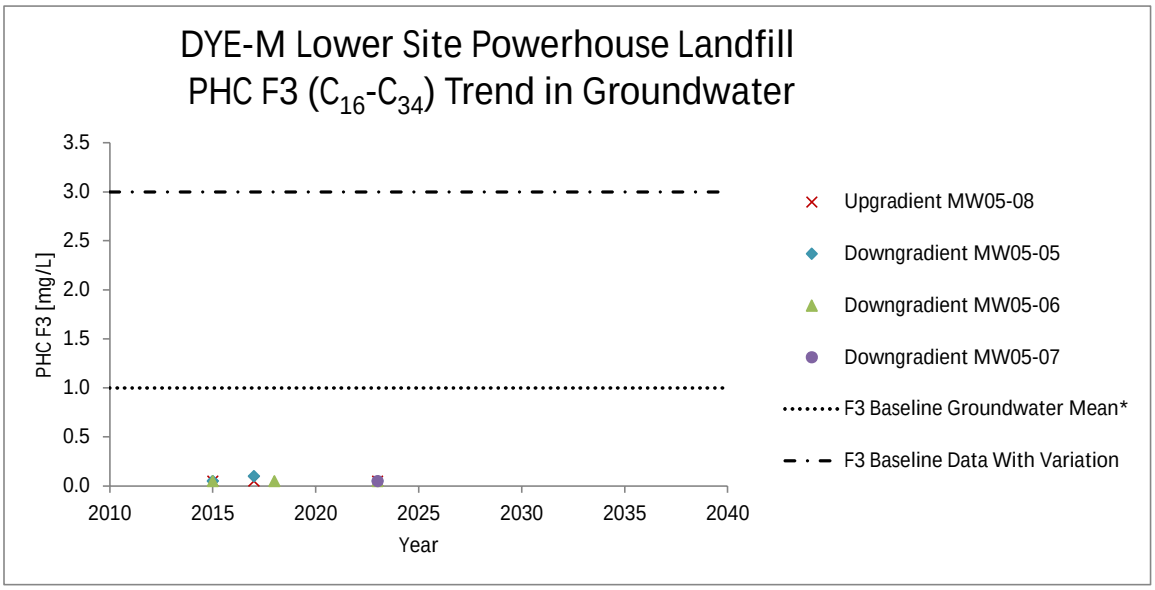


* F2 baseline arithmetic mean is equal to the detection limit

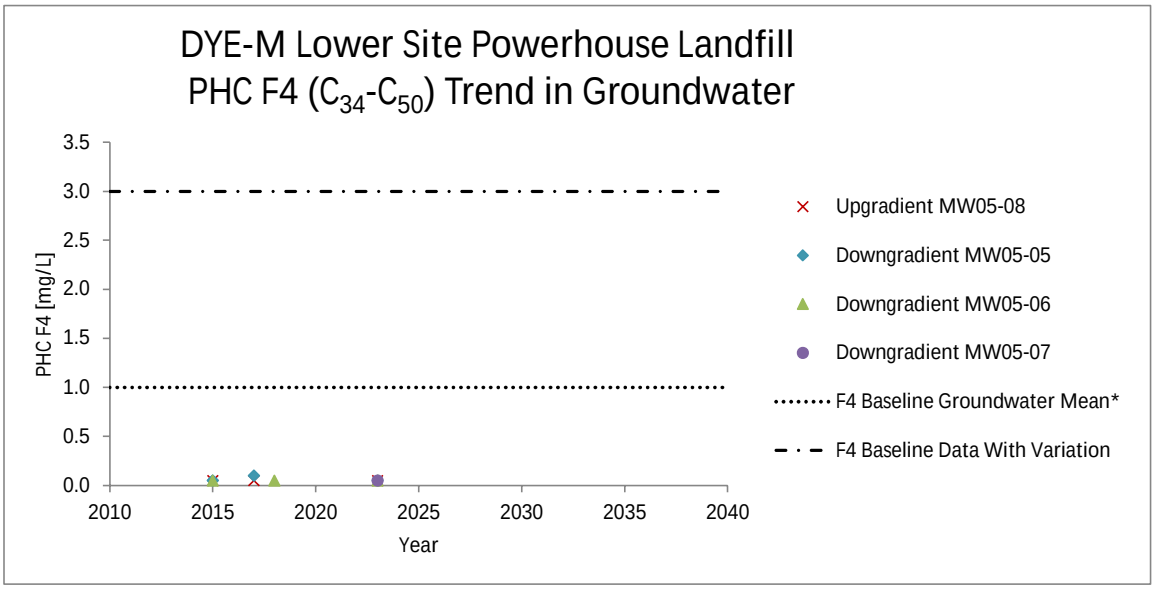
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.
Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.
When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F3 baseline arithmetic mean is equal to the detection limit



* F4 baseline arithmetic mean is equal to the detection limit

DYE-M Lower Site Non-Hazardous Waste Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	68.02	10.37	26.56	10.00	34.73	50.70	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	12.38	2.06	7.33	0.00	5.05	14.39	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	105.16	16.55	48.55	30.00	49.89	93.88	0.30	30.00	30.00	150.00	150.00
** If baseline or background arithmetic mean was below the detection limit, the mean has been modified to match the detection limit value.*																		
DEW Line Cleanup Tier I Criteria											*200*			*1*				
DEW Line Cleanup Tier II Criteria						*30*	*5*	*250*	*50*	*100*	*500*	*100*	*500*	*5*				
Monitoring Data																		
Upgradient																		
	MW09-26 surface																	
14-8252	MW09-26	2014	1	Phase I	5-10	1.20	<1	75.00	9.50	24.80	<10	41.10	46.00	<0.02	<10	<10	<10	<10
DM MW09-26 (0-20)	MW09-26	2015	2	Phase I	0-20	1.40	<0.5	67.20	9.80	24.80	4.90	34.80	40.70	<0.05	<7	<4	<8	<6
MW09-26B	MW09-26	2016	3	Phase I	0-15	<1	<0.5	59.40	8.40	23.50	5.50	30.00	34.50	<0.05	<7	<4	<8	<6
MW09-26 Shallow	MW09-26	2017	4	Phase I	0-15	<1	<0.5	43.90	5.60	14.50	3.60	22.30	28.70	<0.05	<7	<4	<8	<6
Not sampled - frozen	MW09-26	2018	5	Phase I														
MW09-26-SOIL-S	MW09-26	2023	10	Phase II	0-15	1.06	0.052	69.80	9.83	26.10	4.25	38.40	47.50	<0.010	<10	<10	<50	<50
MW09-26-SOIL-S (Interlab)	MW09-26	2023	10	Phase II	0-15										<10	<10	<50	<50
	MW09-26 depth																	
14-8253	MW09-26	2014	1	Phase I	45-50	0.90	<1	63.00	8.00	21.40	<10	33.90	42.00	<0.02	<10	11	<10	<10
Not sampled - refusal	MW09-26	2015	2	Phase I														
MW09-26A	MW09-26	2016	3	Phase I	40-50	<1	<0.5	60.20	7.80	21.10	5.30	27.70	33.00	<0.05	<7	<4	<8	<6
MW09-26 Deep	MW09-26	2017	4	Phase I	40-50	<1	<0.5	46.80	5.50	15.20	3.60	22.80	28.40	<0.05	<7	<4	<8	<6
Not sampled - frozen	MW09-26	2018	5	Phase I														
MW09-26-SOIL-D	MW09-26	2023	10	Phase II	40-50	0.94	0.067	55.30	8.17	19.60	3.38	30.00	36.60	<0.010	<10	<10	<50	<50
MW23-S-40 (Dup)	MW09-26	2023	10	Phase II	40-50	0.94	<0.050	56.50	8.07	20.90	3.66	30.70	37.90	<0.010	<10	<10	<50	<50

DYE-M Lower Site Non-Hazardous Waste Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	68.02	10.37	26.56	10.00	34.73	50.70	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	12.38	2.06	7.33	0.00	5.05	14.39	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	105.16	16.55	48.55	30.00	49.89	93.88	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	MW05-09 surface																	
14-8243	MW05-09	2014	1	Phase I	5-10	2.40	<1	92.00	10.90	44.50	15.00	50.20	72.00	<0.02	<10	<10	<10	<10
DM MW05-09 (0-15)	MW05-09	2015	2	Phase I	0-15	1.40	<0.5	62.10	7.60	38.30	12.50	34.40	48.90	<0.05	<7	<4	52	<6
MW05-09A	MW05-09	2016	3	Phase I	0-15	<1	<0.5	72.90	8.90	39.70	17.20	33.80	54.10	0.070	<7	<4	59	37
MW05-09 Shallow	MW05-09	2017	4	Phase I	0-15	<1	<0.5	49.80	7.70	34.90	6.90	31.00	37.20	<0.05	<7	<4	40	14
Not sampled - frozen	MW05-09	2018	5	Phase I														
MW05-09-SOIL-S	MW05-09	2023	10	Phase II	0-15	0.98	0.132	48.60	7.17	24.00	14.70	27.20	45.60	0.440	<10	120	110	<50
	MW05-09 depth																	
14-8244	MW05-09	2014	1	Phase I	45-50	1.40	<1	75.00	9.40	26.60	<10	38.50	47.00	<0.02	<10	<10	<10	<10
DM MW05-09 (40-50)	MW05-09	2015	2	Phase I	40-50	1.00	<0.5	58.70	8.70	31.00	23.70	32.00	52.30	0.090	<7	<4	42	<6
Not sampled - refusal	MW05-09	2016	3	Phase I														
MW05-09 Deep	MW05-09	2017	4	Phase I	30-40	<1	<0.5	53.00	7.80	28.30	8.00	31.60	42.70	<0.05	<7	<4	31	<6
Not sampled - frozen	MW05-09	2018	5	Phase I														
MW05-09-SOIL-D	MW05-09	2023	10	Phase II	40-50	0.63	0.083	31.80	6.08	15.70	13.40	19.90	34.20	1.100	260	1200	86	<50
MW05-09-SOIL-D (Interlab)	MW05-09	2023	10	Phase II	40-50											1500	100	<50

DYE-M Lower Site Non-Hazardous Waste Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	68.02	10.37	26.56	10.00	34.73	50.70	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	12.38	2.06	7.33	0.00	5.05	14.39	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	105.16	16.55	48.55	30.00	49.89	93.88	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	MW05-12 surface																	
14-8240	MW05-12	2014	1	Phase I	5-10	1.20	<1	84.00	11.20	39.40	67.00	44.70	81.00	0.148	<10	<10	<10	<10
14-8241 (Dup)	MW05-12	2014	1	Phase I	5-10	1.80	<1	93.00	11.90	48.90	38.00	49.00	80.00	0.445	<10	<10	<10	<10
DM MW05-12 (0-15)	MW05-12	2015	2	Phase I	0-15	1.00	<0.5	77.20	11.20	31.30	6.80	40.10	50.60	<0.05	<7	<4	<8	<6
MW05-12A	MW05-12	2016	3	Phase I	0-15	<1	<0.5	82.00	10.70	33.40	7.20	39.30	46.80	<0.05	<7	<4	<8	<6
MW05-12 Shallow	MW05-12	2017	4	Phase I	0-15	<1	<0.5	73.50	10.20	31.10	11.00	40.30	55.40	<0.05	<7	<4	<8	<6
MW05-12S	MW05-12	2018	5	Phase I	0-15	<1	<0.5	54.00	8.00	21.00	5.00	30.00	37.00	<0.05	<7	<4	<8	<6
MW05-12-SOIL-S	MW05-12	2023	10	Phase II	0-15	1.12	0.056	71.30	10.40	28.70	4.77	39.20	49.40	0.037	<10	<10	<50	<50
MW05-12-SOIL-S (Interlab)	MW05-12	2023	10	Phase II	0-15	1.05	0.064	70.80	10.40	27.70	4.81	38.60	49.00					
	MW05-12 depth																	
14-8242	MW05-12	2014	1	Phase I	35-45	3.20	<1	84.00	10.60	35.20	13.00	44.50	71.00	0.123	<10	<10	<10	<10
DM MW05-12 (40-50)	MW05-12	2015	2	Phase I	40-50	1.20	<0.5	75.00	10.80	30.80	8.00	39.60	51.30	<0.05	<7	<4	<8	<6
Not sampled - refusal	MW05-12	2016	3	Phase I														
MW05-12 Deep	MW05-12	2017	4	Phase I	20-30	<1	<0.5	93.00	13.20	41.30	14.60	51.80	76.80	<0.05	<7	<4	19	<6
MW05-12D	MW05-12	2018	5	Phase I	40-50	<1	<0.5	49.00	7.00	17.00	3.00	26.00	28.00	<0.05	<7	<4	<8	<6
QA/QC S7 (Dup)	MW05-12	2018	5	Phase I	40-50	<1	<0.5	47.00	7.00	16.00	3.00	26.00	27.00	<0.05	<7	<4	<8	<6
MW05-12-SOIL-D	MW05-12	2023	10	Phase II	40-50	0.83	0.081	52.50	7.81	19.80	5.29	29.60	37.90	0.048	<10	<10	<50	<50

DYE-M Lower Site Non-Hazardous Waste Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	68.02	10.37	26.56	10.00	34.73	50.70	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	12.38	2.06	7.33	0.00	5.05	14.39	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	105.16	16.55	48.55	30.00	49.89	93.88	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	MW09-27 surface																	
14-8248	MW09-27	2014	1	Phase I	5-10	2.00	<1	82.00	10.70	34.50	<10	44.60	60.00	0.040	<10	<10	<10	<10
14-8249 (Interlab)	MW09-27	2014	1	Phase I	5-10	1.63	<0.5	63.60	8.80	27.60	7.20	34.40	45.40	<0.10	<5	<10	<50	<50
DM MW09-27 (0-15)	MW09-27	2015	2	Phase I	0-15	2.00	<0.5	65.60	9.30	28.90	7.50	34.30	43.20	<0.05	<7	<4	<8	<6
MW09-27B	MW09-27	2016	3	Phase I	0-15	<1	<0.5	81.90	9.70	45.30	11.40	39.20	51.30	<0.05	<7	<4	25	13
MW09-27 Shallow~	MW09-27	2017	4	Phase I	0-15	<1	<0.5	75.20	10.70	33.20	6.40	42.90	48.90	<0.05	<7	<4	<8	<6
MW09-27S^	MW09-27	2018	5	Phase I	0-15	<1	<0.5	59.00	9.00	27.00	7.00	34.00	40.00	<0.05	<7	<4	<8	<6
MW09-27-SOIL-S	MW09-27	2023	10	Phase II	0-15	1.22	0.075	54.30	7.52	21.90	10.20	28.40	39.40	<0.010	<10	<10	<50	<50
	MW09-27 depth																	
14-8250	MW09-27	2014	1	Phase I	45-50	0.70	<1	51.00	6.60	19.10	<10	29.00	33.00	<0.02	<10	<10	<10	<10
14-8251 (Dup)	MW09-27	2014	1	Phase I	45-50	0.70	<1	56.00	7.30	20.00	<10	32.60	37.00	<0.02	<10	<10	<10	<10
DM MW09-27 (30-40)	MW09-27	2015	2	Phase I	30-40	1.40	<0.5	63.60	9.10	27.10	6.10	32.90	40.40	<0.05	<7	<4	30	<6
MW09-27A	MW09-27	2016	3	Phase I	40-50	<1	<0.5	75.60	9.70	32.40	9.80	34.90	44.60	<0.05	<7	<4	<8	<6
MW09-27 Deep	MW09-27	2017	4	Phase I	30-40	<1	<0.5	62.00	8.40	26.60	7.00	32.80	38.50	<0.05	<7	<4	16	10
MW09-27D^	MW09-27	2018	5	Phase I	40-50	2.00	<0.5	48.00	6.00	21.00	5.00	27.00	35.00	<0.05	<7	<4	<8	<6
MW09-27-SOIL-D	MW09-27	2023	10	Phase II	40-50	0.94	<0.050	46.70	6.66	19.70	3.86	25.20	31.40	<0.010	<10	<10	<50	<50

DYE-M Lower Site Non-Hazardous Waste Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	93.79	12.06	42.63	10.00	37.79	83.64	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	68.02	10.37	26.56	10.00	34.73	50.70	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	12.38	2.06	7.33	0.00	5.05	14.39	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	105.16	16.55	48.55	30.00	49.89	93.88	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	MW09-28 surface																	
14-8245	MW09-28	2014	1	Phase I	5-10	1.60	<1	86.00	10.50	43.10	14.00	42.70	64.00	0.163	<10	<10	<10	<10
MW09-28 (0-15)	MW09-28	2015	2	Phase I	0-15	1.90	<0.5	76.00	10.90	36.90	14.70	38.60	54.40	<0.05	<7	<4	<8	<6
MW09-28A	MW09-28	2016	3	Phase I	0-15	<1	<0.5	89.90	11.00	44.10	16.90	37.80	56.60	<0.05	<7	<4	<8	<6
MW09-28 Shallow	MW09-28	2017	4	Phase I	0-15	<1	<0.5	60.40	9.20	26.10	6.20	34.70	41.30	<0.05	<7	<4	34	<6
MW09-28S	MW09-28	2018	5	Phase I	0-15	1.00	<0.5	69.00	9.00	36.00	16.00	36.00	55.00	<0.05	<7	<4	27	13
MW09-28-SOIL-S	MW09-28	2023	10	Phase II	10-15	1.90	0.138	78.60	9.79	40.90	15.90	38.00	64.50	0.110	<10	<10	<50	<50
MW23-S-25 (Dup)	MW09-28	2023	10	Phase II	10-15	2.03	0.142	73.70	10.00	39.80	15.40	37.70	63.10	0.086	<10	<10	<50	<50
	MW09-28 depth																	
14-8247	MW09-28	2014	1	Phase I	45-50	2.10	<1	81.00	10.30	42.50	15.00	42.20	64.00	0.032	<10	<10	<10	<10
DM MW09-28 (40-50)	MW09-28	2015	2	Phase I	40-50	<1	<0.5	69.40	9.50	33.60	11.80	32.80	48.30	<0.05	<7	<4	<8	<6
Not sampled - refusal	MW09-28	2016	3	Phase I														
MW09-28 Deep	MW09-28	2017	4	Phase I	30-40	<1	<0.5	62.50	8.40	25.10	5.50	33.60	39.00	<0.05	<7	<4	<8	<6
Not sampled - frozen	MW09-28	2018	5	Phase I														
MW09-28-SOIL-D	MW09-28	2023	10	Phase II	45-50	1.78	0.127	84.90	11.20	47.90	14.80	43.10	67.00	0.077	<10	<10	53	<50

Legend

XX	Sample exceeds baseline mean
XX	Sample exceeds baseline data with variation

N/A = not analyzed

~ Two samples were labelled MW09-27 Deep in 2017; based on comparison to historic results, lab sample ID 1732457-87 was assigned to the shallow data set.

^ In 2018 the soil sample at MW09-27 was collected 7 m northwest of the well due to snow cover.

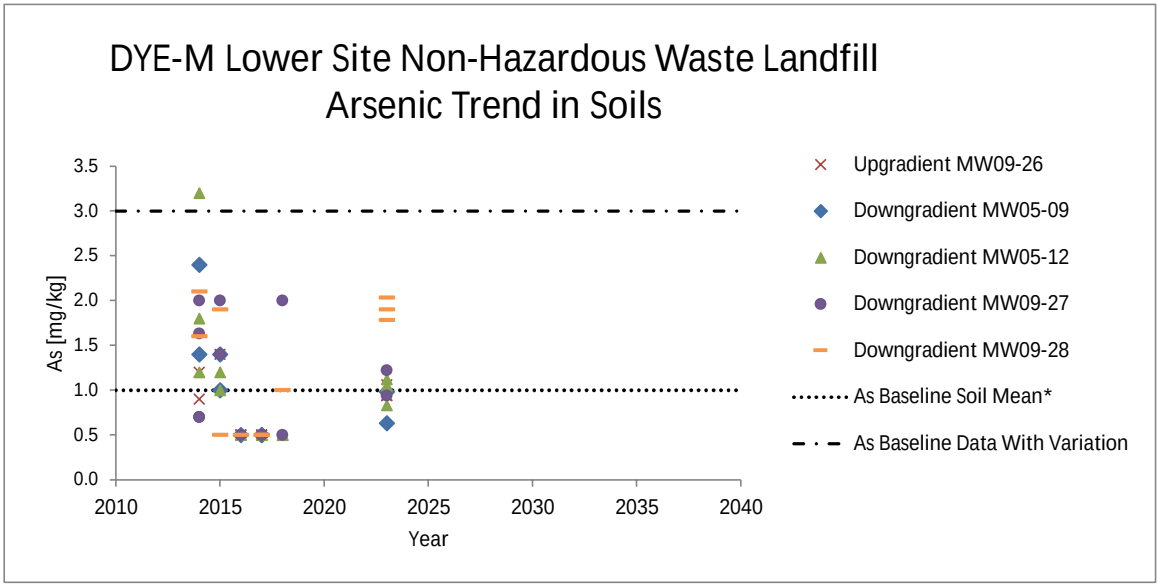
DYE-M Lower Site Non-Hazardous Waste Landfill Trends in Soil Inorganics, PCBs and PHCs

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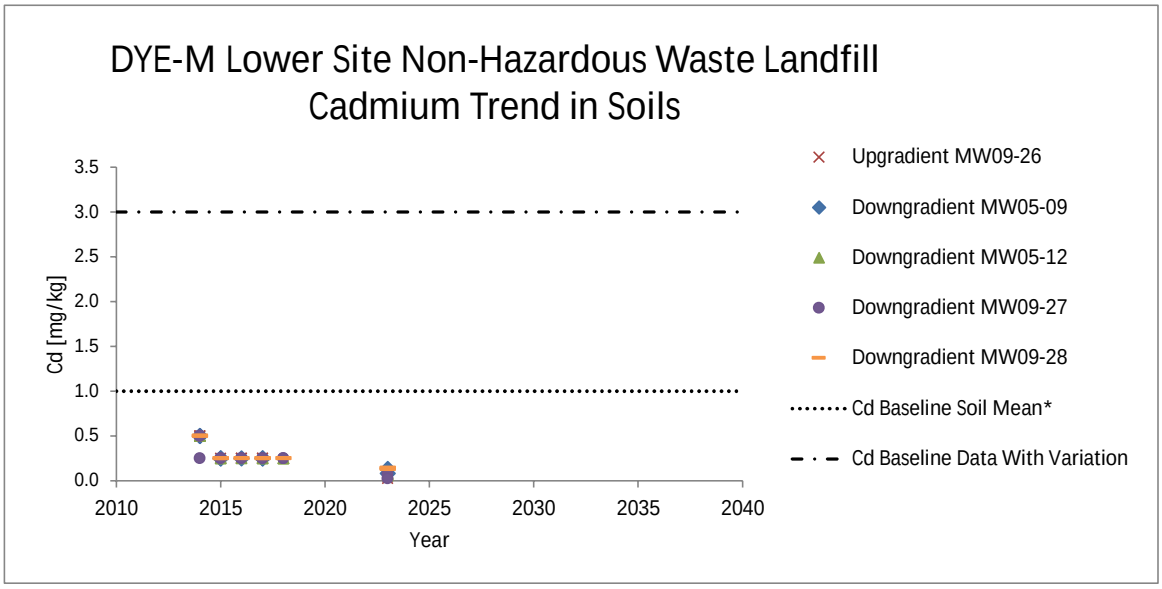
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* As baseline arithmetic mean is equal to the baseline detection limit



* Cd baseline arithmetic mean is equal to the baseline detection limit

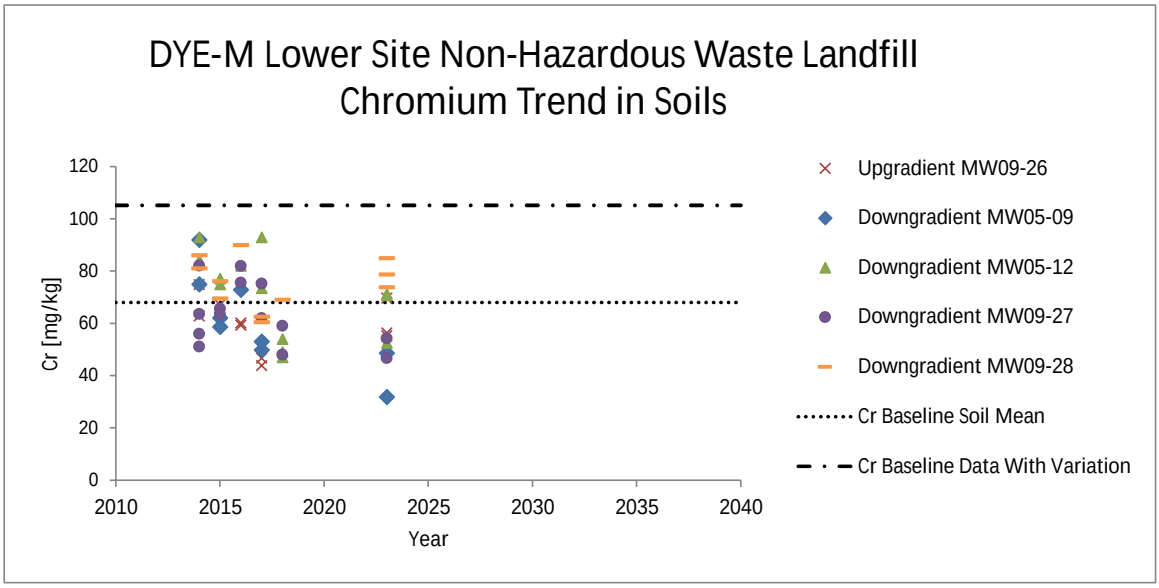
DYE-M Lower Site Non-Hazardous Waste Landfill Trends in Soil Inorganics, PCBs and PHCs

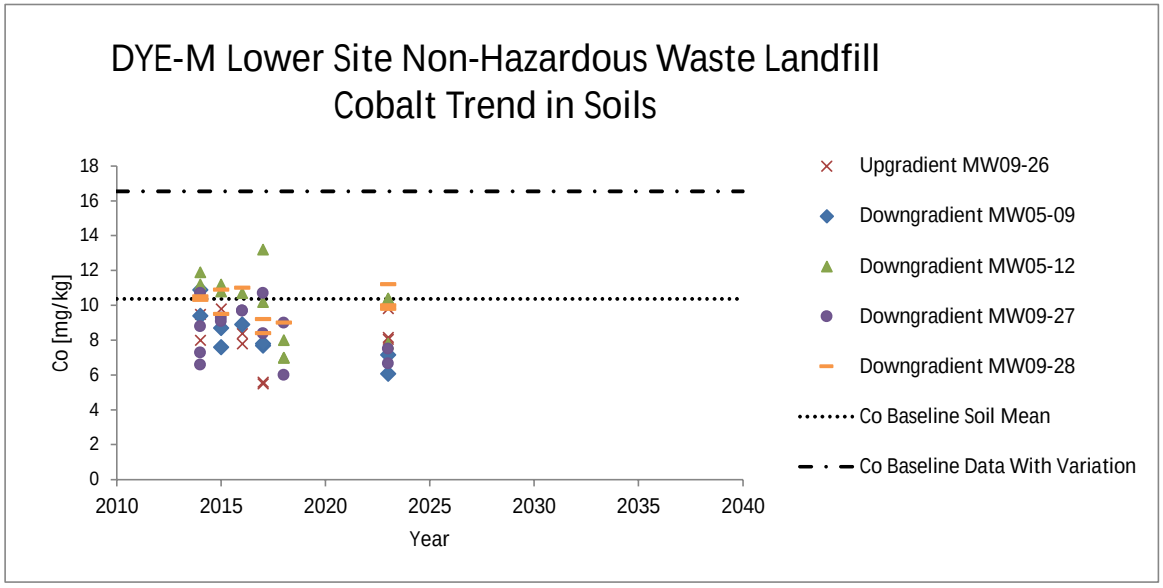
Link to: Table of Contents

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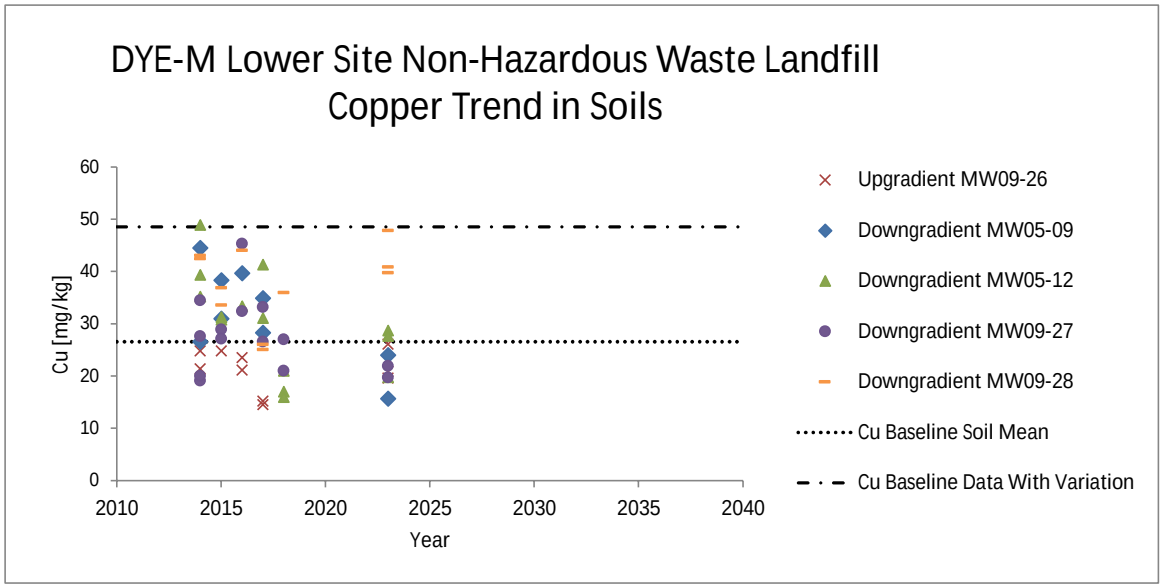
DYE-M Lower Site Non-Hazardous Waste Landfill Trends in Soil Inorganics, PCBs and PHCs

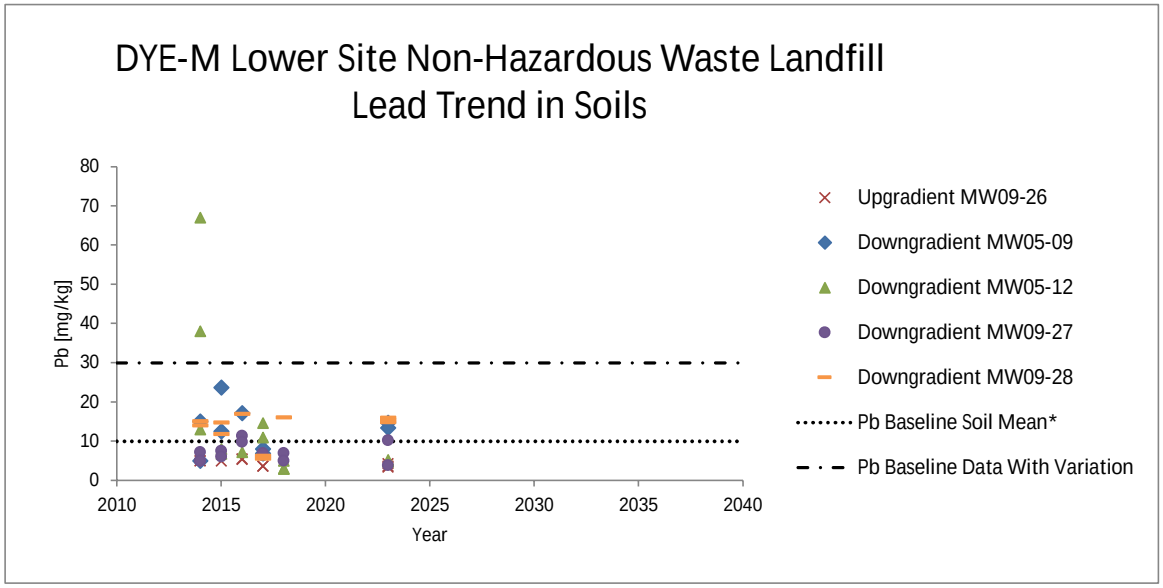
Link to: Table of Contents

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Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





* Pb baseline arithmetic mean is equal to the baseline detection limit

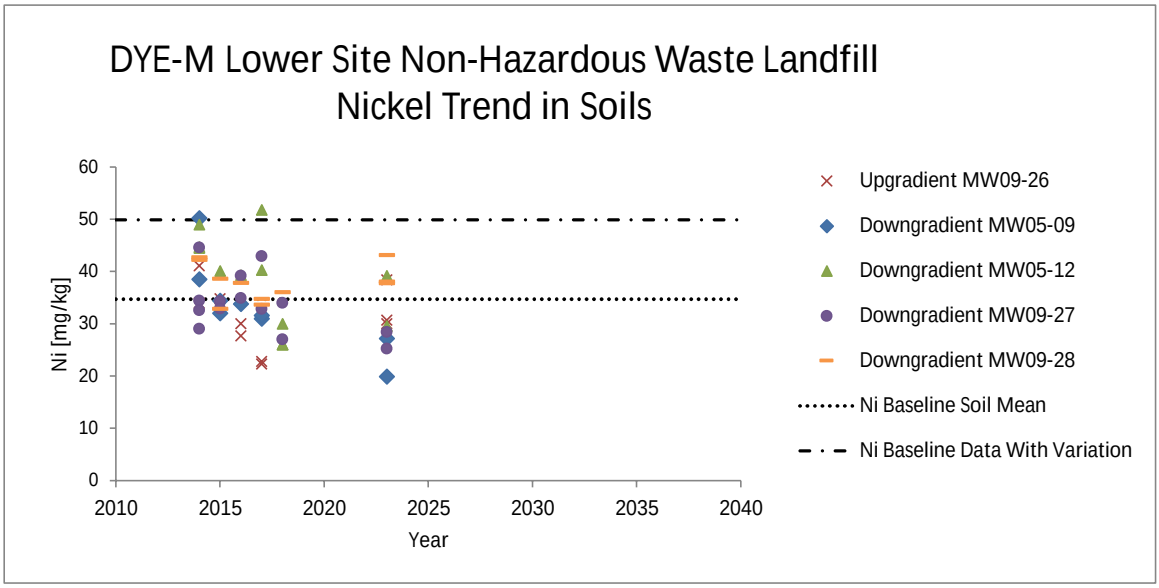
DYE-M Lower Site Non-Hazardous Waste Landfill Trends in Soil Inorganics, PCBs and PHCs

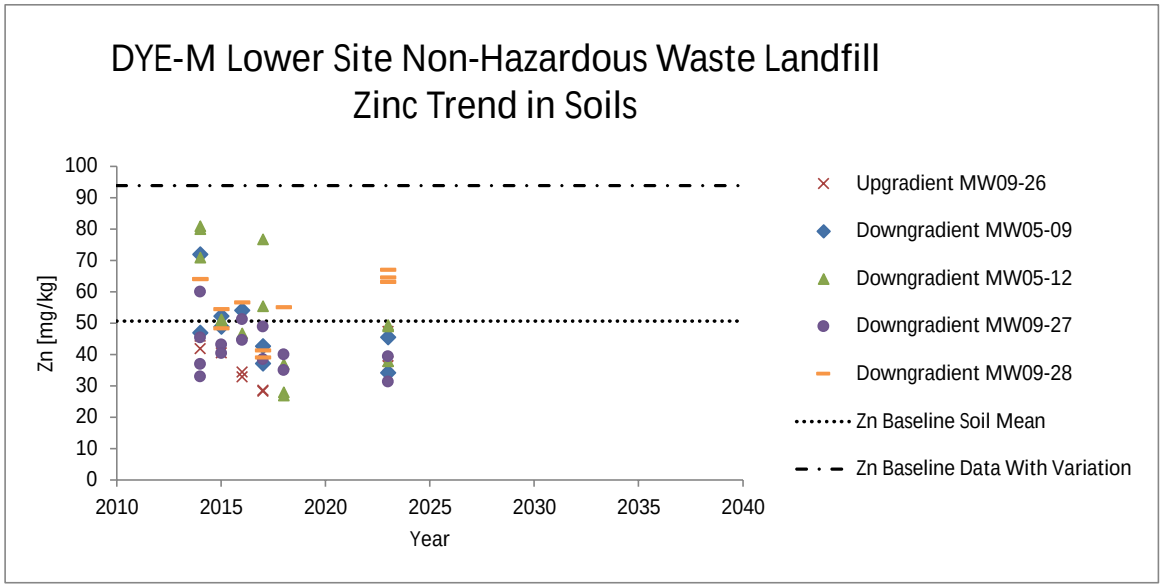
Link to: Table of Contents

Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





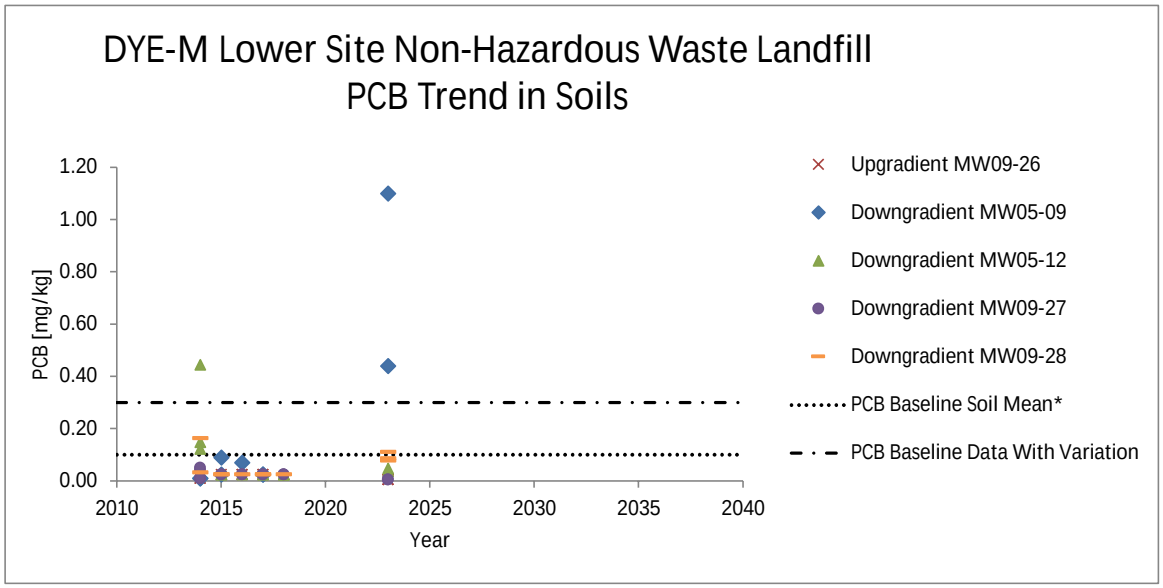
DYE-M Lower Site Non-Hazardous Waste Landfill Trends in Soil Inorganics, PCBs and PHCs

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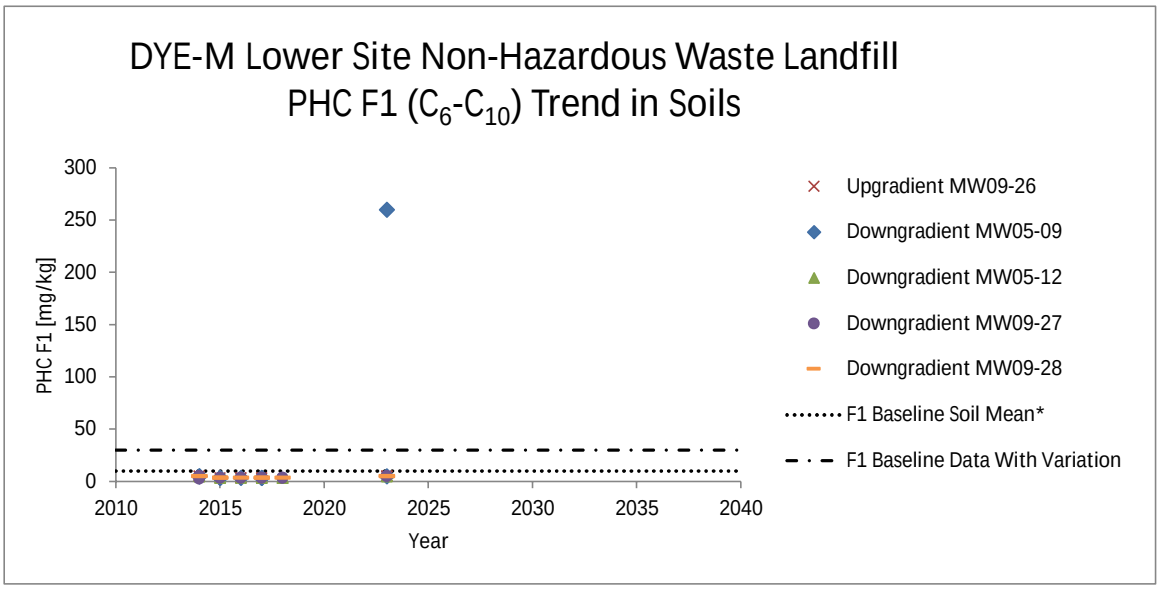
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* PCB baseline arithmetic mean is equal to the baseline detection limit



* F1 baseline arithmetic mean is equal to the detection limit

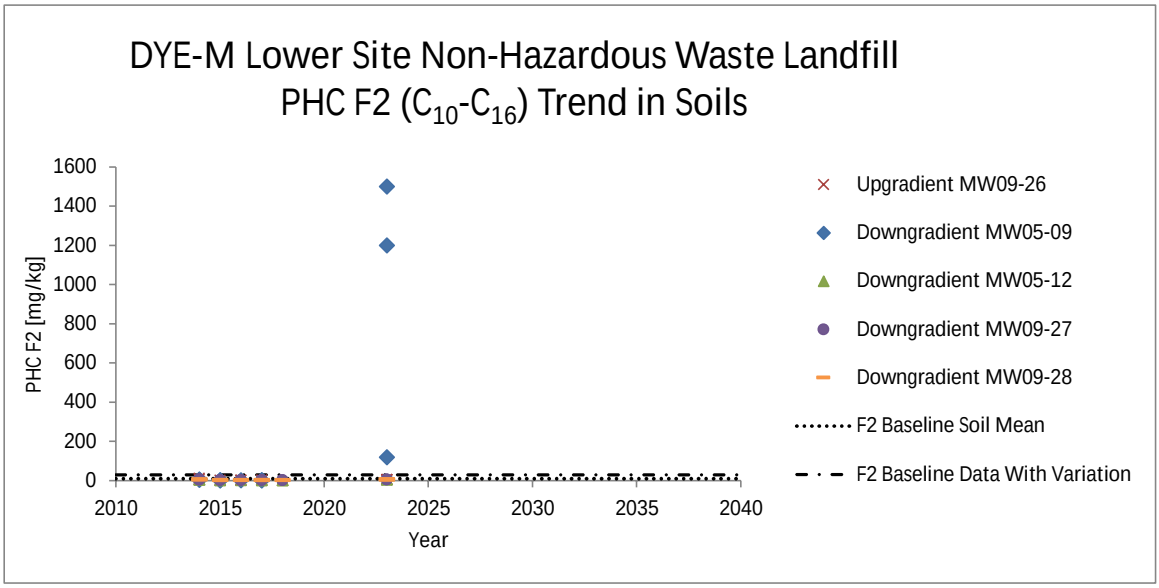
DYE-M Lower Site Non-Hazardous Waste Landfill Trends in Soil Inorganics, PCBs and PHCs

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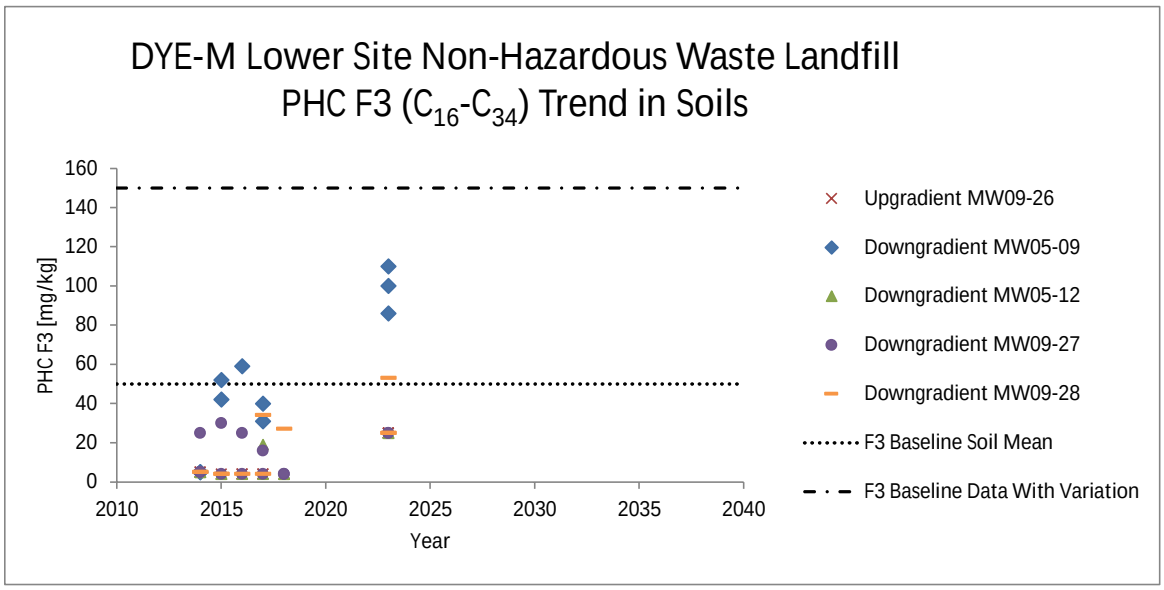
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F2 baseline arithmetic mean is equal to the detection limit



* F3 baseline arithmetic mean is equal to the detection limit

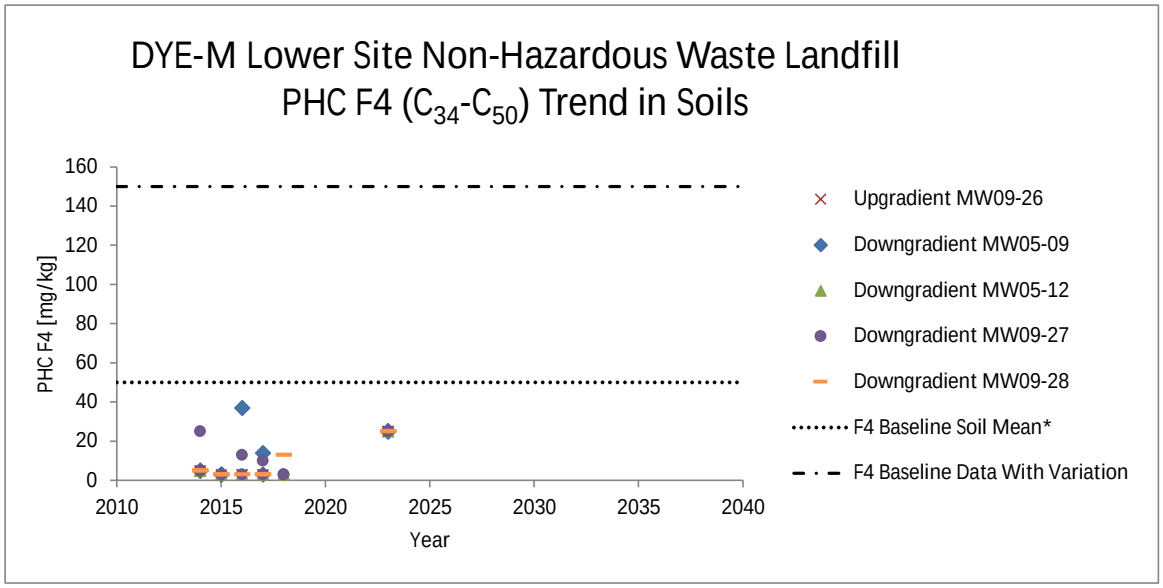
DYE-M Lower Site Non-Hazardous Waste Landfill Trends in Soil Inorganics, PCBs and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F4 baseline arithmetic mean is equal to the detection limit

DYE-M Lower Site Non-Hazardous Waste Landfill - Summary of Groundwater Monitoring Analytical Data

Link to: Table of Contents

Sample ID	Location	Date	Monitoring Year	Monitoring Phase	As* (mg/L)	Cd* (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Pb* (mg/L)	Ni (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0024	0.0005	0.2180	0.0042	0.0223	0.0121	0.1171	3.66	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					0.0030	0.0010	0.2180	0.0042	0.0223	0.0100	0.1171	3.66	0.05	0.50	1.00	1.00
Baseline Data - Standard Deviation					0.0000	0.0000	0.1277	0.0027	0.0105	0.0000	0.0501	5.36	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					0.0090	0.0030	0.6012	0.0124	0.0539	0.0300	0.2673	19.75	0.15	1.50	3.00	3.00
*If baseline or background arithmetic mean was below the detection limit, the mean has been modified to match the detection limit value.																
Dissolved metals results (italicized) have not been included in the calculation of N value, baseline arithmetic mean or standard deviation. Total metals results (i.e., those used in calculations) are not italicized.																
Monitoring Data																
Upgradient - MW09-26																
14-8188	MW09-26	2014	1	Phase I	*<0.001*	*0.000244*	*<0.0005*	*0.00135*	*0.00290*	*<0.0005*	*0.09590*	*0.54900*	<0.025	<0.1	<0.25	<0.25
Not sampled - well access issues	MW09-26	2015	2	Phase I												
MW09-26	MW09-26	2016	3	Phase I	<0.001	0.0002000	0.01000	0.00290	0.00270	<0.0001	0.18400	4.69000	<0.025	<0.1	<0.1	<0.10
MW09-26	MW09-26	2017	4	Phase I	*<0.001*	*0.000100*	*<0.001*	*0.00140*	*0.00080*	*<0.0001*	*0.06900*	*2.73000*	<0.025	<0.1	<0.1	<0.1
MW909-26 (Dup)	MW09-26	2017	4	Phase I	*<0.001*	*0.000100*	*<0.001*	*0.00140*	*0.00100*	*<0.0001*	*0.06900*	*2.81000*	<0.025	<0.1	<0.1	<0.1
Not sampled - frozen	MW09-26	2018	5	Phase I												
Not sampled - insufficient water	MW09-26	2023	10	Phase II												

DYE-M Lower Site Non-Hazardous Waste Landfill - Summary of Groundwater Monitoring Analytical Data

Link to: Table of Contents

Sample ID	Location	Date	Monitoring Year	Monitoring Phase	As* (mg/L)	Cd* (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Pb* (mg/L)	Ni (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0024	0.0005	0.2180	0.0042	0.0223	0.0121	0.1171	3.66	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					0.0030	0.0010	0.2180	0.0042	0.0223	0.0100	0.1171	3.66	0.05	0.50	1.00	1.00
Baseline Data - Standard Deviation					0.0000	0.0000	0.1277	0.0027	0.0105	0.0000	0.0501	5.36	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					0.0090	0.0030	0.6012	0.0124	0.0539	0.0300	0.2673	19.75	0.15	1.50	3.00	3.00
Downgradient - MW05-09																
Not sampled - dry	MW05-09	2014	1	Phase I												
Not sampled - frozen	MW05-09	2015	2	Phase I												
Not sampled - dry	MW05-09	2016	3	Phase I												
Not sampled - bentonite in well	MW05-09	2017	4	Phase I												
Not sampled - bentonite in well	MW05-09	2018	5	Phase I												
MW05-09	MW05-09	2023	10	Phase II	0.00009	0.0000870	0.00051	0.00019	0.00115	0.00212	0.00486	2.66000	<0.025	<0.1	<0.2	<0.2

DYE-M Lower Site Non-Hazardous Waste Landfill - Summary of Groundwater Monitoring Analytical Data

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Sample ID	Location	Date	Monitoring Year	Monitoring Phase	As* (mg/L)	Cd* (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Pb* (mg/L)	Ni (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0024	0.0005	0.2180	0.0042	0.0223	0.0121	0.1171	3.66	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					0.0030	0.0010	0.2180	0.0042	0.0223	0.0100	0.1171	3.66	0.05	0.50	1.00	1.00
Baseline Data - Standard Deviation					0.0000	0.0000	0.1277	0.0027	0.0105	0.0000	0.0501	5.36	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					0.0090	0.0030	0.6012	0.0124	0.0539	0.0300	0.2673	19.75	0.15	1.50	3.00	3.00
Downgradient - MW05-12																
Not sampled - dry	MW05-12	2014	1	Phase I												
Not sampled - dry	MW05-12	2015	2	Phase I												
Not sampled - dry	MW05-12	2016	3	Phase I												
Not sampled - frozen	MW05-12	2017	4	Phase I												
MW05-12	MW05-12	2018	5	Phase I	<0.001	<0.0001	0.00300	0.00130	0.00560	0.03150	0.01300	13.90000	<0.025	<0.1	<0.1	<0.1
QA/QC W11 (Dup)	MW05-12	2018	5	Phase I	<0.001	0.0001000	0.00300	0.00130	0.00530	0.03040	0.01400	13.70000	<0.025	<0.1	<0.1	<0.1
Not sampled - insufficient water	MW05-12	2023	10	Phase II												

DYE-M Lower Site Non-Hazardous Waste Landfill - Summary of Groundwater Monitoring Analytical Data

Link to: Table of Contents

Sample ID	Location	Date	Monitoring Year	Monitoring Phase	As* (mg/L)	Cd* (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Pb* (mg/L)	Ni (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0024	0.0005	0.2180	0.0042	0.0223	0.0121	0.1171	3.66	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					0.0030	0.0010	0.2180	0.0042	0.0223	0.0100	0.1171	3.66	0.05	0.50	1.00	1.00
Baseline Data - Standard Deviation					0.0000	0.0000	0.1277	0.0027	0.0105	0.0000	0.0501	5.36	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					0.0090	0.0030	0.6012	0.0124	0.0539	0.0300	0.2673	19.75	0.15	1.50	3.00	3.00
Downgradient - MW09-27																
14-8186	MW09-27	2014	1	Phase I	*<0.001*	*<0.00009*	*<0.0005*	*0.00034*	*<0.001*	*<0.0005*	*0.02280*	*0.00450*	<0.025	<0.1	<0.25	<0.25
14-8187 (Interlab)	MW09-27	2014	1	Phase I	0.00300	<0.001	1.80000	0.01300	0.08600	0.00500	0.18000	0.47000	<0.050	<0.50	<1.0	<1.0
Not sampled - well access issues	MW09-27	2015	2	Phase I												
MW09-27	MW09-27	2016	3	Phase I	<0.001	<0.0001	0.00500	<0.0005	0.00440	<0.0001	0.02100	0.52800	<0.025	<0.1	<0.1	<0.10
MW09-27	MW09-27	2017	4	Phase I	*<0.001*	*<0.0001*	*<0.001*	*0.00100*	*0.00380*	*<0.0001*	*0.01500*	*1.64000*	<0.025	<0.1	<0.1	<0.1
Not sampled - frozen	MW09-27	2018	5	Phase I												
MW09-27	MW09-27	2023	10	Phase II	0.00032	0.0000350	0.00231	0.00043	0.00392	0.00003	0.00496	0.16300	<0.025	<0.1	<0.2	<0.2

DYE-M Lower Site Non-Hazardous Waste Landfill - Summary of Groundwater Monitoring Analytical Data

Link to: Table of Contents

Sample ID	Location	Date	Monitoring Year	Monitoring Phase	As* (mg/L)	Cd* (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Pb* (mg/L)	Ni (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0024	0.0005	0.2180	0.0042	0.0223	0.0121	0.1171	3.66	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					0.0030	0.0010	0.2180	0.0042	0.0223	0.0100	0.1171	3.66	0.05	0.50	1.00	1.00
Baseline Data - Standard Deviation					0.0000	0.0000	0.1277	0.0027	0.0105	0.0000	0.0501	5.36	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					0.0090	0.0030	0.6012	0.0124	0.0539	0.0300	0.2673	19.75	0.15	1.50	3.00	3.00
Downgradient - MW09-28																
Not sampled - dry	MW09-28	2014	1	Phase I												
MW09-28 - low volume	MW09-28	2015	2	Phase I	<0.001	<0.0001	0.01500	0.00090	0.02920	0.00300	0.02400	1.34000	<0.025	N/A	N/A	N/A
Not sampled - dry	MW09-28	2016	3	Phase I												
Not sampled - infilled with sand	MW09-28	2017	4	Phase I												
Not sampled - infilled with sand	MW09-28	2018	5	Phase I												
Not sampled - dry	MW09-28	2023	10	Phase II												

N/A = not analyzed

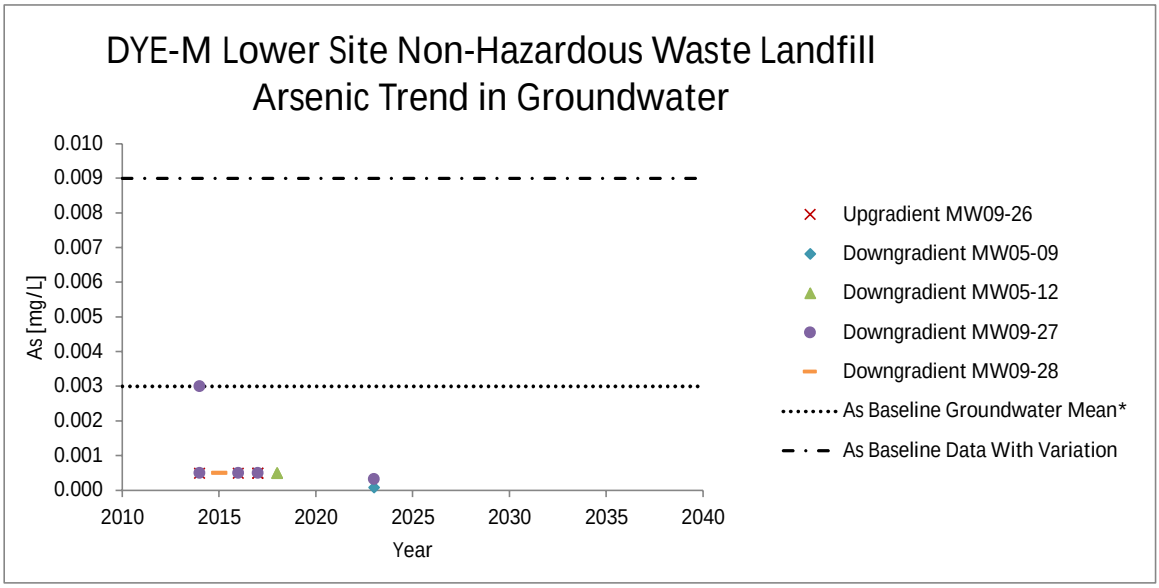
2014 and 2017 samples were accidentally analysis for dissolved metals instead of total metals. 2014 interlab duplicate was analyzed for total metals.

Legend	
XX	Sample exceeds baseline mean
XX	Sample exceeds baseline data with variation
XX	*Dissolved metals results*

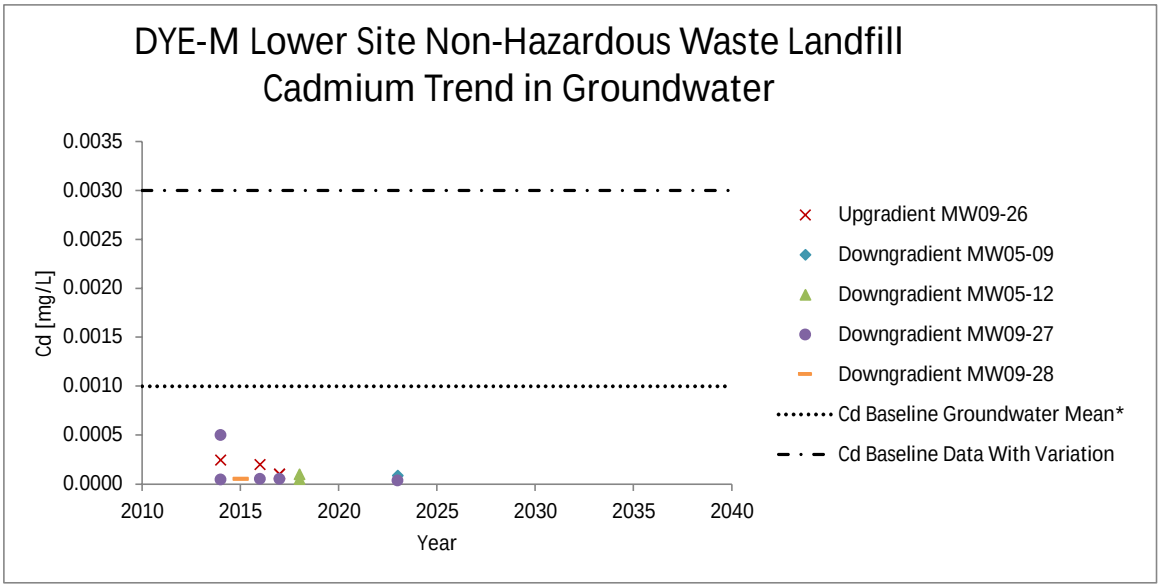
DYE-M Lower Site Non-Hazardous Waste Landfill Trends in Groundwater Inorganics and PHCs

Link to: Table of Contents

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* As baseline arithmetic mean is equal to the baseline detection limit

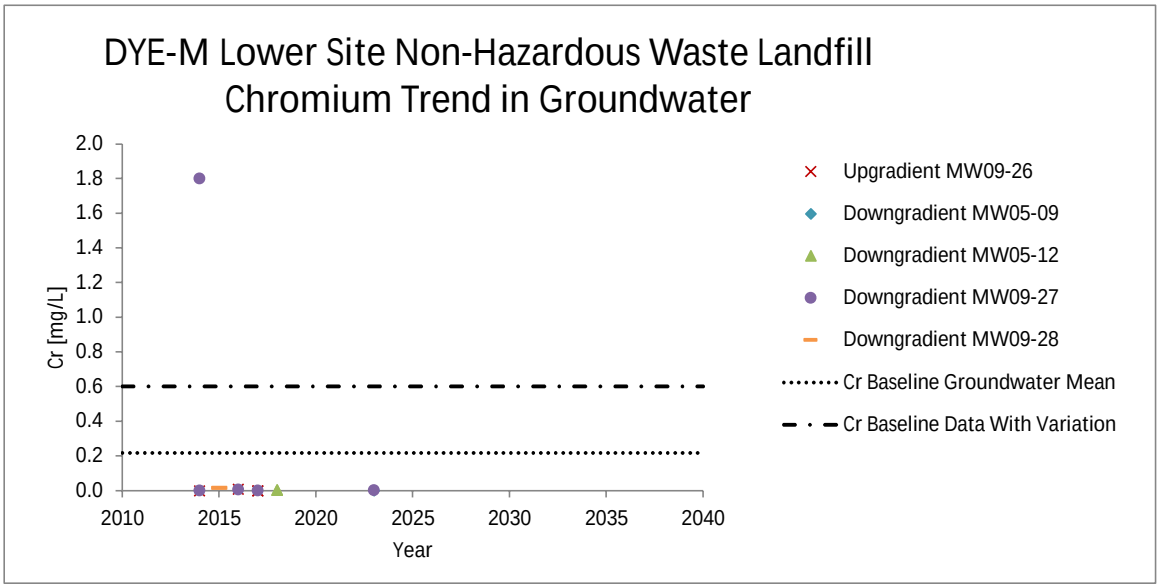


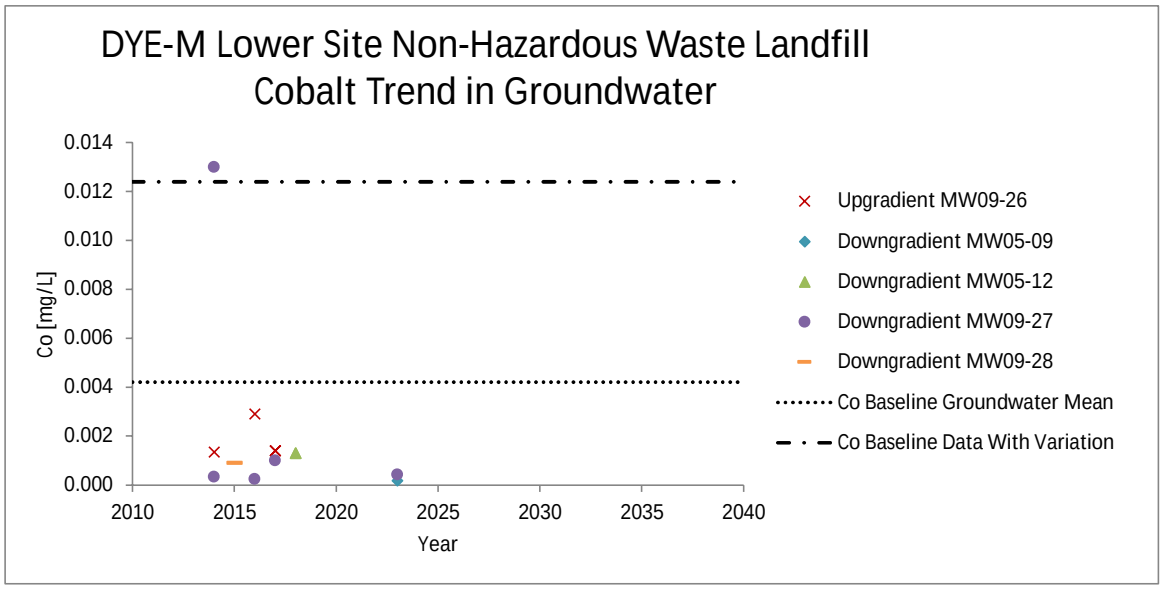
* Cd baseline arithmetic mean is equal to the baseline detection limit

DYE-M Lower Site Non-Hazardous Waste Landfill Trends in Groundwater Inorganics and PHCs

Link to: Table of Contents

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When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.

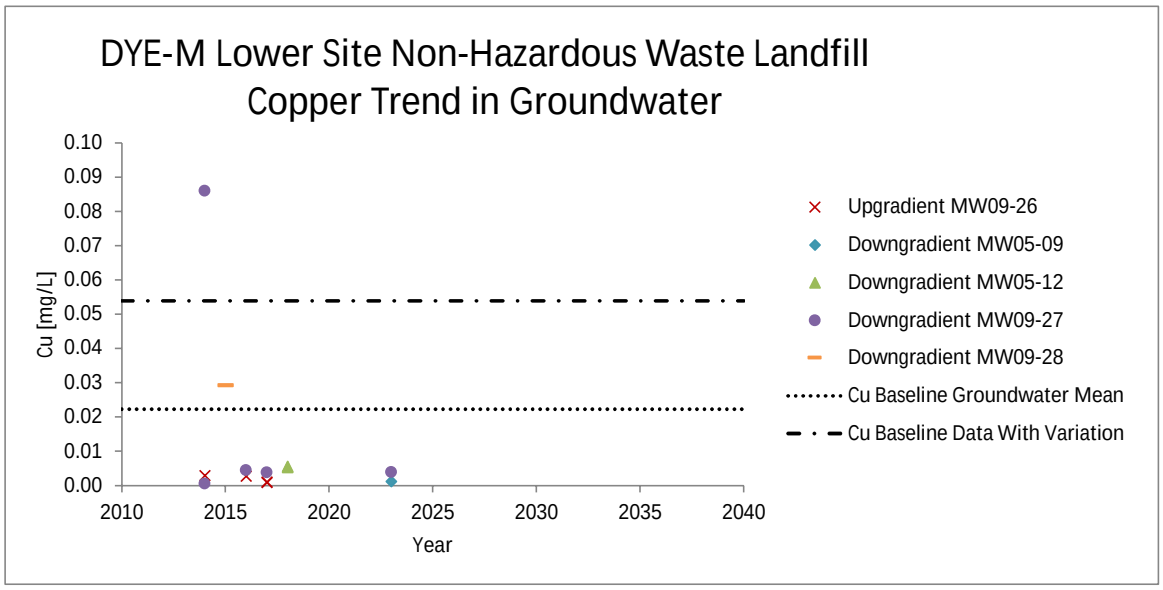


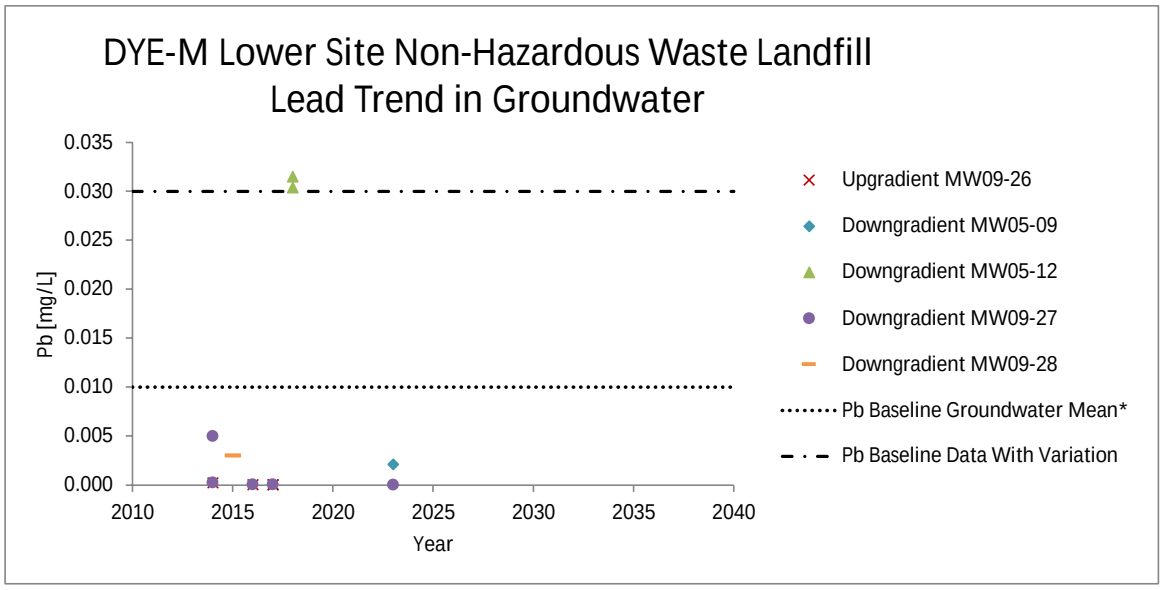


DYE-M Lower Site Non-Hazardous Waste Landfill Trends in Groundwater Inorganics and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.
Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.
When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



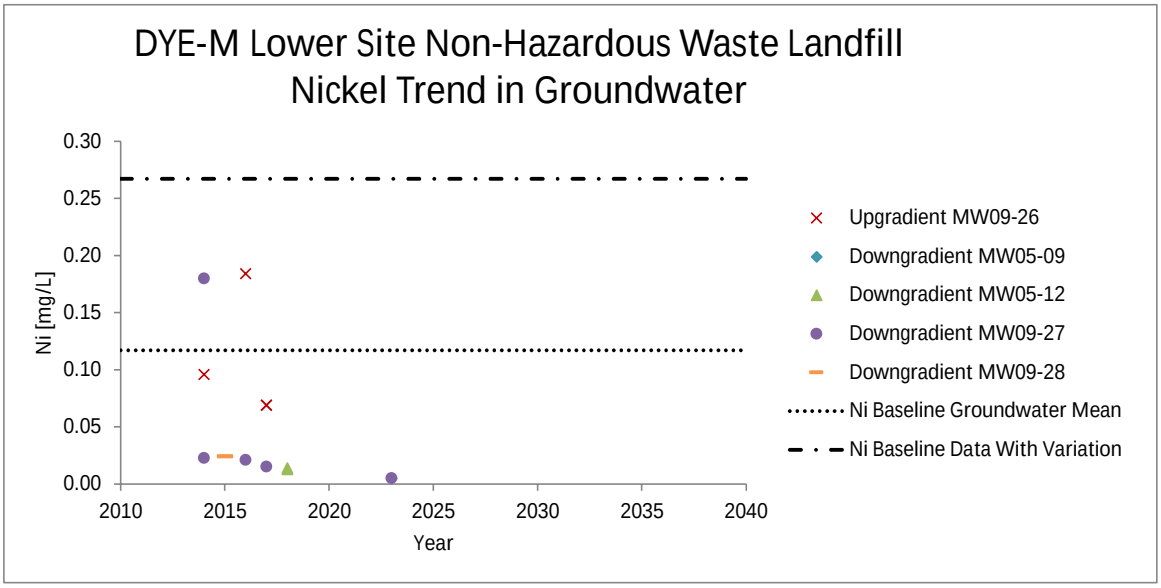


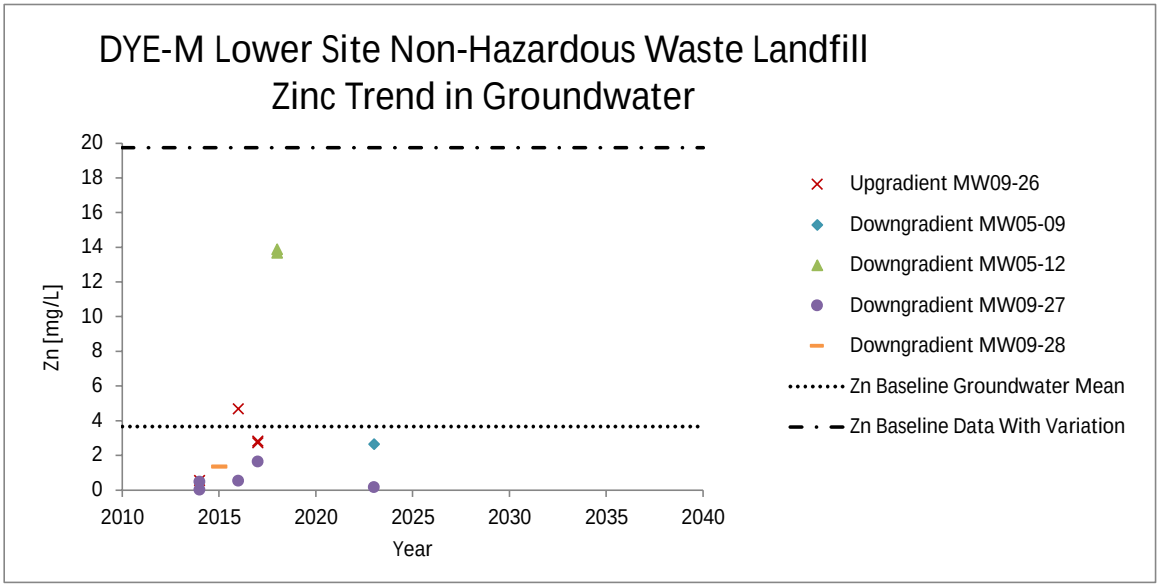
* Pb baseline arithmetic mean is equal to the baseline detection limit

DYE-M Lower Site Non-Hazardous Waste Landfill Trends in Groundwater Inorganics and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.
Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.
When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.

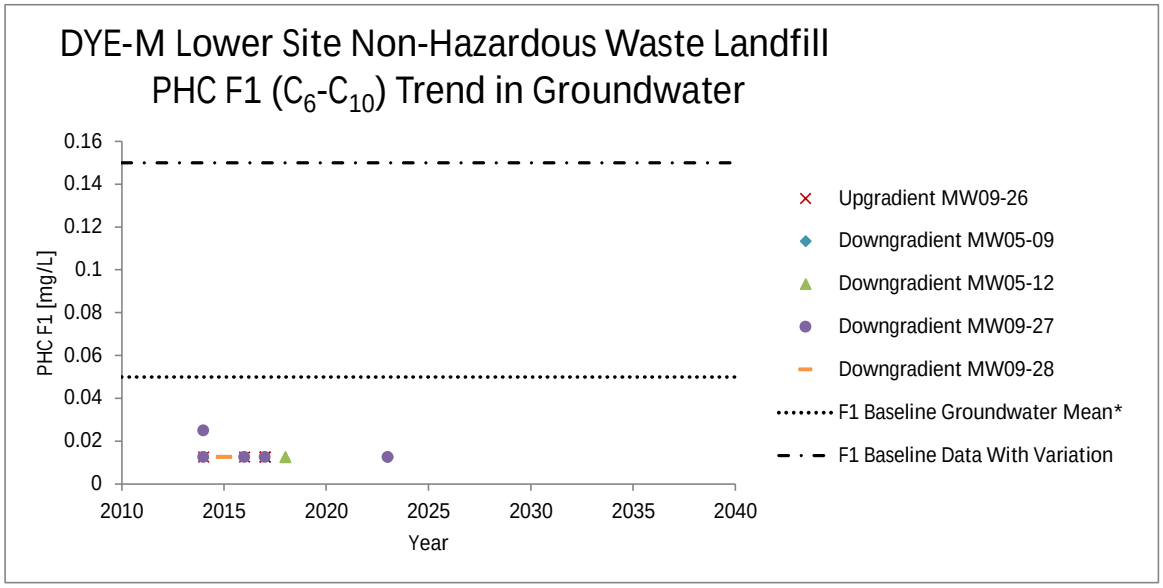




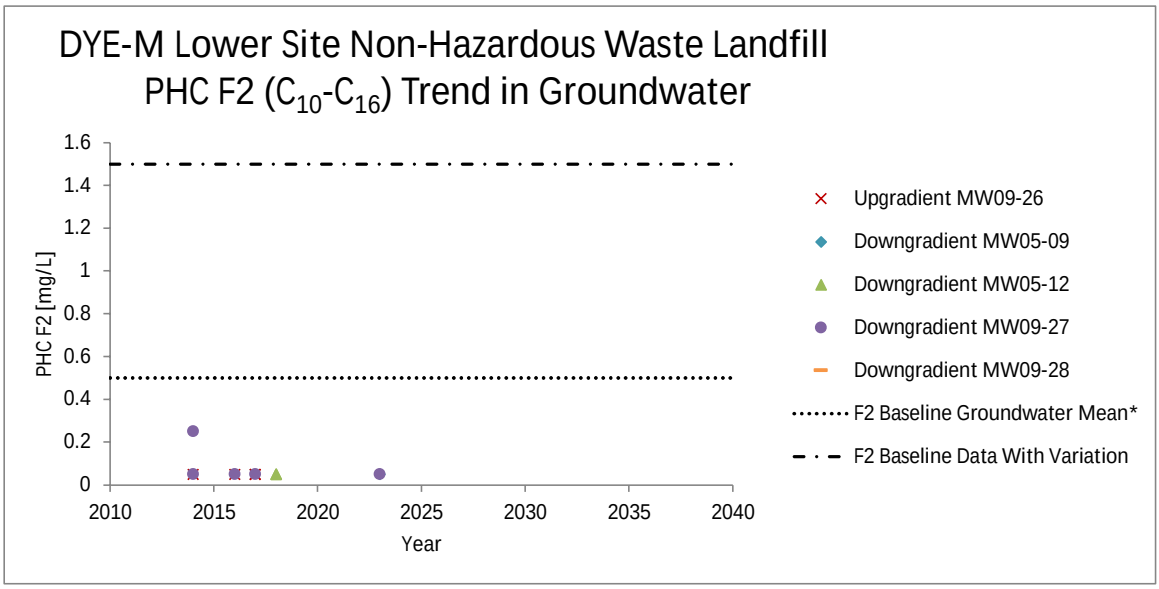
DYE-M Lower Site Non-Hazardous Waste Landfill Trends in Groundwater Inorganics and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.
Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.
When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F1 baseline arithmetic mean is equal to the detection limit

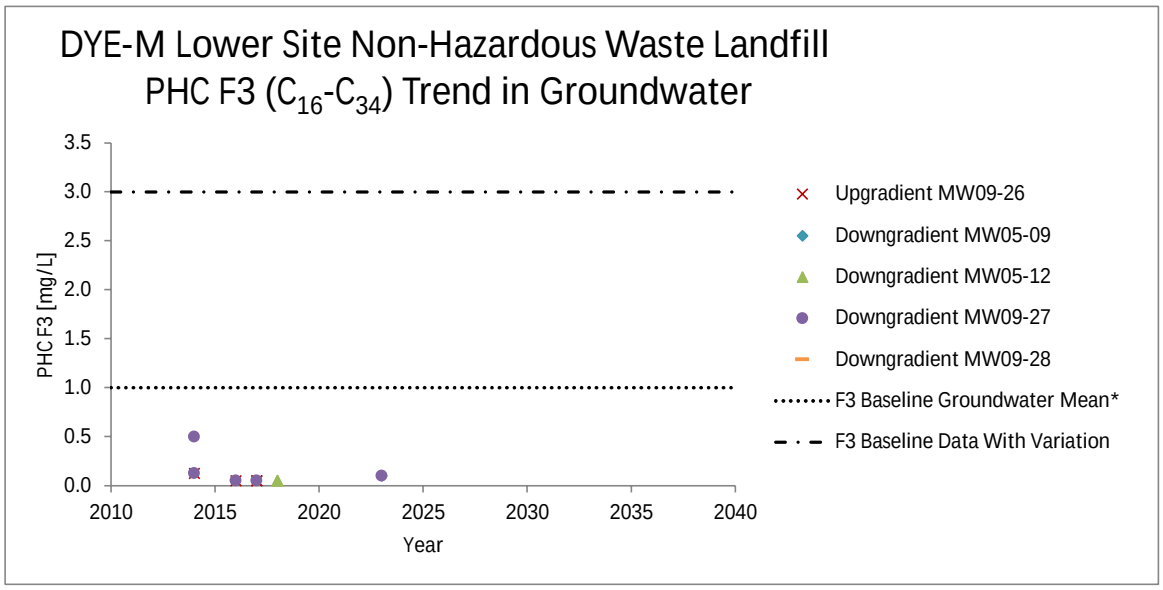


* F2 baseline arithmetic mean is equal to the detection limit

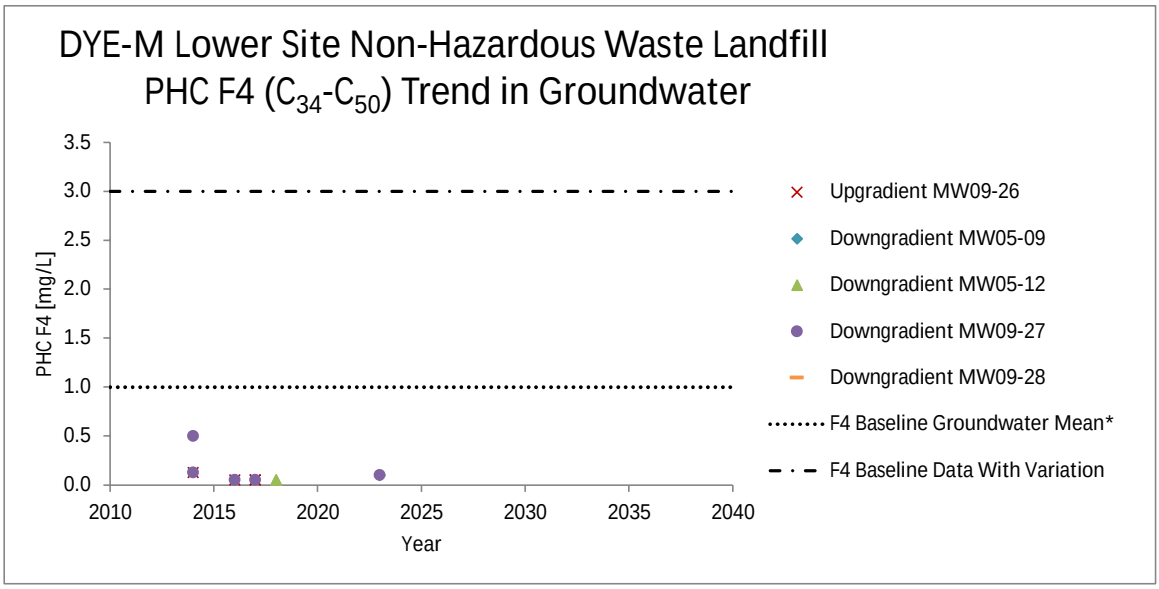
DYE-M Lower Site Non-Hazardous Waste Landfill Trends in Groundwater Inorganics and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.
Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.
When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F3 baseline arithmetic mean is equal to the detection limit



* F4 baseline arithmetic mean is equal to the detection limit

DYE-M Upper Site Tier II Soil Disposal Facility - Summary of Soil Monitoring Analytical Data

Link to: Table of Contents

Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						4.20	1.00	114.91	18.95	45.90	20.36	80.55	83.18	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						3.30	0.00	86.57	6.86	29.02	23.69	67.18	49.32	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						14.10	3.00	374.62	39.52	132.97	91.43	282.11	231.16	0.30	30.00	30.00	150.00	150.00
** If baseline or background arithmetic mean was below the detection limit, the mean has been modified to match the detection limit value.*																		
DEW Line Cleanup Tier I Criteria											*200*			*1*				
DYE-M Upper Site Site-Specific Criteria and DEW Line Cleanup Tier II Criteria						*30*	*5*	*250*	*153*	*296*	*500*	*2010*	*500*	*5*				
Monitoring Data																		
Upgradient																		
	MW12-02 surface																	
14-8424	MW07-22	2014	1	Phase I	5-10	1.60	<1	26.00	11.40	12.90	19.00	24.80	52.00	<0.02	<10	<10	<10	<10
Not sampled - frozen	MW12-02	2015	2	Phase I														
MW12-02A	MW12-02	2016	3	Phase I	0-15	<1	<0.5	70.40	12.20	20.50	29.30	33.30	63.40	<0.05	<7	<4	<8	<6
MW12-02 Shallow	MW12-02	2017	4	Phase I	0-15	<1	<0.5	51.10	12.60	14.20	17.10	33.20	65.40	<0.05	<7	<4	<8	<6
Not sampled - frozen	MW12-02	2018	5	Phase I														
MW12-02-S	MW12-02	2023	10	Phase II	0-15	1.20	0.136	45.30	13.90	14.70	14.00	31.30	63.00	<0.010	<10	<10	<50	<50
	MW12-02 depth																	
14-8425	MW07-22	2014	1	Phase I	45-50	1.80	<1	29.00	13.10	10.50	30.00	35.90	60.00	<0.02	<10	<10	<10	<10
Not sampled - frozen	MW12-02	2015	2	Phase I														
Not sampled - refusal	MW12-02	2016	3	Phase I														
Not sampled - refusal	MW12-02	2017	4	Phase I														
Not sampled - frozen	MW12-02	2018	5	Phase I														
MW12-02-D	MW12-02	2023	10	Phase II	35-40	0.72	0.057	10.30	8.60	5.71	5.13	10.10	48.70	<0.010	<10	<10	<50	<50

DYE-M Upper Site Tier II Soil Disposal Facility - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						4.20	1.00	114.91	18.95	45.90	20.36	80.55	83.18	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						3.30	0.00	86.57	6.86	29.02	23.69	67.18	49.32	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						14.10	3.00	374.62	39.52	132.97	91.43	282.11	231.16	0.30	30.00	30.00	150.00	150.00
Upgradient																		
	MW07-22 surface																	
14-8413	MW12-02	2014	1	Phase I	5-10	10.80	<1	148.00	14.70	81.90	11.00	75.60	112.00	<0.02	<10	<10	<10	<10
MW 07-22 (0-15)	MW07-22	2015	2	Phase I	0-15	3.50	<0.5	112.00	14.40	71.60	10.60	57.80	98.30	<0.05	<7	<4	<8	<6
MW07-22A	MW07-22	2016	3	Phase I	0-15	<1	<0.5	147.00	18.50	99.40	13.20	97.60	102.00	<0.05	<7	<4	<8	<6
MW07-22 Shallow	MW07-22	2017	4	Phase I	0-15	<1	<0.5	146.00	19.00	103.00	14.70	78.90	134.00	<0.05	<7	<4	<8	<6
MW07-22S	MW07-22	2018	5	Phase I	0-15	1.00	<0.5	140.00	17.00	60.00	14.00	89.00	60.00	<0.05	<7	<4	20	17
MW07-22-S	MW07-22	2023	10	Phase II	0-15	4.02	0.306	134.00	18.80	97.00	9.01	68.40	132.00	<0.010	<10	<10	<50	<50
MW07-22-S (Interlab)	MW07-22	2023	10	Phase II	0-15									<0.010		<10	<50	<50
	MW07-22 depth																	
14-8414	MW12-02	2014	1	Phase I	30-35	7.00	<1	158.00	16.70	69.60	13.00	89.50	100.00	<0.02	<10	<10	<10	<10
MW 07-22 (15-30)	MW07-22	2015	2	Phase I	15-30	3.90	<0.5	142.00	15.90	59.20	18.40	76.00	89.60	<0.05	<7	<4	<8	<6
Not sampled - refusal	MW07-22	2016	3	Phase I														
MW07-22 Deep	MW07-22	2017	4	Phase I	20-30	<1	<0.5	114.00	14.00	58.00	19.70	66.30	88.20	<0.05	<7	<4	<8	<6
MW07-22D	MW07-22	2018	5	Phase I	30-40	1.00	<0.5	168.00	20.00	51.00	18.00	111.00	51.00	<0.05	<7	<4	13	13
MW07-22-D	MW07-22	2023	10	Phase II	45 - 50	1.95	0.084	217.00	16.40	38.00	20.30	95.90	78.30	<0.010	<10	<10	<50	<50

DYE-M Upper Site Tier II Soil Disposal Facility - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						4.20	1.00	114.91	18.95	45.90	20.36	80.55	83.18	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						3.30	0.00	86.57	6.86	29.02	23.69	67.18	49.32	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						14.10	3.00	374.62	39.52	132.97	91.43	282.11	231.16	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	MW07-23 surface																	
14-8415	MW07-23	2014	1	Phase I	5-10	17.20	<1	100.00	21.00	75.70	<10	176.80	44.00	<0.02	<10	<10	<10	<10
MW 07-23 (0-25)	MW07-23	2015	2	Phase I	0-25	3.30	<0.5	49.10	15.90	71.90	7.40	86.00	37.80	<0.05	<7	<4	<8	<6
MW07-23A	MW07-23	2016	3	Phase I	0-15	17.30	<0.5	63.20	15.10	52.50	6.20	125.00	27.90	<0.05	<7	<4	<8	<6
MW07-23 Shallow	MW07-23	2017	4	Phase I	0-15	<1	<0.5	129.00	27.20	62.30	9.40	352.00	54.20	<0.05	<7	<4	<8	<6
Not sampled - frozen	MW07-23	2018	5	Phase I														
MW07-23-S	MW07-23	2023	10	Phase II	0-15	2.93	<0.050	41.10	8.35	27.30	3.52	60.00	23.90	<0.010	<10	<10	<50	<50
MW07-23-S (Interlab)	MW07-23	2023	10	Phase II	0-15										<10			
	MW07-23 depth																	
14-8417	MW07-23	2014	1	Phase I	45-50	11.80	<1	87.00	19.00	72.00	<10	128.60	40.00	<0.02	<10	<10	<10	<10
Not sampled - refusal	MW07-23	2015	2	Phase I														
Not sampled - refusal	MW07-23	2016	3	Phase I														
MW07-23 Deep	MW07-23	2017	4	Phase I	40-50	20.40	<0.5	111.00	24.40	111.00	8.60	178.00	51.60	<0.05	<7	<4	<8	<6
Not sampled - frozen	MW07-23	2018	5	Phase I														
MW07-23-D	MW07-23	2023	10	Phase II	45-50	3.45	<0.050	35.80	8.20	37.20	2.84	46.40	21.30	<0.010	<10	<10	<50	<50

DYE-M Upper Site Tier II Soil Disposal Facility - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						4.20	1.00	114.91	18.95	45.90	20.36	80.55	83.18	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						3.30	0.00	86.57	6.86	29.02	23.69	67.18	49.32	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						14.10	3.00	374.62	39.52	132.97	91.43	282.11	231.16	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	MW08-24 surface																	
14-8418	MW08-24	2014	1	Phase I	5-10	1.40	<1	66.00	10.40	27.40	<10	46.50	40.00	<0.02	<10	<10	<10	<10
14-8419 (Interlab)	MW08-24	2014	1	Phase I	5-10	0.90	<0.5	86.00	14.50	35.40	12.70	60.70	55.40	<0.10	<5	<10	<50	<50
MW08-24 (0-15)	MW08-24	2015	2	Phase I	0-15	1.20	<0.5	72.80	13.00	28.00	13.60	51.00	52.10	<0.05	<7	<4	<8	<6
MW08-24 (0-15) (Interlab)	MW08-24	2015	2	Phase I	0-15	<1	<0.5	81.00	13.90	33.00	14.00	56.00	70.00	<0.10	35	<10	<50	<50
MW08-24A	MW08-24	2016	3	Phase I	0-15	<1	<0.5	57.60	10.90	30.10	10.10	38.90	37.70	<0.05	<7	<4	<8	<6
MW08-24 Shallow	MW08-24	2017	4	Phase I	0-15	<1	<0.5	73.80	12.20	26.10	15.00	51.40	54.90	<0.05	<7	<4	<8	<6
MW08-24S	MW08-24	2018	5	Phase I	0-15	<1	<0.5	87.00	16.00	34.00	16.00	63.00	47.00	<0.05	<7	<4	<8	<6
MW08-24-S	MW08-24	2023	10	Phase II	0-15	0.55	<0.050	54.80	9.73	21.30	9.64	42.10	43.50	<0.010	<10	<10	<50	<50
	MW08-24 depth																	
14-8420	MW08-24	2014	1	Phase I	30-35	1.10	<1	62.00	10.10	26.00	<10	44.50	37.00	<0.02	<10	<10	<10	<10
14-8421 (Dup)	MW08-24	2014	1	Phase I	30-35	1.10	<1	63.00	10.70	26.80	10.00	43.90	42.00	<0.02	<10	<10	<10	<10
Not sampled - refusal	MW08-24	2015	2	Phase I														
Not sampled - refusal	MW08-24	2016	3	Phase I														
MW08-24 Deep	MW08-24	2017	4	Phase I	30-40	<1	<0.5	68.00	12.30	24.40	13.30	50.30	50.30	<0.05	<7	<4	<8	<6
Not sampled - frozen	MW08-24	2018	5	Phase I														
MW08-24-D	MW08-24	2023	10	Phase II	45-50	0.54	<0.050	55.00	9.87	18.80	9.31	44.90	40.80	<0.010	<10	<10	<50	<50
MW23-S-50 (Dup)	MW08-24	2023	10	Phase II	45-50	0.48	<0.050	45.30	8.26	16.50	8.05	36.00	35.00	<0.010	<10	<10	<50	<50
MW23-S-50 (Dup) (Interlab)	MW08-24	2023	10	Phase II	45-50	0.48	<0.050	45.80	8.37	16.80	8.17	36.60	37.50					

DYE-M Upper Site Tier II Soil Disposal Facility - Summary of Soil Monitoring Analytical Data

Link to: Table of Contents

Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						4.20	1.00	114.91	18.95	45.90	20.36	80.55	83.18	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						3.30	0.00	86.57	6.86	29.02	23.69	67.18	49.32	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						14.10	3.00	374.62	39.52	132.97	91.43	282.11	231.16	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	MW08-25 surface																	
14-8422	MW08-25	2014	1	Phase I	5-10	1.20	<1	154.00	16.10	30.70	18.00	76.50	50.00	<0.02	<10	<10	<10	<10
MW 08-25 (0-15)	MW08-25	2015	2	Phase I	0-15	2.90	<0.5	176.00	22.00	65.20	41.30	82.70	133.00	<0.05	<7	<4	<8	<6
MW08-25A	MW08-25	2016	3	Phase I	0-15	<1	<0.5	260.00	27.90	58.60	42.20	99.50	111.00	<0.05	<7	<4	<8	<6
MW08-25 Shallow	MW08-25	2017	4	Phase I	0-15	<1	<0.5	474.00	36.50	62.60	23.50	132.00	74.60	<0.05	<7	<4	<8	<6
Not sampled - frozen	MW08-25	2018	5	Phase I														
MW08-25-S	MW08-25	2023	10	Phase II	10-20	1.13	0.052	135.00	23.70	18.70	53.00	74.50	170.00	<0.010	<10	<10	<50	<50
	MW08-25 depth																	
14-8423	MW08-25	2014	1	Phase I	40-45	2.20	<1	708.00	42.70	83.90	17.00	204.40	66.00	<0.02	<10	<10	<10	<10
Not sampled - refusal	MW08-25	2015	2	Phase I														
Not sampled - refusal	MW08-25	2016	3	Phase I														
MW08-25 Deep	MW08-25	2017	4	Phase I	40-50	<1	<0.5	530.00	39.10	73.40	24.10	145.00	74.40	<0.05	<7	<4	<8	<6
MW08-925 Deep (Dup)	MW08-25	2017	4	Phase I	40-50	<1	<0.5	702.00	62.60	131.00	29.30	257.00	89.20	<0.05	<7	<4	<8	<6
Not sampled - frozen	MW08-25	2018	5	Phase I														
MW08-25-D	MW08-25	2023	10	Phase II	45-50	1.36	0.059	133.00	17.80	37.70	32.70	61.30	129.00	<0.010	<10	<10	<50	<50

N/A = not analyzed

Legend

XX	Sample exceeds baseline mean
XX	Sample exceeds baseline data with variation

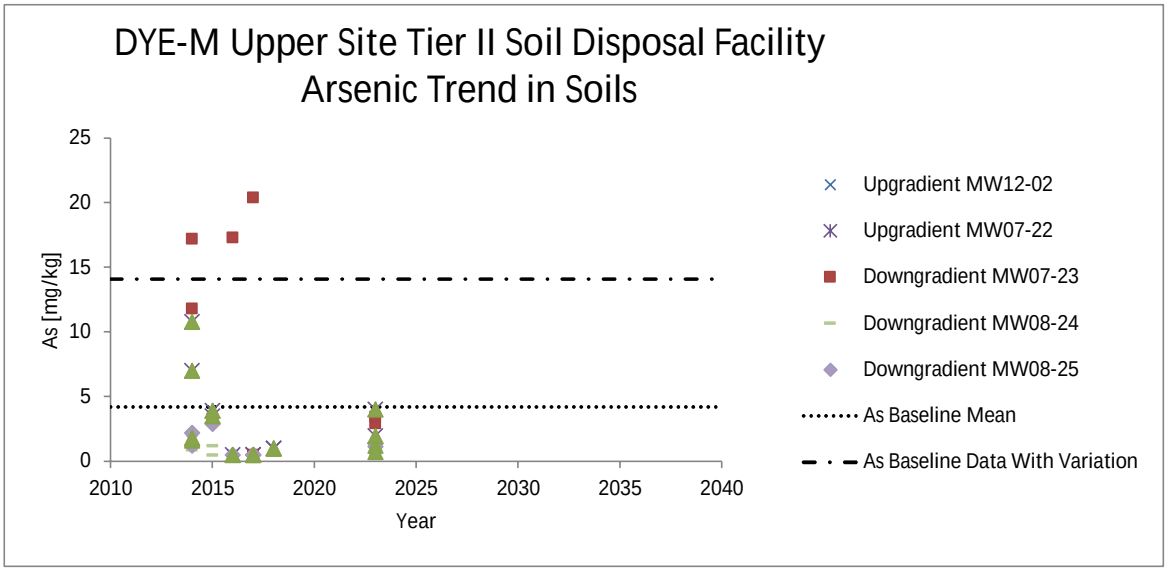
DYE-M Upper Site Tier II Soil Disposal Facility Trends in Soil Inorganics, PCBs and PHCs

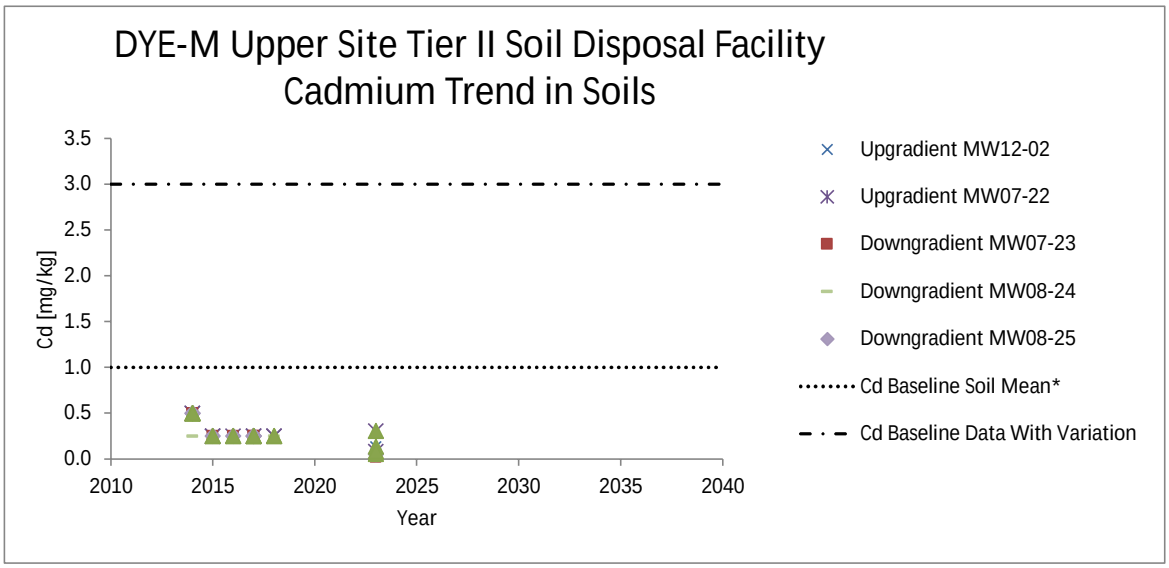
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





* Cd baseline arithmetic mean is equal to the baseline detection limit

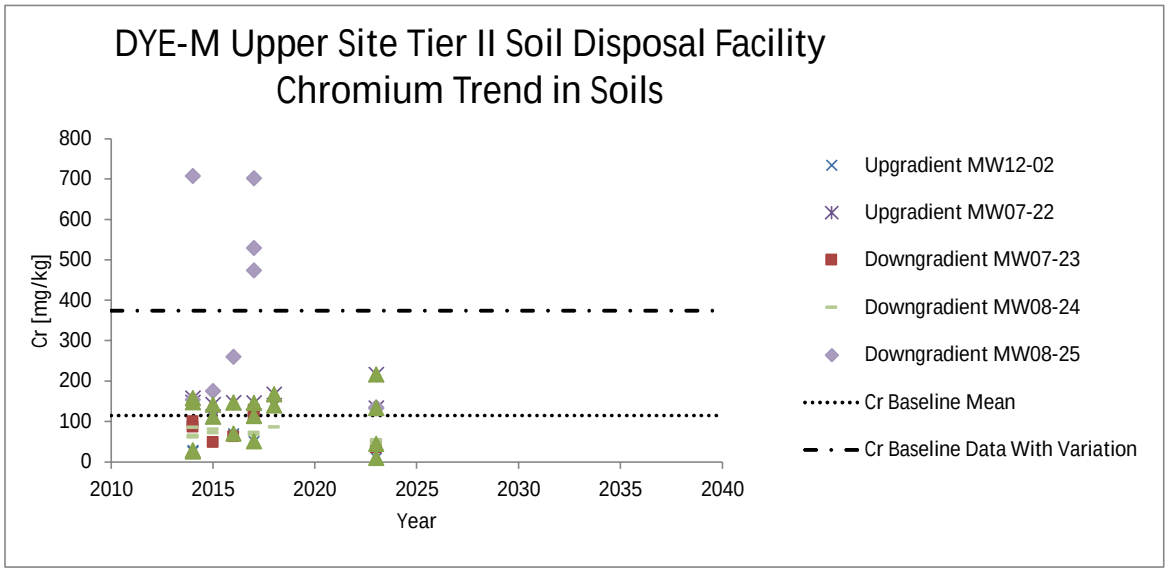
DYE-M Upper Site Tier II Soil Disposal Facility Trends in Soil Inorganics, PCBs and PHCs

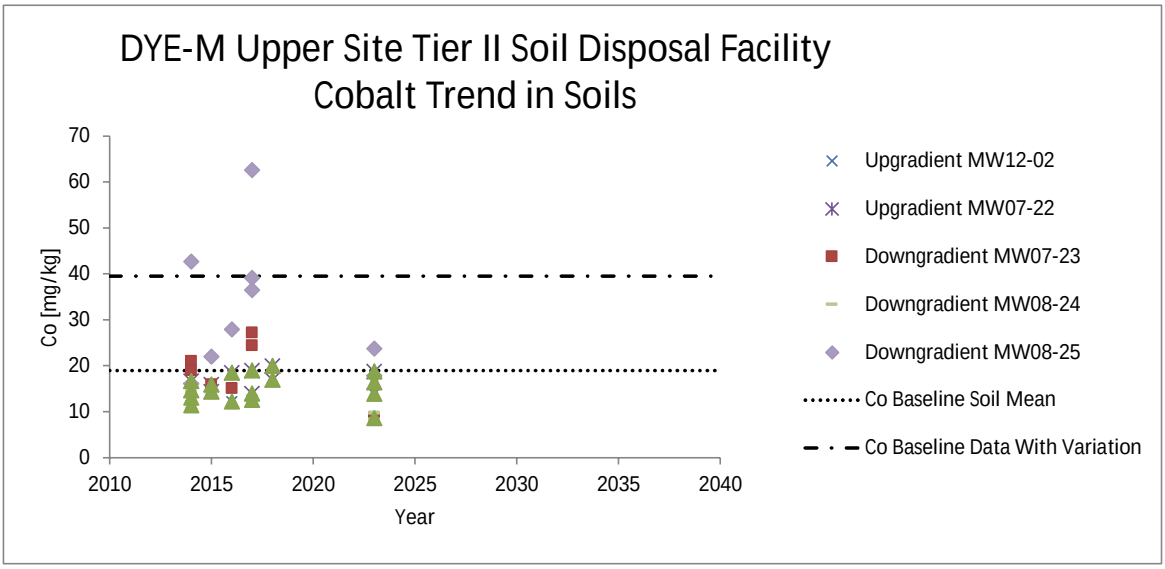
Link to: Table of Contents

Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

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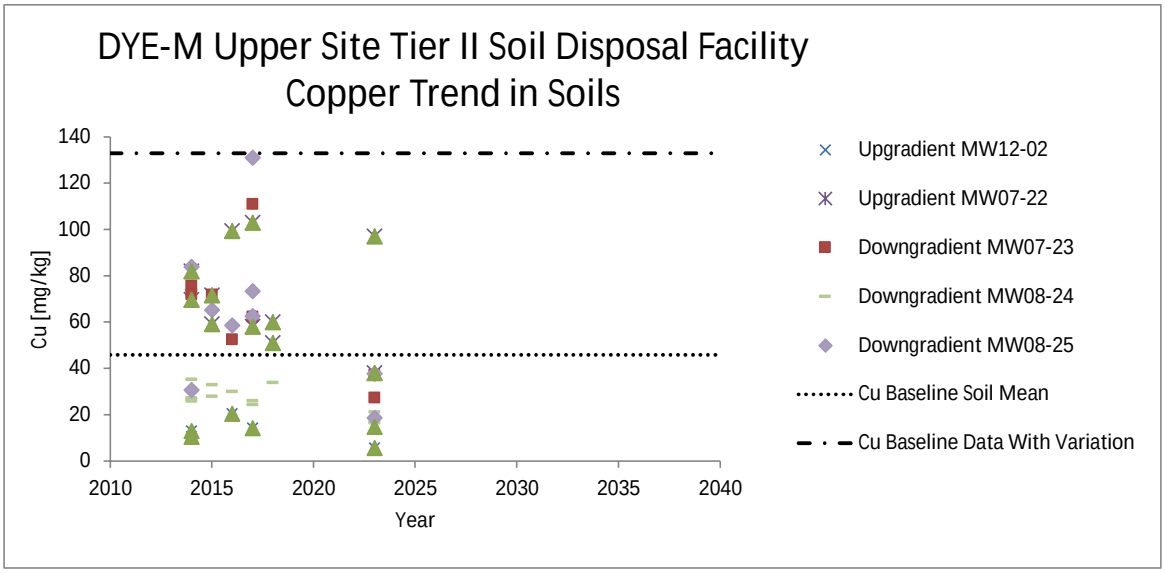
DYE-M Upper Site Tier II Soil Disposal Facility Trends in Soil Inorganics, PCBs and PHCs

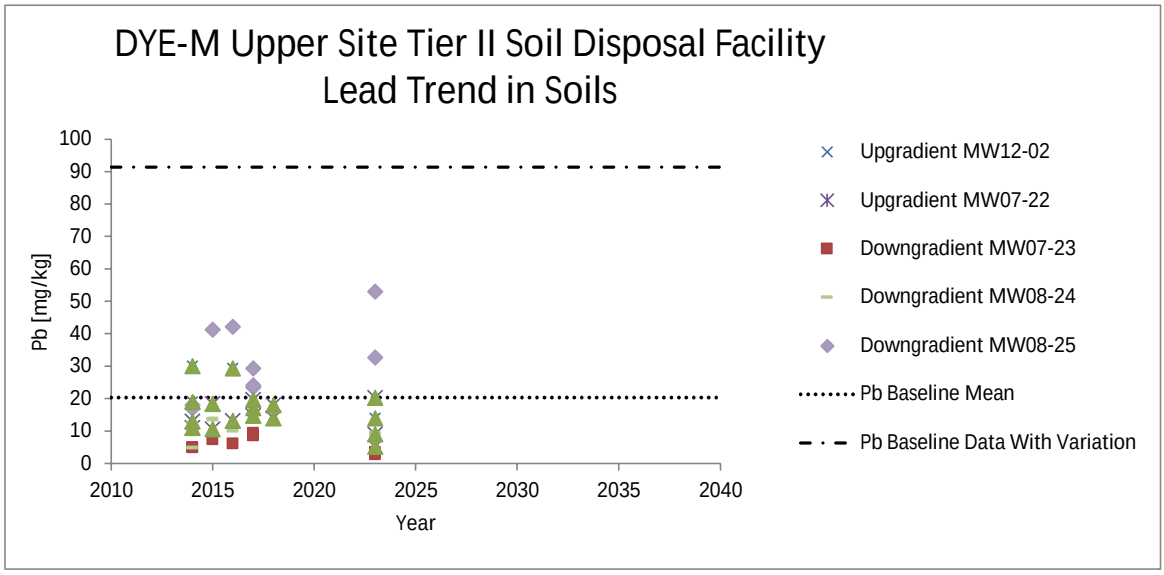
Link to: Table of Contents

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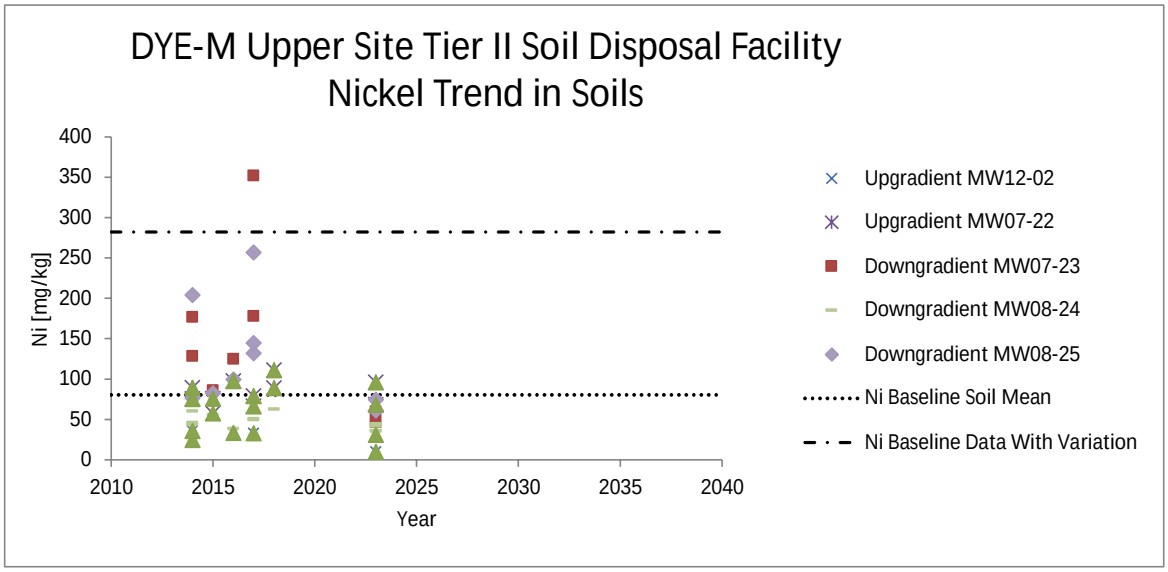
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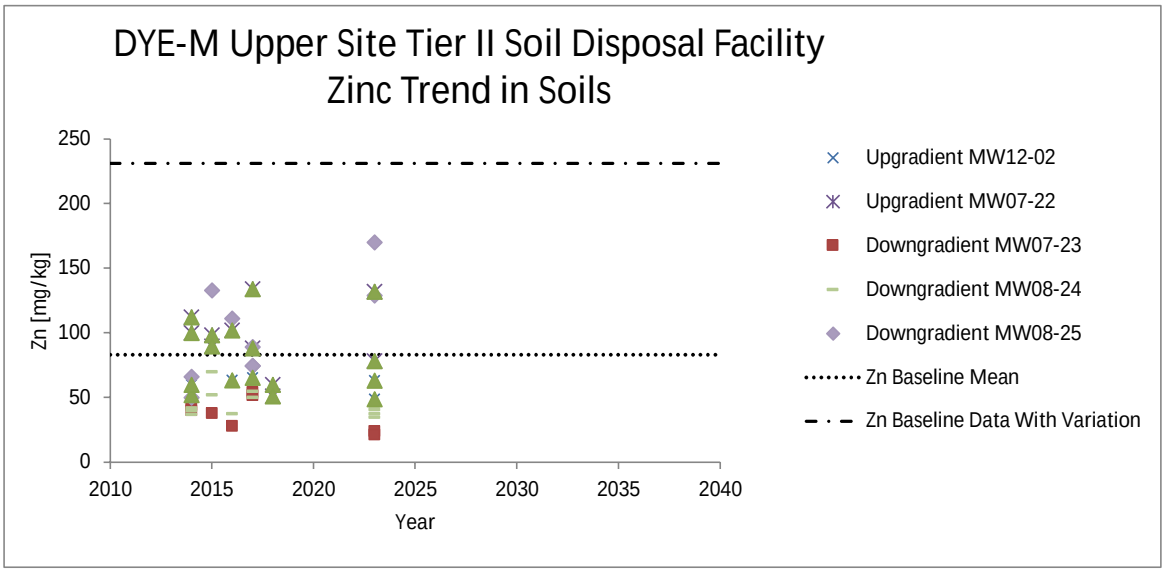
Link to: Table of Contents

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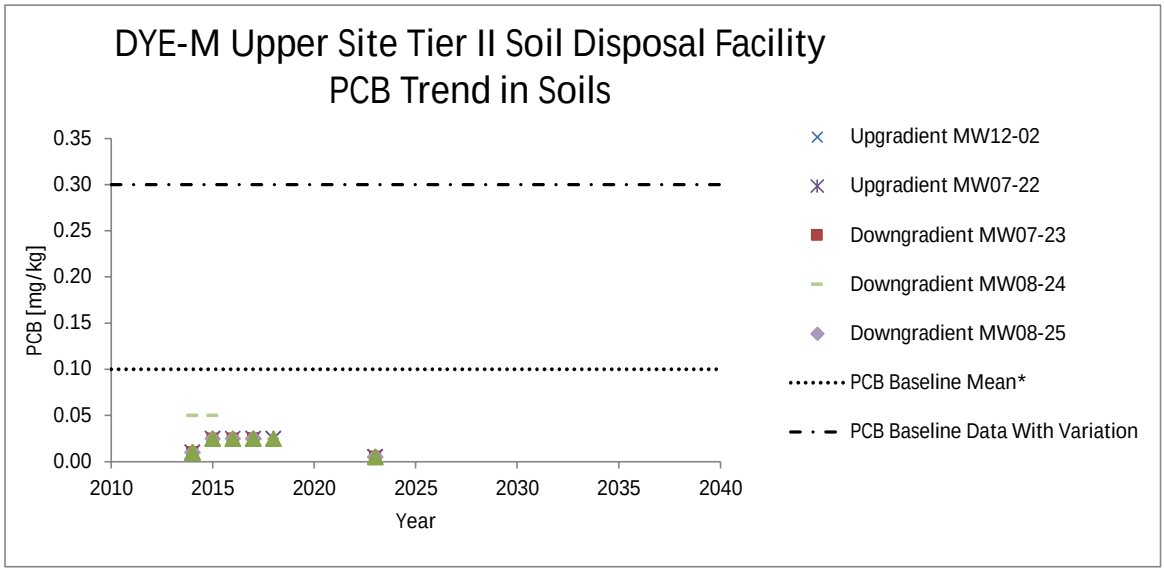
DYE-M Upper Site Tier II Soil Disposal Facility Trends in Soil Inorganics, PCBs and PHCs

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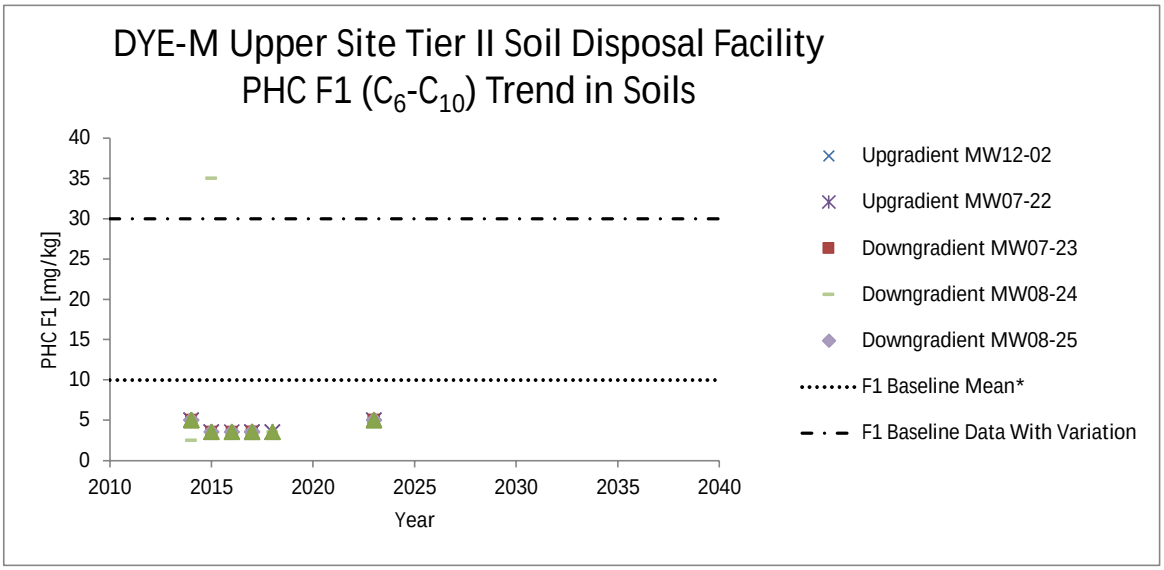
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* PCB baseline arithmetic mean is equal to the baseline detection limit



* F1 baseline arithmetic mean is equal to the detection limit

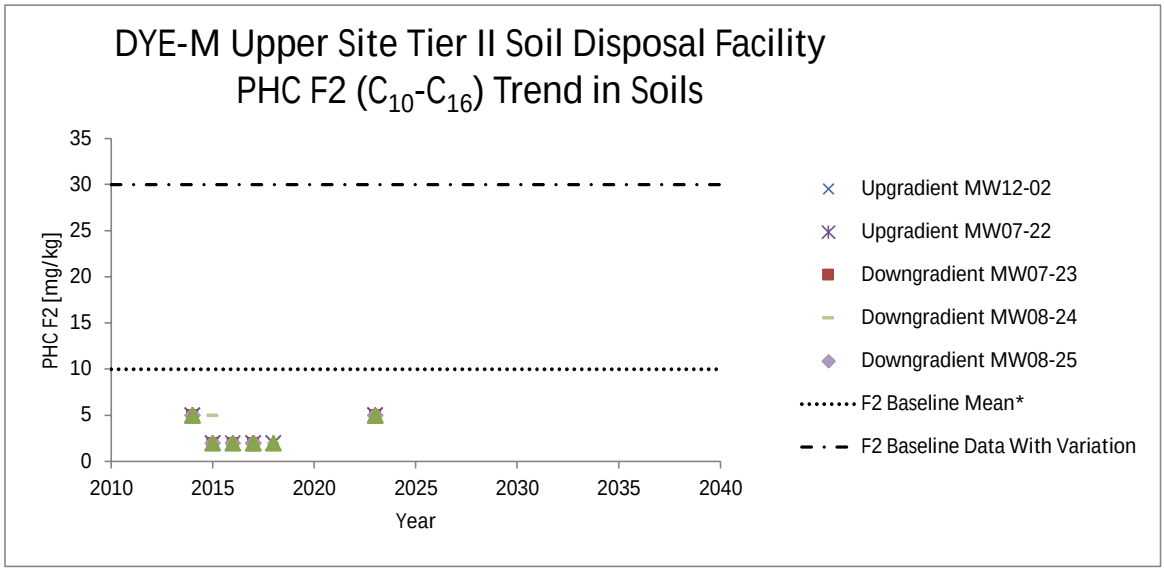
DYE-M Upper Site Tier II Soil Disposal Facility Trends in Soil Inorganics, PCBs and PHCs

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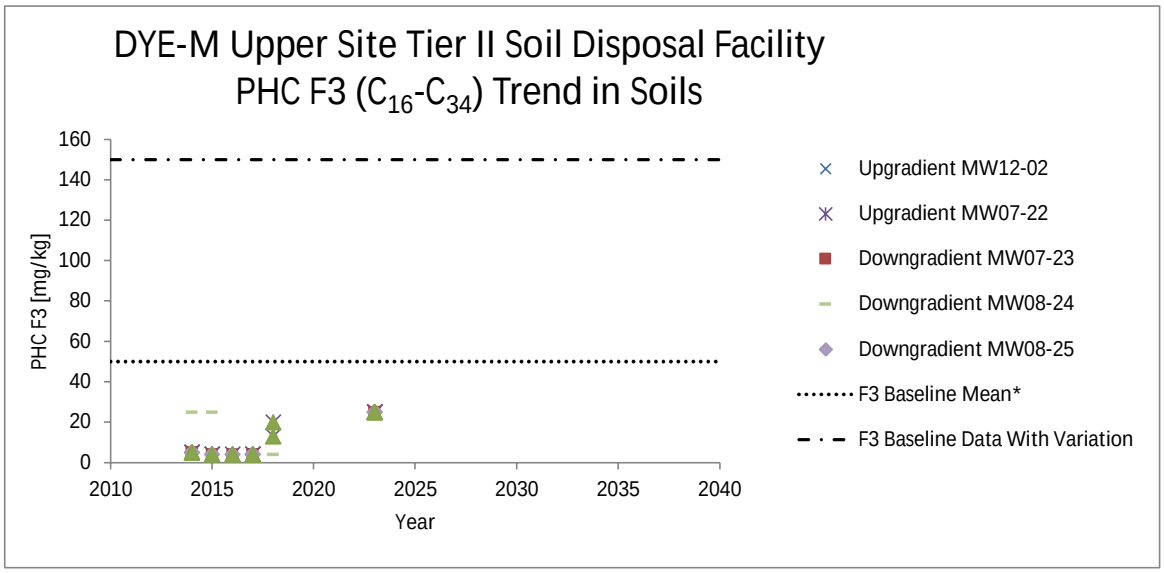
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

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When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F2 baseline arithmetic mean is equal to the detection limit



* F3 baseline arithmetic mean is equal to the detection limit

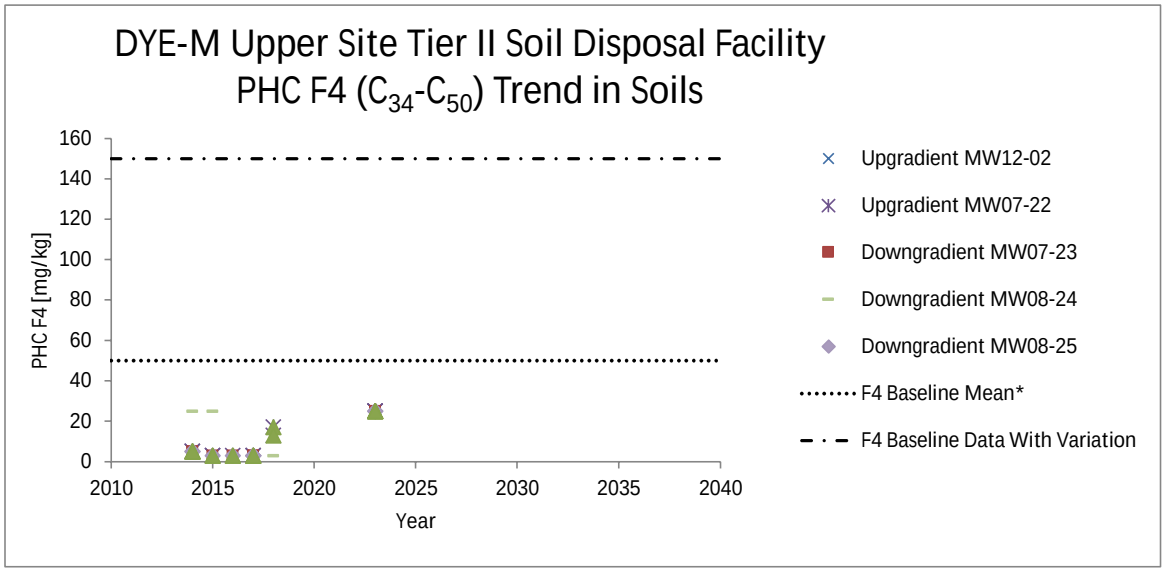
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* F4 baseline arithmetic mean is equal to the detection limit

DYE-M Upper Site Tier II Soil Disposal Facility - Summary of Groundwater Monitoring Analytical Data

Link to: Table of Contents

Sample ID	Location	Date	Monitoring Year	Monitoring Phase	As* (mg/L)	Cd* (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Pb (mg/L)	Ni (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0024	0.0005	0.3429	0.0121	0.0835	0.0127	0.2143	1.29	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					0.0030	0.0010	0.3429	0.0121	0.0835	0.0127	0.2143	1.29	0.05	0.50	1.00	1.00
Baseline Data - Standard Deviation					0.0000	0.0000	0.2395	0.0036	0.0431	0.0076	0.1749	2.61	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					0.0090	0.0030	1.0613	0.0231	0.2126	0.0354	0.7392	9.11	0.15	1.50	3.00	3.00
*If baseline or background arithmetic mean was below the detection limit, the mean has been modified to match the detection limit value.																
Dissolved metals results (italicized) have not been included in the calculation of N value, baseline arithmetic mean or standard deviation. Total metals results (i.e., those used in calculations) are not italicized.																
Monitoring Data																
Upgradient - MW12-02																
Not sampled - frozen	MW12-02	2014	1	Phase I												
Not sampled - snow covered	MW12-02	2015	2	Phase I												
Not sampled - frozen	MW12-02	2016	3	Phase I												
Not sampled - frozen	MW12-02	2017	4	Phase I												
Not sampled - snow covered	MW12-02	2018	5	Phase I												
Not sampled - dry	MW12-02	2023	10	Phase II												

DYE-M Upper Site Tier II Soil Disposal Facility - Summary of Groundwater Monitoring Analytical Data

Link to: Table of Contents

Sample ID	Location	Date	Monitoring Year	Monitoring Phase	As* (mg/L)	Cd* (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Pb (mg/L)	Ni (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0024	0.0005	0.3429	0.0121	0.0835	0.0127	0.2143	1.29	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					0.0030	0.0010	0.3429	0.0121	0.0835	0.0127	0.2143	1.29	0.05	0.50	1.00	1.00
Baseline Data - Standard Deviation					0.0000	0.0000	0.2395	0.0036	0.0431	0.0076	0.1749	2.61	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					0.0090	0.0030	1.0613	0.0231	0.2126	0.0354	0.7392	9.11	0.15	1.50	3.00	3.00
Upgradient - MW07-22																
Not sampled - frozen	MW07-22	2014	1	Phase I												
MW07-22	MW07-22	2015	2	Phase I	0.00100	<0.0001	0.00400	0.00090	0.00620	0.00520	0.00400	0.07200	<0.025	<0.1	<0.1	<0.1
Not sampled - dry	MW07-22	2016	3	Phase I												
Not sampled - frozen	MW07-22	2017	4	Phase I												
Not sampled - frozen	MW07-22	2018	5	Phase I												
Not sampled - dry	MW07-22	2023	10	Phase II												

DYE-M Upper Site Tier II Soil Disposal Facility - Summary of Groundwater Monitoring Analytical Data

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Sample ID	Location	Date	Monitoring Year	Monitoring Phase	As* (mg/L)	Cd* (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Pb (mg/L)	Ni (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0024	0.0005	0.3429	0.0121	0.0835	0.0127	0.2143	1.29	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					0.0030	0.0010	0.3429	0.0121	0.0835	0.0127	0.2143	1.29	0.05	0.50	1.00	1.00
Baseline Data - Standard Deviation					0.0000	0.0000	0.2395	0.0036	0.0431	0.0076	0.1749	2.61	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					0.0090	0.0030	1.0613	0.0231	0.2126	0.0354	0.7392	9.11	0.15	1.50	3.00	3.00
Downgradient - MW07-23																
14-8183	MW07-23	2014	1	Phase I	*<0.001*	*<0.00009*	*<0.0005*	*<0.0003*	*<0.001*	*<0.0005*	*0.00250*	*0.02260*	<0.025	<0.1	<0.25	<0.25
Not sampled - frozen	MW07-23	2015	2	Phase I												
MW07-23	MW07-23	2016	3	Phase I	<0.001	<0.0001	<0.001	<0.0005	<0.0005	<0.0001	<0.001	0.40700	<0.025	<0.1	<0.1	<0.10
Not sampled - frozen	MW07-23	2017	4	Phase I												
Not sampled - frozen	MW07-23	2018	5	Phase I												
MW07-23	MW07-23	2023	10	Phase II	0.00039	<0.0000050	0.00943	0.00156	0.00692	0.00212	0.01130	0.10800	<0.025	<0.1	<0.2	<0.2

DYE-M Upper Site Tier II Soil Disposal Facility - Summary of Groundwater Monitoring Analytical Data

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Sample ID	Location	Date	Monitoring Year	Monitoring Phase	As* (mg/L)	Cd* (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Pb (mg/L)	Ni (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0024	0.0005	0.3429	0.0121	0.0835	0.0127	0.2143	1.29	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					0.0030	0.0010	0.3429	0.0121	0.0835	0.0127	0.2143	1.29	0.05	0.50	1.00	1.00
Baseline Data - Standard Deviation					0.0000	0.0000	0.2395	0.0036	0.0431	0.0076	0.1749	2.61	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					0.0090	0.0030	1.0613	0.0231	0.2126	0.0354	0.7392	9.11	0.15	1.50	3.00	3.00
Downgradient - MW08-24																
14-8184	MW08-24	2014	1	Phase I	*0.00200*	*<0.00009*	*0.00091*	*<0.0003*	*0.00360*	*<0.0005*	*0.00400*	*<0.003*	<0.025	<0.1	<0.25	<0.25
MW08-24	MW08-24	2015	2	Phase I	<0.001	<0.0001	0.01200	0.00230	0.02420	0.00240	0.03100	0.37900	<0.025	<0.177	<0.177	<0.177
MW08-24 (low volume)	MW08-24	2016	3	Phase I	<0.001	<0.0001	0.00700	0.00230	0.01660	0.00110	0.04000	0.14300	<0.025	N/A	N/A	N/A
MW08-24	MW08-24	2017	4	Phase I	*0.00100*	*<0.0001*	*0.00300*	*0.00070*	*0.00970*	*0.00070*	*0.01200*	*0.05100*	<0.025	<0.20	<0.20	<0.20
Not sampled - frozen	MW08-24	2018	5	Phase I												
MW08-24	MW08-24	2023	10	Phase II	0.00077	0.0000112	0.03600	0.00445	0.03230	0.00485	0.08110	0.11000	<0.025	<0.10	<0.20	<0.20

DYE-M Upper Site Tier II Soil Disposal Facility - Summary of Groundwater Monitoring Analytical Data

Link to: Table of Contents

Sample ID	Location	Date	Monitoring Year	Monitoring Phase	As* (mg/L)	Cd* (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Pb (mg/L)	Ni (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0024	0.0005	0.3429	0.0121	0.0835	0.0127	0.2143	1.29	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					0.0030	0.0010	0.3429	0.0121	0.0835	0.0127	0.2143	1.29	0.05	0.50	1.00	1.00
Baseline Data - Standard Deviation					0.0000	0.0000	0.2395	0.0036	0.0431	0.0076	0.1749	2.61	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					0.0090	0.0030	1.0613	0.0231	0.2126	0.0354	0.7392	9.11	0.15	1.50	3.00	3.00
Downgradient - MW08-25																
Not sampled - frozen	MW08-25	2014	1	Phase I												
MW08-25	MW08-25	2015	2	Phase I	<0.001	<0.0001	0.01000	0.00230	0.01210	0.00340	0.02700	0.93900	<0.025	<0.286	<0.286	<0.286
Not sampled - frozen	MW08-25	2016	3	Phase I												
Not sampled - frozen	MW08-25	2017	4	Phase I												
Not sampled - frozen	MW08-25	2018	5	Phase I												
Not sampled - dry	MW08-25	2023	10	Phase II												

N/A = not analyzed

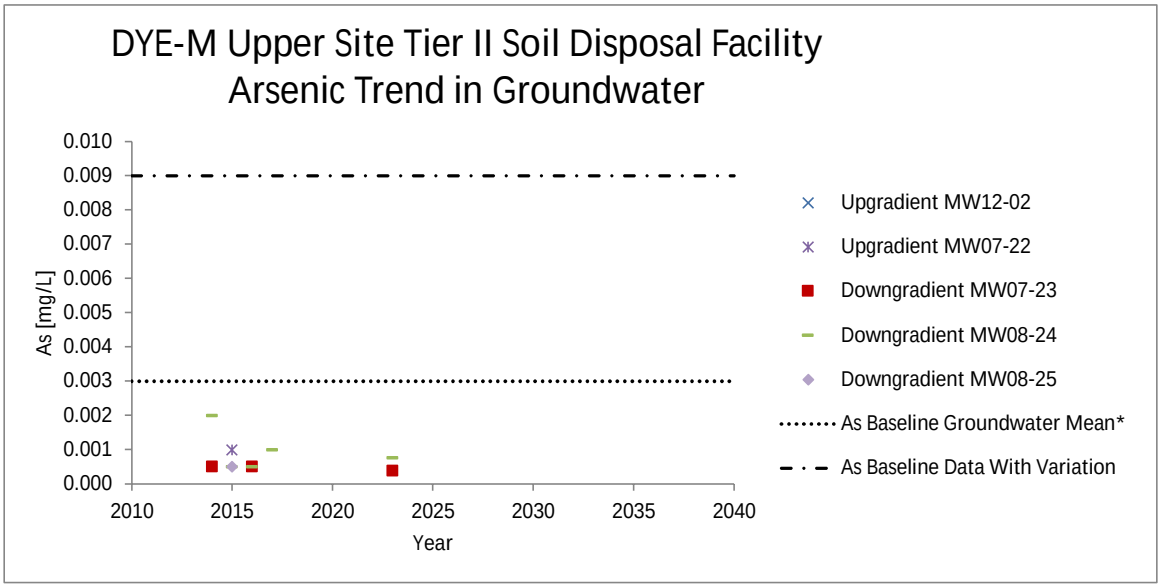
2014 and 2017 samples were accidentally analysis for dissolved metals instead of total metals.

Legend	
XX	Sample exceeds baseline mean
XX	Sample exceeds baseline data with variation
XX	*Dissolved metals results*

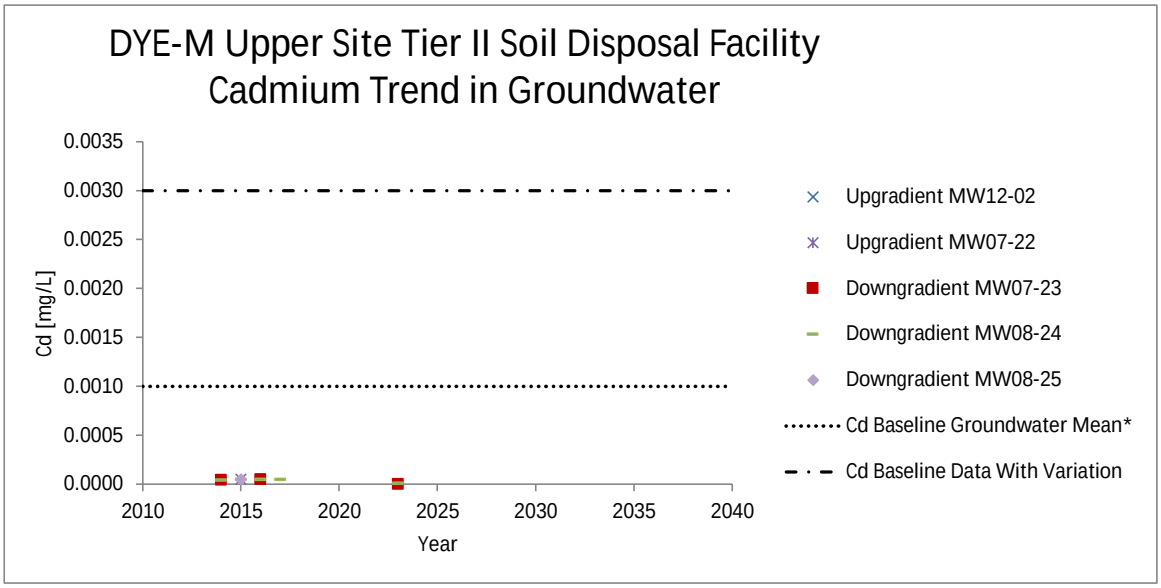
DYE-M Upper Site Tier II Soil Disposal Facility Trends in Groundwater Inorganics and PHCs

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* As baseline arithmetic mean is equal to the baseline detection limit

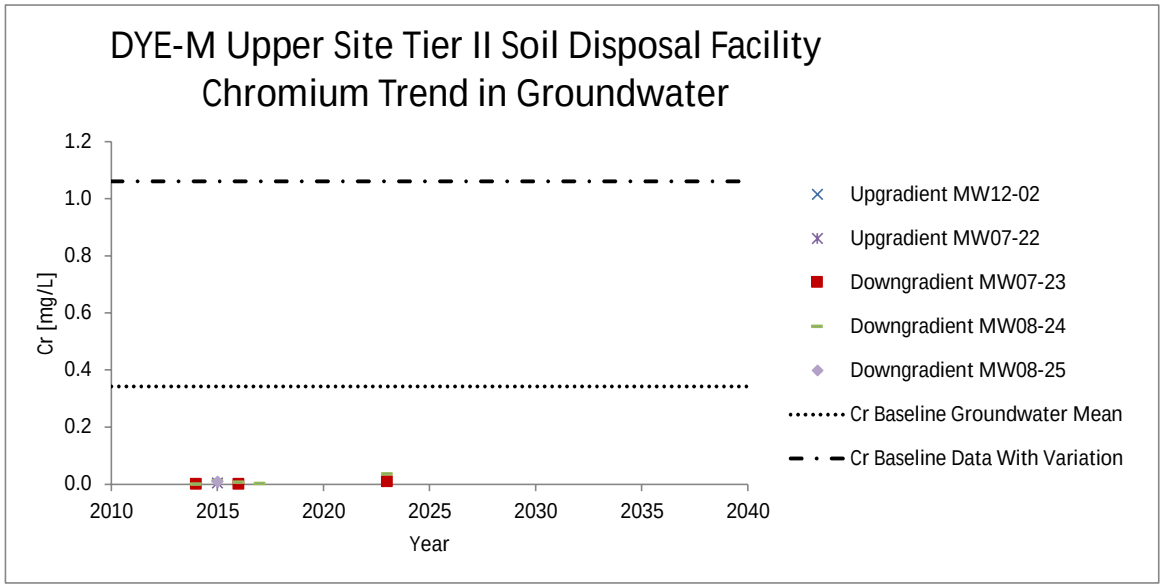


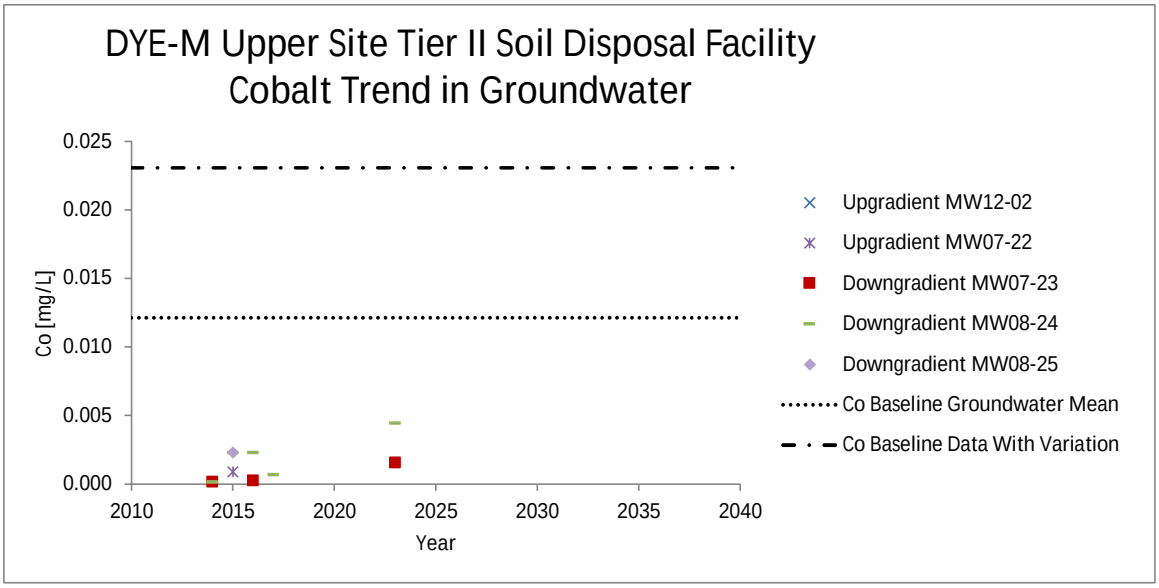
* Cd baseline arithmetic mean is equal to the baseline detection limit

DYE-M Upper Site Tier II Soil Disposal Facility Trends in Groundwater Inorganics and PHCs

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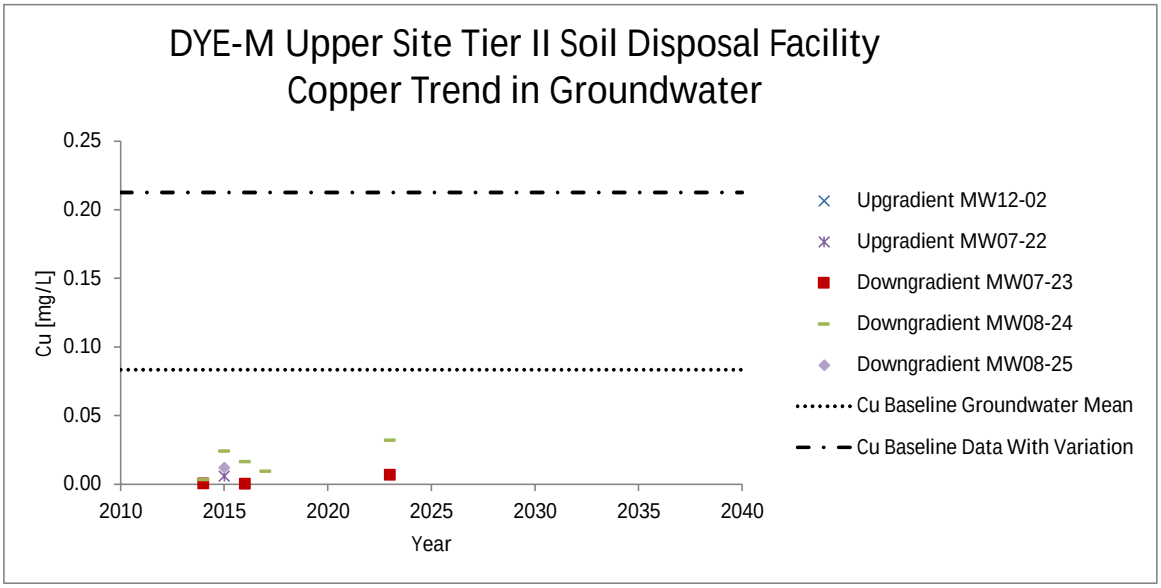


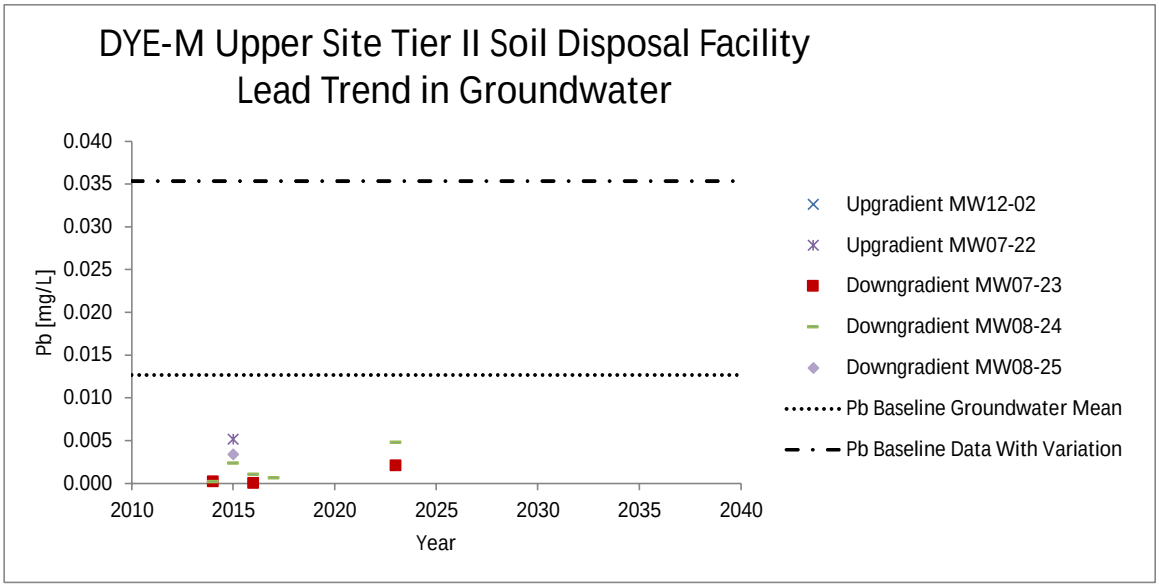


DYE-M Upper Site Tier II Soil Disposal Facility Trends in Groundwater Inorganics and PHCs

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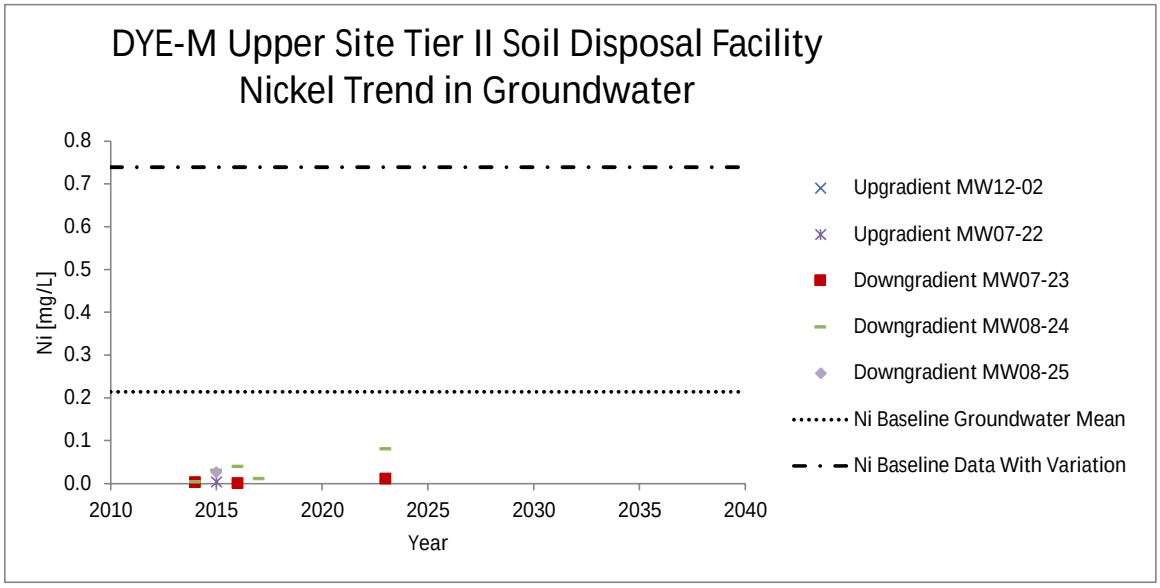


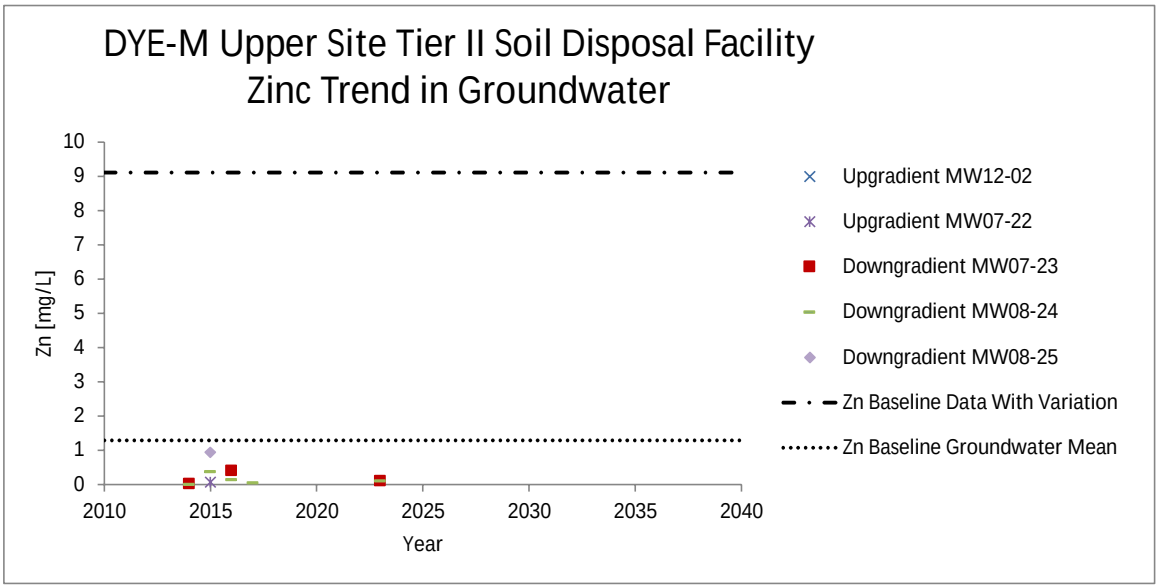


DYE-M Upper Site Tier II Soil Disposal Facility Trends in Groundwater Inorganics and PHCs

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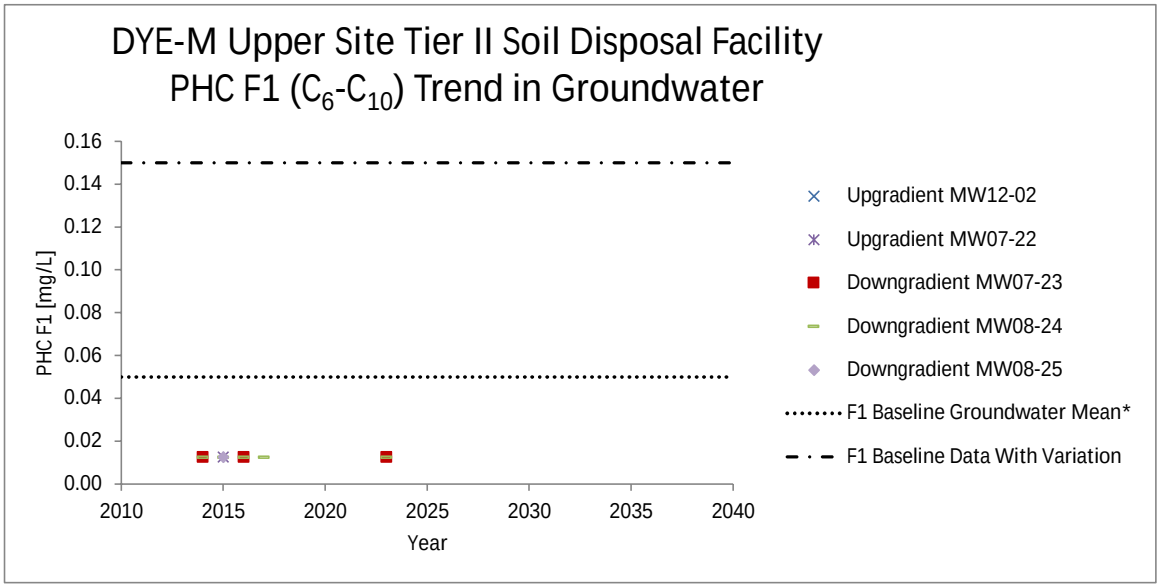




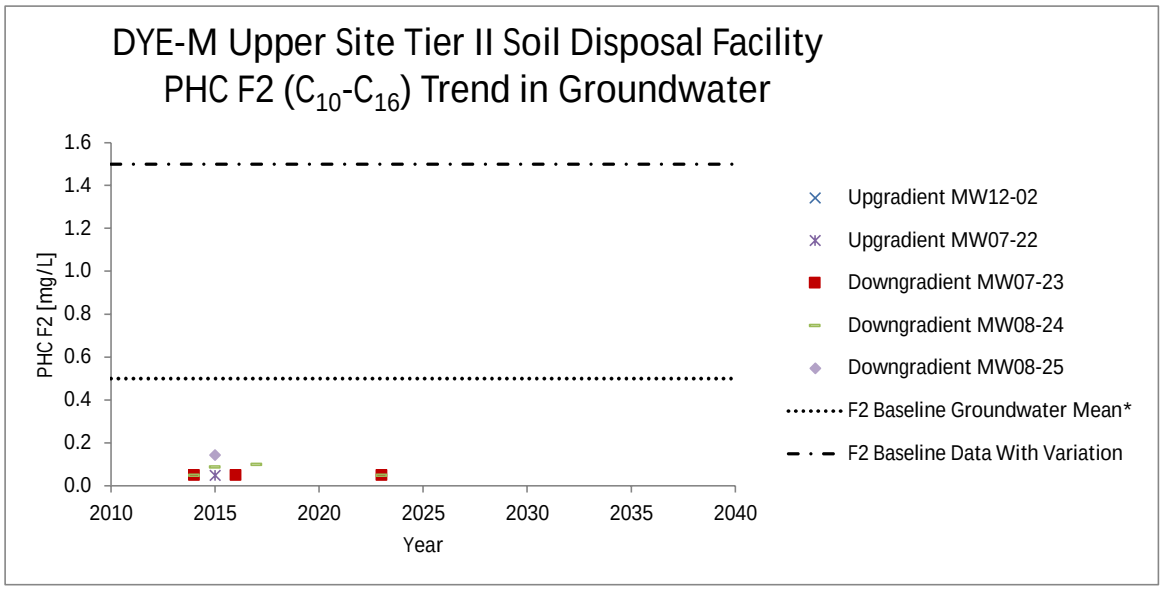
DYE-M Upper Site Tier II Soil Disposal Facility Trends in Groundwater Inorganics and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.
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* F1 baseline arithmetic mean is equal to the detection limit

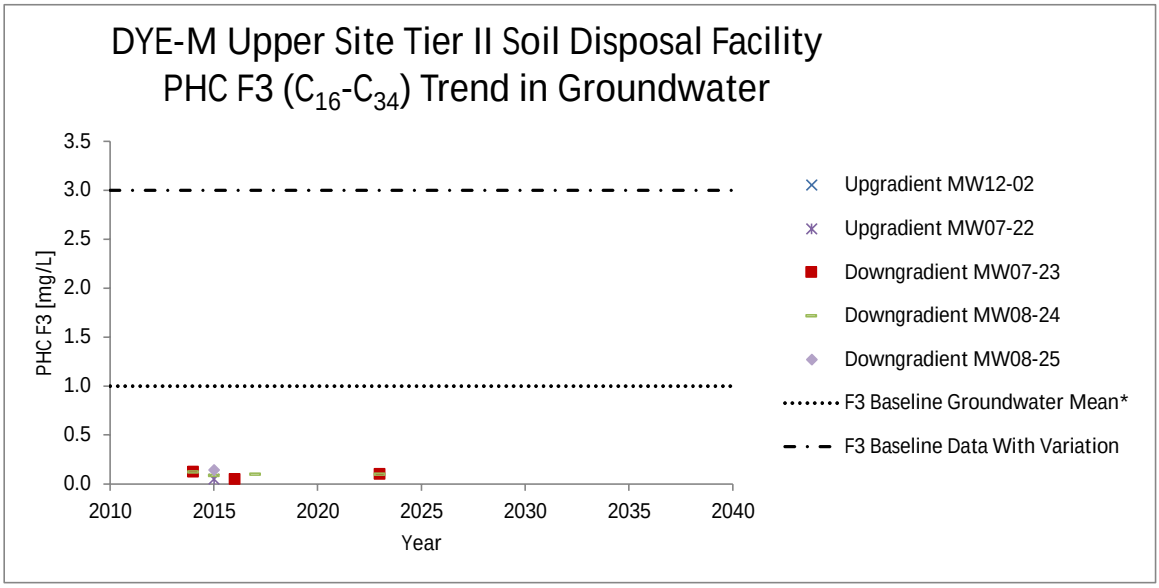


* F2 baseline arithmetic mean is equal to the detection limit

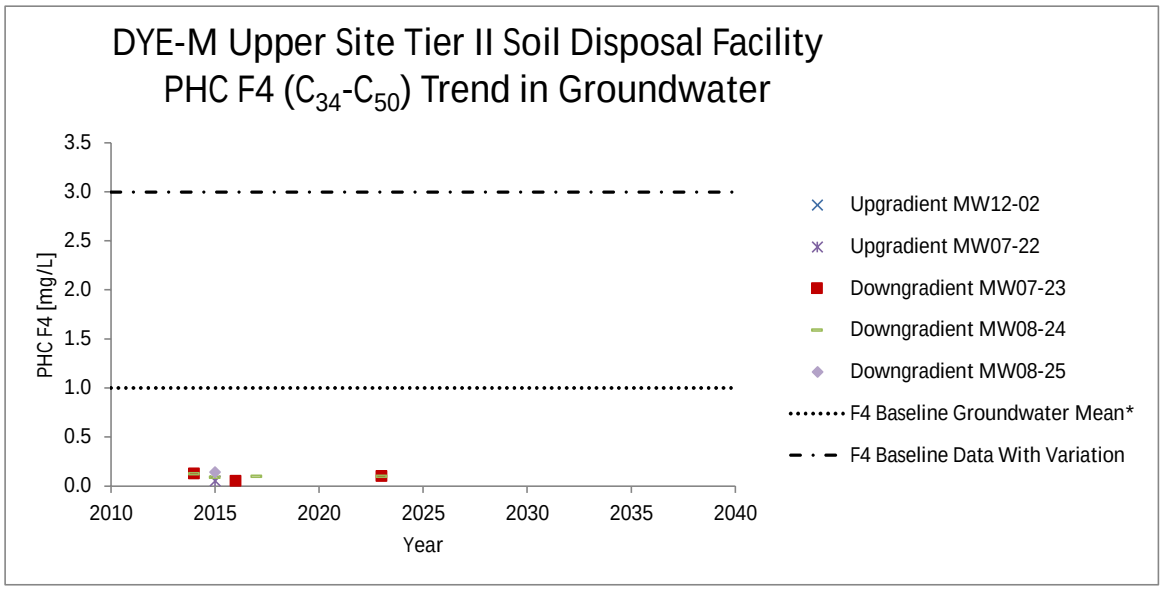
DYE-M Upper Site Tier II Soil Disposal Facility Trends in Groundwater Inorganics and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.
Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.
When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F3 baseline arithmetic mean is equal to the detection limit



* F4 baseline arithmetic mean is equal to the detection limit

DYE-M Upper Site West Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
** If baseline or background arithmetic mean was below the detection limit, the mean has been modified to match the detection limit value.*																		
DEW Line Cleanup Tier I Criteria											*200*			*1*				
DYE-M Upper Site Site-Specific Criteria and DEW Line Cleanup Tier II Criteria						*30*	*5*	*513 †*	*153*	*296*	*500*	*2010*	*500*	*5*				
† Site-Specific Target Level Applicable To Upper Site West Landfill Only																		
Monitoring Data																		
Upgradient (West Lobe)																		
	DM-35 surface																	
14-8438	DM-35	2014	1	Phase I	5-10	0.60	<1	53.00	23.10	49.60	<10	152.40	44.00	<0.02	<10	<10	<10	<10
14-8439 (Interlab)	DM-35	2014	1	Phase I	5-10	1.13	<0.5	62.70	25.70	55.30	7.60	155.00	64.10	<0.10	<5	<10	<50	<50
Sample jars broke in transit	DM-35	2015	2	Phase I														
DM-35A	DM-35	2016	3	Phase I	0-15	<1	<0.5	48.00	14.20	29.40	14.20	75.10	55.60	<0.05	<7	<4	<8	<6
DM-35 Shallow	DM-35	2017	4	Phase I	0-15	<1	<0.5	52.20	30.00	75.00	7.30	198.00	48.10	<0.05	<7	<4	<8	<6
DM-35S	DM-35	2018	5	Phase I	0-10	<1	<0.5	62.00	45.00	79.00	2.00	307.00	35.00	<0.05	<7	<4	<8	<6
DM-35-S	DM-35	2023	10	Phase II	0-15	0.47	0.091	182.00	6.61	88.10	3.14	20.10	172.00	<0.010	<10	<10	<50	<50
	DM-35 depth																	
14-8440	DM-35	2014	1	Phase I	45-50	1.00	<1	40.00	12.00	24.80	10.00	77.60	44.00	<0.02	<10	<10	<10	<10
14-8441 (Dup)	DM-35	2014	1	Phase I	45-50	1.00	<1	41.00	11.80	24.70	11.00	73.50	45.00	<0.02	<10	<10	<10	<10
Not sampled - refusal	DM-35	2015	2	Phase I														
Not sampled - refusal	DM-35	2016	3	Phase I														
Not sampled - refusal	DM-35	2017	4	Phase I														
Not sampled - frozen	DM-35	2018	5	Phase I														
DM-35-D	DM-35	2023	10	Phase II	40-50	0.51	0.075	241.00	7.38	110.00	3.11	20.10	202.00	<0.010	<10	<10	<50	<50

DYE-M Upper Site West Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
Upgradient (Centre and East Lobes)																		
	DM-40 surface																	
14-8367	DM-40	2014	1	Phase I	5-10	2.70	<1	204.00	11.00	96.50	11.00	51.20	158.00	<0.02	<10	<10	<10	<10
DM-40 (0-15)	DM-40	2015	2	Phase I	0-15	5.20	<0.5	618.00	10.60	166.00	13.70	39.70	216.00	<0.05	<7	<4	<8	<6
DM-40 (0-15) (Interlab)	DM-40	2015	2	Phase I	0-15	4.00	<0.5	586.00	9.30	166.00	8.00	41.00	234.00	<0.05	<5	14	<8	<6
DM-40A	DM-40	2016	3	Phase I	0-15	<1	<0.5	153.00	18.20	91.70	12.30	79.10	113.00	<0.05	<7	<4	<8	<6
DM-40 Shallow	DM-40	2017	4	Phase I	0-15	<1	<0.5	173.00	13.00	107.00	15.00	57.50	146.00	<0.05	<7	24	28	6
DM-40S	DM-40	2018	5	Phase I	0-15	1.00	<0.5	163.00	13.00	79.00	16.00	55.00	134.00	<0.05	<7	13	100	14
QA/QC S13 (Dup)	DM-40	2018	5	Phase I	0-15	<1	<0.5	154.00	12.00	72.00	16.00	53.00	124.00	<0.05	<7	<4	70	32
DM-40-S	DM-40	2023	10	Phase II	0-15	2.24	0.407	77.20	31.70	64.90	6.94	105.00	129.00	<0.010	<10	<10	<50	<50
DM-40-S (Interlab)	DM-40	2023	10	Phase II	0-15	2.23	0.382	77.80	32.00	65.60	6.88	106.00	130.00					
	DM-40 depth																	
14-8368	DM-40	2014	1	Phase I	45-50	2.50	<1	299.00	11.10	106.10	<10	47.80	180.00	<0.02	<10	<10	<10	<10
14-8369 (Interlab)	DM-40	2014	1	Phase I	45-50	1.68	<0.5	277.00	12.20	103.00	5.60	48.90	173.00	<0.10	<5	<10	<50	<50
Not sampled - refusal	DM-40	2015	2	Phase I														
Not sampled - refusal	DM-40	2016	3	Phase I														
DM-40 Deep	DM-40	2017	4	Phase I	40-50	<1	<0.5	148.00	6.75	225.00	16.10	45.60	185.00	<0.05	<7	<4	<8	<6
DM-940 Deep (Dup)	DM-40	2017	4	Phase I	40-50	<1	<0.5	198.00	6.70	263.00	22.00	55.00	217.00	<0.05	<7	<4	<8	6
DM-40D	DM-40	2018	5	Phase I	20-30	1.00	<0.5	168.00	14.00	79.00	13.00	53.00	138.00	<0.05	<7	7	35	<6
DM-40-D	DM-40	2023	10	Phase II	40-50	1.71	0.270	115.00	23.70	76.80	9.89	87.40	137.00	<0.010	<10	<10	<50	<50

DYE-M Upper Site West Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
Upgradient (Centre and East Lobes)																		
	DM-47 surface																	
14-8342	DM-47	2014	1	Phase I	5-10	3.20	<1	293.00	21.70	93.30	11.00	98.10	188.00	<0.02	15	2050	39	<10
DM-47 (0-15)	DM-47	2015	2	Phase I	0-15	4.10	<0.5	193.00	17.60	111.00	14.80	80.80	139.00	<0.05	187	3000	129	<6
DM-47A	DM-47	2016	3	Phase I	0-15	<1	<0.5	173.00	16.90	87.10	18.30	71.60	123.00	<0.05	<7	100	234	30
DM-47 Shallow	DM-47	2017	4	Phase I	0-15	<1	<0.5	184.00	15.20	70.60	11.80	57.50	136.00	0.110	<7	52	81	17
Not sampled - frozen	DM-47	2018	5	Phase I														
DM-47-S	DM-47	2023	10	Phase II	0-15	1.46	0.129	155.00	13.80	63.40	19.50	70.00	115.00	1.000	<10	180	530	76
	DM-47 depth																	
14-8343	DM-47	2014	1	Phase I	45-50	2.90	<1	209.00	16.70	83.10	14.00	110.10	142.00	0.059	<10	602	12	<10
DM-47 (40-50)	DM-47	2015	2	Phase I	40-50	4.00	<0.5	255.00	21.00	95.80	12.40	66.20	163.00	<0.05	<7	79	<8	<6
Not sampled - refusal	DM-47	2016	3	Phase I														
DM-47 Deep	DM-47	2017	4	Phase I	40-50	<1	<0.5	218.00	17.10	82.60	11.30	63.40	150.00	<0.05	<7	34	16	<6
Not sampled - frozen	DM-47	2018	5	Phase I														
DM-47-D	DM-47	2023	10	Phase II	40-50	1.24	0.083	142.00	14.50	54.90	7.57	77.50	101.00	0.170	<10	20	68	<50

DYE-M Upper Site West Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
Upgradient (Centre and East Lobes; also downgradient of Upper Site Pallet Line Landfill)																		
	DM-50 surface																	
14-8338	DM-50	2014	1	Phase I	5-10	3.30	<1	260.00	13.60	103.90	24.00	79.10	82.00	<0.02	<10	<10	<10	<10
14-8339 (Interlab)	DM-50	2014	1	Phase I	5-10	2.93	<0.5	257.00	15.30	109.00	9.90	74.20	105.00	<0.10	<5	41	<50	<50
DM-50 (0-15)	DM-50	2015	2	Phase I	0-15	2.60	<0.5	154.00	11.50	89.90	12.20	51.50	82.30	<0.05	<7	<4	<8	<6
DM-50A	DM-50	2016	3	Phase I	0-15	<1	<0.5	186.00	14.40	82.60	16.90	68.00	80.90	<0.05	<7	<4	<8	<6
DM-50 Shallow	DM-50	2017	4	Phase I	0-15	<1	<0.5	205.00	13.70	94.40	21.00	73.70	74.00	<0.05	<7	7	47	<6
DM-50S	DM-50	2018	5	Phase I	0-15	2.00	<0.5	223.00	15.00	89.00	10.00	82.00	71.00	<0.05	<7	<4	<8	<6
DM-50-S	DM-50	2023	10	Phase II	0-15	2.87	<0.050	222.00	12.80	96.00	6.99	66.50	75.20	<0.010	<10	<10	<50	<50
	DM-50 depth																	
14-8340	DM-50	2014	1	Phase I	35-40	4.60	<1	258.00	14.70	126.70	10.00	75.10	98.00	<0.02	<10	<10	<10	<10
14-8341 (Dup)	DM-50	2014	1	Phase I	35-40	3.90	<1	255.00	13.90	110.20	10.00	72.70	100.00	<0.02	<10	<10	<10	<10
DM-50 (30-40)	DM-50	2015	2	Phase I	30-40	4.20	<0.5	186.00	13.20	118.00	13.80	55.60	92.90	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-50	2016	3	Phase I														
DM-50 Deep	DM-50	2017	4	Phase I	30-40	4.60	<0.5	273.00	15.70	137.00	15.10	80.80	88.10	<0.05	<7	179	29	<6
DM-50D	DM-50	2018	5	Phase I	40-50	4.00	<0.5	197.00	12.00	104.00	8.00	61.00	89.00	<0.05	<7	69	26	9
DM-50-D	DM-50	2023	10	Phase II	40-50	2.77	0.100	281.00	19.40	127.00	37.20	92.70	147.00	<0.010	<10	<10	<50	<50
MW23-S-80 (Dup)	DM-50	2023	10	Phase II	40-50	3.05	<0.050	257.00	17.00	114.00	32.20	78.90	135.00	<0.010	<10	<10	<50	<50
MW23-S-80 (Dup)(Interlab)	DM-50	2023	10	Phase II	40-50										<10			

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
Upgradient (Centre and East Lobes; also downgradient of Upper Site Pallet Line Landfill)																		
	DM-51 surface																	
14-8362	DM-51	2014	1	Phase I	5-10	2.00	<1	113.00	12.60	45.80	13.00	61.80	86.00	<0.02	<10	<10	<10	<10
DM-51 (0-15)	DM-51	2015	2	Phase I	0-15	1.90	<0.5	104.00	11.90	48.30	25.60	60.60	107.00	<0.05	<7	<4	<8	<6
DM-51A	DM-51	2016	3	Phase I	0-15	<1	<0.5	112.00	12.30	52.20	23.40	56.00	84.80	<0.05	<7	<4	209	87
DM-51 Shallow	DM-51	2017	4	Phase I	0-15	<1	<0.5	95.10	10.80	39.40	16.60	52.30	71.60	<0.05	9	313	108	20
DM-51S	DM-51	2018	5	Phase I	0-15	1.00	<0.5	120.00	14.00	54.00	24.00	69.00	84.00	0.050	<7	65	84	28
DM-51-S	DM-51	2023	10	Phase II	0-15	1.68	0.146	82.40	11.70	35.10	13.50	59.70	68.50	0.010	<10	<10	68	<50
	DM-51 depth																	
14-8363	DM-51	2014	1	Phase I	30-35	1.70	<1	125.00	11.50	56.50	23.00	54.30	104.00	0.067	19	1540	393	<10
Not sampled - refusal	DM-51	2015	2	Phase I														
Not sampled - refusal	DM-51	2016	3	Phase I														
DM-51 Deep	DM-51	2017	4	Phase I	30-40	<1	<0.5	107.00	12.20	46.00	21.00	52.80	84.20	<0.05	98	2320	607	94
DM-51D	DM-51	2018	5	Phase I	40-50	<1	<0.5	105.00	13.00	53.00	21.00	63.00	72.00	<0.05	<7	88	102	32
QA/QC S16 (Dup)	DM-51	2018	5	Phase I	40-50	<1	<0.5	108.00	13.00	51.00	20.00	66.00	74.00	0.270	<7	54	87	32
DM-51-D	DM-51	2023	10	Phase II	40-50	1.21	0.081	110.00	12.10	43.80	20.30	51.90	88.60	<0.010	<10	180	750	66
MW23-S-70 (Dup)	DM-51	2023	10	Phase II	40-50	1.07	0.087	115.00	11.40	42.50	47.10	44.80	87.40	<0.010	16	81	370	<50
MW23-S-70 (Dup)(Interlab)	DM-51	2023	10	Phase II	40-50											71	330	<50

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
Downgradient (West Lobe)																		
	DM-31 surface																	
14-8433	DM-31	2014	1	Phase I	5-10	1.00	<1	127.00	9.10	57.40	27.00	30.40	118.00	<0.02	<10	<10	<10	<10
DM-31 (0-15)	DM-31	2015	2	Phase I	0-15	1.00	<0.5	170.00	11.30	76.40	8.10	28.80	150.00	<0.05	<7	<4	<8	<6
DM-31A	DM-31	2016	3	Phase I	0-15	<1	<0.5	149.00	11.90	64.70	11.20	35.00	124.00	<0.05	<7	<4	<8	<6
DM-31 Shallow	DM-31	2017	4	Phase I	0-15	<1	<0.5	133.00	9.00	56.00	10.40	29.10	114.00	<0.05	<7	<4	<8	<6
DM-31S	DM-31	2018	5	Phase I	0-5	<1	<0.5	121.00	9.00	65.00	11.00	30.00	112.00	<0.05	<7	<4	46	13
DM-31-S	DM-31	2023	10	Phase II	0-15	0.63	0.084	125.00	10.90	39.30	5.58	35.70	104.00	<0.010	<10	<10	<50	<50
	DM-31 depth																	
14-8434	DM-31	2014	1	Phase I	45-50	0.70	<1	103.00	7.30	48.70	<10	29.70	97.00	<0.02	<10	<10	<10	<10
DM-31 (30-40)	DM-31	2015	2	Phase I	30-40	1.10	<0.5	165.00	12.30	61.50	8.50	32.90	138.00	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-31	2016	3	Phase I														
DM-31 Deep	DM-31	2017	4	Phase I	40-50	<1	<0.5	126.00	9.80	67.40	9.60	36.20	121.00	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-31	2018	5	Phase I														
DM-31-D	DM-31	2023	10	Phase II	40-50	0.98	0.076	136.00	13.10	52.60	6.65	44.70	113.00	<0.010	<10	<10	<50	<50

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
Downgradient (West Lobe)																		
	DM-32 surface																	
14-8430	DM-32	2014	1	Phase I	5-10	2.60	<1	144.00	10.00	63.60	<10	32.50	110.00	<0.02	<10	<10	<10	<10
14-8431 (Dup)	DM-32	2014	1	Phase I	5-10	2.90	<1	152.00	9.70	66.90	<10	31.70	115.00	<0.02	<10	<10	<10	<10
DM-32 (0-15)	DM-32	2015	2	Phase I	0-15	3.10	<0.5	282.00	15.00	152.00	50.80	46.90	138.00	<0.05	<7	<4	<8	<6
DM-32A	DM-32	2016	3	Phase I	0-15	<1	<0.5	172.00	11.80	85.30	11.10	39.50	105.00	<0.05	<7	<4	<8	<6
DM-32 Shallow	DM-32	2017	4	Phase I	0-15	<1	<0.5	183.00	11.90	89.60	12.70	42.40	122.00	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-32	2018	5	Phase I														
DM-32-S	DM-32	2023	10	Phase II	40-50	2.11	0.050	215.00	11.70	65.10	13.40	37.70	146.00	<0.010	<10	<10	<50	<50
	DM-32 depth																	
14-8432	DM-32	2014	1	Phase I	45-50	5.30	<1	154.00	8.40	89.60	<10	30.00	108.00	<0.02	<10	<10	<10	<10
DM-32 (20-30)	DM-32	2015	2	Phase I	20-30	2.30	<0.5	223.00	11.60	120.00	26.20	36.00	117.00	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-32	2016	3	Phase I														
DM-32 Deep	DM-32	2017	4	Phase I	40-50	<1	<0.5	190.00	11.40	89.20	9.50	38.70	125.00	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-32	2018	5	Phase I														
DM-32-D	DM-32	2023	10	Phase II	40-50	2.30	0.184	227.00	13.10	79.50	15.10	43.90	153.00	<0.010	<10	<10	<50	<50

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
Downgradient (West Lobe)																		
	DM-33 surface																	
14-8375	DM-33	2014	1	Phase I	5-10	0.60	<1	56.00	10.80	24.30	<10	45.40	60.00	<0.02	<10	<10	<10	<10
DM-33 (0-15)	DM-33	2015	2	Phase I	0-15	1.50	<0.5	70.90	12.30	35.40	5.70	47.80	57.30	<0.05	<7	<4	<8	<6
DM-33A	DM-33	2016	3	Phase I	0-15	<1	<0.5	46.80	11.60	16.00	4.00	57.20	31.90	<0.05	<7	<4	<8	<6
DM-33A (Interlab)	DM-33	2016	3	Phase I	0-15	<1	<0.5	55.00	14.90	22.00	3.00	74.00	53.00	<0.05	<5	<10	<50	<50
DM-33 Shallow	DM-33	2017	4	Phase I	0-15	<1	<0.5	89.10	13.30	47.70	8.30	54.90	78.30	<0.05	<7	<4	<8	<6
DM-933 Shallow (Dup)	DM-33	2017	4	Phase I	0-15	<1	<0.5	79.40	12.50	40.20	7.70	56.00	71.40	<0.05	<7	<4	<8	<6
DM-33S	DM-33	2018	5	Phase I	0-15	<1	<0.5	48.00	13.00	22.00	5.00	62.00	35.00	<0.05	<7	<4	<8	<6
DM-33-S	DM-33	2023	10	Phase II	0-15	0.63	0.054	46.60	11.70	17.20	3.02	53.40	38.80	<0.010	<10	<10	<50	<50
	DM-33 depth																	
14-8377	DM-33	2014	1	Phase I	45-50	0.80	<1	60.00	11.30	27.10	<10	62.60	60.00	<0.02	<10	<10	<10	<10
DM-33 (20-30)	DM-33	2015	2	Phase I	20-30	<1	<0.5	67.30	10.20	36.10	4.70	33.00	54.90	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-33	2016	3	Phase I														
DM-33 Deep	DM-33	2017	4	Phase I	30-40	<1	<0.5	78.80	11.10	43.00	7.40	45.50	67.80	<0.05	<7	<4	<8	<6
DM-33D	DM-33	2018	5	Phase I	20-30	<1	<0.5	57.00	15.00	25.00	5.00	79.00	35.00	<0.05	<7	<4	<8	<6
QA/QC S15 (Dup)	DM-33	2018	5	Phase I	20-30	<1	<0.5	62.00	16.00	26.00	5.00	79.00	38.00	<0.05	<7	<4	<8	<6
DM-33-D	DM-33	2023	10	Phase II	40-50	0.54	<0.050	47.80	11.40	16.60	2.80	60.40	40.10	<0.010	<10	<10	<50	<50
MW23-S-60 (Dup)	DM-33	2023	10	Phase II	40-50	0.48	<0.050	33.80	8.64	12.80	2.60	51.00	30.20	<0.010	<10	<10	<50	<50

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
Downgradient (West Lobe)																		
	DM-34 surface																	
14-8378	DM-34	2014	1	Phase I	5-10	1.10	<1	42.00	16.10	29.90	<10	54.50	65.00	<0.02	<10	<10	<10	<10
14-8379 (Interlab)	DM-34	2014	1	Phase I	5-10	0.92	<0.5	51.20	20.60	39.80	11.00	58.50	85.20	<0.10	<5	<10	<50	<50
DM-34 (0-15)	DM-34	2015	2	Phase I	0-15	<1	<0.5	26.40	8.90	12.50	5.05	45.70	30.70	<0.05	<7	<4	<8	<6
DM-34 (0-15) (Interlab)	DM-34	2015	2	Phase I	0-15	<1	<0.5	30.00	10.00	17.00	5.00	60.00	41.00	<0.05	<5	<4	<8	<6
DM-34A	DM-34	2016	3	Phase I	0-15	<1	<0.5	46.50	12.00	21.30	8.50	63.80	44.80	<0.05	<7	<4	<8	<6
DM-34 Shallow	DM-34	2017	4	Phase I	0-15	<1	<0.5	31.10	11.00	16.80	7.20	49.20	41.70	<0.05	<7	<4	<8	<6
DM-34S	DM-34	2018	5	Phase I	0-15	<1	<0.5	39.00	18.00	29.00	8.00	64.00	48.00	<0.05	<7	<4	<8	<6
DM-34-S	DM-34	2023	10	Phase II	0-15	0.49	<0.050	28.80	14.00	24.70	6.31	40.20	54.00	<0.010	<10	<10	<50	<50
	DM-34 depth																	
14-8380	DM-34	2014	1	Phase I	45-50	0.90	<1	39.00	16.50	24.80	<10	73.40	59.00	<0.02	<10	<10	<10	<10
14-8381 (Dup)	DM-34	2014	1	Phase I	45-50	0.90	<1	34.00	15.00	23.80	<10	56.20	56.00	<0.02	<10	<10	<10	<10
Not sampled - refusal	DM-34	2015	2	Phase I														
Not sampled - refusal	DM-34	2016	3	Phase I														
Not sampled - refusal	DM-34	2017	4	Phase I														
Not sampled - refusal	DM-34	2018	5	Phase I														
DM-34-D	DM-34	2023	10	Phase II	40-50	0.41	<0.050	24.40	11.00	16.90	4.77	41.20	41.50	<0.010	<10	<10	<50	<50

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
Downgradient (West Lobe)																		
	DM-36 surface																	
14-8442	DM-36	2014	1	Phase I	5-10	1.20	<1	179.00	12.50	97.70	13.00	47.80	135.00	<0.02	<10	<10	<10	<10
Not sampled - frozen	DM-36	2015	2	Phase I														
DM-36A	DM-36	2016	3	Phase I	0-15	<1	<0.5	139.00	13.60	76.10	13.00	50.70	91.40	<0.05	<7	<4	<8	<6
DM-36 Shallow	DM-36	2017	4	Phase I	0-15	<1	<0.5	150.00	11.50	96.80	13.80	42.80	113.00	<0.05	<7	25	8	<6
Not sampled - frozen	DM-36	2018	5	Phase I														
DM-36-S	DM-36	2023	10	Phase II	0-15	<0.20	0.057	115.00	9.34	52.70	7.98	34.50	91.60	<0.010	<10	<10	<50	<50
	DM-36 depth																	
14-8443	DM-36	2014	1	Phase I	45-50	2.90	<1	139.00	10.00	92.50	12.00	37.50	106.00	<0.02	<10	19	<10	<10
Not sampled - frozen	DM-36	2015	2	Phase I														
Not sampled - refusal	DM-36	2016	3	Phase I														
DM-36 Deep	DM-36	2017	4	Phase I	20-30	<1	<0.5	183.00	12.10	136.00	17.40	44.60	150.00	<0.05	<7	245	<8	<6
Not sampled - frozen	DM-36	2018	5	Phase I														
DM-36-D	DM-36	2023	10	Phase II	40-50	1.75	0.071	143.00	9.22	84.10	8.50	33.90	112.00	<0.010	<10	19	<50	<50

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
Downgradient (West Lobe)																		
	DM-37 surface																	
14-8435	DM-37	2014	1	Phase I	5-10	1.40	<1	127.00	10.10	53.00	<10	37.10	106.00	<0.02	<10	<10	<10	<10
DM-37 (0-15)	DM-37	2015	2	Phase I	0-15	1.90	<0.5	137.00	12.30	55.00	8.50	35.30	103.00	<0.05	<7	<4	<8	<6
DM-37A	DM-37	2016	3	Phase I	0-15	<1	<0.5	122.00	12.00	63.90	8.40	38.00	108.00	<0.05	<7	<4	<8	<6
DM-37 Shallow	DM-37	2017	4	Phase I	0-15	<1	<0.5	132.00	10.20	62.30	13.80	34.10	111.00	<0.05	<7	17	13	<6
Not sampled - frozen	DM-37	2018	5	Phase I														
DM-37-S	DM-37	2023	10	Phase II	0-15	0.64	<0.050	76.90	7.27	24.30	2.74	33.90	67.30	<0.010	<10	<10	<50	<50
	DM-37 depth																	
14-8437	DM-37	2014	1	Phase I	45-50	1.10	<1	100.00	7.60	37.10	<10	32.40	84.00	<0.02	<10	<10	<10	<10
DM-37 (30-40)	DM-37	2015	2	Phase I	30-40	<1	<0.5	125.00	12.70	31.60	5.10	39.80	93.00	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-37	2016	3	Phase I														
DM-37 Deep	DM-37	2017	4	Phase I	30-40	<1	<0.5	126.00	9.80	52.80	8.70	31.80	107.00	<0.05	<7	50	10	<6
Not sampled - frozen	DM-37	2018	5	Phase I														
DM-37-D	DM-37	2023	10	Phase II	40-50	0.44	<0.050	44.40	8.16	16.10	7.93	35.70	34.80	<0.010	<10	<10	<50	<50

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
Downgradient (West Lobe)																		
	DM-38 surface																	
14-8382	DM-38	2014	1	Phase I	5-10	1.70	<1	84.00	14.70	58.10	94.00	61.10	284.00	<0.02	<10	<10	<10	<10
DM-38 (0-15)	DM-38	2015	2	Phase I	0-15	1.50	<0.5	91.90	14.60	92.30	124.00	47.90	308.00	<0.05	<7	<4	83	61
DM-38A	DM-38	2016	3	Phase I	0-15	<1	<0.5	81.90	13.00	89.90	58.20	47.10	129.00	<0.05	<7	<4	28	35
DM-38 Shallow	DM-38	2017	4	Phase I	0-15	<1	<0.5	78.40	11.80	77.60	95.60	51.50	229.00	<0.05	<7	<4	27	21
DM-38S	DM-38	2018	5	Phase I	0-10	<1	<0.5	78.00	14.00	78.00	105.00	57.00	186.00	<0.05	<7	<4	32	45
DM-38-S	DM-38	2023	10	Phase II	0-15	0.68	0.226	62.90	12.00	49.20	52.90	52.70	179.00	<0.010	<10	<10	<50	<50
DM-38-S (Interlab)	DM-38	2023	10	Phase II	0-15										<10			
	DM-38 depth																	
14-8383	DM-38	2014	1	Phase I	45-50	1.60	<1	76.00	13.20	64.30	104.00	63.40	265.00	<0.02	<10	<10	<10	<10
Not sampled - refusal	DM-38	2015	2	Phase I														
Not sampled - refusal	DM-38	2016	3	Phase I														
Not sampled - refusal	DM-38	2017	4	Phase I														
Not sampled - refusal	DM-38	2018	5	Phase I														
DM-38-D	DM-38	2023	10	Phase II	40-50	230.00	229.000	281.00	223.00	236.00	243.00	251.00	250.00	<0.010	<10	<10	<50	<50

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
Downgradient (West Lobe; downgradient of West Landfill Centre Lobe; upgradient of West Landfill West Lobe)																		
	DM-39 surface																	
14-8427	DM-39	2014	1	Phase I	5-10	1.60	<1	160.00	10.80	94.80	<10	37.40	147.00	<0.02	<10	<10	<10	<10
DM-39 (0-15)	DM-39	2015	2	Phase I	0-15	1.90	<0.5	187.00	11.30	169.00	10.70	29.30	153.00	<0.05	<7	<4	<8	<6
DM-39A	DM-39	2016	3	Phase I	0-15	<1	<0.5	133.00	11.50	73.50	23.30	36.20	136.00	<0.05	<7	<4	<8	<6
DM-39 Shallow	DM-39	2017	4	Phase I	0-15	<1	<0.5	161.00	12.40	86.60	10.70	39.30	148.00	<0.05	<7	<4	<8	<6
DM-39S	DM-39	2018	5	Phase I	0-15	<1	<0.5	134.00	12.00	59.00	8.00	40.00	111.00	<0.05	<7	36	68	<6
DM-39-S	DM-39	2023	10	Phase II	0-15	0.66	0.109	129.00	9.85	71.20	3.98	32.80	117.00	<0.010	<10	<10	<50	<50
	DM-39 depth																	
14-8428	DM-39	2014	1	Phase I	45-50	2.00	<1	171.00	10.90	114.30	<10	36.80	154.00	<0.02	<10	<10	<10	<10
14-8429 (Interlab)	DM-39	2014	1	Phase I	45-50	1.23	<0.5	166.00	10.40	112.00	5.70	33.20	154.00	<0.10	<5	<10	<50	<50
DM-39 (40-50)	DM-39	2015	2	Phase I	40-50	1.90	<0.5	172.00	13.00	111.00	8.40	35.00	126.00	<0.05	<7	48	<8	<6
Not sampled - refusal	DM-39	2016	3	Phase I														
DM-39 Deep	DM-39	2017	4	Phase I	40-50	<1	<0.5	172.00	11.10	131.00	10.70	34.30	138.00	<0.05	<7	<4	<8	<6
DM-39D	DM-39	2018	5	Phase I	20-30	<1	<0.5	126.00	11.00	49.00	5.00	40.00	108.00	<0.05	<7	60	87	<6
DM-39-D	DM-39	2023	10	Phase II	40-50	0.57	0.082	129.00	10.70	58.50	4.19	40.30	123.00	<0.010	<10	<10	<50	<50

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
Downgradient (Centre and East Lobes)																		
	DM-41 surface																	
14-8370	DM-41	2014	1	Phase I	5-10	1.20	<1	115.00	10.30	58.90	41.00	41.70	126.00	<0.02	<10	<10	<10	<10
14-8371 (Dup)	DM-41	2014	1	Phase I	5-10	1.40	<1	125.00	11.10	79.00	27.00	46.50	177.00	<0.02	<10	<10	<10	<10
DM-41 (0-15)	DM-41	2015	2	Phase I	0-15	1.40	<0.5	178.00	15.10	171.00	27.50	51.80	351.00	<0.05	<7	<4	43	<6
DM-41A	DM-41	2016	3	Phase I	0-15	<1	<0.5	135.00	10.80	64.90	17.10	39.40	111.00	<0.05	<7	54	295	<6
DM-41 Shallow	DM-41	2017	4	Phase I	0-15	<1	<0.5	116.00	10.80	70.00	11.30	41.90	118.00	<0.05	<7	<4	<8	<6
DM-41S	DM-41	2018	5	Phase I	0-15	<1	<0.5	150.00	14.00	69.00	12.00	61.00	128.00	<0.05	<7	5	42	<6
DM-41-S	DM-41	2023	10	Phase II	0-15	0.92	0.105	122.00	10.50	52.80	13.20	46.50	114.00	<0.010	<10	12	130	<50
	DM-41 depth																	
14-8372	DM-41	2014	1	Phase I	35-40	1.60	<1	179.00	16.30	76.40	15.00	72.70	174.00	<0.02	<10	<10	<10	<10
Not sampled - refusal	DM-41	2015	2	Phase I														
Not sampled - refusal	DM-41	2016	3	Phase I														
DM-41 Deep	DM-41	2017	4	Phase I	30-40	<1	<0.5	124.00	10.80	79.70	12.10	38.20	123.00	<0.05	<7	<4	<8	<6
DM-41D	DM-41	2018	5	Phase I	40-50	<1	<0.5	149.00	17.00	79.00	9.00	88.00	115.00	<0.05	<7	<4	<8	<6
DM-41-D	DM-41	2023	10	Phase II	40-50	0.59	0.084	110.00	11.30	44.50	6.44	60.00	94.00	<0.010	<10	<10	80	<50

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
Downgradient (Centre and East Lobes)																		
	DM-42 surface																	
14-8373	DM-42	2014	1	Phase I	5-10	3.80	<1	122.00	41.30	83.60	<10	146.00	177.00	<0.02	<10	<10	<10	<10
DM-42 (0-15)	DM-42	2015	2	Phase I	0-15	3.20	0.600	151.00	43.70	95.00	10.50	118.00	173.00	<0.05	<7	<4	<8	<6
DM-42A	DM-42	2016	3	Phase I	0-15	<1	<0.5	150.00	16.90	60.10	8.10	53.50	110.00	<0.05	<7	<4	<8	<6
DM-42 Shallow	DM-42	2017	4	Phase I	0-15	<1	<0.5	132.00	14.70	48.20	7.20	51.10	104.00	<0.05	<7	<4	<8	<6
DM-42S^	DM-42	2018	5	Phase I	0-15	<1	<0.5	180.00	16.00	66.00	6.00	49.00	134.00	<0.05	<7	<4	<8	<6
DM-42-S	DM-42	2023	10	Phase II	0-15	0.59	0.051	124.00	8.91	39.30	3.87	29.60	115.00	<0.010	<10	<10	<50	<50
	DM-42 depth																	
14-8374	DM-42	2014	1	Phase I	50-55	1.50	<1	144.00	12.40	69.30	<10	42.00	134.00	<0.02	<10	<10	<10	<10
DM-42 (40-50)	DM-42	2015	2	Phase I	40-50	1.80	<0.5	191.00	18.50	98.70	8.50	50.50	152.00	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-42	2016	3	Phase I														
DM-42 Deep	DM-42	2017	4	Phase I	20-30	<1	<0.5	156.00	14.10	81.30	8.60	46.00	125.00	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-42	2018	5	Phase I														
DM-42-D	DM-42	2023	10	Phase II	40-50	0.54	0.057	110.00	8.87	47.60	2.95	29.10	92.90	<0.010	<10	<10	<50	<50

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
Downgradient (Centre and East Lobes)																		
	DM-43 surface																	
14-8350	DM-43	2014	1	Phase I	5-10	1.20	<1	95.00	10.40	33.00	<10	37.00	61.00	<0.02	<10	<10	<10	<10
14-8351 (Dup)	DM-43	2014	1	Phase I	5-10	0.90	<1	125.00	13.50	45.80	<10	53.00	85.00	<0.02	<10	<10	<10	<10
DM-43 (0-15)	DM-43	2015	2	Phase I	0-15	1.00	<0.5	127.00	15.40	48.90	5.90	44.40	79.80	<0.05	<7	<4	<8	<6
DM-43A	DM-43	2016	3	Phase I	0-15	<1	<0.5	122.00	14.90	54.70	7.00	44.30	70.90	<0.05	<7	<4	<8	<6
DM-43 Shallow	DM-43	2017	4	Phase I	0-15	<1	<0.5	135.00	14.60	61.10	7.40	45.50	81.50	<0.05	<7	<4	<8	<6
DM-43S	DM-43	2018	5	Phase I	0-5	<1	<0.5	39.00	34.00	107.00	2.00	167.00	33.00	<0.05	<7	<4	<8	<6
DM-43-S	DM-43	2023	10	Phase II	0-15	0.44	0.050	80.40	11.00	28.80	2.39	45.70	57.20	<0.010	<10	<10	<50	<50
	DM-43 depth																	
14-8352	DM-43	2014	1	Phase I	45-50	0.90	<1	111.00	12.20	38.20	<10	47.60	79.00	<0.02	<10	<10	<10	<10
DM-43 (20-30)	DM-43	2015	2	Phase I	20-30	1.10	<0.5	119.00	13.80	39.80	5.10	38.20	73.30	<0.05	<7	<4	<8	<6
DM-43 (20-30) (Interlab)	DM-43	2015	2	Phase I	20-30	<1	<0.5	105.00	11.00	37.00	3.00	34.00	71.00	<0.05	<5	<4	<8	<6
Not sampled - refusal	DM-43	2016	3	Phase I														
DM-43 Deep	DM-43	2017	4	Phase I	40-50	<1	<0.5	121.00	13.60	53.80	6.40	42.60	71.10	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-43	2018	5	Phase I														
DM-43-D	DM-43	2023	10	Phase II	40-50	0.32	<0.050	70.40	9.23	25.30	1.63	36.50	46.70	<0.010	<10	<10	<50	<50

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
Downgradient (Centre and East Lobes)																		
	DM-44 surface																	
14-8353	DM-44	2014	1	Phase I	5-10	3.70	<1	193.00	12.60	106.70	<10	40.70	184.00	<0.02	<10	<10	<10	<10
DM-44 (0-15)	DM-44	2015	2	Phase I	0-15	7.00	0.600	239.00	10.10	244.00	13.30	26.40	222.00	<0.05	<7	<4	<8	<6
DM-44A	DM-44	2016	3	Phase I	0-15	<1	<0.5	161.00	14.70	79.80	8.50	52.70	125.00	<0.05	<7	<4	<8	<6
DM-44 Shallow	DM-44	2017	4	Phase I	0-15	3.40	<0.5	159.00	10.60	145.00	13.60	44.90	147.00	<0.05	<7	<4	9	<6
Not sampled - frozen	DM-44	2018	5	Phase I														
DM-44-S	DM-44	2023	10	Phase II	0-15	2.88	0.189	154.00	7.10	113.00	7.16	22.30	153.00	<0.010	<10	<10	<50	<50
	DM-44 depth																	
14-8354	DM-44	2014	1	Phase I	45-50	4.90	<1	180.00	11.30	194.40	11.00	50.70	174.00	<0.02	<10	<10	15	<10
Not sampled - refusal	DM-44	2015	2	Phase I														
Not sampled - refusal	DM-44	2016	3	Phase I														
DM-44 Deep	DM-44	2017	4	Phase I	30-40	4.40	<0.5	175.00	10.50	162.00	13.20	40.60	179.00	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-44	2018	5	Phase I														
DM-44-D	DM-44	2023	10	Phase II	40-50	2.47	0.138	137.00	8.18	105.00	6.24	31.70	140.00	<0.010	<10	<10	<50	<50

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
Downgradient (Centre and East Lobes)																		
	DM-45 surface																	
14-8355	DM-45	2014	1	Phase I	5-10	2.20	<1	173.00	21.40	114.90	10.00	97.70	162.00	<0.02	<10	<10	<10	<10
DM-45 (0-15)	DM-45	2015	2	Phase I	0-15	1.70	<0.5	178.00	26.50	141.00	11.50	103.00	158.00	<0.05	<7	<4	<8	<6
DM-45A	DM-45	2016	3	Phase I	0-15	<1	<0.5	187.00	37.10	157.00	12.60	129.00	166.00	<0.05	<7	<4	<8	<6
DM-45 Shallow	DM-45	2017	4	Phase I	0-15	<1	<0.5	173.00	15.80	131.00	20.10	105.00	179.00	<0.05	<7	<4	<8	<6
DM-45S	DM-45	2018	5	Phase I	0-5	<1	<0.5	31.00	31.00	106.00	2.00	155.00	26.00	<0.05	<7	<4	<8	<6
DM-45-S	DM-45	2023	10	Phase II	0-15	0.76	0.124	159.00	38.20	75.30	9.43	120.00	152.00	<0.010	<10	<10	<50	<50
DM-45-S (Interlab)	DM-45	2023	10	Phase II	0-15									<0.010				
	DM-45 depth																	
14-8357	DM-45	2014	1	Phase I	45-50	1.80	<1	189.00	17.10	103.80	11.00	101.60	159.00	<0.02	<10	<10	<10	<10
Not sampled - refusal	DM-45	2015	2	Phase I														
Not sampled - refusal	DM-45	2016	3	Phase I														
DM-45 Deep	DM-45	2017	4	Phase I	40-50	<1	<0.5	163.00	14.70	92.40	12.90	84.10	208.00	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-45	2018	5	Phase I														
DM-45-D	DM-45	2023	10	Phase II	40-50	1.11	0.070	171.00	16.30	123.00	10.40	79.90	183.00	<0.010	<10	<10	<50	<50
MW23-S-160 (Dup)	DM-45	2023	10	Phase II	40-50	1.57	<0.050	173.00	16.40	123.00	11.30	79.20	183.0	<0.010	<10	<10	<50	<50

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
Downgradient (Centre and East Lobes)																		
	DM-46 surface																	
14-8358	DM-46	2014	1	Phase I	5-10	3.90	<1	146.00	14.10	69.90	18.00	80.60	102.0	<0.02	<10	<10	13	<10
14-8359 (Interlab)	DM-46	2014	1	Phase I	5-10	3.80	<0.5	167.00	15.90	79.30	18.80	79.40	113.0	<0.10	<5	<10	81	<50
DM-46 (0-15)	DM-46	2015	2	Phase I	0-15	5.05	<0.5	162.00	15.90	116.00	13.40	58.40	139.0	<0.05	<7	<4	<8	<6
DM-46 (0-15) (Interlab)	DM-46	2015	2	Phase I	0-15	5.00	<0.5	159.00	12.00	128.00	9.00	49.00	148.0	<0.05	<5	<4	<8	<6
DM-46A	DM-46	2016	3	Phase I	0-15	<1	<0.5	147.00	11.60	112.00	16.70	49.40	109.0	0.450	<7	<4	91	15
DM-46 Shallow	DM-46	2017	4	Phase I	0-15	<1	<0.5	163.00	14.80	85.20	26.80	71.00	120.0	<0.05	<7	48	196	24
Not sampled - frozen	DM-46	2018	5	Phase I														
DM-46-S	DM-46	2023	10	Phase II	0-15	1.92	0.107	129.00	12.60	61.70	11.10	60.10	103.0	<0.010	<10	<10	<50	<50
	DM-46 depth																	
14-8360	DM-46	2014	1	Phase I	45-50	10.10	<1	144.00	7.80	144.80	<10	45.10	141.0	<0.02	<10	<10	<10	<10
14-8361 (Dup)	DM-46	2014	1	Phase I	45-50	12.20	<1	179.00	7.90	175.80	11.00	46.10	175.0	<0.02	<10	<10	<10	<10
DM-46 (40-50)	DM-46	2015	2	Phase I	40-50	7.50	<0.5	158.00	11.50	139.00	12.40	44.30	128.0	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-46	2016	3	Phase I														
DM-46 Deep	DM-46	2017	4	Phase I	40-50	<1	<0.5	149.00	14.10	107.00	20.50	61.30	126.0	<0.05	<7	24	76	11
Not sampled - frozen	DM-46	2018	5	Phase I														
DM-46-S	DM-46	2023	10	Phase II	0-15	1.92	0.107	129.00	12.60	61.70	11.10	60.10	103.0	<0.010	<10	<10	<50	<50

DYE-M Upper Site West Landfill - Summary of Soil Monitoring Analytical Data

Link to: Table of Contents

Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
Downgradient (Centre and East Lobes)																		
	DM-48 surface																	
14-8347	DM-48	2014	1	Phase I	5-10	14.90	<1	449.00	36.20	133.30	16.00	316.10	143.0	<0.02	<10	<10	16	<10
DM-48 (0-15)	DM-48	2015	2	Phase I	0-15	21.00	<0.5	496.00	52.80	115.00	29.70	344.00	134.0	<0.05	<7	<4	46	<6
DM-48 (0-15) (Interlab)	DM-48	2015	2	Phase I	0-15	19.00	<0.5	477.00	48.90	113.00	26.00	369.00	146.0	0.058	<5	22	170	16
DM-48A	DM-48	2016	3	Phase I	0-15	11.90	<0.5	301.00	27.10	96.60	11.30	223.00	131.0	<0.05	<7	<4	<8	<6
DM-48 Shallow	DM-48	2017	4	Phase I	0-15	25.20	<0.5	486.00	54.80	95.00	9.50	609.00	105.0	<0.05	<7	<4	29	<6
DM-48S	DM-48	2018	5	Phase I	0-15	12.00	<0.5	471.00	36.00	113.00	10.00	338.00	127.0	<0.05	<7	<4	32	16
DM-48-S	DM-48	2023	10	Phase II	0-15	18.80	0.138	451.00	37.10	79.90	4.92	333.00	88.6	<0.010	<10	<10	<50	<50
	DM-48 depth																	
14-8348	DM-48	2014	1	Phase I	45-50	11.80	<1	276.00	24.00	126.40	12.00	189.80	134.0	<0.02	<10	<10	<10	<10
14-8349 (Interlab)	DM-48	2014	1	Phase I	45-50	9.43	<0.5	284.00	24.10	138.00	17.30	182.00	159.0	<0.10	<5	<10	<50	<50
DM-48 (40-50)	DM-48	2015	2	Phase I	40-50	14.80	<0.5	311.00	39.30	152.00	16.80	221.00	131.0	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-48	2016	3	Phase I														
DM-48 Deep	DM-48	2017	4	Phase I	40-50	13.50	<0.5	503.00	46.80	94.80	9.40	399.00	119.0	<0.05	<7	<4	<8	<6
DM-948 Deep (Dup)	DM-48	2017	4	Phase I	40-50	17.20	<0.5	600.00	53.90	109.00	10.00	472.00	135.0	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-48	2018	5	Phase I														
DM-48-D	DM-48	2023	10	Phase II	40-50	15.70	0.190	230.00	30.20	151.00	9.11	207.00	131.0	<0.010	<10	<10	<50	<50

DYE-M Upper Site West Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
Downgradient (Centre and East Lobes)																		
	DM-49 surface																	
14-8344	DM-49	2014	1	Phase I	5-10	1.00	<1	223.00	9.00	115.80	<10	36.50	148.0	<0.02	14	232	<10	<10
DM-49 (0-15)	DM-49	2015	2	Phase I	0-15	3.50	<0.5	219.00	18.00	105.00	13.80	75.90	137.0	<0.05	<7	92	75	<6
DM-49 (0-15) (Interlab)	DM-49	2015	2	Phase I	0-15	2.00	<0.5	220.00	17.10	109.00	15.00	88.00	157.0	<0.05	<5	61	28	<6
DM-49B	DM-49	2016	3	Phase I	0-15	<1	<0.5	195.00	17.20	111.00	13.90	75.70	120.0	<0.05	<7	<4	<8	<6
DM-49B (Interlab)	DM-49	2016	3	Phase I	0-15	3.00	<0.5	221.00	14.70	116.00	12.00	72.00	168.0	<0.05	<5	<10	<50	<50
DM-49 Shallow	DM-49	2017	4	Phase I	0-15	<1	<0.5	210.00	15.60	117.00	16.70	76.10	150.0	<0.05	<7	72	38	<6
DM-49S	DM-49	2018	5	Phase I	0-15	1.00	<0.5	163.00	21.00	100.00	10.00	106.00	114.0	<0.05	<7	<4	20	9
DM-49-S	DM-49	2023	10	Phase II	0-15	0.73	0.059	113.00	17.80	64.30	8.47	95.30	86.7	0.190	<10	12	78	<50
	DM-49 depth																	
14-8345	DM-49	2014	1	Phase I	45-50	0.90	<1	199.00	8.30	134.60	<10	31.10	148.0	<0.02	<10	<10	<10	<10
DM-49 (40-50)	DM-49	2015	2	Phase I	40-50	1.40	<0.5	174.00	20.50	90.60	11.90	87.60	114.0	<0.05	<7	90	37	<6
DM-49A	DM-49	2016	3	Phase I	30-40	<1	<0.5	172.00	16.00	100.00	11.80	70.70	108.0	<0.05	<7	<4	<8	<6
DM-49 Deep	DM-49	2017	4	Phase I	30-40	<1	<0.5	222.00	16.90	117.00	16.80	86.00	151.0	<0.05	<7	119	47	<6
DM-49D	DM-49	2018	5	Phase I	30-40	1.00	<0.5	175.00	19.00	86.00	11.00	100.00	107.0	<0.05	<7	<4	<8	<6
DM-49-D	DM-49	2023	10	Phase II	40-50	0.70	0.057	125.00	17.20	63.40	9.34	95.10	90.6	0.073	<10	29	51	<50

DYE-M Upper Site West Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	139.35	16.39	67.87	13.43	62.78	116.66	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	88.64	7.12	29.85	16.52	51.82	47.52	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	405.27	37.75	157.43	63.00	218.24	259.21	0.30	30.00	30.00	150.00	150.00
Downgradient (Centre and East Lobes; downgradient of West Landfill Centre Lobe A; upgradient of West Landfill Centre Lobe)																		
	DM-52 surface																	
14-8364	DM-52	2014	1	Phase I	5-10	0.60	<1	75.00	42.90	87.10	<10	293.40	61.0	<0.02	<10	<10	<10	<10
DM-52 (0-15)	DM-52	2015	2	Phase I	0-15	<1	<0.5	44.20	28.20	56.80	5.60	116.00	42.9	<0.05	<7	<4	<8	<6
DM-52A	DM-52	2016	3	Phase I	0-15	<1	<0.5	43.60	34.30	70.00	7.90	209.00	44.6	<0.05	<7	<4	75	21
DM-52 Shallow	DM-52	2017	4	Phase I	0-15	<1	<0.5	45.30	37.90	62.00	6.60	226.00	42.3	<0.05	<7	<4	11	<6
DM-952 Shallow (Dup)	DM-52	2017	4	Phase I	0-15	<1	<0.5	42.10	32.70	63.20	5.80	229.00	42.9	<0.05	<7	<4	11	<6
Not sampled - frozen	DM-52	2018	5	Phase I														
DM-52-S	DM-52	2023	10	Phase II	0-15	0.52	0.064	67.30	26.30	53.10	9.97	142.00	60.0	0.024	<10	<10	230	<50
	DM-52 depth																	
14-8365	DM-52	2014	1	Phase I	40-45	0.70	<1	61.00	34.10	78.10	<10	215.00	55.0	<0.02	<10	<10	17	<10
Not sampled - refusal	DM-52	2015	2	Phase I														
Not sampled - refusal	DM-52	2016	3	Phase I														
DM-52 Deep	DM-52	2017	4	Phase I	20-30	<1	<0.5	44.00	34.00	64.80	5.00	241.00	40.4	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-52	2018	5	Phase I														
DM-52-D	DM-52	2023	10	Phase II	40-50	0.39	0.076	72.50	28.00	56.50	10.20	168.00	65.8	0.063	<10	<10	250	<50

N/A = not analyzed

If a monitoring location is upgradient of one lobe but downgradient to another lobe of the same landfill, it is considered a downgradient location.

Legend

XX	Sample exceeds baseline mean
XX	Sample exceeds baseline data with variation

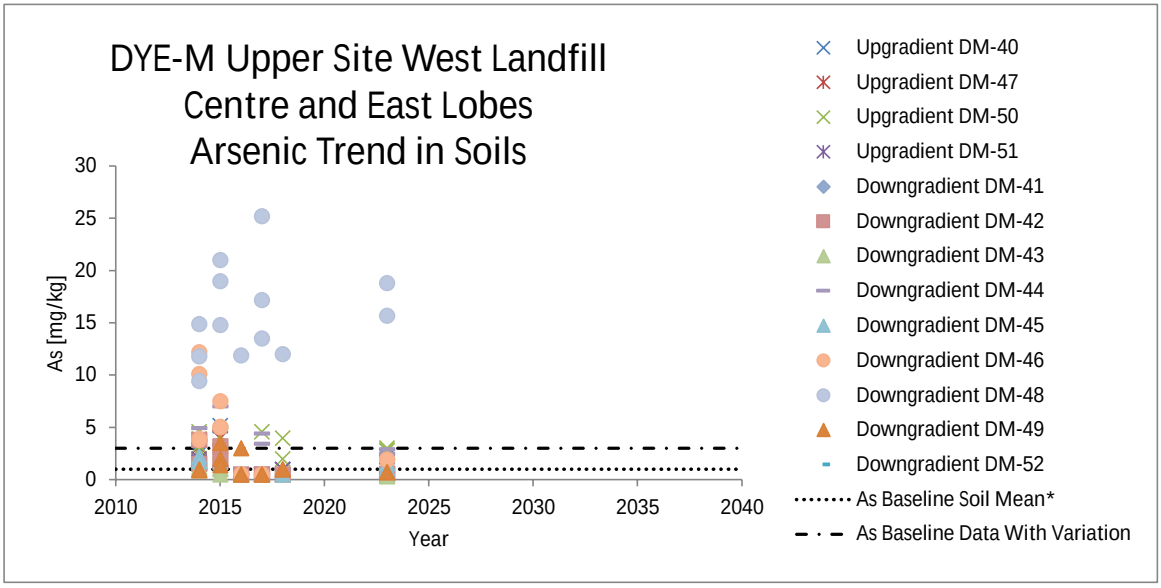
DYE-M Upper Site West Landfill Trends in Soil Inorganics, PCBs and PHCs

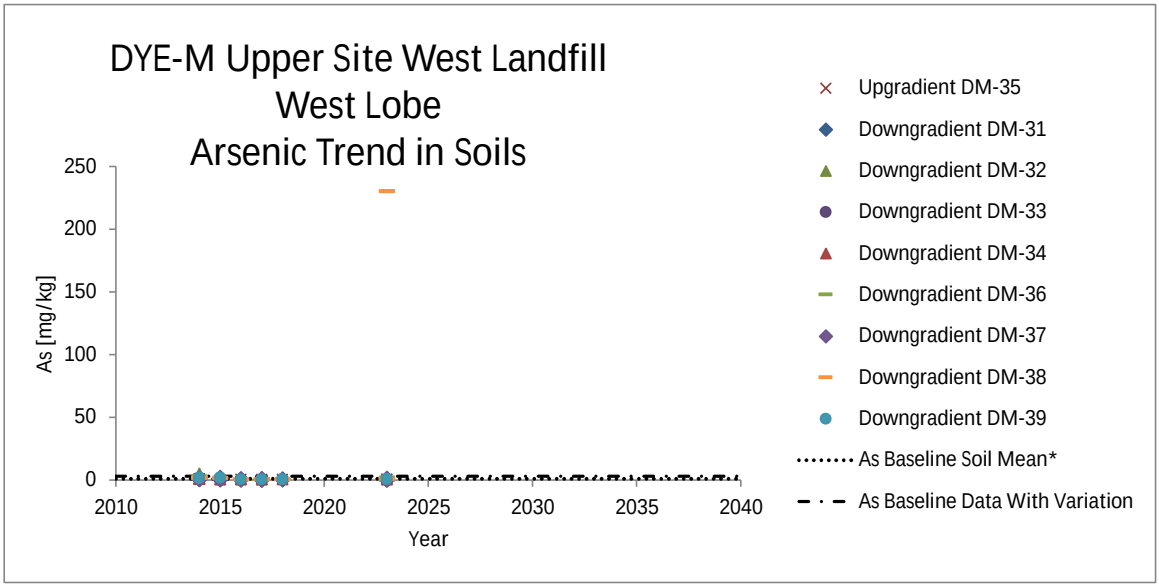
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





* As baseline arithmetic mean is equal to the baseline detection limit

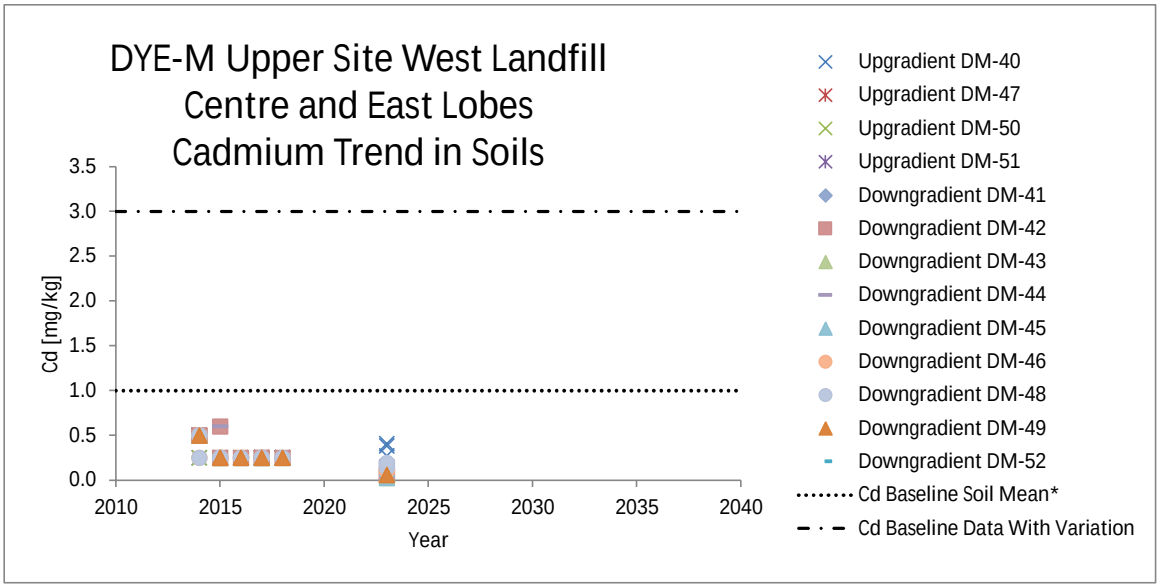
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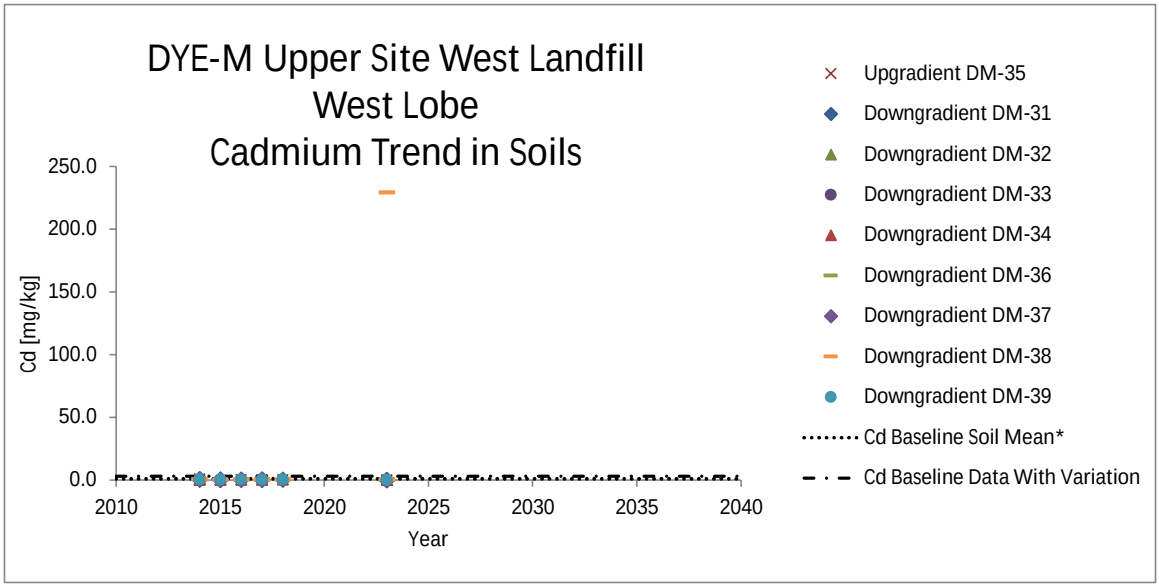
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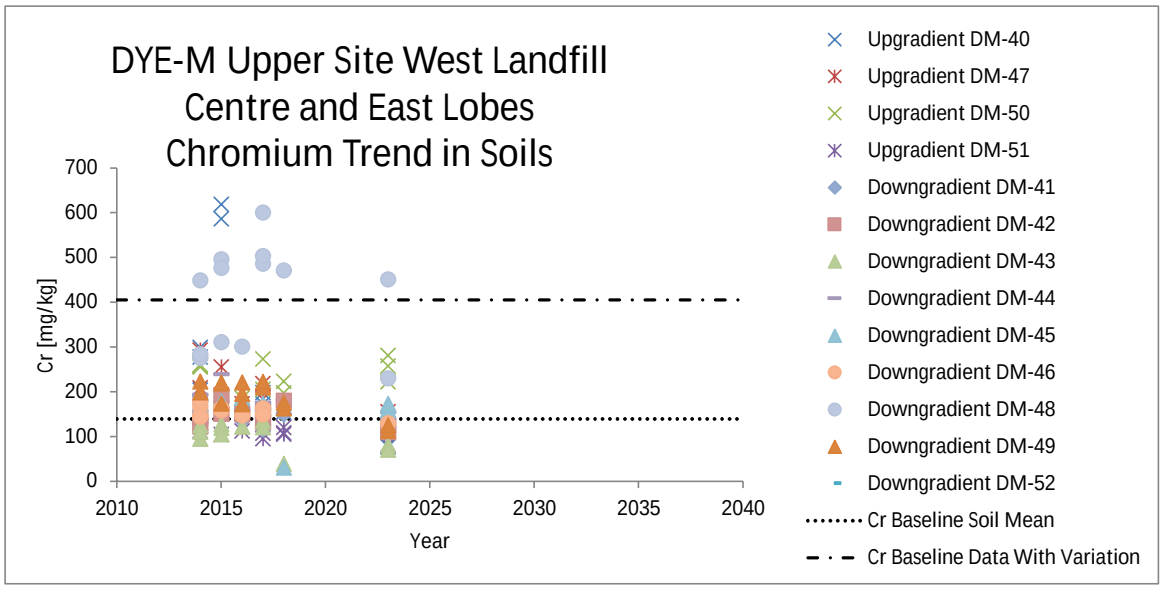
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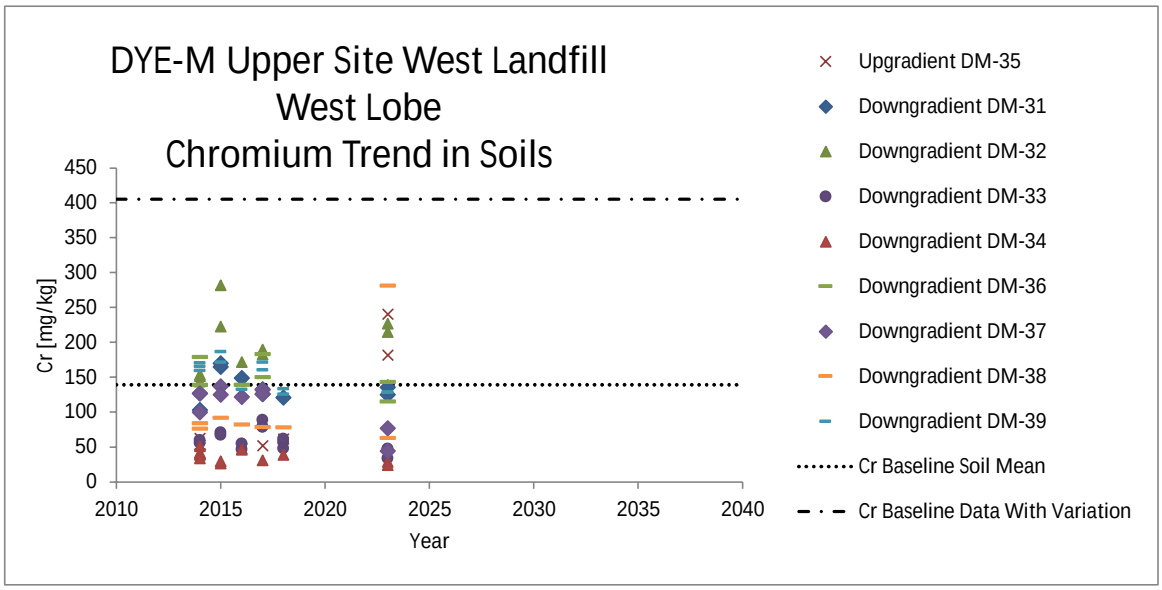
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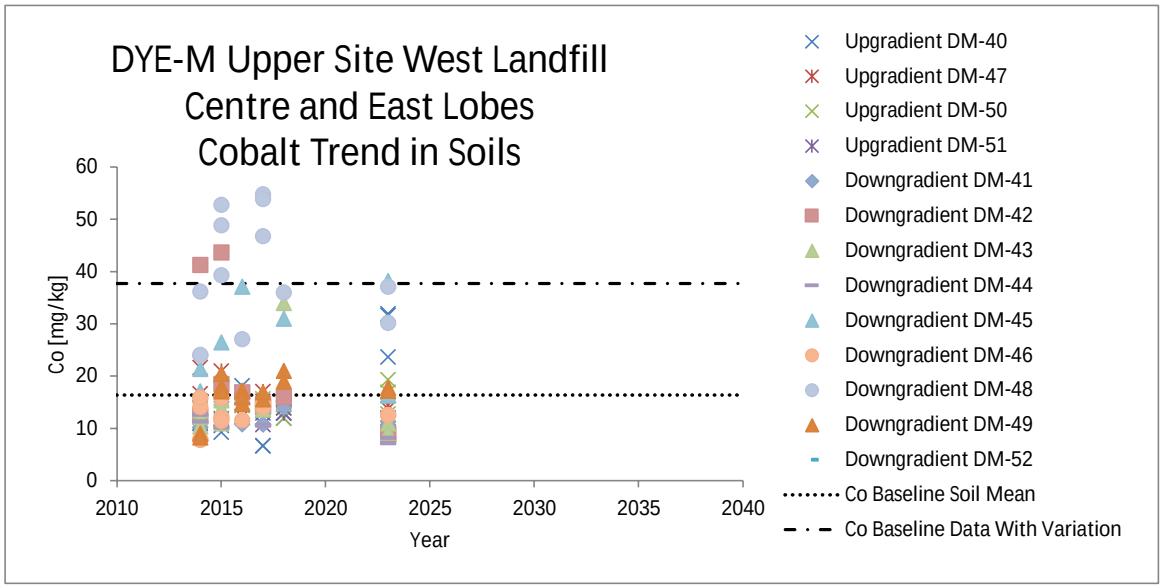
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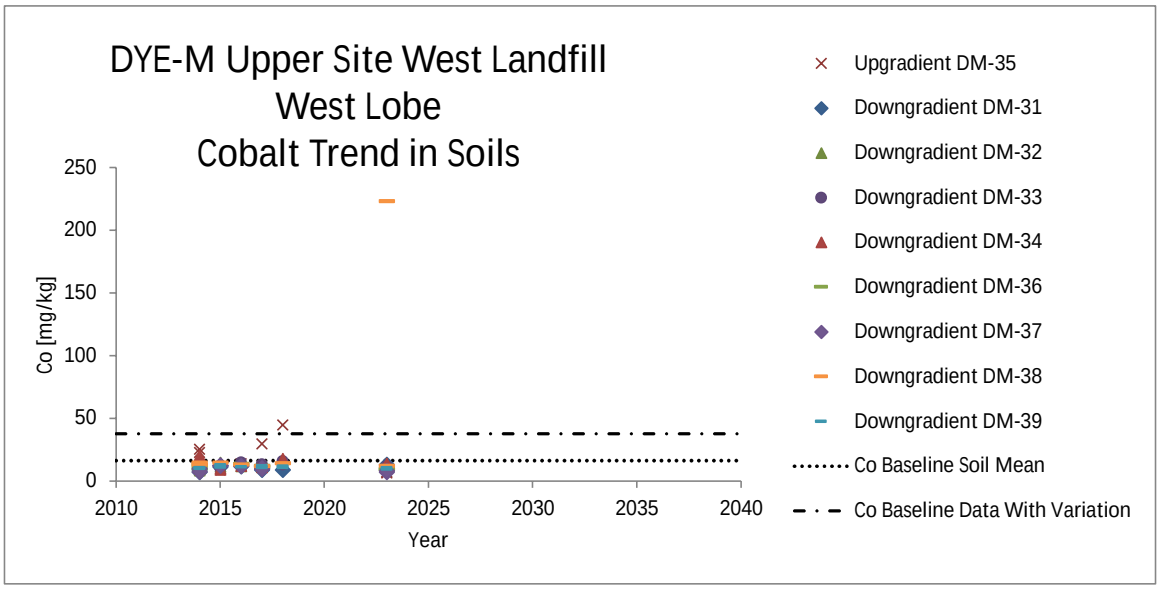
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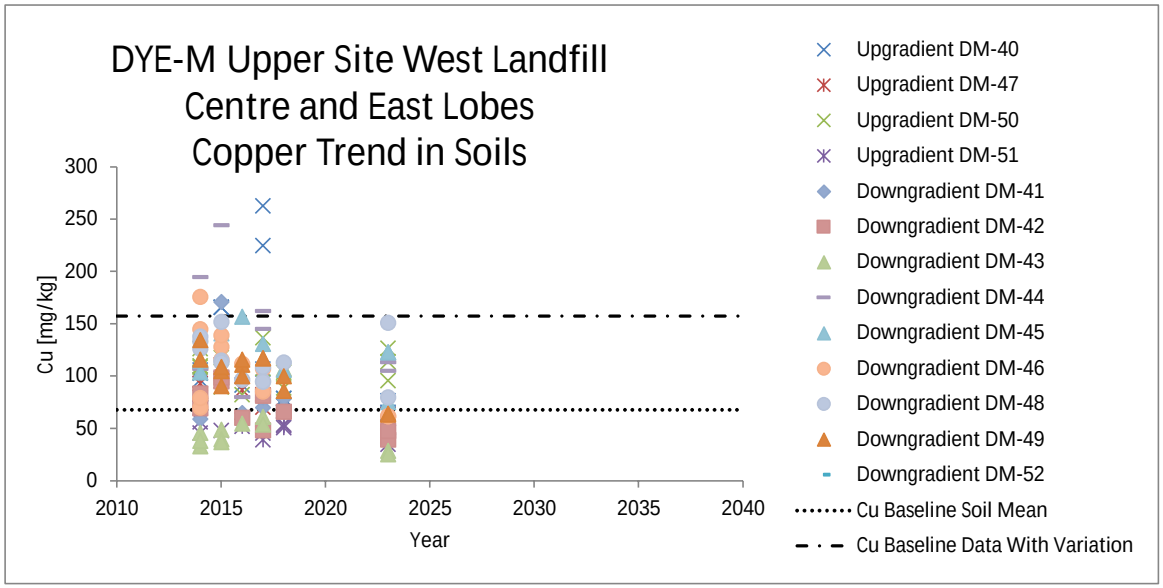
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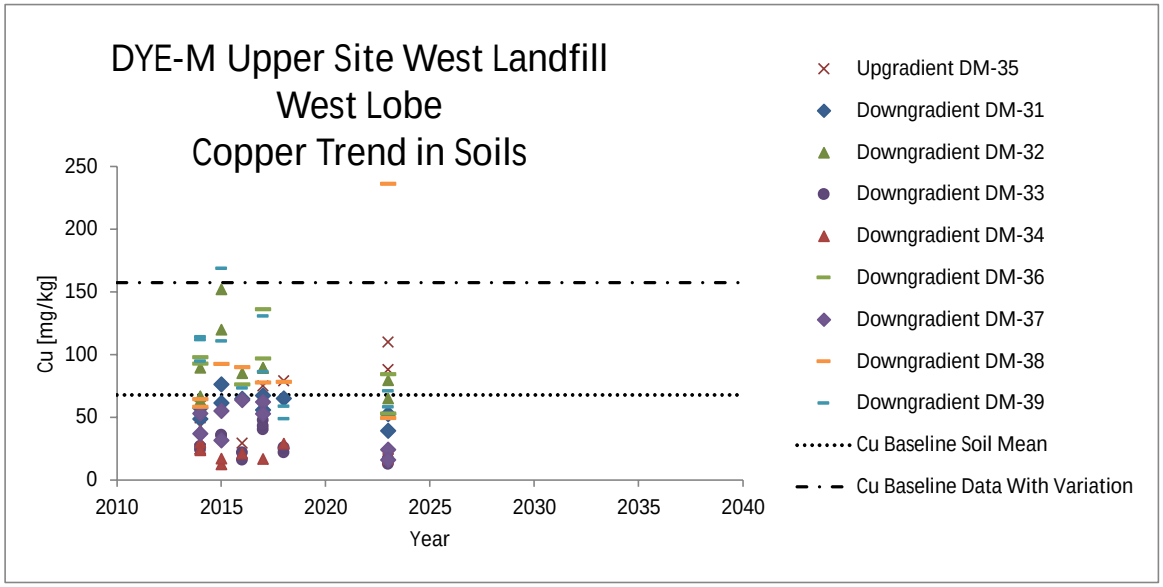
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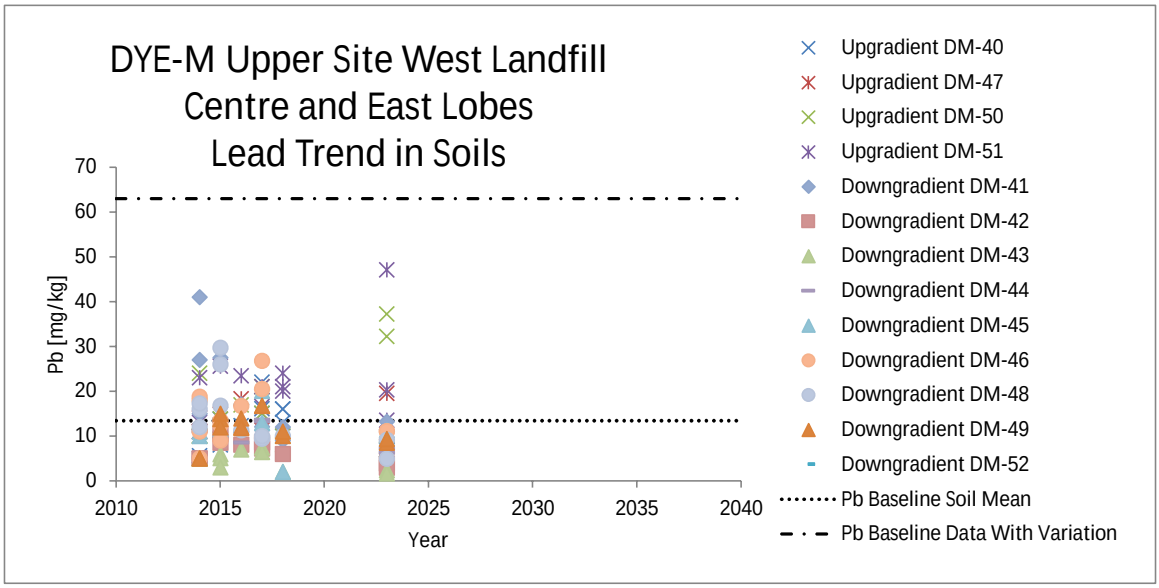
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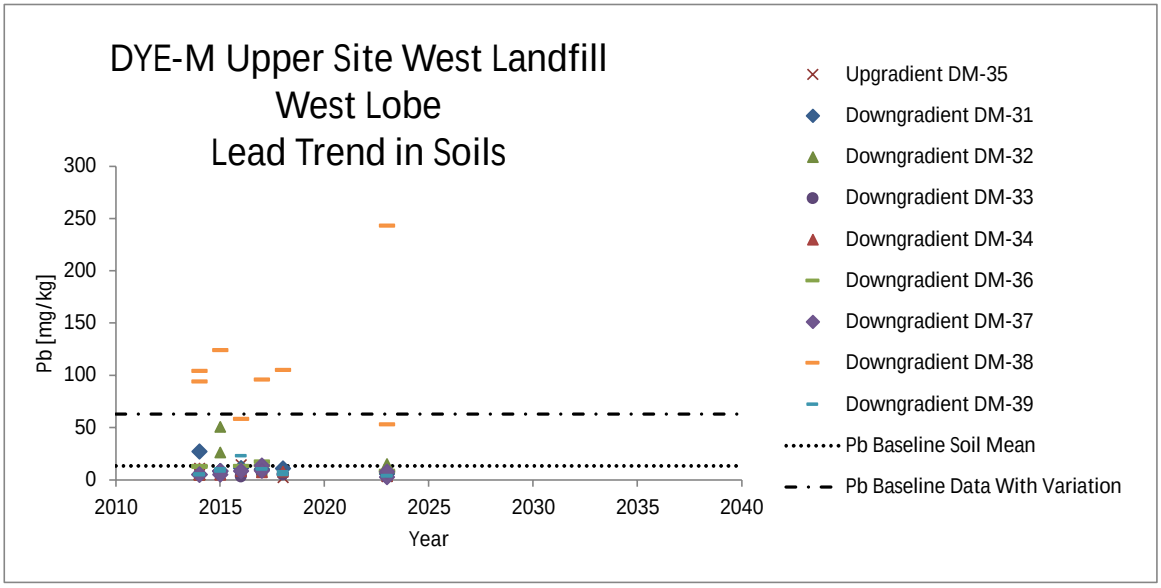
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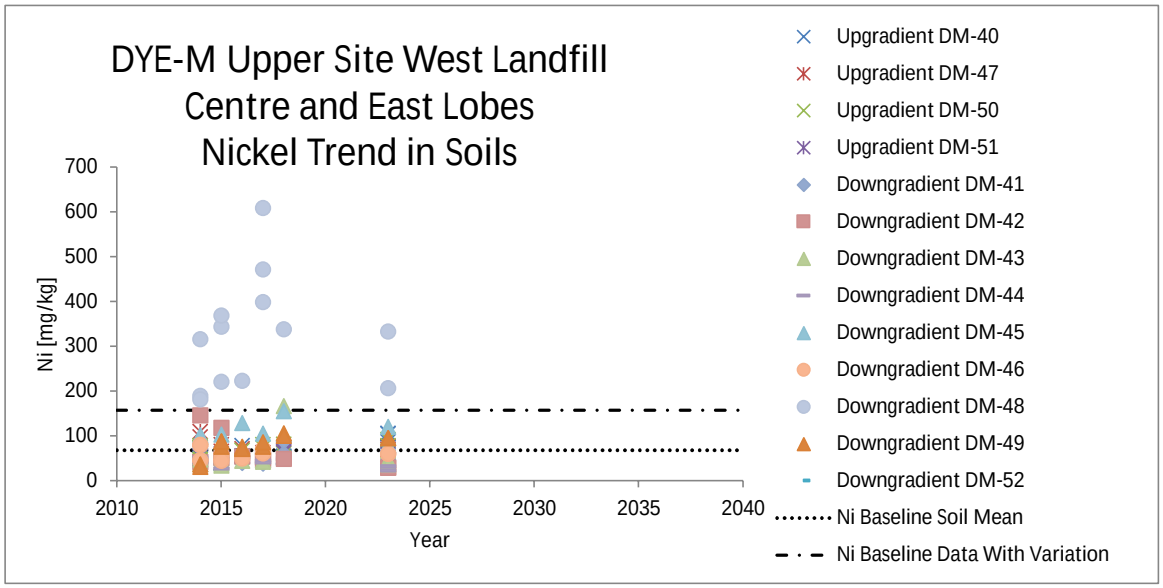
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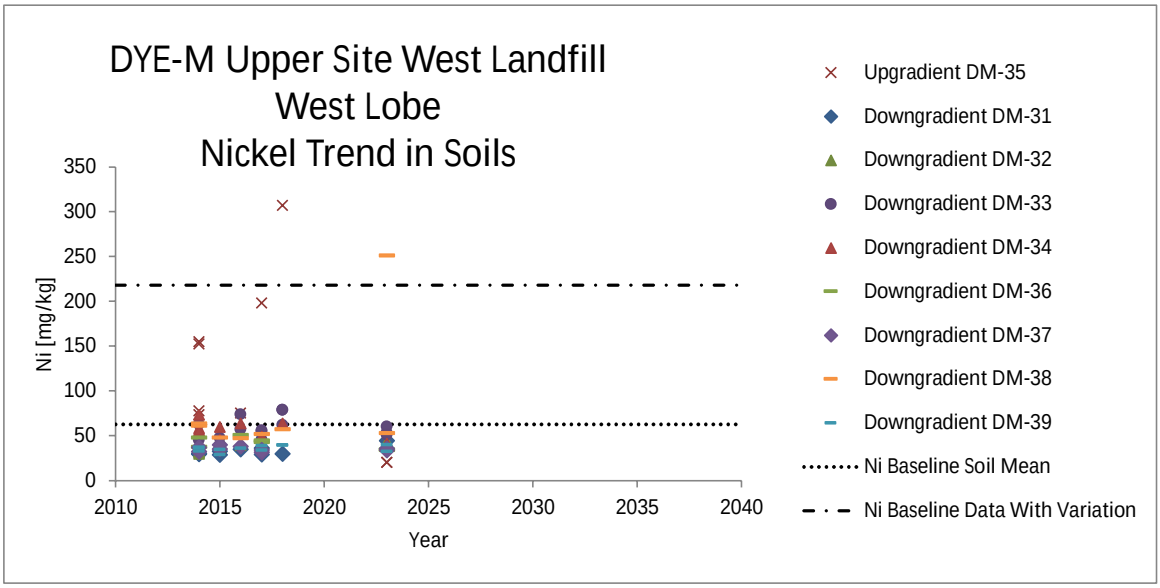
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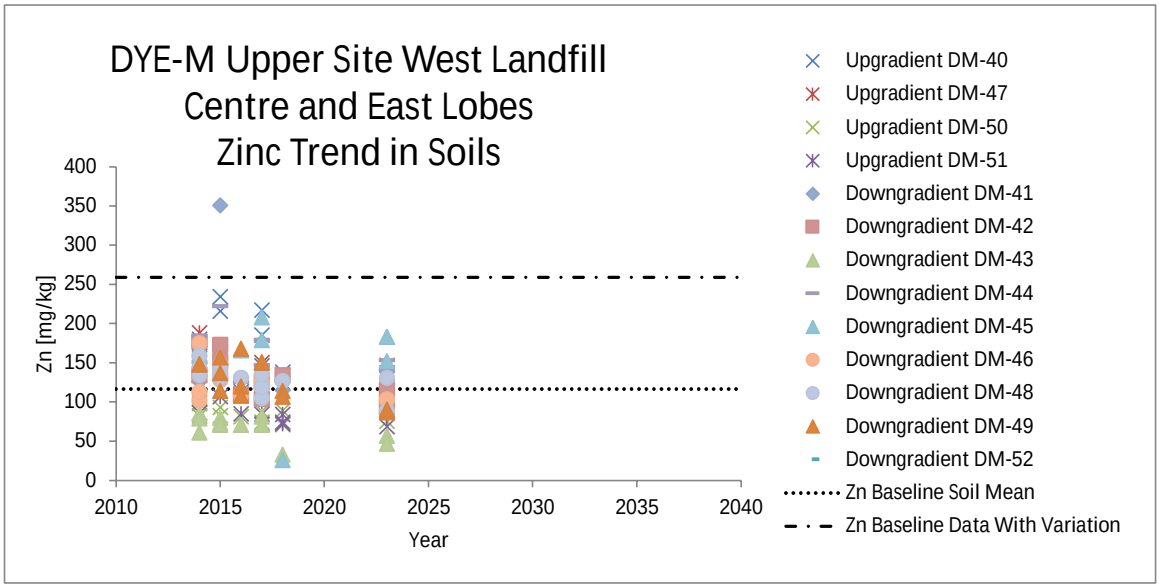
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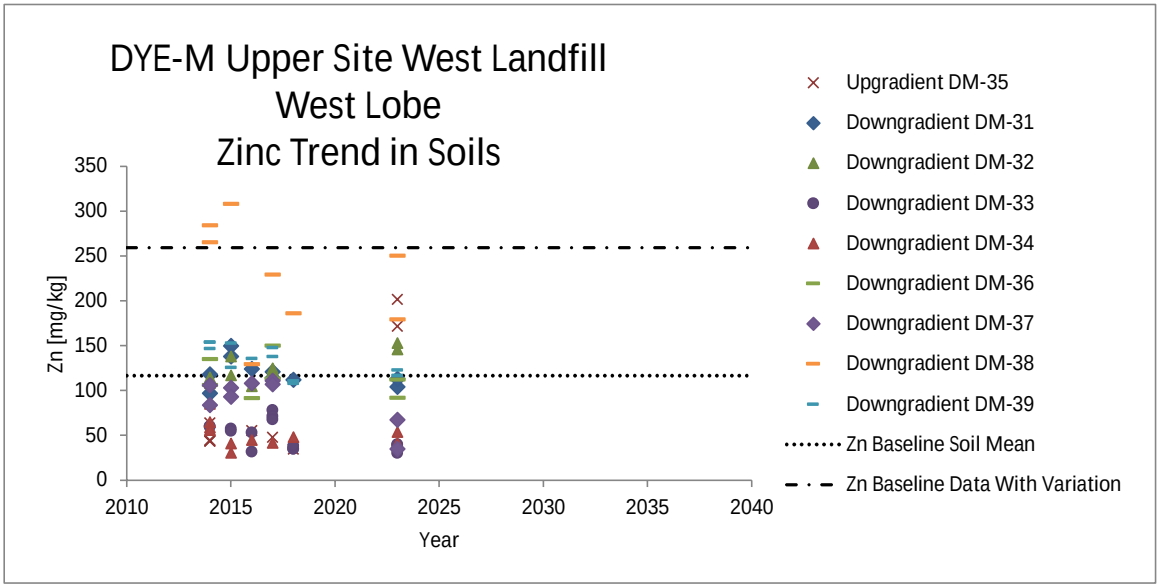
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Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





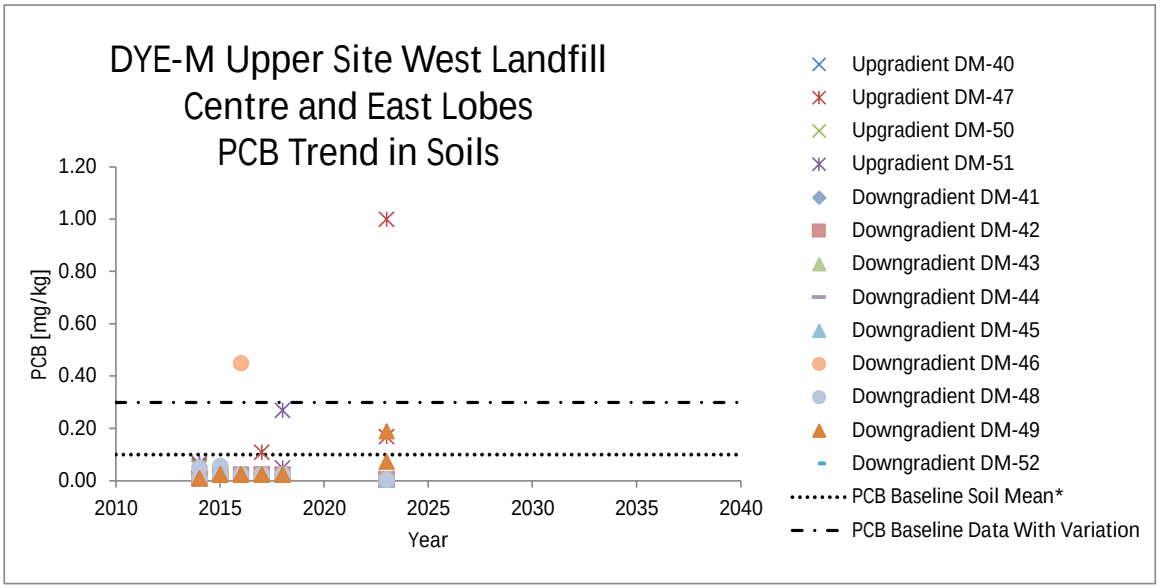
DYE-M Upper Site West Landfill Trends in Soil Inorganics, PCBs and PHCs

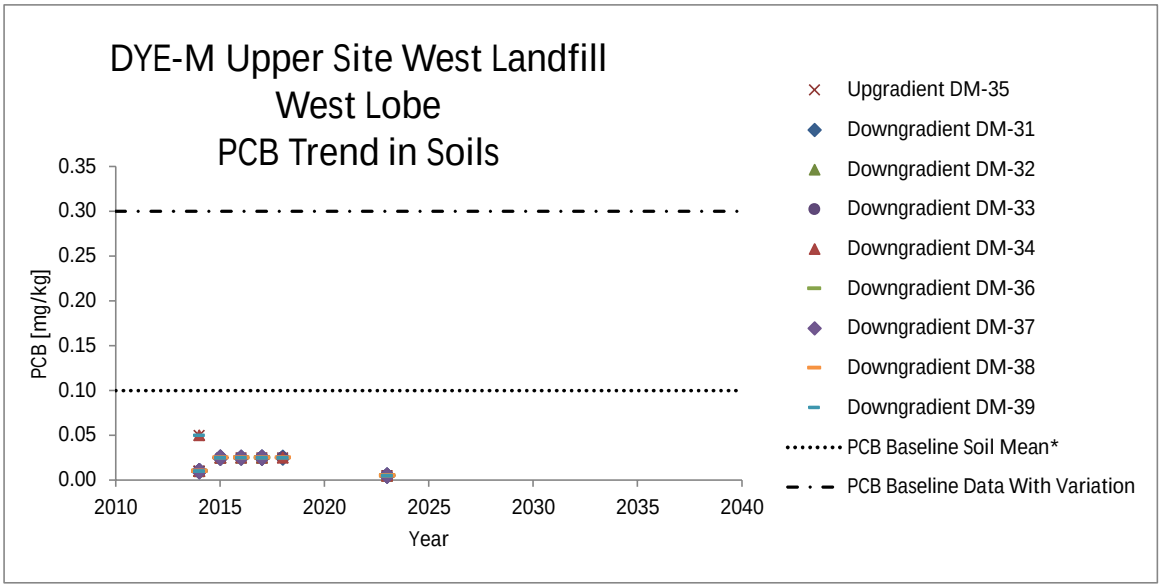
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

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* PCB baseline arithmetic mean is equal to the baseline detection limit

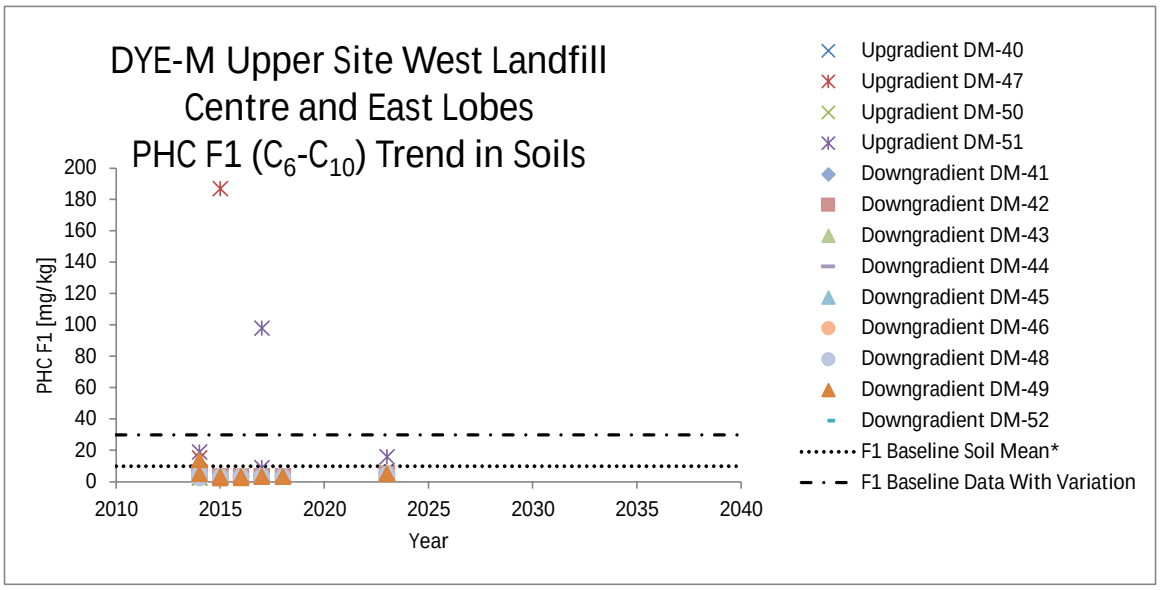
DYE-M Upper Site West Landfill Trends in Soil Inorganics, PCBs and PHCs

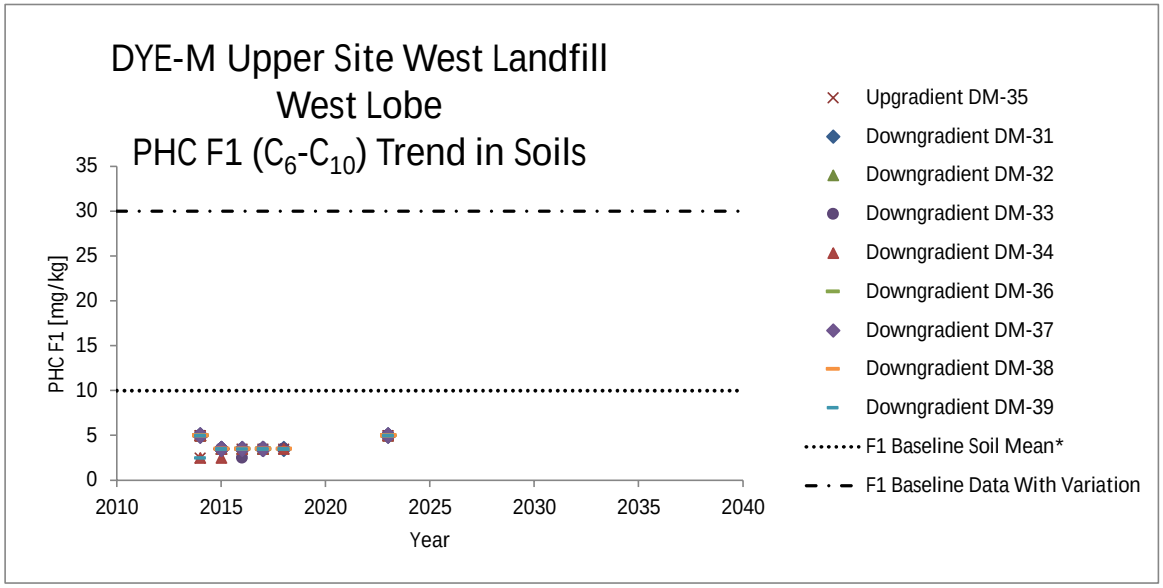
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





* F1 baseline arithmetic mean is equal to the detection limit

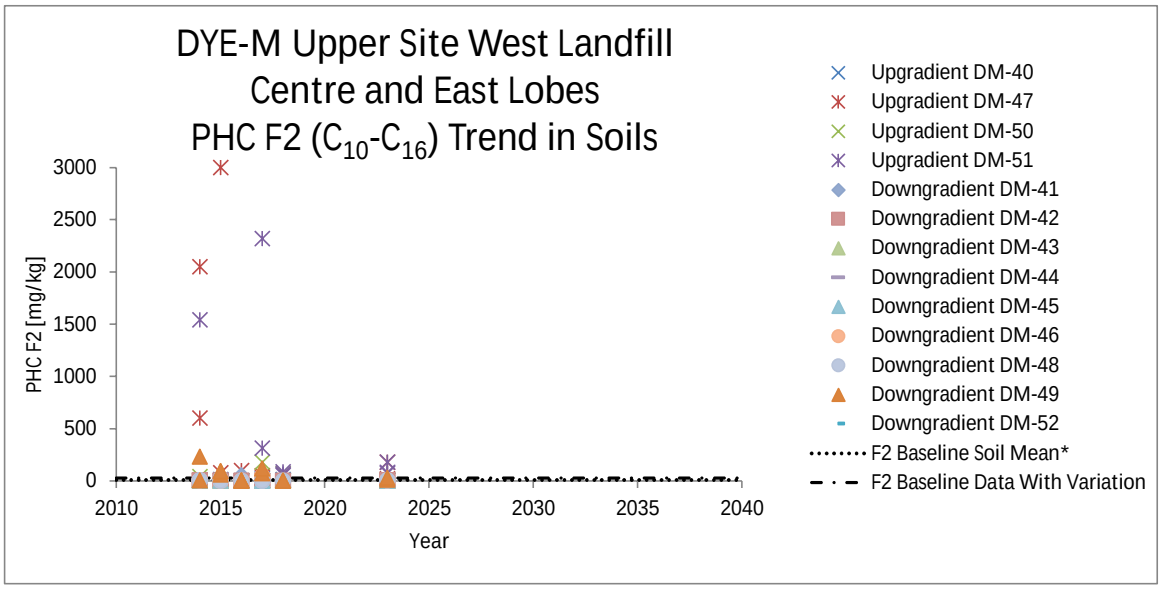
DYE-M Upper Site West Landfill Trends in Soil Inorganics, PCBs and PHCs

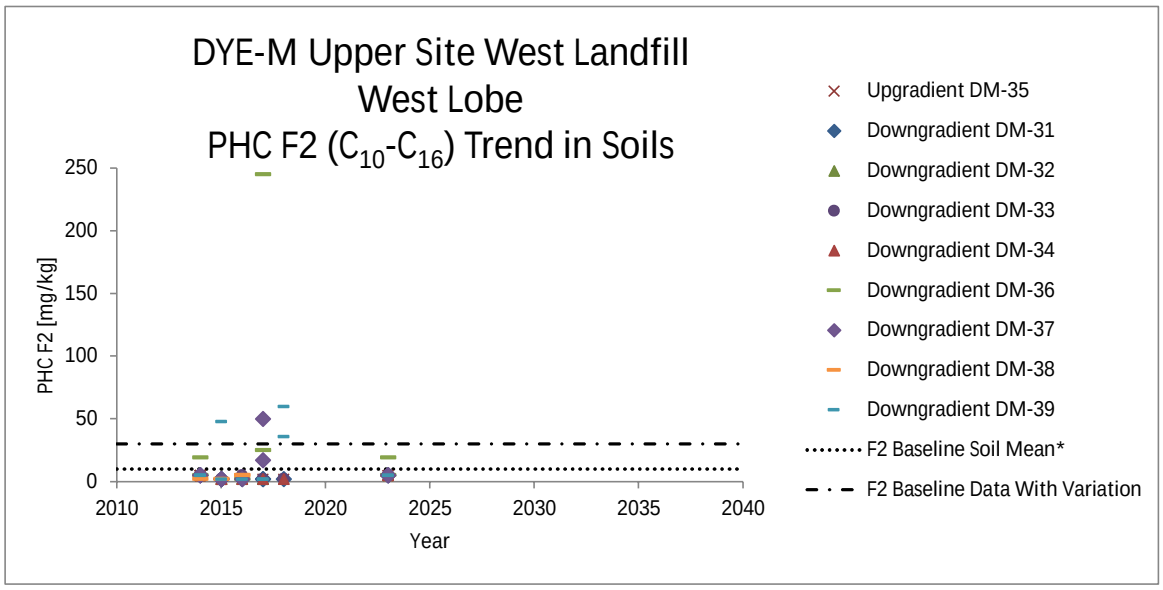
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





* F2 baseline arithmetic mean is equal to the detection limit

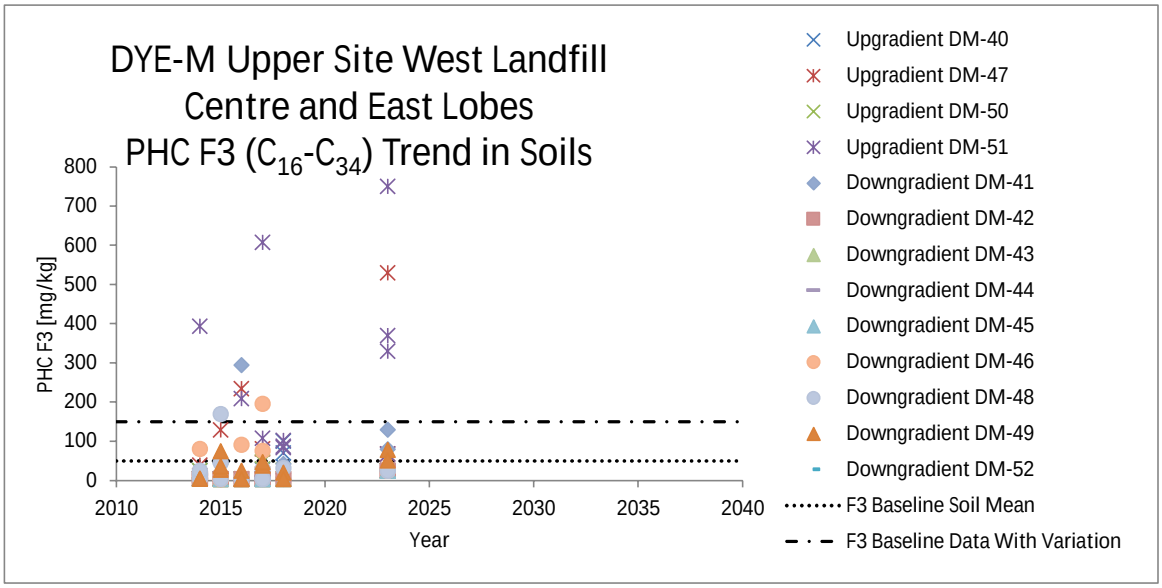
DYE-M Upper Site West Landfill Trends in Soil Inorganics, PCBs and PHCs

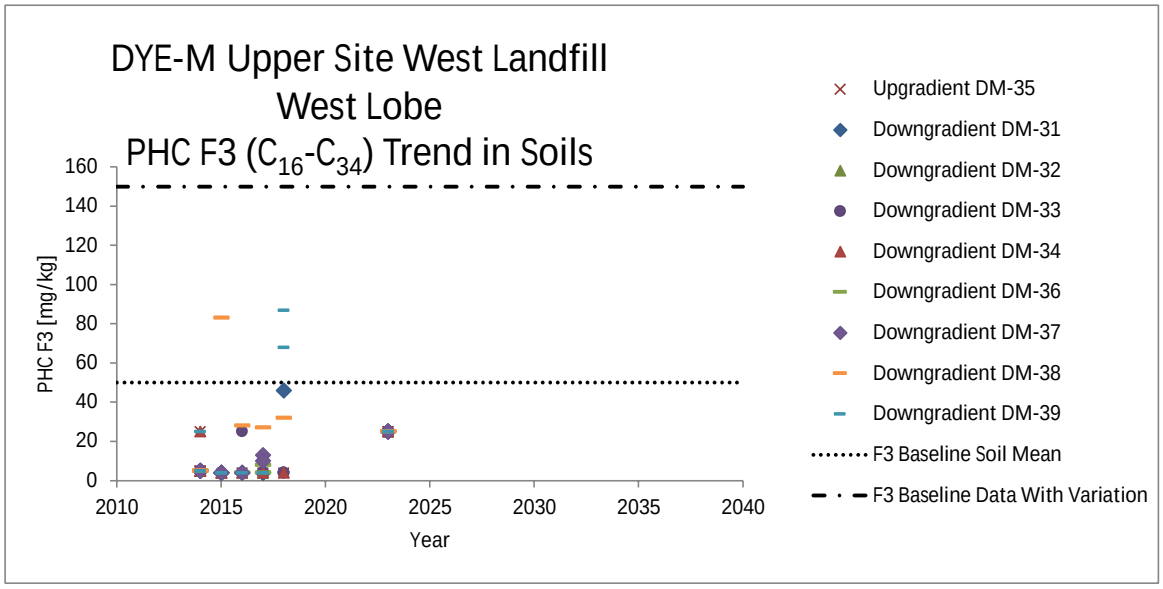
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





* F3 baseline arithmetic mean is equal to the detection limit

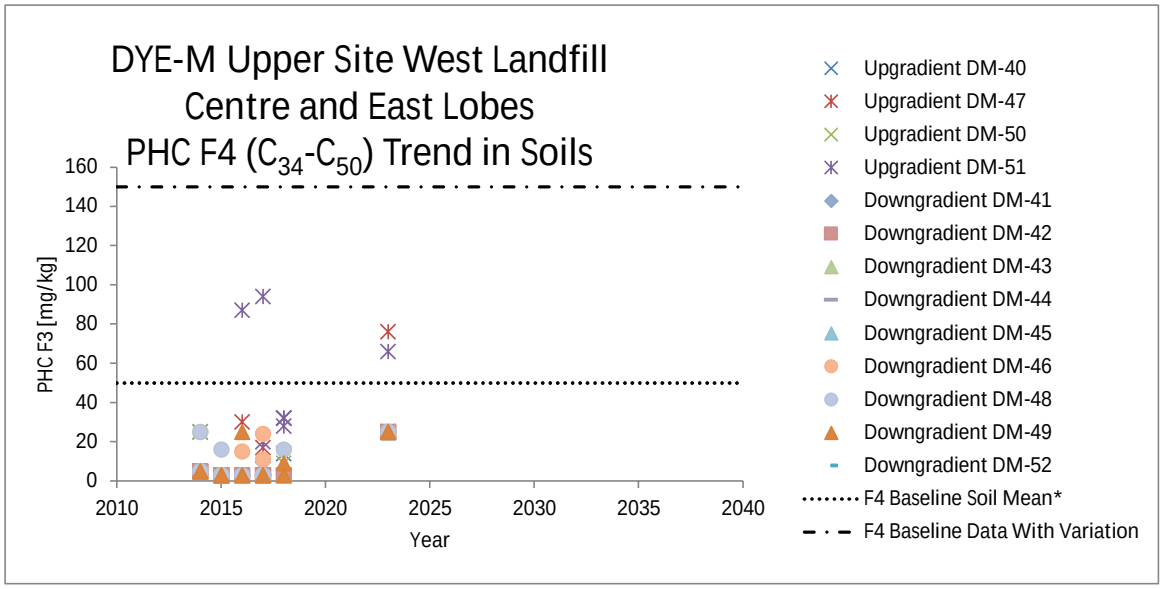
DYE-M Upper Site West Landfill Trends in Soil Inorganics, PCBs and PHCs

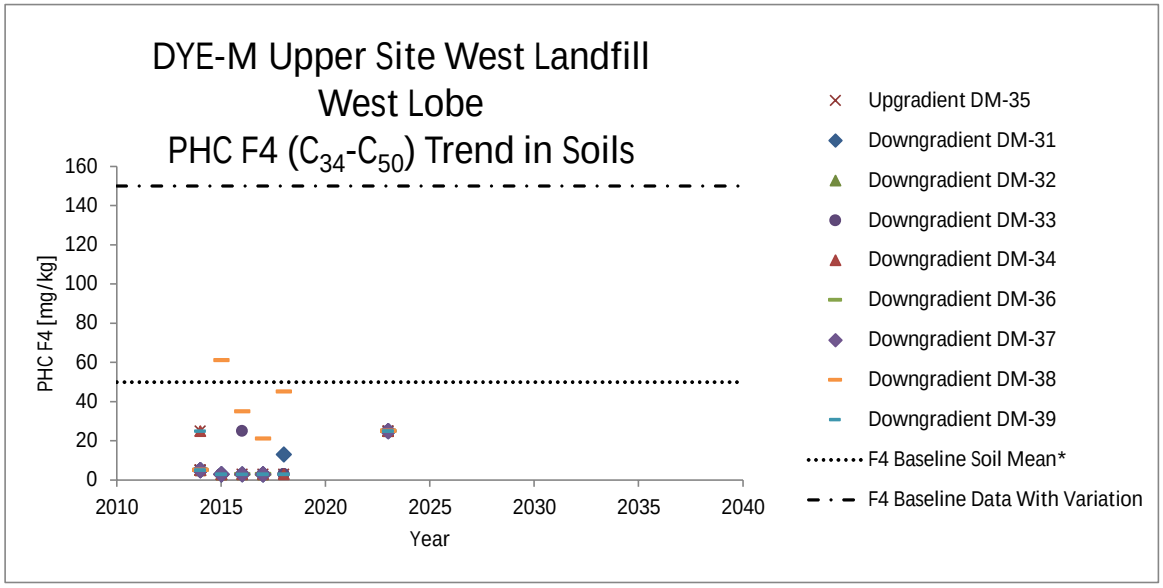
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





* F4 baseline arithmetic mean is equal to the detection limit

DYE-M Upper Site Pallet Line Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	70.45	16.65	36.63	20.45	74.35	73.92	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	35.40	9.78	17.02	23.14	25.01	32.42	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	176.65	45.99	87.69	89.86	149.37	171.17	0.30	30.00	30.00	150.00	150.00
** If baseline or background arithmetic mean was below the detection limit, the mean has been modified to match the detection limit value.*																		
DEW Line Cleanup Tier I Criteria											*200*			*1*				
DYE-M Upper Site Site-Specific Criteria and DEW Line Cleanup Tier II Criteria						*30*	*5*	*250*	*153*	*296*	*500*	*2010*	*500*	*5*				
Monitoring Data																		
Upgradient																		
	DM-60 surface																	
14-8410	DM-60	2014	1	Phase I	5-10	0.75	<1	52.00	15.80	33.80	<10	87.10	58.00	<0.02	<10	<10	<10	<10
14-8411 (Dup)	DM-60	2014	1	Phase I	5-10	0.70	<1	51.00	15.70	17.30	<10	82.60	59.00	<0.02	<10	<10	<10	<10
DM-60 (0-15)	DM-60	2015	2	Phase I	0-15	1.30	<0.5	51.50	18.30	27.10	9.10	87.50	61.00	<0.05	<7	<4	<8	<6
DM-60A	DM-60	2016	3	Phase I	0-15	<1	<0.5	60.00	20.70	30.90	8.80	113.00	56.00	<0.05	<7	<4	<8	<6
DM-60 Shallow	DM-60	2017	4	Phase I	0-15	<1	<0.5	42.00	16.30	20.90	9.30	90.90	50.10	<0.05	<7	<4	<8	<6
DM-60S	DM-60	2018	5	Phase I	0-15	<1	<0.5	47.00	18.00	23.00	9.00	109.00	34.00	<0.05	<7	<4	<8	<6
DM-60-S	DM-60	2023	10	Phase II	0-15	0.63	<0.050	22.80	9.39	12.50	11.00	40.90	40.40	<0.010	<10	<10	<50	<50
	DM-60 depth																	
14-8412	DM-60	2014	1	Phase I	40-45	1.00	<1	36.00	14.20	18.50	10.00	78.10	49.00	<0.02	<10	<10	<10	<10
DM-60 (40-50)	DM-60	2015	2	Phase I	40-50	1.20	<0.5	52.50	16.90	25.30	7.00	101.00	48.50	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-60	2016	3	Phase I														
Not sampled - refusal	DM-60	2017	4	Phase I														
DM-60D	DM-60	2018	5	Phase I	40-50	<1	<0.5	47.00	18.00	24.00	10.00	106.00	33.00	<0.05	<7	<4	<8	<6
DM-60-D	DM-60	2023	10	Phase II	40-50	0.53	<0.050	23.40	9.47	12.10	10.00	42.90	40.30	<0.010	<10	<10	<50	<50
DM-60-D	DM-60	2023	10	Phase II	40-50	0.49	<0.050	23.20	9.39	12.00	10.10	42.90	40.10		<10			

DYE-M Upper Site Pallet Line Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	70.45	16.65	36.63	20.45	74.35	73.92	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	35.40	9.78	17.02	23.14	25.01	32.42	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	176.65	45.99	87.69	89.86	149.37	171.17	0.30	30.00	30.00	150.00	150.00
Downgradient (also upgradient of Upper Site West Landfill)																		
	DM-50 surface																	
14-8338	DM-50	2014	1	Phase I	5-10	3.30	<1	260.00	13.60	103.90	24.00	79.10	82.00	<0.02	<10	<10	<10	<10
14-8339 (Interlab)	DM-50	2014	1	Phase I	5-10	2.93	<0.5	257.00	15.30	109.00	9.90	74.20	105.00	<0.10	<5	41	<50	<50
DM-50 (0-15)	DM-50	2015	2	Phase I	0-15	2.60	<0.5	154.00	11.50	89.90	12.20	51.50	82.30	<0.05	<7	<4	<8	<6
DM-50A	DM-50	2016	3	Phase I	0-15	<1	<0.5	186.00	14.40	82.60	16.90	68.00	80.90	<0.05	<7	<4	<8	<6
DM-50 Shallow	DM-50	2017	4	Phase I	0-15	<1	<0.5	205.00	13.70	94.40	21.00	73.70	74.00	<0.05	<7	7	47	<6
DM-50S	DM-50	2018	5	Phase I	0-15	2.00	<0.5	223.00	15.00	89.00	10.00	82.00	71.00	<0.05	<7	<4	<8	<6
DM-50-S	DM-50	2023	10	Phase II	0-15	2.87	<0.050	222.00	12.80	96.00	6.99	66.50	75.20	<0.010	<10	<10	<50	<50
	DM-50 depth																	
14-8340	DM-50	2014	1	Phase I	35-40	4.60	<1	258.00	14.70	126.70	10.00	75.10	98.00	<0.02	<10	<10	<10	<10
14-8341 (Dup)	DM-50	2014	1	Phase I	35-40	3.90	<1	255.00	13.90	110.20	10.00	72.70	100.00	<0.02	<10	<10	<10	<10
DM-50 (30-40)	DM-50	2015	2	Phase I	30-40	4.20	<0.5	186.00	13.20	118.00	13.80	55.60	92.90	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-50	2016	3	Phase I														
DM-50 Deep	DM-50	2017	4	Phase I	30-40	4.60	<0.5	273.00	15.70	137.00	15.10	80.80	88.10	<0.05	<7	179	29	<6
DM-50D	DM-50	2018	5	Phase I	40-50	4.00	<0.5	197.00	12.00	104.00	8.00	61.00	89.00	<0.05	<7	69	26	9
DM-50-D	DM-50	2023	10	Phase II	40-50	2.77	0.100	281.00	19.40	127.00	37.20	92.70	147.00	<0.010	<10	<10	<50	<50

DYE-M Upper Site Pallet Line Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	70.45	16.65	36.63	20.45	74.35	73.92	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	35.40	9.78	17.02	23.14	25.01	32.42	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	176.65	45.99	87.69	89.86	149.37	171.17	0.30	30.00	30.00	150.00	150.00
Downgradient (also upgradient of Upper Site West Landfill)																		
	DM-51 surface																	
14-8362	DM-51	2014	1	Phase I	5-10	2.00	<1	113.00	12.60	45.80	13.00	61.80	86.00	<0.02	<10	<10	<10	<10
DM-51 (0-15)	DM-51	2015	2	Phase I	0-15	1.90	<0.5	104.00	11.90	48.30	25.60	60.60	107.00	<0.05	<7	<4	<8	<6
DM-51A	DM-51	2016	3	Phase I	0-15	<1	<0.5	112.00	12.30	52.20	23.40	56.00	84.80	<0.05	<7	<4	209	87
DM-51 Shallow	DM-51	2017	4	Phase I	0-15	<1	<0.5	95.10	10.80	39.40	16.60	52.30	71.60	<0.05	9	313	108	20
DM-51S	DM-51	2018	5	Phase I	0-15	1.00	<0.5	120.00	14.00	54.00	24.00	69.00	84.00	0.050	<7	65	84	28
DM-51-S	DM-51	2023	10	Phase II	0-15	1.68	0.146	82.40	11.70	35.10	13.50	59.70	68.50	0.010	<10	<10	68	<50
	DM-51 depth																	
14-8363	DM-51	2014	1	Phase I	30-35	1.70	<1	125.00	11.50	56.50	23.00	54.30	104.00	0.067	19	1540	393	<10
Not sampled - refusal	DM-51	2015	2	Phase I														
Not sampled - refusal	DM-51	2016	3	Phase I														
DM-51 Deep	DM-51	2017	4	Phase I	30-40	<1	<0.5	107.00	12.20	46.00	21.00	52.80	84.20	<0.05	98	2320	607	94
DM-51D	DM-51	2018	5	Phase I	40-50	<1	<0.5	105.00	13.00	53.00	21.00	63.00	72.00	<0.05	<7	88	102	32
QA/QC S16 (Dup)	DM-51	2018	5	Phase I	40-50	<1	<0.5	108.00	13.00	51.00	20.00	66.00	74.00	0.270	<7	54	87	32
DM-51-D	DM-51	2023	10	Phase II	40-50	1.21	0.081	110.00	12.10	43.80	20.30	51.90	88.60	<0.010	<10	180	750	66
MW23-S-70 (Dup)	DM-51	2023	10	Phase II	40-50	1.07	0.087	115.00	11.40	42.50	47.10	44.80	87.40	<0.010	16	81	370	<50
MW23-S-70 (Dup)(Innerlab)	DM-51	2023	10	Phase II	40-50											71	330	<50

DYE-M Upper Site Pallet Line Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	70.45	16.65	36.63	20.45	74.35	73.92	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	35.40	9.78	17.02	23.14	25.01	32.42	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	176.65	45.99	87.69	89.86	149.37	171.17	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-53 surface																	
14-8395	DM-53	2014	1	Phase I	5-10	1.40	<1	87.00	10.00	32.20	12.00	53.70	70.00	<0.02	<10	<10	<10	<10
DM-53 (0-15)	DM-53	2015	2	Phase I	0-15	1.00	<0.5	79.80	10.00	32.00	11.00	44.30	68.20	<0.05	<7	<4	<8	<6
DM-53A	DM-53	2016	3	Phase I	0-15	<1	<0.5	82.60	10.40	37.30	11.70	46.00	87.60	<0.05	<7	<4	<8	<6
DM-53A (Interlab)	DM-53	2016	3	Phase I	0-15	1.00	<0.5	93.00	11.10	41.00	14.00	55.00	109.00	<0.05	<5	<10	<50	<50
DM-53 Shallow	DM-53	2017	4	Phase I	0-15	<1	<0.5	104.00	11.00	44.50	13.80	54.60	86.90	<0.05	<7	8	61	14
DM-53S	DM-53	2018	5	Phase I	0-15	<1	<0.5	99.00	11.00	42.00	14.00	56.00	166.00	<0.05	<7	25	183	51
DM-53-S	DM-53	2023	10	Phase II	0-15	1.16	0.072	88.30	10.30	41.20	13.00	53.80	79.90	0.031	<10	<10	<50	<50
	DM-53 depth																	
14-8397	DM-53	2014	1	Phase I	45-50	2.10	<1	129.00	11.80	50.30	15.00	65.30	89.00	<0.02	<10	<10	<10	<10
DM-53 (40-50)	DM-53	2015	2	Phase I	40-50	1.70	<0.5	155.00	14.20	65.60	17.80	63.80	113.00	<0.05	<7	13	82	<6
Not sampled - refusal	DM-53	2016	3	Phase I														
DM-53 Deep	DM-53	2017	4	Phase I	40-50	<1	<0.5	207.00	13.50	67.20	19.80	64.90	121.00	<0.05	<7	28	131	18
DM-53D	DM-53	2018	5	Phase I	40-50	<1	<0.5	88.00	11.00	38.00	21.00	47.00	85.00	<0.05	<7	210	584	78
DM-53-D	DM-53	2023	10	Phase II	40-50	1.06	0.063	143.00	12.30	50.20	12.60	60.40	107.00	0.023	<10	<10	<50	<50
DM-53-D (Interlab)	DM-53	2023	10	Phase II	40-50										<10			

DYE-M Upper Site Pallet Line Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	70.45	16.65	36.63	20.45	74.35	73.92	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	35.40	9.78	17.02	23.14	25.01	32.42	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	176.65	45.99	87.69	89.86	149.37	171.17	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-54 surface																	
14-8393	DM-54	2014	1	Phase I	5-10	1.60	<1	59.00	15.40	35.50	22.00	92.60	66.00	<0.02	<10	<10	<10	<10
DM-54 (0-15)	DM-54	2015	2	Phase I	0-15	2.60	<0.5	54.40	13.80	36.50	32.90	63.40	65.20	<0.05	<7	<4	<8	<6
DM-54A	DM-54	2016	3	Phase I	0-15	<1	<0.5	73.50	18.50	47.00	23.70	75.00	78.10	<0.05	<7	<4	<8	<6
DM-54 Shallow	DM-54	2017	4	Phase I	0-15	<1	<0.5	69.50	16.20	43.80	39.10	78.70	79.30	<0.05	<7	<4	<8	<6
DM-54S	DM-54	2018	5	Phase I	0-15	<1	<0.5	65.00	19.00	46.00	34.00	86.00	55.00	<0.05	<7	<4	<8	<6
DM-54-S	DM-54	2023	10	Phase II	0-15	1.43	<0.050	62.40	16.70	27.80	23.20	74.00	69.30	<0.010	<10	<10	<50	<50
MW23-S-90 (Dup)	DM-54	2023	10	Phase II	0-15	1.32	<0.050	60.80	13.70	24.50	20.80	70.20	63.50	<0.010	<10	<10	<50	<50
	DM-54 depth																	
14-8394	DM-54	2014	1	Phase I	35-40	1.50	<1	56.00	15.00	33.70	22.00	82.40	66.00	<0.02	<10	<10	<10	<10
Not sampled - refusal	DM-54	2015	2	Phase I														
Not sampled - refusal	DM-54	2016	3	Phase I														
DM-54 Deep	DM-54	2017	4	Phase I	30-40	<1	<0.5	62.90	15.70	36.80	30.50	82.60	69.90	<0.05	<7	<4	<8	<6
DM-54D	DM-54	2018	5	Phase I	40-50	<1	<0.5	61.00	19.00	41.00	25.00	92.00	50.00	<0.05	<7	<4	<8	<6
DM-54-D	DM-54	2023	10	Phase II	40-50	1.37	<0.050	71.50	15.70	29.00	24.20	73.80	78.00	<0.010	<10	<10	<50	<50
DM-54-D (Interlab)	DM-54	2023	10	Phase II	40-50	1.33	<0.050	72.10	15.60	28.90	24.30	74.70	78.40					

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	70.45	16.65	36.63	20.45	74.35	73.92	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	35.40	9.78	17.02	23.14	25.01	32.42	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	176.65	45.99	87.69	89.86	149.37	171.17	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-55 surface																	
14-8384	DM-55	2014	1	Phase I	5-10	2.40	<1	63.00	15.70	39.00	28.00	79.30	81.00	<0.02	<10	<10	<10	<10
DM-55 (0-15)	DM-55	2015	2	Phase I	0-15	5.60	<0.5	54.80	16.50	31.90	23.10	55.10	67.40	<0.05	<7	<4	<8	<6
DM-55A	DM-55	2016	3	Phase I	0-15	<1	<0.5	56.90	15.60	33.80	37.60	73.60	65.70	<0.05	<7	<4	<8	<6
DM-55 Shallow	DM-55	2017	4	Phase I	0-15	<1	<0.5	70.40	16.90	35.90	44.30	88.10	76.90	<0.05	<7	<4	<8	<6
DM-55S	DM-55	2018	5	Phase I	0-15	<1	<0.5	70.00	18.00	39.00	27.00	98.00	50.00	<0.05	<7	<4	<8	<6
DM-55-S	DM-55	2023	10	Phase II	0-15	1.00	<0.050	51.80	13.80	23.20	20.00	80.80	53.70	<0.010	<10	<10	<50	<50
DM-55-S (Interlab)	DM-55	2023	10	Phase II	0-15									<0.010				
	DM-55 depth																	
14-8385	DM-55	2014	1	Phase I	45-50	2.40	<1	56.00	14.70	35.60	28.00	72.10	77.00	<0.02	<10	<10	<10	<10
DM-55 (30-40)	DM-55	2015	2	Phase I	30-40	5.20	<0.5	58.70	16.90	32.00	23.30	58.30	69.70	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-55	2016	3	Phase I														
DM-55 Deep	DM-55	2017	4	Phase I	20-30	<1	<0.5	61.30	15.40	30.30	38.30	76.80	72.40	<0.05	<7	<4	<8	<6
DM-55D	DM-55	2018	5	Phase I	40-50	<1	<0.5	72.00	18.00	38.00	27.00	97.00	51.00	<0.05	<7	<4	<8	<6
QA/QC S18 (Dup)	DM-55	2018	5	Phase I	40-50	<1	<0.5	64.00	17.00	33.00	27.00	84.00	62.00	<0.05	<7	<4	<8	<6
DM-55-D	DM-55	2023	10	Phase II	40-50	0.88	<0.050	46.60	12.90	21.30	17.80	79.40	47.50	<0.010	<10	<10	<50	<50
DM-55-D (Interlab)	DM-55	2023	10	Phase II	40-50										<10			

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	70.45	16.65	36.63	20.45	74.35	73.92	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	35.40	9.78	17.02	23.14	25.01	32.42	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	176.65	45.99	87.69	89.86	149.37	171.17	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-56 surface																	
14-8387	DM-56	2014	1	Phase I	5-10	1.50	<1	68.00	15.20	35.50	16.00	97.30	61.00	<0.02	<10	<10	<10	<10
DM-56 (0-15)	DM-56	2015	2	Phase I	0-15	1.70	<0.5	67.80	17.50	41.80	14.20	102.00	55.90	<0.05	<7	<4	<8	<6
DM-56A	DM-56	2016	3	Phase I	0-15	<1	<0.5	56.00	14.10	30.80	14.70	74.20	50.70	<0.05	<7	<4	<8	<6
DM-56 Shallow	DM-56	2017	4	Phase I	0-15	<1	<0.5	48.00	12.90	28.60	16.10	57.80	59.30	<0.05	<7	<4	<8	<6
DM-56S	DM-56	2018	5	Phase I	0-20	<1	<0.5	52.00	13.00	28.00	14.00	78.00	40.00	<0.05	<7	<4	<8	<6
DM-56-S	DM-56	2023	10	Phase II	0-15	0.49	<0.050	40.80	11.00	19.10	7.87	83.00	36.90	<0.010	<10	<10	<50	<50
	DM-56 depth																	
14-8388	DM-56	2014	1	Phase I	45-50	1.10	<1	67.00	15.10	32.50	13.00	100.30	58.00	<0.02	<10	<10	<10	<10
14-8389 (Interlab)	DM-56	2014	1	Phase I	45-50	0.79	<0.5	62.50	15.20	27.90	10.30	107.00	50.20	<0.10	<5	<10	<10	<50
Not sampled - refusal	DM-56	2015	2	Phase I														
Not sampled - refusal	DM-56	2016	3	Phase I														
Not sampled - refusal	DM-56	2017	4	Phase I														
Not sampled - frozen	DM-56	2018	5	Phase I														
DM-56-D	DM-56	2023	10	Phase II	45-50	0.57	<0.050	36.90	10.30	19.00	9.40	60.40	39.90	<0.010	<10	<10	<50	<50

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	70.45	16.65	36.63	20.45	74.35	73.92	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	35.40	9.78	17.02	23.14	25.01	32.42	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	176.65	45.99	87.69	89.86	149.37	171.17	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-57 surface																	
14-8390	DM-57	2014	1	Phase I	5-10	1.50	<1	74.00	14.10	40.70	<10	96.00	74.00	<0.02	<10	<10	<10	<10
14-8391 (Dup)	DM-57	2014	1	Phase I	5-10	1.00	<1	51.00	10.50	30.70	<10	71.30	54.00	<0.02	<10	<10	<10	<10
DM-57 (0-15)	DM-57	2015	2	Phase I	0-15	1.40	<0.5	62.60	14.70	32.90	9.70	81.90	62.00	<0.05	<7	<4	<8	<6
DM-57A	DM-57	2016	3	Phase I	0-15	<1	<0.5	68.70	16.80	38.00	11.90	90.00	62.40	<0.05	<7	<4	<8	<6
DM-57 Shallow	DM-57	2017	4	Phase I	0-15	<1	<0.5	76.90	19.90	47.40	19.00	96.00	79.30	<0.05	<7	<4	<8	<6
DM-57S	DM-57	2018	5	Phase I	0-15	<1	<0.5	59.00	14.00	32.00	13.00	63.00	68.00	<0.05	<7	<4	<8	<6
DM-57-S	DM-57	2023	10	Phase II	0-15	0.70	<0.050	51.60	16.90	22.50	8.62	105.00	54.80	<0.010	<10	<10	<50	<50
DM-57-S (Interlab)	DM-57	2023	10	Phase II	0-15									<0.010				
	DM-57 depth																	
14-8392	DM-57	2014	1	Phase I	40-45	1.00	<1	54.00	13.10	27.40	<10	93.80	56.00	<0.02	<10	<10	<10	<10
DM-57 (40-50)	DM-57	2015	2	Phase I	40-50	1.70	<0.5	66.90	15.40	34.60	10.20	86.30	64.30	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-57	2016	3	Phase I														
DM-57 Deep	DM-57	2017	4	Phase I	30-40	<1	<0.5	57.80	14.60	31.00	10.10	93.20	54.60	<0.05	<7	<4	<8	<6
DM-57D	DM-57	2018	5	Phase I	25-35	<1	<0.5	61.00	15.00	33.00	11.00	84.00	67.00	<0.05	<7	<4	<8	<6
DM-57-D	DM-57	2023	10	Phase II	40-50	0.45	<0.050	39.70	14.00	11.40	9.24	65.00	56.00	<0.010	<10	<10	<50	<50

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	70.45	16.65	36.63	20.45	74.35	73.92	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	35.40	9.78	17.02	23.14	25.01	32.42	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	176.65	45.99	87.69	89.86	149.37	171.17	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-58 surface																	
14-8398	DM-58	2014	1	Phase I	5-10	1.50	<1	75.00	18.20	41.80	14.00	111.70	85.00	<0.02	<10	<10	<10	<10
14-8399 (Interlab)	DM-58	2014	1	Phase I	5-10	1.34	<0.5	101.00	22.70	58.40	19.80	101.00	115.00	<0.10	<5	<10	<50	<50
DM-58 (0-15)	DM-58	2015	2	Phase I	0-15	1.90	<0.5	63.10	18.60	37.70	12.80	108.00	85.50	<0.05	<7	<4	<8	<6
DM-58A	DM-58	2016	3	Phase I	0-15	<1	<0.5	46.90	14.10	29.90	15.80	67.50	391.00	<0.05	<7	<4	<8	<6
DM-58 Shallow	DM-58	2017	4	Phase I	0-15	<1	<0.5	64.50	16.90	33.60	12.30	97.80	65.70	<0.05	<7	<4	<8	<6
DM-58S	DM-58	2018	5	Phase I	0-15	<1	<0.5	65.00	18.00	33.00	12.00	111.00	61.00	<0.05	<7	<4	<8	<6
DM-58-S	DM-58	2023	10	Phase II	0-15	0.66	<0.050	50.20	14.10	24.20	7.18	97.40	44.80	<0.010	<10	<10	<50	<50
	DM-58 depth																	
14-8400	DM-58	2014	1	Phase I	45-50	1.00	<1	59.00	16.90	31.60	10.00	97.10	63.00	<0.02	<10	<10	<10	<10
14-8401 (Dup)	DM-58	2014	1	Phase I	45-50	1.00	<1	54.00	15.10	27.30	<10	91.60	58.00	<0.02	<10	<10	<10	<10
DM-58 (40-50)	DM-58	2015	2	Phase I	40-50	2.10	<0.5	71.30	18.30	37.70	13.70	94.20	98.50	<0.05	<7	<4	<8	<6
DM-58 (40-50) (Interlab)	DM-58	2015	2	Phase I	40-50	1.00	<0.5	79.00	18.90	43.00	15.00	100.00	124.00	<0.05	<5	<4	<8	<6
Not sampled - refusal	DM-58	2016	3	Phase I														
DM-58 Deep	DM-58	2017	4	Phase I	40-50	<1	<0.5	72.50	18.30	42.90	18.50	81.40	79.20	<0.05	<7	<4	<8	<6
DM-58D	DM-58	2018	5	Phase I	25-35	<1	<0.5	63.00	18.00	34.00	11.00	105.00	72.00	<0.05	<7	<4	<8	<6
DM-58-D	DM-58	2023	10	Phase II	40-50	0.66	<0.050	48.10	13.70	23.60	7.38	83.80	49.80	<0.010	<10	<10	<50	<50
DM-58-D (Interlab)	DM-58	2023	10	Phase II	40-50											<10	<50	<50

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Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	70.45	16.65	36.63	20.45	74.35	73.92	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	35.40	9.78	17.02	23.14	25.01	32.42	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	176.65	45.99	87.69	89.86	149.37	171.17	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-59 surface																	
14-8402	DM-59	2014	1	Phase I	5-10	0.80	<1	48.00	15.10	37.40	11.00	100.90	55.00	<0.02	<10	207	29	<10
DM-59 (0-15)	DM-59	2015	2	Phase I	0-15	<1	<0.5	33.10	25.40	71.50	3.80	119.00	33.40	<0.05	<7	<4	<8	<6
DM-59A	DM-59	2016	3	Phase I	0-15	<1	<0.5	58.70	18.10	41.50	10.50	99.20	58.70	<0.05	<7	903	30	<6
DM-59 Shallow	DM-59	2017	4	Phase I	0-15	<1	<0.5	52.30	14.20	33.50	17.30	80.70	56.90	<0.05	90	2430	216	<6
DM-959 Shallow (Dup)	DM-59	2017	4	Phase I	0-15	<1	<0.5	46.40	15.20	39.20	17.80	74.40	64.30	<0.05	208	2910	166	<6
Not sampled - frozen	DM-59	2018	5	Phase I														
DM-59-S	DM-59	2023	10	Phase II	0-15	0.44	<0.050	33.70	11.80	30.90	9.67	71.40	44.90	<0.010	<10	<10	<50	<50
	DM-59 depth																	
14-8403	DM-59	2014	1	Phase I	40-45	0.60	<1	37.00	11.00	43.60	<10	71.20	43.00	<0.02	28	724	29	<10
Not sampled - refusal	DM-59	2015	2	Phase I														
Not sampled - refusal	DM-59	2016	3	Phase I														
DM-59 Deep	DM-59	2017	4	Phase I	40-50	<1	<0.5	48.30	15.80	41.90	15.50	68.90	70.00	<0.05	<7	2950	150	<6
Not sampled - frozen	DM-59	2018	5	Phase I														
DM-59-D	DM-59	2023	10	Phase II	40-50	0.48	<0.050	24.50	11.90	33.80	7.53	59.80	40.10	<0.010	<10	420	<50	<50

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Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	70.45	16.65	36.63	20.45	74.35	73.92	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	35.40	9.78	17.02	23.14	25.01	32.42	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	176.65	45.99	87.69	89.86	149.37	171.17	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-61 surface																	
14-8407	DM-61	2014	1	Phase I	5-10	0.90	<1	53.00	14.90	45.60	<10	80.70	63.00	<0.02	<10	<10	<10	<10
DM-61 (0-15)	DM-61	2015	2	Phase I	0-15	1.70	<0.5	50.20	14.20	30.70	12.90	54.80	57.70	<0.05	<7	<4	<8	<6
DM-61A	DM-61	2016	3	Phase I	0-15	<1	<0.5	57.60	20.00	39.60	7.00	122.00	48.00	<0.05	<7	<4	<8	<6
DM-61 Shallow	DM-61	2017	4	Phase I	0-15	<1	<0.5	55.30	16.00	42.80	7.80	68.20	69.40	<0.05	<7	<4	<8	<6
DM-61S	DM-61	2018	5	Phase I	0-15	<1	<0.5	57.00	20.00	37.00	5.00	131.00	43.00	<0.05	<7	98	53	<6
DM-61-S	DM-61	2023	10	Phase II	0-15	0.51	0.053	44.60	13.20	30.20	4.21	67.00	51.50	<0.010	<10	<10	<50	<50
	DM-61 depth																	
14-8408	DM-61	2014	1	Phase I	40-45	1.20	<1	63.00	17.80	44.10	<10	97.00	73.00	<0.02	<10	<10	<10	<10
14-8409 (Interlab)	DM-61	2014	1	Phase I	40-45	0.79	<0.5	69.00	19.50	45.90	6.30	98.50	78.50	<0.10	<5	<10	<10	<50
DM-61 (20-30)	DM-61	2015	2	Phase I	20-30	1.50	<0.5	44.20	21.50	54.40	10.10	91.50	54.20	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-61	2016	3	Phase I														
DM-61 Deep	DM-61	2017	4	Phase I	30-40	<1	<0.5	49.90	15.90	39.00	8.10	72.50	66.10	<0.05	<7	<4	<8	<6
DM-61D	DM-61	2018	5	Phase I	20-30	<1	<0.5	52.00	19.00	35.00	5.00	122.00	39.00	<0.05	<7	170	67	<6
DM-61-D	DM-61	2023	10	Phase II	40-50	0.48	<0.050	40.60	12.80	25.60	3.81	70.20	49.60	<0.010	<10	<10	<50	<50

DYE-M Upper Site Pallet Line Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	70.45	16.65	36.63	20.45	74.35	73.92	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	35.40	9.78	17.02	23.14	25.01	32.42	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	176.65	45.99	87.69	89.86	149.37	171.17	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-62 surface																	
14-8404	DM-62	2014	1	Phase I	5-10	1.10	<1	53.00	19.00	32.90	<10	151.40	46.00	<0.02	<10	<10	<10	<10
DM-62 (0-15)	DM-62	2015	2	Phase I	0-15	1.40	<0.5	53.70	18.20	49.70	11.80	99.20	60.60	<0.05	<7	<4	<8	<6
DM-62A	DM-62	2016	3	Phase I	0-15	<1	<0.5	50.30	18.70	42.70	10.20	101.00	54.40	<0.05	<7	<4	<8	<6
DM-62 Shallow	DM-62	2017	4	Phase I	0-15	<1	<0.5	49.60	15.00	55.80	15.00	66.90	65.00	<0.05	<7	<4	<8	<6
DM-62S	DM-62	2018	5	Phase I	0-15	<1	<0.5	67.00	23.00	54.00	11.00	148.00	49.00	<0.05	<7	<4	<8	<6
DM-62-S	DM-62	2023	10	Phase II	0-15	0.51	0.060	40.50	16.20	26.70	5.71	126.00	39.40	<0.010	<10	<10	<50	<50
MW23-S-100 (Dup)	DM-62	2023	10	Phase II	0-15	0.67	<0.050	45.90	15.80	33.10	6.92	106.00	44.20	<0.010	<10	<10	<50	<50
	DM-62 depth																	
14-8405	DM-62	2014	1	Phase I	40-45	0.90	<1	53.00	16.10	35.90	<10	109.70	51.00	<0.02	<10	<10	<10	<10
DM-62 (20-30)	DM-62	2015	2	Phase I	20-30	1.00	<0.5	57.80	18.60	57.10	13.00	98.60	65.90	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-62	2016	3	Phase I														
DM-62 Deep	DM-62	2017	4	Phase I	40-50	<1	<0.5	52.10	14.70	58.40	16.80	67.40	68.00	<0.05	<7	<4	<8	<6
DM-962 Deep (Dup)	DM-62	2017	4	Phase I	40-50	<1	<0.5	41.50	12.80	58.00	15.90	54.20	65.40	<0.05	<7	<4	<8	<6
DM-62D	DM-62	2018	5	Phase I	40-50	<1	<0.5	53.00	18.00	61.00	16.00	88.00	57.00	<0.05	<7	<4	<8	<6
QA/QC S17 (Dup)	DM-62	2018	5	Phase I	40-50	<1	<0.5	44.00	15.00	46.00	13.00	72.00	59.00	<0.05	<7	<4	<8	<6
DM-62-D	DM-62	2023	10	Phase II	40-50	0.80	0.072	45.40	15.50	40.90	10.10	90.10	55.80	<0.010	<10	<10	<50	<50

N/A = not analyzed

Legend

XX	Sample exceeds baseline mean
XX	Sample exceeds baseline data with variation

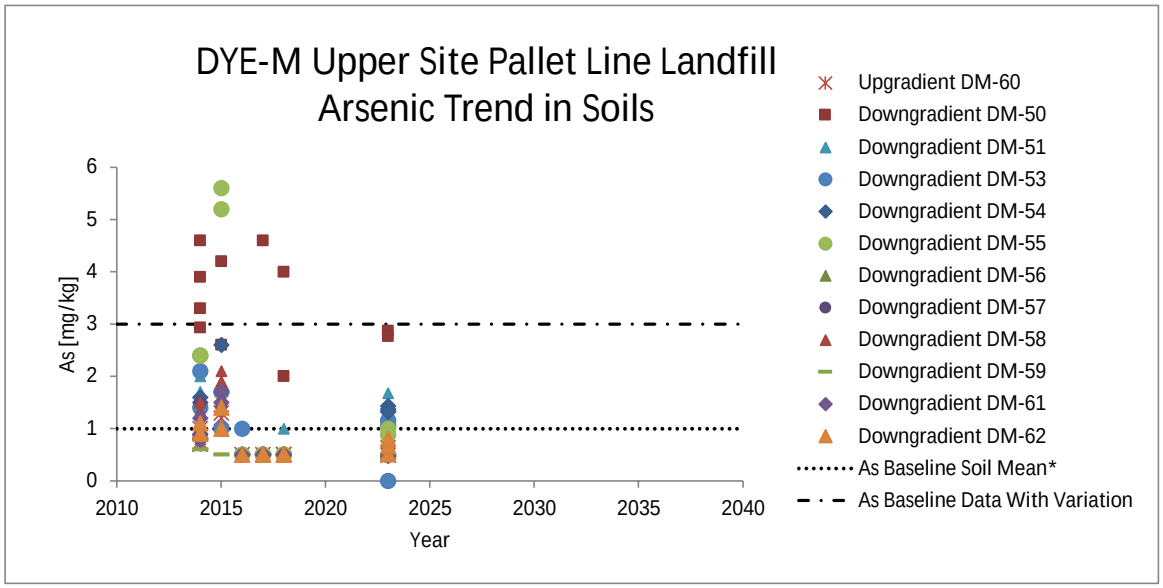
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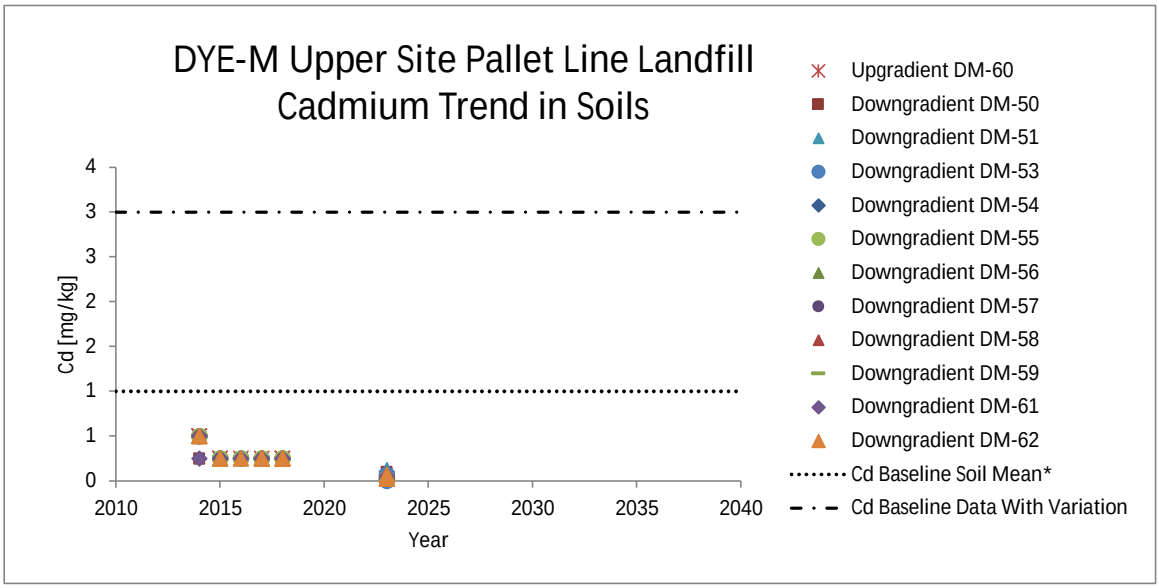
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* As baseline arithmetic mean is equal to the baseline detection limit



* Cd baseline arithmetic mean is equal to the baseline detection limit

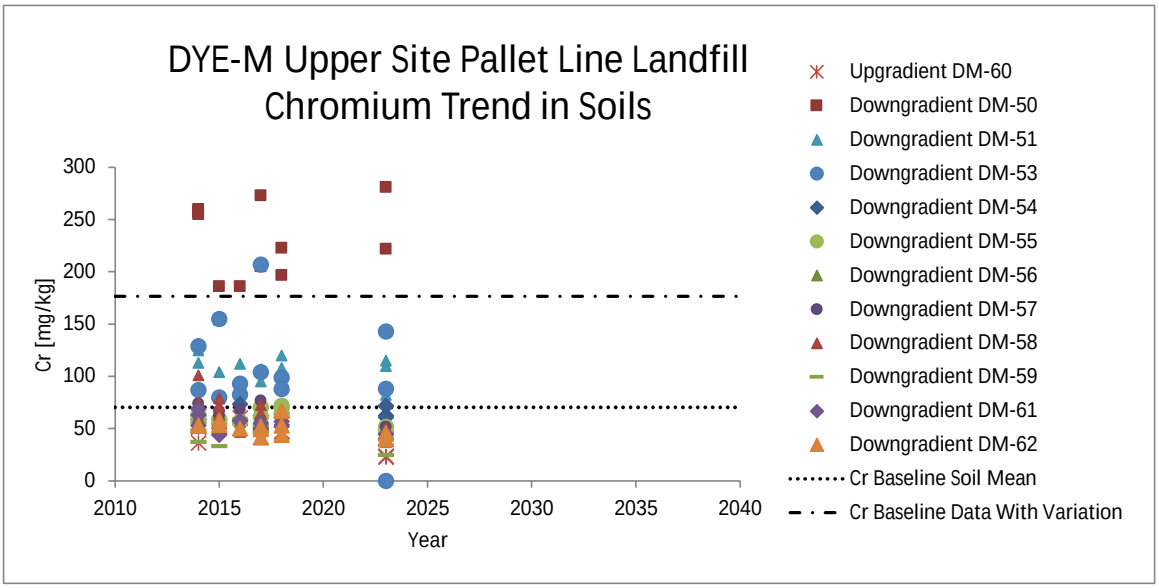
DYE-M Upper Site Pallet Line Landfill Trends in Soil Inorganics, PCBs and PHCs

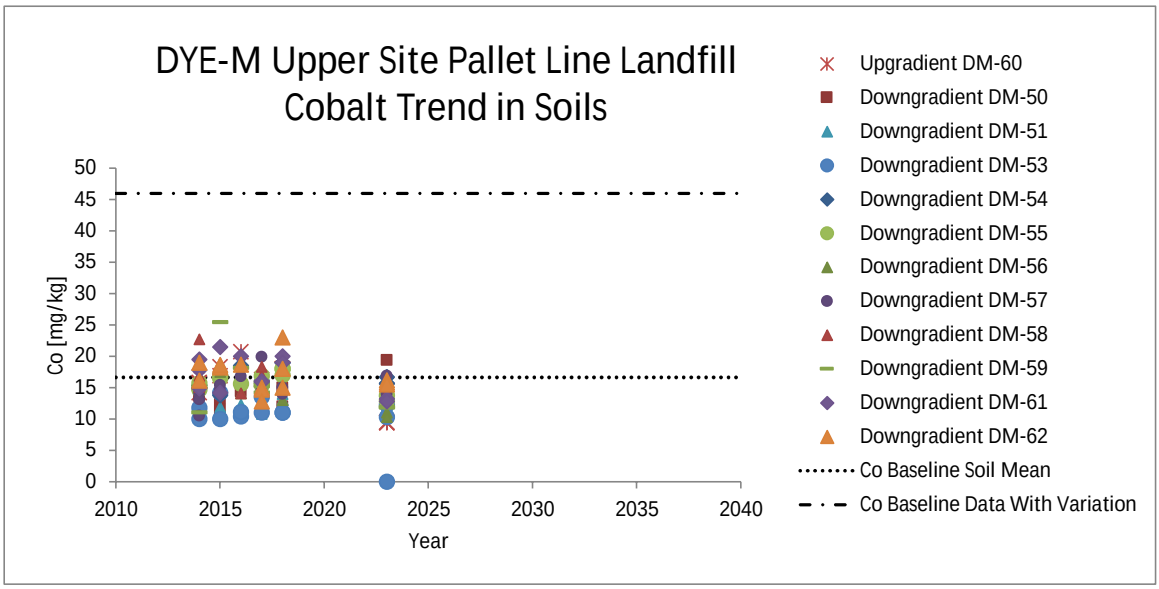
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Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





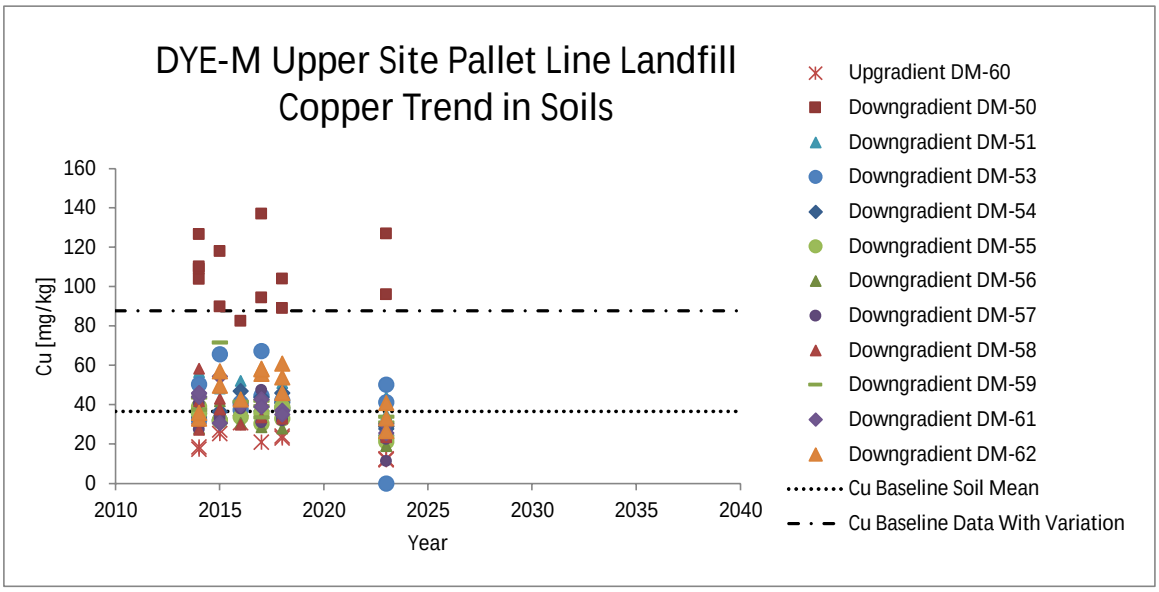
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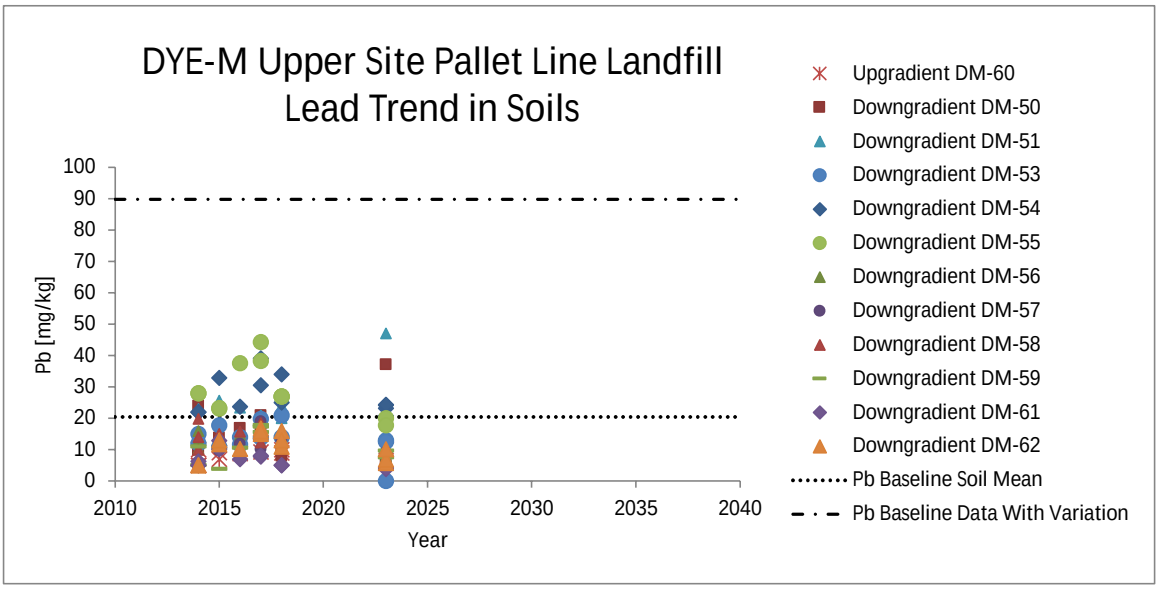
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





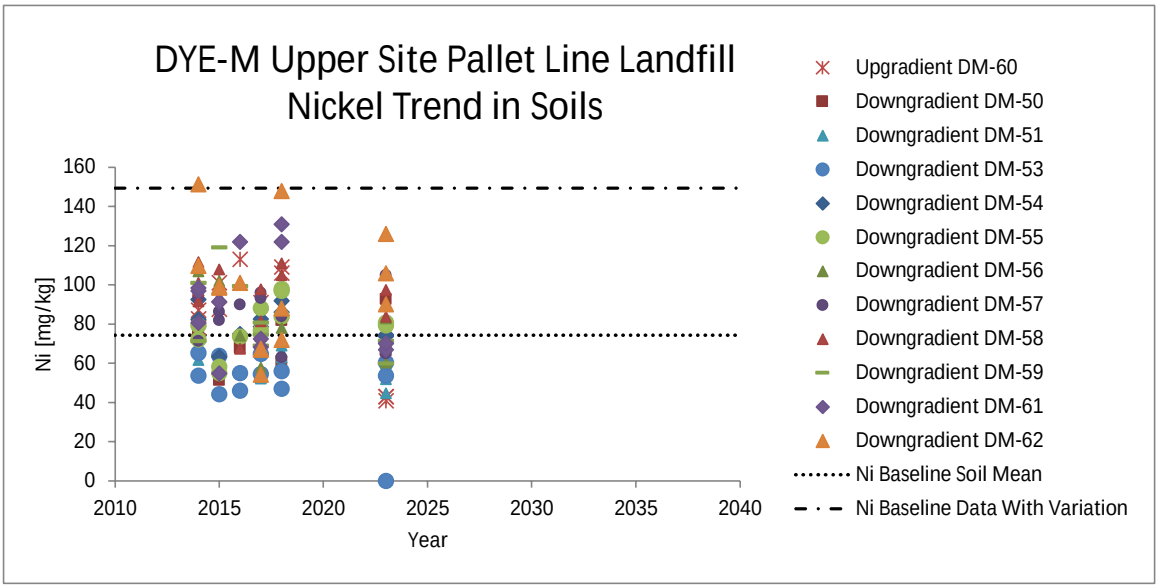
DYE-M Upper Site Pallet Line Landfill Trends in Soil Inorganics, PCBs and PHCs

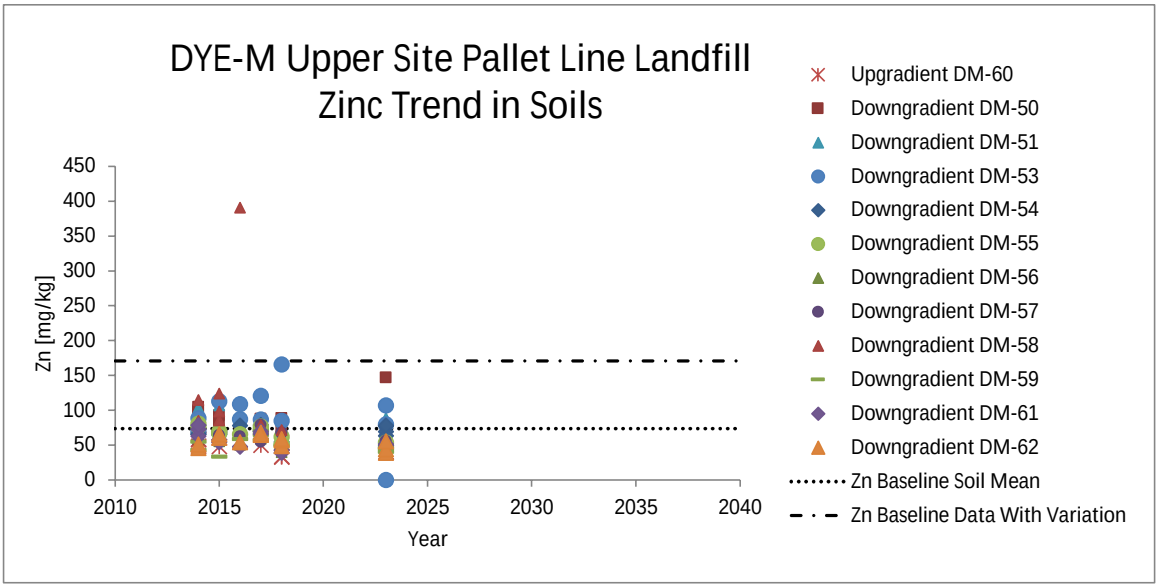
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





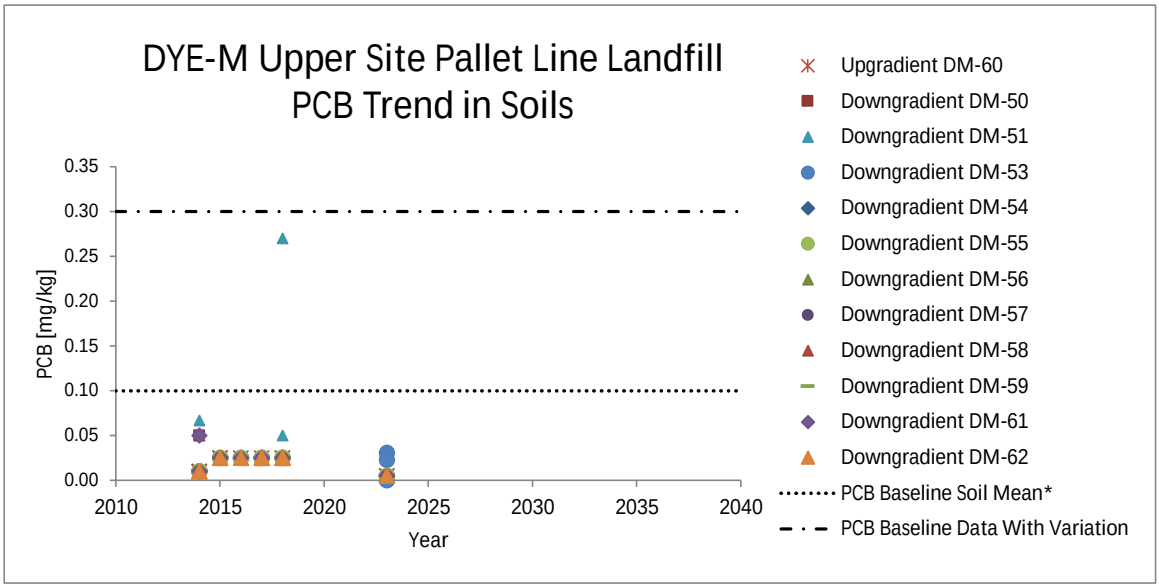
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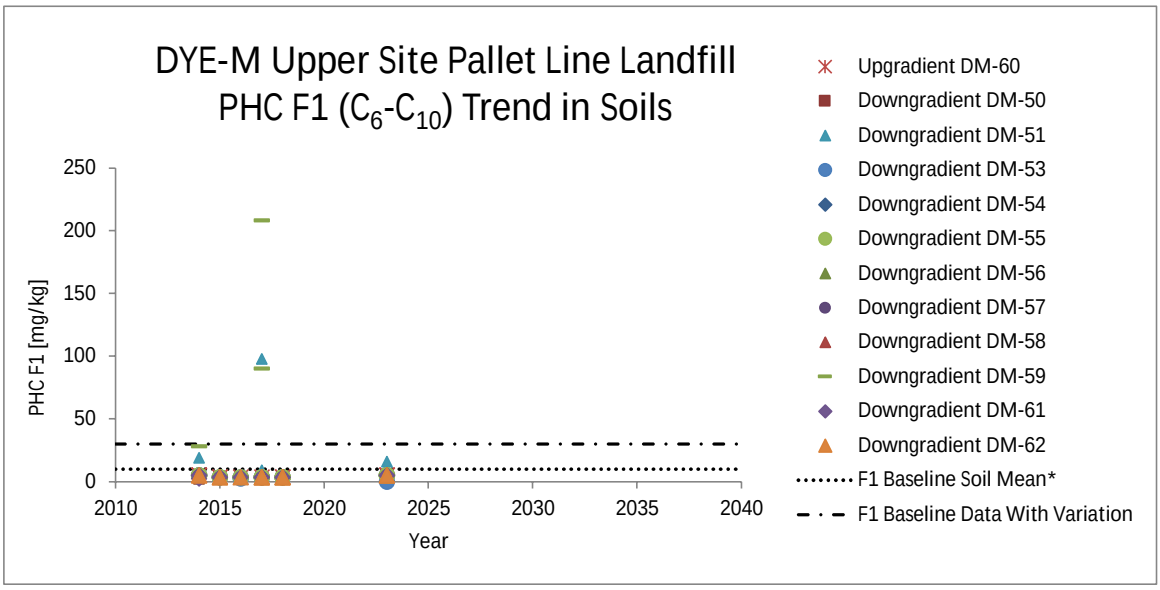
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* PCB baseline arithmetic mean is equal to the baseline detection limit



* F1 baseline arithmetic mean is equal to the detection limit

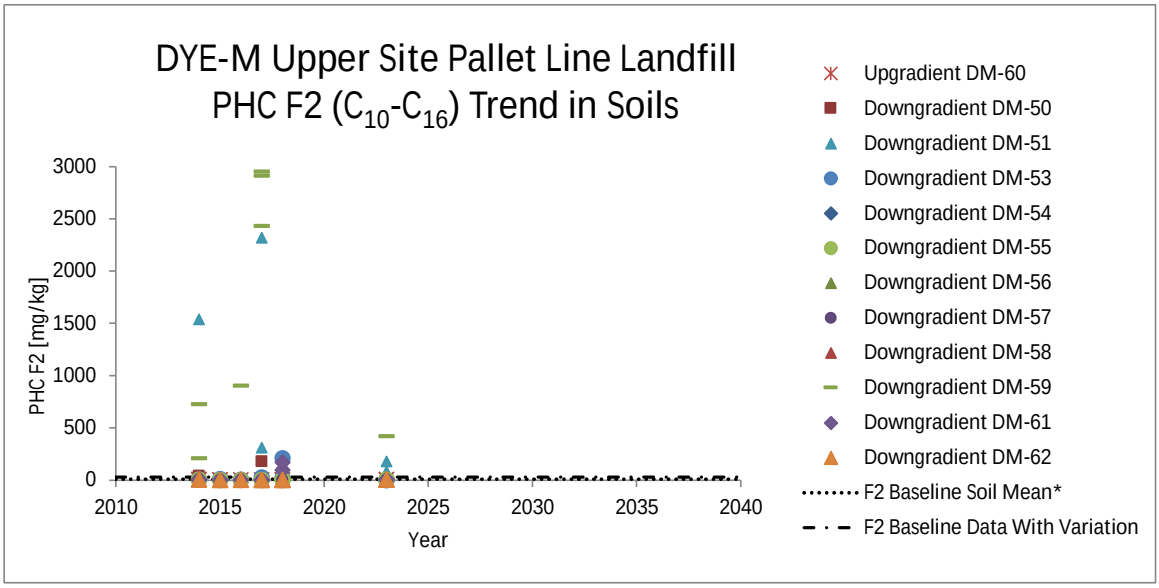
DYE-M Upper Site Pallet Line Landfill Trends in Soil Inorganics, PCBs and PHCs

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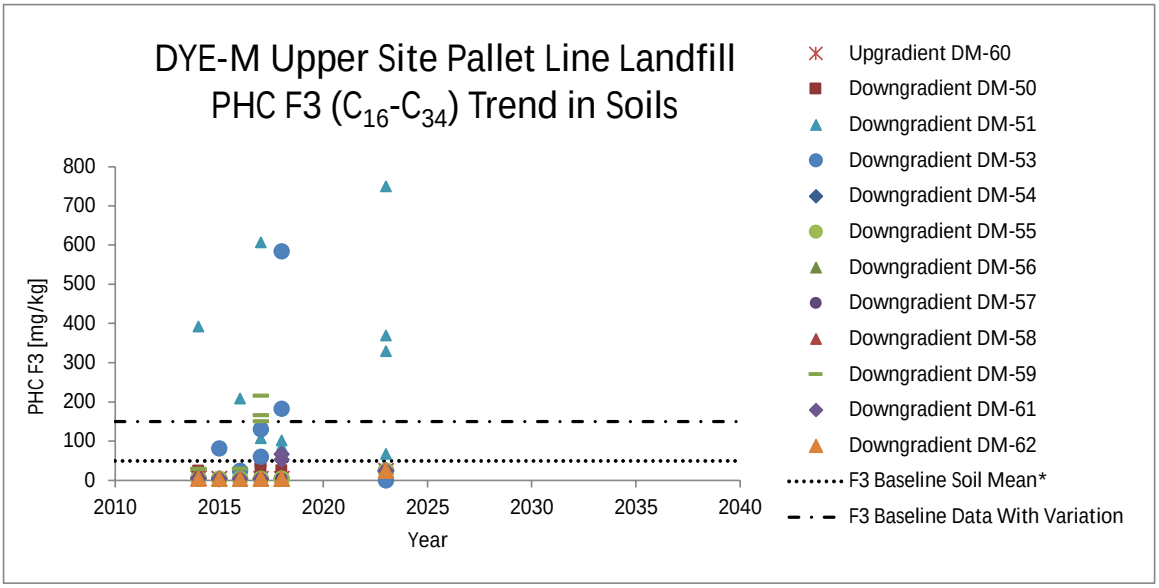
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F2 baseline arithmetic mean is equal to the detection limit



* F3 baseline arithmetic mean is equal to the detection limit

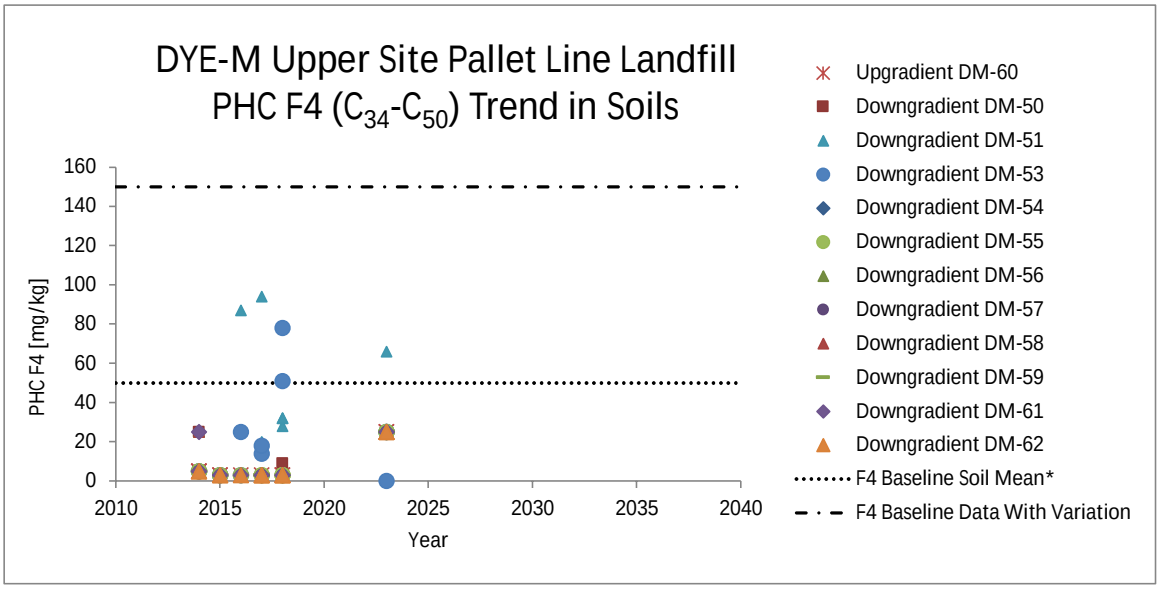
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F4 baseline arithmetic mean is equal to the detection limit

DYE-M Upper Site Non-Hazardous Waste Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	40.93	14.06	26.24	10.00	63.38	54.40	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	23.64	5.39	15.17	0.00	36.59	25.48	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	111.85	30.24	71.74	30.00	173.14	130.83	0.30	30.00	30.00	150.00	150.00
** If baseline or background arithmetic mean was below the detection limit, the mean has been modified to match the detection limit value.*																		
DEW Line Cleanup Tier I Criteria											*200*			*1*				
DYE-M Upper Site Site-Specific Criteria and DEW Line Cleanup Tier II Criteria						*30*	*5*	*250*	*153*	*296*	*500*	*2010*	*500*	*5*				
Monitoring Data																		
Upgradient																		
	MW06-18 surface																	
14-8292	MW06-18	2014	1	Phase I	5-10	0.77	<1	33.00	11.60	24.60	<10	62.10	44.00	0.034	<10	<10	<10	<10
Not sampled - snow covered	MW06-18	2015	2	Phase I														
MW06-18A	MW06-18	2016	3	Phase I	0-15	<1	<0.5	34.10	11.90	34.50	15.10	47.80	48.20	0.060	<7	<4	36	23
MW06-18 Shallow	MW06-18	2017	4	Phase I	0-15	<1	<0.5	40.90	8.90	28.20	16.30	49.70	50.00	<0.05	<7	163	53	<6
Not sampled - frozen	MW06-18	2018	5	Phase I														
MW06-18-SOIL-S	MW06-18	2023	10	Phase II	0-15	0.33	<0.050	6.57	3.54	5.80	3.24	14.10	17.70	0.035	<10	<10	66	<50
	MW06-18 depth																	
14-8293	MW06-18	2014	1	Phase I	40-50	0.81	<1	33.00	12.20	23.60	<10	63.30	48.00	<0.02	<10	<10	<10	<10
Not sampled - snow covered	MW06-18	2015	2	Phase I														
Not sampled - refusal	MW06-18	2016	3	Phase I														
Not sampled - refusal	MW06-18	2017	4	Phase I														
Not sampled - frozen	MW06-18	2018	5	Phase I														
MW06-18-SOIL-D	MW06-18	2023	10	Phase II	40-50	0.31	<0.050	18.30	8.37	11.10	4.53	52.00	24.30	<0.010	<10	<10	<50	<50

DYE-M Upper Site Non-Hazardous Waste Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	40.93	14.06	26.24	10.00	63.38	54.40	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	23.64	5.39	15.17	0.00	36.59	25.48	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	111.85	30.24	71.74	30.00	173.14	130.83	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	MW06-19 surface																	
14-8294	MW06-19	2014	1	Phase I	5-10	0.80	<1	36.00	12.60	18.60	<10	86.50	36.00	<0.02	<10	<10	<10	<10
MW 06-19 (0-20)	MW06-19	2015	2	Phase I	0-20	<1	<0.5	36.20	13.40	18.90	7.60	82.80	37.90	<0.05	<7	<4	<8	<6
MW06-19A	MW06-19	2016	3	Phase I	0-15	<1	<0.5	40.40	15.00	23.70	9.90	81.80	36.40	<0.05	<7	<4	<8	<6
MW06-19 Shallow	MW06-19	2017	4	Phase I	0-15	<1	<0.5	42.10	12.80	19.50	8.40	73.40	45.00	<0.05	<7	<4	<8	<6
MW06-19S	MW06-19	2018	5	Phase I	0-15	<1	<0.5	36.00	15.00	21.00	5.00	88.00	37.00	<0.05	<7	<4	<8	<6
QA/QC S19 (Dup)	MW06-19	2018	5	Phase I	0-15	<1	<0.5	32.00	13.00	16.00	5.00	85.00	32.00	<0.05	<7	<4	<8	<6
MW06-19-SOIL-S	MW06-19	2023	10	Phase II	0-15	0.34	<0.050	19.50	7.57	10.00	4.07	47.90	23.60	<0.010	<10	<10	<50	<50
	MW06-19 depth																	
14-8295	MW06-19	2014	1	Phase I	25-35	0.50	<1	30.00	12.00	15.60	<10	81.70	30.00	<0.02	<10	<10	<10	<10
Not sampled - refusal	MW06-19	2015	2	Phase I														
Not sampled - refusal	MW06-19	2016	3	Phase I														
Not sampled - refusal	MW06-19	2017	4	Phase I														
MW06-19D	MW06-19	2018	5	Phase I	20-30	<1	<0.5	31.00	11.00	16.00	5.00	72.00	33.00	<0.05	<7	<4	<8	<6
MW06-19-Refusal	MW06-19	2023	10	Phase II														

DYE-M Upper Site Non-Hazardous Waste Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	40.93	14.06	26.24	10.00	63.38	54.40	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	23.64	5.39	15.17	0.00	36.59	25.48	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	111.85	30.24	71.74	30.00	173.14	130.83	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	MW06-20 surface																	
14-8297	MW06-20	2014	1	Phase I	5-10	0.70	<1	27.00	10.90	25.70	<10	52.70	47.00	<0.02	<10	<10	<10	<10
MW 06-20 (0-20)	MW06-20	2015	2	Phase I	0-15	1.20	<0.5	28.10	11.90	23.30	5.70	67.20	34.60	<0.05	<7	<4	<8	<6
MW06-20A	MW06-20	2016	3	Phase I	0-15	<1	<0.5	42.50	18.10	54.20	10.80	72.60	67.10	<0.05	<7	<4	<8	<6
MW06-20 Shallow	MW06-20	2017	4	Phase I	0-15	<1	<0.5	25.70	11.60	26.30	5.50	55.30	48.20	<0.05	<7	<4	<8	<6
Not sampled - frozen	MW06-20	2018	5	Phase I														
MW06-20-SOIL-S	MW06-20	2023	10	Phase II	0-15	0.34	<0.050	14.60	8.23	13.00	2.50	41.50	25.90	<0.010	<10	<10	<50	<50
	MW06-20 depth																	
14-8298	MW06-20	2014	1	Phase I	40-45	0.90	<1	33.00	12.80	34.50	<10	64.70	56.00	<0.02	<10	<10	<10	<10
14-8299 (Interlab)	MW06-20	2014	1	Phase I	40-45	0.96	<0.5	45.30	18.20	49.70	7.90	76.50	74.20	<0.10	<5	<10	<50	<50
Not sampled - refusal	MW06-20	2015	2	Phase I														
Not sampled - refusal	MW06-20	2016	3	Phase I														
Not sampled - refusal	MW06-20	2017	4	Phase I														
Not sampled - frozen	MW06-20	2018	5	Phase I														
MW06-20-SOIL-D	MW06-20	2023	10	Phase II	40-45	0.66	<0.050	18.60	9.35	15.90	2.89	51.00	31.80	<0.010	<10	<10	<50	<50

DYE-M Upper Site Non-Hazardous Waste Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	40.93	14.06	26.24	10.00	63.38	54.40	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	23.64	5.39	15.17	0.00	36.59	25.48	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	111.85	30.24	71.74	30.00	173.14	130.83	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	MW07-21 surface																	
14-8300	MW07-21	2014	1	Phase I	5-10	0.60	<1	23.00	8.50	15.40	<10	46.70	34.00	<0.02	<10	<10	<10	<10
14-8301 (Dup)	MW07-21	2014	1	Phase I	5-10	0.50	<1	25.00	9.10	16.30	<10	50.50	33.00	<0.02	<10	<10	<10	<10
MW 07-21 (0-15)	MW07-21	2015	2	Phase I	0-15	1.10	<0.5	31.10	14.00	25.80	7.30	76.00	42.80	<0.05	<7	<4	<8	<6
MW07-21A	MW07-21	2016	3	Phase I	0-15	<1	<0.5	22.80	10.20	21.80	6.50	49.30	32.50	<0.05	<7	<4	<8	<6
MW07-21 Shallow	MW07-21	2017	4	Phase I	0-15	<1	<0.5	30.20	13.10	25.00	6.80	75.10	42.00	<0.05	<7	<4	<8	<6
MW07-21S	MW07-21	2018	5	Phase I	0-15	<1	<0.5	27.00	11.00	19.00	5.00	65.00	32.00	<0.05	<7	<4	<8	<6
MW07-21-SOIL-S	MW07-21	2023	10	Phase II	0-15	0.57	<0.050	30.30	11.80	20.90	5.75	65.60	35.50	<0.010	<10	<10	<50	<50
	MW07-21 depth																	
14-8302	MW07-21	2014	1	Phase I	40-50	0.60	<1	28.00	9.90	19.10	<10	55.00	39.00	<0.02	<10	<10	<10	<10
MW 07-21 (30-40)	MW07-21	2015	2	Phase I	30-40	<1	<0.5	23.60	11.00	18.60	5.70	63.10	30.00	<0.05	<7	<4	<8	<6
Not sampled - refusal	MW07-21	2016	3	Phase I														
MW07-21 Deep	MW07-21	2017	4	Phase I	40-50	<1	<0.5	30.20	12.10	24.30	6.60	71.10	43.60	<0.05	<7	<4	<8	<6
Not sampled - refusal	MW07-21	2018	5	Phase I														
MW07-21-SOIL-D	MW07-21	2023	10	Phase II	40-50	0.50	<0.050	27.00	11.50	19.20	5.01	68.40	32.50	<0.010	<10	<10	<50	<50
MW23-S-110 (Duplicate)	MW07-21	2023	10	Phase II	40-50	0.39	<0.050	20.20	8.95	14.60	3.89	52.20	26.60	<0.010	<10	<10	<50	<50

N/A = not analyzed

Legend

XX	Sample exceeds baseline mean
XX	Sample exceeds baseline data with variation

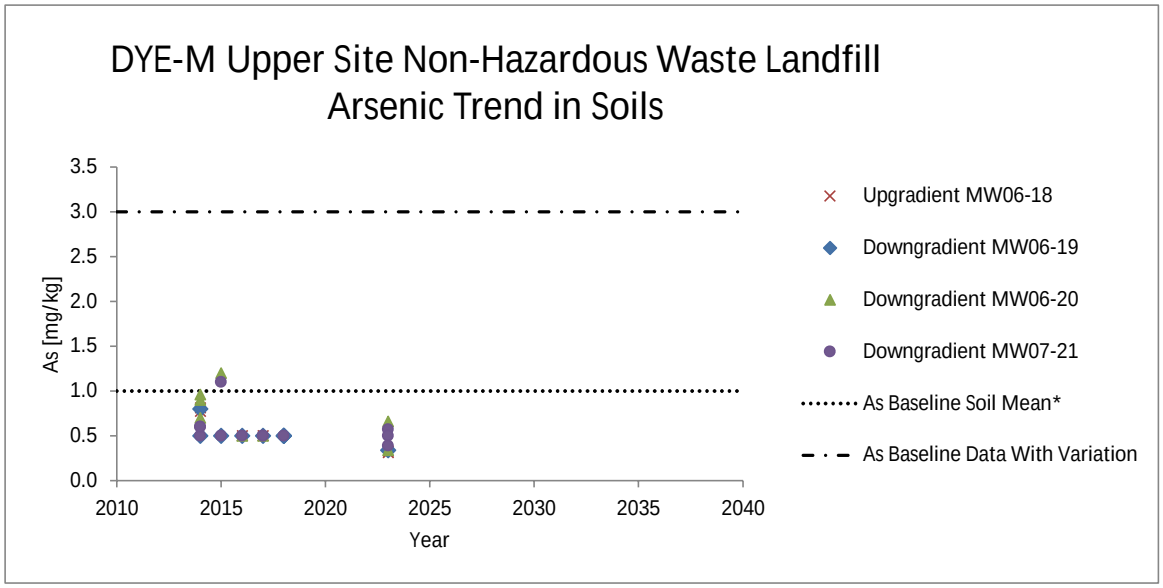
DYE-M Upper Site Non-Hazardous Waste Landfill Trends in Soil Inorganics, PCBs and PHCs

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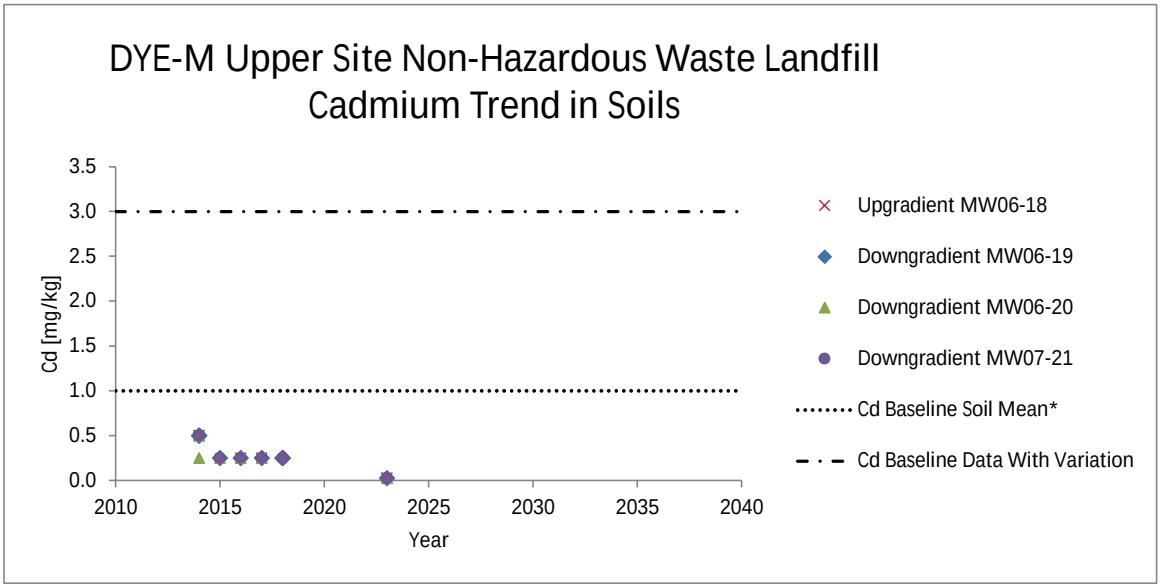
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* As baseline arithmetic mean is equal to the baseline detection limit



* Cd baseline arithmetic mean is equal to the baseline detection limit

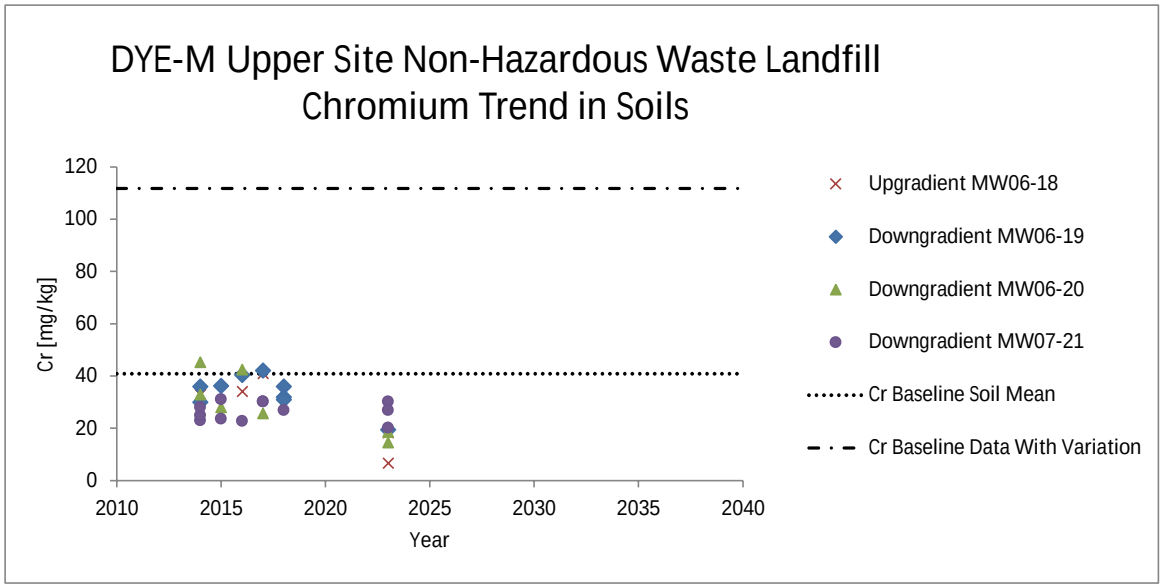
DYE-M Upper Site Non-Hazardous Waste Landfill Trends in Soil Inorganics, PCBs and PHCs

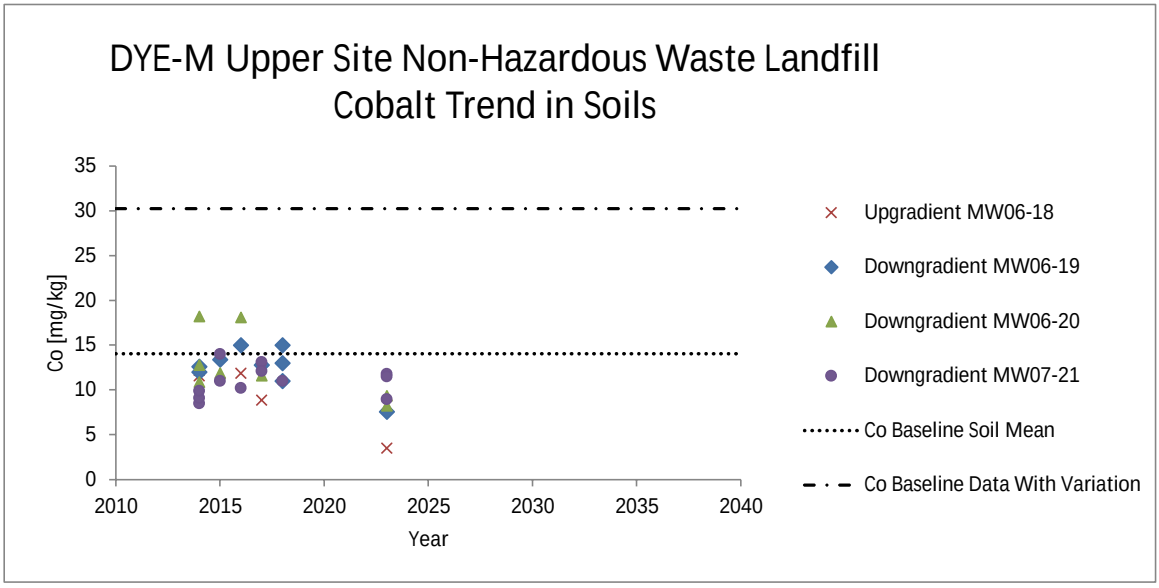
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

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When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





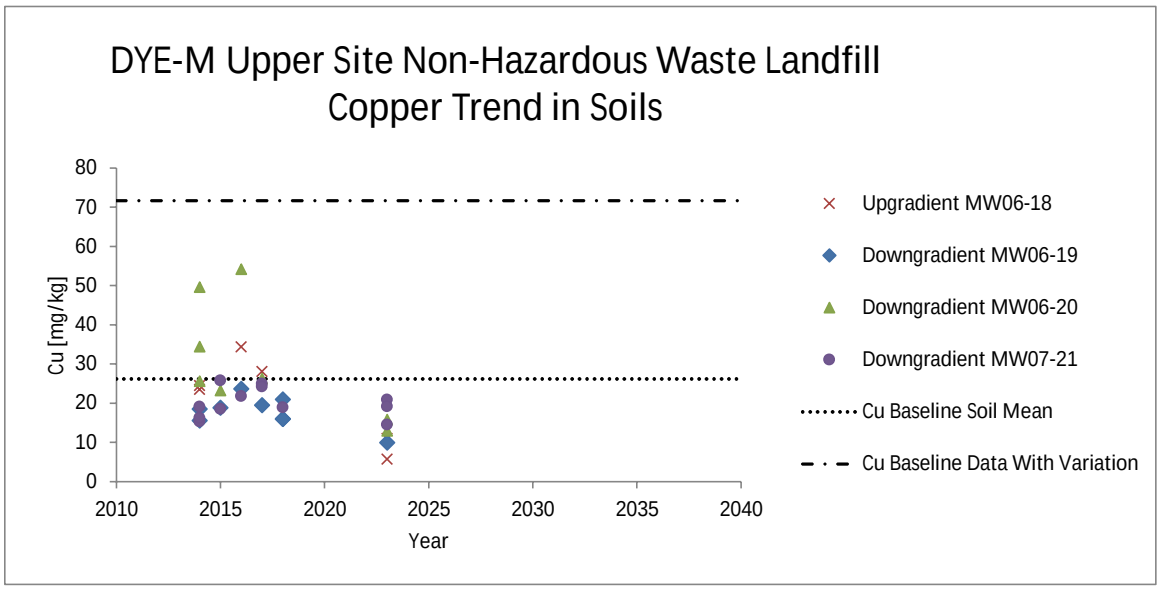
DYE-M Upper Site Non-Hazardous Waste Landfill Trends in Soil Inorganics, PCBs and PHCs

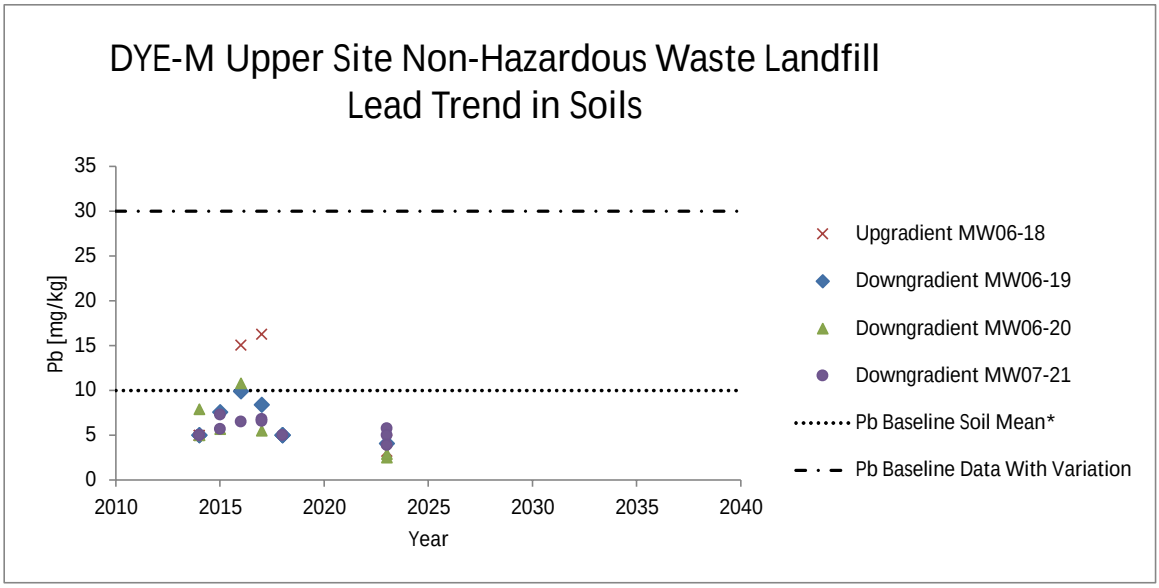
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





* Pb baseline arithmetic mean is equal to the baseline detection limit

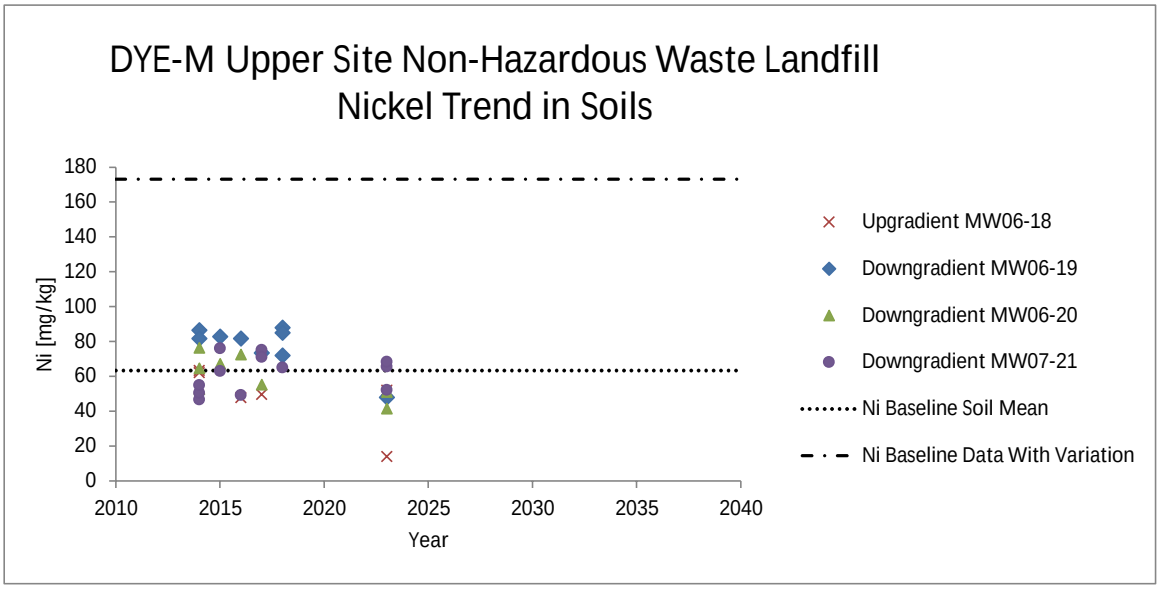
DYE-M Upper Site Non-Hazardous Waste Landfill Trends in Soil Inorganics, PCBs and PHCs

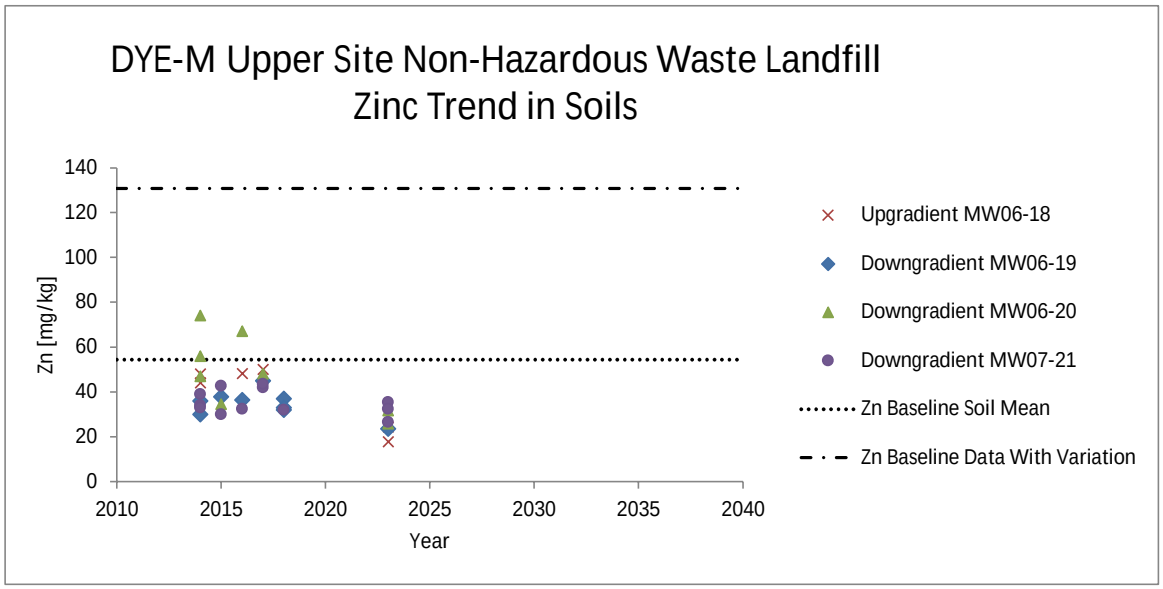
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





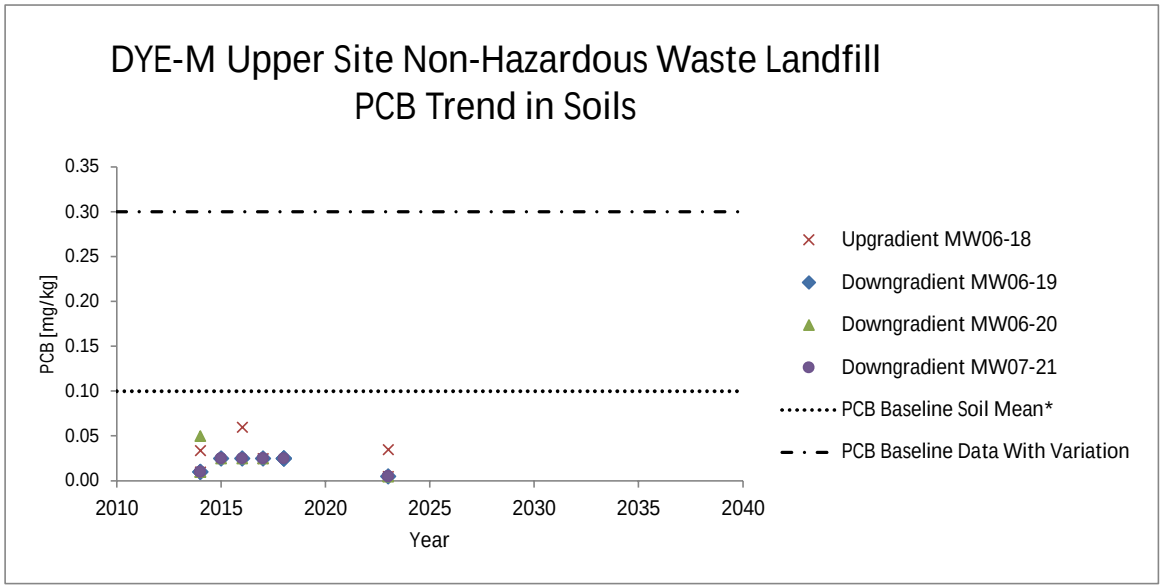
DYE-M Upper Site Non-Hazardous Waste Landfill Trends in Soil Inorganics, PCBs and PHCs

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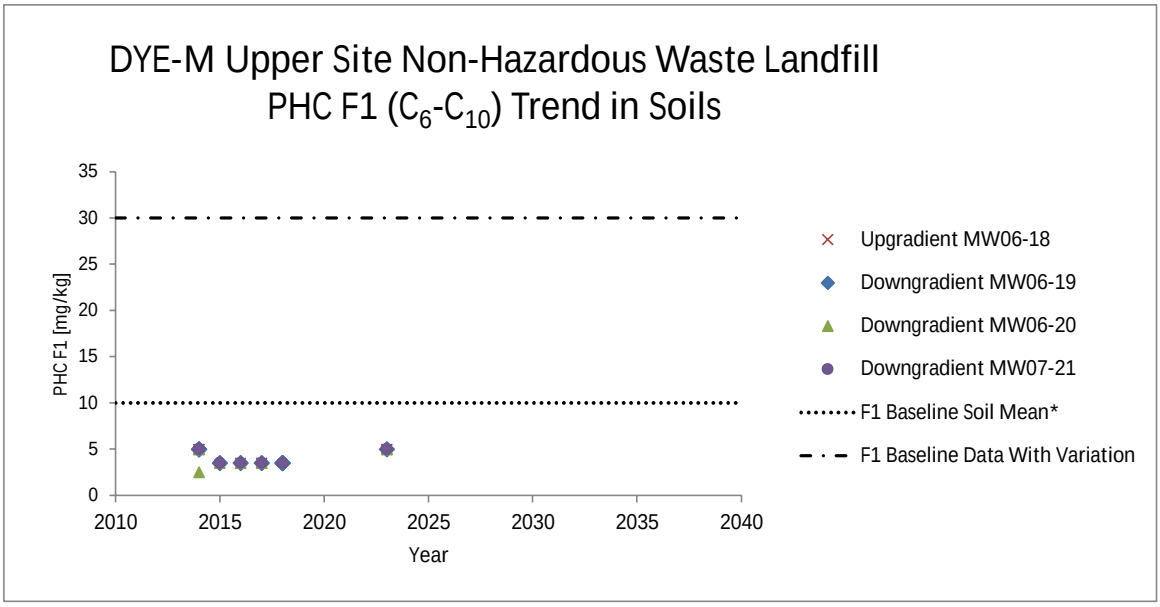
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* PCB baseline arithmetic mean is equal to the baseline detection limit



* F1 baseline arithmetic mean is equal to the detection limit

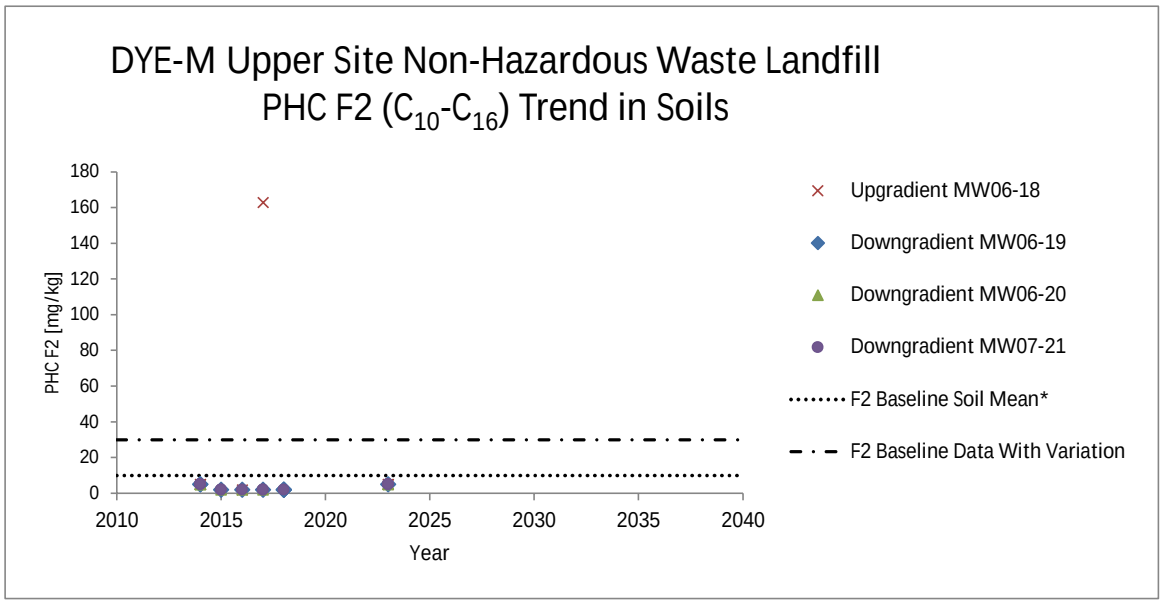
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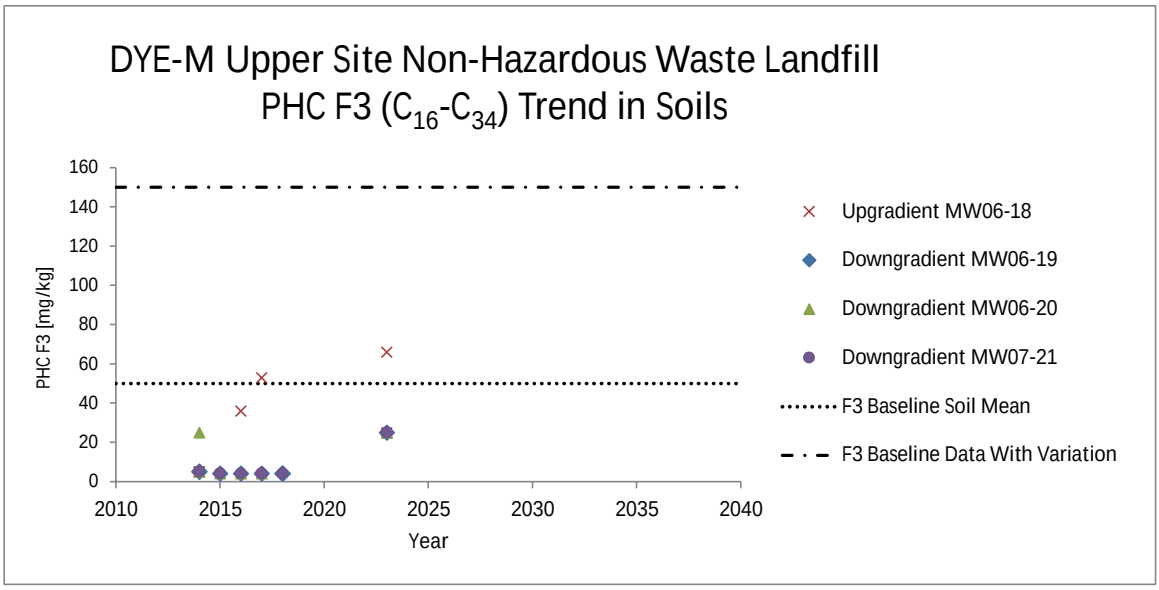
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F2 baseline arithmetic mean is equal to the detection limit



* F3 baseline arithmetic mean is equal to the detection limit

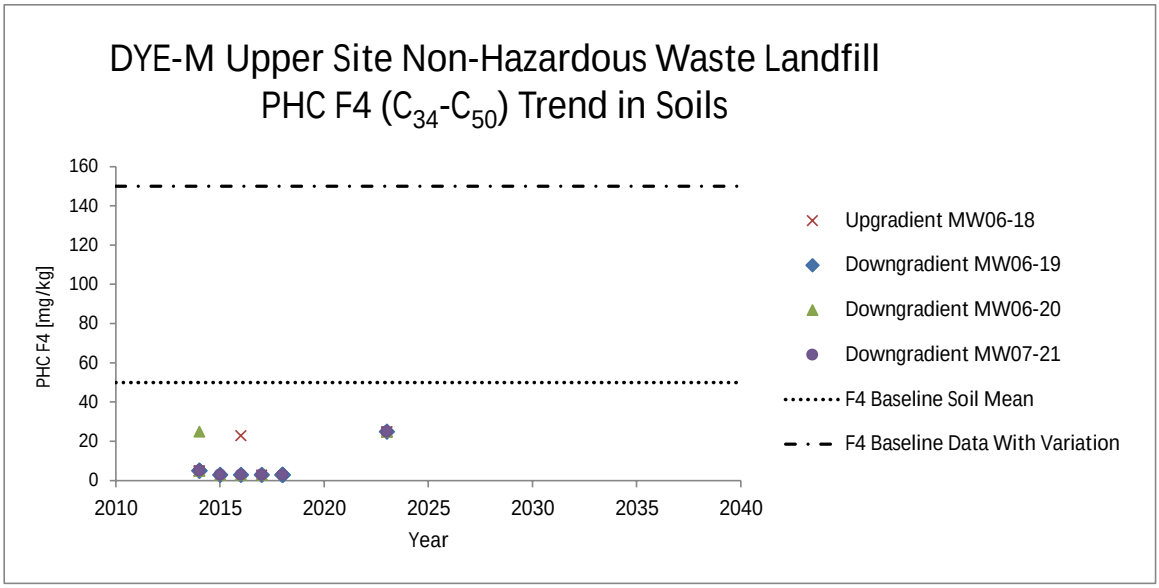
DYE-M Upper Site Non-Hazardous Waste Landfill Trends in Soil Inorganics, PCBs and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F4 baseline arithmetic mean is equal to the detection limit

DYE-M Upper Site Non-Hazardous Waste Landfill - Summary of Groundwater Monitoring Analytical Data

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Sample ID	Location	Date	Monitoring Year	Monitoring Phase	As (mg/L)	Cd (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Pb (mg/L)	Ni (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0088	0.0016	0.2653	0.0654	0.2481	0.0815	0.2200	3.70	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					0.0088	0.0016	0.2653	0.0654	0.2481	0.0815	0.2200	3.70	0.05	0.50	1.00	1.00
Baseline Data - Standard Deviation					0.0096	0.0013	0.1751	0.0429	0.1710	0.0902	0.1243	5.55	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					0.0377	0.0054	0.7907	0.1940	0.7610	0.3523	0.5929	20.35	0.15	1.50	3.00	3.00
*If baseline or background arithmetic mean was below the detection limit, the mean has been modified to match the detection limit value.																
Dissolved metals results (italicized) have not been included in the calculation of N value, baseline arithmetic mean or standard deviation. Total metals results (i.e., those used in calculations) are not italicized.																
Monitoring Data																
Upgradient - MW06-18																
Not sampled	MW06-18	2014	1	Phase I												
Not sampled - snow covered	MW06-18	2015	2	Phase I												
Not sampled - dry	MW06-18	2016	3	Phase I												
Not sampled - frozen	MW06-18	2017	4	Phase I												
Not sampled - snow covered	MW06-18	2018	5	Phase I												
MW06-18	MW06-18	2023	10	Phase II	0.0061	<0.000050	0.0190	0.0068	0.0542	0.0420	0.0314	7.0600	<0.025	<0.10	<0.20	<0.20

DYE-M Upper Site Non-Hazardous Waste Landfill - Summary of Groundwater Monitoring Analytical Data

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Sample ID	Location	Date	Monitoring Year	Monitoring Phase	As (mg/L)	Cd (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Pb (mg/L)	Ni (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0088	0.0016	0.2653	0.0654	0.2481	0.0815	0.2200	3.70	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					0.0088	0.0016	0.2653	0.0654	0.2481	0.0815	0.2200	3.70	0.05	0.50	1.00	1.00
Baseline Data - Standard Deviation					0.0096	0.0013	0.1751	0.0429	0.1710	0.0902	0.1243	5.55	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					0.0377	0.0054	0.7907	0.1940	0.7610	0.3523	0.5929	20.35	0.15	1.50	3.00	3.00
Downgradient - MW06-19																
Not sampled	MW06-19	2014	1	Phase I												
MW06-19	MW06-19	2015	2	Phase I	<0.001	<0.0001	<0.001	<0.0005	0.00150	<0.0001	<0.001	0.20100	<0.025	<0.1	<0.1	<0.1
MW06-19	MW06-19	2016	3	Phase I	<0.001	<0.0001	<0.001	<0.0005	<0.0005	<0.0001	<0.001	<0.0050	<0.025	<0.1	<0.1	<0.1
MW06-19 (Interlab)	MW06-19	2016	3	Phase I	<0.001	<0.0001	0.00300	0.00080	<0.0050	<0.0001	0.04600	<0.0050	<0.025	<0.1	<0.1	<0.1
MW06-19	MW06-19	2017	4	Phase I	*<0.001*	*<0.0001*	*<0.001*	*<0.0005*	*0.00590*	*0.00050*	*<0.001*	*0.07500*	<0.025	<0.1	<0.1	<0.1
Not sampled - frozen	MW06-19	2018	5	Phase I												
MW06-19	MW06-19	2023	10	Phase II	0.00003	<0.0000050	0.00056	0.00018	0.00080	0.00032	0.00052	0.02470	<0.025	<0.10	<0.20	<0.20

DYE-M Upper Site Non-Hazardous Waste Landfill - Summary of Groundwater Monitoring Analytical Data

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Sample ID	Location	Date	Monitoring Year	Monitoring Phase	As (mg/L)	Cd (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Pb (mg/L)	Ni (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0088	0.0016	0.2653	0.0654	0.2481	0.0815	0.2200	3.70	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					0.0088	0.0016	0.2653	0.0654	0.2481	0.0815	0.2200	3.70	0.05	0.50	1.00	1.00
Baseline Data - Standard Deviation					0.0096	0.0013	0.1751	0.0429	0.1710	0.0902	0.1243	5.55	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					0.0377	0.0054	0.7907	0.1940	0.7610	0.3523	0.5929	20.35	0.15	1.50	3.00	3.00
Downgradient - MW06-20																
14-8180	MW06-20	2014	1	Phase I	*<0.001*	*<0.00009*	*<0.0005*	*<0.0003*	*<0.001*	*<0.0005*	*<0.001*	*0.09700*	<0.025	<0.1	<0.25	<0.25
14-8181 (Dup)	MW06-20	2014	1	Phase I	*<0.001*	*<0.00009*	*<0.0005*	*<0.0003*	*<0.001*	*<0.0005*	*<0.001*	*0.21800*	<0.025	<0.1	<0.25	<0.25
Not sampled - could not open	MW06-20	2015	2	Phase I												
Not sampled - insufficient water	MW06-20	2016	3	Phase I												
Not sampled - frozen	MW06-20	2017	4	Phase I												
Not sampled - casing frozen	MW06-20	2018	5	Phase I												
MW06-20	MW06-20	2023	10	Phase II	0.00038	0.0000111	0.00442	0.00148	0.00700	0.00439	0.00485	1.76000	<0.025	<0.10	<0.20	<0.20

DYE-M Upper Site Non-Hazardous Waste Landfill - Summary of Groundwater Monitoring Analytical Data

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Sample ID	Location	Date	Monitoring Year	Monitoring Phase	As (mg/L)	Cd (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Pb (mg/L)	Ni (mg/L)	Zn (mg/L)	F1* C_6-C_{10} (mg/L)	F2* C_{10}-C_{16} (mg/L)	F3* C_{16}-C_{34} (mg/L)	F4* C_{34}-C_{50} (mg/L)
Baseline Data - Arithmetic Mean					0.0088	0.0016	0.2653	0.0654	0.2481	0.0815	0.2200	3.70	0.025	0.25	0.50	0.50
Baseline Data - Arithmetic Mean Corrected for Detection Limit					0.0088	0.0016	0.2653	0.0654	0.2481	0.0815	0.2200	3.70	0.05	0.50	1.00	1.00
Baseline Data - Standard Deviation					0.0096	0.0013	0.1751	0.0429	0.1710	0.0902	0.1243	5.55	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]					0.0377	0.0054	0.7907	0.1940	0.7610	0.3523	0.5929	20.35	0.15	1.50	3.00	3.00
Downgradient - MW07-21																
14-8182	MW07-21	2014	1	Phase I	*<0.001*	*<0.00009*	*<0.0005*	*<0.0003*	*<0.001*	*<0.0005*	*<0.001*	*<0.0030*	<0.025	<0.1	<0.25	<0.25
Not sampled - frozen	MW07-21	2015	2	Phase I												
MW07-21	MW07-21	2016	3	Phase I	<0.001	<0.0001	<0.001	<0.0005	0.00060	0.00030	<0.001	0.02000	<0.025	<0.1	<0.1	<0.1
Not sampled - frozen	MW07-21	2017	4	Phase I												
Not sampled - frozen	MW07-21	2018	5	Phase I												
MW07-21	MW07-21	2023	10	Phase II	<0.000020	0.0000104	0.01690	0.00453	0.01580	0.00416	0.01500	0.03470	<0.025	<0.10	<0.20	<0.20

N/A = not analyzed

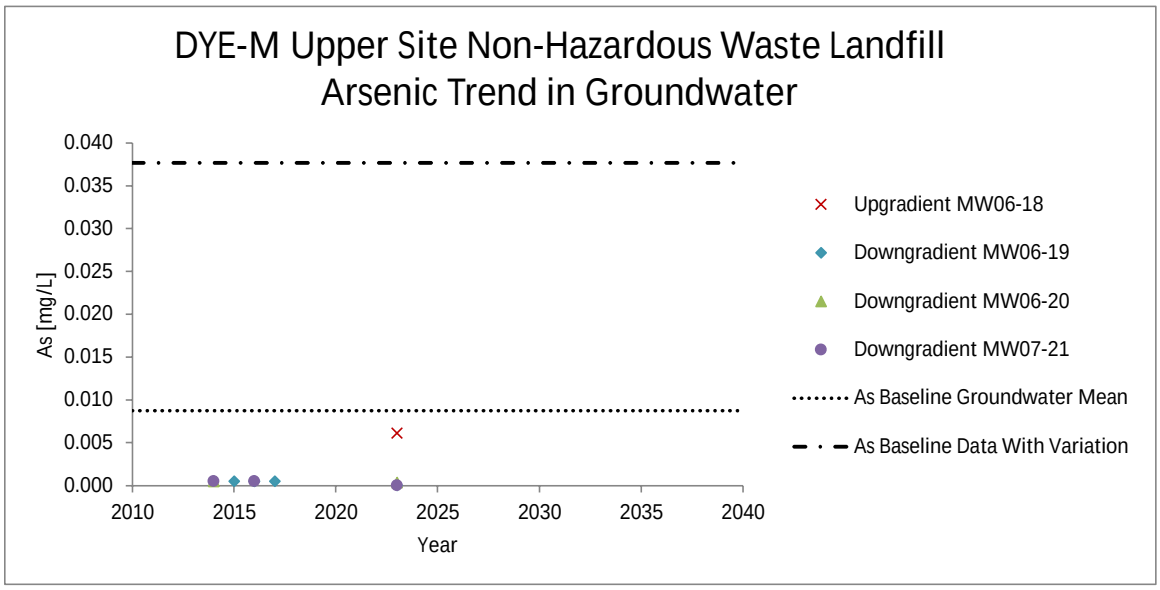
2014 and 2017 samples were accidentally analysis for dissolved metals instead of total metals.

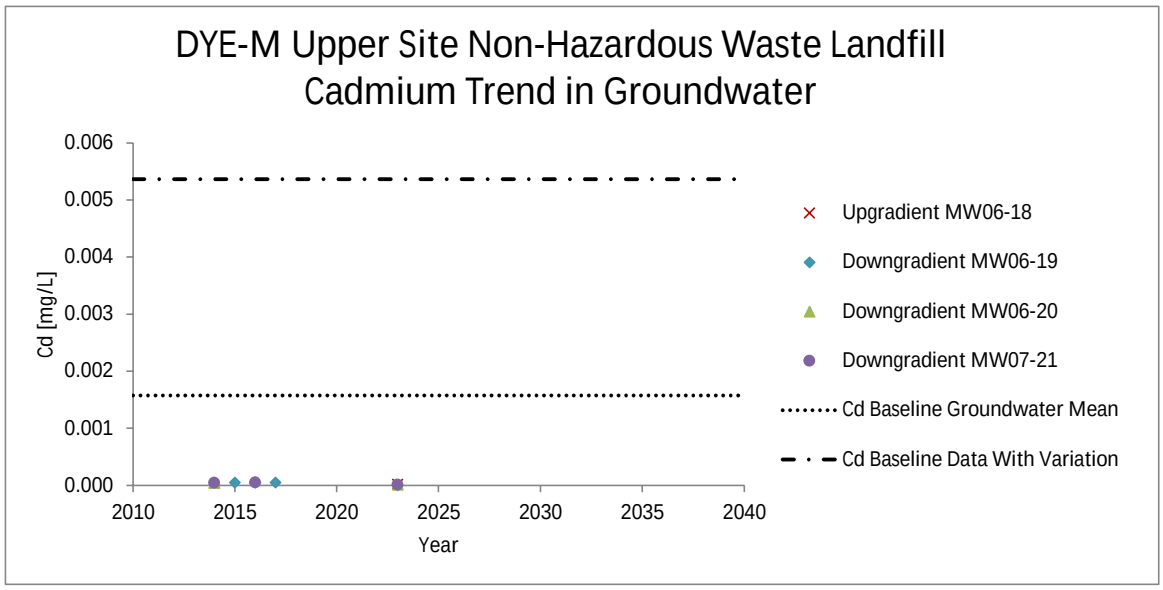
Legend	
XX	Sample exceeds baseline mean
XX	Sample exceeds baseline data with variation
XX	*Dissolved metals results*

DYE-M Upper Site Non-Hazardous Waste Landfill Trends in Groundwater Inorganics and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.
Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.
When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.

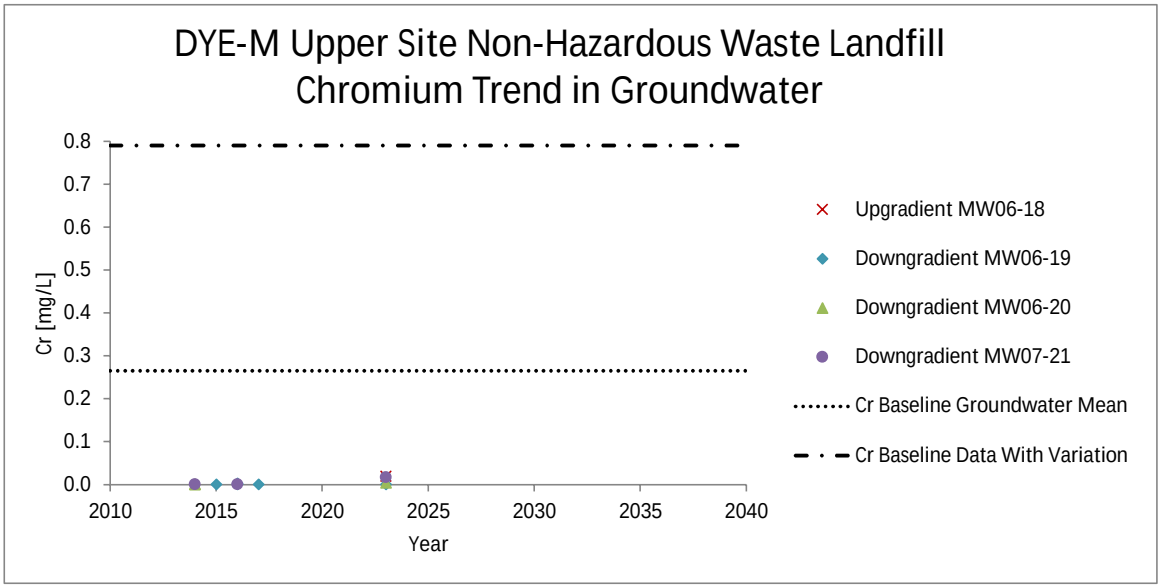


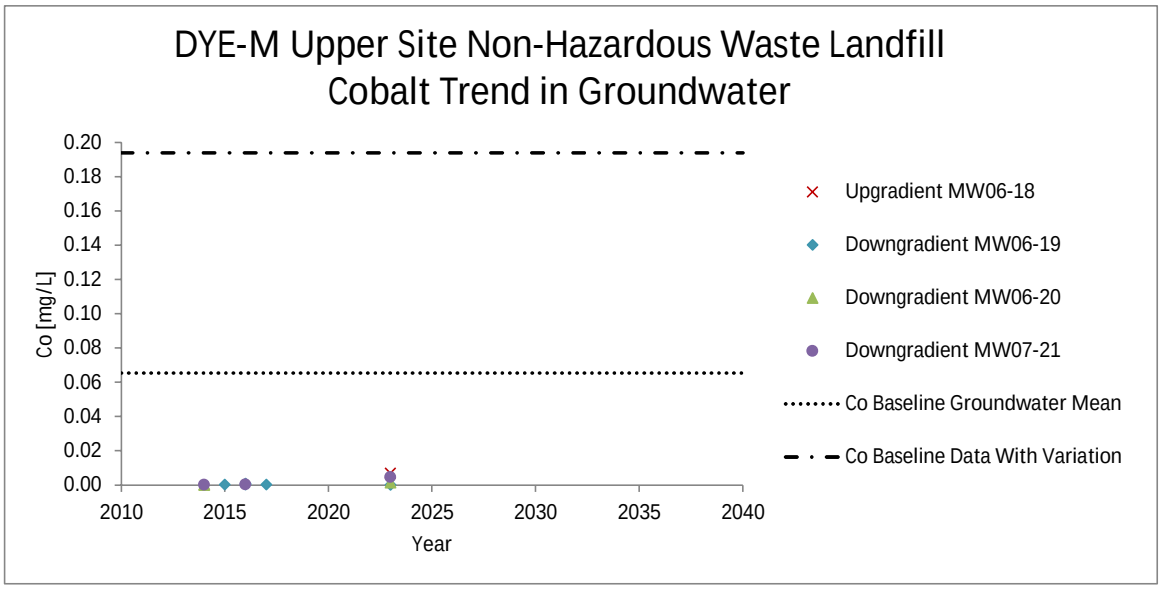


DYE-M Upper Site Non-Hazardous Waste Landfill Trends in Groundwater Inorganics and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.
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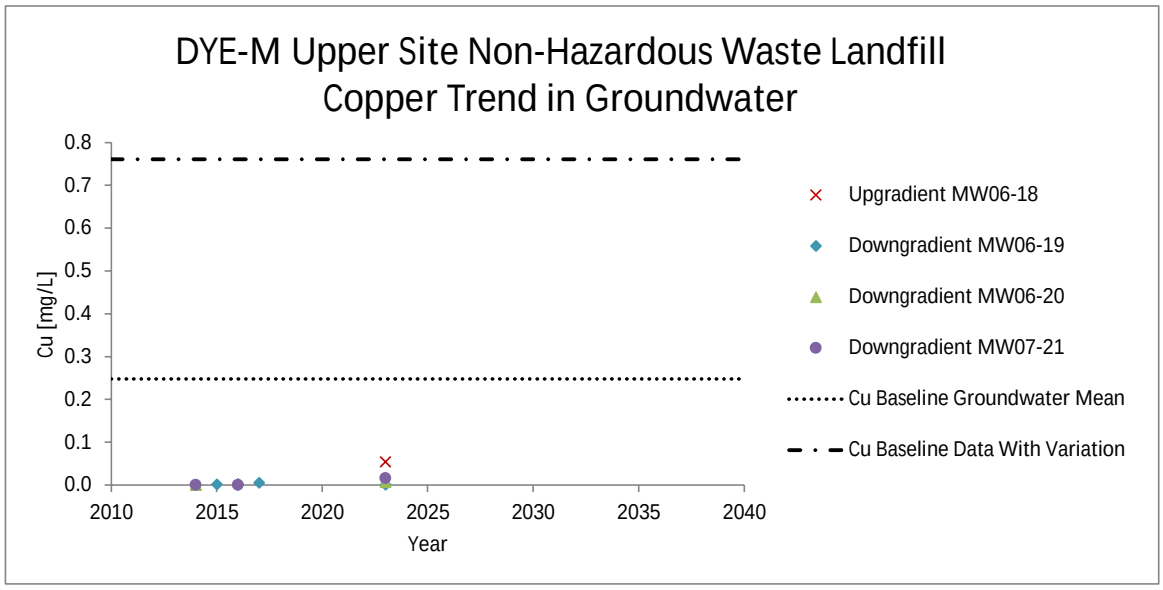


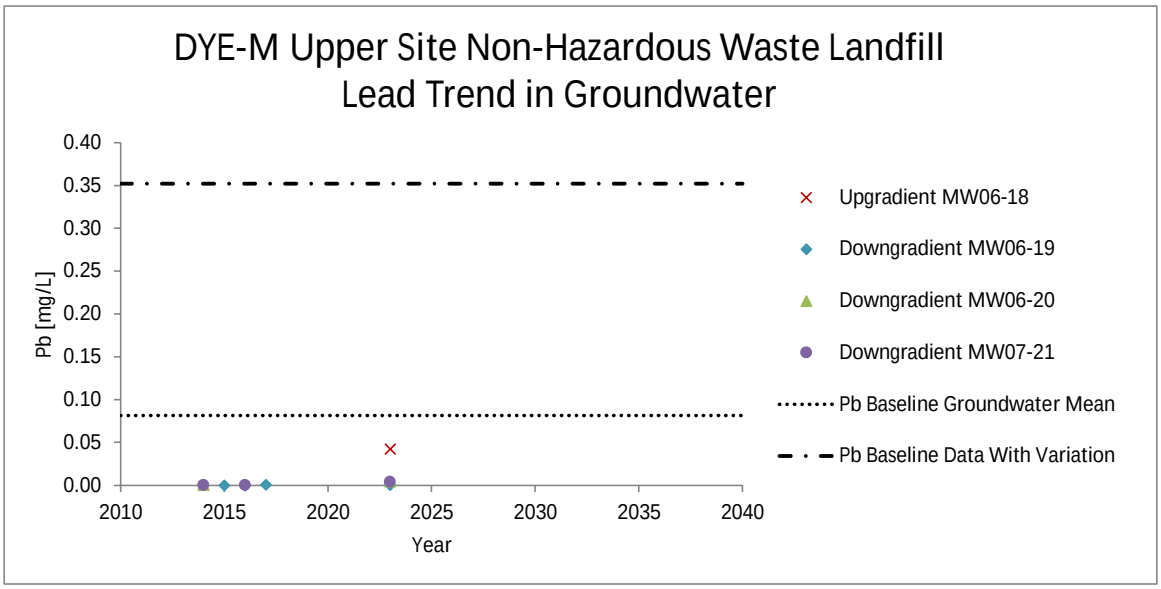


DYE-M Upper Site Non-Hazardous Waste Landfill Trends in Groundwater Inorganics and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.
Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.
When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.

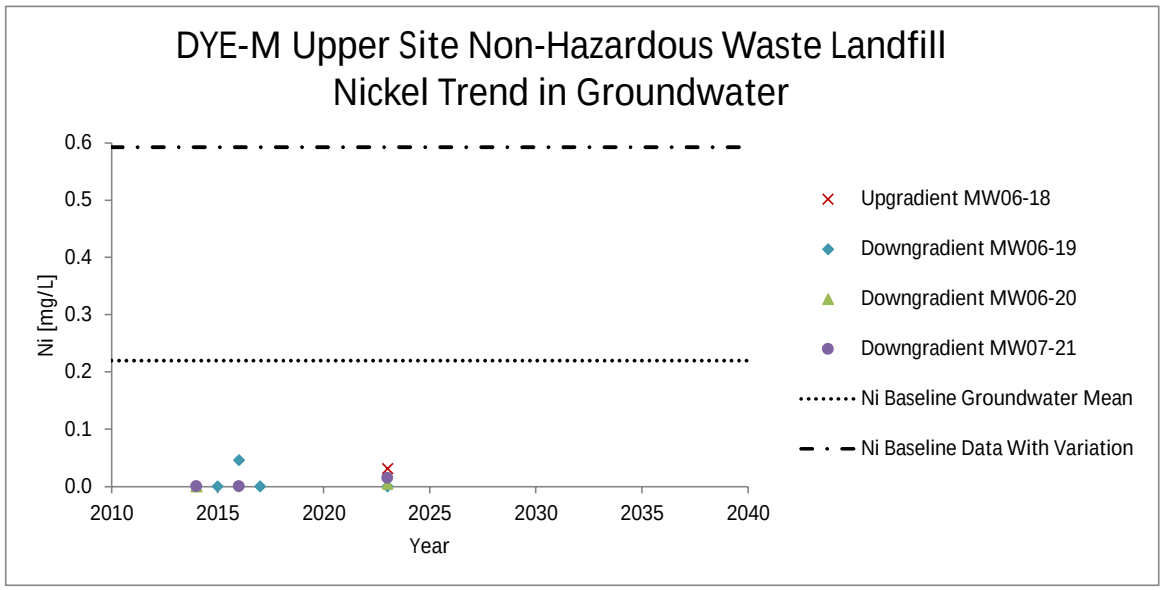


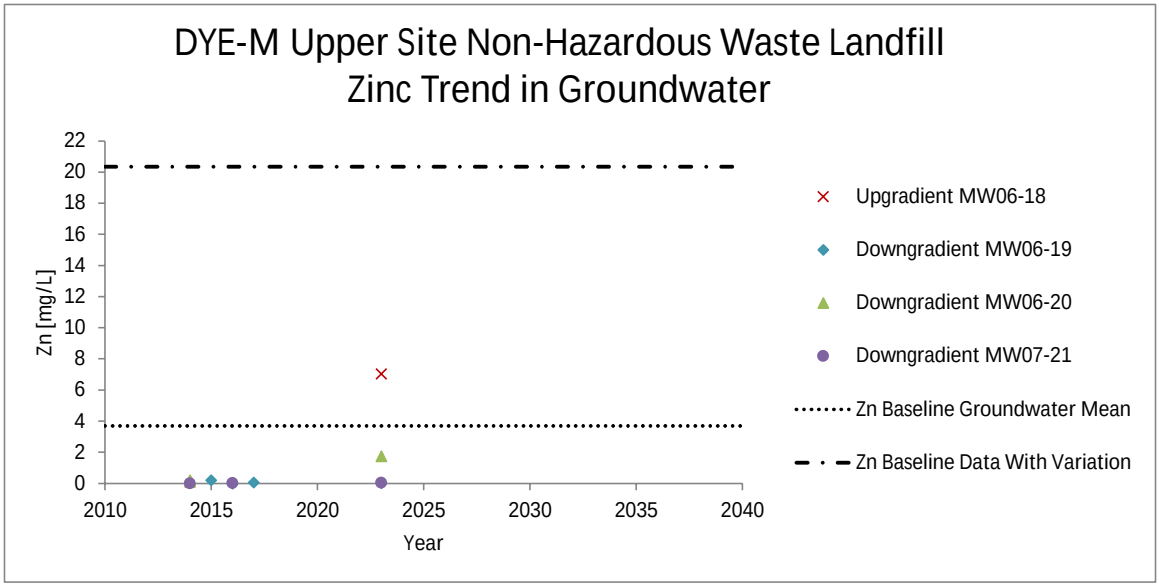


DYE-M Upper Site Non-Hazardous Waste Landfill Trends in Groundwater Inorganics and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.
Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.
When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.

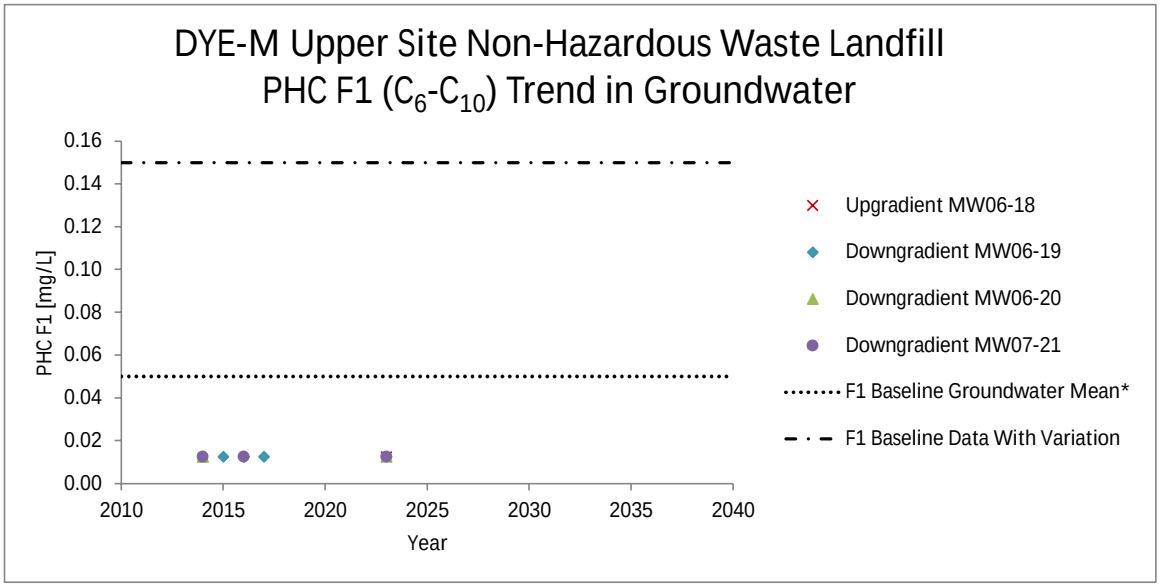




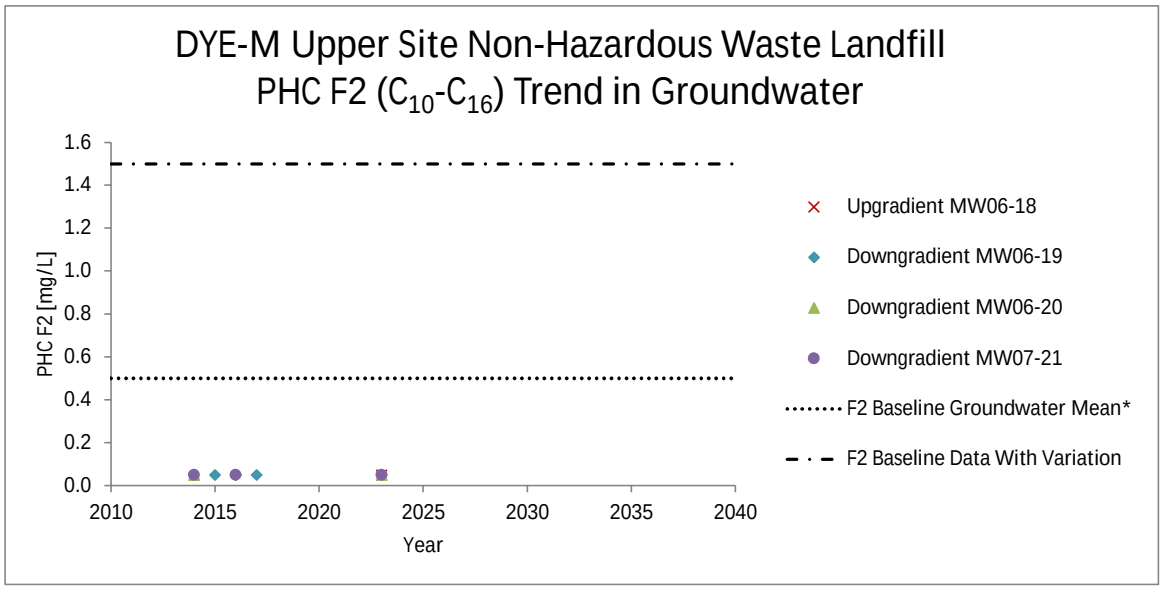
DYE-M Upper Site Non-Hazardous Waste Landfill Trends in Groundwater Inorganics and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.
Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.
When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F1 baseline arithmetic mean is equal to the detection limit

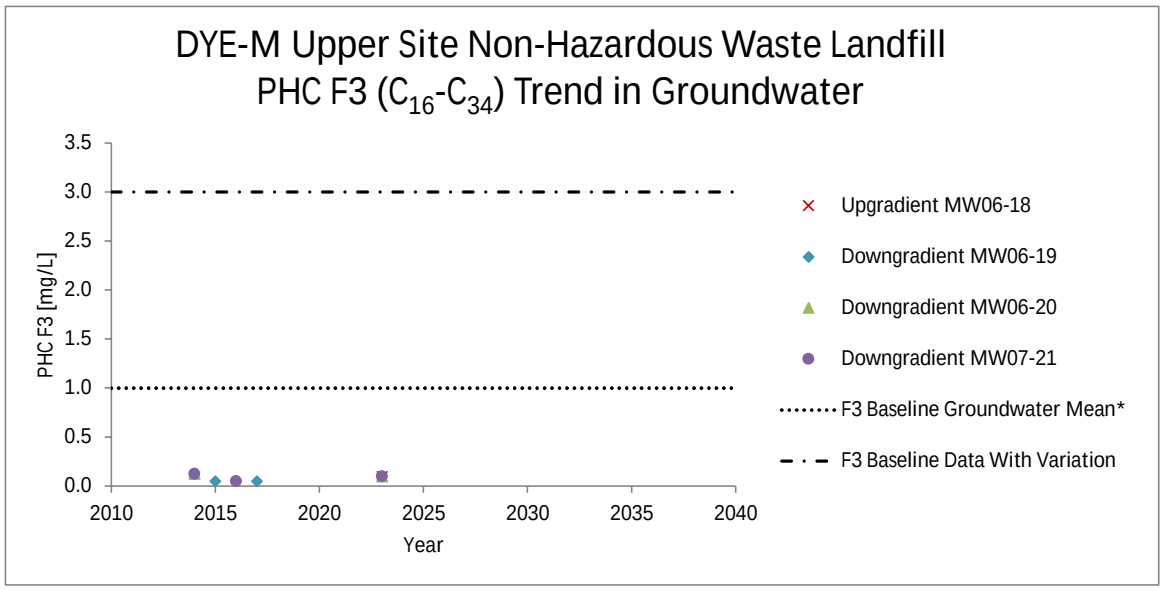


* F2 baseline arithmetic mean is equal to the detection limit

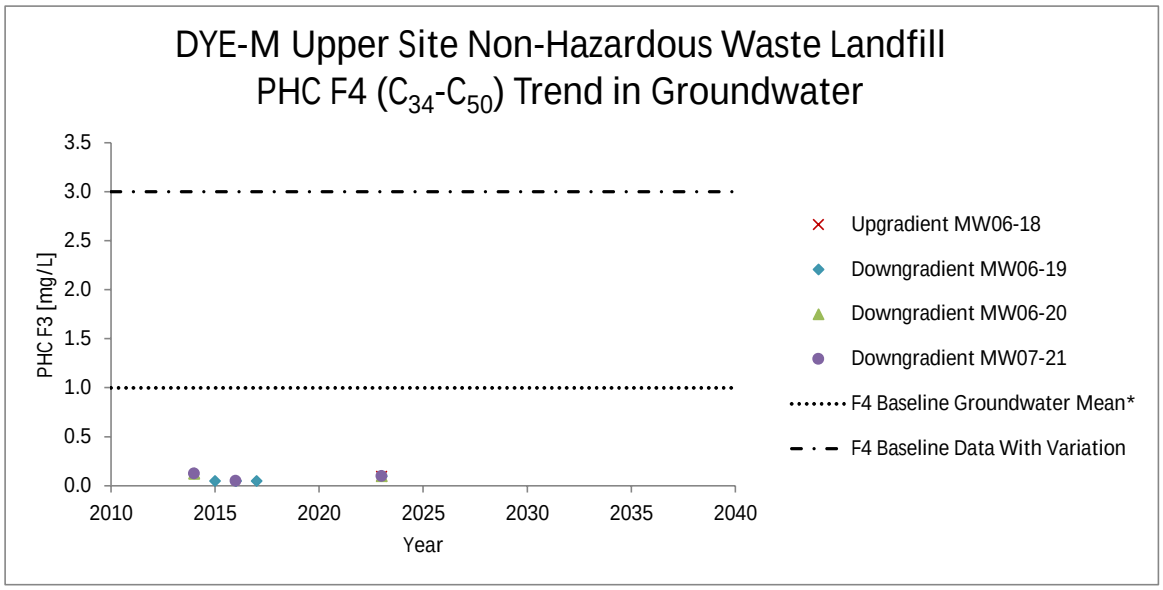
DYE-M Upper Site Non-Hazardous Waste Landfill Trends in Groundwater Inorganics and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.
Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.
When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F3 baseline arithmetic mean is equal to the detection limit



* F4 baseline arithmetic mean is equal to the detection limit

DYE-M Upper Site North Warning System Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	37.46	10.14	25.66	10.00	58.86	63.38	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	35.95	4.43	15.10	0.00	75.39	31.39	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	145.32	23.41	70.96	30.00	285.04	157.55	0.30	30.00	30.00	150.00	150.00
** If baseline or background arithmetic mean was below the detection limit, the mean has been modified to match the detection limit value.*																		
DEW Line Cleanup Tier I Criteria											*200*			*1*				
DYE-M Upper Site Site-Specific Criteria and DEW Line Cleanup Tier II Criteria						*30*	*5*	*250*	*153*	*296*	*500*	*2010*	*500*	*5*				
Monitoring Data																		
Upgradient																		
	DM-18 surface																	
14-8274	DM-18	2014	1	Phase I	0-10	1.10	<1	26.00	9.60	23.10	15.00	28.00	59.00	<0.02	<10	<10	<10	<10
DM-18 (0-10)	DM-18	2015	2	Phase I	0-10	4.40	<0.5	131.00	22.40	66.70	16.00	118.00	58.10	<0.05	<7	<4	<8	<6
DM-18A	DM-18	2016	3	Phase I	0-15	<1	<0.5	40.10	10.90	33.10	14.70	43.70	52.60	<0.05	<7	<4	<8	<6
DM-18 Shallow	DM-18	2017	4	Phase I	0-15	<1	<0.5	72.70	12.20	36.00	14.40	67.20	48.00	<0.05	<7	<4	<8	<6
DM-18S	DM-18	2018	5	Phase I	0-15	1.00	<0.5	163.00	17.00	34.00	16.00	111.00	51.00	<0.05	<7	<4	<8	<6
DM-18-S	DM-18	2023	10	Phase II	0-15	3.28	<0.050	68.10	15.20	50.00	3.93	97.90	32.40	<0.010	<10	<10	<50	<50
MW23-S-120 (Dup)	DM-18	2023	10	Phase II	0-15	3.61	<0.050	84.30	18.30	60.30	4.76	134.00	37.70	<0.010	<10	<10	<50	<50
MW23-S-120 (Interlab)	DM-18	2023	10	Phase II	0-15									<0.010				
	DM-18 depth																	
14-8275	DM-18	2014	1	Phase I	40-50	1.00	<1	21.00	9.60	23.40	15.00	24.90	64.00	<0.02	<10	<10	<10	<10
Not sampled - refusal	DM-18	2015	2	Phase I														
Not sampled - refusal	DM-18	2016	3	Phase I														
DM-18 Deep	DM-18	2017	4	Phase I	20-30	<1	<0.5	24.20	8.10	20.60	10.80	38.40	44.90	<0.05	<7	<4	<8	<6
DM-18D	DM-18	2018	5	Phase I	35-45	<1	<0.5	153.00	15.00	31.00	12.00	101.00	46.00	<0.05	<7	<4	<8	<6
DM-18-D	DM-18	2023	10	Phase II	40-50	2.05	<0.050	50.70	13.00	40.10	7.07	65.90	34.30	<0.010	<10	15	<50	<50

DYE-M Upper Site North Warning System Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	37.46	10.14	25.66	10.00	58.86	63.38	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	35.95	4.43	15.10	0.00	75.39	31.39	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	145.32	23.41	70.96	30.00	285.04	157.55	0.30	30.00	30.00	150.00	150.00
Downgradient (also upgradient of Upper Site South Landfill West)																		
	DM-19 surface																	
14-8277	DM-19	2014	1	Phase I	0-10	0.60	<1	20.00	6.40	16.60	<10	24.00	42.00	<0.02	<10	<10	<10	<10
Not sampled - frozen	DM-19	2015	2	Phase I														
DM-19A	DM-19	2016	3	Phase I	0-15	<1	<0.5	14.10	4.70	12.70	6.10	16.50	29.00	<0.05	<7	<4	<8	<6
DM-19 Shallow	DM-19	2017	4	Phase I	0-15	<1	<0.5	30.00	9.70	25.80	10.40	41.90	60.00	<0.05	<7	<4	<8	<6
DM-19S	DM-19	2018	5	Phase I	0-15	<1	<0.5	20.00	6.00	17.00	7.00	26.00	40.00	0.250	<7	<4	<8	<6
DM-19-S	DM-19	2023	10	Phase II	0-15	0.53	<0.050	21.90	7.16	21.10	5.60	27.20	38.00	<0.010	<10	<10	<50	<50
DM-19-S (Interlab)	DM-19	2023	10	Phase II	0-15									<0.010				
	DM-19 depth																	
14-8278	DM-19	2014	1	Phase I	40-50	0.70	<1	<20	<5	14.00	<10	17.20	36.00	<0.02	<10	<10	<10	<10
14-8279 (Interlab)	DM-19	2014	1	Phase I	40-50	0.93	<0.5	25.20	7.60	19.40	10.50	22.50	56.90	<0.10	<5	<10	<50	<50
Not sampled - frozen	DM-19	2015	2	Phase I														
Not sampled - refusal	DM-19	2016	3	Phase I														
Not sampled - refusal	DM-19	2017	4	Phase I														
Not sampled - frozen	DM-19	2018	5	Phase I														
DM-19-D	DM-19	2023	10	Phase II	40-50	0.44	<0.050	17.40	6.30	19.60	4.40	25.10	30.20	<0.010	<10	<10	<50	<50

DYE-M Upper Site North Warning System Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	37.46	10.14	25.66	10.00	58.86	63.38	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	35.95	4.43	15.10	0.00	75.39	31.39	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	145.32	23.41	70.96	30.00	285.04	157.55	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-20 surface																	
14-8283	DM-20	2014	1	Phase I	0-10	0.60	<1	25.00	11.50	34.40	<10	61.30	44.00	<0.02	<10	<10	<10	<10
DM-20 (0-15)	DM-20	2015	2	Phase I	0-15	1.90	<0.5	23.10	7.90	17.10	11.20	28.80	48.20	<0.05	<7	<4	<8	<6
DM-20A	DM-20	2016	3	Phase I	0-15	<1	<0.5	13.90	6.60	19.20	31.30	20.80	47.30	<0.05	<7	<4	<8	<6
DM-20 Shallow	DM-20	2017	4	Phase I	0-15	<1	<0.5	19.20	7.30	30.10	14.50	27.10	56.90	<0.05	<7	<4	<8	<6
DM-20S	DM-20	2018	5	Phase I	0-15	<1	<0.5	25.00	8.00	22.00	9.00	42.00	41.00	<0.05	<7	<4	<8	<6
DM-20-S	DM-20	2023	10	Phase II	0-15	0.61	0.071	22.20	7.09	13.10	4.74	43.40	29.00	0.012	<10	<10	<50	<50
DM-20-S (Interlab)	DM-20	2023	10	Phase II	0-15									<0.010				
	DM-20 depth																	
14-8284	DM-20	2014	1	Phase I	30-40	0.70	<1	<20	<5	15.60	33.00	12.70	59.00	<0.02	<10	<10	<10	<10
DM-20 (15-30)	DM-20	2015	2	Phase I	15-30	<1	<0.5	20.00	7.50	14.30	10.50	26.30	43.70	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-20	2016	3	Phase I														
Not sampled - refusal	DM-20	2017	4	Phase I														
DM-20D	DM-20	2018	5	Phase I	20-30	<1	<0.5	12.00	4.00	14.00	6.00	18.00	29.00	<0.05	<7	<4	<8	<6
QA/QC S11 (Dup)	DM-20	2018	5	Phase I	20-30	<1	<0.5	23.00	8.00	22.00	8.00	40.00	40.00	<0.05	<7	<4	<8	<6
DM-20-D	DM-20	2023	10	Phase II	40-50	0.44	<0.050	17.40	6.78	12.10	4.75	40.90	24.90	<0.010	<10	<10	<50	<50

DYE-M Upper Site North Warning System Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	37.46	10.14	25.66	10.00	58.86	63.38	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	35.95	4.43	15.10	0.00	75.39	31.39	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	145.32	23.41	70.96	30.00	285.04	157.55	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-21 surface																	
14-8285	DM-21	2014	1	Phase I	0-10	1.10	<1	<20	8.20	14.70	13.00	18.20	92.00	<0.02	<10	<10	<10	<10
Not sampled - frozen	DM-21	2015	2	Phase I														
DM-21A	DM-21	2016	3	Phase I	0-15	<1	<0.5	14.80	9.60	18.80	14.70	21.10	86.70	<0.05	<7	<4	<8	<6
DM-21 Shallow	DM-21	2017	4	Phase I	0-15	<1	<0.5	15.50	9.00	18.00	13.50	23.30	99.20	<0.05	<7	<4	<8	<6
DM-921 Shallow (Dup)	DM-21	2017	4	Phase I	0-15	<1	<0.5	18.30	10.30	20.70	15.40	25.60	110.00	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-21	2018	5	Phase I														
DM-21-S	DM-21	2023	10	Phase II	0-15	1.05	<0.050	16.00	8.00	15.60	13.30	23.10	81.50	<0.010	<10	<10	<50	<50
	DM-21 depth																	
14-8287	DM-21	2014	1	Phase I	45-55	1.60	<1	<20	9.20	20.70	14.00	16.40	121.00	<0.02	<10	<10	<10	<10
Not sampled - frozen	DM-21	2015	2	Phase I														
Not sampled - refusal	DM-21	2016	3	Phase I														
DM-21 Deep	DM-21	2017	4	Phase I	20-30	<1	<0.5	15.30	9.00	16.70	13.10	22.00	98.60	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-21	2018	5	Phase I														
DM-21-D	DM-21	2023	10	Phase II	45-55	1.12	<0.050	14.00	9.73	19.10	12.80	17.90	124.00	<0.010	<10	<10	<50	<50

DYE-M Upper Site North Warning System Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	37.46	10.14	25.66	10.00	58.86	63.38	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	35.95	4.43	15.10	0.00	75.39	31.39	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	145.32	23.41	70.96	30.00	285.04	157.55	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-22 surface																	
14-8233	DM-22	2014	1	Phase I	5-10	0.90	<1	25.00	7.90	32.60	<10	48.30	44.00	<0.10	N/A	N/A	N/A	N/A
DM-22 (0-15)	DM-22	2015	2	Phase I	0-15	1.90	<0.5	23.70	15.60	35.80	9.50	34.00	43.10	<0.05	<7	<4	<8	<6
DM-22B	DM-22	2016	3	Phase I	0-15	<1	<0.5	20.70	12.30	30.60	10.30	34.90	40.00	<0.05	<7	<4	<8	<6
DM-22 Shallow	DM-22	2017	4	Phase I	0-15	<1	<0.5	19.80	13.90	40.70	13.60	35.10	51.50	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-22	2018	5	Phase I														
DM-22-S	DM-22	2023	10	Phase II	0-15	0.93	<0.050	33.00	8.90	38.60	8.27	42.10	54.50	<0.010	<10	<10	<50	<50
DM-22-S (Interlab)	DM-22	2023	10	Phase II	0-15	0.98	<0.050	33.30	9.20	39.60	9.70	43.60	56.60					
	DM-22 depth																	
14-8234	DM-22	2014	1	Phase I	45-50	0.90	<1	27.00	8.00	28.00	<10	50.10	49.00	<0.10	N/A	N/A	N/A	N/A
DM-22 (40-50)	DM-22	2015	2	Phase I	40-50	<1	<0.5	13.90	19.30	54.10	5.90	23.10	28.80	<0.05	<7	<4	<8	<6
DM-22A	DM-22	2016	3	Phase I	30-40	<1	<0.5	18.80	14.30	47.50	14.20	21.40	57.20	<0.05	<7	<4	<8	<6
DM-22 Deep	DM-22	2017	4	Phase I	20-30	<1	<0.5	18.20	14.40	42.70	8.80	30.90	44.60	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-22	2018	5	Phase I														
DM-22-D	DM-22	2023	10	Phase II	45-50	0.86	<0.050	38.40	15.80	61.00	11.50	47.50	86.60	<0.010	<10	<10	<50	<50

DYE-M Upper Site North Warning System Landfill - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	37.46	10.14	25.66	10.00	58.86	63.38	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	35.95	4.43	15.10	0.00	75.39	31.39	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	145.32	23.41	70.96	30.00	285.04	157.55	0.30	30.00	30.00	150.00	150.00
Downgradient (also upgradient of Upper Site South Landfill West)																		
	DM-23 surface																	
14-8280	DM-23	2014	1	Phase I	0-10	1.00	<1	83.00	8.50	41.10	<10	40.10	82.00	<0.02	<10	<10	<10	<10
14-8281 (Dup)	DM-23	2014	1	Phase I	0-10	1.50	<1	80.00	10.20	44.80	11.00	48.40	86.00	<0.02	<10	<10	<10	<10
DM-23 (0-20)	DM-23	2015	2	Phase I	0-20	1.10	<0.5	35.50	9.90	17.10	9.90	52.10	42.40	<0.05	<7	<4	<8	<6
DM-23A	DM-23	2016	3	Phase I	0-15	<1	<0.5	29.70	8.50	14.20	6.90	35.90	41.40	<0.05	<7	<4	<8	<6
DM-23A (Interlab)	DM-23	2016	3	Phase I	0-15	<1	<0.5	31.00	8.90	14.00	7.00	43.00	51.00	<0.05	<5	<10	<50	<50
DM-23 Shallow	DM-23	2017	4	Phase I	0-15	<1	<0.5	36.00	11.10	22.40	9.00	66.90	42.00	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-23	2018	5	Phase I														
DM-23-S	DM-23	2023	10	Phase II	0-15	0.64	<0.050	14.70	6.39	21.90	11.00	23.10	40.80	<0.010	<10	<10	<50	<50
	DM-23 depth																	
14-8282	DM-23	2014	1	Phase I	25-35	0.70	<1	27.00	7.00	19.90	<10	33.00	46.00	<0.02	<10	<10	<10	<10
Not sampled - refusal	DM-23	2015	2	Phase I														
Not sampled - refusal	DM-23	2016	3	Phase I														
DM-23 Deep	DM-23	2017	4	Phase I	30-40	<1	<0.5	33.70	11.40	23.30	8.00	72.90	40.80	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-23	2018	5	Phase I														
DM-23-D	DM-23	2023	10	Phase II	40-50	1.01	0.057	15.50	8.88	29.50	13.40	33.70	40.70	<0.010	<10	<10	<50	<50

N/A = not analyzed

Legend

XX Sample exceeds baseline mean

XX Sample exceeds baseline data with variation

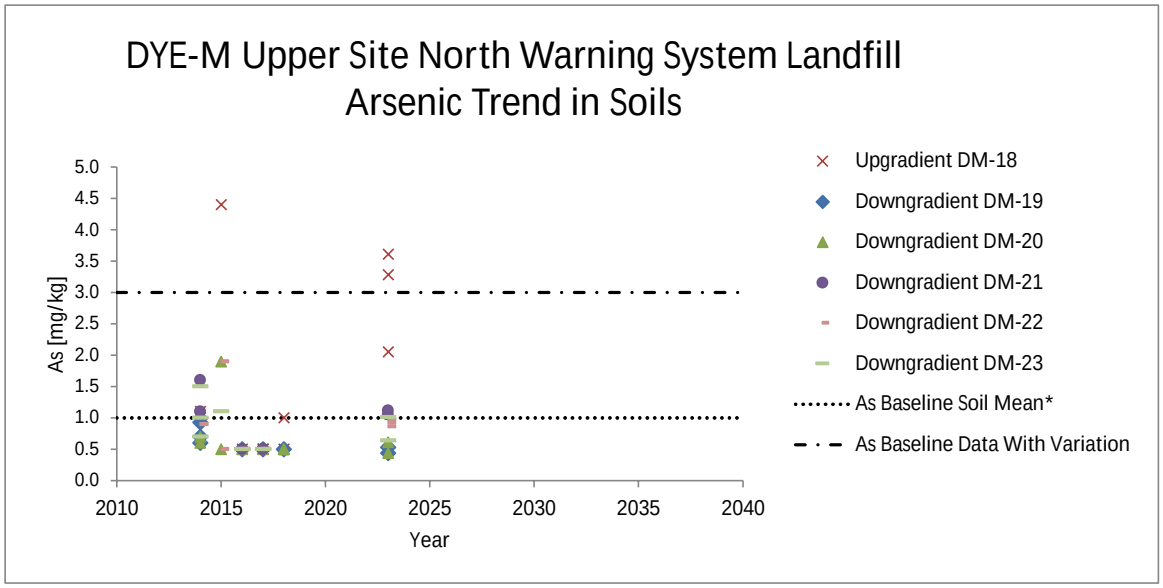
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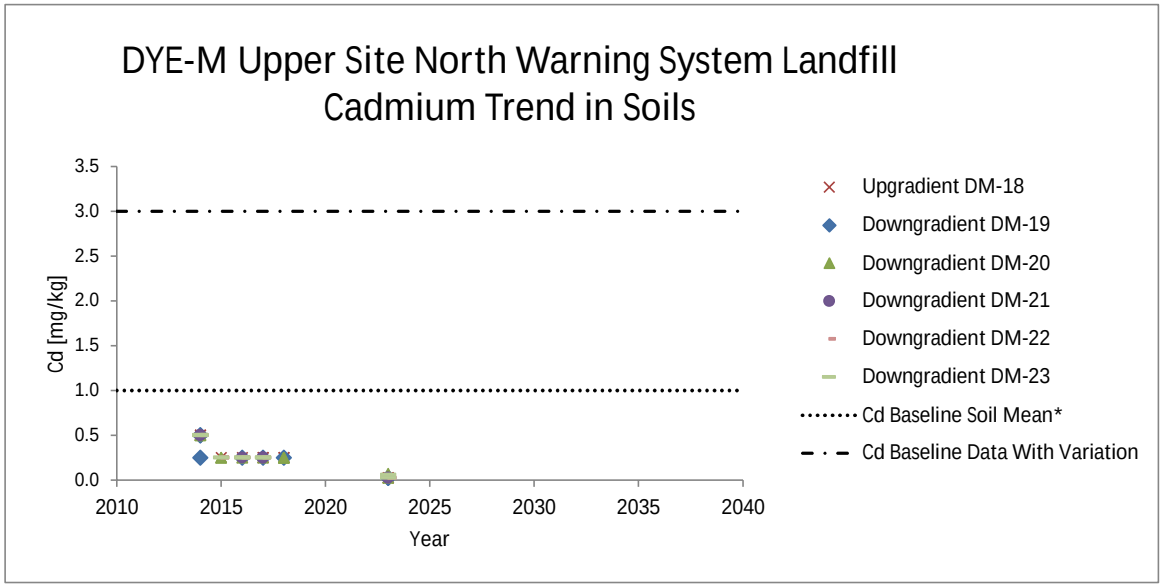
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* As baseline arithmetic mean is equal to the baseline detection limit



* Cd baseline arithmetic mean is equal to the baseline detection limit

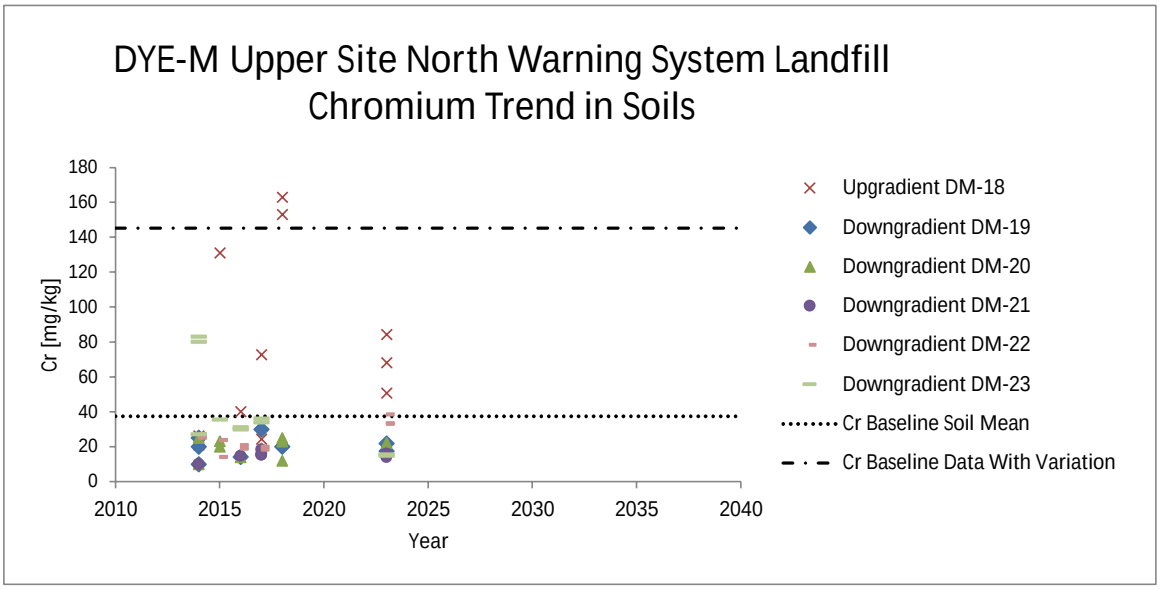
DYE-M Upper Site North Warning System Landfill Trends in Soil Inorganics, PCBs and PHCs

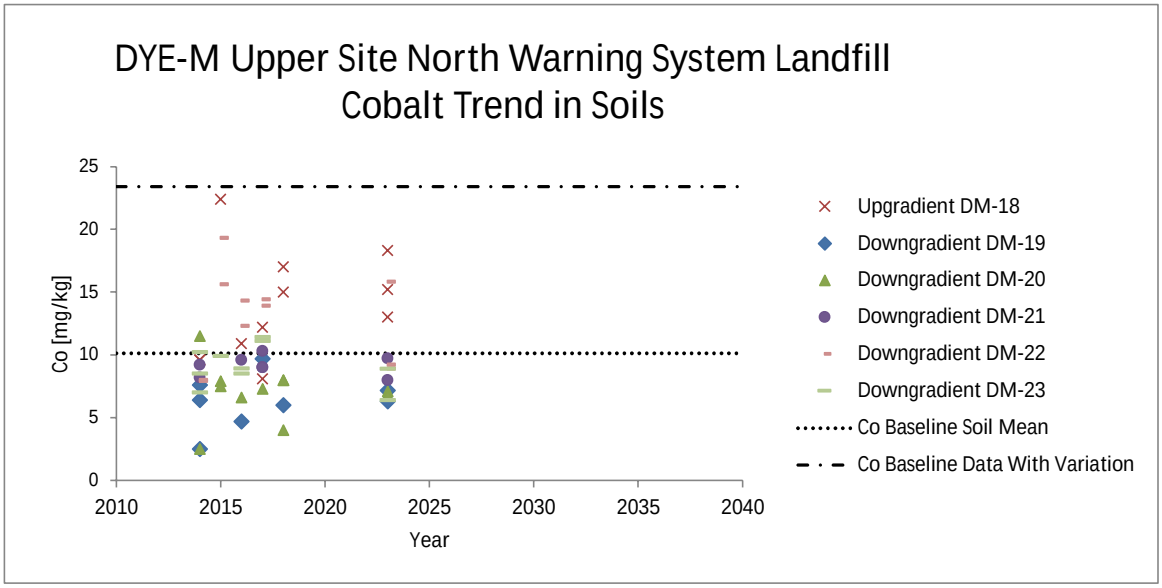
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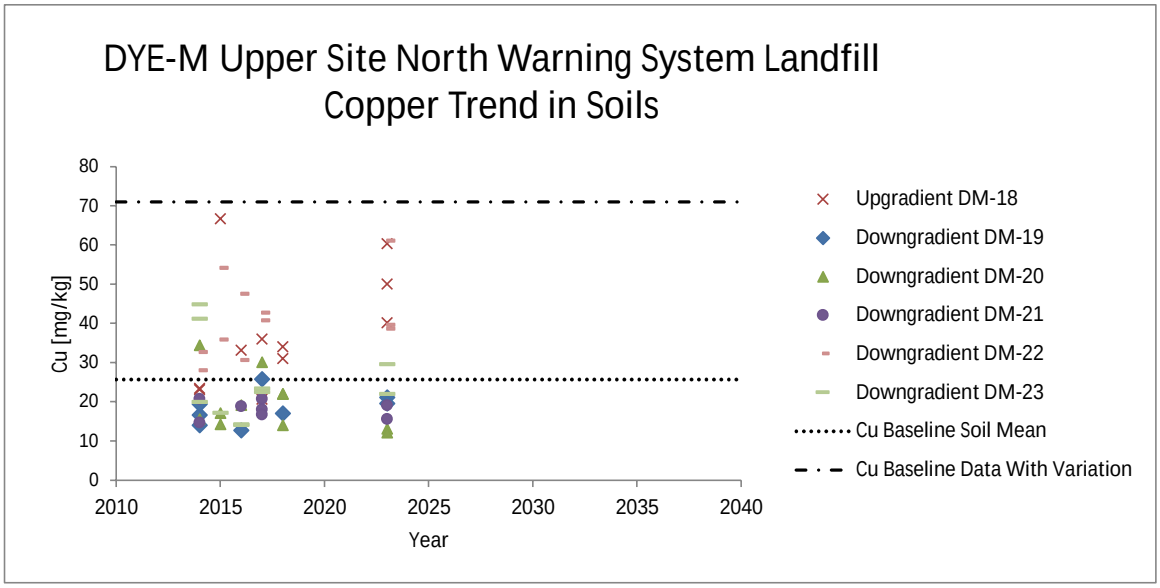
DYE-M Upper Site North Warning System Landfill Trends in Soil Inorganics, PCBs and PHCs

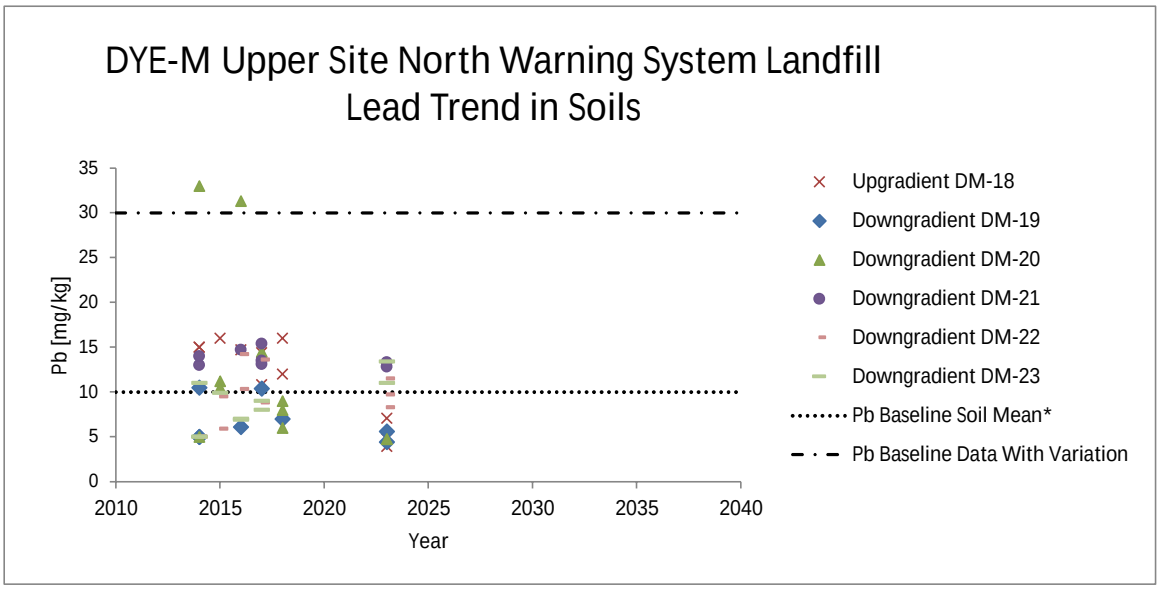
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





* Pb baseline arithmetic mean is equal to the baseline detection limit

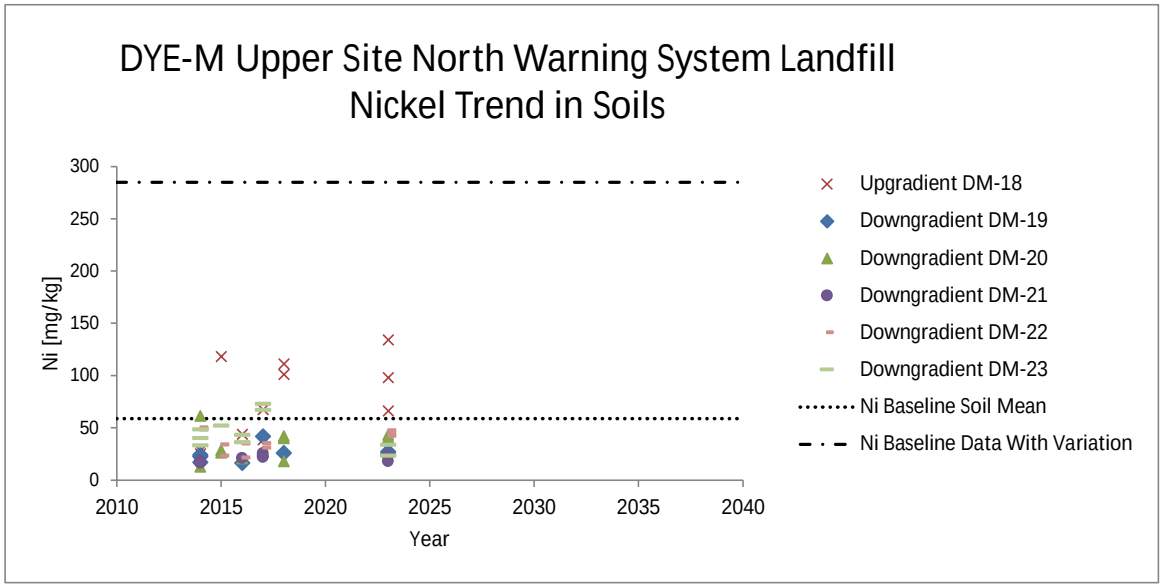
DYE-M Upper Site North Warning System Landfill Trends in Soil Inorganics, PCBs and PHCs

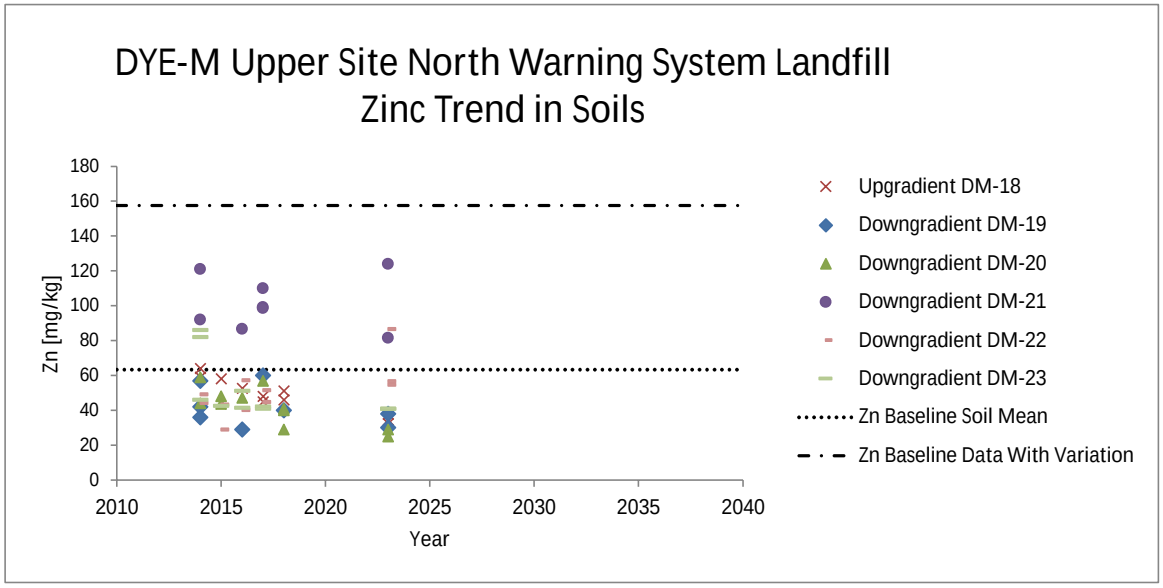
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





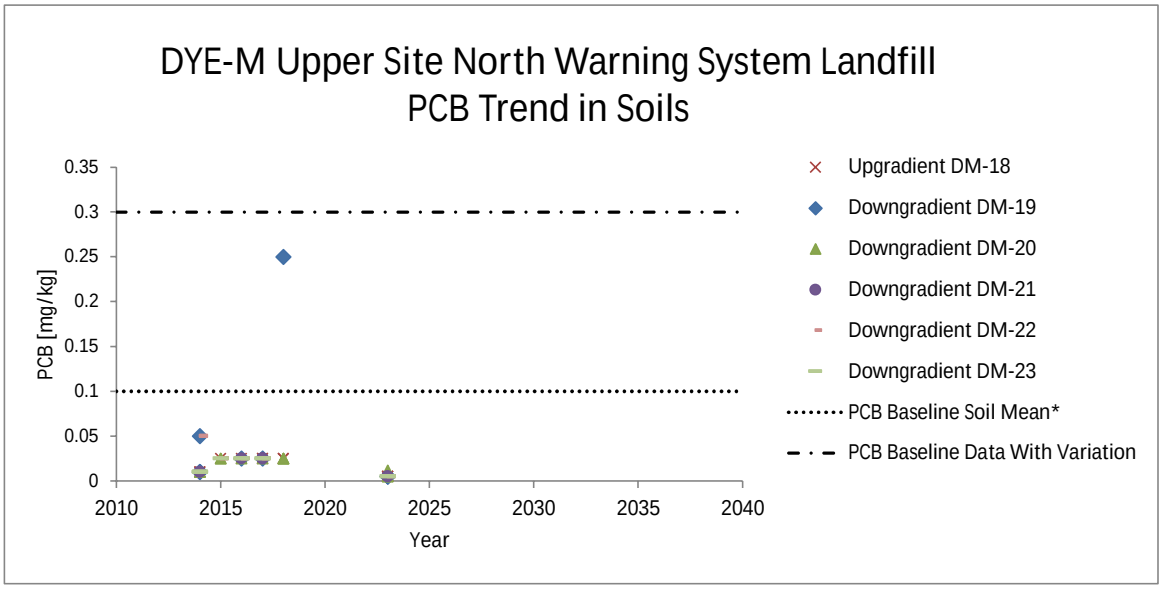
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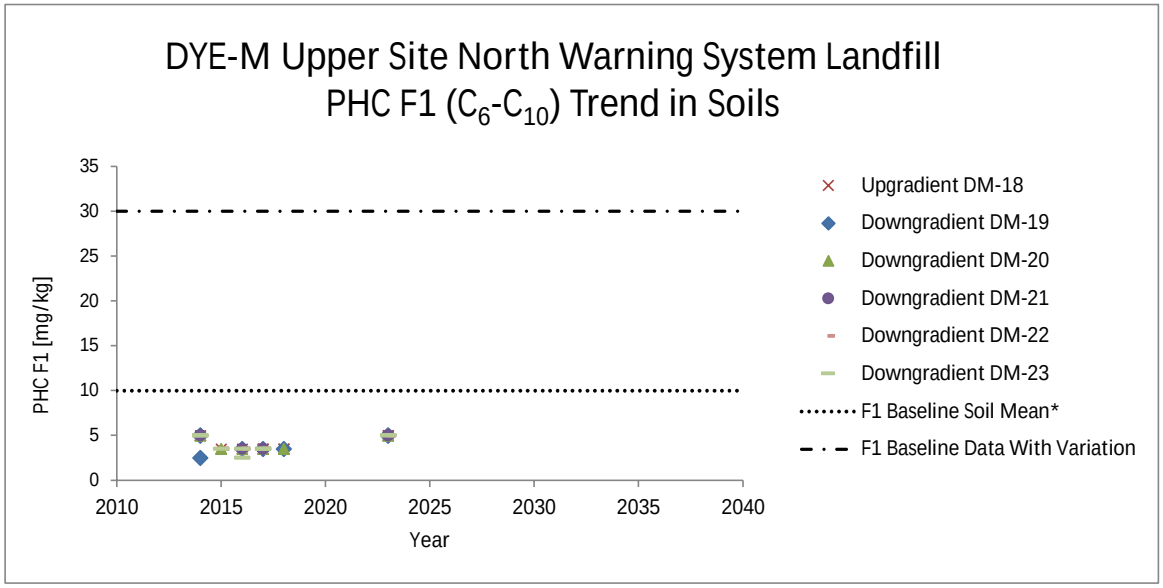
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* PCB baseline arithmetic mean is equal to the baseline detection limit



* F1 baseline arithmetic mean is equal to the baseline detection limit

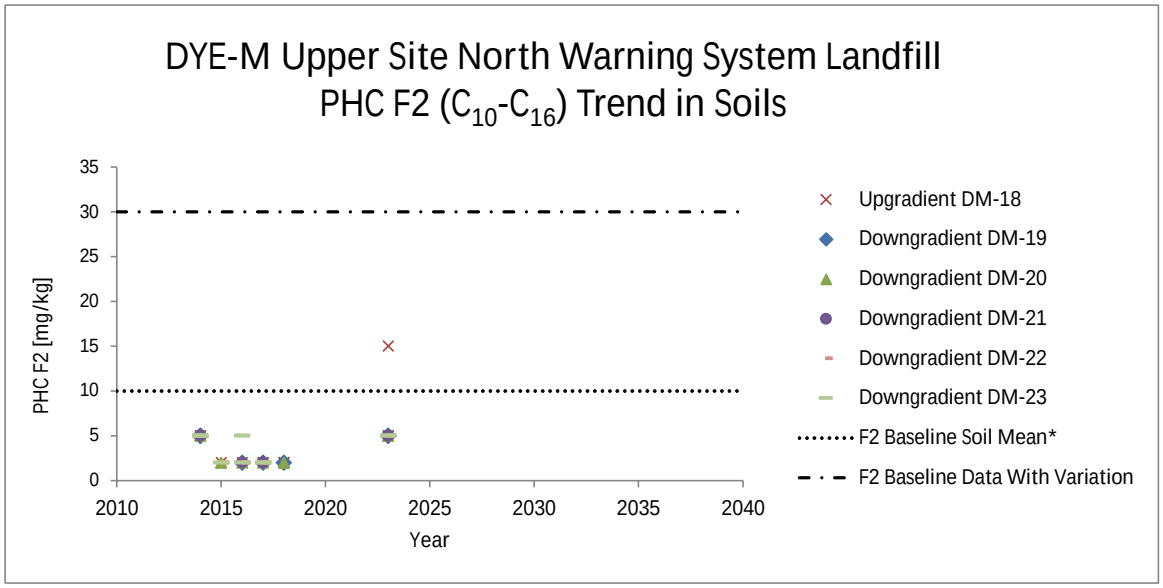
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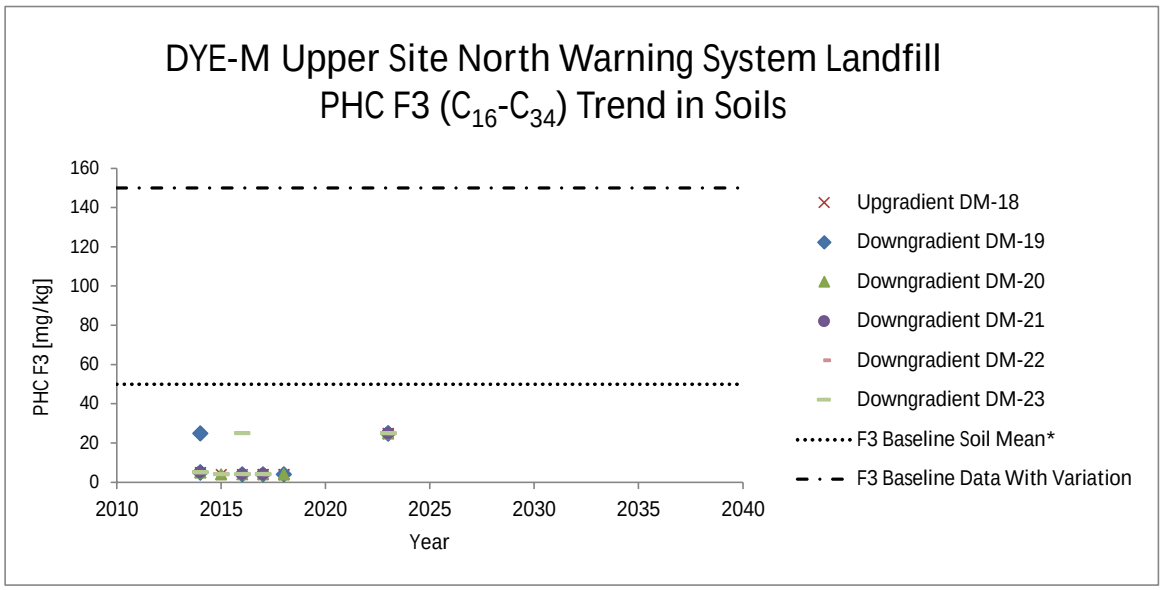
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F2 baseline arithmetic mean is equal to the baseline detection limit



* F3 baseline arithmetic mean is equal to the baseline detection limit

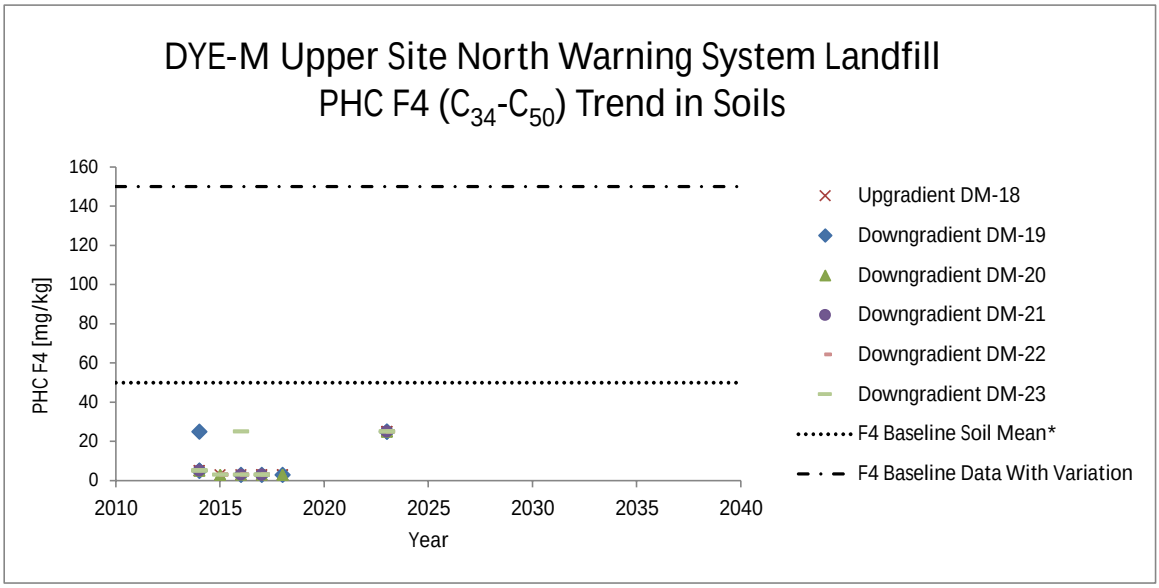
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F4 baseline arithmetic mean is equal to the baseline detection limit

DYE-M Upper Site South Landfill West - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	57.17	12.51	26.77	10.00	42.43	85.86	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	40.14	12.37	20.41	0.00	19.29	47.77	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	177.59	49.63	88.01	30.00	100.31	229.17	0.30	30.00	30.00	150.00	150.00
** If baseline or background arithmetic mean was below the detection limit, the mean has been modified to match the detection limit value.*																		
DEW Line Cleanup Tier I Criteria											*200*			*1*				
DYE-M Upper Site Site-Specific Criteria and DEW Line Cleanup Tier II Criteria						*30*	*5*	*250*	*153*	*296*	*500*	*2010*	*500*	*5*				
Monitoring Data																		
Upgradient (also downgradient of Upper Site North Warning System Landfill)																		
	DM-19 surface																	
14-8277	DM-19	2014	1	Phase I	0-10	0.60	<1	20.00	6.40	16.60	<10	24.00	42.00	<0.02	<10	<10	<10	<10
Not sampled - frozen	DM-19	2015	2	Phase I														
DM-19A	DM-19	2016	3	Phase I	0-15	<1	<0.5	14.10	4.70	12.70	6.10	16.50	29.00	<0.05	<7	<4	<8	<6
DM-19 Shallow	DM-19	2017	4	Phase I	0-15	<1	<0.5	30.00	9.70	25.80	10.40	41.90	60.00	<0.05	<7	<4	<8	<6
DM-19S	DM-19	2018	5	Phase I	0-15	<1	<0.5	20.00	6.00	17.00	7.00	26.00	40.00	0.250	<7	<4	<8	<6
DM-19-S	DM-19	2023	10	Phase II	0-15	0.53	<0.050	21.90	7.16	21.10	5.60	27.20	38.00	<0.010	<10	<10	<50	<50
DM-19-S (Innerlab)	DM-19	2023	10	Phase II	0-15									<0.010				
	DM-19 depth																	
14-8278	DM-19	2014	1	Phase I	40-50	0.70	<1	<20	<5	14.00	<10	17.20	36.00	<0.02	<10	<10	<10	<10
14-8279 (Interlab)	DM-19	2014	1	Phase I	40-50	0.93	<0.5	25.20	7.60	19.40	10.50	22.50	56.90	<0.10	<5	<10	<50	<50
Not sampled - frozen	DM-19	2015	2	Phase I														
Not sampled - refusal	DM-19	2016	3	Phase I														
Not sampled - refusal	DM-19	2017	4	Phase I														
Not sampled - frozen	DM-19	2018	5	Phase I														
DM-19-D	DM-19	2023	10	Phase II	40-50	0.44	<0.050	17.40	6.30	19.60	4.40	25.10	30.20	<0.010	<10	<10	<50	<50

DYE-M Upper Site South Landfill West - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	57.17	12.51	26.77	10.00	42.43	85.86	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	40.14	12.37	20.41	0.00	19.29	47.77	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	177.59	49.63	88.01	30.00	100.31	229.17	0.30	30.00	30.00	150.00	150.00
Upgradient (also downgradient of Upper Site North Warning System Landfill)																		
	DM-23 surface																	
14-8280	DM-23	2014	1	Phase I	0-10	1.00	<1	83.00	8.50	41.10	<10	40.10	82.00	<0.02	<10	<10	<10	<10
14-8281 (Dup)	DM-23	2014	1	Phase I	0-10	1.50	<1	80.00	10.20	44.80	11.00	48.40	86.00	<0.02	<10	<10	<10	<10
DM-23 (0-20)	DM-23	2015	2	Phase I	0-20	1.10	<0.5	35.50	9.90	17.10	9.90	52.10	42.40	<0.05	<7	<4	<8	<6
DM-23A	DM-23	2016	3	Phase I	0-15	<1	<0.5	29.70	8.50	14.20	6.90	35.90	41.40	<0.05	<7	<4	<8	<6
DM-23A (Interlab)	DM-23	2016	3	Phase I	0-15	<1	<0.5	31.00	8.90	14.00	7.00	43.00	51.00	<0.05	<5	<10	<50	<50
DM-23 Shallow	DM-23	2017	4	Phase I	0-15	<1	<0.5	36.00	11.10	22.40	9.00	66.90	42.00	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-23	2018	5	Phase I														
DM-23-S	DM-23	2023	10	Phase II	0-15	0.64	<0.050	14.70	6.39	21.90	11.00	23.10	40.80	<0.010	<10	<10	<50	<50
	DM-23 depth																	
14-8282	DM-23	2014	1	Phase I	25-35	0.70	<1	27.00	7.00	19.90	<10	33.00	46.00	<0.02	<10	<10	<10	<10
Not sampled - refusal	DM-23	2015	2	Phase I														
Not sampled - refusal	DM-23	2016	3	Phase I														
DM-23 Deep	DM-23	2017	4	Phase I	30-40	<1	<0.5	33.70	11.40	23.30	8.00	72.90	40.80	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-23	2018	5	Phase I														
DM-23-D	DM-23	2023	10	Phase II	40-50	1.01	0.057	15.50	8.88	29.50	13.40	33.70	40.70	<0.010	<10	<10	<50	<50

DYE-M Upper Site South Landfill West - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	57.17	12.51	26.77	10.00	42.43	85.86	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	40.14	12.37	20.41	0.00	19.29	47.77	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	177.59	49.63	88.01	30.00	100.31	229.17	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-24 surface																	
14-8254	DM-24	2014	1	Phase I	0-10	0.50	<1	92.00	12.40	32.90	<10	73.30	82.00	<0.02	<10	<10	<10	<10
Not sampled - frozen	DM-24	2015	2	Phase I														
DM-24A	DM-24	2016	3	Phase I	0-15	<1	<0.5	58.90	13.50	21.80	9.70	45.50	64.80	<0.05	<7	<4	<8	<6
DM-24 Shallow	DM-24	2017	4	Phase I	0-15	<1	<0.5	142.00	15.50	41.70	8.00	74.50	83.20	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-24	2018	5	Phase I														
DM-24-S	DM-24	2023	10	Phase II	0-15	0.45	<0.050	87.10	10.90	21.90	3.82	50.70	56.90	<0.010	<10	<10	<50	<50
	DM-24 depth																	
14-8255	DM-24	2014	1	Phase I	25-35	0.90	<1	173.00	19.80	72.00	<10	173.00	111.00	<0.02	<10	16	<10	<10
Not sampled - frozen	DM-24	2015	2	Phase I														
Not sampled - refusal	DM-24	2016	3	Phase I														
Not sampled - refusal	DM-24	2017	4	Phase I														
Not sampled - frozen	DM-24	2018	5	Phase I														
DM-24-D	DM-24	2023	10	Phase II	40-50	0.58	<0.050	115.00	11.50	24.70	4.57	70.30	49.90	<0.010	<10	<10	<50	<50

DYE-M Upper Site South Landfill West - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	57.17	12.51	26.77	10.00	42.43	85.86	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	40.14	12.37	20.41	0.00	19.29	47.77	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	177.59	49.63	88.01	30.00	100.31	229.17	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-25 surface																	
14-8257	DM-25	2014	1	Phase I	0-10	1.10	<1	89.00	13.60	31.40	<10	81.60	81.00	<0.02	<10	<10	<10	<10
Not sampled - frozen	DM-25	2015	2	Phase I														
DM-25A	DM-25	2016	3	Phase I	0-15	<1	<0.5	64.90	13.30	35.30	9.30	52.20	66.90	<0.05	<7	<4	<8	<6
DM-25 Shallow	DM-25	2017	4	Phase I	0-15	<1	<0.5	32.60	14.00	27.00	11.70	67.90	81.90	<0.05	<7	<4	<8	<6
DM-925 Shallow (Dup)	DM-25	2017	4	Phase I	0-15	<1	<0.5	37.40	14.70	29.10	9.60	71.20	81.20	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-25	2018	5	Phase I														
DM-25-S	DM-25	2023	10	Phase II	0-15	0.76	0.093	54.70	12.00	24.70	5.29	59.20	62.90	<0.010	<10	<10	<50	<50
	DM-25 depth																	
14-8258	DM-25	2014	1	Phase I	25-35	0.70	<1	71.00	14.80	15.80	<10	125.50	94.00	<0.02	<10	10	<10	<10
14-8259 (Interlab)	DM-25	2014	1	Phase I	25-35	0.95	<0.5	70.50	16.50	12.40	8.80	140.00	105.00	<0.10	<5	<10	<50	<50
Not sampled - frozen	DM-25	2015	2	Phase I														
Not sampled - refusal	DM-25	2016	3	Phase I														
Not sampled - refusal	DM-25	2017	4	Phase I														
Not sampled - frozen	DM-25	2018	5	Phase I														
DM-25-D	DM-25	2023	10	Phase II	40-50	0.74	<0.050	31.90	11.20	12.30	4.76	62.90	67.90	<0.010	<10	<10	<50	<50

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	57.17	12.51	26.77	10.00	42.43	85.86	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	40.14	12.37	20.41	0.00	19.29	47.77	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	177.59	49.63	88.01	30.00	100.31	229.17	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-26 surface																	
14-8260	DM-26	2014	1	Phase I	0-10	1.30	<1	67.00	11.30	94.80	<10	54.20	78.00	<0.02	<10	<10	<10	<10
14-8261 (Dup)	DM-26	2014	1	Phase I	0-10	1.10	<1	53.00	10.50	48.60	<10	45.50	69.00	<0.02	<10	<10	<10	<10
Not sampled - frozen	DM-26	2015	2	Phase I														
DM-26A	DM-26	2016	3	Phase I	0-15	<1	<0.5	81.70	12.40	32.20	8.10	53.00	53.10	<0.05	<7	<4	<8	<6
DM-26 Shallow	DM-26	2017	4	Phase I	0-15	<1	<0.5	68.30	12.80	27.10	8.00	62.90	65.20	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-26	2018	5	Phase I														
DM-26-S	DM-26	2023	10	Phase II	0-15	0.66	<0.050	29.10	10.30	13.20	4.05	28.50	64.30	<0.010	<10	<10	<50	<50
DM-26-S (Interlab)	DM-26	2023	10	Phase II	0-15										<10	<10	<50	<50
	DM-26 depth																	
14-8262	DM-26	2014	1	Phase I	25-35	1.50	<1	62.00	13.10	76.70	<10	50.00	94.00	<0.02	<10	10	<10	<10
Not sampled - frozen	DM-26	2015	2	Phase I														
Not sampled - refusal	DM-26	2016	3	Phase I														
DM-26 Deep	DM-26	2017	4	Phase I	30-40	<1	<0.5	139.00	15.20	17.40	7.50	220.00	82.00	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-26	2018	5	Phase I														
DM-26-D	DM-26	2023	10	Phase II	40-50	0.49	<0.050	21.00	8.68	16.30	4.26	21.00	58.50	<0.010	<10	<10	<50	<50

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	57.17	12.51	26.77	10.00	42.43	85.86	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	40.14	12.37	20.41	0.00	19.29	47.77	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	177.59	49.63	88.01	30.00	100.31	229.17	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-27 surface																	
14-8263	DM-27	2014	1	Phase I	0-10	0.90	<1	58.00	13.10	27.80	<10	58.50	78.00	<0.02	<10	<10	<10	<10
Not sampled - frozen	DM-27	2015	2	Phase I														
DM-27A	DM-27	2016	3	Phase I	0-15	<1	<0.5	18.60	8.00	12.60	7.30	17.00	49.30	<0.05	<7	<4	<8	<6
DM-27A (Interlab)	DM-27	2016	3	Phase I	0-15	<1	<0.5	21.00	9.70	17.00	7.00	21.00	71.00	<0.05	<5	<10	<50	<50
DM-27 Shallow	DM-27	2017	4	Phase I	0-15	<1	<0.5	28.30	10.20	35.10	10.90	26.70	73.10	<0.05	<7	<4	<8	<6
DM-27S	DM-27	2018	5	Phase I	0-15	<1	<0.5	45.00	30.00	67.00	2.00	162.00	37.00	<0.05	<7	<4	<8	<6
DM-27-S	DM-27	2023	10	Phase II	0-15	0.73	<0.050	23.20	9.92	13.20	4.81	21.40	62.70	<0.010	<10	<10	<50	<50
MW23-S-130 (Dup)	DM-27	2023	10	Phase II	0-15	0.80	0.061	26.10	10.70	15.20	5.71	22.50	68.50	<0.010	<10	<10	<50	<50
	DM-27 depth																	
14-8264	DM-27	2014	1	Phase I	25-35	1.00	<1	61.00	13.90	19.50	<10	38.30	96.00	<0.02	<10	<10	<10	<10
Not sampled - frozen	DM-27	2015	2	Phase I														
Not sampled - refusal	DM-27	2016	3	Phase I														
Not sampled - refusal	DM-27	2017	4	Phase I														
Not sampled - refusal	DM-27	2018	5	Phase I														
DM-27-D	DM-27	2023	10	Phase II	40-50	0.70	<0.050	28.30	10.40	15.60	5.21	30.50	61.80	<0.010	<10	<10	<50	<50

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	57.17	12.51	26.77	10.00	42.43	85.86	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	40.14	12.37	20.41	0.00	19.29	47.77	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	177.59	49.63	88.01	30.00	100.31	229.17	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-28 surface																	
14-8265	DM-28	2014	1	Phase I	0-10	0.80	<1	51.00	13.50	27.30	<10	78.00	67.00	<0.02	<10	<10	<10	<10
DM-28 (0-15)	DM-28	2015	2	Phase I	0-15	1.70	<0.5	80.70	12.90	28.80	8.90	55.50	77.00	<0.05	<7	<4	<8	<6
DM-28A	DM-28	2016	3	Phase I	0-15	<1	<0.5	23.40	8.50	15.60	5.40	30.60	40.10	<0.05	<7	<4	<8	<6
DM-28 Shallow	DM-28	2017	4	Phase I	0-15	<1	<0.5	29.10	10.80	15.40	7.90	26.50	73.80	<0.05	<7	<4	<8	<6
DM-28S	DM-28	2018	5	Phase I	0-15	<1	<0.5	29.00	10.00	20.00	5.00	37.00	72.00	<0.05	<7	<4	<8	<6
QA/QC S10 (Duplicate)	DM-28	2018	5	Phase I	0-15	<1	<0.5	34.00	12.00	25.00	6.00	43.00	60.00	<0.05	<7	<4	<8	<6
DM-28-S	DM-28	2023	10	Phase II	0-15	0.46	<0.050	24.90	9.19	11.80	3.73	26.80	58.00	<0.010	<10	<10	<50	<50
	DM-28 depth																	
14-8267	DM-28	2014	1	Phase I	25-35	0.50	<1	32.00	10.30	15.40	<10	43.10	74.00	<0.02	<10	<10	<10	<10
DM-28 (40-50)	DM-28	2015	2	Phase I	40-50	1.60	<0.5	39.90	11.00	25.60	7.70	30.60	70.00	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-28	2016	3	Phase I														
DM-28 Deep	DM-28	2017	4	Phase I	40-50	<1	<0.5	39.50	13.20	21.60	8.10	44.90	78.30	<0.05	<7	<4	<8	<6
DM-28D	DM-28	2018	5	Phase I	30-40	<1	<0.5	21.00	9.00	17.00	5.00	25.00	78.00	<0.05	<7	<4	<8	<6
DM-28-D	DM-28	2023	10	Phase II	40-50	0.42	0.096	27.00	8.37	13.40	3.47	34.50	49.90	<0.010	<10	<10	<50	<50

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	57.17	12.51	26.77	10.00	42.43	85.86	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	40.14	12.37	20.41	0.00	19.29	47.77	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	177.59	49.63	88.01	30.00	100.31	229.17	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-29 surface																	
14-8268	DM-29	2014	1	Phase I	0-10	0.30	<1	30.00	7.80	15.80	<10	59.20	32.00	<0.02	<10	<10	<10	<10
14-8269 (Interlab)	DM-29	2014	1	Phase I	0-10	0.64	<0.5	32.10	11.00	20.90	5.50	72.30	39.10	<0.10	<5	<10	<50	<50
DM-29 (0-20)	DM-29	2015	2	Phase I	0-20	1.30	<0.5	34.10	11.00	26.80	7.90	62.50	42.40	<0.05	<7	<4	<8	<6
DM-29A	DM-29	2016	3	Phase I	0-15	<1	<0.5	22.70	8.20	16.80	6.70	38.40	31.50	<0.05	<7	<4	<8	<6
DM-29 Shallow	DM-29	2017	4	Phase I	0-15	<1	<0.5	24.60	9.10	19.20	9.40	47.90	40.70	<0.05	<7	<4	<8	<6
DM-29S	DM-29	2018	5	Phase I	0-15	<1	<0.5	45.00	17.00	89.00	9.00	42.00	63.00	<0.05	<7	<4	<8	<6
DM-29-S	DM-29	2023	10	Phase II	0-15	0.48	<0.050	17.30	6.33	12.40	4.58	33.60	28.10	<0.010	<10	<10	<50	<50
MW23-S-135 (Dup)	DM-29	2023	10	Phase II	0-15	0.51	<0.050	21.60	7.81	15.30	5.31	46.40	31.30	<0.010	<10	<10	<50	<50
	DM-29 depth																	
14-8270	DM-29	2014	1	Phase I	25-35	0.60	<1	24.00	7.20	16.00	<10	51.20	28.00	<0.02	<10	<10	<10	<10
14-8271 (Dup)	DM-29	2014	1	Phase I	25-35	0.60	<1	22.00	6.40	14.40	<10	48.20	25.00	<0.02	<10	<10	<10	<10
DM-29 (20-40)	DM-29	2015	2	Phase I	20-40	1.40	<0.5	29.40	11.10	22.90	7.50	65.30	37.20	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-29	2016	3	Phase I														
DM-29 Deep	DM-29	2017	4	Phase I	30-40	<1	<0.5	31.50	8.80	20.30	7.30	47.90	42.30	<0.05	<7	<4	<8	<6
DM-29D	DM-29	2018	5	Phase I	30-40	<1	<0.5	55.00	18.00	67.00	8.00	46.00	65.00	<0.05	<7	<4	<8	<6
DM-29-D	DM-29	2023	10	Phase II	40-50	0.37	<0.050	16.70	6.16	10.60	4.12	39.40	25.40	<0.010	<10	<10	<50	<50

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB* (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3* C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.00	1.00	57.17	12.51	26.77	10.00	42.43	85.86	0.10	10.00	10.00	50.00	50.00
Baseline Data - Standard Deviation						0.00	0.00	40.14	12.37	20.41	0.00	19.29	47.77	0.00	0.00	0.00	0.00	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.00	3.00	177.59	49.63	88.01	30.00	100.31	229.17	0.30	30.00	30.00	150.00	150.00
Downgradient																		
	DM-30 surface																	
14-8272	DM-30	2014	1	Phase I	0-10	0.60	<1	28.00	6.80	20.50	<10	35.20	44.00	<0.02	<10	<10	<10	<10
DM-30 (0-15)	DM-30	2015	2	Phase I	0-15	1.80	<0.5	30.60	10.50	23.20	7.70	44.90	52.00	<0.05	<7	<4	<8	<6
DM-30B	DM-30	2016	3	Phase I	0-15	<1	<0.5	26.70	7.60	20.70	7.20	24.30	40.10	<0.05	<7	<4	<8	<6
DM-30 Shallow	DM-30	2017	4	Phase I	0-15	<1	<0.5	29.20	8.70	22.70	7.80	33.90	53.70	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-30	2018	5	Phase I														
DM-30-S	DM-30	2023	10	Phase II	0-15	0.42	<0.050	16.70	5.79	13.90	3.78	22.60	31.90	<0.010	<10	<10	<50	<50
DM-30-S (Interlab)	DM-30	2023	10	Phase II	0-15	0.29	<0.050	13.70	5.39	17.60	3.51	21.70	29.10					
	DM-30 depth																	
14-8273	DM-30	2014	1	Phase I	25-35	0.30	<1	<20	6.20	30.60	<10	13.60	32.00	<0.02	<10	<10	<10	<10
DM-30 (20-30)	DM-30	2015	2	Phase I	20-30	1.50	<0.5	32.10	10.10	20.00	7.40	40.30	51.00	<0.05	<7	<4	<8	<6
DM-30A	DM-30	2016	3	Phase I	30-40	<1	<0.5	32.60	9.30	28.00	8.30	29.50	49.70	<0.05	<7	<4	<8	<6
DM-30 Deep	DM-30	2017	4	Phase I	40-50	<1	<0.5	37.70	10.50	28.40	9.90	37.60	63.90	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-30	2018	5	Phase I														
DM-30-D	DM-30	2023	10	Phase II	40-50	0.30	<0.050	19.00	5.90	15.40	4.82	18.30	35.90	<0.010	<10	<10	<50	<50

N/A = not analyzed

Legend

XX	Sample exceeds baseline mean
XX	Sample exceeds baseline data with variation

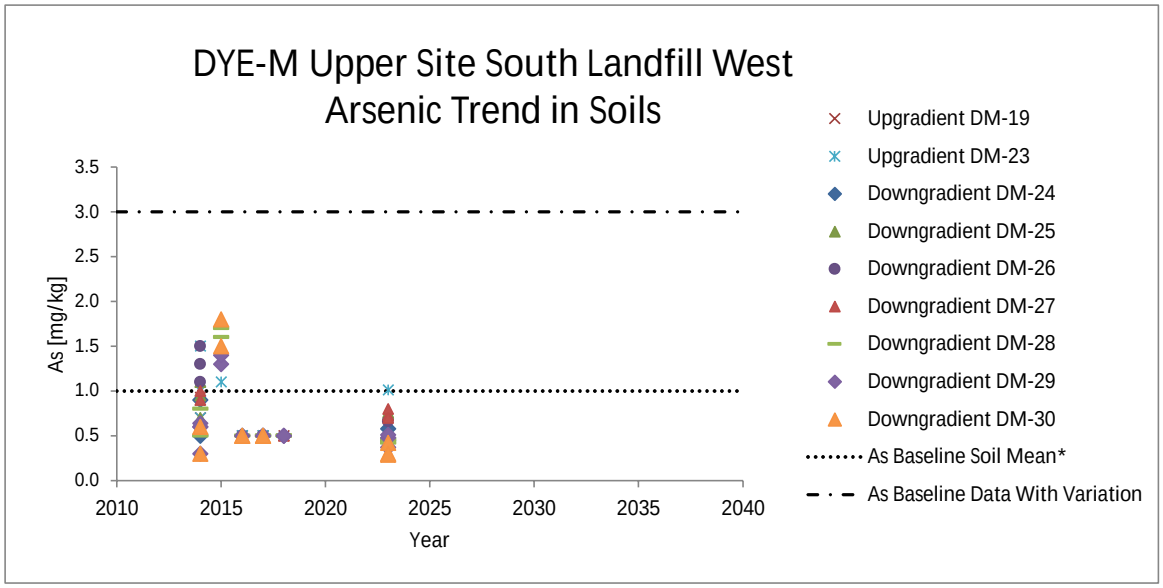
DYE-M Upper Site South Landfill West Trends in Soil Inorganics, PCBs and PHCs

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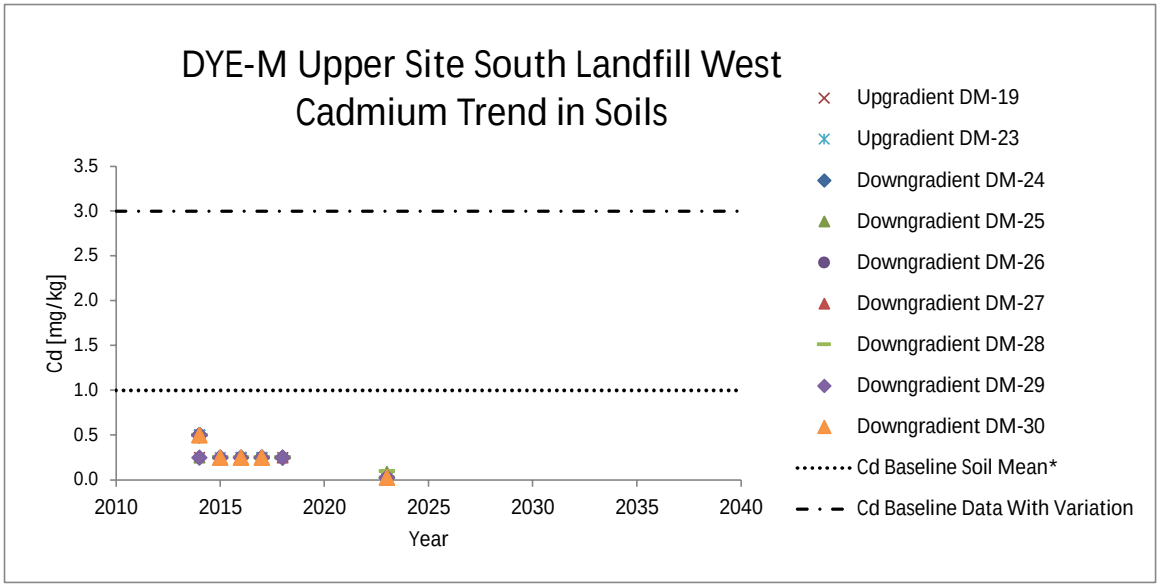
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* As baseline arithmetic mean is equal to the baseline detection limit



* Cd baseline arithmetic mean is equal to the baseline detection limit

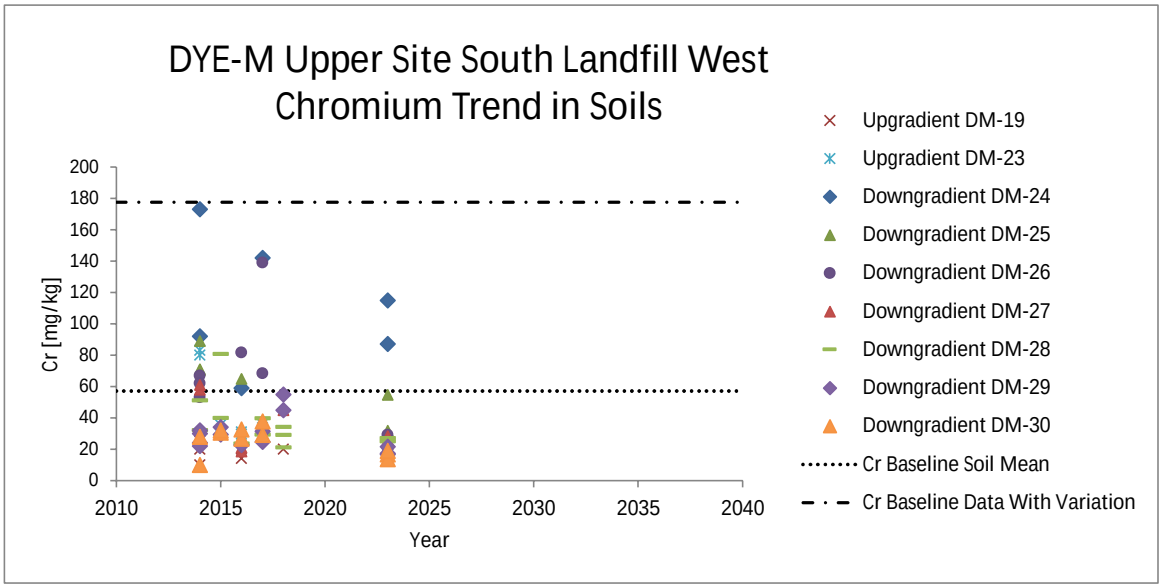
DYE-M Upper Site South Landfill West Trends in Soil Inorganics, PCBs and PHCs

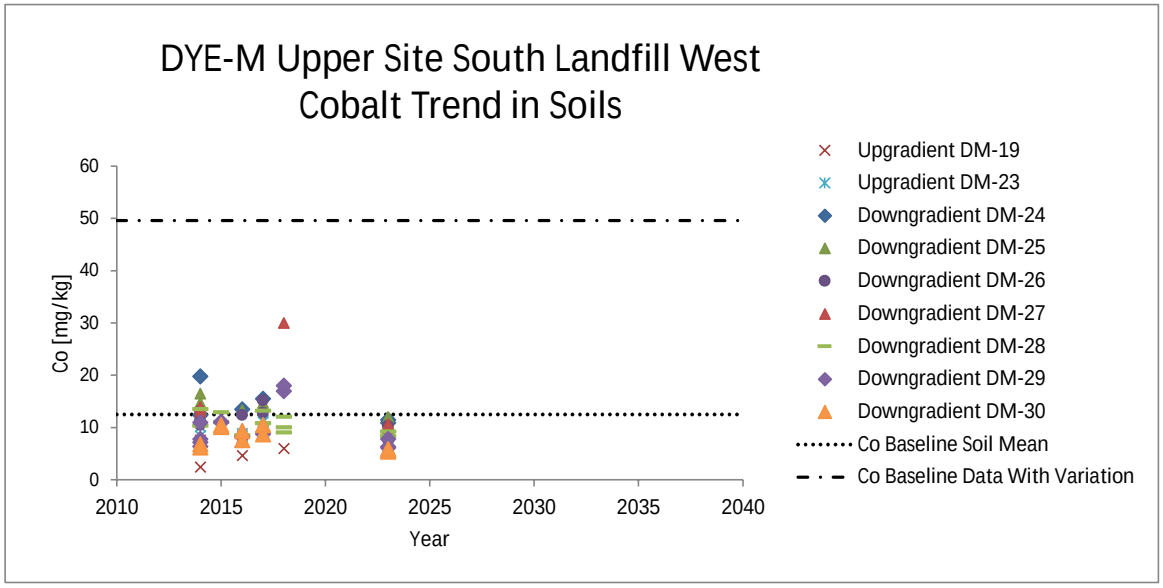
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





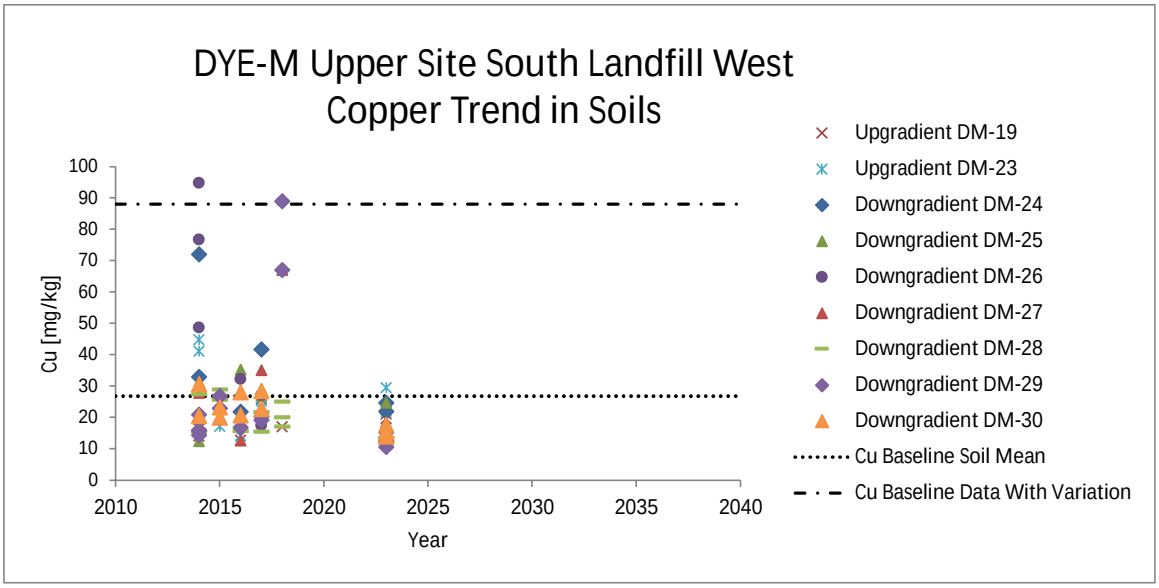
DYE-M Upper Site South Landfill West Trends in Soil Inorganics, PCBs and PHCs

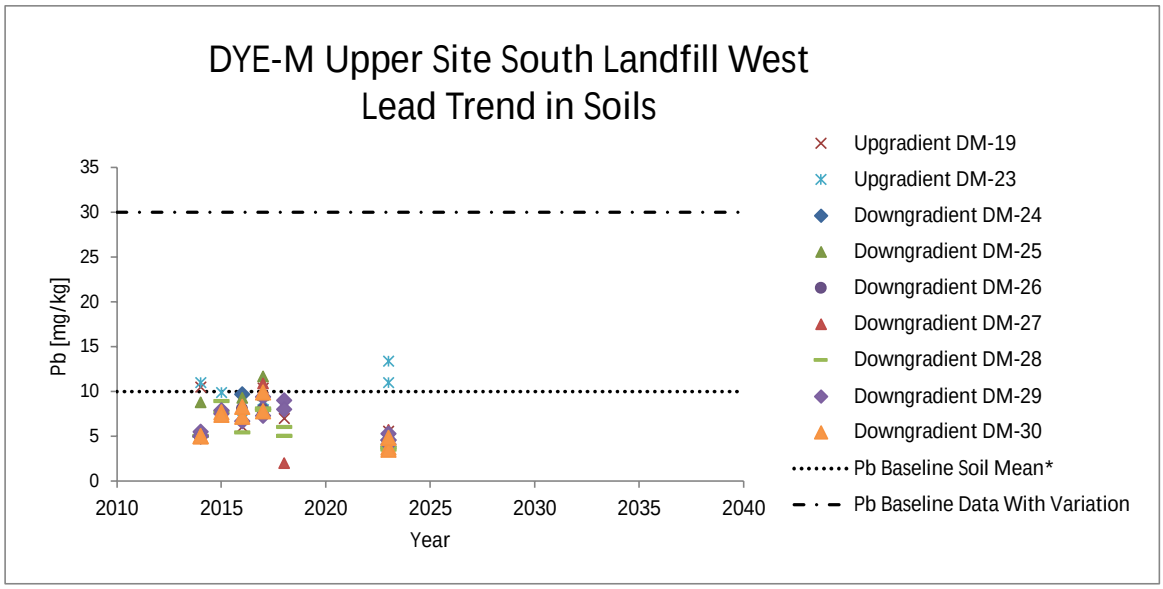
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





* Pb baseline arithmetic mean is equal to the baseline detection limit

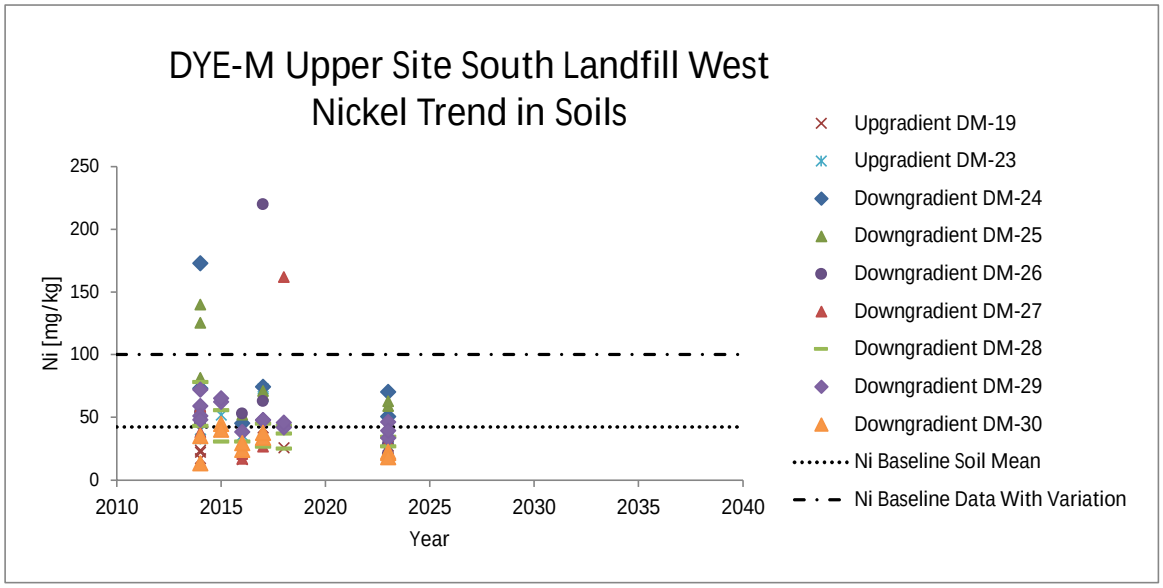
DYE-M Upper Site South Landfill West Trends in Soil Inorganics, PCBs and PHCs

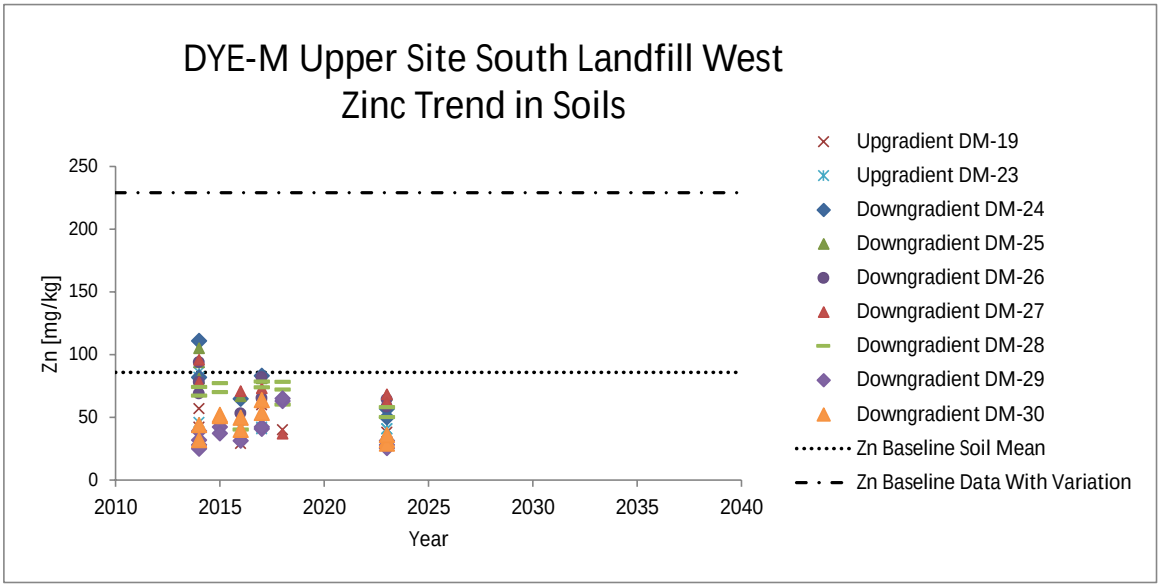
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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





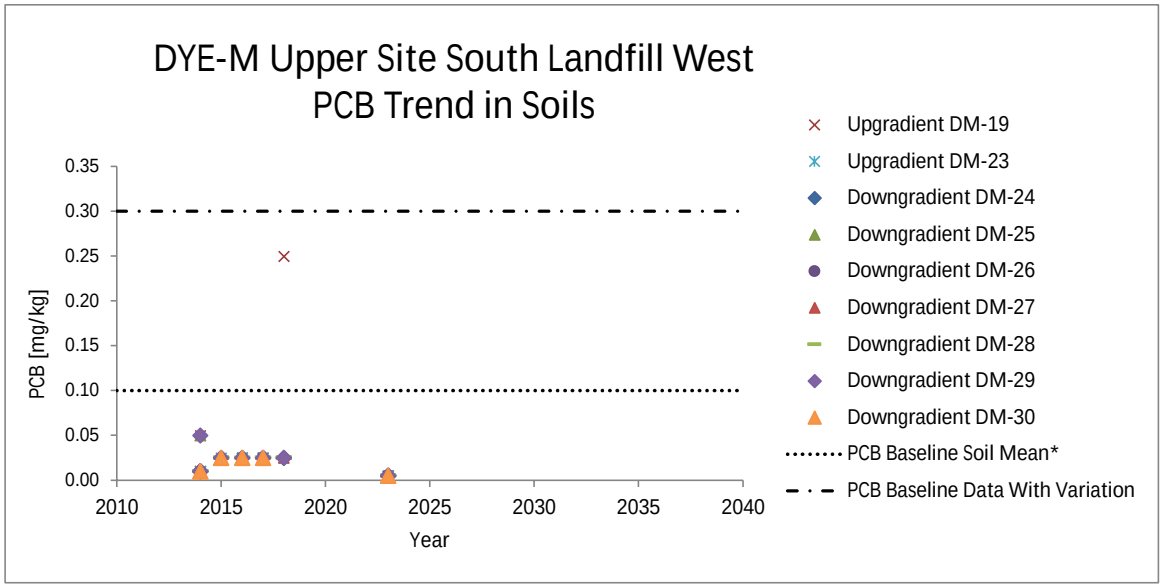
DYE-M Upper Site South Landfill West Trends in Soil Inorganics, PCBs and PHCs

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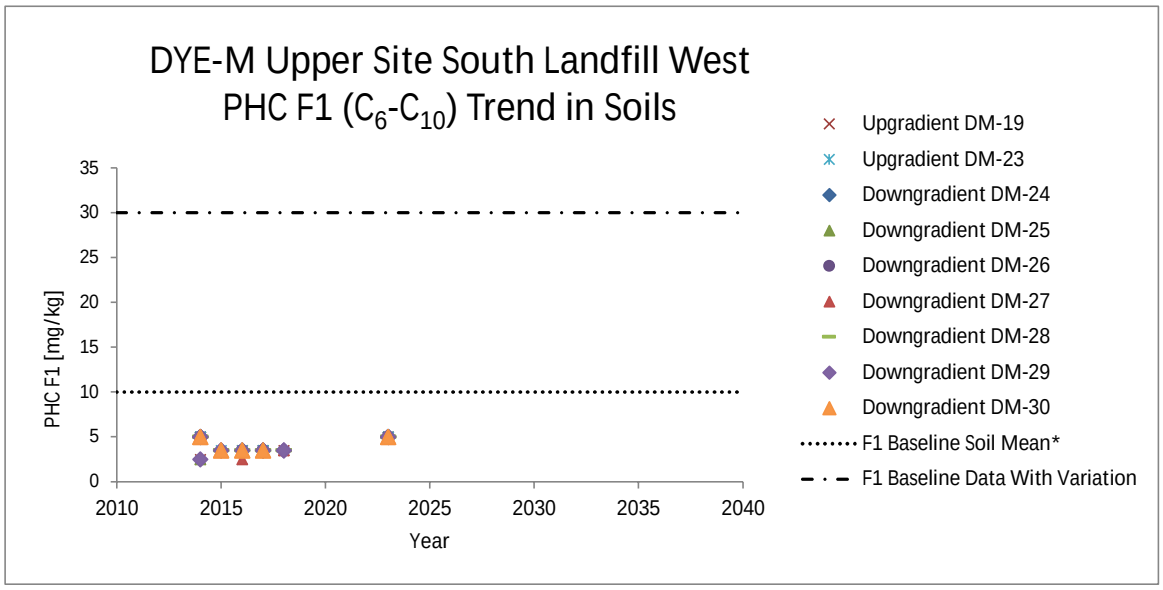
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* PCB baseline arithmetic mean is equal to the baseline detection limit



* F1 baseline arithmetic mean is equal to the baseline detection limit

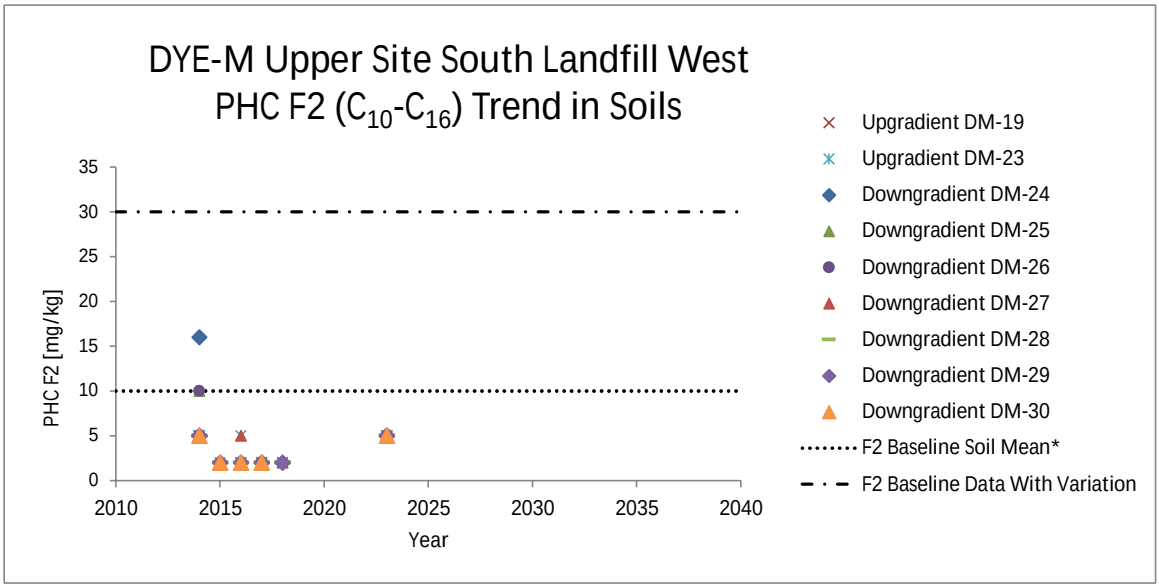
DYE-M Upper Site South Landfill West Trends in Soil Inorganics, PCBs and PHCs

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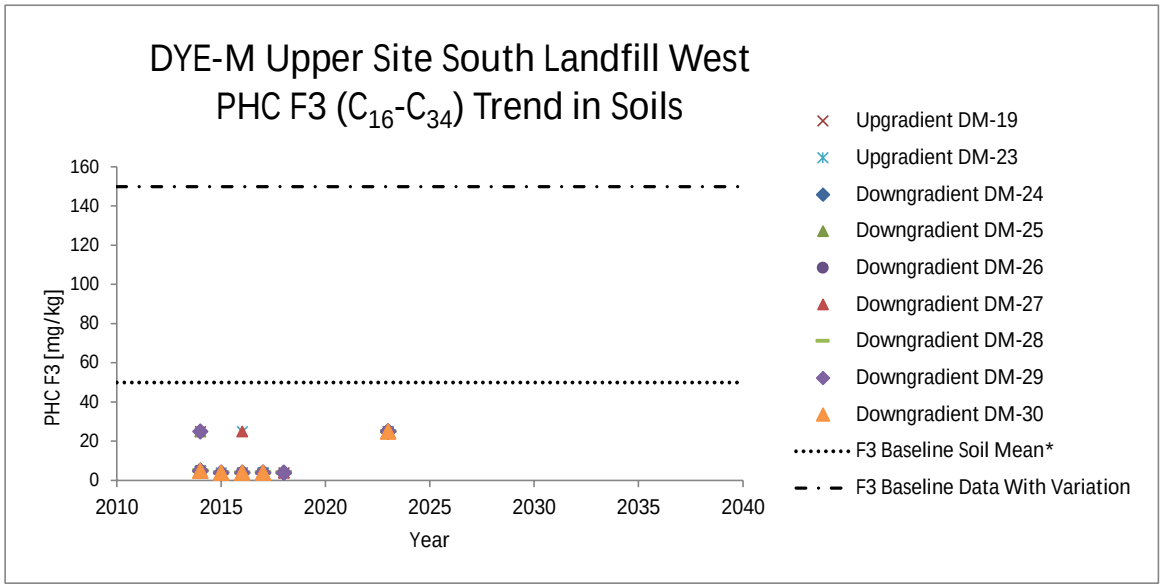
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F2 baseline arithmetic mean is equal to the baseline detection limit



* F3 baseline arithmetic mean is equal to the baseline detection limit

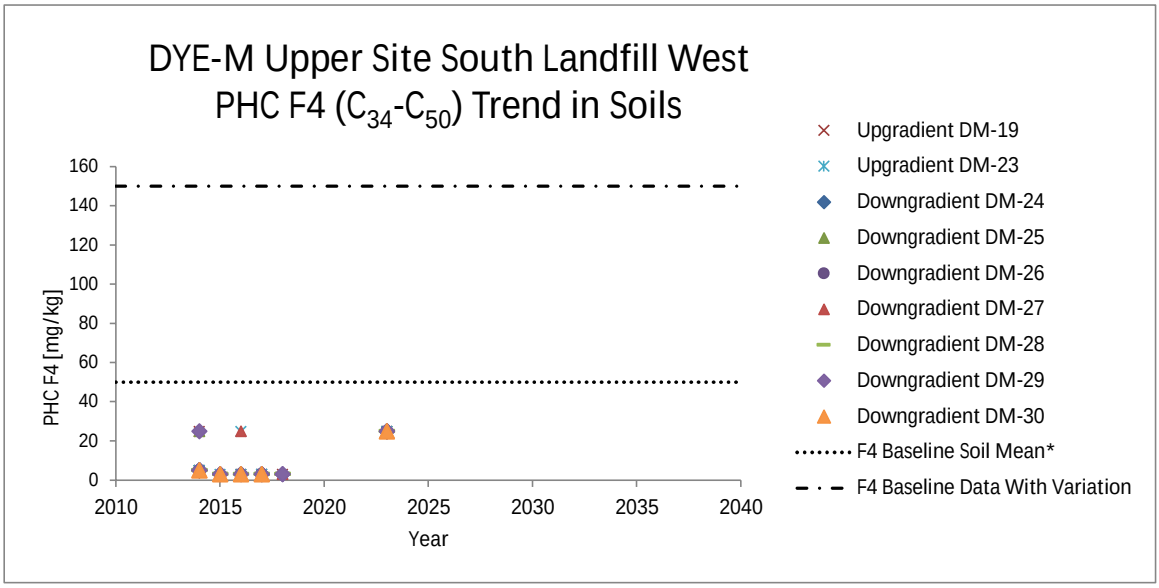
DYE-M Upper Site South Landfill West Trends in Soil Inorganics, PCBs and PHCs

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Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F4 baseline arithmetic mean is equal to the baseline detection limit

DYE-M Upper Site Helipad Regrade Area - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3 C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.33	1.00	57.15	14.23	35.13	11.02	79.55	68.66	0.12	10.00	10.00	62.57	50.00
Baseline Data - Standard Deviation						0.85	0.00	26.10	5.47	14.05	7.46	63.23	20.44	0.14	0.00	0.00	102.04	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.89	3.00	135.44	30.63	77.29	33.39	269.25	129.97	0.53	30.00	30.00	368.67	150.00
** If baseline or background arithmetic mean was below the detection limit, the mean has been modified to match the detection limit value.*																		
DEW Line Cleanup Tier I Criteria											*200*			*1*				
DYE-M Upper Site Site-Specific Criteria and DEW Line Cleanup Tier II Criteria						*30*	*5*	*250*	*153*	*296*	*500*	*2010*	*500*	*5*				
Monitoring Data																		
Upgradient																		
	DM-11 surface																	
14-8308	DM-11	2014	1	Phase I	5-10	3.00	<1	73.00	14.80	46.90	14.00	84.20	65.00	<0.02	<10	<10	<10	<10
14-8309 (Interlab)	DM-11	2014	1	Phase I	5-10	4.49	<0.5	86.80	18.70	63.90	18.10	89.70	78.40	<0.10	<5	<10	<50	<50
DM-11 (0-15)	DM-11	2015	2	Phase I	0-15	3.60	<0.5	82.60	20.80	58.00	14.30	79.00	61.40	<0.05	<7	<4	<8	<6
DM-11A	DM-11	2016	3	Phase I	0-15	<1	<0.5	75.10	16.80	59.60	14.70	77.70	57.80	<0.05	<7	<4	<8	<6
DM-11 Shallow	DM-11	2017	4	Phase I	0-15	<1	<0.5	63.70	14.70	51.30	12.00	66.90	54.40	<0.05	<7	<4	<8	<6
DM-11S	DM-11	2018	5	Phase I	0-15	6.00	<0.5	93.00	13.00	59.00	20.00	67.00	83.00	0.100	<7	105	31	<6
DM-11-S	DM-11	2023	10	Phase II	0-15	<0.20	0.052	33.40	11.80	29.00	6.05	75.30	45.60	0.012	<10	<10	<50	<50
MW23-S-150	DM-11	2023	10	Phase II	0-15	<0.20	<0.050	26.80	11.90	29.20	5.38	81.50	39.10	<0.010	<10	<10	<50	<50
MW23-S-150 (Interlab)	DM-11	2023	10	Phase II	0-15											<10	56	<50
	DM-11 depth																	
14-8310	DM-11	2014	1	Phase I	40-45	5.80	<1	103.00	13.10	49.20	17.00	86.00	91.00	0.150	<10	<10	<10	<10
14-8311 (Dup)	DM-11	2014	1	Phase I	40-45	3.90	<1	71.00	8.90	35.00	12.00	56.10	66.00	0.164	<10	<10	<10	<10
Not sampled - refusal	DM-11	2015	2	Phase I														
Not sampled - refusal	DM-11	2016	3	Phase I														
Not sampled - refusal	DM-11	2017	4	Phase I														
DM-11D	DM-11	2018	5	Phase I	40-50	3.00	<0.5	60.00	12.00	44.00	14.00	59.00	62.00	<0.05	<7	37	18	<6
DM-11-D	DM-11	2023	10	Phase II	40-50	<0.20	<0.050	23.00	8.44	24.20	5.14	46.60	34.40	<0.010	<10	<10	<50	<50

DYE-M Upper Site Helipad Regrade Area - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3 C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.33	1.00	57.15	14.23	35.13	11.02	79.55	68.66	0.12	10.00	10.00	62.57	50.00
Baseline Data - Standard Deviation						0.85	0.00	26.10	5.47	14.05	7.46	63.23	20.44	0.14	0.00	0.00	102.04	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.89	3.00	135.44	30.63	77.29	33.39	269.25	129.97	0.53	30.00	30.00	368.67	150.00
Downgradient																		
	DM-12 surface																	
14-8305	DM-12	2014	1	Phase I	5-10	2.60	<1	86.00	14.60	51.50	23.00	93.50	91.00	1.730	<10	<10	105	<10
DM-12 (0-15)	DM-12	2015	2	Phase I	0-15	4.00	<0.5	107.00	15.20	45.40	84.50	72.90	91.10	0.080	<7	<4	<8	<6
DM-12A	DM-12	2016	3	Phase I	0-15	<1	<0.5	76.50	13.00	35.20	17.40	79.20	61.80	1.170	<7	<4	46	10
DM-12 Shallow	DM-12	2017	4	Phase I	0-15	<1	<0.5	91.10	13.50	45.60	19.50	82.50	83.10	<0.05	<7	<4	25	<6
DM-12S	DM-12	2018	5	Phase I	0-15	<1	<0.5	62.00	12.00	34.00	22.00	84.00	62.00	*	<7	<4	70	9
DM-12-S	DM-12	2023	10	Phase II	0-15	1.38	0.125	68.30	11.00	34.60	26.50	69.90	63.10	0.052	<10	<10	<50	<50
	DM-12 depth																	
14-8307	DM-12	2014	1	Phase I	20-30	3.70	<1	102.00	13.30	47.50	23.00	87.30	94.00	0.757	<10	<10	144	<10
DM-12 (30-40)	DM-12	2015	2	Phase I	30-40	2.70	<0.5	79.50	14.40	39.60	21.80	86.90	70.50	0.350	<7	<4	75	<6
Not sampled - refusal	DM-12	2016	3	Phase I														
DM-12 Deep	DM-12	2017	4	Phase I	30-40	<1	<0.5	80.80	13.50	44.70	23.80	89.10	76.10	0.220	<7	<4	52	11
DM-912 Deep (Dup)	DM-12	2017	4	Phase I	30-40	<1	<0.5	80.50	12.40	42.80	20.50	84.90	70.30	0.380	<7	<4	110	25
DM-12D	DM-12	2018	5	Phase I	25-35	<1	<0.5	46.00	9.00	28.00	16.00	51.00	58.00	0.180	<7	<4	55	<6
DM-12-D	DM-12	2023	10	Phase II	40-50	0.51	0.135	60.20	11.60	33.60	16.00	78.30	60.80	0.740	<10	<10	130	<50

DYE-M Upper Site Helipad Regrade Area - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3 C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.33	1.00	57.15	14.23	35.13	11.02	79.55	68.66	0.12	10.00	10.00	62.57	50.00
Baseline Data - Standard Deviation						0.85	0.00	26.10	5.47	14.05	7.46	63.23	20.44	0.14	0.00	0.00	102.04	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.89	3.00	135.44	30.63	77.29	33.39	269.25	129.97	0.53	30.00	30.00	368.67	150.00
Downgradient																		
	DM-13 surface																	
14-8303	DM-13	2014	1	Phase I	5-10	1.00	<1	24.00	6.20	26.20	12.00	22.20	74.00	0.339	<10	<10	<10	<10
DM-13 (0-15)	DM-13	2015	2	Phase I	0-15	2.30	<0.5	46.10	11.80	24.50	14.70	52.40	64.20	<0.05	<7	<4	55	<6
DM-13A	DM-13	2016	3	Phase I	0-15	<1	<0.5	45.00	10.70	47.70	22.30	54.60	80.20	0.320	<7	<4	92	41
DM-13 Shallow	DM-13	2017	4	Phase I	0-15	<1	<0.5	57.10	12.30	34.60	20.90	70.00	79.00	0.080	<7	<4	19	<6
DM-13S	DM-13	2018	5	Phase I	0-15	1.00	<0.5	59.00	12.00	42.00	24.00	71.00	91.00	0.320	<7	<4	97	19
DM-13-S	DM-13	2023	10	Phase II	0-15	1.75	0.137	69.50	12.00	37.30	14.90	79.50	68.40	0.240	<10	<10	70	<50
	DM-13 depth																	
14-8304	DM-13	2014	1	Phase I	40-45	1.40	<1	40.00	11.10	27.60	14.00	57.50	67.00	<0.02	<10	<10	<10	<10
DM-13 (40-50)	DM-13	2015	2	Phase I	40-50	2.00	<0.5	28.30	10.60	16.70	11.60	38.30	62.80	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-13	2016	3	Phase I														
DM-13 Deep	DM-13	2017	4	Phase I	40-50	<1	<0.5	31.60	9.00	24.10	14.60	38.10	65.90	<0.05	<7	<4	<8	<6
DM-13D	DM-13	2018	5	Phase I	40-50	<1	<0.5	50.00	11.00	42.00	22.00	63.00	84.00	0.300	<7	<4	84	12
DM-13-D	DM-13	2023	10	Phase II	40-50	0.44	0.119	49.40	9.66	33.50	12.80	69.40	61.20	0.490	<10	<10	64	<50

DYE-M Upper Site Helipad Regrade Area - Summary of Soil Monitoring Analytical Data

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Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3 C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.33	1.00	57.15	14.23	35.13	11.02	79.55	68.66	0.12	10.00	10.00	62.57	50.00
Baseline Data - Standard Deviation						0.85	0.00	26.10	5.47	14.05	7.46	63.23	20.44	0.14	0.00	0.00	102.04	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.89	3.00	135.44	30.63	77.29	33.39	269.25	129.97	0.53	30.00	30.00	368.67	150.00
Downgradient																		
	DM-14 surface																	
14-8312	DM-14	2014	1	Phase I	5-10	1.60	<1	126.00	13.30	31.40	19.00	88.60	85.00	0.122	<10	<10	<10	<10
DM-14 (0-20)	DM-14	2015	2	Phase I	0-20	2.20	<0.5	39.60	12.30	41.50	9.10	61.00	71.90	<0.05	<7	<4	<8	<6
DM-14A	DM-14	2016	3	Phase I	0-15	<1	<0.5	61.80	13.00	36.30	13.90	67.40	66.90	1.140	<7	<4	<8	<6
DM-14 Shallow	DM-14	2017	4	Phase I	0-15	<1	<0.5	1100.00	19.50	11.00	4.60	215.00	41.40	<0.05	<7	<4	<8	<6
DM-914 Shallow (Dup)	DM-14	2017	4	Phase I	0-15	<1	<0.5	754.00	15.70	10.40	3.80	157.00	35.00	<0.05	<7	<4	<8	<6
DM-14S	DM-14	2018	5	Phase I	0-15	<1	<0.5	822.00	18.00	15.00	6.00	167.00	49.00	<0.05	<7	<4	<8	<6
QA/QC S12 (Dup)	DM-14	2018	5	Phase I	0-15	<1	<0.5	963.00	19.00	12.00	5.00	188.00	44.00	<0.05	<7	<4	<8	<6
DM-14-S	DM-14	2023	10	Phase II	0-15	0.83	0.137	51.80	13.80	39.20	14.70	98.50	71.00	0.140	<10	<10	97	<50
	DM-14 depth																	
14-8313	DM-14	2014	1	Phase I	40-50	1.00	<1	56.00	8.40	19.60	<10	42.10	59.00	<0.02	<10	<10	<10	<10
DM-14 (20-40)	DM-14	2015	2	Phase I	20-40	1.50	<0.5	30.50	12.00	43.40	8.00	56.60	65.70	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-14	2016	3	Phase I														
DM-14 Deep	DM-14	2017	4	Phase I	40-50	<1	<0.5	1020.00	20.10	12.30	8.30	193.00	64.80	<0.05	<7	<4	<8	<6
DM-14D	DM-14	2018	5	Phase I	20-30	<1	<0.5	683.00	17.00	16.00	7.00	155.00	50.00	<0.05	<7	<4	<8	<6
DM-14-D	DM-14	2023	10	Phase II	40-50	<0.20	0.061	25.00	7.76	17.20	6.21	46.40	38.80	0.510	<10	<10	<50	<50
DM-14-D (Interlab)	DM-14	2023	10	Phase II	40-50										<10			

DYE-M Upper Site Helipad Regrade Area - Summary of Soil Monitoring Analytical Data

Link to: Table of Contents

Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3 C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.33	1.00	57.15	14.23	35.13	11.02	79.55	68.66	0.12	10.00	10.00	62.57	50.00
Baseline Data - Standard Deviation						0.85	0.00	26.10	5.47	14.05	7.46	63.23	20.44	0.14	0.00	0.00	102.04	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.89	3.00	135.44	30.63	77.29	33.39	269.25	129.97	0.53	30.00	30.00	368.67	150.00
Downgradient																		
	DM-15 surface																	
14-8314	DM-15	2014	1	Phase I	0-10	1.10	<1	47.00	10.70	31.30	35.00	78.00	78.00	0.097	<10	<10	<10	<10
DM-15 (0-15)	DM-15	2015	2	Phase I	0-15	3.70	<0.5	42.60	15.00	26.80	9.90	83.00	47.40	<0.05	<7	<4	<8	<6
DM-15A	DM-15	2016	3	Phase I	0-15	<1	<0.5	56.90	12.40	35.90	10.70	66.40	51.60	<0.05	<7	<4	<8	<6
DM-15 Shallow	DM-15	2017	4	Phase I	0-15	<1	<0.5	46.50	10.60	28.90	14.50	57.60	90.20	<0.05	<7	<4	<8	<6
DM-15S^	DM-15	2018	5	Phase I	0-15	<1	<0.5	46.00	9.00	21.00	29.00	37.00	48.00	<0.05	<7	<4	22	<6
DM-15-S	DM-15	2023	10	Phase II	0-15	<0.20	0.089	22.90	7.42	21.90	9.72	26.70	63.30	<0.010	<10	<10	<50	<50
	DM-15 depth																	
Not sampled - refusal	DM-15	2014	1	Phase I														
DM-15 (30-40)	DM-15	2015	2	Phase I	30-40	1.90	<0.5	42.00	13.90	24.40	10.60	76.80	46.80	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-15	2016	3	Phase I														
Not sampled - refusal	DM-15	2017	4	Phase I														
DM-15D^	DM-15	2018	5	Phase I	20-30	<1	<0.5	43.00	11.00	35.00	12.00	47.00	57.00	<0.05	<7	<4	<8	<6
DM-15-D	DM-15	2023	10	Phase II	40-50	<0.20	0.112	17.10	5.15	14.60	8.75	19.50	50.30	0.013	<10	1700	460	<50
MW23-S-140 (Dup)	DM-15	2023	10	Phase II	40-50	0.53	0.086	15.70	4.73	13.70	8.29	16.20	46.10	0.040	<10	1900	430	<50

DYE-M Upper Site Helipad Regrade Area - Summary of Soil Monitoring Analytical Data

Link to: Table of Contents

Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3 C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.33	1.00	57.15	14.23	35.13	11.02	79.55	68.66	0.12	10.00	10.00	62.57	50.00
Baseline Data - Standard Deviation						0.85	0.00	26.10	5.47	14.05	7.46	63.23	20.44	0.14	0.00	0.00	102.04	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.89	3.00	135.44	30.63	77.29	33.39	269.25	129.97	0.53	30.00	30.00	368.67	150.00
Downgradient																		
	DM-16 surface																	
14-8315	DM-16	2014	1	Phase I	0-10	2.50	<1	32.00	12.30	148.20	13.00	26.50	128.00	<0.02	<10	<10	<10	<10
DM-16 (0-15)	DM-16	2015	2	Phase I	0-15	2.40	<0.5	29.50	11.80	53.30	8.50	40.40	75.20	<0.05	<7	<4	<8	<6
DM-16A	DM-16	2016	3	Phase I	0-15	<1	<0.5	38.70	11.60	38.60	8.70	43.20	66.50	<0.05	<7	<4	<8	<6
DM-16 Shallow	DM-16	2017	4	Phase I	0-15	<1	<0.5	44.80	15.40	40.20	15.90	91.80	65.70	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-16	2018	5	Phase I														
DM-16-S	DM-16	2023	10	Phase II	0-15	<0.20	<0.050	23.90	10.10	64.50	6.12	35.00	62.50	<0.010	<10	<10	<50	<50
	DM-16 depth																	
14-8317**	DM-16	2014	1	Phase I	40-50	2.00	<1	24.00	10.20	102.40	<10	23.20	97.00	<0.02	25	5080	85	<10
DM-16 (30-40)	DM-16	2015	2	Phase I	30-40	2.10	<0.5	37.30	13.20	45.20	8.10	61.30	64.00	<0.05	<7	<4	<8	<6
Not sampled - refusal	DM-16	2016	3	Phase I														
Not sampled - refusal	DM-16	2017	4	Phase I														
Not sampled - frozen	DM-16	2018	5	Phase I														
DM-16-D	DM-16	2023	10	Phase II	40-50	<0.20	<0.050	32.40	11.40	60.00	8.27	42.50	76.70	<0.010	<10	<10	<50	<50
DM-16-D (Interlab)	DM-16	2023	10	Phase II	40-50	<0.20	<0.050	32.60	11.30	59.40	8.31	42.20	75.70					

DYE-M Upper Site Helipad Regrade Area - Summary of Soil Monitoring Analytical Data

Link to: Table of Contents

Sample ID	Location	Year	Monitoring Year	Monitoring Phase	Depth (cm)	As* (mg/kg)	Cd* (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb* (mg/kg)	Ni (mg/kg)	Zn (mg/kg)	Total PCB (mg/kg)	F1* C_6-C_{10} (mg/kg)	F2* C_{10}-C_{16} (mg/kg)	F3 C_{16}-C_{34} (mg/kg)	F4* C_{34}-C_{50} (mg/kg)
Background Data - Arithmetic Mean						1.00	1.00	89.75	19.70	60.40	10.00	141.27	70.09	0.0002	N/A	N/A	N/A	N/A
Baseline Data - Arithmetic Mean						1.33	1.00	57.15	14.23	35.13	11.02	79.55	68.66	0.12	10.00	10.00	62.57	50.00
Baseline Data - Standard Deviation						0.85	0.00	26.10	5.47	14.05	7.46	63.23	20.44	0.14	0.00	0.00	102.04	0.00
Baseline Data With Variation - [Baseline Mean + 3x Standard Deviation] or [3x Baseline Detection Limit]						3.89	3.00	135.44	30.63	77.29	33.39	269.25	129.97	0.53	30.00	30.00	368.67	150.00
Downgradient																		
	DM-17 surface																	
14-8318	DM-17	2014	1	Phase I	0-10	1.30	<1	76.00	20.40	43.50	11.00	177.00	64.00	<0.02	<10	<10	<10	<10
14-8319 (Interlab)	DM-17	2014	1	Phase I	0-10	1.48	<0.5	69.50	20.00	42.90	13.50	156.00	62.40	<0.10	<5	<10	<50	<50
DM-17 (0-20)	DM-17	2015	2	Phase I	0-15	3.70	<0.5	20.70	15.90	125.00	10.10	41.90	157.00	<0.05	<7	<4	<8	<6
DM-17A	DM-17	2016	3	Phase I	0-15	<1	<0.5	36.50	11.60	42.90	22.00	64.50	59.00	0.130	<7	<4	81	25
DM-17 Shallow	DM-17	2017	4	Phase I	0-15	<1	<0.5	19.80	13.20	140.00	10.90	43.50	97.30	<0.05	<7	<4	<8	<6
DM-17S	DM-17	2018	5	Phase I	0-15	<1	<0.5	50.00	13.00	46.00	12.00	73.00	61.00	<0.05	<7	<4	21	<6
DM-17-S	DM-17	2023	10	Phase II	0-15	<0.20	0.058	14.60	12.90	106.00	7.89	36.90	101.00	<0.010	<10	<10	<50	<50
	DM-17 depth																	
14-8320	DM-17	2014	1	Phase I	20-25	0.80	<1	78.00	18.40	31.80	12.00	171.30	48.00	<0.02	<10	<10	<10	<10
14-8321 (Dup)	DM-17	2014	1	Phase I	20-25	1.10	<1	79.00	17.30	30.30	12.00	164.30	47.00	<0.02	<10	<10	<10	<10
DM-17 (20-40)	DM-17	2015	2	Phase I	20-40	3.20	<0.5	18.00	16.30	175.00	9.50	39.20	113.00	<0.05	<7	<4	<8	<6
DM-17 (20-40) (Interlab)	DM-17	2015	2	Phase I	20-40	<1	<0.5	20.00	15.10	185.00	11.00	49.00	132.00	<0.05	<5	<4	<8	<6
Not sampled - refusal	DM-17	2016	3	Phase I														
DM-17 Deep	DM-17	2017	4	Phase I	30-40	<1	<0.5	11.70	11.80	121.00	7.60	32.80	97.80	<0.05	<7	<4	<8	<6
Not sampled - frozen	DM-17	2018	5	Phase I														
DM-17-D	DM-17	2023	10	Phase II	30-35	<0.20	<0.050	17.20	9.66	61.00	6.46	33.80	58.10	<0.010	<10	<10	<50	<50

N/A = not analyzed

*Sample was analyzed for PCBs but the analytical result was deleted by the laboratory before reporting and could not be retrieved.

Legend	
XX	Sample exceeds baseline mean
XX	Sample exceeds baseline data with variation

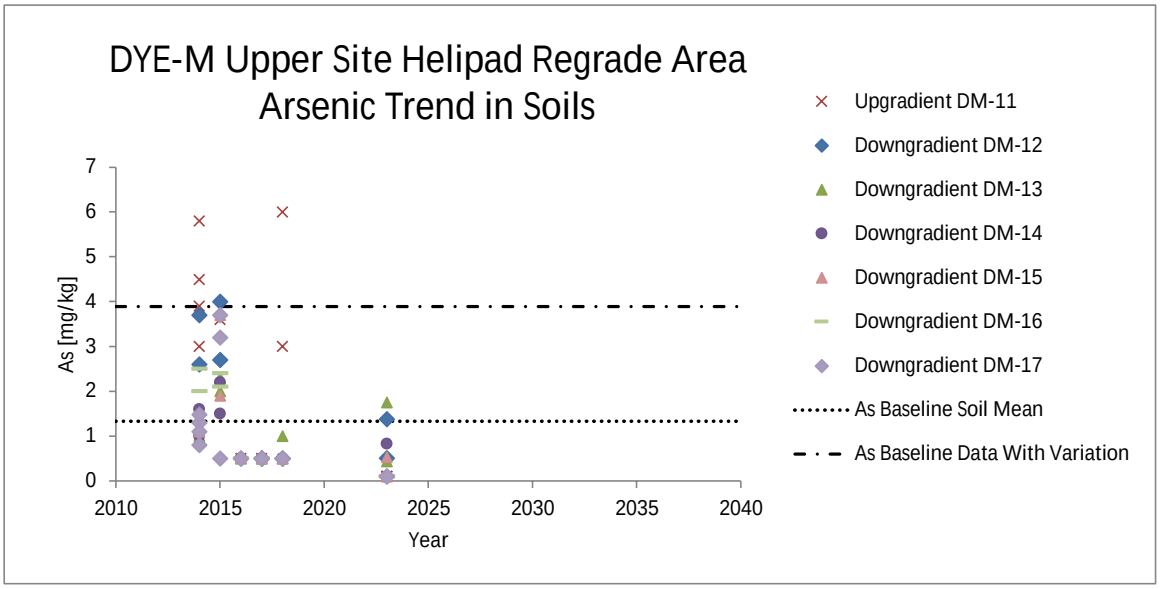
DYE-M Upper Site Helipad Regrade Area Trends in Soil Inorganics, PCBs and PHCs

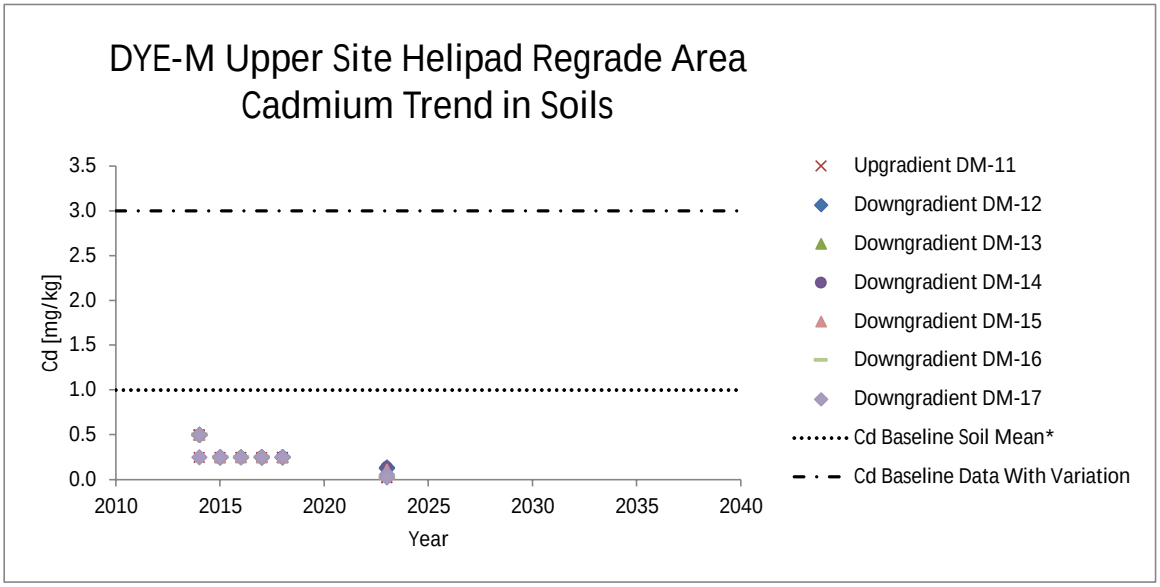
Link to: Table of Contents

Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





* Cd baseline arithmetic mean is equal to the baseline detection limit

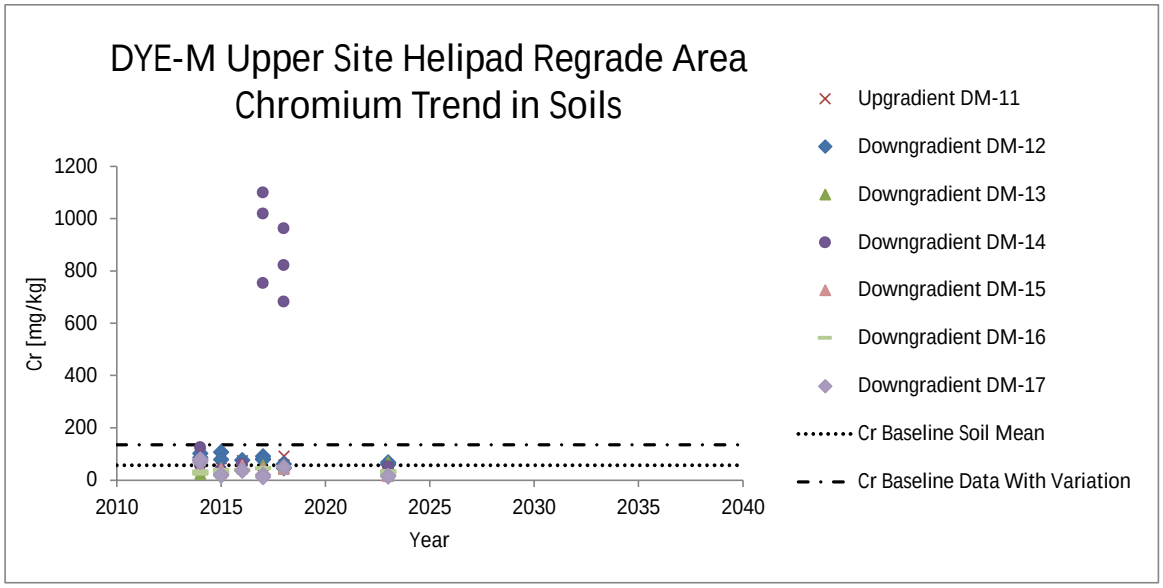
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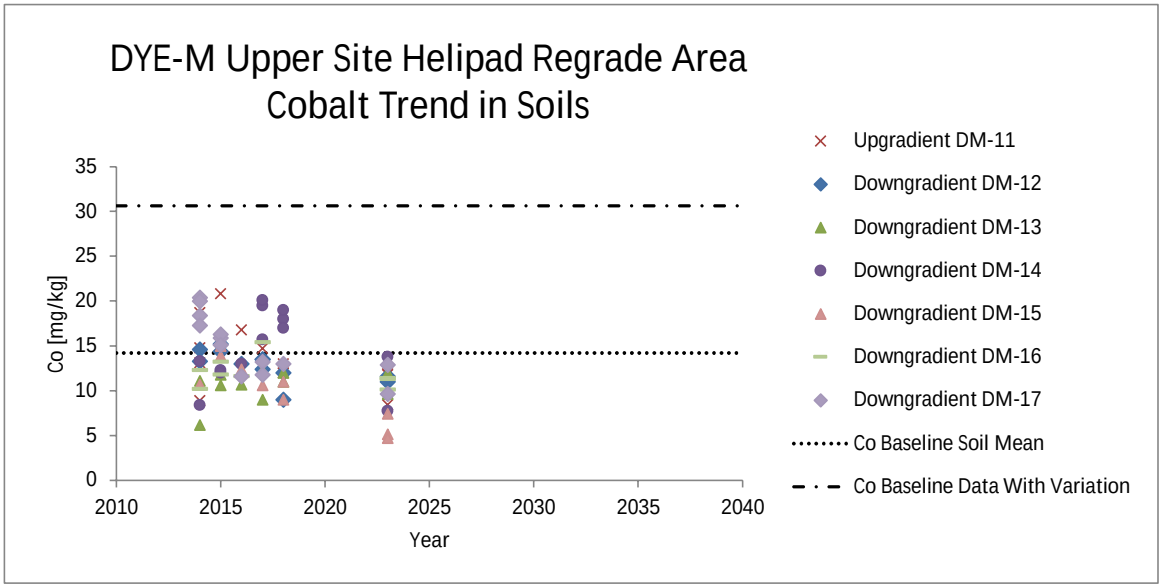
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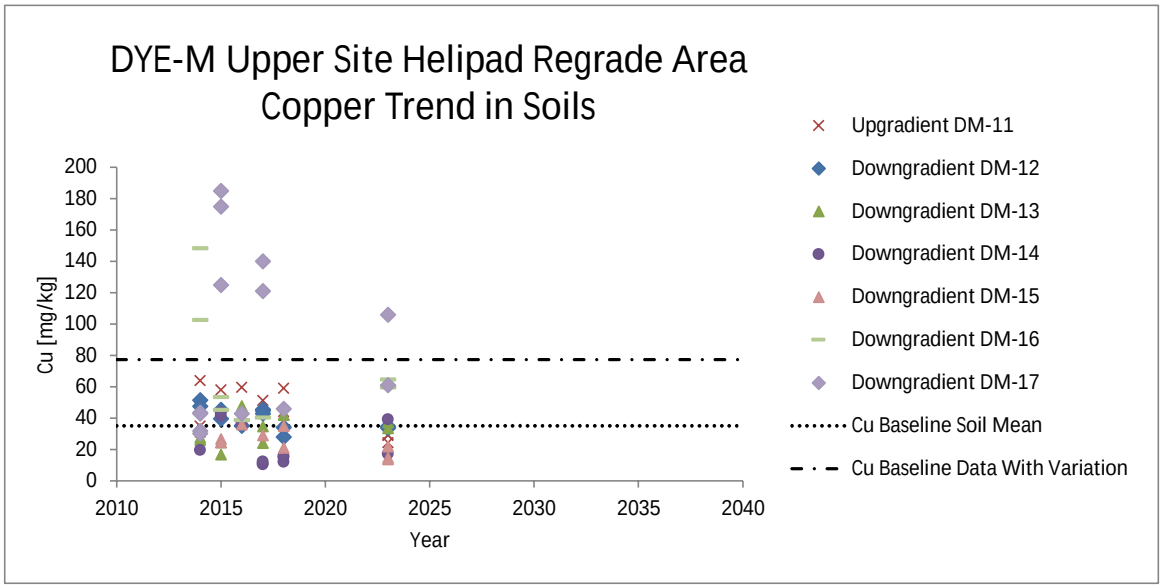
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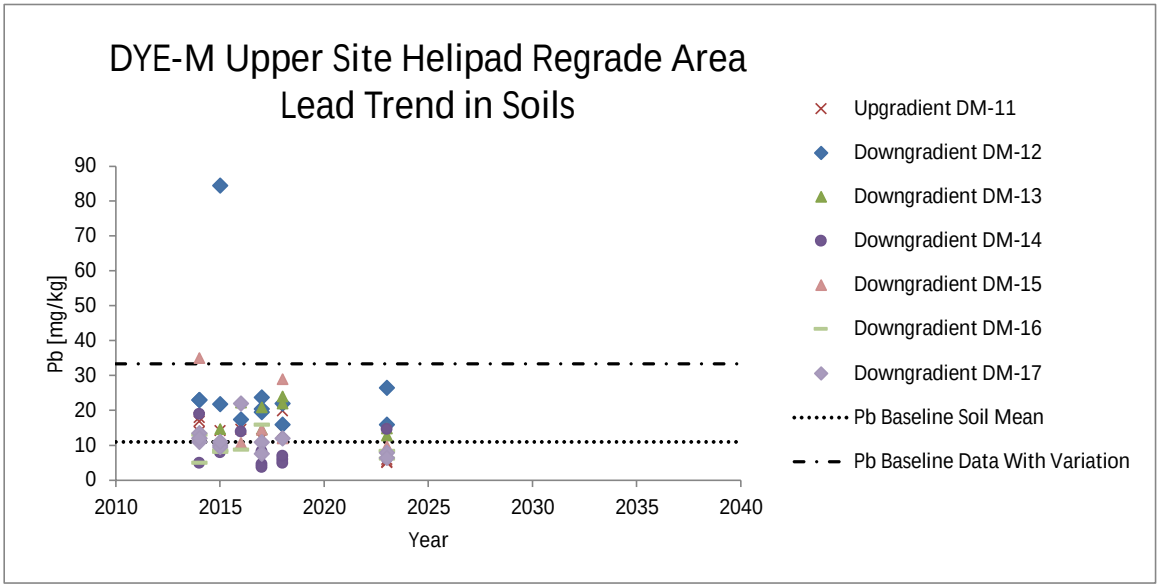
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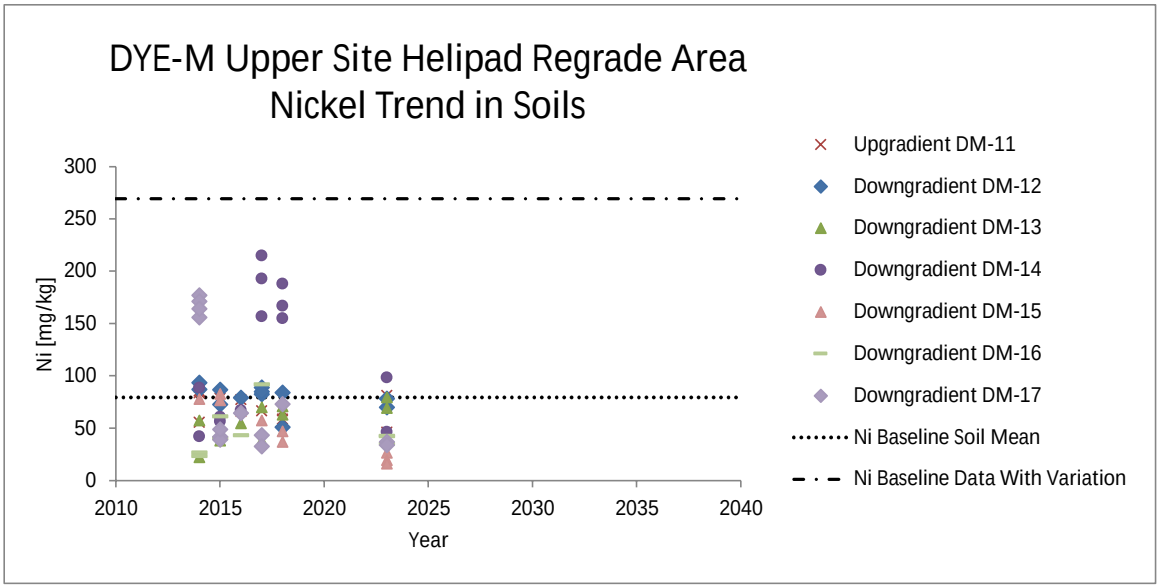
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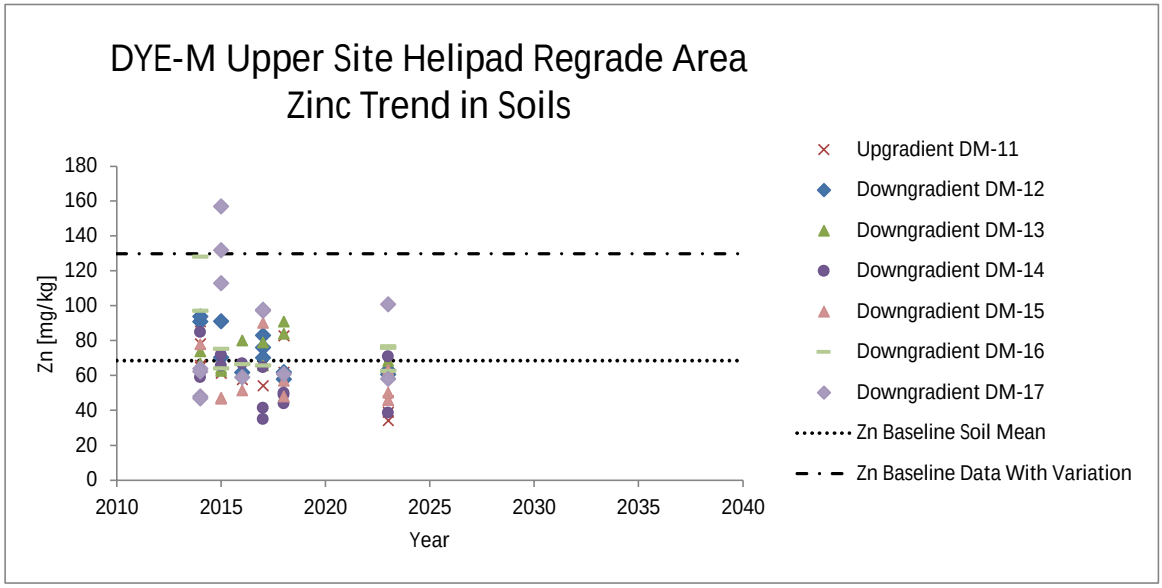
Link to: Table of Contents

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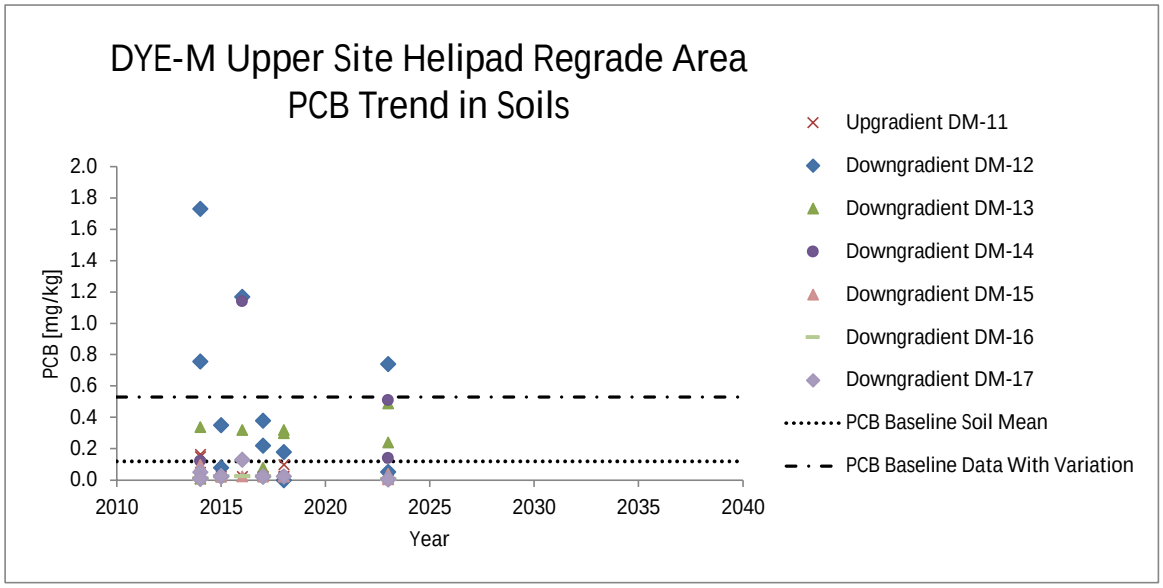
DYE-M Upper Site Helipad Regrade Area Trends in Soil Inorganics, PCBs and PHCs

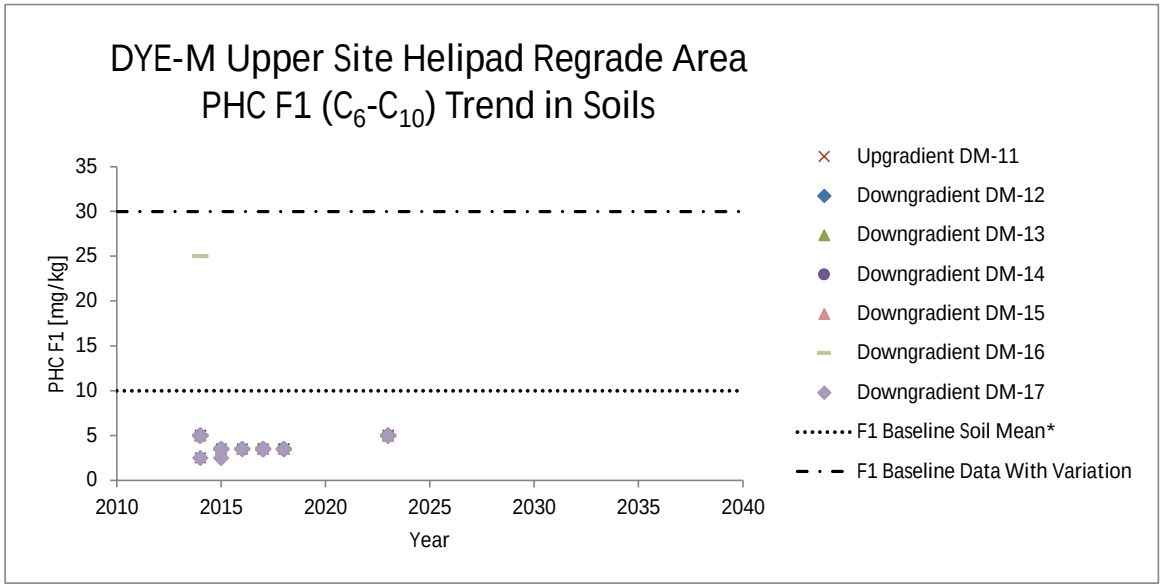
Link to: Table of Contents

Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





* F1 baseline arithmetic mean is equal to the baseline detection limit

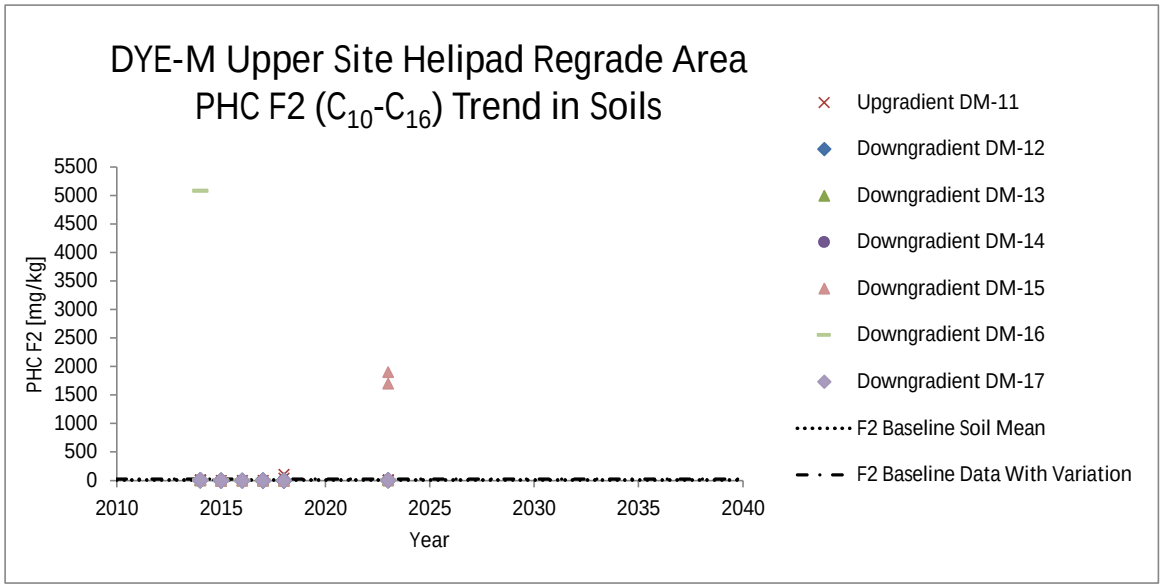
DYE-M Upper Site Helipad Regrade Area Trends in Soil Inorganics, PCBs and PHCs

Link to: Table of Contents

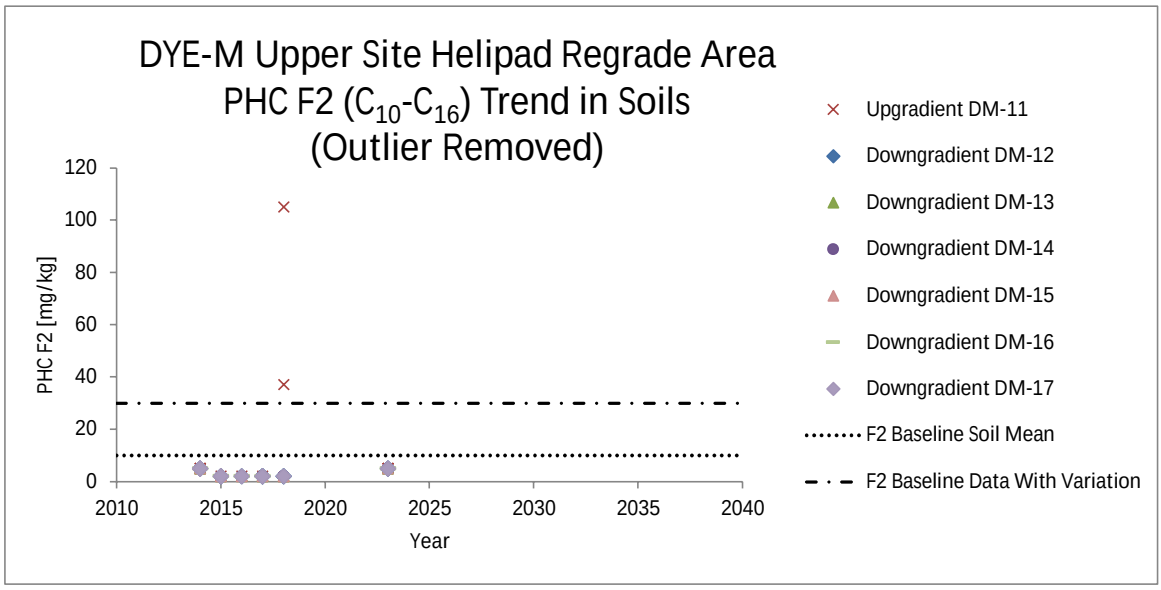
Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.



* F2 baseline arithmetic mean is equal to the baseline detection limit



The 2014 concentration of 5080 mg/kg at DM-16 deep has been removed from this graph to show the remaining data at a better resolution.

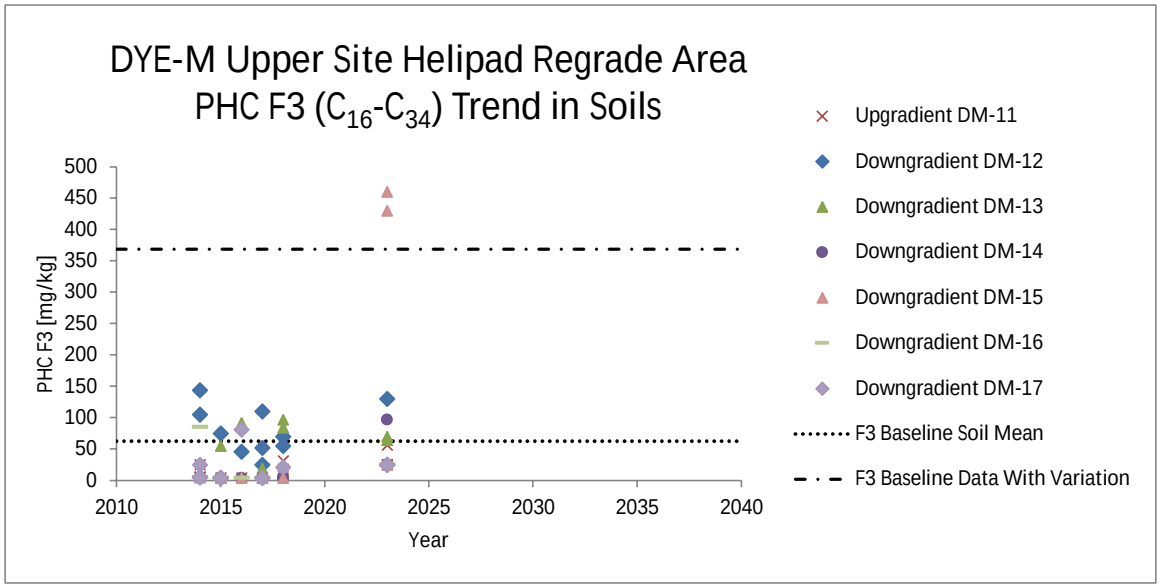
DYE-M Upper Site Helipad Regrade Area Trends in Soil Inorganics, PCBs and PHCs

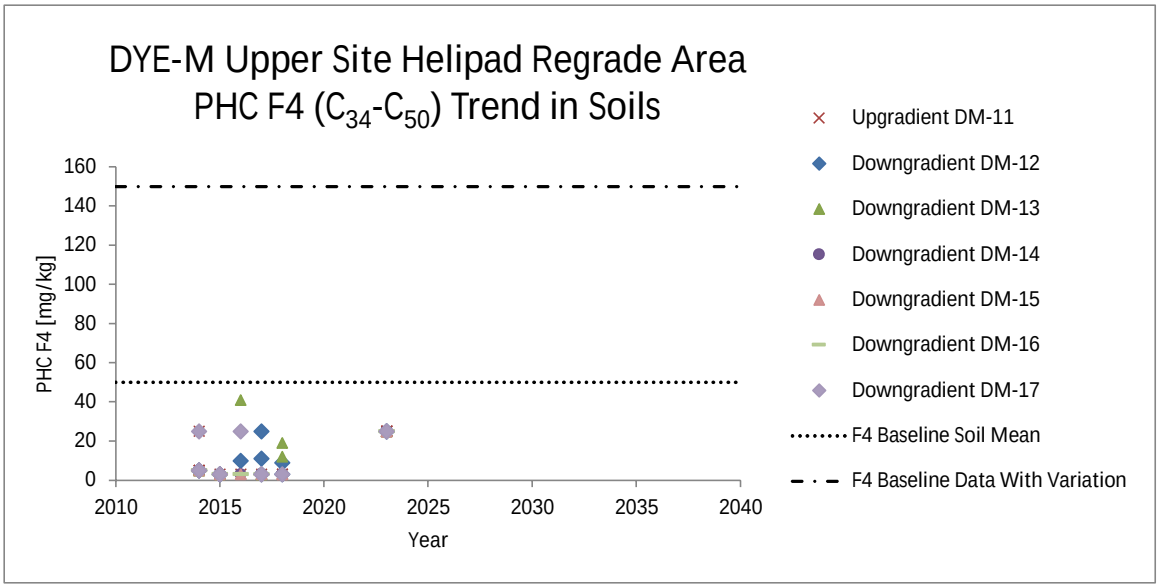
Link to: Table of Contents

Where results are below detection, half of the detection limit has been used in the charts for the sample points.

Trendlines are intended for visual interpretation of temporal trends once 7 or more years of monitoring data are available.

When many monitoring results are below detection, trendlines are a reflection of changes in detection limit; refer to data tables.





* F4 baseline arithmetic mean is equal to the baseline detection limit

APPENDIX E

Thermistor Inspection Reports

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: Aug 27/23
Inspector Signature:	*Previous Inspection Date: 14-Aug-18

Thermistor Information

*Site Name: Dye-M	*Landfill: Lower Site Tier II Disposal Facility
*Thermistor #: VT-1	Inclination: ☑ Vertical ☐ Inclined
*Northing: 7388321.9	*Easting: 561880.9
*Installation Date: 30-Aug-13	*Year 1 Monitoring Date: 2014
Data Logger Model #: RX16 (J-9) / TSR16	Data Logger Cable Model: ☑ USB (New) ☐ Serial Port
Data Logger Serial #: 07110005 / 8305 0426	Data Logger Cable Too Short?: ☐ Y ☑ N
*Elevation (masl): 336.3	Extension Cable Required (m): ☑ N/A

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	☐	
Cover/Lid Integrity	☑	☐	
Data Logger Functionality	☑	☐	Replace RX16 with TSR16
Cable Functionality	☑	☐	
Bead Functionality	☑	☐	

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	☐		
Was a poorly functioning lock removed?	☑	☐		Pins rusted, can't get key in
Was a new 7000PS-KA3 lock put in place?	☐	☑	☐	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details
Initial Status	Was data logger functional upon arrival?	☑	☐		Memory full
	Battery models:				Main: ULB-15 Auxiliary: ULB-1
	Battery installation date:				Aug 14/18
	Battery levels:				Main: 11.34 Auxiliary: 13.63
	Memory battery best before date:				N/A (Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	☐		If yes, new model(s): L91
	Was data logger replaced?	☑	☐		If yes, new model: TSR16
	New battery levels:			☐	Main: 7.05 V Auxiliary:
	Was desiccant replaced?	☑	☐		
Final Status	Expected life of batteries in data logger:				Years: 8 Replace by: 2031
	Was data logger functional upon departure?	☑	☐		If no, brought south for repairs? ☐ Y ☐ N

Expected Memory full: 6/11/2023

Computer Connectivity	Yes	No
Does red status light on black internal data logger glow bright red when laptop attached? N/A	☐	☐

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	K ohms	°C
1	1.7	14.86	2.15
2	2.2	16.14	0.62
3	2.7	16.93	-0.16
4	3.2	17.40	-0.78
5	3.7	17.88	-1.28
6	4.2	19.46	-2.86
7	4.7	18.99	-2.40
8	5.2	19.19	-2.60

Bead*	Depth* (mbgs)	ohms	°C
9	5.7	19.43	-2.83
10	6.2	19.64	-3.03
11	6.7	19.83	-3.21
12	7.2	20.03	-3.39
13	7.7	20.21	-3.56

*Pre-populate this information before field program using previous reports

Data Logger Programming and Maintenance

Data collection frequency:	1 hr (factory)
Data collection time:	
Maintenance requirements:	none

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

* Confirmed functional Aug 28/23

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: Aug 27 /23
Inspector Signature:	*Previous Inspection Date: 14-Aug-18

Thermistor Information

*Site Name: Dye-M	*Landfill: Lower Site Tier II Disposal Facility
*Thermistor #: VT-2	Inclination: ☑ Vertical ☐ Inclined
*Northing: 7388235.5	*Easting: 561836.6
*Installation Date: 14-Aug-13	*Year 1 Monitoring Date: 2014
Data Logger Model #: RX16 (J-C) / TSR16	Data Logger Cable Model: ☑ USB (new) ☐ Serial Port
Data Logger Serial #: 07110052 / 23020207	Data Logger Cable Too Short?: ☐ Y ☑ N
*Elevation (masl): 339.4	Extension Cable Required (m): ☑ N/A

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	☐	
Cover/Lid Integrity	☑	☐	
Data Logger Functionality	☑	☐	RX16 Replaced with TSR16
Cable Functionality	☑	☐	
Bead Functionality	☑	☐	

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	☐		
Was a poorly functioning lock removed?	☑	☐		Pins rusted, can't get key in
Was a new 7000PS-KA3 lock put in place?	☐	☑	☐	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details
Initial Status	Was data logger functional upon arrival?	☑	☐		memory full
	Battery models:				Main: ULB-15 Auxiliary: ULB-1
	Battery installation date:				Aug 14 /18
	Battery levels:				Main: 11.34 V Auxiliary: 13.87 V
	Memory battery best before date:				N/A (Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	☐		If yes, new model(s): L91
	Was data logger replaced?	☑	☐		If yes, new model: TSR16
	New battery levels:			☐	Main: 7.14 V Auxiliary:
	Was desiccant replaced?	☑	☐		
Final Status	Expected life of batteries in data logger:				Years: 8 Replace by: 2031
	Was data logger functional upon departure?	☑	☐		If no, brought south for repairs? ☐ Y ☐ N

Expected memory full: 2/6/2036

Computer Connectivity

	Yes	No
Does red status light on black internal data logger glow bright red when laptop attached? N/A	☐	☐

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	ohms	°C
1	0.22	12.73	5.03
2	0.42	13.08	4.52
3	0.92	19.68	-3.07
4	1.42	15.51	1.36
5	1.92	16.46	0.25
6	2.42	17.04	-0.39
7	2.92	17.52	-0.91
8	3.42	18.31	-1.73

→ V. low temp compared to rest

Bead*	Depth* (mbgs)	ohms	°C

*Pre-populate this information before field program using previous reports

Data Logger Programming and Maintenance

Data collection frequency:	1 hr (factory)
Data collection time:	
Maintenance requirements:	None

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

★ confirmed functional Aug 28/23

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: Aug 27/23
Inspector Signature:	*Previous Inspection Date: 14-Aug-18

Thermistor Information

*Site Name: Dye-M	*Landfill: Lower Site Tier II Disposal Facility
*Thermistor #: VT-3	Inclination: ☑ Vertical ☐ Inclined
*Northing: 7388281.8	*Easting: 561927.1
*Installation Date: 30-Aug-13	*Year 1 Monitoring Date: 2014
Data Logger Model #: RX16 (5-C) / TSR16	Data Logger Cable Model: ☑ USB (New) ☐ Serial Port
Data Logger Serial #: 07110053 / 2302 0108	Data Logger Cable Too Short?: ☐ Y ☑ N
*Elevation (masl): 339.4	Extension Cable Required (m): ☑ N/A

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	☐	
Cover/Lid Integrity	☑	☐	
Data Logger Functionality	☑	☐	RX16 Replaced with TSR16
Cable Functionality	☑	☐	
Bead Functionality	☑	☐	

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	☐		
Was a poorly functioning lock removed?	☑	☐		pins rusted, can't get key in
Was a new 7000PS-KA3 lock put in place?	☐	☑	☐	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details
Initial Status	Was data logger functional upon arrival?	☑	☐		Memory Full
	Battery models:				Main: ULB-15 Auxiliary: ULB-1
	Battery installation date:				Aug 14/23
	Battery levels:				Main: 11.34 V Auxiliary: 13.99 V
	Memory battery best before date:				N/A (Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	☐		If yes, new model(s): L91
	Was data logger replaced?	☑	☐		If yes, new model: TSR16
	New battery levels:			☐	Main: 7.05 V Auxiliary: —
	Was desiccant replaced?	☑	☐		
Final Status	Expected life of batteries in data logger:				Years: 8 Replace by: 2031
	Was data logger functional upon departure?	☑	☐		If no, brought south for repairs? ☐ Y ☐ N

Expected Memory full: 6/11/2036

Computer Connectivity	Yes	No
Does red status light on black internal data logger glow bright red when laptop attached? N/A	☐	☐

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	K ohms	°C
1	0.07	12.84	4.87
2	0.57	16.50	0.21
3	1.07	14.96	2.03
4	1.57	17.26	-0.63
5	2.07	16.97	-0.31
6	2.57	17.43	-0.81
7	3.07	18.22	-1.63

Bead*	Depth* (mbgs)	ohms	°C

*Pre-populate this information before field program using previous reports

Data Logger Programming and Maintenance

Data collection frequency:	1 hour (factory)
Data collection time:	
Maintenance requirements:	None

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

P confirmed functional Aug 28/23

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: Aug 27/23
Inspector Signature:	*Previous Inspection Date: 14-Aug-18

Thermistor Information

*Site Name: Dye-M	*Landfill: Lower Site Tier II Disposal Facility
*Thermistor #: VT-4	Inclination: ☐ Vertical ☑ Inclined 2-3% East
*Northing: 7388184.4	*Easting: 561861.4
*Installation Date: 14-Aug-13	*Year 1 Monitoring Date: 2014
Data Logger Model #: RX16 (HC) / TSR16	Data Logger Cable Model: ☑ USB (New) ☐ Serial Port
Data Logger Serial #: 205077 / 2305 0471	Data Logger Cable Too Short?: ☐ Y ☑ N
*Elevation (masl): 340.4	Extension Cable Required (m): ☑ N/A

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	☐	
Cover/Lid Integrity	☑	☐	
Data Logger Functionality	☑	☐	RX16 Replaced with TSR16
Cable Functionality	☑	☐	
Bead Functionality	☑	☐	

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	☐		
Was a poorly functioning lock removed?	☑	☐		Abus rusted, Key won't go in
Was a new 7000PS-KA3 lock put in place?	☐	☑	☐	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details
Initial Status	Was data logger functional upon arrival?	☑	☐		memory full
	Battery models:				Main: ULB-15 Auxiliary: ULB-1
	Battery installation date:				Aug 14/23
	Battery levels:				Main: 11.34 V Auxiliary: 13.75 V
	Memory battery best before date:				January 2021 (Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	☐		If yes, new model(s): L91
	Was data logger replaced?	☑	☐		If yes, new model: TSR16
	New battery levels:			☐	Main: 7.05 V Auxiliary:
	Was desiccant replaced?	☑	☐		
Final Status	Expected life of batteries in data logger:				Years: 8 Replace by: 2031
	Was data logger functional upon departure?	☑	☐		If no, brought south for repairs? ☐ Y ☐ N

Expected memory full: 6/11/2036

Computer Connectivity	Yes	No
Does red status light on black internal data logger glow bright red when laptop attached? N/A	☐	☐

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	K ohms	°C
1	0.04	12.30	5.67
2	0.24	12.37	5.56
3	0.74	13.52	3.91
4	1.24	13.74	3.61
5	1.74	14.94	2.05
6	2.24	16.61	0.08
7	2.74	17.08	-0.43
8	3.24	17.44	-0.82

Bead*	Depth* (mbgs)	ohms	°C
9	3.74	17.87	-1.27
10	4.24	18.16	-1.57
11	4.74	18.61	-2.03
12	5.24	20.64	-3.95

*Pre-populate this information before field program using previous reports

Data Logger Programming and Maintenance

Data collection frequency:	1 hr (factory)
Data collection time:	
Maintenance requirements:	None

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

* confirmed functional Aug 28/23

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: Aug 27/23
Inspector Signature:	*Previous Inspection Date: 14-Aug-18

Thermistor Information

*Site Name: Dye-M	*Landfill: Lower Site Tier II Disposal Facility
*Thermistor #: VT-BL	Inclination: ☑ Vertical ☐ Inclined
*Northing: 7388226.9	*Easting: 561629.6
*Installation Date: 13-Sep-08	*Year 1 Monitoring Date: 2014
Data Logger Model #: RX 16 (J-D) | TSR 16	Data Logger Cable Model: ☑ USB new ☐ Serial Port
Data Logger Serial #: 0711 0027 | 2305 0402	Data Logger Cable Too Short?: ☐ Y ☑ N
*Elevation (masl): 330.4	Extension Cable Required (m): ☑ N/A

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	☑	Settlement around bottom, casing loose → shoveled and packed material around
Cover/Lid Integrity	☑	☐	
Data Logger Functionality	☑	☐	RX16 Replaced with TSR16
Cable Functionality	☑	☐	no visible tears / frayed
Bead Functionality	☑	☐	Reads 3, 5, 6 not functioning, 8 & 12 report lower temps.

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	☐		
Was a poorly functioning lock removed?	☑	☐		phs rusted, can't get key in
Was a new 7000PS-KA3 lock put in place?	☐	☑	☐	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details
Initial Status	Was data logger functional upon arrival?	☑	☐		memory full
	Battery models:				Main: ULB 15 Auxiliary: ULB-1
	Battery installation date:				Aug 14/18
	Battery levels:				Main: 11.34 V Auxiliary:
	Memory battery best before date:				Aug 2011 (Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	☐		If yes, new model(s): L91
	Was data logger replaced?	☑	☐		If yes, new model: TSR16
	New battery levels:			☐	Main: 7.14 V Auxiliary: /
	Was desiccant replaced?	☑	☐		
Final Status	Expected life of batteries in data logger:				Years: 8 Replace by: 2031
	Was data logger functional upon departure?	☑	☐		If no, brought south for repairs? ☐ Y ☐ N

Expected memory full: 6/11/2036

Computer Connectivity	Yes	No
Does red status light on black internal data logger glow bright red when laptop attached? N/A	☐	☐

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	ohms	°C	
1	-1.8	9.18	11.10	
2	-1.3	9.25	11.04	
3	-0.8	N/A	/	– previous report N/A
4	-0.3	10.69	8.27	
5	0.2	N/A	/	– previous report N/A
6	0.7	N/A	/	→ new from last report
7	1.2	15.03	1.94	
8	2.2	24.65	-7.25	– V. low

Bead*	Depth* (mbgs)	ohms	°C	
9	3.2	18.37	-1.75	
10	4.2	19.10	-2.51	
11	5.2	19.57	-2.86	
12	6.2	23.93	-6.70	– V. low
13	7.2	20.17	-3.52	
14	8.2	20.33	-3.67	
/	/	/	/	
/	/	/	/	

*Pre-populate this information before field program using previous reports

Data Logger Programming and Maintenance

Data collection frequency:	1 hr (factory)
Data collection time:	
Maintenance requirements:	none

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

✡ confirmed functional Aug 28/23

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: Aug 27/23
Inspector Signature:	*Previous Inspection Date: 9-Aug-08

Thermistor Information

*Site Name: Dye-M	*Landfill: Lower Site Powerhouse Landfill
*Thermistor #: VT-5	Inclination: ☑ Vertical ☐ Inclined
*Northing: 7387478.1	*Easting: 562757.9
*Installation Date: 15-Sep-08	*Year 1 Monitoring Date: 2014
Data Logger Model #: RX 16 (3-C) / TSR16	Data Logger Cable Model: ☑ USB (New) ☐ Serial Port
Data Logger Serial #: 0711 0024 / 2302 0184	Data Logger Cable Too Short?: ☐ Y ☑ N
*Elevation (masl): 368.2	Extension Cable Required (m): ☑ N/A

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	☐	
Cover/Lid Integrity	☑	☐	
Data Logger Functionality	☑	☐	RX 16 Replaced with TSR16
Cable Functionality	☑	☐	
Bead Functionality	☑	☐	

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	☐		
Was a poorly functioning lock removed?	☑	☐		Pins rusted, can't get key in
Was a new 7000PS-KA3 lock put in place?	☐	☑	☐	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details
Initial Status	Was data logger functional upon arrival?	☑	☐		memory full
	Battery models:				Main: ULB-15 Auxiliary: ULB-1
	Battery installation date:				Aug 9/18
	Battery levels:				Main: 11.34 V Auxiliary: 13.87 V
	Memory battery best before date:				Aug 2011 (Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	☐		If yes, new model(s): 191
	Was data logger replaced?	☑	☐		If yes, new model: TSR16
	New battery levels:			☐	Main: 7.14 V Auxiliary: /
	Was desiccant replaced?	☑	☐		
Final Status	Expected life of batteries in data logger:				Years: 8 Replace by: 2031
	Was data logger functional upon departure?	☑	☐		If no, brought south for repairs? ☐ Y ☐ N

Expected memory full: 6/11/2036

Computer Connectivity

	Yes	No
Does red status light on black internal data logger glow bright red when laptop attached? N/A	☐	☐

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	K ohms	°C	
1	-0.8	8.89	11.70	
2	-0.4	9.13	11.20	
3	0.1	11.72	6.56	
4	0.6	13.39	4.09	
5	1.1	15.50	1.37	
6	1.6	18.29	-1.71	→ V. low
7	2.1	16.83	-0.16	
8	2.6	17.40	-0.78	

Bead*	Depth* (mbgs)	ohms	°C
9	3.1	17.83	-1.23
10	3.6	18.60	-2.02
11	4.1	19.10	-2.51

*Pre-populate this information before field program using previous reports

Data Logger Programming and Maintenance

Data collection frequency:	1 hr (factory)
Data collection time:	
Maintenance requirements:	none

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

✓ confirmed functional Aug 28/23

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: Aug 27/23
Inspector Signature:	*Previous Inspection Date: 9-Aug-18

Thermistor Information

*Site Name: Dye-M	*Landfill: Lower Site Powerhouse Landfill
*Thermistor #: VT-6	Inclination: ☑ Vertical ☐ Inclined
*Northing: 7387454.4	*Easting: 562755.9
*Installation Date: 11-Sep-08	*Year 1 Monitoring Date: 2014
Data Logger Model #: RX16 (5-2) / TSR16	Data Logger Cable Model: ☑ USB (New) ☐ Serial Port
Data Logger Serial #: 07110025 / 2302 0122	Data Logger Cable Too Short?: ☐ Y ~~☑ N~~
*Elevation (masl): 369.6	Extension Cable Required (m): ~~☑ N/A~~

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	☐	
Cover/Lid Integrity	☑	☐	
Data Logger Functionality	☑	☐	RX16 Replaced with TSR16
Cable Functionality	☑	☐	
Bead Functionality	☑	☐	

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	☐		
Was a poorly functioning lock removed?	☑	☐		Pins rusted, can't get key in
Was a new 7000PS-KA3 lock put in place?	☐	☑	☐	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details
Initial Status	Was data logger functional upon arrival?	☑	☐		Memory full
	Battery models:				Main: ULB-15 Auxiliary: ULB-1
	Battery installation date:				Aug 9/18
	Battery levels:				Main: 11.34V Auxiliary: 13.87V
	Memory battery best before date:				August 2021 (Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	☐		If yes, new model(s): L91
	Was data logger replaced?	☑	☐		If yes, new model: TSR16
	New battery levels:			☐	Main: 7.14V Auxiliary:
	Was desiccant replaced?	☑	☐		
Final Status	Expected life of batteries in data logger:				Years: 8 Replace by: 2031
	Was data logger functional upon departure?	☑	☐		If no, brought south for repairs? ☐ Y ☐ N

Expected memory full: 6/11/2036

Computer Connectivity	Yes	No
Does red status light on black internal data logger glow bright red when laptop attached? N/A	☐	☐

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	K ohms	°C
1	-0.15	10.63	8.38
2	0.35	13.00	4.64
3	0.85	14.68	2.38
4	1.35	15.05	1.92
5	1.85	16.51	0.20
6	2.35	17.09	-0.45
7	2.85	17.69	-1.09
8	3.35	18.13	-1.54

Bead*	Depth* (mbgs)	ohms	°C
9	3.85	18.92	-2.34
10	4.35	19.34	-2.71

*Pre-populate this information before field program using previous reports

Data Logger Programming and Maintenance

Data collection frequency:	1 hr (factory)
Data collection time:	
Maintenance requirements:	None

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

✓ confirmed functional Aug 28/23

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: Aug 27/23
Inspector Signature:	*Previous Inspection Date: 9-Aug-18

Thermistor Information

*Site Name: Dye-M	*Landfill: Lower Site Powerhouse Landfill
*Thermistor #: VT-7	Inclination: □ Vertical ☑ Inclined 5% NE
*Northing: 7387448.9	*Easting: 562789.8
*Installation Date: 14-Jul-09	*Year 1 Monitoring Date: 2014
Data Logger Model #: ~~RX 16 (SC)~~ TSR 16	Data Logger Cable Model: ☑ USB (New) □ Serial Port
Data Logger Serial #: ~~07110026~~ 23020177	Data Logger Cable Too Short?: □ Y ☑ N
*Elevation (masl): 367.6	Extension Cable Required (m): ☑ N/A

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	□	
Cover/Lid Integrity	☑	□	
Data Logger Functionality	☑	□	RX16 Replaced with TSR16
Cable Functionality	☑	□	
Bead Functionality	☑	□	

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	□		
Was a poorly functioning lock removed?	☑	□		pins rusted, can't get key in
Was a new 7000PS-KA3 lock put in place?	□	☑	□	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details
Initial Status	Was data logger functional upon arrival?	☑	□		memory full
	Battery models:				Main: ULB-15 Auxiliary: ULB-1
	Battery installation date:				Aug 9/18
	Battery levels:				Main: 11.34V Auxiliary: 13.75V
	Memory battery best before date:				August 2011 (Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	□		If yes, new model(s): L91
	Was data logger replaced?	☑	□		If yes, new model: TSR16
	New battery levels:			□	Main: 7.05V Auxiliary:
	Was desiccant replaced?	☑	□		
Final Status	Expected life of batteries in data logger:				Years: 8 Replace by: 2031
	Was data logger functional upon departure?	☑	□		If no, brought south for repairs? □ Y □ N

Expected memory full: 6/11/2023

Computer Connectivity	Yes	No
Does red status light on black internal data logger glow bright red when laptop attached? N/A	□	□

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	K ohms	°C
1	0.05	14.17	3.04
2	0.55	15.37	1.53
3	1.05	16.53	0.17
4	1.55	17.14	-0.50
5	2.05	27.57	-9.33
6	2.55	18.27	-1.69
7	3.05	18.65	-2.07
8	3.55	19.09	-2.50

→ V. low

Bead*	Depth* (mbgs)	ohms	°C
9	4.05	19.45	-2.85
10	4.55	19.60	-2.99

*Pre-populate this information before field program using previous reports

Data Logger Programming and Maintenance

Data collection frequency:	1 hr (factory)
Data collection time:	
Maintenance requirements:	None

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

✅ confirmed functional Aug 28/23

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: Aug 24/23
Inspector Signature:	*Previous Inspection Date: 11-Aug-18

Thermistor Information

*Site Name: Dye-M	*Landfill: Upper Site Tier II Disposal Facility
*Thermistor #: VT-8	Inclination: ☑ Vertical ☐ Inclined
*Northing: 7394615.5	*Easting: 571051.5
*Installation Date: 14-Aug-13	*Year 1 Monitoring Date: 2014
Data Logger Model #: RX 16 (5-C) / TSR 16	Data Logger Cable Model: ☑ USB New ☐ Serial Port
Data Logger Serial #: 0711 0057 / 2305 04/9	Data Logger Cable Too Short?: ☐ Y ~~☐ N~~
*Elevation (masl): 645.4	Extension Cable Required (m): ~~☐ N/A~~

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	☐	
Cover/Lid Integrity	☑	☐	
Data Logger Functionality	☑	☐	RX16 Replaced with TSR 16
Cable Functionality	☑	☐	
Bead Functionality	☑	☐	

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	☐		
Was a poorly functioning lock removed?	☑	☐		Pins rusted
Was a new 7000PS-KA3 lock put in place?	☐	☑	☐	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details
Initial Status	Was data logger functional upon arrival?	☑	☐		memory full
	Battery models:				Main: ULB-15 Auxiliary: ULB-1
	Battery installation date:				Aug 11/18
	Battery levels:				Main: 11.34 V Auxiliary: 13.63 V
	Memory battery best before date:				N/A (Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	☐		If yes, new model(s): L91
	Was data logger replaced?	☑	☐		If yes, new model: TSR 16
	New battery levels:			☐	Main: 7.05 V Auxiliary: /
	Was desiccant replaced?	☑	☐		
Final Status	Expected life of batteries in data logger:				Years: 8 Replace by: 2031
	Was data logger functional upon departure?	☑	☐	(New)	If no, brought south for repairs? ☐ Y ☐ N

Expected memory full: 5/31/2036

Computer Connectivity	Yes	No
Does red status light on black internal data logger glow bright red when laptop attached? N/A	☐	☐

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	ohms	°C
1	-0.25	9.60	10.27
2	0.05	12.29	5.68
3	0.55	14.59	2.49
4	1.05	14.59	2.49
5	1.55	15.90	0.90
6	2.05	17.05	-0.40
7	2.55	18.10	-1.51
8	3.05	18.71	-2.13

Bead*	Depth* (mbgs)	ohms	°C
9	3.55	19.68	-3.07
10	4.05	19.98	-3.35
11	4.55	21.03	-4.30
12	5.05	21.20	-4.45
13	5.55	21.58	-4.78
14	6.05	21.92	-5.07
15	6.55	22.47	-5.53
/	/	/	/

*Pre-populate this information before field program using previous reports

Data Logger Programming and Maintenance

Data collection frequency:	1 hr (factory)
Data collection time:	
Maintenance requirements:	none

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

☑ confirmed functional Aug 25/23

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: Aug 24/23
Inspector Signature:	*Previous Inspection Date: 11-Aug-18

Thermistor Information

*Site Name: Dye-M	*Landfill: Upper Site Tier II Disposal Facility
*Thermistor #: VT-9	Inclination: ☑ Vertical ☐ Inclined
*Northing: 7394558.0	*Easting: 571088.7
*Installation Date: 29-Aug-13	*Year 1 Monitoring Date: 2014
Data Logger Model #: RX16 (J-C) / TSR16	Data Logger Cable Model: ☑ USB new ☐ Serial Port
Data Logger Serial #: 0711 0058 / 2305 0433	Data Logger Cable Too Short?: ☐ Y ☒ N
*Elevation (masl): 645.5	Extension Cable Required (m): ☒ N/A

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	☐	
Cover/Lid Integrity	☑	☐	
Data Logger Functionality	☑	☐	RX16 Replaced with TSR16
Cable Functionality	☑	☐	
Bead Functionality	☑	☐	

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	☐		
Was a poorly functioning lock removed?	☑	☐		
Was a new 7000PS-KA3 lock put in place?	☐	☑	☐	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details
Initial Status	Was data logger functional upon arrival?	☑	☐		Memory Full
	Battery models:				Main: ULB-15 Auxiliary: ULB-1
	Battery installation date:				Aug 11/18
	Battery levels:				Main: 11.34 Auxiliary: 13.50
	Memory battery best before date:				N/A (Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	☐		If yes, new model(s): L91
	Was data logger replaced?	☑	☐		If yes, new model: TSR16
	New battery levels:			☐	Main: 7.05 V Auxiliary: /
	Was desiccant replaced?	☑	☐		
Final Status	Expected life of batteries in data logger:				Years: 8 Replace by: 2031
	Was data logger functional upon departure?	☑	☐ (New)		If no, brought south for repairs? ☐ Y ☐ N

Expected Memory full: 6/8/2036

Computer Connectivity	Yes	No
Does red status light on black internal data logger glow bright red when laptop attached? N/A	☐	☐

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	K ohms	°C
1	-0.39	10.21	9.13
2	0.11	11.26	7.39
3	0.61	14.46	2.66
4	1.11	14.22	2.97
5	1.61	15.15	1.79
6	2.11	16.71	-0.03
7	2.61	17.40	-0.78
8	3.11	18.22	-1.63

Bead*	Depth* (mbgs)	ohms	°C
9	3.61	18.87	-2.29
10	4.11	19.43	-2.83
11	4.61	20.01	-3.38
12	5.11	20.44	-3.77
13	5.61	20.92	-4.20
14	6.11	21.30	-4.54
15	6.61	21.53	-4.74
16	7.11	22.13	-5.25

*Pre-populate this information before field program using previous reports

Data Logger Programming and Maintenance

Data collection frequency:	1 hr (factory)
Data collection time:	
Maintenance requirements:	None

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

* Confirmed functional August 25/23

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: Aug 24/23
Inspector Signature:	*Previous Inspection Date: 11-Aug-18

Thermistor Information

*Site Name: Dye-M	*Landfill: Upper Site Tier II Disposal Facility
*Thermistor #: **VT-10**	Inclination: ☑ Vertical ☐ Inclined
*Northing: 7394609.0	*Easting: 571121.0
*Installation Date: 14-Aug-13	*Year 1 Monitoring Date: 2014
Data Logger Model #: RX16 (5-C) / TSR 16	Data Logger Cable Model: ☑ USB (New) ☐ Serial Port
Data Logger Serial #: 0711 0059 / 2302 0238	Data Logger Cable Too Short?: ☐ Y ☑ N
*Elevation (masl): 648.2	Extension Cable Required (m): ☑ N/A

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	☐	
Cover/Lid Integrity	☑	☐	
Data Logger Functionality	☑	☐	RX16 replaced with TSR16
Cable Functionality	☑	☐	
Bead Functionality	☑	☐	

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	☐		
Was a poorly functioning lock removed?	☑	☑		Pins rusted
Was a new 7000PS-KA3 lock put in place?	☐	☑	☐	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details
Initial Status	Was data logger functional upon arrival?	☑	☐		Memory full
	Battery models:				Main: ULB-15 Auxiliary: ULB-1
	Battery installation date:				Aug 11/18
	Battery levels:				Main: 11.34 Auxiliary: 13.50
	Memory battery best before date:				N/A (Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	☐		If yes, new model(s): L91
	Was data logger replaced?	☑	☐		If yes, new model: TSR 16
	New battery levels:			☐	Main: 6.88 ✓ Auxiliary: /
	Was desiccant replaced?	☑	☐		
Final Status	Expected life of batteries in data logger:				Years: 8 Replace by: 2031
	Was data logger functional upon departure?	☑	☐	(New)	If no, brought south for repairs? ☐ Y ☐ N

Expected Memory full: 6/8/2036

Computer Connectivity	Yes	No
Does red status light on black internal data logger glow bright red when laptop attached?	N/A ☐	☐

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	K ohms	°C
1	0.04	13.36	4.13
2	0.54	14.22	2.97
3	1.04	14.64	2.18
4	1.54	16.42	0.30
5	2.04	18.34	-1.76
6	2.54	18.55	-1.97
7	3.04	19.06	-2.47
8	3.54	19.84	-3.22

Bead*	Depth* (mbgs)	ohms	°C
9	4.04	20.62	-3.93
10	4.54	21.37	-4.60

*Pre-populate this information before field program using previous reports

Data Logger Programming and Maintenance

Data collection frequency: 1 hr (Factory)
Data collection time:
Maintenance requirements: none

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

* confirmed functional Aug 25/23

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: Aug 24/23
Inspector Signature:	*Previous Inspection Date: 11-Aug-18

Thermistor Information

*Site Name: Dye-M	*Landfill: Upper Site Tier II Disposal Facility
*Thermistor #: VT-11	Inclination: ☑ Vertical ☐ Inclined
*Northing: 7394655.5	*Easting: 571132.2
*Installation Date: 14-Aug-13	*Year 1 Monitoring Date: 2014
Data Logger Model #: RX16 (5-C) / TSR16	Data Logger Cable Model: ☑ USB (New) ☐ Serial Port
Data Logger Serial #: 0711 0051 / 2305 0464	Data Logger Cable Too Short?: ☐ Y ☐ N
*Elevation (masl): 648.9	Extension Cable Required (m): ☐ N/A

Thermistor Inspection

	Good	Needs Maintenance	Details
Casing Integrity	☑	☐	
Cover/Lid Integrity	☑	☐	
Data Logger Functionality	☑	☐	RX16 Replaced with TSR16
Cable Functionality	☑	☐	
Bead Functionality	☑	☐	

Lock

	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	☐		
Was a poorly functioning lock removed?	☑	☐		pins rusted
Was a new 7000PS-KA3 lock put in place?	☐	☑	☐	If no, model: Abus 70/45

Data Logger and Batteries

		Yes	No	N/A	Details
Initial Status	Was data logger functional upon arrival?	☑	☐		Memory full
	Battery models:				Main: ULB-15 Auxiliary: ULB-1
	Battery installation date:				Aug 11/18
	Battery levels:				Main: 11.34 V Auxiliary: 14.11
	Memory battery best before date:				Sept 2011 (Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	☐		If yes, new model(s): L91
	Was data logger replaced?	☑	☐		If yes, new model: TSR16
	New battery levels:			☐	Main: 6.96 V Auxiliary:
	Was desiccant replaced?	☑	☐		
Final Status	Expected life of batteries in data logger:				Years: 8 Replace by: 2031
	Was data logger functional upon departure?	☑	☐ (New)		If no, brought south for repairs? ☐ Y ☐ N

Expected Memory Full: 6/8/2036

Computer Connectivity

	Yes	No
Does red status light on black internal data logger glow bright red when laptop attached? N/A	☐	☐

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	K ohms	°C
1	-0.67	8.27	13.04
2	-0.47	8.46	12.62
3	0.03	10.85	8.00
4	0.53	14.41	2.72
5	1.03	16.09	0.67
6	1.53	17.65	-1.04
7	2.03	16.96	-0.30
8	2.53	17.62	-1.01

Bead*	Depth* (mbgs)	ohms	°C
9	3.03	18.41	-1.83
10	3.53	19.42	-2.82
11	4.03	19.98	-3.35
12	4.53	20.53	-3.85

*Pre-populate this information before field program using previous reports

Data Logger Programming and Maintenance

Data collection frequency:	1 hr (Factory)
Data collection time:	
Maintenance requirements:	None

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

* Confirmed functional Aug 25/23

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: Aug 24/23
Inspector Signature:	*Previous Inspection Date: 11-Aug-18

Thermistor Information

*Site Name: Dye-M	*Landfill: Upper Site Tier II Disposal Facility
*Thermistor #: VT-BU	Inclination: ☐ Vertical ☑ Inclined ~3-4% South
*Northing: 7394470.7	*Easting: 571142.6
*Installation Date: 12-Sep-08	*Year 1 Monitoring Date: 2014
Data Logger Model #: ~~RX16 (SC)~~ TSR16	Data Logger Cable Model: ☑ USB (New) ☐ Serial Port
Data Logger Serial #: ~~0711 0028~~ 2305 0440	Data Logger Cable Too Short?: ☐ Y ☑ N
*Elevation (masl): 636.9	Extension Cable Required (m): ☑ N/A

Thermistor Inspection

	Good	Needs Maintenance	Details
Casing Integrity	☑	☐	
Cover/Lid Integrity	☑	☐	
Data Logger Functionality	☑	☐	RX16 Replaced with TSR16
Cable Functionality	☑	☐	
Bead Functionality	☑	☐	

Lock

	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	☐		
Was a poorly functioning lock removed?	☑	☐		PWS rusted
Was a new 7000PS-KA3 lock put in place?	☐	☑	☐	If no, model: Abus 70/45

Data Logger and Batteries

		Yes	No	N/A	Details
Initial Status	Was data logger functional upon arrival?	☑	☐		memory full
	Battery models:				Main: ULB-15 Auxiliary: ULB-1
	Battery installation date:				Aug 11/16
	Battery levels:				Main: 11.34 V Auxiliary: 13.38 V
	Memory battery best before date:				Aug 2011 (Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	☐		If yes, new model(s): L91
	Was data logger replaced?	☑	☐		If yes, new model: TSR 16
	New battery levels:			☐	Main: 6.96 Auxiliary: /
	Was desiccant replaced?	☑	☐		
Final Status	Expected life of batteries in data logger:				Years: 8 Replace by: 2031
	Was data logger functional upon departure?	☑	☐	(New)	If no, brought south for repairs? ☐ Y ☐ N

Expected Memory full: 6/8/2036

Computer Connectivity

	Yes	No
Does red status light on black internal data logger glow bright red when laptop attached? N/A	☐	☐

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	ohms	°C
1	-1.2	13.67	3.70
2	-0.7	13.59	3.81
3	-0.2	12.92	4.75
4	0.3	14.01	3.25
5	0.8	15.43	1.45
6	1.3	16.41	0.31
7	1.8	17.42	-0.80
8	2.8	19.16	-2.57

Bead*	Depth* (mbgs)	ohms	°C
9	3.8	20.04	-3.40
10	4.8	22.18	-5.29
11	5.8	21.45	-4.67
12	6.8	21.72	-4.90
13	7.8	21.90	-5.05
14	8.8	22.28	-5.37
/	/	/	/
/	/	/	/

*Pre-populate this information before field program using previous reports

Data Logger Programming and Maintenance

Data collection frequency: 1 hr (Factory)
Data collection time:
Maintenance requirements: none

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

* confirmed functional Aug 25/23

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: 27-Aug-23
Inspector Signature: *Tyler Chapko*	*Previous Inspection Date: 14-Aug-18

Thermistor Information

*Site Name: Dye-M		*Landfill: Lower Site Tier II Disposal Facility	
*Thermistor #: **VT-1**		Inclination: ☑ Vertical	□ Inclined
*Northing: 7388321.9		*Easting: 561880.9	
*Installation Date: 30-Aug-13		*Year 1 Monitoring Date: 2014	
Data Logger Model #: Old - RX16 (Rev. J-C), New - TSR16		Data Logger Cable Model: ☑ USB	□ Serial Port
Data Logger Serial #: Old - 07110005, New - 2305 0426		Data Logger Cable Too Short?: □ Y	☑ N
*Elevation (masl): 336.3		Extension Cable Required (m):	☑ N/A

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	□	
Cover/Lid Integrity	☑	□	
Data Logger Functionality	☑	□	~Replaced RX16 with TSR16
Cable Functionality	☑	□	
Bead Functionality	☑	□	

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	□		
Was a poorly functioning lock removed?	☑	□		Lock pins rusted, unable to insert key into lock
Was a new 7000PS-KA3 lock put in place?	□	☑	□	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details	
Initial Status	Was data logger functional upon arrival?	☑	□		~Memory full	
	Battery models:				Main: ULB-15	Auxiliary: ULB-1
	Battery installation date:				14-Aug-18	
	Battery levels:				Main: 11.34 V	Auxiliary: 13.63 V
	Memory battery best before date:				~No Label	(Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	□		If yes, new model(s):	Energizer L91 Ultimate Lithium
	Was data logger replaced?	☑	□		If yes, new model:	TSR16
	New battery levels:			□	Main: 7.05 V	Auxiliary: N/A
	Was desiccant replaced?	☑	□		~2 new 3 g bags	
Final Status	Expected life of batteries in data logger:				Years: 8	Replace by: 2031
	Was data logger functional upon departure?	☑	□		If no, brought south for repairs?	□ Y □ N
			Expected memory full:		11-Jun-36	

Computer Connectivity		Yes	No
Does red status light on black internal data logger glow bright red when laptop attached?	**N/A**	□	□

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	ohms	°C
1	1.7	14.86	2.15
2	2.2	16.14	0.62
3	2.7	16.83	-0.16
4	3.2	17.40	-0.78
5	3.7	17.88	-1.28
6	4.2	19.46	-2.86
7	4.7	18.99	-2.40
8	5.2	19.19	-2.60

Bead*	Depth* (mbgs)	ohms	°C
9	5.7	1943	-2.83
10	6.2	19.64	-3.03
11	6.7	19.83	-3.21
12	7.2	20.03	-3.39
13	7.7	20.21	-3.56
N/A			
N/A			
N/A			

**Pre-populate this information before field program using previous reports*

Data Logger Programming and Maintenance

Data collection frequency: 1 hour (factory as requested by DND)
Data collection time:
Maintenance requirements: None

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: 27-Aug-23
Inspector Signature: *Tyler Chapko*	*Previous Inspection Date: 14-Aug-18

Thermistor Information

*Site Name: Dye-M		*Landfill: Lower Site Tier II Disposal Facility	
*Thermistor #: **VT-2**		Inclination: ☑ Vertical	□ Inclined
*Northing: 7388235.5		*Easting: 561836.6	
*Installation Date: 14-Aug-13		*Year 1 Monitoring Date: 2014	
Data Logger Model #: Old - RX16 (Rev. J-C), New - TSR16		Data Logger Cable Model: ☑ USB	□ Serial Port
Data Logger Serial #: Old - 07110052, New - 2302 0207		Data Logger Cable Too Short?: □ Y	☑ N
*Elevation (masl): 339.4		Extension Cable Required (m):	☑ N/A

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	□	
Cover/Lid Integrity	☑	□	
Data Logger Functionality	☑	□	~Replaced RX16 with TSR16
Cable Functionality	☑	□	
Bead Functionality	☑	□	~Bead 3 reporting odd low temperature

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	□		
Was a poorly functioning lock removed?	☑	□		Lock pins rusted, unable to insert key into lock
Was a new 7000PS-KA3 lock put in place?	□	☑	□	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details	
Initial Status	Was data logger functional upon arrival?	☑	□		~Memory full	
	Battery models:				Main: ULB-15	Auxiliary: ULB-1
	Battery installation date:				14-Aug-18	
	Battery levels:				Main: 11.34 V	Auxiliary: 13.87 V
	Memory battery best before date:				~No Label	(Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	□		If yes, new model(s):	Energizer L91 Ultimate Lithium
	Was data logger replaced?	☑	□		If yes, new model:	TSR16
	New battery levels:			□	Main: 7.14 V	Auxiliary: N/A
	Was desiccant replaced?	☑	□		~2 new 3 g bags	
Final Status	Expected life of batteries in data logger:				Years: 8	Replace by: 2031
	Was data logger functional upon departure?	☑	□		If no, brought south for repairs?	□ Y □ N
			Expected memory full:		6-Feb-36	

Computer Connectivity		Yes	No
Does red status light on black internal data logger glow bright red when laptop attached?	**N/A**	□	□

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	ohms	°C
1	0.22	12.73	5.03
2	0.42	13.08	4.52
3	0.92	19.68	-3.07
4	1.42	15.51	1.36
5	1.92	16.46	0.25
6	2.42	17.04	-0.39
7	2.92	17.52	-0.91
8	3.42	18.31	-1.73

Bead*	Depth* (mbgs)	ohms	°C
N/A			
N/A			
N/A			
N/A			
N/A			
N/A			
N/A			
N/A			

**Pre-populate this information before field program using previous reports*

Data Logger Programming and Maintenance

Data collection frequency: 1 hour (factory as requested by DND)
Data collection time:
Maintenance requirements: None

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: 27-Aug-23
Inspector Signature: *Tyler Chapko*	*Previous Inspection Date: 14-Aug-18

Thermistor Information

*Site Name:	Dye-M	*Landfill:	Lower Site Tier II Disposal Facility
*Thermistor #:	**VT-3**	Inclination:	☑ Vertical □ Inclined
*Northing:	7388281.8	*Easting:	561927.1
*Installation Date:	30-Aug-13	*Year 1 Monitoring Date:	2014
Data Logger Model #:	Old - RX16 (Rev. J-C), New - TSR16	Data Logger Cable Model:	☑ USB □ Serial Port
Data Logger Serial #:	Old - 07110053, New - 2302 0108	Data Logger Cable Too Short?:	□ Y ☑ N
*Elevation (masl):	339.4	Extension Cable Required (m):	☑ N/A

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	□	
Cover/Lid Integrity	☑	□	
Data Logger Functionality	☑	□	~Replaced RX16 with TSR16
Cable Functionality	☑	□	
Bead Functionality	☑	□	~Beads 2 & 4 reading odd low temperatures

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	□		
Was a poorly functioning lock removed?	☑	□		Lock pins rusted, unable to insert key into lock
Was a new 7000PS-KA3 lock put in place?	□	☑	□	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details	
Initial Status	Was data logger functional upon arrival?	☑	□		~Memory full	
	Battery models:				Main: ULB-15	Auxiliary: ULB-1
	Battery installation date:				14-Aug-18	
	Battery levels:				Main: 11.34 V	Auxiliary: 13.99 V
	Memory battery best before date:				~No Label	(Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	□		If yes, new model(s):	Energizer L91 Ultimate Lithium
	Was data logger replaced?	☑	□		If yes, new model:	TSR16
	New battery levels:			□	Main: 7.05 V	Auxiliary: N/A
	Was desiccant replaced?	☑	□		~2 new 3 g bags	
Final Status	Expected life of batteries in data logger:				Years: 8	Replace by: 2031
	Was data logger functional upon departure?	☑	□		If no, brought south for repairs?	□ Y □ N
			Expected memory full:		11-Jun-36	

Computer Connectivity		Yes	No
Does red status light on black internal data logger glow bright red when laptop attached?	**N/A**	□	□

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	ohms	°C
1	0.07	12.84	4.87
2	0.57	16.50	0.21
3	1.07	14.96	2.03
4	1.57	17.26	-0.63
5	2.07	16.97	-0.31
6	2.57	17.43	-0.81
7	3.07	18.22	-1.63
N/A			

Bead*	Depth* (mbgs)	ohms	°C
N/A			
N/A			
N/A			
N/A			
N/A			
N/A			
N/A			
N/A			

**Pre-populate this information before field program using previous reports*

Data Logger Programming and Maintenance

Data collection frequency: 1 hour (factory as requested by DND)
Data collection time:
Maintenance requirements: None

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: 27-Aug-23
Inspector Signature: *Tyler Chapko*	*Previous Inspection Date: 14-Aug-18

Thermistor Information

*Site Name: Dye-M	*Landfill: Lower Site Tier II Disposal Facility		
*Thermistor #: **VT-4**	Inclination: ☑ Vertical	□ Inclined	
*Northing: 7388184.4	*Easting: 561861.4		
*Installation Date: 14-Aug-13	*Year 1 Monitoring Date: 2014		
Data Logger Model #: Old - RX16 (Rev. H-C), New - TSR16	Data Logger Cable Model: ☑ USB	□ Serial Port	
Data Logger Serial #: Old - 205077, New - 2305 0471	Data Logger Cable Too Short?: □ Y	☑ N	
*Elevation (masl): 340.4	Extension Cable Required (m):	☑ N/A	

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	□	
Cover/Lid Integrity	☑	□	
Data Logger Functionality	☑	□	~Replaced RX16 with TSR16
Cable Functionality	☑	□	
Bead Functionality	☑	□	

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	□		
Was a poorly functioning lock removed?	☑	□		Lock pins rusted, unable to insert key into lock
Was a new 7000PS-KA3 lock put in place?	□	☑	□	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details	
Initial Status	Was data logger functional upon arrival?	☑	□		~Memory full	
	Battery models:				Main: ULB-15	Auxiliary: ULB-1
	Battery installation date:				14-Aug-18	
	Battery levels:				Main: 11.34 V	Auxiliary: 13.75 V
	Memory battery best before date:				Jan-21	(Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	□		If yes, new model(s):	Energizer L91 Ultimate Lithium
	Was data logger replaced?	☑	□		If yes, new model:	TSR16
	New battery levels:			□	Main: 7.05 V	Auxiliary: N/A
	Was desiccant replaced?	☑	□		~2 new 3 g bags	
Final Status	Expected life of batteries in data logger:				Years: 8	Replace by: 2031
	Was data logger functional upon departure?	☑	□		If no, brought south for repairs?	□ Y □ N
			Expected memory full:		11-Jun-36	

Computer Connectivity		Yes	No
Does red status light on black internal data logger glow bright red when laptop attached?	**N/A**	□	□

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	ohms	°C
1	0.04	12.30	5.67
2	0.24	12.37	5.56
3	0.74	13.52	3.91
4	1.24	13.74	3.61
5	1.74	14.94	2.05
6	2.24	16.61	0.08
7	2.74	17.08	-0.43
8	3.24	17.44	-0.82

Bead*	Depth* (mbgs)	ohms	°C
9	3.74	17.87	-1.27
10	4.24	18.16	-1.57
11	4.74	18.61	-2.00
12	5.24	20.64	-3.95
N/A			
N/A			
N/A			
N/A			

**Pre-populate this information before field program using previous reports*

Data Logger Programming and Maintenance

Data collection frequency: 1 hour (factory as requested by DND)
Data collection time:
Maintenance requirements: None

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: 27-Aug-23
Inspector Signature: *Tyler Chapko*	*Previous Inspection Date: 9-Aug-18

Thermistor Information

*Site Name:	Dye-M	*Landfill:	Lower Site Powerhouse Landfill
*Thermistor #:	**VT-5**	Inclination:	☑ Vertical □ Inclined
*Northing:	7387478.1	*Easting:	562757.9
*Installation Date:	15-Sep-08	*Year 1 Monitoring Date:	2014
Data Logger Model #:	Old - RX16 (Rev. J-C), New - TSR16	Data Logger Cable Model:	☑ USB □ Serial Port
Data Logger Serial #:	Old - 07110024, New - 2302 0184	Data Logger Cable Too Short?:	□ Y ☑ N
*Elevation (masl):	368.2	Extension Cable Required (m):	☑ N/A

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	□	
Cover/Lid Integrity	☑	□	
Data Logger Functionality	☑	□	~Replaced RX16 with TSR16
Cable Functionality	☑	□	
Bead Functionality	☑	□	~Bead 6 reporting odd low temperature

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	□		
Was a poorly functioning lock removed?	☑	□		Lock pins rusted, unable to insert key into lock
Was a new 7000PS-KA3 lock put in place?	□	☑	□	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details	
Initial Status	Was data logger functional upon arrival?	☑	□		~Memory full	
	Battery models:				Main: ULB-15	Auxiliary: ULB-1
	Battery installation date:				9-Aug-18	
	Battery levels:				Main: 11.34 V	Auxiliary: 13.89 V
	Memory battery best before date:				Aug-11	(Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	□		If yes, new model(s):	Energizer L91 Ultimate Lithium
	Was data logger replaced?	☑	□		If yes, new model:	TSR16
	New battery levels:			□	Main: 7.14 V	Auxiliary: N/A
	Was desiccant replaced?	☑	□		~2 new 3 g bags	
Final Status	Expected life of batteries in data logger:				Years: 8	Replace by: 2031
	Was data logger functional upon departure?	☑	□		If no, brought south for repairs?	□ Y □ N
			Expected memory full:		11-Jun-36	

Computer Connectivity		Yes	No
Does red status light on black internal data logger glow bright red when laptop attached?	**N/A**	□	□

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	ohms	°C
1	-0.8	8.89	11.70
2	-0.4	9.13	11.20
3	0.1	11.72	6.56
4	0.6	13.39	4.09
5	1.1	15.50	1.37
6	1.6	18.29	-1.71
7	2.1	16.83	-0.16
8	2.6	17.40	-0.78

Bead*	Depth* (mbgs)	ohms	°C
9	3.1	17.83	-1.23
10	3.6	18.60	-2.02
11	4.1	19.10	-2.51
N/A			
N/A			
N/A			
N/A			
N/A			

**Pre-populate this information before field program using previous reports*

Data Logger Programming and Maintenance

Data collection frequency: 1 hour (factory as requested by DND)
Data collection time:
Maintenance requirements: None

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: 27-Aug-23
Inspector Signature: *Tyler Chapko*	*Previous Inspection Date: 9-Aug-18

Thermistor Information

*Site Name:	Dye-M	*Landfill:	Lower Site Powerhouse Landfill
*Thermistor #:	**VT-6**	Inclination:	☑ Vertical □ Inclined
*Northing:	7387454.4	*Easting:	562755.9
*Installation Date:	11-Sep-08	*Year 1 Monitoring Date:	2014
Data Logger Model #:	Old - RX16 (Rev. J-C), New - TSR16	Data Logger Cable Model:	☑ USB □ Serial Port
Data Logger Serial #:	Old - 07110025, New - 2302 0122	Data Logger Cable Too Short?:	□ Y ☑ N
*Elevation (masl):	369.6	Extension Cable Required (m):	☑ N/A

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	□	
Cover/Lid Integrity	☑	□	
Data Logger Functionality	☑	□	~Replaced RX16 with TSR16
Cable Functionality	☑	□	
Bead Functionality	☑	□	

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	□		
Was a poorly functioning lock removed?	☑	□		Lock pins rusted, unable to insert key into lock
Was a new 7000PS-KA3 lock put in place?	□	☑	□	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details	
Initial Status	Was data logger functional upon arrival?	☑	□		~Memory full	
	Battery models:				Main: ULB-15	Auxiliary: ULB-1
	Battery installation date:				9-Aug-18	
	Battery levels:				Main: 11.34 V	Auxiliary: 13.87 V
	Memory battery best before date:				Aug-11	(Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	□		If yes, new model(s):	Energizer L91 Ultimate Lithium
	Was data logger replaced?	☑	□		If yes, new model:	TSR16
	New battery levels:			□	Main: 7.14 V	Auxiliary: N/A
	Was desiccant replaced?	☑	□		~2 new 3 g bags	
Final Status	Expected life of batteries in data logger:				Years: 8	Replace by: 2031
	Was data logger functional upon departure?	☑	□		If no, brought south for repairs?	□ Y □ N
			Expected memory full:		11-Jun-36	

Computer Connectivity		Yes	No
Does red status light on black internal data logger glow bright red when laptop attached?	**N/A**	□	□

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	ohms	°C
1	-0.15	10.63	8.38
2	0.35	13.00	4.64
3	0.85	14.68	2.38
4	1.35	15.05	1.92
5	1.85	16.51	0.20
6	2.35	17.09	-0.45
7	2.85	19.69	-1.09
8	3.35	18.13	-1.54

Bead*	Depth* (mbgs)	ohms	°C
9	3.85	18.92	-2.34
10	4.35	19.34	-2.71
N/A			
N/A			
N/A			
N/A			
N/A			
N/A			

**Pre-populate this information before field program using previous reports*

Data Logger Programming and Maintenance

Data collection frequency: 1 hour (factory as requested by DND)
Data collection time:
Maintenance requirements: None

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: 27-Aug-23
Inspector Signature: *Tyler Chapko*	*Previous Inspection Date: 9-Aug-18

Thermistor Information

*Site Name:	Dye-M	*Landfill:	Lower Site Powerhouse Landfill
*Thermistor #:	**VT-7**	Inclination:	☑ Vertical □ Inclined
*Northing:	7387448.9	*Easting:	562789.8
*Installation Date:	14-Jul-09	*Year 1 Monitoring Date:	2014
Data Logger Model #:	Old - RX16 (Rev. J-C), New - TSR16	Data Logger Cable Model:	☑ USB □ Serial Port
Data Logger Serial #:	Old - 07110026, New - 2302 0177	Data Logger Cable Too Short?:	□ Y ☑ N
*Elevation (masl):	367.6	Extension Cable Required (m):	☑ N/A

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	□	
Cover/Lid Integrity	☑	□	
Data Logger Functionality	☑	□	~Replaced RX16 with TSR16
Cable Functionality	☑	□	
Bead Functionality	☑	□	~Bead 5 reporting odd low temperature

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	□		
Was a poorly functioning lock removed?	☑	□		Lock pins rusted, unable to insert key into lock
Was a new 7000PS-KA3 lock put in place?	□	☑	□	If no, model: Abus 70/45

	Data Logger and Batteries	Yes	No	N/A	Details
Initial Status	Was data logger functional upon arrival?	☑	□		~Memory full
	Battery models:				Main: ULB-15 Auxiliary: ULB-1
	Battery installation date:				9-Aug-18
	Battery levels:				Main: 11.34 V Auxiliary: 13.75 V
	Memory battery best before date:				Aug-11 (Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	□		If yes, new model(s): Energizer L91 Ultimate Lithium
	Was data logger replaced?	☑	□		If yes, new model: TSR16
	New battery levels:			□	Main: 7.05 V Auxiliary: N/A
	Was desiccant replaced?	☑	□		~2 new 3 g bags
Final Status	Expected life of batteries in data logger:				Years: 8 Replace by: 2031
	Was data logger functional upon departure?	☑	□		If no, brought south for repairs? □ Y □ N
			Expected memory full:		11-Jun-36

Computer Connectivity		Yes	No
Does red status light on black internal data logger glow bright red when laptop attached?	**N/A**	□	□

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	ohms	°C
1	0.05	14.17	3.04
2	0.55	15.37	1.53
3	1.05	16.53	0.17
4	1.55	17.14	-0.50
5	2.05	27.57	-9.33
6	2.55	18.27	-1.69
7	3.05	18.65	-2.07
8	3.55	19.09	-2.50

Bead*	Depth* (mbgs)	ohms	°C
9	4.05	19.45	-2.85
10	4.55	19.60	-2.99
N/A			
N/A			
N/A			
N/A			
N/A			
N/A			

**Pre-populate this information before field program using previous reports*

Data Logger Programming and Maintenance

Data collection frequency: 1 hour (factory as requested by DND)
Data collection time:
Maintenance requirements: None

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: 24-Aug-23
Inspector Signature: *Tyler Chapko*	*Previous Inspection Date: 11-Aug-18

Thermistor Information

*Site Name: Dye-M	*Landfill: Upper Site Tier II Disposal Facility		
*Thermistor #: **VT-8**	Inclination: ☑ Vertical	□ Inclined	
*Northing: 7394615.5	*Easting: 571051.5		
*Installation Date: 14-Aug-13	*Year 1 Monitoring Date: 2014		
Data Logger Model #: Old - RX16 (Rev. J-C), New - TSR16	Data Logger Cable Model: ☑ USB	□ Serial Port	
Data Logger Serial #: Old - 07110057, New - 2305 0419	Data Logger Cable Too Short?: □ Y	☑ N	
*Elevation (masl): 645.4	Extension Cable Required (m):	☑ N/A	

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	□	
Cover/Lid Integrity	☑	□	
Data Logger Functionality	☑	□	~Replaced RX16 with TSR16
Cable Functionality	☑	□	
Bead Functionality	☑	□	

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	□		
Was a poorly functioning lock removed?	☑	□		Lock pins rusted, unable to insert key into lock
Was a new 7000PS-KA3 lock put in place?	□	☑	□	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details	
Initial Status	Was data logger functional upon arrival?	☑	□		~Memory full	
	Battery models:				Main: ULB-15	Auxiliary: ULB-1
	Battery installation date:				11-Aug-18	
	Battery levels:				Main: 11.34 V	Auxiliary: 13.63 V
	Memory battery best before date:				~No Label	(Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	□		If yes, new model(s):	Energizer L91 Ultimate Lithium
	Was data logger replaced?	☑	□		If yes, new model:	TSR16
	New battery levels:			□	Main: 7.05 V	Auxiliary: N/A
	Was desiccant replaced?	☑	□		~2 new 3 g bags	
Final Status	Expected life of batteries in data logger:				Years: 8	Replace by: 2031
	Was data logger functional upon departure?	☑	□		If no, brought south for repairs?	□ Y □ N
			Expected memory full:		31-May-36	

Computer Connectivity		Yes	No
Does red status light on black internal data logger glow bright red when laptop attached?	**N/A**	□	□

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	ohms	°C
1	-0.25	9.60	10.27
2	0.05	12.29	5.68
3	0.55	14.59	2.49
4	1.05	14.59	2.49
5	1.55	15.90	0.90
6	2.05	17.05	-0.40
7	2.55	18.10	-1.51
8	3.05	18.71	-2.13

Bead*	Depth* (mbgs)	ohms	°C
9	3.55	19.68	-3.07
10	4.05	19.98	-3.35
11	4.55	21.03	-4.30
12	5.05	21.20	-4.45
13	5.55	21.58	-4.78
14	6.05	21.92	-5.07
15	6.55	22.47	-5.53
N/A			

**Pre-populate this information before field program using previous reports*

Data Logger Programming and Maintenance

Data collection frequency: 1 hour (factory as requested by DND)
Data collection time:
Maintenance requirements: None

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: 24-Aug-23
Inspector Signature: *Tyler Chapko*	*Previous Inspection Date: 11-Aug-18

Thermistor Information

*Site Name: Dye-M	*Landfill: Upper Site Tier II Disposal Facility		
*Thermistor #: **VT-9**	Inclination: ☑ Vertical	□ Inclined	
*Northing: 7394558.0	*Easting: 571088.7		
*Installation Date: 29-Aug-13	*Year 1 Monitoring Date: 2014		
Data Logger Model #: Old - RX16 (Rev. J-C), New - TSR16	Data Logger Cable Model: ☑ USB	□ Serial Port	
Data Logger Serial #: Old - 07110058, New - 2305 0433	Data Logger Cable Too Short?: □ Y	☑ N	
*Elevation (masl): 645.5	Extension Cable Required (m):	☑ N/A	

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	□	
Cover/Lid Integrity	☑	□	
Data Logger Functionality	☑	□	~Replaced RX16 with TSR16
Cable Functionality	☑	□	
Bead Functionality	☑	□	

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	□		
Was a poorly functioning lock removed?	☑	□		Lock pins rusted, unable to insert key into lock
Was a new 7000PS-KA3 lock put in place?	□	☑	□	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details	
Initial Status	Was data logger functional upon arrival?	☑	□		~Memory full	
	Battery models:				Main: ULB-15	Auxiliary: ULB-1
	Battery installation date:				11-Aug-18	
	Battery levels:				Main: 11.34 V	Auxiliary: 13.50 V
	Memory battery best before date:				~No Label	(Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	□		If yes, new model(s):	Energizer L91 Ultimate Lithium
	Was data logger replaced?	☑	□		If yes, new model:	TSR16
	New battery levels:			□	Main: 7.05 V	Auxiliary: N/A
	Was desiccant replaced?	☑	□		~2 new 3 g bags	
Final Status	Expected life of batteries in data logger:				Years: 8	Replace by: 2031
	Was data logger functional upon departure?	☑	□		If no, brought south for repairs?	□ Y □ N
			Expected memory full:		8-Jun-36	

Computer Connectivity		Yes	No
Does red status light on black internal data logger glow bright red when laptop attached?	**N/A**	□	□

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	ohms	°C
1	-0.39	10.21	9.13
2	0.11	11.21	7.39
3	0.61	14.46	2.66
4	1.11	14.22	2.97
5	1.61	15.15	1.79
6	2.11	16.71	-0.03
7	2.61	17.40	-0.78
8	3.11	18.22	-1.63

Bead*	Depth* (mbgs)	ohms	°C
9	3.61	18.87	-2.29
10	4.11	19.43	-2.83
11	4.61	20.01	-3.38
12	5.11	20.44	-3.77
13	5.61	20.92	-4.20
14	6.11	21.30	-4.54
15	6.61	21.53	-4.74
16	7.11	22.13	-5.25

**Pre-populate this information before field program using previous reports*

Data Logger Programming and Maintenance

Data collection frequency: 1 hour (factory as requested by DND)
Data collection time:
Maintenance requirements: None

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: 24-Aug-23
Inspector Signature: *Tyler Chapko*	*Previous Inspection Date: 11-Aug-18

Thermistor Information

*Site Name: Dye-M	*Landfill: Upper Site Tier II Disposal Facility		
*Thermistor #: **VT-10**	Inclination: ☑ Vertical	□ Inclined	
*Northing: 7394609.0	*Easting: 571121.0		
*Installation Date: 14-Aug-13	*Year 1 Monitoring Date: 2014		
Data Logger Model #: Old - RX16 (Rev. J-C), New - TSR16	Data Logger Cable Model: ☑ USB	□ Serial Port	
Data Logger Serial #: Old - 07110059, New - 2302 0238	Data Logger Cable Too Short?: □ Y	☑ N	
*Elevation (masl): 648.2	Extension Cable Required (m):	☑ N/A	

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	□	
Cover/Lid Integrity	☑	□	
Data Logger Functionality	☑	□	~Replaced RX16 with TSR16
Cable Functionality	☑	□	
Bead Functionality	☑	□	

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	□		
Was a poorly functioning lock removed?	☑	□		Lock pins rusted, unable to insert key into lock
Was a new 7000PS-KA3 lock put in place?	□	☑	□	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details	
Initial Status	Was data logger functional upon arrival?	☑	□		~Memory full	
	Battery models:				Main: ULB-15	Auxiliary: ULB-1
	Battery installation date:				11-Aug-18	
	Battery levels:				Main: 11.34 V	Auxiliary: 13.50 V
	Memory battery best before date:				~No Label	(Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	□		If yes, new model(s):	Energizer L91 Ultimate Lithium
	Was data logger replaced?	☑	□		If yes, new model:	TSR16
	New battery levels:			□	Main: 6.88 V	Auxiliary: N/A
	Was desiccant replaced?	☑	□		~2 new 3 g bags	
Final Status	Expected life of batteries in data logger:				Years: 8	Replace by: 2031
	Was data logger functional upon departure?	☑	□		If no, brought south for repairs?	□ Y □ N
			Expected memory full:		8-Jun-36	

Computer Connectivity		Yes	No
Does red status light on black internal data logger glow bright red when laptop attached?	**N/A**	□	□

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	ohms	°C
1	0.04	13.36	4.13
2	0.54	14.22	2.97
3	1.04	14.84	2.18
4	1.54	16.42	0.30
5	2.04	18.34	-1.76
6	2.54	18.55	-1.97
7	3.04	19.06	-2.47
8	3.54	19.84	-3.22

Bead*	Depth* (mbgs)	ohms	°C
9	4.04	20.62	-3.93
10	4.54	21.37	-4.60
N/A			
N/A			
N/A			
N/A			
N/A			
N/A			

**Pre-populate this information before field program using previous reports*

Data Logger Programming and Maintenance

Data collection frequency: 1 hour (factory as requested by DND)
Data collection time:
Maintenance requirements: None

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: 24-Aug-23
Inspector Signature: *Tyler Chapko*	*Previous Inspection Date: 11-Aug-18

Thermistor Information

*Site Name: Dye-M		*Landfill: Upper Site Tier II Disposal Facility	
*Thermistor #: **VT-11**		Inclination: ☑ Vertical	□ Inclined
*Northing: 7394655.5		*Easting: 571132.2	
*Installation Date: 14-Aug-13		*Year 1 Monitoring Date: 2014	
Data Logger Model #: Old - RX16 (Rev. J-C), New - TSR16		Data Logger Cable Model: ☑ USB	□ Serial Port
Data Logger Serial #: Old - 07110051, New - 2305 0464		Data Logger Cable Too Short?: □ Y	☑ N
*Elevation (masl): 648.9		Extension Cable Required (m):	☑ N/A

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	□	
Cover/Lid Integrity	☑	□	
Data Logger Functionality	☑	□	~Replaced RX16 with TSR16
Cable Functionality	☑	□	
Bead Functionality	☑	□	

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	□		
Was a poorly functioning lock removed?	☑	□		Lock pins rusted, unable to insert key into lock
Was a new 7000PS-KA3 lock put in place?	□	☑	□	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details	
Initial Status	Was data logger functional upon arrival?	☑	□		~Memory full	
	Battery models:				Main: ULB-15	Auxiliary: ULB-1
	Battery installation date:				11-Aug-18	
	Battery levels:				Main: 11.34 V	Auxiliary: 14.11 V
	Memory battery best before date:				Sep-11	(Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	□		If yes, new model(s):	Energizer L91 Ultimate Lithium
	Was data logger replaced?	☑	□		If yes, new model:	TSR16
	New battery levels:			□	Main: 6.96 V	Auxiliary: N/A
	Was desiccant replaced?	☑	□		~2 new 3 g bags	
Final Status	Expected life of batteries in data logger:				Years: 8	Replace by: 2031
	Was data logger functional upon departure?	☑	□		If no, brought south for repairs?	□ Y □ N
			Expected memory full:		8-Jun-36	

Computer Connectivity		Yes	No
Does red status light on black internal data logger glow bright red when laptop attached?	**N/A**	□	□

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	ohms	°C
1	-0.67	8.27	13.04
2	-0.47	8.46	12.62
3	0.03	10.85	8.00
4	0.53	14.41	2.72
5	1.03	16.09	0.67
6	1.53	17.65	-1.04
7	2.03	16.96	-0.30
8	2.53	17.62	-1.01

Bead*	Depth* (mbgs)	ohms	°C
9	3.03	18.41	-1.83
10	3.53	19.42	-2.82
11	4.03	19.98	-3.35
12	4.53	20.53	-3.85
N/A			
N/A			
N/A			
N/A			

**Pre-populate this information before field program using previous reports*

Data Logger Programming and Maintenance

Data collection frequency: 1 hour (factory as requested by DND)
Data collection time:
Maintenance requirements: None

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: 27-Aug-23
Inspector Signature: *Tyler Chapko*	*Previous Inspection Date: 14-Aug-18

Thermistor Information

*Site Name:	Dye-M	*Landfill:	Lower Site Tier II Disposal Facility
*Thermistor #:	**VT-BL**	Inclination:	☑ Vertical □ Inclined
*Northing:	7388226.9	*Easting:	561629.6
*Installation Date:	13-Sep-08	*Year 1 Monitoring Date:	2014
Data Logger Model #:	Old - RX16 (Rev. J-C), New - TSR16	Data Logger Cable Model:	☑ USB □ Serial Port
Data Logger Serial #:	Old - 07110027, New - 2305 0402	Data Logger Cable Too Short?:	□ Y ☑ N
*Elevation (masl):	330.4	Extension Cable Required (m):	☑ N/A

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	□	~Settlement around bottom of casing, shoveled and packed
Cover/Lid Integrity	☑	□	material around bottom to fix
Data Logger Functionality	☑	□	~Replaced RX16 with TSR16
Cable Functionality	☑	□	~no fraying or tears visible, string in good condition
Bead Functionality	☑	□	~Beads 3,5,6 not working, 8 & 12 reporting odd low temps

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	□		
Was a poorly functioning lock removed?	☑	□		Lock pins rusted, unable to insert key into lock
Was a new 7000PS-KA3 lock put in place?	□	☑	□	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details
Initial Status	Was data logger functional upon arrival?	☑	□		~Memory full
	Battery models:				Main: ULB-15 Auxiliary: ULB-1
	Battery installation date:				14-Aug-18
	Battery levels:				Main: 11.34 V Auxiliary: N/A
	Memory battery best before date:				Aug-11 (Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	□		If yes, new model(s): Energizer L91 Ultimate Lithium
	Was data logger replaced?	☑	□		If yes, new model: TSR16
	New battery levels:			□	Main: 7.14 V Auxiliary: N/A
	Was desiccant replaced?	☑	□		~2 new 3 g bags
Final Status	Expected life of batteries in data logger:				Years: 8 Replace by: 2031
	Was data logger functional upon departure?	☑	□		If no, brought south for repairs? □ Y □ N
			Expected memory full:		11-Jun-36

Computer Connectivity		Yes	No
Does red status light on black internal data logger glow bright red when laptop attached?	**N/A**	□	□

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	ohms	°C
1	-1.8	9.18	11.10
2	-1.3	9.21	11.04
3	-0.8	not working	
4	-0.3	10.69	8.27
5	0.2	not working	
6	0.7	not working	
7	1.2	15.03	1.94
8	2.2	24.65	-7.25

Bead*	Depth* (mbgs)	ohms	°C
9	3.2	18.33	-1.75
10	4.2	19.1	-2.51
11	5.2	19.57	-2.96
12	6.2	23.93	-6.70
13	7.2	20.17	-3.52
14	8.2	20.33	-3.67
N/A			
N/A			

**Pre-populate this information before field program using previous reports*

Data Logger Programming and Maintenance

Data collection frequency: 1 hour (factory as requested by DND)
Data collection time:
Maintenance requirements: None

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
THERMISTOR INSPECTION LOG

Inspector Name: Tyler Chapko	Inspection Date: 24-Aug-23
Inspector Signature: *Tyler Chapko*	*Previous Inspection Date: 11-Aug-18

Thermistor Information

*Site Name: Dye-M	*Landfill: Upper Site Tier II Disposal Facility		
*Thermistor #: **VT-BU**	Inclination: ☑ Vertical	□ Inclined	
*Northing: 7394470.7	*Easting: 571142.6		
*Installation Date: 12-Sep-08	*Year 1 Monitoring Date: 2014		
Data Logger Model #: Old - RX16 (Rev. J-C), New - TSR16	Data Logger Cable Model: ☑ USB	□ Serial Port	
Data Logger Serial #: Old - 07110028, New - 2305 0440	Data Logger Cable Too Short?: □ Y	☑ N	
*Elevation (masl): 636.9	Extension Cable Required (m):	☑ N/A	

Thermistor Inspection	Good	Needs Maintenance	Details
Casing Integrity	☑	□	
Cover/Lid Integrity	☑	□	
Data Logger Functionality	☑	□	~Replaced RX16 with TSR16
Cable Functionality	☑	□	
Bead Functionality	☑	□	

Lock	Yes	No	N/A	Details
Was casing found locked upon arrival?	☑	□		
Was a poorly functioning lock removed?	☑	□		Lock pins rusted, unable to insert key into lock
Was a new 7000PS-KA3 lock put in place?	□	☑	□	If no, model: Abus 70/45

Data Logger and Batteries		Yes	No	N/A	Details	
Initial Status	Was data logger functional upon arrival?	☑	□		~Memory full	
	Battery models:				Main: ULB-15	Auxiliary: ULB-1
	Battery installation date:				11-Aug-18	
	Battery levels:				Main: 11.34 V	Auxiliary: 13.38 V
	Memory battery best before date:				Aug-11	(Refer to yellow label above COM plug)
Battery/ Logger Replacement	Were batteries replaced?	☑	□		If yes, new model(s):	Energizer L91 Ultimate Lithium
	Was data logger replaced?	☑	□		If yes, new model:	TSR16
	New battery levels:			□	Main: 6.96 V	Auxiliary: N/A
	Was desiccant replaced?	☑	□		~2 new 3 g bags	
Final Status	Expected life of batteries in data logger:				Years: 8	Replace by: 2031
	Was data logger functional upon departure?	☑	□		If no, brought south for repairs?	□ Y □ N
			Expected memory full:		8-Jun-36	

Computer Connectivity		Yes	No
Does red status light on black internal data logger glow bright red when laptop attached?	**N/A**	□	□

Manual Ground Temperature Readings

Bead*	Depth* (mbgs)	ohms	°C
1	-1.2	13.67	3.70
2	-0.7	13.59	3.81
3	-0.2	12.92	4.75
4	0.3	14.01	3.25
5	0.8	15.43	1.45
6	1.3	16.41	0.31
7	1.8	17.42	-0.80
8	2.8	19.16	-2.57

Bead*	Depth* (mbgs)	ohms	°C
9	3.8	20.04	-3.40
10	4.8	22.18	-5.29
11	5.8	21.45	-4.67
12	6.8	21.72	-4.90
13	7.8	21.90	-5.05
14	8.8	22.28	-5.37
N/A			
N/A			

**Pre-populate this information before field program using previous reports*

Data Logger Programming and Maintenance

Data collection frequency: 1 hour (factory as requested by DND)
Data collection time:
Maintenance requirements: None

Photographs Interior ☑ Exterior ☑ Data Logger(s) ☑

Complete All Fields

APPENDIX F

Field Notes

F.1 Preliminary Stability Checklists and Landfill Visual Inspection Checklists
F.2 Soil Sampling Logs
F.3 Monitoring Well Sampling Logs
F.4 Soil Thermal Property Logs
F.5 Well Repair Log

APPENDIX F.1

Preliminary Stability Assessments

Landfill Visual Inspection Checklists

Preliminary Stability Assessment

Site Name (e.g., FOX-M Hall Beach)	DYE-A	
Landfill Name (e.g. Tier II Disposal Facility)	L/S Crossroads	
Feature	**Severity Rating**	**Extent**
Settlement	A	O
Erosion	A	N/A
Lateral Movement	A	N/A
Frost Action	A	N/A
Sloughing	A	N/A
Cracking	A	O
Animal Burrows	A	N/A
Ponded Water	A	N/A
Seepage	A	N/A
Staining	A	N/A
Vegetation Establishment	A	N/A
Vegetation Stress	A	N/A
Exposed Debris and/or Liner	A	N/A
Other	—	—
Overall Landfill Performance	Acceptable	

Severity Rating	Description
Acceptable	Noted features are of little consequence. The landfill is performing as designed. Minor deviations in environmental or physical performance may be observed, such as isolated areas of erosion, settlement, etc.
Marginal	Physical/environmental performance appears to be deteriorating with time. Observations may include an increase in size or number of features of note, such as differential settlement, erosion or cracking. No significant impact on landfill stability to date, but potential for failure is assessed as low or moderate.
Significant	Significant or potentially significant changes affecting landfill stability, such as significant changes in slope geometry, significant erosion or differential settlement, scarp development, etc. The potential for failure is assessed as imminent.
Unacceptable	Stability of landfill is compromised to the extent that ability to contain waste materials is compromised. Examples may include: - Debris exposed in erosion channels or areas of differential settlement - Exposed liner - Slope failure

Extent	Description
Isolated	Singular feature
Occasional	Features of note occurring at irregular intervals/locations
Numerous	Many features of note, impacting less than 50% of the landfill's surface area
Extensive	Features of note impacting more than 50% of landfill's surface area

N/A = Not present

Reviewed w/ SP

DEW LINE LONG TERM LANDFILL MONITORING

VISUAL INSPECTION CHECKLIST

SITE NAME (e.g. FOX-M Hall Beach): **DYE-M CAPE DYER**
LANDFILL DESIGNATION (e.g. Tier II Disposal Facility): **LOWER SITE CROSSROADS LANDFILL**
LANDFILL TYPE (Regraded, Leachate Contained, Tier II or NHWL): **REGRADED**
DATE OF INSPECTION: August 31 2023
WEATHER CONDITIONS (°C, Wind Speed, Precipitation, Cloud Cover): 7°C, 5 km/hr, partly cloudy, no-rain
DATE OF PREVIOUS INSPECTION: **AUGUST 13, 2018**
INSPECTED BY (Name, Signature): Brent Hay
REPORT PREPARED BY (Name, Signature): Brent Hay
DGPS (Make, Model, Accuracy, UTM Zone): Stonex 3900-A H=8mm V=15mm UTM Zone 20N
LANDFILL SURFACE AREA (m^2): **2,140 m^2**
The inspector represents to the best of their knowledge that the following statements and observations are true and correct and that no material facts have been suppressed or misstated.

Notes:

- *All geotechnical features at each landfill must have **UNIQUE and CONSISTENT** identifiers in order to track their evolution over multiple monitoring events:*
  - *If a feature is identified as Feature A, then this same Feature A must be followed up on as Feature A in the next monitoring event, and all subsequent monitoring events.*
    - *If a feature develops related sub-features within close proximity over time, they can be identified using the primary letter plus sequential numbers (e.g., Feature A1, Feature A2, etc.).*
  - *If a feature is observed in one year, but not another, continue to include it on this checklist; indicate 'No' in the 'Present (Yes/No)' column and 'Not observed' in the 'Description' column.*
  - *Once a feature identifier is used at a given landfill, it cannot be reused at that same landfill to identify a different feature in later years.*
  - *A new feature must get its own unique identifier, in alphabetical order from where the previous list of features at that landfill left off.*
  - *All new features should be identified as 'NEW' in the 'Description' column of this checklist.*
  - *New features can only be grouped together under the same identifier using sub-level identifiers (e.g., A1, A2, etc.) if they are very similar, are related to each other and are located in close proximity.*
  - *Feature names must be consistent in the tables, figures, photographs and text; all feature referencing must be verified for consistency.*
- *All measurements must be metric units.*
- *Landfill surface area should be determined using AutoCAD files provided to consultant and/or consultant's survey data gathered in the field.*

Table 4-6: Visual Inspection Checklist – Lower Site Crossroads Landfill

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Settlement	Y	K	Cover surface	562,581	7,387,664	1.3	0.5	0.2	<1	Area of minor settlement (Acceptable)	Unchanged since previous observation	206
	Y	K	"	"	"	0.70	0.91	0.1	"	" (A)	diff due to interp	
	Y	N	Cover surface	562,638	7,387,644	0.4	0.4	0.2	<1	Minor settlement (Acceptable)	New	209
	Y	N	SE crest	562,635	7,387,632	0.35	0.35	50mm	<1	"	smaller, less deep	
	Y	R	NW crest	562,584 see survey	7,387,648	3.99 →	0.5	50mm	<1	5 bumps @ crest (A)	New	
Erosion	N	-	-	-	-	-	-	-	-	-	-	-
	No											
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
	No											
Frost Action.	N	-	-	-	-	-	-	-	-	-	-	-
	No											
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
	No											

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Cracking	Y	L	West slope crest	562,584	7,387,653	3	0.02	-	<1	Tension crack (Acceptable)	Becoming weathered, reduced length (5m long in 2017)	207
	Y	L	"	"	"	3.21	0.020	N/A		" (A)	Barely visible (more healed)	
	N	G,H and I	-	-	-	-	-	-	-	Tension cracks	Not observed in 2018	-
	N									N/A	Not observed in 2023	
	Y	M	East slope	562,640	7,387,642	2	0.1	0.05	<1	Weathered tension crack (Acceptable)	New	208
	Y	M	"	"	"	6.99	<0.01m	N:1	<1	Barely visible longer (A)	close loop,	
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Vegetation	Y	B	Cover surface	562,608	7,387,650	75 (entire cover)	35 (entire cover)	-	100	Sparse vegetation (Acceptable)	Expanded to entire cover in 2018 (60 x 25 m in 2017)	198 – 205
	Y	All over										
Staining	N	-	-	-	-	-	-	-	-	-	-	-
	N											

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Seepage or Ponded Water	N	F	-	-	-	-	-	-	-	Ponded water	Not observed	-
	N											
Debris and/or Liner Exposed	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Presence / Condition of Monitoring Instruments	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Features of Note / Other Observations	N	J	-	-	-	-	-	-	-	Tire tracks	No longer a feature	-
	N											
	N	A, C, D and E	-	-	-	-	-	-	-	Not assigned	Not assigned	-
	N											

Landfill Area = 2,140 m^2.

LF 35 in excellent condition

Preliminary Stability Assessment

Site Name (e.g., FOX-M Hall Beach)	DYE-M	
Landfill Name (e.g. Tier II Disposal Facility)	L/S Foundation	
Feature	**Severity Rating**	**Extent**
Settlement	A	O
Erosion	A	I
Lateral Movement	A	N/A
Frost Action	A	N/A
Sloughing	A	N/A
Cracking	A	O
Animal Burrows	A	N/A
Ponded Water	A	N/A
Seepage	A	N/A
Staining	A	N/A
Vegetation Establishment	A	O
Vegetation Stress	A	N/A
Exposed Debris and/or Liner	A	N/A
Other	—	—
Overall Landfill Performance	Acceptable	

Severity Rating	Description
Acceptable	Noted features are of little consequence. The landfill is performing as designed. Minor deviations in environmental or physical performance may be observed, such as isolated areas of erosion, settlement, etc.
Marginal	Physical/environmental performance appears to be deteriorating with time. Observations may include an increase in size or number of features of note, such as differential settlement, erosion or cracking. No significant impact on landfill stability to date, but potential for failure is assessed as low or moderate.
Significant	Significant or potentially significant changes affecting landfill stability, such as significant changes in slope geometry, significant erosion or differential settlement, scarp development, etc. The potential for failure is assessed as imminent.
Unacceptable	Stability of landfill is compromised to the extent that ability to contain waste materials is compromised. Examples may include: - Debris exposed in erosion channels or areas of differential settlement - Exposed liner - Slope failure

Extent	Description
Isolated	Singular feature
Occasional	Features of note occurring at irregular intervals/locations
Numerous	Many features of note, impacting less than 50% of the landfill's surface area
Extensive	Features of note impacting more than 50% of landfill's surface area

N/A = Not Present

Reviewed w/ SA

DEW LINE LONG TERM LANDFILL MONITORING

VISUAL INSPECTION CHECKLIST

SITE NAME (e.g. FOX-M Hall Beach): **DYE-M CAPE DYER**
LANDFILL DESIGNATION (e.g. Tier II Disposal Facility): **LOWER SITE FOUNDATION LANDFILL**
LANDFILL TYPE (Regraded, Leachate Contained, Tier II or NHWL): Regrade – conform w/ DND
DATE OF INSPECTION: August 31, 2023
WEATHER CONDITIONS (°C, Wind Speed, Precipitation, Cloud Cover): +9°C, Sunny, 5 km/hr winds
DATE OF PREVIOUS INSPECTION: **AUGUST 13, 2018**
INSPECTED BY (Name, Signature): Brent Hay,
REPORT PREPARED BY (Name, Signature): Brent Hay
DGPS (Make, Model, Accuracy, UTM Zone): Stonex, S900-A, H=8mm, V=15mm, UTM 20N
LANDFILL SURFACE AREA (m^2): **3,340 m^2**
The inspector represents to the best of their knowledge that the following statements and observations are true and correct and that no material facts have been suppressed or misstated.

Notes:

- *All geotechnical features at each landfill must have **UNIQUE and CONSISTENT** identifiers in order to track their evolution over multiple monitoring events:*
  - *If a feature is identified as Feature A, then this same Feature A must be followed up on as Feature A in the next monitoring event, and all subsequent monitoring events.*
    - *If a feature develops related sub-features within close proximity over time, they can be identified using the primary letter plus sequential numbers (e.g., Feature A1, Feature A2, etc.).*
  - *If a feature is observed in one year, but not another, continue to include it on this checklist; indicate 'No' in the 'Present (Yes/No)' column and 'Not observed' in the 'Description' column.*
  - *Once a feature identifier is used at a given landfill, it cannot be reused at that same landfill to identify a different feature in later years.*
  - *A new feature must get its own unique identifier, in alphabetical order from where the previous list of features at that landfill left off.*
  - *All new features should be identified as 'NEW' in the 'Description' column of this checklist.*
  - *New features can only be grouped together under the same identifier using sub-level identifiers (e.g., A1, A2, etc.) if they are very similar, are related to each other and are located in close proximity.*
  - *Feature names must be consistent in the tables, figures, photographs and text; all feature referencing must be verified for consistency.*
- *All measurements must be metric units.*
- *Landfill surface area should be determined using AutoCAD files provided to consultant and/or consultant's survey data gathered in the field.*

Table 4-8: Visual Inspection Checklist – Lower Site Foundation Landfill

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Settlement	Y	M	Cover surface	562,770	7,387,588	3	1.2	0.1	<1	Minor depression (Acceptable)	Unchanged since previous observation	232
	Y	M	"	"	"	See 1.43	Survey 1.1	0.1	<1	" (A)	" smaller	
	Y	Q	Cover surface	562,746	7,387,548	0.4	0.3	0.1	<1	Minor depression (Acceptable)	New	242
	Y	Q	"	"	"	0.7	0.55	50mm	<1	" (A)	Recent, larger	
Erosion	Y	O	East Slope	562,776	7,387,576	4	1	0.1	<1	Area of self-armouring erosion, accumulation of fines at toe of slope. (Acceptable)	Unchanged since previous observation	233
	Y	O	"	"	"	" 1.77	" 1	50mm	<1	" (A)	" barely visible	2598
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
	N	-	-	-	-	-	-	-	-	-	-	-
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
	N	-	-	-	-	-	-	-	-	-	-	-

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Cracking	N	N	North crest corner	562,740	7,387,624	-	-	-	-	Minor thaw crack	Not observed in 2018	-
	N	N								A	Not observed	
	Y	P	Southwest slope	562,743	7,387,552	9	2	-	<1	Area of minor thaw crack (Acceptable)	Expanded area (3 x 0.02 m in 2017)	234 – 236
	Y	P				10.14	0.5	<25mm	<1	A	Longer	
	Y	K+L	Southeast slope	562,772	7,387,551	29	2.5	-	2	Area of minor thaw cracking (Acceptable)	Expanded area (K: 4 x 0.02 m; L: 10 x 0.02 m in 2017)	237 – 241
	N	K+L	—	—	—	—	-	—	-	Not observed A		
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
	N											

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Vegetation	Y	D	Cover surface	562,751	7,387,585	80 (most of cover)	50 (most of cover)	-	86	Moderately vegetated except the central portion of the cover (Acceptable)	Expanded area in 2018, two separate/disconnected areas in 2017 that are now joined (D1: 70 x 30 m; D2: 50 x 5 m)	223 – 231
	Y	D	All over							(A)		
Staining	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Seepage or Ponded Water	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Debris and/or Liner Exposed	N	E	-	-	-	-	-	-	-	Debris	Not observed	-
	N											

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Presence / Condition of Monitoring Instruments	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Features of Note / Other Observations	N	A, B, F, G, H, I and J	-	-	-	-	-	-	-	Not assigned	Not assigned	-
	N/A											

Landfill Area = 3,340 m^2.

LF in excellent condition

Preliminary Stability Assessment

Site Name (e.g., FOX-M Hall Beach)	DYE-M	
Landfill Name (e.g. Tier II Disposal Facility)	L/S Non-Haz	
Feature	**Severity Rating**	**Extent**
Settlement	Acceptable	Occasional
Erosion	Acceptable	Occasional
Lateral Movement	Acceptable	I
Frost Action	Acceptable	N/A
Sloughing	Marginal	O
Cracking	Marginal	O
Animal Burrows	Acceptable	N/A
Ponded Water	Acceptable	I
Seepage	Marginal - Stg	O
Staining	Acceptable	N/A
Vegetation Establishment	Acceptable	O
Vegetation Stress	Acceptable	N/A
Exposed Debris and/or Liner	Acceptable	N/A
Other		N/A
Overall Landfill Performance	Acceptable - Marginal *	

Severity Rating		Description
A	Acceptable	Noted features are of little consequence. The landfill is performing as designed. Minor deviations in environmental or physical performance may be observed, such as isolated areas of erosion, settlement, etc.
M	Marginal	Physical/environmental performance appears to be deteriorating with time. Observations may include an increase in size or number of features of note, such as differential settlement, erosion or cracking. No significant impact on landfill stability to date, but potential for failure is assessed as low or moderate.
S	Significant	Significant or potentially significant changes affecting landfill stability, such as significant changes in slope geometry, significant erosion or differential settlement, scarp development, etc. The potential for failure is assessed as imminent.
U	Unacceptable	Stability of landfill is compromised to the extent that ability to contain waste materials is compromised. Examples may include: - Debris exposed in erosion channels or areas of differential settlement - Exposed liner - Slope failure

Extent		Description
I	Isolated	Singular feature
O	Occasional	Features of note occurring at irregular intervals/locations
N	Numerous	Many features of note, impacting less than 50% of the landfill's surface area
E	Extensive	Features of note impacting more than 50% of landfill's surface area

*

Reviewed w/SA

DEW LINE LONG TERM LANDFILL MONITORING

VISUAL INSPECTION CHECKLIST

SITE NAME (e.g. FOX-M Hall Beach): **DYE-M CAPE DYER**
LANDFILL DESIGNATION (e.g. Tier II Disposal Facility): **LOWER SITE NON-HAZARDOUS WASTE LANDFILL**
LANDFILL TYPE (Regraded, Leachate Contained, Tier II or NHWL): **NHWL**
DATE OF INSPECTION: Aug 29, 2023
WEATHER CONDITIONS (°C, Wind Speed, Precipitation, Cloud Cover): Sunny, 30 km/hr winds / 6-12°C
DATE OF PREVIOUS INSPECTION: **AUGUST 9, 2018**
INSPECTED BY (Name, Signature): Brent Hay
REPORT PREPARED BY (Name, Signature): Brent Hay
DGPS (Make, Model, Accuracy, UTM Zone): Stonex S900-A H-8mm V-15mm UTM 20N
LANDFILL SURFACE AREA (m^2): **23,200 m^2**
The inspector represents to the best of their knowledge that the following statements and observations are true and correct and that no material facts have been suppressed or misstated.

Notes:

- *All geotechnical features at each landfill must have **UNIQUE and CONSISTENT** identifiers in order to track their evolution over multiple monitoring events:*
  - *If a feature is identified as Feature A, then this same Feature A must be followed up on as Feature A in the next monitoring event, and all subsequent monitoring events.*
    - *If a feature develops related sub-features within close proximity over time, they can be identified using the primary letter plus sequential numbers (e.g., Feature A1, Feature A2, etc.).*
  - *If a feature is observed in one year, but not another, continue to include it on this checklist; indicate 'No' in the 'Present (Yes/No)' column and 'Not observed' in the 'Description' column.*
  - *Once a feature identifier is used at a given landfill, it cannot be reused at that same landfill to identify a different feature in later years.*
  - *A new feature must get its own unique identifier, in alphabetical order from where the previous list of features at that landfill left off.*
  - *All new features should be identified as 'NEW' in the 'Description' column of this checklist.*
  - *New features can only be grouped together under the same identifier using sub-level identifiers (e.g., A1, A2, etc.) if they are very similar, are related to each other and are located in close proximity.*
  - *Feature names must be consistent in the tables, figures, photographs and text; all feature referencing must be verified for consistency.*
- *All measurements must be metric units.*
- *Landfill surface area should be determined using AutoCAD files provided to consultant and/or consultant's survey data gathered in the field.*

Table 4-12: Visual Inspection Checklist – Lower Site Non-Hazardous Waste Landfill

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Settlement	Y	AC	North slope crest	562,986	7,387,025	0.5	0.5	0.1	<1	Minor depression (Acceptable)	New	377
BH1&2 ~ 0.6m ø sink holes, new, see survey 50mm ↓	Y	AC	"	"	"	0.9	1.0	50mm		" (A)	larger	
	Y	AM	North slope crest	563,050	7,387,062	0.3	0.3	0.06	<1	Minor depression (Acceptable)	New	397
	Y	AM	"	"	"	0.4	0.25	0.03	<1	" (A)	existing - diff based on interp	
	Y	AN	Cover surface	563,053	7,387,056	2	1.2	0.04	<1	Minor depression (Acceptable)	New	398
	Y	AN	"	"	"	1.40	1.2	"	<1	" (A)	No change, diff from interp	
	Y	AY	Cover surface	563,031	7,387,038	0.8	0.9	0.05	<1	Minor depression (Acceptable)	New	428
	Y	AY	"	"	"	"	"	"		" (A)	No change	
	Y	AZ - NR	North slope	562,985	7,387,027	0.4	0.4	0.1	<1	Minor depression (Acceptable)	New	429
		see note 1								" (A)		
	Y	AB	North slope crest	562,954	7,387,012	0.7	0.5	0.07	<1	Minor depression (Acceptable)	New	430
	"	AB				30"	24"	0.075		" (A)	slightly larger	
		BB	"	563,026	7,387,044	0.35	0.3	105mm	<1	" (-1 Acceptable)	New	
		BC	"			0.4	0.4	125mm	<1	" "	New	
		~~BG~~	Cover	see	survey							

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Erosion (1) Entire slope has self armoured, evidenced by fines & comparison w/ previous photos the slopes should be inspected relative to previous photos & Δ in grain size (zoomed in pics w/ scale are important) suspect further erosion unlikely however if continues potential to move larger of stone may result in exposure of waste. close loop on individual features	Y	D	West slope	562,957	7,386,924	83 (area)	5 (area)	0.1	1.7	Area of minor self-armouring erosion with fines washing down slope (Acceptable)	Expanded area since previous observation, weathered and becoming stabilized (45 x 5 m in 2017)	291 – 300
	y	D (1)		"	"							
	Y	H	East slope	563,111	7,386,999	71 (area)	8 (area)	0.1	2.5	Area of minor self-armouring erosion with fines washing down slope (Acceptable)	Expanded area, weathered and becoming stabilized (45 x 10 m in 2017)	308 – 316
	N	H (1)		"	"							
	Y	S	East slope	563,064	7,387,064	43 (area)	8 (area)	0.1	1.5	Area of minor self-armouring erosion with fines washing down slope (Acceptable)	Expanded area, (25 x 10 m in 2017) becoming stabilized. Erosion channels up to 2 m wide	303 – 307
	N	S (1)		"	"					self armoured		
	Y	X	South slope	563,105	7,386,945	6	0.5	0.1	<1	Minor self-armouring erosion (Acceptable)	Unchanged since previous inspection	347
	Y	X (1)	"	"	"	"	"	"		self armoured (?)		
	Y	N+O+Q	North slope	562,995	7,387,034	150 (area)	8 (area)	0.1	4.0	Area of self-armouring erosion (Acceptable)	Expanded and connected area in 2018 (N:5 x 3 m; O: 15 x 10 m; Q: 30 x 10 m in 2017), weathered and becoming stabilized	356 – 376
	Y	N+O+Q									stable self armoured, generally represents entire area	

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Lateral Movement	Y	AJ	North slope	563,027	7,387,056	19	4	-	<1	Minor bulging of slope (Marginal)	New	391 – 392
	Y	AJ	"	"	"	See survey 7.48	3.10	- N/A	<1	" " (A)	Same, smaller in area	
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Cracking	Y	K	West crest	562,939	7,386,970	5	0.01	-	<1	Weathered minor crack (Acceptable)	Reduced length (15 m long in 2017)	324
	N	K	"	"	"	"	"			Not visible 2023 (A)	healed	
	Y	L1	North crest	563,053	7,387,060	22	0.02	-	-	Minor thaw cracking (Acceptable)	Reduced length (35 m long in 2017)	337 – 341
	N	L1	"	"	"	N/A	"			healed crack (m/Mod) (A)	not observed	
	N	L2	North crest	562,945	7,387,009	-	-	-	-	Minor thaw cracking	Not observed in 2018	-
	N	L2	"	"	"					"	" 2023	
	Y	BD	East Crest to East Crest	See Survey 563,073	7,387,024	31.20	30mm	<25mm		Minor crack (A)	new	

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Cracking (cont.)	N	L3	North slope	562,951	7,387,010	-	-	-	<1	Minor thaw cracking	Not observed in 2018	325
(2) crack pin MPs BI - new, on cover, see survey 50mm wide c25mm deep partially healed	N	L3	"	"	"	—	—	—	<1	Not Present	Not observed	—
	Y	P	North slope	563,000	7,387,034	11	0.01	-	<1	Parallel tension cracking on slope (Acceptable)	Increased length (7 m long in 2017)	332 – 333
	Y	P (1)										
	N	R (2)(1)	Could not be distinguished due to frequent cracking on north slope. All cracking on north slope logged as new features.									
	Y	T	South slope	563,042	7,386,934	1.4	0.2	-	<1	Parallel tension cracking on slope (Acceptable)	Shorter due to weathering (5 m long in 2017)	334 – 335
	N	T								Not present		
	N	U	South slope	563,062	7,386,931	-	-	-	-	Tension cracking near toe of slope	Not observed in 2018 due to snow cover	336
	N	U	South Toe							healed - close loop		
	N	V	South slope	563,030	7,386,925	-	-	-	-	Tension cracking	Not observed in 2018	-
	N	V	"	"	—					"	Not observed	
	BE	cover		563,070	7,386,959	28.92	<75mm	50mm		settlement crack	new	
	BF	cover		563,053	7,386,987	40.49	"	"		"	new	
	BG	cover		563,023	7,386,941	26.66	"	"		"	new - joins AA1	

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Cracking (cont.)	Y	Y	West slope	562,961	7,386,925	16	3	-	<1	Area of tension cracking (Acceptable)	Expanded to an area in 2018, single crack in 2017 (4 x 0.02 m)	348 – 349
	Y	Y	"	"	"	9.29 See survey	3	nil	<1	" (M)	see survey	
	Y	Y1	"	562,969 See survey	7,386,911	4.93	3.18 5m x 3m	nil N/A		tension cracking & slope movement (M)	New	
	N	Z	West slope	562,931	7,386,973	-	-	-	-	Tension cracking	Not observed in 2018 due to snow cover	350
	N	Z	"	"	"					(A)		
	Y	AA	Cover surface	562,999	7,387,009	32	0.05	0.02	<1	Weathered crack (Acceptable)	New	351 – 355
	Y	AA		see survey		74.05	"	"	<1	" (A)	much larger joints BE/AA	
	Y	AD	North slope	562,999	7,387,035	5	0.05	-	<1	Weathered crack (Acceptable)	New	378
	Y	see P								(M)		
	Y N	AE	North slope	563,012	7,387,041	9	0.01	-	<1	Tension crack (Acceptable)	New	379 – 380
			Combined							Healed crack (M)		
	Y N	AF	North slope crest	563,016	7,387,043	22	0.01	-	<1	Tension crack (Acceptable)	New	381 – 383
				see survey						(A)		

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Cracking (cont.)	Y	AG	North slope	563,016	7,387,044	3	0.01	-	<1	Tension crack (Acceptable)	New	384
		P+P								M		
	Y	AH	North Slope	563,024	7,387,049	16	0.01	-	<1	Tension crack (Acceptable)	New	385 – 387
		P+A								M		
	Y	AI	North slope	563,029	7,387,054	16	0.06	-	<1	Tension crack (Marginal)	New	388 – 389
		P+A								M		
	Y	AK	North slope	563,039	7,387,057	5	0.01	-	<1	Tension crack (Acceptable)	New	393 – 394
		P+A								M		
	Y	AL	North slope	563,052	7,387,066	4	0.01	-	<1	Tension crack (Acceptable)	New	395 – 396
		P+A								M		
	Y	AO	East slope crest	563,083	7,387,037	17	0.01	-	<1	Tension crack (Acceptable)	New	399 – 401
	N	AO								healed crack - close loop A		

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Cracking (cont.)	Y	AP	East slope crest	563,118	7,386,980	11	0.01	-	<1	Tension crack (Acceptable)	New	402 – 404
		Same as AO								loop (A)		
	Y	AQ	East slope crest	563,111	7,386,992	8	0.01	-	<1	Tension crack (Acceptable)	New	405 – 407
		Same as AO								close (A)		
	Y	AR	Cover surface	563,095	7,386,950	5	0.01	-	<1	Tension crack (Acceptable)	New	408 – 409
	N	AR	"	"	"	"	"	—	—	Not observed	not observed	
	Y	AS	South slope	563,023	7,386,927	5	0.5	-	<1	Area of small tension cracks (Acceptable)	New	410 – 412
		See AW comment								(M)		
	Y	AT	South slope	563,013	7,386,924	4	0.2	-	<1	Area of small tension cracks (Acceptable)	New	413 – 414
		↓								(M)		
	Y	AU	South slope	562,996	7,386,919	18	0.01	-	<1	Tension crack, discontinuous over reported length (Acceptable)	New	415 – 418
										(M)		

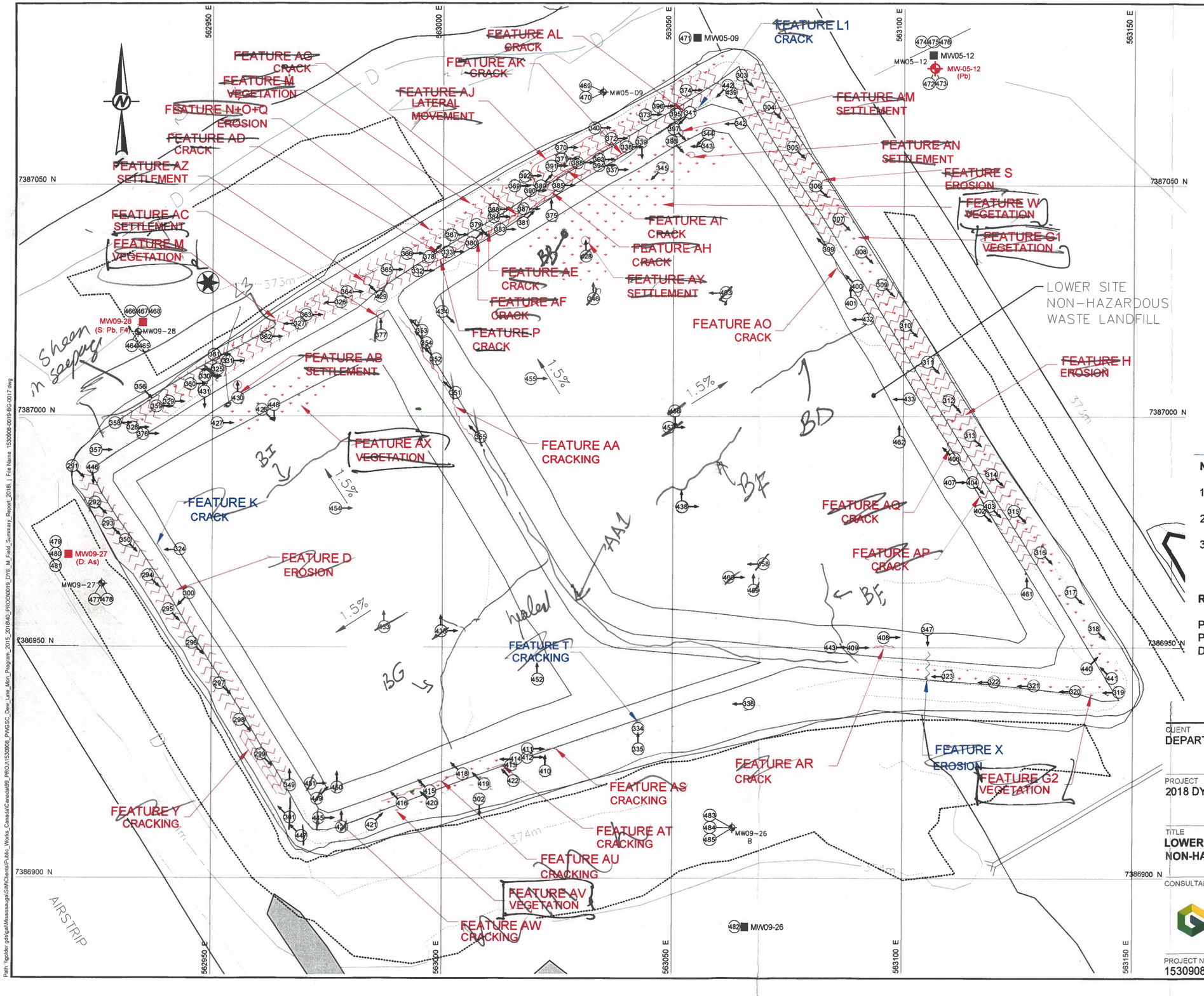
Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Cracking (cont.)	Y	AW	South slope	562,977	7,386,912	1.6	0.01	-	<1	Tension crack (Acceptable)	New	423 – 424
	N	AS-AT-AU-AW well healed however west of AS slope is uneven w/ upper 1/3 crest & flatter toe indicative of failure						oversteepened		(M)		
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	
	N									(A)		
Vegetation entire landfill is sparsely vegetated, result of time s/w last inspection.	Y	G1+G2	East and South slope	563,107	7,387,008	203	5	-	3.1	Sparse vegetation (Acceptable)	Expanded and connected area in 2018 (G1: 40 x 5 m; G2: 40 x 0.5 m in 2017)	303 – 323
	Y	close loop see pics								close loops (A)		
	Y	W	Cover surface	563,041	7,387,048	50	16	-	2.3	Sparse vegetation (Acceptable)	Expanded area (5 x 3 m in 2017)	342 – 346
	Y	↓								↓ (A)		
	Y	M	North slope	562,954	7,387,013	160	4	-	<1	Sparse vegetation (Acceptable)	Expanded area in 2018 (50 x 2 m in 2017)	326 – 331, 372 – 374
	Y	M		update UTMs						(A)		
	Y	AV	South slope	563,000	7,386,920	30	4	-	<1	Sparse vegetation (Acceptable)	New	419 – 422
	Y	close loop see pics								↓ (A)		

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Vegetation (cont.)	Y	AX	Cover surface	562,962	7,387,002	23	8	-	<1	Sparse vegetation (Acceptable)	New	425 – 427
		close loops								A		
Staining	N	-	-	-	-	-	-	-	-	-	-	
	N → Does sheen on seepage @ toe count as staining?											
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	
	N									A		
Seepage or Ponded Water	N	E	West Slope	562,967	7,386,913	-	-	-	-	Wet area with ponded water	Not observed in 2018 due to snow cover	301
	Y	all slopes approx 1/3 way up & wet @ toe due to recent rains								S		
	N	F	South toe	563,008	7,386,917	-	-	-	-	Ponded water/wet area	Not observed in 2018 due to snow cover	302
	Y	F ↳ does not need separate toe on all sides are wet				characterization as entire				M		
Debris and/or Liner Exposed	N	-	-	-	-	-	-	-	-	-	-	
	N									A		

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Presence / Condition of Monitoring Instruments	Y	MW05-09, -12, and MW09-26, -27, -28 ASK ENVIRO	Refer to Figure DYE-M.6	-	-	-	-	-	-	All 5 monitoring wells intact, 3 functional and 2 non-functional (see Sect 4.6.5 and Appendix B for details)	-	464,465, 469,470, 472,473, 477,478, 483-485
Features of Note / Other Observations	N	C	-	-	-	-	-	-	-	Previously noted tire tracks	No longer a feature	-
	N									(A)		
Landfill Area = 23,200			BA	→ 562,946	7,387,910	8.24	<1m	N/A	<1		New	

- BA = staining / sheen in water @ toe of north slope, new, see survey

- West slope is most eroded w/ toe around norther 1/4 showing larger rocks, otherwise slopes are relatively well-self armored
- Rather than tracking dozens of individual cracks, lateral movement & seepage, slopes should be surveyed & compared over the years. Consider monitoring pins
- Multiple depressions, cracks & uneven surface & side is likely resulting in increased hydraulic loading & seepage is coming out of toes of all slopes.
- Surface is more undulating, relatively uneven throughout, difficult to assess difference from previous inspections based on existing photos. Drone ~~photos~~ LiDAR would be incredibly valuable
- North slope is acceptable to marginal, cracks self heal & new ones appear likely due to wetting. Expected material is slowly creeping d/s.



LEGEND:

- CRACKING
- EROSION
- SETTLEMENT
- VEGETATION
- SOIL SAMPLING LOCATION
- SOIL SAMPLING LOCATION WITH EXCEEDANCE OF BASELINE MEAN PLUS 3 σ (S-SHALLOW, D-DEEP)
- PHOTOGRAPH LOCATION
- BODY OF WATER
- MONITORING WELL LOCATION
- MONITORING WELL LOCATION BACKGROUND
- MONITORING WELL LOCATION WITH EXCEEDANCE OF BASELINE MEAN PLUS 3 σ
- APPROXIMATE LOCATION OF COMMEMORATIVE PLAQUE
- DEMOLISHED BUILDING
- GROUND SURFACE CONTOUR
- DITCH

NOTES

1. GRID PROJECTION IS NAD83 ZONE 20N. ELEVATIONS ARE GEODETIC.
2. FEATURES DRAWN IN RED ARE EITHER NEW OR EXPANDED.
3. REFER TO VISUAL INSPECTION CHECKLIST FOR FEATURES THAT COULD NOT BE OBSERVED DUE TO SNOW COVER. REFER TO 2017 REPORT FOR DETAILS ON THESE FEATURES.

REFERENCE

PREVIOUS INSPECTION FIGURE PROVIDED BY AECOM, PROJECT NO. 60323208 (0171-LANDFILL MONITORING), DATED MARCH 2015.

0 20 40
1:800 METRES

CLIENT
DEPARTMENT OF NATIONAL DEFENCE CANADA

PROJECT
2018 DYE-M MONITORING REPORT

TITLE
LOWER SITE
NON-HAZARDOUS WASTE LANDFILL

CONSULTANT
GOLDER

YYYY-MM-DD	2018-11-23
DESIGNED	BA
PREPARED	TDR
REVIEWED	DCJ
APPROVED	DP

PROJECT NO. 1530908 | CONTROL 0019 | REV. A | FIGURE DYE-M.6

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B

25mm

0

Path: \\golder.gds\gal\Mississauga\SIM\Clients\Public_Works_Canada\Canada99_PROJ\11530908_PWGSC_Dew_Line_Mon_Program_2015_2018\40_PROD\0019_DYE_M_Field_Summary_Report_2018\ | File Name: 1530908-0019-BG-0017.dwg

Preliminary Stability Assessment

Site Name (e.g., FOX-M Hall Beach)	DYE-M	
Landfill Name (e.g. Tier II Disposal Facility)	L/S NW3 LF	
Feature	**Severity Rating**	**Extent**
Settlement	A	I
Erosion	A	N/A
Lateral Movement	A	N/A
Frost Action	A	N/A
Sloughing	A	N/A
Cracking	A	N/A
Animal Burrows	A	N/A
Ponded Water	A	N/A
Seepage	A	N/A
Staining	A	N/A
Vegetation Establishment	A	O
Vegetation Stress	A	N/A
Exposed Debris and/or Liner	A	N/A
Other	—	—
Overall Landfill Performance	Acceptable	

Severity Rating	Description
Acceptable	Noted features are of little consequence. The landfill is performing as designed. Minor deviations in environmental or physical performance may be observed, such as isolated areas of erosion, settlement, etc.
Marginal	Physical/environmental performance appears to be deteriorating with time. Observations may include an increase in size or number of features of note, such as differential settlement, erosion or cracking. No significant impact on landfill stability to date, but potential for failure is assessed as low or moderate.
Significant	Significant or potentially significant changes affecting landfill stability, such as significant changes in slope geometry, significant erosion or differential settlement, scarp development, etc. The potential for failure is assessed as imminent.
Unacceptable	Stability of landfill is compromised to the extent that ability to contain waste materials is compromised. Examples may include: - Debris exposed in erosion channels or areas of differential settlement - Exposed liner - Slope failure

Extent	Description
Isolated	Singular feature
Occasional	Features of note occurring at irregular intervals/locations
Numerous	Many features of note, impacting less than 50% of the landfill's surface area
Extensive	Features of note impacting more than 50% of landfill's surface area

N/A = Not Present

Reviewed w/ SA

DEW LINE LONG TERM LANDFILL MONITORING

VISUAL INSPECTION CHECKLIST

SITE NAME (e.g. FOX-M Hall Beach): **DYE-M CAPE DYER**
LANDFILL DESIGNATION (e.g. Tier II Disposal Facility): **LOWER SITE NWS LANDFILL**
LANDFILL TYPE (Regraded, Leachate Contained, Tier II or NHWL): **REGRADED**
DATE OF INSPECTION: Aug 27, 2023 (evening)
WEATHER CONDITIONS (°C, Wind Speed, Precipitation, Cloud Cover): 6-10°C, winds 24-30 km/hr, Partly cloudy
DATE OF PREVIOUS INSPECTION: **AUGUST 13, 2018**
INSPECTED BY (Name, Signature): Brent Hay
REPORT PREPARED BY (Name, Signature): Brent Hay
DGPS (Make, Model, Accuracy, UTM Zone): Stonex S900-A H=8mm V=15mm UTM ZONE 20N
LANDFILL SURFACE AREA (m^2): **3,300 m^2**
The inspector represents to the best of their knowledge that the following statements and observations are true and correct and that no material facts have been suppressed or misstated.

Notes:

- *All geotechnical features at each landfill must have **UNIQUE and CONSISTENT** identifiers in order to track their evolution over multiple monitoring events:*
  - *If a feature is identified as Feature A, then this same Feature A must be followed up on as Feature A in the next monitoring event, and all subsequent monitoring events.*
    - *If a feature develops related sub-features within close proximity over time, they can be identified using the primary letter plus sequential numbers (e.g., Feature A1, Feature A2, etc.).*
  - *If a feature is observed in one year, but not another, continue to include it on this checklist; indicate 'No' in the 'Present (Yes/No)' column and 'Not observed' in the 'Description' column.*
  - *Once a feature identifier is used at a given landfill, it cannot be reused at that same landfill to identify a different feature in later years.*
  - *A new feature must get its own unique identifier, in alphabetical order from where the previous list of features at that landfill left off.*
  - *All new features should be identified as 'NEW' in the 'Description' column of this checklist.*
  - *New features can only be grouped together under the same identifier using sub-level identifiers (e.g., A1, A2, etc.) if they are very similar, are related to each other and are located in close proximity.*
  - *Feature names must be consistent in the tables, figures, photographs and text; all feature referencing must be verified for consistency.*
- *All measurements must be metric units.*
- *Landfill surface area should be determined using AutoCAD files provided to consultant and/or consultant's survey data gathered in the field.*

Table 4-2: Visual Inspection Checklist – Lower Site NWS Landfill

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Settlement	Y	E	Northeast slope	561,406	7,388,954	1	0.5	0.01-0.02	<1	Minor settlement (Acceptable)	Unchanged since previous observation	26
	Y	E	"	"	"	2.06	0.6	0.08	<1	"	" larger & deeper	
Erosion	N	-	-	-	-	-	-	-	-	-	-	
	N											
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	
	N											
Frost Action	N	-	-	-	-	-	-	-	-	-	-	
	N											
Sloughing	N	-	-	-	-	-	-	-	-	-	-	
	N											

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Cracking	Y N	A	Cover surface	561,450	7,388,931	3	Hairline	-	<1	Hairline crack 1 m above crest of southeast slope (Acceptable)	Increased length (2 m long in 2017)	1 – 2
										NOT PRESENT A	Healed	
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	
	N											
Vegetation	Y	B1+B2+B3+B4+D	Cover surface	561,415	7,388,933	75 (entire cover)	48 (entire cover)	-	100	Moderate vegetation over entire landfill cover surface (Acceptable)	Vegetation expanded on the northwest and northeast slopes and now covers the entire landfill surface (NW slope in 2017: 29 x 5 m; NE slope in 2017: 37 x 5 m)	3 – 25
	Y					Y	U			11 A	4	
Staining	N	-	-	-	-	-	-	-	-	-	-	
	N											
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	
	N											

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Seepage or Ponded Water	N	-	-	-	-	-	-	-	-	-	-	
Wet surface throughout due to recent rain												
Debris and/or Liner Exposed	N	-	-	-	-	-	-	-	-	-	-	
N												
Presence / Condition of Monitoring Instruments	N	-	-	-	-	-	-	-	-	-	-	
N/A												
Features of Note / Other Observations	N	C	Cover surface	-	-	-	-	-	-	Tire tracks	No longer a feature	-
N												

Landfill Area = 3,300 m^2.

LF 13 M excellent condition

Preliminary Stability Assessment

Site Name (e.g., FOX-M Hall Beach)	DYE-M	
Landfill Name (e.g. Tier II Disposal Facility)	L/S Power house	
Feature	**Severity Rating**	**Extent**
Settlement	A	N/A
Erosion	A	I
Lateral Movement	A	N/A
Frost Action	A	N/A
Sloughing	A	N/A
Cracking	A	N/A
Animal Burrows	A	N/A
Ponded Water	A	N/A
Seepage	A	N/A
Staining	A	N/A
Vegetation Establishment	A	N/A
Vegetation Stress	A	N/A
Exposed Debris and/or Liner	A	N/A
Other	—	—
Overall Landfill Performance	Acceptable	

Severity Rating	Description
Acceptable	Noted features are of little consequence. The landfill is performing as designed. Minor deviations in environmental or physical performance may be observed, such as isolated areas of erosion, settlement, etc.
Marginal	Physical/environmental performance appears to be deteriorating with time. Observations may include an increase in size or number of features of note, such as differential settlement, erosion or cracking. No significant impact on landfill stability to date, but potential for failure is assessed as low or moderate.
Significant	Significant or potentially significant changes affecting landfill stability, such as significant changes in slope geometry, significant erosion or differential settlement, scarp development, etc. The potential for failure is assessed as imminent.
Unacceptable	Stability of landfill is compromised to the extent that ability to contain waste materials is compromised. Examples may include: - Debris exposed in erosion channels or areas of differential settlement - Exposed liner - Slope failure

Extent	Description
Isolated	Singular feature
Occasional	Features of note occurring at irregular intervals/locations
Numerous	Many features of note, impacting less than 50% of the landfill's surface area
Extensive	Features of note impacting more than 50% of landfill's surface area

N/A = Not present

Reviewed a/ SK

DEW LINE LONG TERM LANDFILL MONITORING

VISUAL INSPECTION CHECKLIST

SITE NAME (e.g. FOX-M Hall Beach): DYE-M CAPE DYER
LANDFILL DESIGNATION (e.g. Tier II Disposal Facility): LOWER SITE POWERHOUSE LANDFILL
LANDFILL TYPE (Regraded, Leachate Contained, Tier II or NHWL): NHWL - conform w/ QND
DATE OF INSPECTION: Aug 27, 2023
WEATHER CONDITIONS (°C, Wind Speed, Precipitation, Cloud Cover): +9°C, Sun, Blue Skies, 24-30 km/hr winds
DATE OF PREVIOUS INSPECTION: AUGUST 13, 2018
INSPECTED BY (Name, Signature): [illegible], Brent Hay
REPORT PREPARED BY (Name, Signature): Brent Hay
DGPS (Make, Model, Accuracy, UTM Zone): Stonex, S900-A, H=8mm V=15mm UTM 20N
LANDFILL SURFACE AREA (m^2): 7,000 m^2
The inspector represents to the best of their knowledge that the following statements and observations are true and correct and that no material facts have been suppressed or misstated.

Notes:

- *All geotechnical features at each landfill must have **UNIQUE and CONSISTENT** identifiers in order to track their evolution over multiple monitoring events:*
  - *If a feature is identified as Feature A, then this same Feature A must be followed up on as Feature A in the next monitoring event, and all subsequent monitoring events.*
    - *If a feature develops related sub-features within close proximity over time, they can be identified using the primary letter plus sequential numbers (e.g., Feature A1, Feature A2, etc.).*
  - *If a feature is observed in one year, but not another, continue to include it on this checklist; indicate 'No' in the 'Present (Yes/No)' column and 'Not observed' in the 'Description' column.*
  - *Once a feature identifier is used at a given landfill, it cannot be reused at that same landfill to identify a different feature in later years.*
  - *A new feature must get its own unique identifier, in alphabetical order from where the previous list of features at that landfill left off.*
  - *All new features should be identified as 'NEW' in the 'Description' column of this checklist.*
  - *New features can only be grouped together under the same identifier using sub-level identifiers (e.g., A1, A2, etc.) if they are very similar, are related to each other and are located in close proximity.*
  - *Feature names must be consistent in the tables, figures, photographs and text; all feature referencing must be verified for consistency.*
- *All measurements must be metric units.*
- *Landfill surface area should be determined using AutoCAD files provided to consultant and/or consultant's survey data gathered in the field.*

Table 4-10: Visual Inspection Checklist – Lower Site Powerhouse Landfill

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Settlement	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Erosion	Y	C	West slope crest	562,729	7,387,461	1	1	0.3	<1	Self-armouring erosion at crest edge between rip-rap rocks (Acceptable)	Unchanged since previous observation	254
	Y	C	"	"	"	0.7	0.6	<0.5	<1	erosion / slight settlement (A)	unchanged, difference due to interp	
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Cracking	N	-	-	-	-	-	-	-	-	-	-	-
	N											

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Vegetation	Y	D	Cover surface	562,738	7,387,462	6	4	-	<1	Sparse vegetation (Acceptable)	New	255
	Y									Sparse but over entire surface		
Staining	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Seepage or Ponded Water	N	B	-	-	-	-	-	-	-	Ponded water	Not observed	-
	N											
Debris and/or Liner Exposed	N	A	-	-	-	-	-	-	-	Debris	Not observed	-
	N											

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Presence / Condition of Monitoring Instruments	Y	MW05-05, 06, 07, 08	See Figure DYE-M.5	-	-	-	-	-	-	All wells in good physical condition	-	266 – 274
											Had to cut all locks on VTs	
		VT-5, 6, 7	See Figure DYE-M.5	-	-	-		-	-	All thermistors in good physical condition	-	275 – 290
Features of Note / Other Observations	N	-	-	-	-	-	-	-	-	-	-	-

Landfill Area = 7,000 mPP²PP.

The landfill is in excellent condition, cover is level & even w/ the occasional depression which may be reminiscent of the construction or settlement of fill since construction, otherwise acceptable

<50% of LF surface but >50% of the specific slope

Preliminary Stability Assessment

Site Name (e.g., FOX-M Hall Beach)		
Landfill Name (e.g. Tier II Disposal Facility)		
Feature	**Severity Rating**	**Extent**
Settlement	M-S	O - N
Erosion	M-S	O - N
Lateral Movement	M-S	O - N
Frost Action	A	N/A
Sloughing	M-S	O - N
Cracking	S	O - N
Animal Burrows	A	N/A
Ponded Water	A	N/A
Seepage	M-S	O - N
Staining	A	N/A
Vegetation Establishment	A	O
Vegetation Stress	A	N/A
Exposed Debris and/or Liner	A	N/A
Other	See Comment 'E'	
Overall Landfill Performance	Discuss w/ DND	

Severity Rating	Description
Acceptable	Noted features are of little consequence. The landfill is performing as designed. Minor deviations in environmental or physical performance may be observed, such as isolated areas of erosion, settlement, etc.
Marginal	Physical/environmental performance appears to be deteriorating with time. Observations may include an increase in size or number of features of note, such as differential settlement, erosion or cracking. No significant impact on landfill stability to date, but potential for failure is assessed as low or moderate.
Significant	Significant or potentially significant changes affecting landfill stability, such as significant changes in slope geometry, significant erosion or differential settlement, scarp development, etc. The potential for failure is assessed as imminent.
Unacceptable	Stability of landfill is compromised to the extent that ability to contain waste materials is compromised. Examples may include: - Debris exposed in erosion channels or areas of differential settlement - Exposed liner - Slope failure

Extent	Description
Isolated	Singular feature
Occasional	Features of note occurring at irregular intervals/locations
Numerous	Many features of note, impacting less than 50% of the landfill's surface area
Extensive	Features of note impacting more than 50% of landfill's surface area

N/A = Not present

Reviewed w/ SA

DEW LINE LONG TERM LANDFILL MONITORING

VISUAL INSPECTION CHECKLIST

SITE NAME (e.g. FOX-M Hall Beach): DYE-M CAPE DYER
LANDFILL DESIGNATION (e.g. Tier II Disposal Facility): LOWER SITE TIER II DISPOSAL FACILITY
LANDFILL TYPE (Regraded, Leachate Contained, Tier II or NHWL): TIER II
DATE OF INSPECTION: Aug 31, 2023
WEATHER CONDITIONS (°C, Wind Speed, Precipitation, Cloud Cover): +10°C, Sunny, 5 km/hr.
DATE OF PREVIOUS INSPECTION: AUGUST 9, 2018
INSPECTED BY (Name, Signature): Brent Hay
REPORT PREPARED BY (Name, Signature): Brent Hay
DGPS (Make, Model, Accuracy, UTM Zone): Starex, S9QA H=8m U=15mm UTM ZON
LANDFILL SURFACE AREA (m^2): 29,100 m^2
The inspector represents to the best of their knowledge that the following statements and observations are true and correct and that no material facts have been suppressed or misstated.

Notes:

- *All geotechnical features at each landfill must have **UNIQUE and CONSISTENT** identifiers in order to track their evolution over multiple monitoring events:*
  - *If a feature is identified as Feature A, then this same Feature A must be followed up on as Feature A in the next monitoring event, and all subsequent monitoring events.*
    - *If a feature develops related sub-features within close proximity over time, they can be identified using the primary letter plus sequential numbers (e.g., Feature A1, Feature A2, etc.).*
  - *If a feature is observed in one year, but not another, continue to include it on this checklist; indicate 'No' in the 'Present (Yes/No)' column and 'Not observed' in the 'Description' column.*
  - *Once a feature identifier is used at a given landfill, it cannot be reused at that same landfill to identify a different feature in later years.*
  - *A new feature must get its own unique identifier, in alphabetical order from where the previous list of features at that landfill left off.*
  - *All new features should be identified as 'NEW' in the 'Description' column of this checklist.*
  - *New features can only be grouped together under the same identifier using sub-level identifiers (e.g., A1, A2, etc.) if they are very similar, are related to each other and are located in close proximity.*
  - *Feature names must be consistent in the tables, figures, photographs and text; all feature referencing must be verified for consistency.*
- *All measurements must be metric units.*
- *Landfill surface area should be determined using AutoCAD files provided to consultant and/or consultant's survey data gathered in the field.*

Table 4-4: Visual Inspection Checklist – Lower Site Tier II Disposal Facility

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Settlement	N	-	-	-	-	-	-	-	-	-	-	-
	N-see general comment re uneven surface as a result of rough grading (A)											
Erosion	Y	B	Cover surface	561,856	7,388,208	39	0.15	0.05	<1	Minor self-armouring erosion (Acceptable)	Reduced length (45 x 0.15 m in 2017))	53 – 56
	Y	B	"	"	"	See survey 24.54	150m	0.05		This should be reclassified as a crack (A)	Reduced length	
	Y	C	North slope	561,793	7,388,274	150 (area)	20 (area)	0.1	10.3	Self-armouring erosion area with 0.3-0.4 m wide channels (Acceptable)	Unchanged since previous observation, weathered and stabilized	57 – 71
	Y	C	"	All slope		all	slope			Varying degrees of self armouring erosion, multiple rilling, channels (A)	increased, more erosion likely	
	Y	G1	West slope	561,792	7,388,255	10 (area)	3 (area)	0.1	1.0	Self-armouring erosion area with 0.3-0.4 m wide channels (Acceptable)	Narrower since previous observation (10 x 15 m in 2017), weathered and stabilized	89
		see feature 'K'								(A)		
	Y	G2	West slope	561,818	7,388,192	15 (area)	10 (area)	0.1	<1	Self-armouring erosion area with 0.3-0.4 m wide channels (Acceptable)	Narrower since previous observation (15 x 15 m in 2017), weathered and stabilized	87 –88
		see feature 'K'								(A)		

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Erosion (cont.) (2)	Y	K	South slope	561,960	7,388,242	120 (area)	15 (area)	0.1	7.7%	Self-armouring erosion area with 0.3-0.4 m wide channels (Acceptable)	Unchanged since previous observation, weathered and stabilized	92 – 102
	Y	K	" "	" "	" "	"	"	"	"	" (A)	No change, there are concentrations in channels from tracks of 'track packing' slopes during construction. Not really erosion, M.B. interpreted, note rilling beyond toe, close loop	
	Y	P	Cover surface/ north slope	-	-	-	-	-	-	Self-armouring erosion channel	Not observed in 2018	113
	—	See comment 'E'								(M)		
	Y	Q	Cover surface	561,860	7,388,253	15	2	0.1	<1	Self-armouring erosion channel (Acceptable)	Reduced length (20 x 2 m in 2017)	114
	Y	Q	"	"	"	NM	NM	NM	"	Not Present (A)	close loop	
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
	N	See comment 'E'								M-S		
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
	N									N/A		

(2) All slopes have washed away fines, with overland flow concentrated in CAT tracks, North slope & north 1/3 of west slope are worst due to LF grading

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Sloughing	Y	F	North slope	561,824	7,388,296	5	2	0.2	<1	Minor sloughing (Acceptable)	Increased length in 2018 (2 x 1 m in 2017)	86
see AE last page	Y	see comments 'F'										
	Y	H	West slope	561,798	7,388,237	5	1	0.3	<1	Minor sloughing (Acceptable)	Longer and narrower in 2018 (2 x 2 m in 2017), not wet in 2018 or 2017	90
	Y	H+Z(1)	West slope	Got topo for change & analysis		detection				Sloughed @ seepage line AD, ground is very soft, cracked & slope has moved, distinct scarp & toe bulge, area is soft & wet, 1" to 8" tension cracks (U) (S)	larger, joins Z @ top above head scarp	
	Y	Z	West slope	561,790	7,388,255	5	3	-	<1	Soft ground with some minor cracks and potential sloughing (Acceptable)	New	128
	Y	see above (H+Z)		561,785	7,388,258	25.63	6.35	N:1 to 0.2m		-1M (U) (S)		
	Y	AA	North slope	561,838	7,388,305	7	4	-	<1	Soft ground with some minor cracks and potential sloughing (Acceptable)	New	129 – 130
	Y	AA see above (H+Z)	surveyed w/ AD/E			172.78	Y3 slope	N:1 to 0.3m		(U) (S)	larger, sloughing, seepage & cracking AA + AD + E + H + Z----	

Y Y1 - see 'Y' under cracking (A)

~~ADD feature 'E'~~ ✓

(1) Entire LF surface is graded to this area which receives all run-off & interior drainage. Also active erosion along entire slope & through slump area as a result of the overland flow. Toe of LF is wet & soft w/ fines visible/accumulating

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Cracking	N	I	Along west slope near toe	-	-	-	-	-	-	Minor crack	Not observed in 2018 due to snow cover	91
	- See comments H+Z, definitely part of movement									N/A		
	Y	J	Near crest on west slope	561,825	7,388,194	11	0.15	0.1	<1	Tension crack (Acceptable)	Not observed in 2017; but observed in 2018	126 –127
	Y	J	"	"	"	17.88	0.1 - 0.2	50-75m	<1	Tension crack (A)	present, roughly same width partially healed, twice as long	
		J1	See survey	See survey	7,388,214	19.56				continues ~1m lower on slope, west of J		
	Y	L	South slope near crest	561,937	7,388,223	38	0.05	-	<1	Minor crack with thin parallel crack at west end (Acceptable)	Unchanged since previous inspection (40 x 0.05 m in 2017)	103-109
	Y	L	"	"	"	4.79	nil	nil	<1	healed, barely visible		
	Y	L1	"	"	-	10.57 (31.5m	nil from	nil edge	<1 of L to	re-continues further west veg in healed crack L1) (A)		
	N	M	South slope	-	-	-	-	-	-	Minor tension crack on slope	Not observed in 2018 due to snow cover	110
	N	M	"							Not observed A		
	Y	O	West slope	561,801	7,388,241	10	0.1	-	<1	Minor tension crack on slope (Acceptable)	Unchanged since previous inspection	112
		see	H+Z							(U) or (S)		
	Y	AC	South slope	561,849 → 561,853	7,388,178 → 7,388,179	4.47	75mm	40mm	<1	Minor tension crack on slope (A)	New	
	Y	AC1	"			4.83	"	"	"	" (A)	New	
	Y	AF	North slope	561,829	7,388,292	16.66	50mm	30mm		tension cracks above AD & AA (A)	New	

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Cracking (cont.)	Y	R/S	Cover surface	561,867	7,388,264	72	0.25	0.1	<1	Cracking on cover surface (Acceptable)	Longer and slightly wider in 2018 (R: 30 x 0.2 m; S: 30 x 0.1 m in 2017)	133 – 141
	Y	R/S	"	"	"	132.72	0.1m	<50mm	<1	" " " (A) Jones AB, two new east-west cracks see survey	Longer, not deeper or wider see survey	
	N	T	East slope	-	-	-	-	-	-	Tension crack near toe	Not observed in 2018	-
	N	T	"							Not observed (A)		
	N	U	South slope	-	-	-	-	-	-	Tension crack near toe	Not observed in 2018	-
	N	V	"	"						" (A)	"	
	Y	V	East slope	561,951	7,388,297	6	0.02		<1	Tension crack near crest (Acceptable)	Reduced length in 2018 (8 x 0.02 m in 2017)	116 – 118
	Y	V	"	"	"	~~10m~~ 56.95	0.1-0.25	10-70mm	<1	" (A)	Much larger	
	Y	AB	Cover surface	561,862	7,388,284	24	0.1	0.02	<1	Cracking on cover surface (Acceptable)	New	131 – 132
	Y	"	See R/S ↳ All one crack w/ R now							(A)		
	Y	X	East slope	561,960	7,388,280	1.5	0.02	0.05	<1	Tension crack near crest (Acceptable)	New	120
	Y	X	"	"	"	See survey 26.94	150mm	50mm	<1	" (A)	longer	

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Cracking (cont.)	Y	Y	South slope near	561,948	7,388,229	20	0.02	0.02	<1	Tension crack near crest (Acceptable)	New (in line with Feature L; but	121 – 125
	N	Y	reclassed as slump			See survey 9.74	1.88	0.04	<1	crack now healed, however there is now a slight slump in the crest – Y1 (A)		
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
	N									N/A		
Vegetation	Y	D1	North slope	561,785	7,388,286	75	6	-	1.5	Sparse vegetation (Acceptable)	Expanded area in 2018 (40 x 5 m in	72
	Y	all over, see pics								(A)		
	Y	D2	West slope	561,814	7,388,208	100	3	-	1.0	Sparse vegetation (Acceptable)	Longer in 2018 and slightly denser	73 – 77
	Y			958	243							
	Y	D3	South slope	561,972	7,388,236	40	1	-	<1	Sparse vegetation (Acceptable)	Slope could not be completely observed in 2018	78 –80, 156
	Y											
Staining	N	N	West slope	-	-	-	-	-	-	Band of white discolouration along entire west slope	Not observed in 2018	-
	N	N								N/A	Not observed	

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
										N/A		
Seepage or Ponded Water (3)	Y	E	West side of north	561,800	7,388,286	75	6	-	<1	Wet and soft area (Acceptable)	Expanded area (65 x 2 m in 2017)	81 – 85
	Y	E	"	"	"	see survey 50.9	see survey 5.55	N/A		Should be moved to sloughing see comments for #+2 and AD (U) to (M)		
	N	W	East toe	-	-	-	-	-	-	Wet area	Could not be observed in 2018 due to snow cover	119
	Y	AD	Northq West Slope ← Feature FE – see AA	see survey						Seepage out of Tier II, not leachate (M)	New, causing sloughing	
Debris and/or Liner Exposed	N	-	-	-	-	-	-	-	-	-	-	-
	N									→ Likely daylighting – liner elevations check as-builts. ~2/3 up the slope N/A		
Presence / Condition of Monitoring Instruments	Y	MW12-01, MW05-13, 15, 16	See Figure DYE-M.3	-	-	-	-	-	-	All wells in good physical condition	-	176-179,183,184, 191,192,193,194
		VT-1, 2, 3, 4, BL	See Figure DYE-M.3	-	-	-	-	-	-	All thermistors in good physical condition	Data logger at VT-4 replace	161 – 175

~~Seepage~~ (3) AH – new, east slope, seepage, area is soft, see survey for location 561,950 7,388,307 33.09 14.16 N/A wet slope new

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Features of Note / Other Observations	N	A	Cover surface	-	-	-	-	-	-	Tire tracks	No longer considered a feature	-
	N											

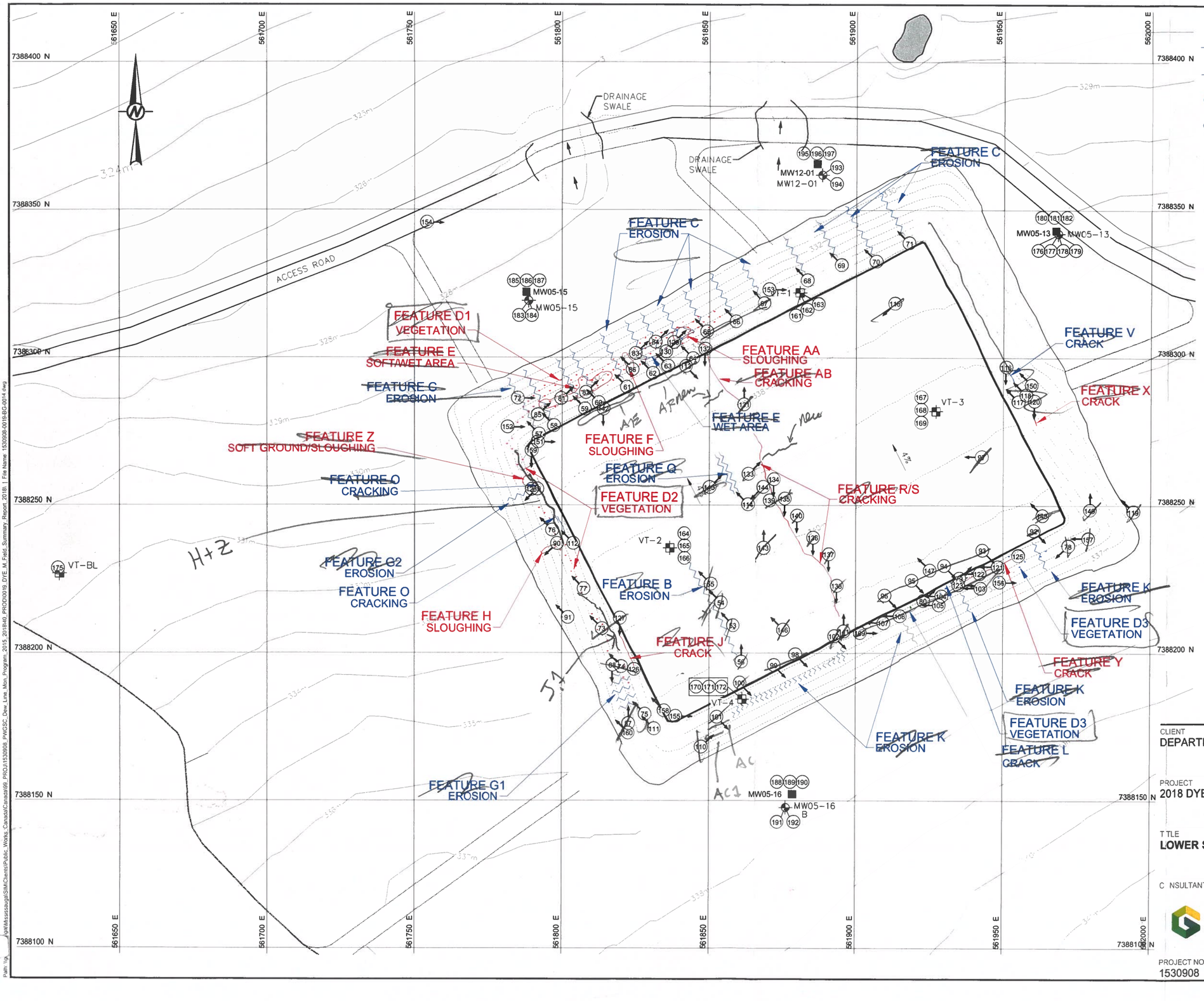
Landfill Area = 29,100 m^2.

561,811 ~~738284~~ 7,388,284

12.96/2.26

- Feature AE: slump @ North crest, west side, ~~~10 m~~ long ~~0.7 m~~ wide & 125 mm deep, directly above part of H+Z, new -1 Marginal to (4)

- Generally LF 3 m excellent condition except North & west slopes where active landslides are present, these areas should be stabilized before failures progress upslope & expose liner, rip rap to top of slope, discuss w/ DND & this is (4) or (5)



LEGEND:

- CRACKING
- EROSION
- STAINING
- WET/SOFT/SLOUGHING
- VEGETATION
- SOIL SAMPLING LOCATION
- PHOTOGRAPH LOCATION
- BODY OF WATER
- MONITORING WELL LOCATION
- MONITORING WELL LOCATION BACKGROUND
- VERTICAL GROUND TEMPERATURE CABLE LOCATION
- GROUND SURFACE CONTOUR

NOTES

1. GRID PROJECTION IS NAD83 ZONE 20N. ELEVATIONS ARE GEODETIC.
2. FEATURES DRAWN IN RED ARE EITHER NEW OR HAVE CHANGED SINCE PREVIOUS OBSERVATIONS.
3. REFER TO VISUAL INSPECTION CHECKLIST FOR FEATURES THAT COULD NOT BE OBSERVED DUE TO SNOW COVER. REFER TO 2017 REPORT FOR DETAILS ON THESE FEATURES.

REFERENCE

PREVIOUS INSPECTION FIGURE PROVIDED BY AECOM, PROJECT NO. 60323208 (0171-LANDFILL MONITORING), DATED MARCH 2015.

0 25 50
1:1,250 METRES

CLIENT
DEPARTMENT OF NATIONAL DEFENCE CANADA

PROJECT
2018 DYE-M MONITORING REPORT

TITLE
LOWER SITE TIER II DISPOSAL FACILITY

CONSULTANT
GOLDER

YYYY-MM-DD	2018-11-23
DESIGNED	BA
PREPARED	TDR
REVIEWED	DCJ
APPROVED	DP

PROJECT NO 1530908 | CONTROL 0019 | REV A | FIGURE DYE-M.3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B

Path: \\pk\Mississauga\SIM\Clients\Public_Works_Canada\Canada98_PROJ\1530908_PWGSC_Dew_Line_Mon_Program_2015_2018\40_PROD\0015_DYE_M_Field_Summary_Report_2018\ | File Name: 1530908-0015-BG-0014.dwg

Preliminary Stability Assessment

Site Name (e.g., FOX-M Hall Beach)	DYE-M
Landfill Name (e.g. Tier II Disposal Facility)	U/S Helipad

Feature	Severity Rating	Extent
Settlement	A	0
Erosion	A	0
Lateral Movement	A	N/A
Frost Action	A	N/A
Sloughing	A	N/A
Cracking	A	N/A
Animal Burrows	A	N/A
Ponded Water	A	0
Seepage	A	N/A
Staining	A	N/A
Vegetation Establishment	A	0
Vegetation Stress	A	N/A
Exposed Debris and/or Liner	A	N/A
Other	A	0
Overall Landfill Performance	Acceptable	

Severity Rating	Description
Acceptable	Noted features are of little consequence. The landfill is performing as designed. Minor deviations in environmental or physical performance may be observed, such as isolated areas of erosion, settlement, etc.
Marginal	Physical/environmental performance appears to be deteriorating with time. Observations may include an increase in size or number of features of note, such as differential settlement, erosion or cracking. No significant impact on landfill stability to date, but potential for failure is assessed as low or moderate.
Significant	Significant or potentially significant changes affecting landfill stability, such as significant changes in slope geometry, significant erosion or differential settlement, scarp development, etc. The potential for failure is assessed as imminent.
Unacceptable	Stability of landfill is compromised to the extent that ability to contain waste materials is compromised. Examples may include: - Debris exposed in erosion channels or areas of differential settlement - Exposed liner - Slope failure

Extent	Description
Isolated	Singular feature
Occasional	Features of note occurring at irregular intervals/locations
Numerous	Many features of note, impacting less than 50% of the landfill's surface area
Extensive	Features of note impacting more than 50% of landfill's surface area

N/A = Not present

DEW LINE LONG TERM LANDFILL MONITORING

VISUAL INSPECTION CHECKLIST

SITE NAME (e.g. FOX-M Hall Beach): DYE-M CAPE DYER
LANDFILL DESIGNATION (e.g. Tier II Disposal Facility): UPPER SITE HELIPAD LANDFILL
LANDFILL TYPE (Regraded, Leachate Contained, Tier II or NHWL): REGRADED
DATE OF INSPECTION: Aug 20, 2023
WEATHER CONDITIONS (°C, Wind Speed, Precipitation, Cloud Cover): 2-4°C, 50km/hr / Blue Skies (morning) - gusts 80km/hr
DATE OF PREVIOUS INSPECTION: AUGUST 10, 2018
INSPECTED BY (Name, Signature): Brent May
REPORT PREPARED BY (Name, Signature): Brent May
DGPS (Make, Model, Accuracy, UTM Zone): Stonex S900A, H=8mm, V=15mm UTM 20N
LANDFILL SURFACE AREA (m^2): 5,600 m^2
The inspector represents to the best of their knowledge that the following statements and observations are true and correct and that no material facts have been suppressed or misstated.

Notes:

- *All geotechnical features at each landfill must have **UNIQUE and CONSISTENT** identifiers in order to track their evolution over multiple monitoring events:*
  - *If a feature is identified as Feature A, then this same Feature A must be followed up on as Feature A in the next monitoring event, and all subsequent monitoring events.*
    - *If a feature develops related sub-features within close proximity over time, they can be identified using the primary letter plus sequential numbers (e.g., Feature A1, Feature A2, etc.).*
  - *If a feature is observed in one year, but not another, continue to include it on this checklist; indicate 'No' in the 'Present (Yes/No)' column and 'Not observed' in the 'Description' column.*
  - *Once a feature identifier is used at a given landfill, it cannot be reused at that same landfill to identify a different feature in later years.*
  - *A new feature must get its own unique identifier, in alphabetical order from where the previous list of features at that landfill left off.*
  - *All new features should be identified as 'NEW' in the 'Description' column of this checklist.*
  - *New features can only be grouped together under the same identifier using sub-level identifiers (e.g., A1, A2, etc.) if they are very similar, are related to each other and are located in close proximity.*
  - *Feature names must be consistent in the tables, figures, photographs and text; all feature referencing must be verified for consistency.*
- *All measurements must be metric units.*
- *Landfill surface area should be determined using AutoCAD files provided to consultant and/or consultant's survey data gathered in the field.*

F

Table 4-27: Visual Inspection Checklist – Upper Site Helipad Landfill

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Settlement - Note 1 All settlement w/ exception of M & L1 are a result of vehicle traffic & should be closed. M should also be monitored to assess if additional rolling of wood occurs and exposes debris. M could also be infilled w/ crushed gravel - If Lf 13 being used as a trafficable surface it should be maintained.	Y	A	Cover surface	572,730	7,394,836	5	4	0.3	<1	Minor settlement (Acceptable)	Reduced area (8 x 6 m in 2017)	1109
	N	A								Not observed (A)	in 2023, see note 1	
	Y	C	Cover surface	572,674	7,394,823	2	2	0.15	<1	Minor settlement (Acceptable)	Unchanged since previous observation	1119
	N	C								Not observed in 2023 (A)	See note 1	
	Y	E	Cover surface	572,707	7,394,831	6	4	0.2	<1	Minor settlement (Acceptable)	Unchanged since previous observation	1117
	N	E								See note 1 (A)		
	Y	K	Cover surface	572,715	7,394,852	3	0.15	0.05	<1	Minor settlement (Acceptable)	New	1128 – 1129
	N	K								See note 1 (A)		
	Y	L	Cover surface	572,705	7,394,838	0.7	0.7	0.15	<1	Minor settlement (Acceptable)	New	1130
	N	L				4.83	0.9	25mm	<1	Minor (acceptable) (A)	New	

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Settlement (cont.)	Y	M	Cover surface	572,657	7,394,790	0.6	0.3	0.15	<1	Minor settlement (Acceptable)	New	1131
	Y	M1 - M6	"	"	"	0.3 - 0.6	0.3	0.1 - 0.15	<1	~~Sag~~ perimeter of LF was infilled w 0.3 - 1m of shot rck & overlying fill is migrating + infilling voids resulting in surface depressions (A)	New	
Erosion	Y	B	South slope	572,694	7,394,796	37 (area)	13 (area)	0.1	6.2	Erosion/rough grading (Acceptable)	Considered unchanged since previous observation, dimension differences are due to field interpretation (27 x 15 m in 2017)	1010 – 1015
	Y	B	"	"	"	33.06	7.86			(A)	closer, just coarse rock	
	Y	G	Southeast slope	572,720	7,394,782	8	1.5	-	<1	Self-armouring erosion with fines transport downslope (Acceptable)	New	1120
	Y	G	"	"	"	5.75	<0.50	"	<1	fines no longer present, self armouring (A)	fines gone, close loop	
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	
	N											
Frost Action	N	-	-	-	-	-	-	-	-	-	-	
	N											

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Sloughing	N	-	-	-	-	-	-	-	-	-	-	
	N											
Cracking	N	-	-	-	-	-	-	-	-	-	-	
	N											
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	
	N											
Vegetation	N	-	-	-	-	-	-	-	-	-	-	
	Y	—	—							Present throughout (A)		
Staining	N	F	Northwest toe	572,699	7,394,857	-	-	-	-	Hydrocarbon stain	Not observed in 2018	1118
	N											
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	
	N											

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Seepage or Ponded Water	N	-	-	-	-	-	-	-	-	-	-	
	Y	22/C	North side east & west ends	see survey		1.49	1.56	<40mm	<1	area identified as settlement have water due to recent rains (A)		
Debris and/or Liner Exposed	N	-	-	-	-	-	-	-	-	-	-	
	N											
Presence / Condition of Monitoring Instruments	N	-	-	-	-	-	-	-	-	-	-	
	damaged Sure as	landing lights this applies it is a NWS	@ edge, not to inspection operational issue									

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Features of Note / Other Observations	N	D	-	-	-	-	-	-	-	Tire tracks	No longer a feature	-
	Y	D								everywhere, see notes on settlement, rutting due to truck traffic (A)		
	Y	H	Cover surface	572,713	7,394,829	33	7	-	3.3	Area of rough grading (Acceptable)	New	1121 – 1124
	Y	H	"	"	"	"	"		"	No change (A)	close loop	
	Y	I	Cover surface	572,732	7,394,821	4	4	-	<1	Area of rough grading (Acceptable)	New	1125
	Y	I								Rutting due to truck traffic (A)		
	Y	J	Cover surface	572,728	7,394,854	10	7	-	1.1	Area of rough grading (Acceptable)	New	1126 – 1127
	Y	J								due to truck traffic (A)		

Landfill Area = 5,600 m^2.

- do we care if LF is driven on?

Preliminary Stability Assessment

Site Name (e.g., FOX-M Hall Beach)	DYE-A	
Landfill Name (e.g. Tier II Disposal Facility)	W/S NON-HAZ	
Feature	**Severity Rating**	**Extent**
Settlement	A	I
Erosion	A	N/A
Lateral Movement	A	N/A
Frost Action	A	N/A
Sloughing	A	N/A
Cracking	A	I
Animal Burrows	A	N/A
Ponded Water	A	O
Seepage	A	N/A
Staining	A	N/A
Vegetation Establishment	A	O
Vegetation Stress	A	N/A
Exposed Debris and/or Liner	A	N/A
Other	—	—
Overall Landfill Performance	Acceptable	

Severity Rating	Description
Acceptable	Noted features are of little consequence. The landfill is performing as designed. Minor deviations in environmental or physical performance may be observed, such as isolated areas of erosion, settlement, etc.
Marginal	Physical/environmental performance appears to be deteriorating with time. Observations may include an increase in size or number of features of note, such as differential settlement, erosion or cracking. No significant impact on landfill stability to date, but potential for failure is assessed as low or moderate.
Significant	Significant or potentially significant changes affecting landfill stability, such as significant changes in slope geometry, significant erosion or differential settlement, scarp development, etc. The potential for failure is assessed as imminent.
Unacceptable	Stability of landfill is compromised to the extent that ability to contain waste materials is compromised. Examples may include: - Debris exposed in erosion channels or areas of differential settlement - Exposed liner - Slope failure

Extent	Description
Isolated	Singular feature
Occasional	Features of note occurring at irregular intervals/locations
Numerous	Many features of note, impacting less than 50% of the landfill's surface area
Extensive	Features of note impacting more than 50% of landfill's surface area

N/A = none present

Reviewed w/ SA

DEW LINE LONG TERM LANDFILL MONITORING

VISUAL INSPECTION CHECKLIST

SITE NAME (e.g. FOX-M Hall Beach): **DYE-M CAPE DYER**
LANDFILL DESIGNATION (e.g. Tier II Disposal Facility): **UPPER SITE NON-HAZARDOUS WASTE LANDFILL**
LANDFILL TYPE (Regraded, Leachate Contained, Tier II or NHWL): **NHWL**
DATE OF INSPECTION: Aug 28/ 2023
WEATHER CONDITIONS (°C, Wind Speed, Precipitation, Cloud Cover): 2°C, 50 km/hr winds, blue skies
DATE OF PREVIOUS INSPECTION: **AUGUST 10, 2018**
INSPECTED BY (Name, Signature): Brent Hay,
REPORT PREPARED BY (Name, Signature): Brent Hay
DGPS (Make, Model, Accuracy, UTM Zone): Stonex S900A H=8m V=15m UTM 20m 20N
LANDFILL SURFACE AREA (m^2): **21,100 m^2**
The inspector represents to the best of their knowledge that the following statements and observations are true and correct and that no material facts have been suppressed or misstated.

Notes:

- *All geotechnical features at each landfill must have **UNIQUE and CONSISTENT** identifiers in order to track their evolution over multiple monitoring events:*
  - *If a feature is identified as Feature A, then this same Feature A must be followed up on as Feature A in the next monitoring event, and all subsequent monitoring events.*
    - *If a feature develops related sub-features within close proximity over time, they can be identified using the primary letter plus sequential numbers (e.g., Feature A1, Feature A2, etc.).*
  - *If a feature is observed in one year, but not another, continue to include it on this checklist; indicate 'No' in the 'Present (Yes/No)' column and 'Not observed' in the 'Description' column.*
  - *Once a feature identifier is used at a given landfill, it cannot be reused at that same landfill to identify a different feature in later years.*
  - *A new feature must get its own unique identifier, in alphabetical order from where the previous list of features at that landfill left off.*
  - *All new features should be identified as 'NEW' in the 'Description' column of this checklist.*
  - *New features can only be grouped together under the same identifier using sub-level identifiers (e.g., A1, A2, etc.) if they are very similar, are related to each other and are located in close proximity.*
  - *Feature names must be consistent in the tables, figures, photographs and text; all feature referencing must be verified for consistency.*
- *All measurements must be metric units.*
- *Landfill surface area should be determined using AutoCAD files provided to consultant and/or consultant's survey data gathered in the field.*

Table 4-21: Visual Inspection Checklist – Upper Site Non-Hazardous Waste Landfill

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Settlement	Y	F	South crest	572,286	7,395,091	0.5	0.5	0.15	<1	Minor depression (Acceptable)	New	954
	Y	F	〃	〃	〃	0.5	0.4	95mm	〃	〃 (A)	Existing - minor change in size due to interp	
Erosion	N	B	Southeast corner	-	-	-	-	-	-	Area of segregation	As-built condition, not a feature	-
	N	N/A								(A)		
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Cracking	N	E	East crest	572,310	7,395,134	-	-	-	-	Minor tension cracking	Not observed in 2018	953
	Y	E	〃	〃	〃	~~9m~~ 7.17	50-100mm	10mm conform w/ survey		〃 (A)	Existing, not reported in 2018	

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Vegetation	N	-	-	-	-	-	-	-	-	-	-	-
	Y	N/A	every where sporadic	~	~	~	~	~	<10%	multiple veg throughout see pics (A)	new	
Staining	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Seepage or Ponded Water	N	C and D → No	-	-	-	-	-	-	-	Ponded water	Not observed in 2016, 2017 or 2018	-
	Y	H	southern ~~toe~~	572,213	7,395,074	7.85	2.65	<100mm	<1	" (A)	new	
		G	NW corner	572,158	7,395,181	3.37	2.81	<30mm	<1	" (A)	new result of recent rain/snow	
Debris and/or Liner Exposed	no data	-	-	-	-	-	-	-	-	-	-	-
	N											

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Presence / Condition of Monitoring Instruments	Y	MW06-18, 19, 20 and MW07-21	See Figure DYE-M.11	-	-	-	-	-	-	Monitoring wells intact	-	-
	SEE CAVRO											
Features of Note / Other Observations	N	A	East slope	-	-	-	-	-	-	Tire tracks	No longer considered a feature	-
	N											

Landfill Area = 21,100 m^2.

- The LF is in excellent condition.

Preliminary Stability Assessment

Site Name (e.g., FOX-M Hall Beach) Upper Site NW5 LF		
Landfill Name (e.g. Tier II Disposal Facility)		
Feature	**Severity Rating**	**Extent**
Settlement	A	N/A
Erosion	A	I
Lateral Movement	A	N/A
Frost Action	A	N/A
Sloughing	A	N/A
Cracking	A	I
Animal Burrows	A	N/A
Ponded Water	A	N/A
Seepage	A	I
Staining	A	N/A
Vegetation Establishment	A	O
Vegetation Stress	A	N/A
Exposed Debris and/or Liner	A	I
Other	N/A	N/A
Overall Landfill Performance	Acceptable	

Severity Rating	Description
Acceptable	Noted features are of little consequence. The landfill is performing as designed. Minor deviations in environmental or physical performance may be observed, such as isolated areas of erosion, settlement, etc.
Marginal	Physical/environmental performance appears to be deteriorating with time. Observations may include an increase in size or number of features of note, such as differential settlement, erosion or cracking. No significant impact on landfill stability to date, but potential for failure is assessed as low or moderate.
Significant	Significant or potentially significant changes affecting landfill stability, such as significant changes in slope geometry, significant erosion or differential settlement, scarp development, etc. The potential for failure is assessed as imminent.
Unacceptable	Stability of landfill is compromised to the extent that ability to contain waste materials is compromised. Examples may include: - Debris exposed in erosion channels or areas of differential settlement - Exposed liner - Slope failure

Extent	Description
Isolated	Singular feature
Occasional	Features of note occurring at irregular intervals/locations
Numerous	Many features of note, impacting less than 50% of the landfill's surface area
Extensive	Features of note impacting more than 50% of landfill's surface area

Reviewed w/ SA

DEW LINE LONG TERM LANDFILL MONITORING

VISUAL INSPECTION CHECKLIST

SITE NAME (e.g. FOX-M Hall Beach): **DYE-M CAPE DYER**
LANDFILL DESIGNATION (e.g. Tier II Disposal Facility): **UPPER SITE NWS LANDFILL**
LANDFILL TYPE (Regraded, Leachate Contained, Tier II or NHWL): **REGRADED**
DATE OF INSPECTION: Aug 27, 2023
WEATHER CONDITIONS (°C, Wind Speed, Precipitation, Cloud Cover): evening → Sun, ±5°C, light wind morning - 80 km/h wind, snow, -2°C
DATE OF PREVIOUS INSPECTION: **AUGUST 10, 2018**
INSPECTED BY (Name, Signature): Brent Hay
REPORT PREPARED BY (Name, Signature): Brent Hay
DGPS (Make, Model, Accuracy, UTM Zone): Stonex, S900-A, H-8mm, V-15mm UTM-20N
LANDFILL SURFACE AREA (m^2): **9,100 m^2**
The inspector represents to the best of their knowledge that the following statements and observations are true and correct and that no material facts have been suppressed or misstated.

Notes:

- *All geotechnical features at each landfill must have **UNIQUE and CONSISTENT** identifiers in order to track their evolution over multiple monitoring events:*
  - *If a feature is identified as Feature A, then this same Feature A must be followed up on as Feature A in the next monitoring event, and all subsequent monitoring events.*
    - *If a feature develops related sub-features within close proximity over time, they can be identified using the primary letter plus sequential numbers (e.g., Feature A1, Feature A2, etc.).*
  - *If a feature is observed in one year, but not another, continue to include it on this checklist; indicate 'No' in the 'Present (Yes/No)' column and 'Not observed' in the 'Description' column.*
  - *Once a feature identifier is used at a given landfill, it cannot be reused at that same landfill to identify a different feature in later years.*
  - *A new feature must get its own unique identifier, in alphabetical order from where the previous list of features at that landfill left off.*
  - *All new features should be identified as 'NEW' in the 'Description' column of this checklist.*
  - *New features can only be grouped together under the same identifier using sub-level identifiers (e.g., A1, A2, etc.) if they are very similar, are related to each other and are located in close proximity.*
  - *Feature names must be consistent in the tables, figures, photographs and text; all feature referencing must be verified for consistency.*
- *All measurements must be metric units.*
- *Landfill surface area should be determined using AutoCAD files provided to consultant and/or consultant's survey data gathered in the field.*

Table 4-23: Visual Inspection Checklist – Upper Site NWS Landfill

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Settlement	N	-	-	-	-	-	-	-	-	-	-	-
	N									N/A		
Erosion	Y	C	South slope area	572,570	7,394,695	5 (length of each channel)	40 (3 areas combined over 70 m wide area)	0.05	1.7	Three areas with minor self-armouring erosion (Acceptable)	Expanded widespread erosion over three separate areas with 5 m long x 0.3 m wide channels in 2018 (40 x 15 m area in 2017)	1003 – 1008
	Y	C	"	See survey	survey	4-9 m 4.0-7.1	See survey 59.75	N/I		Erosion over LF doesn't seem to be present. Several areas where fines have come to surface thru piping, frost heave or water (overland drainage) - discussed w/ Nelly	- More fines, area larger - the previous features aren't present (A)	
	Y	D	West end of cover surface	572,537	7,394,744	18 (area)	7 (area)	0.02	1.2	Minor self-armouring erosion area (Acceptable)	Expanded widespread erosion area (9 x 0.2 m single channel in 2017)	1009 - 1011
	N	D	"	"	"	N/A	N/A	N/A	N/A	close loop (A)	not present	
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
	N											

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Cracking	N	E	South slope	572,543	7,394,678	-	-	-	-	Minor tension crack	Not observed in 2018 due to snow cover (7 x 0.03 m in 2017)	1012
	Y	E	"	"	"	See 6.68	Survey <70	— <25	<1	" (A)	Present	
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Vegetation	N	-	-	-	-	-	-	-	-	-	-	-
	Y	—	throughout	—	—	—	—	—	<1	very sparse but present throughout (A)	new	
Staining	N	-	-	-	-	-	-	-	-	-	-	-
	N											

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
Seepage or Ponded Water	N	-	-	-	-	-	-	-	-	-	-	-
	Y	F	SW TOE	see survey		~~3.2~~ 3.69	1.2	surface	<1	Minor seepage, observable flow, likely due to storm in the morning & sun/warmth in afternoon (A)	New	
Debris and/or Liner Exposed	Y	B	Lower south slope	572,576	7,394,649	1	-	-	-	Partially buried steel cable (Acceptable)	Unchanged since previous observation	1002
	Y	B	"	"	"	"	12 mm Ø	N/A	<1	" (A)	"	
Presence / Condition of Monitoring Instruments	N	-	-	-	-	-	-	-	-	-	-	-
	N/A											
Features of Note / Other Observations	N	A	-	-	-	-	-	-	-	Not assigned	Not assigned	-
	Y	G	Tree trunks cover	-	-	—	-	-	<1	(Acceptable)	~~New~~ New	

Landfill Area = 9,100 m^2.

- LF is in excellent condition

2.09 2.56

Preliminary Stability Assessment

Site Name (e.g., FOX-M Hall Beach)	DYE-M	
Landfill Name (e.g. Tier II Disposal Facility)	Pallet Line	
Feature	**Severity Rating**	**Extent**
Settlement	A	0
Erosion	A	0
Lateral Movement	A-M	II
Frost Action	A	N/A
Sloughing	A	0
Cracking	A	0
Animal Burrows	N/A	N/A
Ponded Water	A	0
Seepage	A	N/A
Staining	N/A	N/A
Vegetation Establishment	A	0
Vegetation Stress	N/A	N/A
Exposed Debris and/or Liner	A	0
Other	N/A	N/A
Overall Landfill Performance	Acceptable, fix exposed debris *	

Severity Rating	Description
Acceptable	Noted features are of little consequence. The landfill is performing as designed. Minor deviations in environmental or physical performance may be observed, such as isolated areas of erosion, settlement, etc.
Marginal	Physical/environmental performance appears to be deteriorating with time. Observations may include an increase in size or number of features of note, such as differential settlement, erosion or cracking. No significant impact on landfill stability to date, but potential for failure is assessed as low or moderate.
Significant	Significant or potentially significant changes affecting landfill stability, such as significant changes in slope geometry, significant erosion or differential settlement, scarp development, etc. The potential for failure is assessed as imminent.
Unacceptable	Stability of landfill is compromised to the extent that ability to contain waste materials is compromised. Examples may include: - Debris exposed in erosion channels or areas of differential settlement - Exposed liner - Slope failure

Extent	Description
Isolated	Singular feature
Occasional	Features of note occurring at irregular intervals/locations
Numerous	Many features of note, impacting less than 50% of the landfill's surface area
Extensive	Features of note impacting more than 50% of landfill's surface area

* is an exposed metal drum acceptable to DNO?

Reviewed w/ SA

DEW LINE LONG TERM LANDFILL MONITORING

VISUAL INSPECTION CHECKLIST

SITE NAME (e.g. FOX-M Hall Beach): DYE-M CAPE DYER
LANDFILL DESIGNATION (e.g. Tier II Disposal Facility): UPPER SITE PALLET LINE LANDFILL
LANDFILL TYPE (Regraded, Leachate Contained, Tier II or NHWL):
DATE OF INSPECTION: August 30
WEATHER CONDITIONS (°C, Wind Speed, Precipitation, Cloud Cover):
DATE OF PREVIOUS INSPECTION: AUGUST 12, 2018
INSPECTED BY (Name, Signature): Brent Hay
REPORT PREPARED BY (Name, Signature): Brent Hay
DGPS (Make, Model, Accuracy, UTM Zone): Stonex, S900-A, H-8mm V-15mm UTM-20N
LANDFILL SURFACE AREA (m^2): LOBE 1 = 21,160 m^2, LOBES 2, 3, AND 4 = 21,950 m^2, LOBE 5 = 940 m^2, ABANDONED LOBE = 4,840 m^2
The inspector represents to the best of their knowledge that the following statements and observations are true and correct and that no material facts have been suppressed or misstated.

Notes:

- *All geotechnical features at each landfill must have **UNIQUE and CONSISTENT** identifiers in order to track their evolution over multiple monitoring events:*
  - *If a feature is identified as Feature A, then this same Feature A must be followed up on as Feature A in the next monitoring event, and all subsequent monitoring events.*
    - *If a feature develops related sub-features within close proximity over time, they can be identified using the primary letter plus sequential numbers (e.g., Feature A1, Feature A2, etc.).*
  - *If a feature is observed in one year, but not another, continue to include it on this checklist; indicate 'No' in the 'Present (Yes/No)' column and 'Not observed' in the 'Description' column.*
  - *Once a feature identifier is used at a given landfill, it cannot be reused at that same landfill to identify a different feature in later years.*
  - *A new feature must get its own unique identifier, in alphabetical order from where the previous list of features at that landfill left off.*
  - *All new features should be identified as 'NEW' in the 'Description' column of this checklist.*
  - *New features can only be grouped together under the same identifier using sub-level identifiers (e.g., A1, A2, etc.) if they are very similar, are related to each other and are located in close proximity.*
  - *Feature names must be consistent in the tables, figures, photographs and text; all feature referencing must be verified for consistency.*
- *All measurements must be metric units.*
- *Landfill surface area should be determined using AutoCAD files provided to consultant and/or consultant's survey data gathered in the field.*

Table 4-19: Visual Inspection Checklist – Upper Site Pallet Line Landfill

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Settlement	Y	U	Abandoned Lobe – toe of northeast slope	571,582	7,394,865	0.3 (each)	0.3 (each)	0.3	<1	Six small sinkholes at toe of slope. Dimensions are typical of each sinkhole (Acceptable)	Previously only 2 sinkholes identified	811 - 815
	Y	V	Abandoned Lobe – cover surface	571,565	7,394,869	11	5	0.1	<1	Uneven ground, potential settlement, some self-armouring erosion (Acceptable)	Narrower since previous observation. (10 x 10 m in 2017)	816 – 817
	Y	AG	Lobe 1 – cover surface	571,688	7,394,934	21	6	-	<1	Minor settlement (Acceptable)	Expanded area (1 x 0.5 m in 2017)	840 – 844
	Y	AI	Lobe 1 – north crest	571,694	7,394,959	21	7	0.15	<1	Uneven ground, potential settlement (Acceptable)	Expanded area (7 x 5 m in 2017)	831 - 833
	Y	AN AN1	Lobes 2, 3, and 4 – southeast slope	571,861	7,394,835	0.5 0.3	0.5 0.2	0.15 0.1	<1	Minor settlement (Acceptable)	New	845
	Y	AS	Abandoned Lobe – middle	571,799	7,394,851	4.41	0.05	0.025	<1	Minor settlement crack (A)	New	
	Y	AX	Lobes 2,3,4	571,897	7,394,875	8.26	3.53	50-150 mm	<1	- area of sinkholes - see comment from	New	

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Settlement (cont.)	Y	AP	Lobes 2, 3, and 4 – southeast slope	571,955	7,394,880	0.5	0.5	0.15	<1	Minor settlement with crack on north extent (Acceptable)	New	852
	N	Ls shown on Pg on	Lobe 4			5,	not	observed, close		(A)		
	Y	AQ	Lobe 1- cover surface	571,672	7,394,932	3	0.5	0.15	<1	Minor settlement (Acceptable)	New	853
	Y	AQ	"	see Survey		1.12 → 1.17		0.1	<1	Minor settlement (A)	Size change due to interpretation	
	Y	AS	Lobes 2, 3, and 4 – northeast slope crest	571,799	7,394,852	1	0.6	0.15	<1	Minor settlement (Acceptable)	New	855
	Y → Double Entry	AS	" see previous page	see	Survey			0.05	<1	minor settlement (A)	NO change	
Erosion	N	A	Lobes 2, 3 and 4 – internal slope	571,810	7,394,822	-	-	-	-	Minor self-armouring erosion area	Not observed in 2018 due to snow cover (20 x 10 m in 2017)	798
	N	AV → see AK Pg 8								self Armored (A)	close loop	
	Y	B	Lobes 2, 3 and 4 – internal slope	571,787	7,394,784	13	0.5	0.1	<1	Minor self-armouring erosion (Acceptable)	Unchanged since previous observation	799 - 800
	Y	B	"	see Survey		25.16	0.5	0.1	<1	self armored erosion (A)	Longer/ Wider than Previous	

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Erosion (cont.)	Y	R	Lobes 2, 3 and 4 – southeast slope	571,954	7,394,879	3	2	0.1	<1	Minor self-armouring erosion into boulders (Acceptable)	Reduced area (8 x 5 m in 2017)	807
	N	R	〃	not observed						(A)	close	
	Y	T	Lobes 2, 3 and 4 – southeast slope	571,844	7,394,822	13	5	0.05	<1	Self-armouring erosion (Acceptable)	Slightly shorter and wider since previous observation (15 x 0.5 m in 2017)	808 – 810
	Y	T	〃	〃 See survey	〃	4.63	0.6	<25 mm		Self armored erosion (A)	Smaller due to interpretation, self armored to west	
	Y	W	Lobe 1 – west slope	571,588	7,394,903	7	1	0.1	<1	Minor self-armouring erosion area (Acceptable)	Smaller area since previous observation (10 x 3 m in 2017)	818
	Y	W	〃	〃 See survey	〃	8.05	250mm	0.1	<1	〃 (A)	no change since 2018, due to interp	
	N	AJ	Lobe 1 – cover surface	571,678	7,394,932	-	-	-	-	Self-armouring erosion channel	Not observed in 2018	-
	N	AJ	NOT observed							(A)	more, see pictures for AG	
	Y	AK	Lobes 2, 3 and 4 – cover surface	571,913	7,394,901	16	1	0.1	<1	Self-armouring (Acceptable)	Increased length since previous inspection (7 x 0.3 m in 2017)	834 - 836
	N	AK	〃	See survey	〃	6.96	1	<50mm		Self Armouring (A)	close	
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
	Y	AL	Lobe 1 SE slope	571,782 See survey	7,394,881	7.35	4.83 7	125mm N/A	<1	Slump of Slope (M) – observed headscarp – change in slope	new	

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Cracking	Y	C	Lobe 1 – west slope of the south side extension	571,729	7,394,866	1	0.03	0.01	<1	Minor weathered crack (Acceptable)	Shorter and nearly indistinguishable due to weathering (3 x 0.3 m in 2017)	801
	N	C	"	4 see survey	"					Not observed (A)		
	Y	K	Lobe 1 – south slope	571,698	7,394,897	1.5	0.15	0.05	<1	Minor weathered crack (Acceptable)	Unchanged since previous observation	803
	Y	K,L	"	see survey			~~25~~ mm	<25 mm	<1	weather crack (A)	K and L tie in together	
	Y	L	Lobe 1 – south slope	571,712	7,394,903	13	2	-	<1	Series of minor thaw cracks (Acceptable)	Expanded area (2 x 2 m in 2017)	804 – 805
	Y	K,L	"	see survey		22,72	25 mm	< 25 mm	<1	weather crack (A)	K and L tie in together	
	Y	AT	Lobe 1 South	see survey 571,617 7,394,874		18.40	20mm	25mm	<1	cracking (A)	new	
	Y	AW	Lobe 2,3,4	see survey 571,928 7,394,930		4.07	50mm	25mm	<1	cracking (A)	new	2362, 2363

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Cracking (cont.)	Y	Q	Lobe 5 – south slope	571,991	7,394,914	10	2.5	-	2.7	Minor tension cracks and settlement (Acceptable)	Expanded area (3 x 0.1 m in 2017) with multiple tension cracks and minor settlement/sloughing	849 – 851
	N	AA	Lobe 1 – east slope	571,810	7,394,937	-	-	-	-	Tension crack	Not observed in 2017 or 2018	-
	N	AB	Lobe 1 – east slope	571,816	7,394,923	-	-	-	-	Tension crack	Not observed in 2017 or 2018	-
	N	AC	Lobe 1 – south slope	571,754	7,394,856	-	-	-	-	Tension crack	Not observed in 2017 or 2018	-
	N	AD	Lobe 1 – south slope	571,681	7,394,878	-	-	-	-	Tension crack	Not observed in 2017 or 2018	-
	N	AE	Lobe 1 – south slope	571,648	7,394,869	-	-	-	-	Tension crack on slope	Not observed in 2018	824 – 826

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Cracking (cont.)	N	AF	Lobe 1 – south slope	571,625	7,394,873	-	-	-	-	Tension crack at crest of slope	Not observed in 2018	827 – 829
	N	"	"	"	"					(A)	See 'AT'	
	Y	AL	Lobes 2,3 and 4 – southeast slope	571,860	7,394,834	2.3	2.3	-	<1	Series of minor tension cracks (Acceptable)	Mainly wider since previous observation (2 x 0.01 m in 2017)	837
	Y	AL,	"	see survey		8.09 →	2.56 →	25 – 175 mm	<1	series of cracking (A)	larger area than 2018	
	Y	AR	Lobes 2,3 and 4 – southeast slope	571,954	7,394,882	1.2	0.15	0.1	<1	Weathered crack (Acceptable)	New	854
	Y	AR/R	"	"	"	3.47 see survey	6.23	50 – 150 mm	<1	settlement area/crack (A)	change to settlement crack/area, larger	
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
	N									(A)		
Vegetation	Y	P	Lobe 5 – east slope	572,001	7,394,916	7	3	-	1.5	Sparse grass on slope (Acceptable)	Expanded area (2 x 2 m in 2017)	806
	Y	P	everywhere	—	—	—	—	—	—	Sparse grass on all slopes & crown of all lobes (A)	Expanded	
Staining	N	-	-	-	-	-	-	-	-	-	-	-
	N									(A)		

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
	N									A		
Seepage or Ponded Water	Y	AM	Lobes 2, 3, and 4 cover	571,761	7,394,793	11	6	0.1	<1	Ponded water (Acceptable)	New	838 – 839
	Y	AM	"	"	"	see survey 10.88	5.01	30mm		" A	Smaller in 2023, potentially due to interp	
	N	Z	East toe of Lobe 1	571,805	7,394,954	-	-	-	-	Ponded water	Snow covered in 2018, observed water is from snow melt	821 – 823
	Y	Z	"	"	"					wet due to recent snow A	" " No change	2283
	N	AH	Abandoned Lobe – cover surface	571,588	7,394,804	-	-	-	-	Wet area	Dry in 2018	830
										Dry A		
	Y	AO	Lobes 2, 3, and 4 cover	571,854	7,394,864	21	6	0.05	<1	Ponded water (Acceptable)	New	846 – 848
	Y	AO	"	"	" See survey	14.93	5.76	0.05	<1	Ponded/wet area A	Smaller area	
Ponded Ponded	Y Y	AV AV	Lobes 2,3,4 cow	571,796 See survey	7,394,811	17.79	4.60	0.05	<1	Ponded water A	New	

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Debris and/or Liner Exposed / Erosion	N	-	-	-	-	-	-	-	-	-	-	-
	Y	outside of LF bndry can assign feature AY	southern toe Lobes 2, 3 & 4	see 571,794	survey 7,394,756	9.92	1.22	6-18"	<1	Not acceptable, Erosion that has exposed crushed drums (D)	New	2327
Presence / Condition of Monitoring Instruments	N	-	-	-	-	-	-	-	-	-	-	-
	N/A									(A)		
Features of Note / Other Observations	N	S	Lobes 2, 3 and 4 – southeast slope	571,913	7,394,862	-	-	-	-	Uneven ground	No longer considered a feature	-
	N/A									(A)	close loop	
	N	G	Lobes 2, 3 and 4 – cover surface	571,878	7,394,887	-	-	-	-	Rough / segregated material	No longer considered a feature	802
	N/A									(A)	close loop	

Landfill Area:
Pallet Line – Lobe 1 = 21,160 m^2; Pallet Line – Lobes 2,3 and 4 = 21,950 m^2; Pallet Line – Lobe 5 = 940 m^2 Pallet Line – Abandoned Lobe = 4,840 m^2

- Toes of various slopes have lichen / darker soils that may appear as wet areas but are not
- LF's in excellent condition, almost all slopes have self armored w/ a couple areas having larger % rock exposed, likely result on spring run-off in concentrated areas
- exposed debris south of Lobes 2, 3, 4 (see dwg) should be covered w/ riprap & granular fill

Preliminary Stability Assessment

Site Name (e.g., FOX-M Hall Beach)	DYE-M	
Landfill Name (e.g. Tier II Disposal Facility)	U/S South of West	
Feature	**Severity Rating**	**Extent**
Settlement	A	I
Erosion	A	N
Lateral Movement	N/A	N/A
Frost Action	A	I
Sloughing	N/A	N/A
Cracking	N/A	N/A
Animal Burrows	N/A	N/A
Ponded Water	A	O
Seepage	A	O
Staining	N/A	N/A
Vegetation Establishment	A	O
Vegetation Stress	N/A	N/A
Exposed Debris and/or Liner	N/A	N/A
Other	N/A	N/A
Overall Landfill Performance	Acceptable	

Severity Rating	Description
Acceptable	Noted features are of little consequence. The landfill is performing as designed. Minor deviations in environmental or physical performance may be observed, such as isolated areas of erosion, settlement, etc.
Marginal	Physical/environmental performance appears to be deteriorating with time. Observations may include an increase in size or number of features of note, such as differential settlement, erosion or cracking. No significant impact on landfill stability to date, but potential for failure is assessed as low or moderate.
Significant	Significant or potentially significant changes affecting landfill stability, such as significant changes in slope geometry, significant erosion or differential settlement, scarp development, etc. The potential for failure is assessed as imminent.
Unacceptable	Stability of landfill is compromised to the extent that ability to contain waste materials is compromised. Examples may include: - Debris exposed in erosion channels or areas of differential settlement - Exposed liner - Slope failure

Extent	Description
Isolated	Singular feature
Occasional	Features of note occurring at irregular intervals/locations
Numerous	Many features of note, impacting less than 50% of the landfill's surface area
Extensive	Features of note impacting more than 50% of landfill's surface area

Reviewed w/ SA

DEW LINE LONG TERM LANDFILL MONITORING
VISUAL INSPECTION CHECKLIST

SITE NAME (e.g. FOX-M Hall Beach): DYE-M CAPE DYER
LANDFILL DESIGNATION (e.g. Tier II Disposal Facility): UPPER SITE SOUTH LANDFILL WEST
LANDFILL TYPE (Regraded, Leachate Contained, Tier II or NHWL): REGRADED
DATE OF INSPECTION: August 28, 2023
WEATHER CONDITIONS (°C, Wind Speed, Precipitation, Cloud Cover): 2°C / 50 km/h winds, Blue Skies (Morning)
DATE OF PREVIOUS INSPECTION: AUGUST 10, 2018
INSPECTED BY (Name, Signature): Brent Hay
REPORT PREPARED BY (Name, Signature): Brent Hay
DGPS (Make, Model, Accuracy, UTM Zone): Sokkia SX90A UTM ZONE H-8mm V-15mm
LANDFILL SURFACE AREA (m^2): 11,700 m^2
The inspector represents to the best of their knowledge that the following statements and observations are true and correct and that no material facts have been suppressed or misstated.

Notes:

- *All geotechnical features at each landfill must have **UNIQUE and CONSISTENT** identifiers in order to track their evolution over multiple monitoring events:*
  - *If a feature is identified as Feature A, then this same Feature A must be followed up on as Feature A in the next monitoring event, and all subsequent monitoring events.*
    - *If a feature develops related sub-features within close proximity over time, they can be identified using the primary letter plus sequential numbers (e.g., Feature A1, Feature A2, etc.).*
  - *If a feature is observed in one year, but not another, continue to include it on this checklist; indicate 'No' in the 'Present (Yes/No)' column and 'Not observed' in the 'Description' column.*
  - *Once a feature identifier is used at a given landfill, it cannot be reused at that same landfill to identify a different feature in later years.*
  - *A new feature must get its own unique identifier, in alphabetical order from where the previous list of features at that landfill left off.*
  - *All new features should be identified as 'NEW' in the 'Description' column of this checklist.*
  - *New features can only be grouped together under the same identifier using sub-level identifiers (e.g., A1, A2, etc.) if they are very similar, are related to each other and are located in close proximity.*
  - *Feature names must be consistent in the tables, figures, photographs and text; all feature referencing must be verified for consistency.*
- *All measurements must be metric units.*
- *Landfill surface area should be determined using AutoCAD files provided to consultant and/or consultant's survey data gathered in the field.*

Table 4-25: Visual Inspection Checklist – Upper Site South Landfill West

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Settlement	N	-	-	-	-	-	-	-	-	-	-	-
	Y	R	SW corner	See survey		1.7m 2.02m	0.8m	125mm deep	<1	Settlement (Accept)	Previously snow covered	—
Erosion	N	C	Cover surface	572,461	7,394,575	-	-	-	-	Minor self-armouring erosion	Not observed in 2018 due to snow cover (1 x 0.3 m in 2017)	1048
	N	C	—	—	—					close loop self armored (A)		
	N	E	Cover surface	572,524	7,394,600	-	-	-	-	Minor self-armouring erosion	Not observed in 2018 due to snow cover (10 x 0.3 m in 2017)	1049
	N	E	"	"	"					Self armoured close loop (A)		
	N	F1	Cover surface	572,556	7,394,568	-	-	-	-	Minor self-armouring erosion	Not observed in 2018 due to snow cover (20 x 0.2 m in 2017)	1050
		See Hz								~~self armoured~~ (A)	~~Not present~~	
	N	F2	Cover surface	572,564	7,394,573	-	-	-	-	Minor self-armouring erosion	Not observed in 2018 due to snow cover (10 x 2 m in 2017)	1051
										Self armoured (A)	No longer present	

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Erosion (cont.)	N	G	Cover surface	572,541	7,394,581	-	-	-	-	Minor self-armouring erosion	Not observed in 2018 due to snow cover (14 x 0.2 m in 2017))	1052
		see H								A		
	Y	H	Cover surface	572,490	7,394,576	25 (area)	18 (area)	0.02	2	Minor self-armouring erosion area (Acceptable)	Larger erosion area delineated in 2018. Single channel (19 x 0.2 m in 2017)	1053 – 1061
		see comment (1)								A		
	N	I	Cover surface	572,574	7,394,568	-	-	-	-	Minor self-armouring erosion	Not observed in 2018 due to snow cover (10 x 0.1 m in 2017)	1062
		see H								A		
	N	J	Cover surface	572,609	7,394,567	-	-	-	-	Area of self-armouring erosion with 0.5-1m wide channels	Not observed in 2018 due to snow cover (10 x 8 m in 2017)	1063
		see H3								A		
	N	M	South slope	572,517	7,394,552	-	-	-	-	Minor self-armouring erosion	Not observed in 2018 due to snow cover (7 x 0.3 m in 2017)	1065
		see H1								A		

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Erosion (cont.)	N	N	South slope	572,510	7,394,554	-	-	-	-	Minor self-armouring erosion	Not observed in 2018 due to snow cover (10 x 2 m in 2017))	1065
		See comment (1)								A		
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
	N									N/A		
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
	Y	S	South slope	See survey 572,544	7,394,575	0.6m	0.5	25mm high	—	frost boil w/ veg A	new	
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
	N									N/A		
Cracking	N	L	North crest	-	-	-	-	-	-	Minor tension cracking	Not observed in 2017 or 2018	-
	N									N/A		
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	
	N									N/A		

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Vegetation	Y	A	South slope	572,463	7,394,533	9	3	-	<1	Sparse vegetation (Acceptable)	Expanded area (1 x 1 m in 2017)	1045 – 1047
	Y									present everywhere see 'veg' pics (A)		
	Y	K	Cover surface	572,570	7,394,590	8	6	-	<1	Sparse vegetation (Acceptable)	Expanded area (1 x 1 m in 2017)	1064
	Y	P	Cover surface	572,539	7,394,619	13	7	-	<1	Sparse vegetation (Acceptable)	New	1068 – 1071
	/											
	Y	Q	Cover surface	572,557	7,394,587	6	3	-	<1	Sparse vegetation (Acceptable)	New	1072
	/											
Staining	N	O	South toe	572,564	7,394,548	-	-	-	-	Wet area with running water and orange staining	Not observed in 2018 due to snow cover (17 x 2-5 m in 2017)	1066 – 1067
	N	O	"	"	"					wet area is beyond LF, toe is present, staining not present (A)		
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
	N											

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Seepage or Ponded Water	N	O	South toe	572,564	7,394,548	-	-	-	-	Wet area with melting snow and running water	Not observed in 2018 due to snow cover (15 x 2 m in 2017)	1066 – 1067
	Y T U	T/TI U	South East	See survey		T - 3.04 TI - 9.36 U - 3.20	T - 60mm TI - 6.38 U - 4.50	T: < 25mm NIL (surface)		Wet area, NIL ponded water (N) U (A)	No longer present TI is an area	
Debris and/or Liner Exposed	N	-	-	-	-	-	-	-	-	-	-	-
	N									N/A		
Presence / Condition of Monitoring Instruments	N	-	-	-	-	-	-	-	-	-	-	-
	N/A									N/A		
Features of Note / Other Observations	N	B and D	-	-	-	-	-	-	-	Not assigned	Not assigned	-
	N									NA		

Landfill Area = 11,700 m^2.

(1) South slope has multiple areas where erosion has washed fines from surface of LF, some previous features aren't longer present & new ones have appeared as evidenced by accumulation of fines, Monitor entire slope, too many for individual features. Using 50% area method not applicable as entire slope is self armour erosion

-- LF is in excellent condition, Monitor soil/water quality d/s due to relatively high occurrence of seepages also monitor for settlement & tension cracks along interior crest (runs E-W) in event erosion/presence of fines is a result of piping (not considered likely)

Preliminary Stability Assessment

Site Name (e.g., FOX-M Hall Beach)	DYE-M	
Landfill Name (e.g. Tier II Disposal Facility)	U/S Tier II	
Feature	**Severity Rating**	**Extent**
Settlement	A	O
Erosion	A	O
Lateral Movement	N/A	N/A
Frost Action	N/A	N/A
Sloughing	N/A	N/A
Cracking	A	O
Animal Burrows	N/A	N/A
Ponded Water	A	O
Seepage	A	O
Staining	N/A	N/A
Vegetation Establishment	A	O
Vegetation Stress	N/A	N/A
Exposed Debris and/or Liner	A	I
Other	N/A	N/A
Overall Landfill Performance	Acceptable	

Severity Rating	Description
Acceptable	Noted features are of little consequence. The landfill is performing as designed. Minor deviations in environmental or physical performance may be observed, such as isolated areas of erosion, settlement, etc.
Marginal	Physical/environmental performance appears to be deteriorating with time. Observations may include an increase in size or number of features of note, such as differential settlement, erosion or cracking. No significant impact on landfill stability to date, but potential for failure is assessed as low or moderate.
Significant	Significant or potentially significant changes affecting landfill stability, such as significant changes in slope geometry, significant erosion or differential settlement, scarp development, etc. The potential for failure is assessed as imminent.
Unacceptable	Stability of landfill is compromised to the extent that ability to contain waste materials is compromised. Examples may include: - Debris exposed in erosion channels or areas of differential settlement - Exposed liner - Slope failure

Extent	Description
Isolated	Singular feature
Occasional	Features of note occurring at irregular intervals/locations
Numerous	Many features of note, impacting less than 50% of the landfill's surface area
Extensive	Features of note impacting more than 50% of landfill's surface area

Reviewed / w SA

DEW LINE LONG TERM LANDFILL MONITORING

VISUAL INSPECTION CHECKLIST

SITE NAME (e.g. FOX-M Hall Beach): **DYE-M CAPE DYER**
LANDFILL DESIGNATION (e.g. Tier II Disposal Facility): **UPPER SITE TIER II DISPOSAL FACILITY**
LANDFILL TYPE (Regraded, Leachate Contained, Tier II or NHWL): **TIER II**
DATE OF INSPECTION: August 25, 2023 / Aug 24, 2023
WEATHER CONDITIONS (°C, Wind Speed, Precipitation, Cloud Cover): +9°C sunny, light winds 3-11 km/h, no rain, minor clouds / 4-10°C, 7-20 km/h, Partly cloudy
DATE OF PREVIOUS INSPECTION: **AUGUST 11, 2018**
INSPECTED BY (Name, Signature): Brent Hay
REPORT PREPARED BY (Name, Signature): Brent Hay
DGPS (Make, Model, Accuracy, UTM Zone): Stonex S900-A H 8mm V15mm UTM 20N
LANDFILL SURFACE AREA (m^2): **18,600 m^2**
The inspector represents to the best of their knowledge that the following statements and observations are true and correct and that no material facts have been suppressed or misstated.

Notes:

- *All geotechnical features at each landfill must have **UNIQUE and CONSISTENT** identifiers in order to track their evolution over multiple monitoring events:*
  - *If a feature is identified as Feature A, then this same Feature A must be followed up on as Feature A in the next monitoring event, and all subsequent monitoring events.*
    - *If a feature develops related sub-features within close proximity over time, they can be identified using the primary letter plus sequential numbers (e.g., Feature A1, Feature A2, etc.).*
  - *If a feature is observed in one year, but not another, continue to include it on this checklist; indicate 'No' in the 'Present (Yes/No)' column and 'Not observed' in the 'Description' column.*
  - *Once a feature identifier is used at a given landfill, it cannot be reused at that same landfill to identify a different feature in later years.*
  - *A new feature must get its own unique identifier, in alphabetical order from where the previous list of features at that landfill left off.*
  - *All new features should be identified as 'NEW' in the 'Description' column of this checklist.*
  - *New features can only be grouped together under the same identifier using sub-level identifiers (e.g., A1, A2, etc.) if they are very similar, are related to each other and are located in close proximity.*
  - *Feature names must be consistent in the tables, figures, photographs and text; all feature referencing must be verified for consistency.*
- *All measurements must be metric units.*
- *Landfill surface area should be determined using AutoCAD files provided to consultant and/or consultant's survey data gathered in the field.*

Table 4-14: Visual Inspection Checklist – Upper Site Tier II Disposal Facility

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Settlement (i.e. feature 'P')	Y	I	Northwest crest	571,073	7,394,647	2.5	1.8	0.1	<1	Minor settlement (Acceptable)	New	495
	Y	I	"	"	"	1.35	1.1	50mm	<1	Minor settlement (A)	East, slightly smaller	
	Y	K	East crest	571,131	7,394,659	0.4	0.3	0.1	<1	Minor settlement (Acceptable)	New	499
	Y	K	200mm x 400mm ~50mm Deep	"	"	0.4	0.2	50mm	<1	" (A)	Exist	feat K
	Y	L	East crest	571,120	7,394,675	0.6	0.3	0.1	<1	Minor settlement (Acceptable)	New	500
	Y	L	"	"	"	"	"		75mm	Minor (R)	East	
Erosion	Y	B1	Northwest slope	571,069	7,394,653	5	0.3	0.06	<1	Self-armouring erosion (Acceptable)	Previously 2 channels observed, only 1 shorter channel in 2018 (10 x 3 m in 2017)	488
		Snow covered	"			?	?			? N/A	Could not observe due to snow	
	N	B2	Northwest slope	571,060	7,394,648	-	-	-	-	Self-armouring erosion	Not observed in 2018	-
		Snow covered could not observe	"	"	"	-	-	-	-	N/A	N/A	

P Y P South Corner 571,112 / 7,394,657 / 13.16 / 14.44 see survey (square 15x15m)

→ representative area = 1.29 m²
× 37 =
47.73 / 195.8 ≈ 24%

area w/ uneven surface new-ish?

↳ area was demarcated w/ 37 individual pylons that indicate locations representative of features 'I', 'K' & 'L'. Don't believe these areas are settlement, just a result of rough grading. However, the depressions were generally <50mm lower than surrounding grade and area 'P' is representative of entire cover surface. Rather than identifying specific features, the entire cover area should be inspected for changes to this observation or large (eg 0.3m or more) settlements

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Erosion (2)	Y	C	Northwest crest corner	571,050	7,394,628	8 (area)	7 (area)	-	<1	Rough area (Acceptable)	Slightly larger dimensions in 2018 due to field interpretation (5 x 5 m in 2017) but considered unchanged	489
	Y	~	~	"	"	7.89 see survey	6.1	ϕ	<1	There are more cobble/boulder sized rocks in this area, not sure why this is a feature, it isn't erosion & should be removed from inspection (A)	unchanged, close loop.	
	N	E	Southeast slope	571,149	7,394,574	-	-	-	-	Self-armouring erosion and accumulation of fines	Not observed in 2018	491
	N	E	"	"	"	—	—	—	—	No fines, see reference pics of area (A)	Not observed in 2023	
	Y	F	Southeast crest corner	571,162	7,394,604	11 (area)	11 (area)	-	<1	Rough area (Acceptable)	Slightly larger dimensions in 2018 due to field interpretation (10 x 5 m in 2017) but considered unchanged	492 - 493
	N	F	"	"	"	see survey		-	<1	This is not erosion (2) (A)	N/A	
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
	N									N/A		
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
	N									N/A		

(2) Features previously identified as erosion may have been observed as fines soils (e.g. trace amount of silt and some fine sands) were transported w/ overland flow. These soils have all been washed and ∴ erosion previously identified is no longer visible.

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
	N									N/A		
Cracking	Y	A	Northwest crest	571,093	7,394,658	2	0.1	0.02	<1	Weathered tension crack (Acceptable)	Previously observed, unchanged	486 – 487
	Y	A	V)			see survey	V	30mm	<1	Not a tension crack, potentially not impacting LF performance (A)	minor settlement however	3
	Y	J	Northwest crest	571,071	7,394,585	10	0.04	-	<1	Weathered crack (Acceptable)	New	496 – 498
	Y	J	V	see	survey	16.59	0.025	N/A		healed crack (acceptable)	Existing, barely visible but longer	
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Vegetation	N	D	Southwest slope	571,060	7,394,565	-	-	-	-	Sparse vegetation	Not observed in 2018 due to snow cover	490
	Y	D	everywhere	←						(A)		
Staining	N	-	-	-	-	-	-	-	-	-	-	-
	N											

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Seepage or Ponded Water	N	H	East toe	571,125	7,394,688	-	-	-	-	Ponded and running water	Not observed in 2018 due to snow cover	494
	Y	H, Not observed N-West slope O-North corner / toe		N→ 571,066 O→ 571,111 N-See survey O-See survey	7,394,578 7,394,648 survey survey	12.61 2.18 O- 1.44 x 0.8	2.13 1:20	N/A 20mm 25mm	<1	N: No visible running water wet from recent snow O-standing water (A)	N- new O- new	N1-N3 OT/02
Debris and/or Liner Exposed	N	-	-	-	-	-	-	-	-	-	-	-
	~~N~~ Y	M	North Toe corner o/s ~12'			1.53	N/A	N/A	50-125mm <1	exposed non-woven, outside LF so considered (A)	New	
Presence / Condition of Monitoring Instruments	Y	MW07-22, 23, MW08-24, 25, MW12-02	See Figure DYE-M.7	-	-	-	-	-	-	All wells in good physical condition	-	540 – 558
		VT-8, 9, 10, 11 and BU	See Figure DYE-M.7	-	-	-	-	-	-	All thermistors in good physical condition	replaced locks as 2 could not be opened & other 3 were different	524 – 538
										~~Locks on VT-9 & BU replaced, otherwise good~~ All locks removed & replaced as other very different to turn key or could not open lock		

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Features of Note / Other Observations	N	-	-	-	-	-	-	-	-	-	-	-
	N											

Landfill Area = 18,600 m^2.

- LF is in excellent condition

Preliminary Stability Assessment

Site Name (e.g., FOX-M Hall Beach)	DYE-M
Landfill Name (e.g. Tier II Disposal Facility)	U/S WEST 2F (cell 2 east)

Feature	Severity Rating	Extent
Settlement	A	0
Erosion	A	0
Lateral Movement	A	N/A
Frost Action	A	↓
Sloughing	A	↓
Cracking	A	0
Animal Burrows	A	N/A
Ponded Water	A	0
Seepage	A	N/A
Staining	A	N/A
Vegetation Establishment	A	0
Vegetation Stress	A	N/A
Exposed Debris and/or Liner	A	N/A
Other	A	N/A
Overall Landfill Performance	Acceptable	

Severity Rating	Description
Acceptable	Noted features are of little consequence. The landfill is performing as designed. Minor deviations in environmental or physical performance may be observed, such as isolated areas of erosion, settlement, etc.
Marginal	Physical/environmental performance appears to be deteriorating with time. Observations may include an increase in size or number of features of note, such as differential settlement, erosion or cracking. No significant impact on landfill stability to date, but potential for failure is assessed as low or moderate.
Significant	Significant or potentially significant changes affecting landfill stability, such as significant changes in slope geometry, significant erosion or differential settlement, scarp development, etc. The potential for failure is assessed as imminent.
Unacceptable	Stability of landfill is compromised to the extent that ability to contain waste materials is compromised. Examples may include: - Debris exposed in erosion channels or areas of differential settlement - Exposed liner - Slope failure

Extent	Description
Isolated	Singular feature
Occasional	Features of note occurring at irregular intervals/locations
Numerous	Many features of note, impacting less than 50% of the landfill's surface area
Extensive	Features of note impacting more than 50% of landfill's surface area

Reviewed w/ SA

DEW LINE LONG TERM LANDFILL MONITORING

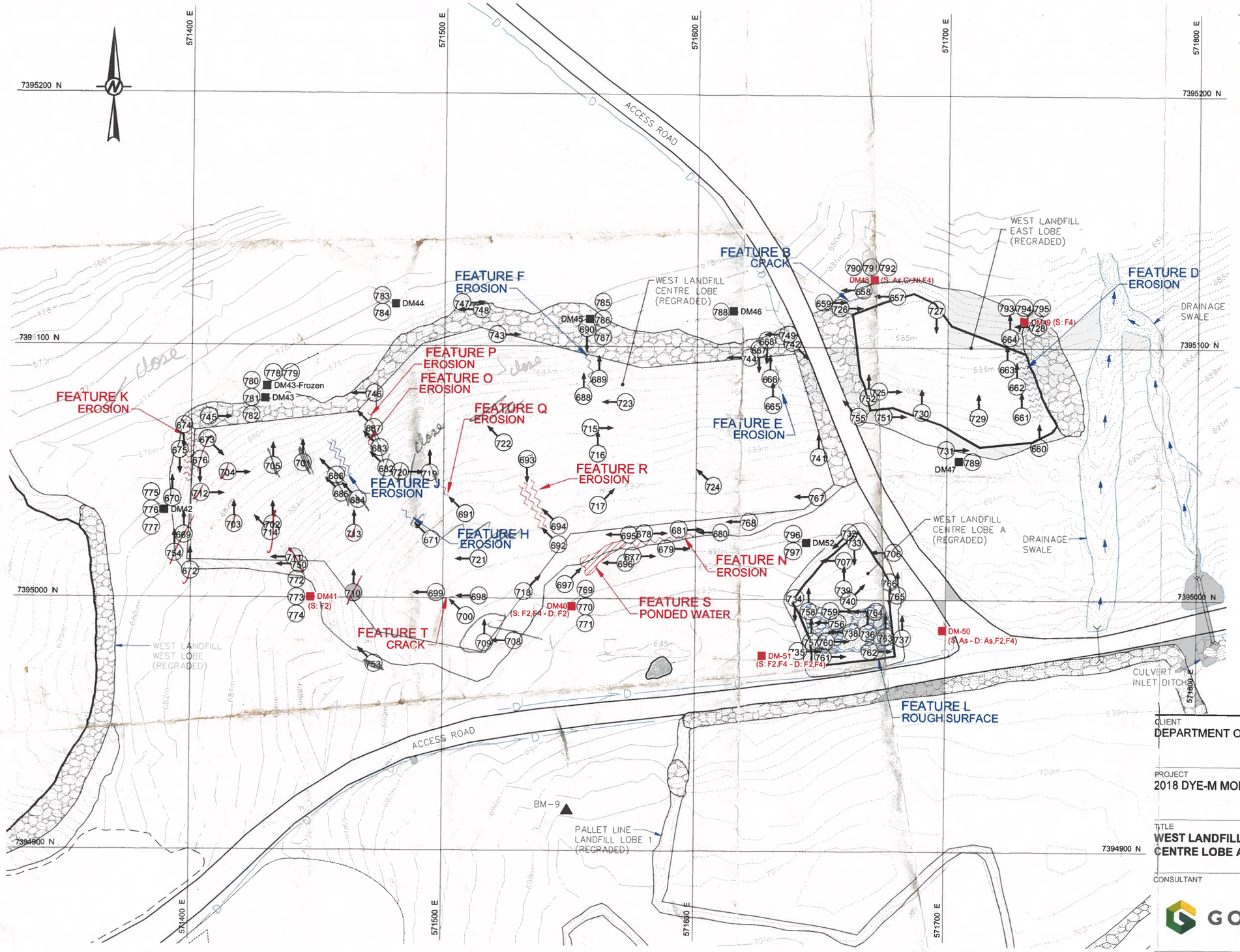
VISUAL INSPECTION CHECKLIST

SITE NAME (e.g. FOX-M Hall Beach): **DYE-M CAPE DYER**
LANDFILL DESIGNATION (e.g. Tier II Disposal Facility): **UPPER SITE WEST LANDFILL (CENTRE AND EAST LOBES)**
LANDFILL TYPE (Regraded, Leachate Contained, Tier II or NHWL): **REGRADED**
DATE OF INSPECTION: August 26, 2023
WEATHER CONDITIONS (°C, Wind Speed, Precipitation, Cloud Cover): 3-8°C, 5-12 km/hr winds, light rains
DATE OF PREVIOUS INSPECTION: **AUGUST 13, 2018**
INSPECTED BY (Name, Signature): Brent Hay
REPORT PREPARED BY (Name, Signature): Brent Hay
DGPS (Make, Model, Accuracy, UTM Zone): Stonex, S900 H 8mm V-15mm UTM 20N
LANDFILL SURFACE AREA (m^2): **32,000 m^2**
The inspector represents to the best of their knowledge that the following statements and observations are true and correct and that no material facts have been suppressed or misstated.

Notes:

- *All geotechnical features at each landfill must have **UNIQUE and CONSISTENT** identifiers in order to track their evolution over multiple monitoring events:*
  - *If a feature is identified as Feature A, then this same Feature A must be followed up on as Feature A in the next monitoring event, and all subsequent monitoring events.*
    - *If a feature develops related sub-features within close proximity over time, they can be identified using the primary letter plus sequential numbers (e.g., Feature A1, Feature A2, etc.).*
  - *If a feature is observed in one year, but not another, continue to include it on this checklist; indicate 'No' in the 'Present (Yes/No)' column and 'Not observed' in the 'Description' column.*
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  - *A new feature must get its own unique identifier, in alphabetical order from where the previous list of features at that landfill left off.*
  - *All new features should be identified as 'NEW' in the 'Description' column of this checklist.*
  - *New features can only be grouped together under the same identifier using sub-level identifiers (e.g., A1, A2, etc.) if they are very similar, are related to each other and are located in close proximity.*
  - *Feature names must be consistent in the tables, figures, photographs and text; all feature referencing must be verified for consistency.*
- *All measurements must be metric units.*
- *Landfill surface area should be determined using AutoCAD files provided to consultant and/or consultant's survey data gathered in the field.*

Next feature U



LEGEND:

- CRACKING
- EROSION
- ROUGH SURFACE
- PONDED WATER
- SOIL SAMPLING LOCATION
- SOIL SAMPLING LOCATION WITH EXCEEDANCE OF BASELINE MEAN PLUS 3 σ (S-SHALLOW, D-DEEP)
- PHOTOGRAPH LOCATION
- BODY OF WATER
- MONITORING WELL LOCATION
- PERMANENT BENCHMARK LOCATION
- REGRADED RIP RAP
- GROUND SURFACE CONTOUR
- DRAINAGE
- DITCH

NOTE

1. GRID PROJECTION IS NAD83 ZONE 20N. ELEVATIONS ARE GEODETIC.
2. FEATURES DRAWN IN RED ARE EITHER NEW OR HAVE CHANGED SINCE PREVIOUS OBSERVATIONS.

REFERENCE

PREVIOUS INSPECTION FIGURE PROVIDED BY AECOM, PROJECT NO. 60323208 (0171-LANDFILL MONITORING), DATED MARCH 2015.

0 25 50
1:1,500 METRES

CLIENT
DEPARTMENT OF NATIONAL DEFENCE CANADA

PROJECT
2018 DYE-M MONITORING REPORT

TITLE
WEST LANDFILL CENTRE LOBE AND EAST LOBE

CONSULTANT
GOLDER

YYYY-MM-DD	2018-11-23
DESIGNED	BA
PREPARED	TDR
REVIEWED	DCJ
APPROVED	DP

PROJECT NO.	CONTROL	REV.	FIGURE
1530908	0019	A	DYE-M.9

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B

C:\golder.gds\gal\Mississauga\SIM\Clients\Public Works_Canada\Canada\99_PROJ\1530908_PWGSC_Dew_Line_Mon_Program_2015_2018\40_PROD\0019_DYE_M_Field_Summary_Report_2018\

Table 4-17: Visual Inspection Checklist – Upper Site West Landfill (Centre and East Lobes)

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Settlement	N	-	-	-	-	-	-	-	-	-	-	-
	N									A		
Erosion	Y	D	East slope and off landfill to road	571,731	7,395,089	39 (area)	6 (area)	0.1	<1	Self-armouring erosion area with fines washing out downslope (Acceptable)	Reduced area in 2018 (75 x 10 m in 2017)	660 – 664
		D	"	"	"	"	"	N/I	<1	Surface is no different than remainder of LF & veg growing thru-out, not actively eroding	None, close loop	
	Y	E	North slope	571,632	7,395,088	15 (area)	5 (area)	0.1	<1	Self-armouring erosion area with one 0.3 m wide channel (Acceptable)	Unchanged dimensions in 2018. Becoming stabilized, only 1 erosion channel visible (2 visible during last inspection)	665 – 668
	N	—	—	—	—	—	—	—	—	fines have all washed away & surface is all consistent	Not present	—
										A		
	Y N	F	North slope	571,558	7,395,091	16	0.5	0.05	<1	Self-armouring erosion transporting fines down slope (Acceptable)	Reduced length in 2018 (40 m long in 2017)	688 – 690
		—	—	—	—	—	—	—	—	Same as E		
										A		
	N	G	West slope	571,399	7,395,033	-	-	-	-	Self-armouring erosion	Stabilized. No longer considered a feature	669 – 670
	N	G	—	—						A	1/	

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Erosion (cont.)	Y	H	Cover surface	571,486	7,395,032	4	0.5	0.1	<1	Minor self-armouring erosion (Acceptable)	Reduced area in 2018 (10 x 3 m in 2017)	671
	N	H	—	—	—	—	—	—	—		close as per E	
	Y	J	Cover surface	571,458	7,395,055	18 (area)	5 (area)	0.05	<1	Self-armouring erosion area, with transport of fines down slope (Acceptable)	Reduced area in 2018 (50 x 20 m in 2017)	684 – 686
	N	H	—	—	—	—	—	—	—		close as per E	
	Y N	K	West slope	571,402	7,395,054	20 (area)	5 (area)	0.05	<1	Self-armouring erosion area, with transport of fines down slope (Acceptable)	Expanded area in 2018 (10 x 5 m in 2017)	673 – 676
		-	—	—	-	-					Same comment as E	
	Y	N	South slope toe	571,609	7,395,026	27	1	0.15	<1	Self-armouring erosion transporting fines down slope (Acceptable)	Increased length, narrower in 2018 (17 x 4 m in 2017)	677 – 681
	Y	N	"	"	—	see survey 75.98	100 – 300 mm	< 50 mm	<1	"	from 'S' to road	
	Y	O	Cover surface	571,470	7,395,062	7	0.4	0.50	<1	Self-armouring erosion (Acceptable)	New	682 – 683
	N	O	—	—	—	—	—	—	—	—	Same comments as E	

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Erosion (cont.) (1)	Y	P	Cover surface	571,470	7,395,071	4 (area)	2.5 (area)	0.1	<1	Area with two erosion channels each 0.5 m wide (Acceptable)	New	687
	-	-	-		-	-	-	-	-	-	Same comment as E	
	Y	Q	Cover surface	571,501	7,395,041	3	0.5	0.1	<1	Self-armouring erosion (Acceptable)	New	691
	N	Q	—	—	—	—	—	—	—	—	close out as per E	
	Y	R	Cover surface	571,536	7,395,038	20 (area)	5 (area)	0.05	<1	Self-armouring erosion with fines transport down slope (Acceptable)	New	692 – 694
	N	R	—	—	—	—	—	—	—	—		
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
	N	—										
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
	N	—										

(1) Potential for erosion still exists if heavy spring melt, these features should be closed but LF still monitored for more extensive erosion

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Cracking	Y	B	North slope	571,664	7,395,119	9	0.1	0.05	<1	Tension crack (Acceptable)	Unchanged since previous observation	657 – 659
	Y	B	"	see survey	→	15.01	50-125MM	50MM	<1	Tension crack (acceptable) (A)	↳ check survey longer	
	N	I	Southwest corner	571,396	7,395,010	-	-	-	-	Thaw creep cracks	Not observed in 2018	672
										not observed (A)	see pics of SW corner	
	Y	T	Cover surface	571,500	7,395,000	10	0.1	-	<1	Weathered crack (Acceptable)	New	698 – 700
	Y	T	"	"	"	~~11m~~ 11.61	100	~30mm	<1	" (A)	larger	
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Vegetation	N	-	-	-	-	-	-	-	-	-	-	-
	Y									(A)	• everywhere, sparse, see pics of 'representative vegetation'	

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Staining	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
	N											
Seepage or Ponded Water	Y	S	South slope toe	571,562	7,395,017	19	5	0.15	<1	Ponding water (Acceptable)	New	695 – 697
	W		South toe	571,538 See survey	7,394,994 See survey	8.34	6.59	200mm in centre	<1	Ponded water (A)	New	
	U		U- Centre toe A	See survey 571,666	7,394,981	15.37	4.63	Nil - 75mm		Ponded water recent scarp (A)	New	
Debris and/or Liner Exposed	N	-	-	-	-	-	-	-	-	-	-	-
	N									N/A		
Presence / Condition of Monitoring Instruments	N	-	-	-	-	-	-	-	-	-	-	-
	N/A											

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Features of Note / Other Observations	Y	L	Centre Lobe A Cover surface	571,662	7,394,988	33	16	-	1.8	Rough, uneven surface (Acceptable)	Larger dimensions in 2018 due to field interpretation (25 x 15 in 2017) but considered unchanged	736,738, 760,763
	Y → close loop		DOE survey	"	"	35.75	18.02	N/A			close loop, LF is in excellent condition. No reason this is a feature	
	N	M	Centre Lobe A	-	-	-	-	-	-	Tire tracks	No longer considered a feature	-
											Not present	

Landfill Area = 32,000 m^2.

- Centre Lobe A is in A+ condition
- Centre Lobe West is in excellent condition
- Centre Lobe is in excellent condition

→ areas of the landfill appear wet @ surface due to recent rains, several 'soft' areas throughout where footprints (<10mm) could be left, again due to recent rains.

→

Preliminary Stability Assessment

Site Name (e.g., FOX-M Hall Beach) DYE-M		
Landfill Name (e.g. Tier II Disposal Facility) U/S West LF (West Lobe)		
Feature	**Severity Rating**	**Extent**
Settlement	A	I
Erosion	A	O
Lateral Movement	A	N/A
Frost Action	A	N/A
Sloughing	A	N/A
Cracking	A	O
Animal Burrows	A	N/A
Ponded Water	A	N/A
Seepage	A	N/A
Staining	A	N/A
Vegetation Establishment	A	O
Vegetation Stress	A	N/A
Exposed Debris and/or Liner	A	N/A
Other	—	—
Overall Landfill Performance	Acceptable	

Severity Rating	Description
Acceptable	Noted features are of little consequence. The landfill is performing as designed. Minor deviations in environmental or physical performance may be observed, such as isolated areas of erosion, settlement, etc.
Marginal	Physical/environmental performance appears to be deteriorating with time. Observations may include an increase in size or number of features of note, such as differential settlement, erosion or cracking. No significant impact on landfill stability to date, but potential for failure is assessed as low or moderate.
Significant	Significant or potentially significant changes affecting landfill stability, such as significant changes in slope geometry, significant erosion or differential settlement, scarp development, etc. The potential for failure is assessed as imminent.
Unacceptable	Stability of landfill is compromised to the extent that ability to contain waste materials is compromised. Examples may include: - Debris exposed in erosion channels or areas of differential settlement - Exposed liner - Slope failure

Extent	Description
Isolated	Singular feature
Occasional	Features of note occurring at irregular intervals/locations
Numerous	Many features of note, impacting less than 50% of the landfill's surface area
Extensive	Features of note impacting more than 50% of landfill's surface area

Pics 1359 - 1456

Reviewed w/ SA pics

DEW LINE LONG TERM LANDFILL MONITORING
VISUAL INSPECTION CHECKLIST

SITE NAME (e.g. FOX-M Hall Beach): **DYE-M CAPE DYER**
LANDFILL DESIGNATION (e.g. Tier II Disposal Facility): **UPPER SITE WEST LANDFILL (WEST LOBE)**
LANDFILL TYPE (Regraded, Leachate Contained, Tier II or NHWL): **REGRADED**
DATE OF INSPECTION: Aug 25, 2023
WEATHER CONDITIONS (°C, Wind Speed, Precipitation, Cloud Cover): +4°C Rain, 27 km/hr, Cloud
DATE OF PREVIOUS INSPECTION: **AUGUST 11, 2018**
INSPECTED BY (Name, Signature): Brent May
REPORT PREPARED BY (Name, Signature): Brent May
DGPS (Make, Model, Accuracy, UTM Zone): Sokkia S100A H-8mm V-15mm UTM 20N
LANDFILL SURFACE AREA (m^2): **29,000 m^2**
The inspector represents to the best of their knowledge that the following statements and observations are true and correct and that no material facts have been suppressed or misstated.

Notes:

- *All geotechnical features at each landfill must have **UNIQUE and CONSISTENT** identifiers in order to track their evolution over multiple monitoring events:*
  - *If a feature is identified as Feature A, then this same Feature A must be followed up on as Feature A in the next monitoring event, and all subsequent monitoring events.*
    - *If a feature develops related sub-features within close proximity over time, they can be identified using the primary letter plus sequential numbers (e.g., Feature A1, Feature A2, etc.).*
  - *If a feature is observed in one year, but not another, continue to include it on this checklist; indicate 'No' in the 'Present (Yes/No)' column and 'Not observed' in the 'Description' column.*
  - *Once a feature identifier is used at a given landfill, it cannot be reused at that same landfill to identify a different feature in later years.*
  - *A new feature must get its own unique identifier, in alphabetical order from where the previous list of features at that landfill left off.*
  - *All new features should be identified as 'NEW' in the 'Description' column of this checklist.*
  - *New features can only be grouped together under the same identifier using sub-level identifiers (e.g., A1, A2, etc.) if they are very similar, are related to each other and are located in close proximity.*
  - *Feature names must be consistent in the tables, figures, photographs and text; all feature referencing must be verified for consistency.*
- *All measurements must be metric units.*
- *Landfill surface area should be determined using AutoCAD files provided to consultant and/or consultant's survey data gathered in the field.*

Table 4-16: Visual Inspection Checklist – Upper Site West Landfill (West Lobe)

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Settlement	Y	N	Cover surface	571,150	7,395,019	0.3	0.3	0.1	<	Minor settlement (Acceptable)	New	581
	~~N~~ Y	N								(A)	None	1371 1372
Erosion	N	A	Cover surface west end	571,115	7,394,939	-	-	-	-	Minor self-armouring erosion area	Not observed in 2018 due to snow cover	559
	N	A1-R3	west slope R1	571,097	7,394,918	10.53		<25mm				1361-
			R2	571,094	7,394,927	18.33	longitudinal	<25 mm		(A)	Still present	1364
			R3	571,092	survey 7,394,931	20.42		<25 mm				
	Y	D	Cover surface near southwest slope	571,326	7,394,917	28 (area)	5 (area)	0.2	<1	Area of self-armouring erosion (Acceptable)	Increased length (length 20 m in 2017)	561 – 565
	Y	D				9.12	8.72			self armouring (A)	Smaller interpreted area due to self armouring	1390 1396
	Y	E	Cover surface near southwest slope	571,304	7,394,930	10	0.5	0.1	<1	Small erosion channel (Acceptable)	Increased length (length 6 m in 2017)	566 – 567
	N	E								self armouring (A)	close loop	
	Y	F	North toe	571,196	7,395,016	33 (area)	4 (area)	0.1	<1	Area of minor erosion (Acceptable)	Expanded area (5 x 5 m in 2017)	568 – 571
	Y/?	Snow covered								N/A	Snow covered	1373 1374
		R, R1, R2	West toe	See survey				100-150mm	<1	Minor (self armouring) (A)	New	
		S, S1, ⇒	West cover	See survey				150mm-600mm (running water)		overland damage w/ results in feature R (A)	New	1365- 1367
		S		571,114	7,394,942	15.50		100-400mm				
		S1		571,114	7,394,948	24.93		" "				

'A' is likely same as 'S'. No erosion now evident as fines are gone, just overland flow

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Erosion (cont.)	Y	G	Cover surface	571,153	7,394,983	16 (area)	5 (area)	0.05	<1	Area of self-armouring erosion with [illegible] wide channels (Acceptable)	Expanded area (12 x 0.3 m in 2017) becoming weathered/stabilized	572 – 574
	N	G	"	"	"	N/A	N/A	N/A		(A)	No longer present	1370 -
	Y	H	Southwest slope	571,211	7,394,933	8 (area)	4 (area)	0.2	<1	Self-armouring erosion area (Acceptable)	Reduced area (16 x 2.5 m in 2017)	575 – 576
	Y	H	"			9,74	5,29	Nil		self armoured (A)	close loop	
	Y	L	Cover surface	571,222	7,395,001	27 (area)	13 (area)	0.05	<1	Minor self-armouring erosion area with 0.5m wide channels (Acceptable)	Expanded area (15 x 10 m in 2017)	595 – 602
	Y	L to L1	"			10,21	5,04	Nil		self armoured (A)	close loop.	1376 - 1383
	Y	P	Cover surface	571,282	7,395,005	39	0.5	0.05	<1	Erosion channel with fines transported downslope (Acceptable)	New	583 – 587
	Y	P				17.29	0.2 - 0.5	Nil		self armoured (A)	close loop	1384 1385
	Y	Q	Southwest slope	571,227	7,394,919	15	0.3	0.05	<1	Erosion channel (Acceptable)	New	588 – 589
	N	Q	N/A							(A)	Not present	

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Lateral Movement	N	-	-	-	-	-	-	-	-	-	-	-
	N									(A)		
Frost Action	N	-	-	-	-	-	-	-	-	-	-	-
	N									(A)		
Sloughing	N	-	-	-	-	-	-	-	-	-	-	-
	N									(A)		
Cracking	N	I	Cover surface	571,349	7,394,978	-	-	-	-	Cracking on surface of landfill	Not observed in 2018	577
	N									(A)		1397
	Y	K	Crest of south slope	571,276	7,394,979	2	0.1	0.05	<1	Weathered tension crack (Acceptable)	Reduced length (4 m long in 2017) and weathering	580
	Y	K	"	"	"	See survey 3.23	~~0.1~~ Nil	~~0.05~~ Nil		" (A)	almost not visible close loop	1444–1446
	Y	M	Cover surface	571,339	7,394,979	15	0.05	-	<1	Weathered crack (Acceptable)	New	578 – 579
	N	"	—	—	—	See survey 9.40	~~0.05~~ Nil	~~-~~ Nil		Self armored (A)	almost not visible	1387 1388 1389

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Animal Burrows	N	-	-	-	-	-	-	-	-	-	-	-
	N									A		
Vegetation	Y	O	Cover surface	571,165	7,394,993	2	0.3	-	<1	Sparse vegetation (Acceptable)	New	582
	Y	O								Vegetation throughout A		1375
Staining	N	-	-	-	-	-	-	-	-	-	-	-
	N									A		
Vegetation Stress	N	-	-	-	-	-	-	-	-	-	-	-
	N									A		
Seepage or Ponded Water	N	C	Southwest toe	571,356	7,394,922	-	-	-	-	Previously observed running water and minor erosion along toe beyond riprap	Not observed in 2018 due to snow cover	560
	None									A		
Debris and/or Liner Exposed	N	-	-	-	-	-	-	-	-	-	-	-
	N									A		

Checklist Item	Present (Y/N)	Feature ID (A, B, etc.)	Location Description	Easting	Northing	Length (m)	Width (m)	Depth (m)	Extent of Landfill Area (%)	Description (Severity Rating)	Comparison to Historical Observations	Photos
Presence / Condition of Monitoring Instruments	N	-	-	-	-	-	-	-	-	-	-	-
	N/A Thermistors									A		
Features of Note / Other Observations	N	B	-	-	-	-	-	-	-	Not assigned	Not assigned	-
	Y	T	NE Toe	571 336	7,395,070		100 - 600 mm	<50mm	<1 (Outside 2F)	Overland flow along toe of NE slopes A	New	

Landfill Area = 29,000 m^2.

APPENDIX F.2

Soil Sampling Logs

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach):	DYE-M (Cape Dyer)	
Landfill Name (e.g. Tier II Disposal Facility):	Lower Site Crossroads Landfill	
Date and Time of Sampling Event:	01-Sep-23 15:30-16:55	
Weather (°C, Wind Speed, Precipitation, Cloud Cover):	Sunny clear skies, 80 km winds, -4 degrees Celsius	
Name of Sampling Staff (Print and Sign):	KC	Kimberly Carlton
Sampling Equipment:	Trowel	
Decontamination Methods:	Alconox between samples	
Preservation Method for PHC F1 Samples:	Methanol	

Soil Sampling Location ID	**UTM Coordinates**		**Sample Depth**	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	**Easting (m)**			
DM-01 15:30	7387615.8	562650.339	S 0.10-0.15	GP: Small gravel, medium brown sand matrix, brown	LSCL_SS_001, LSCL_SS_002, LSCL_SS_003
			D 0.45-0.55	GW: Range of gravel sizes, range of sand coarseness, brown	
DM-03 16:05	7387677.78	562595.978	S 0.10-0.15	Duplicate: MW23-S-15. GP: Small gravel, range of sand coarseness, brown	LSCL_SS_004, LSCL_SS_005, LSCL_SS_007
			D 0.5-0.55	Large boulder. GW: Range of gravel sizes, range of sand, brown, wet	
DM-02 16:35	7387639.13	562569.17	S 0.10-0.15	GP: Small gravel, medium brown sand, some organics	LSCL_SS_006, LSCL_SS_008, LSCL_SS_009
			D 0.5-0.55	GW: Range of gravel sizes, range of sand coarseness, brown	
Complete All Fields					

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach):	DYE-M (Cape Dyer)	
Landfill Name (e.g. Tier II Disposal Facility):	Lower Site Foundation Landfill	
Date and Time of Sampling Event:	01-Sep-23	
Weather (°C, Wind Speed, Precipitation, Cloud Cover):	Sunny clear skies, 80 km winds, -4 degrees Celsius	
Name of Sampling Staff (Print and Sign):	KC	Kimberly Carlton
Sampling Equipment:	Trowel	
Decontamination Methods:	Alconox between samples	
Preservation Method for PHC F1 Samples:	Methanol	

Soil Sampling Location ID	UTM Coordinates		Sample Depth	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	Easting (m)			
DM-04 13:30	7387534.21	562761.27	S 0.10-0.15	GW: Well graded brown gravel, sand matrix	LSFL_SS_001, LSFL_SS_002, LSFL_SS_004
			D 0.5-0.55	Duplicate: MW23-5-20. GW: Well Graded brown gravel, sand matrix	
DM-05 14:30	7387621.28	562760.019	S 0.10-0.15	GW: Well graded brown gravel, sand matrix	LSFL_SS_005 - LSFL_SS_009
			D 0.5-0.55	GW: Well graded brown gravel, sand matrix, wet	
DM-06 14:15	7387594.3	562706.958	S 0.10-0.15	SP: Organics, <10% gravel, medium brown sand	LSFL_SS_003, LSFL_SS_005, LSFL_SS_006
			D 0.5-0.55	SP: <20% gravel, medium brown sand	
Complete All Fields					

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M (Cape Dyer)

Landfill Name (e.g. Tier II Disposal Facility): Lower Site Non-Hazardous Waste Landfill

Date and Time of Sampling Event: 27-Aug-23

Weather (°C, Wind Speed, Precipitation, Cloud Cover): Foggy till 13:00, clear skies, 10 degrees Celsius

Name of Sampling Staff (Print and Sign): KC Kimberly Carlton

Sampling Equipment: Trowel

Decontamination Methods: Alconox between samples

Preservation Method for PHC F1 Samples: Methanol

Soil Sampling Location ID	**UTM Coordinates**		**Sample Depth**	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	**Easting (m)**			
MW05-09 - Soil 15:00	7387071.32	563031.129	S 0.10-0.15	GW: Well graded gravel with 30% brown sand matrix	LSNHWL_SS_003, LSNHWL_SS_005
			D 0.45-0.5	SP: Medium brown sand	
MW05-12 - Soil 15:20	7387018.86	563106.121	S 0.10-0.15	GW: Well graded gravel with 30% brown sand matrix	LSNHWL_SS_006, LSNHWL_SS_007
			D 0.45-0.50	SP: Medium brown sand	
MW09-26 - Soil 16:15	7386912.65	563063.437	S 0.15-0.2	GW: Well graded gravel with 20% brown sand matrix	LSNHWL_SS_010, LSNHWL_SS_011, LSNHWL_SS_013
			D 0.45-0.55	Duplicate: MW23-5-40. Wet. SP: Medium brown sand	
MW09-27 - Soil 16:00	7386963.3	562925.207	S 0.10-0.15	SP: Medium brown sand	LSNHWL_SS_008, LSNHWL_SS_009, LSNHWL_SS_012
			D 0.45-0.55	SP: Medium brown sand	
MW09-28 - Soil 14:40	7387017.16	562935.242	S 0.10-0.15	Duplicate: MW23-5-25. SP: Medium brown sand	LSNHWL_SS_001, LSNHWL_SS_002, LSNHWL_SS_004
			D 0.45-0.45	SP: Medium brown sand	
Complete All Fields					

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach):	DYE-M (Cape Dyer)	
Landfill Name (e.g. Tier II Disposal Facility):	Lower Site North Warning System Landfill	
Date and Time of Sampling Event:	02-Sep-23	
Weather (°C, Wind Speed, Precipitation, Cloud Cover):	Sunny, some snow, 30 km winds, 10 degrees Celsius	
Name of Sampling Staff (Print and Sign):	KC	Kimberly Carlton
Sampling Equipment:	Trowel	
Decontamination Methods:	Alconox between samples	
Preservation Method for PHC F1 Samples:	Methanol	

Soil Sampling Location ID	**UTM Coordinates**		**Sample Depth**	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	**Easting (m)**			
DM-07	7388947.28	561373.737	S 0.1-0.15	SP: Medium brown sand, <10% gravel	LSNWSL_SS_004, LSNWSL_SS_010, LSNWSL_SS_01
			D 0.45-0.55	GW: Range of gravel, <20% medium brown sand	
DM-08	73388947	561452.289	S 0.10-0.15	SP: Medium brown sand, <10% gravel	LSNWSL_SS_001, LSNWSL_SS_005, LSNWSL_SS_006
			D 0.45-0.5	SP: Medium brown sand	
DM-09 10:00	7388906.35	561457.625	S 0.10-0.15	SP: Medium brown sand, <10% gravel	LSNWSL_SS_002, LSNWSL_SS_007, LSNWSL_SS_008
			D 0.45-0.55	GW: 20% medium brown sand, range of gravel sizes	
DM-10	7388890.27	561373.737	S 0.10-0.15	Duplicate: MW23-S-00 GW: Medium brown sand 20%, range of gravel sizes	LSNWSL_SS_003, LSNWSL_SS_009, LSNWSL_SS_011
			D 0.45-0.55	GC: Medium brown sand with > 5 cm gravel	
Complete All Fields					

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach):	DYE-M (Cape Dyer)	
Landfill Name (e.g. Tier II Disposal Facility):	Lower Site Powerhouse Landfill	
Date and Time of Sampling Event:	01-Sep-23	
Weather (°C, Wind Speed, Precipitation, Cloud Cover):	Sunny clear skies, 80 km winds, -4 degrees Celsius	
Name of Sampling Staff (Print and Sign):	KC	Kimberly Carlton
Sampling Equipment:	Trowel	
Decontamination Methods:	Alconox between samples	
Preservation Method for PHC F1 Samples:	Methanol	

Soil Sampling Location ID	UTM Coordinates		Sample Depth	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	**Easting (m)**			
MW05-05 - Soil 10:15	7387494.11	562714.715	S 0.05-0.1	SP: Medium brown sand, 30% gravel	LSPL_SS_004. LSPL_006, LSPL_SS_008
			D 0.45-0.5	SP: Medium brown sand, <10% gravel	
MW05-06 - Soil 10:40	7387513.68	562781.057	S 0.1-0.15	SP: Medium brown sand, 20% gravel	LSPL_SS_003, LSPL_SS_005, LSPL_SS_009
			D 0.45-0.55	SP: Medium brown sand, <10% gravel	
MW05-07 - Soil 12:00	7387474.96	562810.919	S 0.10-0.15	SP: Medium brown sand, <20% gravel	LSPL_SS_002, LSPL_SS_010, LSPL_SS_011
			D 0.45-0.55	SP: Medium brown sand	
MW05-08 - Soil 11:20	7387404.41	562746.196	S 0.05-0.1	Duplicate: MW23-5-30. SP: Medium brown sand, <10% gravel	LSPL_SS_001, LSPL_SS_007, LSPL_SS_012
			D 0.45-0.5	SP: Medium brown sand	
Complete All Fields					

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M (Cape Dyer)

Landfill Name (e.g. Tier II Disposal Facility): Lower Site Tier II Disposal Facility

Date and Time of Sampling Event: 02-Sep-23

Weather (°C, Wind Speed, Precipitation, Cloud Cover): Sunny, some snow, 30 km winds, 10 degrees Celsius

Name of Sampling Staff (Print and Sign): KC Kimberly Carlton

Sampling Equipment: Trowel

Decontamination Methods: Alconox between samples

Preservation Method for PHC F1 Samples: Methanol

Soil Sampling Location ID	**UTM Coordinates**		**Sample Depth**	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	**Easting (m)**			
MW05-13 - Soil	7388340.23	561967.208	S 0.10-0.15	SP: Medium brown sand with 10% gravel	LST2DF_SS_010
			D 0.45-0.50	SP: Medium brown sand with 10% gravel	
MW05-15 - Soil	7388320.25	561786.024	S 0.10-0.15	SW: Well graded sand with 20% gravel, some organic 0-0.05	LST2DF_SS_004, LST2DF_SS_005
			D 0.45-0.55	SP: Medium brown sand	
MW05-16 - Soil	7388147.41	561875.074	S 0.10-0.15	SP: Large gravel (20%) with brown medium sand, organics ~10%	LST2DF_SS_001, LST2DF_SS_002, LST2DF_SS_003
			D 0.45-0.55	Duplicate: MW23-S-10. SP: Large gravel with medium brown sand	
MW12-01 - Soil	7388360.78	561887.9	S 0.10-0.15	SP: Medium brown sand with 20% gravel	LST2DF_SS_007, LST2DF_SS_008, LST2DF_SS_009
			D 0.45-0.50	SP: Medium brown sand with 10% gravel	
Complete All Fields					

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M (Cape Dyer)

Landfill Name (e.g. Tier II Disposal Facility): Upper Site Helipad Debris Area

Date and Time of Sampling Event: 29-Aug-23

Weather (°C, Wind Speed, Precipitation, Cloud Cover): Sunny, some clouds, 60 km winds, 7 degrees Celsius

Name of Sampling Staff (Print and Sign): KC Kimberly Carlton

Sampling Equipment: Trowel

Decontamination Methods: Alconox between samples

Preservation Method for PHC F1 Samples: Methanol

Soil Sampling Location ID	**UTM Coordinates**		**Sample Depth**	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	**Easting (m)**			
DM-11	572702.922	7394831.714	S 0.10-0.15	Duplicate: MW23-5-150. GW: Well graded gravel with sand matrix	USHL_SS_018, USHL_SS_020, USHL_SS_021
			D 0.45-0.55	SW: Well graded brown sand	
DM-12	572750.834	7394850.167	S 0.05-0.10	SW: Well graded brown sand	USHL_SS_001, USHL_SS_002, USHL_SS_006
			D 0.45-0.55	SW: Well graded brown sand	
DM-13	572757.314	7394824.053	S 0.10-0.15	GP: Large gravel with medium sand matrix, brown	USHL_SS_003, USHL_SS_004, USHL_SS_00
			D 0.45-0.55	GP: Large gravel with brown medium sand matrix	
DM-14	572731.784	7394790.993	S 0.1-0.15	GP: Large gravel with brown medium sand matrix	USHL_SS_005, USHL_SS_009
			D 0.4-0.5	SP: Brown medium sand	
DM-15	572719.936	7394767.536	S 0.05-0.10	GW: Well graded gravel, medium brown matrix	USHL_SS_010, USHL_SS_011
			D 0.45-0.55	Duplicate: MW23-5-140. SP: Medium brown sand matrix	
DM-16	572683.43	7394775.928	S 0.10-0.15	GP: Poorly graded brown gravel with medium brown sand matrix	USHL_SS_012, USHL_SS_014, USHL_SS_016
			D 0.45-0.55	SP: Medium brown sand	
DM-17	572652.815	7394801.892	S 0.05-0.10	GP: Large gravel with medium brown sand matrix	USHL_SS_013, USHL_SS_015, USHL_SS_01
			D 0.3-0.35	Refusal 0.35. GP: Large gravel with medium brown sand	
Complete All Fields					

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M (Cape Dyer)

Landfill Name (e.g. Tier II Disposal Facility): Upper Site North Warning System Landfill

Date and Time of Sampling Event: 28-Aug-23

Weather (°C, Wind Speed, Precipitation, Cloud Cover): Sunny, clear skies, 40 km winds, 7 degrees Celsius

Name of Sampling Staff (Print and Sign): KC Kimberly Carlton

Sampling Equipment: Trowel

Decontamination Methods: Alconox between samples

Preservation Method for PHC F1 Samples: Methanol

Soil Sampling Location ID	UTM Coordinates		Sample Depth	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	**Easting (m)**			
DM-18	572602.033	7394735.574	S 0.05-0.1	Duplicate: MW23-5-120. Strong odour. MW23-5-120. GP: Poorly graded brown, >20% sand matrix	USNWSL_SS_015, USNWSL_SS_016, USNWSL_SS_018
			D 0.45-0.55	GP: Poorly graded brown gravel, >30% sand matrix	
DM-19	572601.305	7394631.987	S 0.05-0.1	GP: Poorly graded brown gravel, 20% sand	USNWSL_SS_001, USNWSL_SS_003, USNWSL_SS_006
			D 0.45-0.55	GP: Poorly graded brown gravel, 20% sand	
DM-20	572566.101	7394660.471	S 0.05-0.1	GP: Poorly graded brown gravel, 30% sand	USNWSL_SS_002, USNWSL_SS_004, USNWSL_SS_007
			D 0.45-0.55	SP/GP: 50/50 (large gravel >5 cm with coarse brown sand)	
DM-21	572521.803	7394686.585	S 0.05-0.1	GP: Poorly graded brown gravel with brown coarse sand matrix	USNWSL_SS_009, USNWSL_SS_011, USNWSL_SS_013
			D 0.45-0.55	SP: Brown coarse sand, 20% mix size gravel	
DM-22	572490.523	7394725.52	S 0.1-0.15	SP: Brown coarse sand, 30% mix size gravel	USNWSL_SS_014, USNWSL_SS_017
			D 0.45-0.55	SP: Brown coarse sand, 10% mix size gravel	
Complete All Fields					

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach):	DYE-M (Cape Dyer)	
Landfill Name (e.g. Tier II Disposal Facility):	Upper Site Pallet Line Landfill	
Date and Time of Sampling Event:	31-Aug-23	
Weather (°C, Wind Speed, Precipitation, Cloud Cover):	Sunny clear skies, 9 degrees Celsius, 40 km winds	
Name of Sampling Staff (Print and Sign):	KC	Kimberly Carlton
Sampling Equipment:	Trowel	
Decontamination Methods:	Alconox between samples	
Preservation Method for PHC F1 Samples:	Methanol	

Soil Sampling Location ID	UTM Coordinates		Sample Depth	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	Easting (m)			
DM-53	571756.047	7394991.044	S 0.10-0.15	GW: Well graded brown gravel with sand matrix	USPLL_SS_027
			D 0.45-0.5	GW: Well graded brown gravel with sand matrix	
DM-54	571672.221	7394849.601	S 0.10-0.15	Duplicate: MW23-S-90. GP: <5 cm gravel and medium brown sand	USPLL_SS_023, USPLL_SS_025, USPLL_SS_026
			D 0.45-0.55	SP: medium brown sand, <30% gravel	
DM-55	571545.505	7394834.275	S 0.10-0.15	SP: Medium brown sand, 10% gravel	USPLL_SS_020, USPLL_SS_022, USPLL_SS_024
			D 0.45-0.55	SP: Medium brown sand, <10% gravel	
DM-56	571530.474	7394770.603	S 0.10-0.15	SP: Medium brown sand, 10% gravel	USPLL_SS_017, USPLL_SS_019, USPLL_SS_021
			D 0.45-0.55	SP: Medium brown sand, <20% gravel	
DM-57	571578.825	7394748.094	S 0.10-0.15	SP: Medium brown sand, <10% gravel	USPLL_SS_014, USPLL_SS_016, USPLL_SS_018
			D 0.45-0.55	SP: Medium brown sand, <10% gravel	

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach):	DYE-M (Cape Dyer)	
Landfill Name (e.g. Tier II Disposal Facility):	Upper Site Pallet Line Landfill	
Date and Time of Sampling Event:	31-Aug-23	
Weather (°C, Wind Speed, Precipitation, Cloud Cover):	Sunny clear skies, 9 degrees Celsius, 40 km winds	
Name of Sampling Staff (Print and Sign):	KC	Kimberly Carlton
Sampling Equipment:	Trowel	
Decontamination Methods:	Alconox between samples	
Preservation Method for PHC F1 Samples:	Methanol	

Soil Sampling Location ID	UTM Coordinates		Sample Depth	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	Easting (m)			
DM-58	571728.727	7394787.492	S 0.10-0.15	SP: Medium brown sand, 10% gravel	USPLL_SS_011, USPLL_SS_013, USPLL_SS_015
			D 0.45-0.55	SP: Medium brown sand, <10% gravel	
DM-59	571794.017	7394750.043	S 0.10-0.15	SP: Medium brown sand, 10% gravel	USPLL_SS_010, USPLL_SS_012
			D 0.45-0.55	SP: Medium brown sand, <20% gravel	
DM-60	7394946.18	571933.473	S 0.05-0.1	GW: Well graded brown gravel	USPLL_SS_001, USPLL_SS_004
			D 0.45-0.55	SP: Medium brown sand, 10% gravel	
DM-61	7394819.64	571879.403	S 0.05-0.1	GW: Well graded gravel brown	USPLL_SS_002, USPLL_SS_003, USPLL_SS_005
			D 0.45-0.55	SP: Medium brown sand, 20% gravel	
DM-62	7394764.26	571859.083	S 0.1-0.15	Duplicate: MW13-S-100. SP: Medium brown sand 10% gravel	USPLL_SS_006, USPLL_SS_007, USPLL_SS_009
			D 0.45-0.55	SP: Medium brown sand, 20% gravel	
Complete All Fields					

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M (Cape Dyer)

Landfill Name (e.g. Tier II Disposal Facility): Upper Site Non Hazardous Landfill

Date and Time of Sampling Event: 27-Aug-23

Weather (°C, Wind Speed, Precipitation, Cloud Cover): Foggy till 13:00, clear skies, 10 degrees Celsius

Name of Sampling Staff (Print and Sign): KC Kimberly Carlton

Sampling Equipment: Trowel

Decontamination Methods: Alconox between samples

Preservation Method for PHC F1 Samples: Methanol

Soil Sampling Location ID	**UTM Coordinates**		**Sample Depth**	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	**Easting (m)**			
MW06-18 - Soil	7395064.71	572285.298	S 0.1-0.15	GW: Well graded gravel brown, sand matrix	USNHWL_SS_001, USNHWL_SS_002, USNHWL_SS_003
			D 0.45-0.5	Wet. Under water. GW: Well graded gravel. Brown	
MW06-19 - Soil	7395142.54	572114.2	S 0.15-0.20	GP: Large boulders at surface, gravel with sand matrix underneath	USNHWL_SS_010, USNHWL_SS_011, USNHWL_SS_013
			Refusal	Refusal at 0.35, GP: coarse gravel with <0% matrix 0.10-0.35 (barely sand for sample)	
MW06-20 - Soil	7395204.03	572221.413	S 0.1-0.2	GW: Well graded gravel, brown sand matrix	USNHWL_SS_008, USNHWL_SS_009, USNHWL_SS_012
			D 0.4-0.45	Refusal 0.45. SP: Brown medium sand	
MW07-21 - Soil	7395180.71	572300.653	S 0.15-0.20	Under boulder. GP: 2 cm gravel with medium brown sand matrix	USNHWL_SS_004, USNHWL_SS_005, USNHWL_SS_006, USNHWL_SS_007
			D 0.45-0.5	Duplicate: MW23-5-10. SP: Brown medium sand matrix	
Complete All Fields					

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M (Cape Dyer)

Landfill Name (e.g. Tier II Disposal Facility): Upper Site South Landfill West

Date and Time of Sampling Event: 28-Aug-23

Weather (°C, Wind Speed, Precipitation, Cloud Cover): Sunny, clear skies, 30 km winds, 6-12 degrees Celsius

Name of Sampling Staff (Print and Sign): KC Kimberly Carlton

Sampling Equipment: Trowel

Decontamination Methods: Alconox between samples

Preservation Method for PHC F1 Samples: Methanol

Soil Sampling Location ID	UTM Coordinates		Sample Depth	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	**Easting (m)**			
DM23	572581.682	7394625.954	S 0.05-0.1	SP: Coarse brown sand	USNWSL_SS_005, USNWSL_SS_008, USNWSL_SS_010
			D 0.45-0.5	SP: Coarse brown sand	
DM24	572618.93	7394546.862	S 0.05-0.1	SP: Brown coarse sand, <20% gravel	USNWSL_SS_001, USNWSL_SS_003, USNWSL_SS_004
			D 0.25-0.3	Refusal at 0.30. SP: Brown coarse sand	
DM25	572564.236	7394546.42	S 0.1-0.15	GW: Gravel (range of sizes) with coarse brown sand matrix	USNWSL_SS_002, USNWSL_SS_006, USNWSL_SS_009
			D 0.45-0.5	SP: Coarse brown sand, <10% gravel	
DM26	572523.019	7394546.01	S 0.1-0.15	SP: Coarse brown sand, <20% gravel	USNWSL_SS_005, USNWSL_SS_007, USNWSL_SS_012
			D 0.45-0.5	SP: Coarse brown sand	
DM27	572480.237	7394515.96	S 0.1-0.15	DUP MW23-5-130. SP: Coarse brown sand	USNWSL_SS_008, USNWSL_SS_010, USNWSL_SS_013
			D 0.45-0.55	SP: Coarse brown sand	
DM28	572455.457	7394544.61	S 0.10-0.15	GW: Well graded brown gravel, 20% coarse sand matrix	USNWSL_SS_011, USNWSL_SS_014, USNWSL_SS_016
			D 0.4-0.45	SP: Coarse sand brown	

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach):	DYE-M (Cape Dyer)	
Landfill Name (e.g. Tier II Disposal Facility):	Upper Site South Landfill West	
Date and Time of Sampling Event:	28-Aug-23	
Weather (°C, Wind Speed, Precipitation, Cloud Cover):	Sunny, clear skies, 30 km winds, 6-12 degrees Celsius	
Name of Sampling Staff (Print and Sign):	KC	Kimberly Carlton
Sampling Equipment:	Trowel	
Decontamination Methods:	Alconox between samples	
Preservation Method for PHC F1 Samples:	Methanol	

Soil Sampling Location ID	UTM Coordinates		Sample Depth	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	**Easting (m)**			
DM29	572453.303	7394589.12	S 0.1-0.15	DUP MW23-5-135. GW: Well graded gravel, brown medium sand matrix	USNWSL_SS_015, USNWSL_SS_017, USNWSL_SS_020
			D 0.45-0.55	SP: Medium brown sand, moist	
DM30	572495.819	7394621.81	S 0.1-0.15	GW: Well graded gravel with coarse sand matrix	USNWSL_SS_018, USNWSL_SS_019, USNWSL_SS_021
			D 0.45-0.5	GW: Well graded gravel with coarse sand matrix	
Complete All Fields					

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach):	DYE-M (Cape Dyer)	
Landfill Name (e.g. Tier II Disposal Facility):	Upper Site Tier II Disposal Facility	
Date and Time of Sampling Event:	25-Aug-23	
Weather (°C, Wind Speed, Precipitation, Cloud Cover):	12 degrees Celsius, overcast, thick fog	
Name of Sampling Staff (Print and Sign):	KC	Kimberly Carlton
Sampling Equipment:	Trowel	
Decontamination Methods:	Alconox between samples	
Preservation Method for PHC F1 Samples:	Methanol	

Soil Sampling Location ID	**UTM Coordinates**		**Sample Depth**	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	**Easting (m)**			
MW07-22 - Soil	7394675.74	571165.127	S 0.1-0.2	GP: Pooly graded gravel with 30% medium brown sand	UST2DF_SS_004, UST2DF_SS_005, UST2DF_SS_006
			D 0.45-0.5	GP: Pooly graded gravel with 30% medium brown sand	
MW07-23 - Soil	7394519.97	571120.08	S 0.1-0.2	GP: Poorly graded gravel with 10% sand matrix	UST2DF_SS_007, UST2DF_SS_008, UST2DF_SS_009
			D 0.45-0.55	GP: Poorly graded gravel with 20% sand matrix	
MW08-24 - Soil	7394583.38	517021.025	S 0.1-0.2	GP: Large gravel with 20% corase brown sand	UST2DF_SS_010, UST2DF_SS_011, UST2DF_SS_012
			D 0.45-0.5	DUP MW23-5-50. SP: Coarse brown sand 10% gravel (large)	
MW08-25 - Soil	7394665.3	571008.353	S 0.10-0.2	GP: Large gravel with 30% coarse brown sand	UST2DF_SS_013, UST2DF_SS_014, UST2DF_SS_015
			D 0.45-0.5	GP: Large gravel with 30% coarse brown sand	
MW12-02 - Soil	7394706.31	571095.027	S 0.1-0.2	GW: Well graded gravel	UST2DF_SS_001, UST2DF_SS_002, UST2DF_SS_003
			D 0.35-0.4	GW: Well graded gravel	
Complete All Fields					

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach):	DYE-M (Cape Dyer)	
Landfill Name (e.g. Tier II Disposal Facility):	Upper West Landfill - Center and East Lobe	
Date and Time of Sampling Event:	August 26, 30, 31, 2023	
Weather (°C, Wind Speed, Precipitation, Cloud Cover):		overcast, 10 degrees Celsius
Name of Sampling Staff (Print and Sign):	KC	Kimberly Carlton
Sampling Equipment:	Trowel	
Decontamination Methods:	Alconox between samples	
Preservation Method for PHC F1 Samples:	Methanol	

Soil Sampling Location ID	**UTM Coordinates**		**Sample Depth**	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	**Easting (m)**			
DM-40 30/10:40	571548.207	7395000.14	S 0.10-0.15	GW: Well graded gravel, brown	USWLWL_SS_003, USWLWL_SS_004, USWLWL_SS_007
			D 0.4-0.5	SW: Well graded sand, 20% gravel, brown/grey	
DM41 30/10:20	571447.824	7394994.68	S 0.10-0.15	GW: Well graded gravel, brown	USWLWL_SS_001, USWLWL_SS_002, USWLWL_SS_006
			D 0.45-0.55	GW: Well graded gravel, brown	
DM42 26/15:00	571384.296	7395045.99	S 0.10-0.15	GP: Large gravel, <10% sand matrix, no fines, brown	USWLWL_SS_027, USWLWL_SS_028
			D 0.4-0.45	GP: Large gravel, <10% sand matrix, no fines, brown	
DM43 26/15:35	571426.597	7395085.6	S 0.10-0.3	GP: Large gravel, <10% sand matrix, no fines, brown	USWLWL_SS_025, USWLWL_SS_029, USWLWL_SS_030
			D 0.4-0.5	GP: Large gravel, <10% sand matrix, no fines, brown	
DM44 26/16:00	571480.719	7395111.42	S 0.1-0.2	GP: Large gravel, <20% sand matrix, brown	USWLWL_SS_026, USWLWL_SS_031, USWLWL_SS_032
			D 0.45-0.5	Wet. GP: Large gravel, <10% sand matrix, brown	

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach):	DYE-M (Cape Dyer)	
Landfill Name (e.g. Tier II Disposal Facility):	Upper West Landfill - Center and East Lobe	
Date and Time of Sampling Event:	August 26, 30, 31, 2023	
Weather (°C, Wind Speed, Precipitation, Cloud Cover):		overcast, 10 degrees Celsius
Name of Sampling Staff (Print and Sign):	KC	Kimberly Carlton
Sampling Equipment:	Trowel	
Decontamination Methods:	Alconox between samples	
Preservation Method for PHC F1 Samples:	Methanol	

Soil Sampling Location ID	**UTM Coordinates**		**Sample Depth**	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	**Easting (m)**			
DM45 30/15:30	571560.146	7395117.6	S 0.10-0.15	GP: Large gravel with 30% sand brown matrix	USWLWL_SS_017, USWLWL_SS_023, USWLWL_SS_024
			D 0.45-0.55	Duplicate: MW23-5-160. SP: Medium brown sand with <20% large gravel	
DM46 30/15:00	571623.988	7395116.39	S 0.05-0.10	GP: Large gravel with 20% brown medium sand	USWLWL_SS_016, USWLWL_SS_020, USWLWL_SS_022
			D 0.45-0.5	SP: Medium brown sand with 20%, <2 cm gravel	
DM47 30/13:40	571693.593	7395054.94	S 0.1-0.15	GP: Large gravel with 20% brown medium sand	USWLWL_SS_009, USWLWL_SS_011, USWLWL_SS_014
			D 0.45-0.5	SP: Medium brown sand with 20%, <2 cm gravel	
DM48 30/14:40	571670.962	7395128.98	S 0.05-0.10	SP: Medium brown sand , gray gravel <20%	USWLWL_SS_013, USWLWL_SS_019, USWLWL_SS_021
			D 0.45-0.55	SP: Medium brown sand , gray gravel <20%	

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach):	DYE-M (Cape Dyer)	
Landfill Name (e.g. Tier II Disposal Facility):	Upper West Landfill - Center and East Lobe	
Date and Time of Sampling Event:	August 26, 30, 31, 2023	
Weather (°C, Wind Speed, Precipitation, Cloud Cover):	overcast, 10 degrees Celsius	
Name of Sampling Staff (Print and Sign):	KC	Kimberly Carlton
Sampling Equipment:	Trowel	
Decontamination Methods:	Alconox between samples	
Preservation Method for PHC F1 Samples:	Methanol	

Soil Sampling Location ID	**UTM Coordinates**		**Sample Depth**	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	**Easting (m)**			
DM49 30/14:10	571736.226	7395112.27	S 0.05-0.10	GP: Large gravel with 20% medium brown sand	USWLWL_SS_012, USWLWL_SS_015, USWLWL_SS_018
			D 0.5-0.55	GP: Large gravel with 30% medium brown sand	
DM50 30/19:00	571695.963	7394984.99	S 0.05-0.10	SW: Sand with gravel, brown	USWLWL_SS_034, USWLWL_SS_036
			D 0.40-0.5	Duplicate: MW23-5-80. SW: Sand with gravel, brown	
DM51 30/19:15	571629.114	7394981.47	S 0.1-0.15	SW: Sand with gravel, brown	USWLWL_SS_033, USWLWL_SS_035
			D 0.45-0.5	Duplicate: MW23-5-70. SW: Sand with gravel, brown	
DM52 30/19:30	571645.029	7395025.39	S 0.10-0.15	SW: Sand with gravel, brown	USWLWL_SS_005, USWLWL_SS_008, USWLWL_SS_010
			D 0.45-0.5	SW: Sand with gravel, brown	
Complete All Fields					

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach):	DYE-M (Cape Dyer)	
Landfill Name (e.g. Tier II Disposal Facility):	Upper Site West Landfill - West Lobe	
Date and Time of Sampling Event:	August 26, 30, 2023	
Weather (°C, Wind Speed, Precipitation, Cloud Cover):	overcast, 12 degrees Celsius (on 26th) / sunny 14 degrees Celsius (on 30th)	
Name of Sampling Staff (Print and Sign):	KC	Kimberly Carlton
Sampling Equipment:	Trowel	
Decontamination Methods:	Alconox between samples	
Preservation Method for PHC F1 Samples:	Methanol	

Soil Sampling Location ID	**UTM Coordinates**		**Sample Depth**	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	**Easting (m)**			
DM-31 26/8:45	7394952.54	571165.931	S 0.1-0.15	GP: Large gravel pieces, brown	USWLWL_SS_039, USWLWL_SS_040, USWLWL_SS_043
			D 0.45-0.5	GP: Large gravel pieces, brown	
DM-32 26/10:10	7394901.27	571097.041	S 0.1-0.15	SW: Well graded gravelly sand, brown	USWLWL_SS_041, USWLWL_SS_046, USWLWL_SS_047
			D 0.45-0.5	SW: Well graded gravelly sand, brown	
DM-33 26/10:25	7394962.73	571076.251	S 0.1-0.15	SW: Well graded gravelly sand, brown	USWLWL_SS_044, USWLWL_SS_048 USWLWL_SS_051
			D 0.45-0.5	Duplicate: MW23-5-60. SW: Well graded gravelly sand, brown	
DM-34 26/11:20	7395008.83	571140.645	S 0.05-0.1	SW: Well graded , gravelly sand, brown	USWLWL_SS_049, USWLWL_SS_052
			D 0.45-0.5	GW: Well graded gravel, 30% sand, brown	
DM-35 30/14:20	7394939.25	571371.99	S 0.1-0.15	SW: Well graded gravelly sand, brown	USWLWL_SS_059, USWLWL_SS_061, USWLWL_SS_062
			D 0.45-0.5	Wet. Well graded gravelly sand, brown	

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach):	DYE-M (Cape Dyer)
Landfill Name (e.g. Tier II Disposal Facility):	Upper Site West Landfill - West Lobe
Date and Time of Sampling Event:	August 26, 30, 2023
Weather (°C, Wind Speed, Precipitation, Cloud Cover):	overcast, 12 degrees Celsius (on 26th) / sunny 14 degrees Celsius (on 30th)
Name of Sampling Staff (Print and Sign):	KC Kimberly Carlton
Sampling Equipment:	Trowel
Decontamination Methods:	Alconox between samples
Preservation Method for PHC F1 Samples:	Methanol

Soil Sampling Location ID	**UTM Coordinates**		**Sample Depth**	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	**Easting (m)**			
DM-36 30/13:45	7394927.92	571283.855	S 0.05-0.1	GP: Gravel > 3 cm, < 10% brown sand	USWLWL_SS_060, USWLWL_SS_063, USWLWL_SS_064
			D 0.35-0.4	Refusal 0.40 (boulder). GP: Gravel > 3 cm, < 10% brown sand matrix	
DM-37 26/9:06	7394920.18	571200.789	S 0.10-0.20	GP: Large gravel, brown sand matrix fine to coarse	USWLWL_SS_042, USWLWL_SS_045
			D 0.45-0.5	SP: Large gravel 30%, brown sand medium coarse	
DM-38 26/11:55	7395056.0	517239.476	S 0.10-0.15	SP: Large gravel, 20% brown sand medium coarse	USWLWL_SS_050, USWLWL_SS_054, USWLWL_SS_055
			D 0.4-0.5	SP: Large gravel, 20% brown sand medium coarse	
DM-39 26/11:45	7395044.36	571356.449	S 0.05-0.10	GP: Gravel > 5 cm, <20% brown sand matrix	USWLWL_SS_053, USWLWL_SS_057, USWLWL_SS_058
			D 0.4-0.5	SP: Large gravel, 30% brown sand matrix	

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M (CAPE DYER)

Landfill Name (e.g. Tier II Disposal Facility): LOWER CROSS ROADS

Date and Time of Sampling Event: 2023/09/01 15:30 - 16:55

Weather (°C, Wind Speed, Precipitation, Cloud Cover): Sunny clear skies, 80 km winds, -40°C

Name of Sampling Staff (Print and Sign): KC

Sampling Equipment: Trowel

Decontamination Methods: Alconox between samples

Preservation Method for PHC F1 Samples: methanol

Soil Sampling Location ID	UTM Coordinates		Sample Depth	Notes: *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	Photographs: *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	Easting (m)			
DM-01 15:30	7387615.797	562650.892	S 0.10-0.15	GP: small gravel, med brown sand matrix, brown	
			D 0.45-0.55	GW: range of gravel sizes, range of sand coarseness, brown	
DM-03 16:05	7387677.782	562595.978	S 0.10-0.15	Dup MW23-S-16. GP: small gravel, range of sand coarseness, brown	
			D 0.5-0.55	Large boulder. GW: range of gravel sizes, range of sand, brown, Wet	
DM-02 16:35	7387639.132	562569.170	S 0.10-0.15	GP: small gravel, med brown sand, some organics	
			D = 0.5-0.55	GW: range of gravel sizes, range of sand coarseness, brown	

Complete All Fields

CamScanner

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach): DYEM (Cape Dyer)

Landfill Name (e.g. Tier II Disposal Facility): Lower Site Foundation

Date and Time of Sampling Event: 2023/09/01

Weather (°C, Wind Speed, Precipitation, Cloud Cover): sunny clear skies, 80km winds, -4°C

Name of Sampling Staff (Print and Sign): KC

Sampling Equipment: trowel

Decontamination Methods: alconox decon between samples

Preservation Method for PHC F1 Samples: methanol

Soil Sampling Location ID	UTM Coordinates		Sample Depth	Notes: *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	Photographs: *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	Easting (m)			
DM-04 13:30	7387534.209	562761.270	S 0.10-0.15	GW: well graded brown gravel, sand matrix	
			D 0.5-0.55	DUP MW 23-S-20 GW: well graded brown gravel, sand matrix	
DM-05 14:30	7387621.284	562760.019	S 0.10-0.15	GW: well graded brown gravel, sand matrix	
			D 0.5-0.55	GW: well graded brown gravel, sand matrix wet	
DM-06 14:15	7387594.295	562706.958	S 0.10-0.15	SP: organics, <10% gravel, med brown sand	
			D 0.5-0.55	SP: <20% gravel, med brown sand	

Complete All Fields

CamScanner

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M (Cape Dyer)

Landfill Name (e.g. Tier II Disposal Facility): Lower Site Non-Hazardous Waste

Date and Time of Sampling Event: Aug 27, 2023

Weather (°C, Wind Speed, Precipitation, Cloud Cover): Foggy till 13:00, clear skies 10°C

Name of Sampling Staff (Print and Sign): KC

Sampling Equipment: trowel

Decontamination Methods: alconox between samples

Preservation Method for PHC F1 Samples: methanol

	Soil Sampling Location ID	UTM Coordinates		Sample Depth	Notes: *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	Photographs: *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
		Northing (m)	Easting (m)			
15:00	MW05-09-SOIL-	7387071.318	563031.129	S 0.10-0.15	GW: well graded gravel w 30% brown sand matrix	
				D 0.45-0.5	SP: med brown sand	
15:20	MW05-12-SOIL-	7387078.863	563106.121	S 0.10-0.15	GW: well graded gravel w 30% brown sand matrix	
				D 0.45-0.50	SP: med brown sand	
16:15	MW09-26-SOIL-	7386912.653	563063.437	S 0.15-0.2	GW: well graded gravel w 20% brown sand matrix	
				D 0.45-0.55	DUP MW23-S-40. Wet. SP: med brown sand	
16:00	MW09-27-SOIL	7386963.295	562925.207	S 0.10-0.15	SP: med brown sand	
				D 0.45-0.55	SP: med brown sand	
14:40	MW09-28-SOIL	~~7386969.403~~ 7387017.159	562935.242	S 0.10-0.15	~~Complete All Fields~~ DUP MW23-S-25 SP: med brown sand	
				D 0.40-0.46	SP: med brown sand	

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M (Cape Dyer)

Landfill Name (e.g. Tier II Disposal Facility): Lower Site NWS

Date and Time of Sampling Event: Sept 2nd, 2023

Weather (°C, Wind Speed, Precipitation, Cloud Cover): sunny, some snow, 30km, 10°C

Name of Sampling Staff (Print and Sign): KC

Sampling Equipment: Trowel

Decontamination Methods: Alconox between samples

Preservation Method for PHC F1 Samples: methanol

Soil Sampling Location ID	UTM Coordinates		Sample Depth	Notes: *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	Photographs: *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	Easting (m)			
DM-07	7388947.283	561373.737	S 0.1-0.15	SP: med brown sand, <10% gravel	
			D 0.45-0.55	GW: range of gravel, <20% med brown sand	
DM-08	7388942.014	561452.289	S 0.10-0.15	SP med brown sand, <10% gravel	
			D 0.45-0.5	SP med brown sand	
DM-09	7388906.349	561457.625	S 0.10-0.15	SP: med brown sand <10% gravel	
			D 0.45-0.55	GW: 20% med brown sand, range of gravel sizes	
DM-10	7388890.268	561373.737	S 0.10-0.15	GW: med brown sand 20%, range of gravel sizes	
			D 0.45-0.55	GC: med brown sand w >5cm gravel	

10:00

Complete All Fields

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DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M (Cape Dyer)

Landfill Name (e.g. Tier II Disposal Facility): Lower Site Powerhouse

Date and Time of Sampling Event: 2023/09/01

Weather (°C, Wind Speed, Precipitation, Cloud Cover): sunny clear skies, 80 km winds, -4°C

Name of Sampling Staff (Print and Sign): KC

Sampling Equipment: Trowel

Decontamination Methods: Alconox between samples

Preservation Method for PHC F1 Samples: methanol

	Soil Sampling Location ID	UTM Coordinates		Sample Depth	Notes: *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	Photographs: *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
		Northing (m)	Easting (m)			
10:45	MW05-05-SOIL-	7387494.113	562714.715	S 0.05-01	SP: med brown sand, 30% gravel	
				D 0.45-0.5	SP: med brown sand, <10% gravel	
10:40	MW05-06-SOIL-	7387513.678	562781.057	S 0.1-0.15	SP: med brown sand, 20% gravel	
				D 0.45-0.55	SP: med brown sand <10% gravel	
12:00	MW05-07-SOIL-	7387474.955	562810.919	S 0.10-0.15	SP: med brown sand <20% gravel	
				D 0.45-055	SP: med brown sand	
11:20	MW05-08-SOIL-	7387404.412	562746.196	S 0.05-0.1	DUP MW23-S-30. SP: med brown sand, <10% gravel	
				D 0.45-0.5	SP: med brown sand,	

Complete All Fields

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DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M (Cape Dyer)

Landfill Name (e.g. Tier II Disposal Facility): Lower Site Tier II

Date and Time of Sampling Event: Sept 2, 2023

Weather (°C, Wind Speed, Precipitation, Cloud Cover): sunny, some snow, 30km winds, 10°C

Name of Sampling Staff (Print and Sign): KC

Sampling Equipment: Trowel

Decontamination Methods: Alconox between samples

Preservation Method for PHC F1 Samples: methanol

Soil Sampling Location ID	UTM Coordinates		Sample Depth	Notes: *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	Photographs: *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	Easting (m)			
MW05-13-SOIL	7388340.233	561967.208	S 0.1-0.15	SP: med brown sand w 10% gravel	
			D 0.45-0.5	SP: same as above	
MW05-15-SOIL	7388320.254	561786.024	S 0.10-0.15	SW: well graded sand w 20% gravel, some organics 0-0.05	
			D 0.45-0.55	SP: medium brown sand	
MW05-16-SOIL	7388147.411	561875.074	S 0.10-0.15	SP: large gravel (20%) with brown med sand, organics ≃10%	
			D 0.45-0.55	DUP MW23-S-10. SP large gravel w med brown sand	
MW05-01-SOIL	7388360.779	561887.900	S 0.10-0.15	SP: med brown sand w 20% gravel	
			D 0.45-0.5	SP: med brown sand w 10% gravel	

Complete All Fields

CamScanner

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M (Cape Dyer)

Landfill Name (e.g. Tier II Disposal Facility): UPPER HELIPAD

Date and Time of Sampling Event: Aug 29/2023

Weather (°C, Wind Speed, Precipitation, Cloud Cover): sunny, some clouds, 60km winds, 7°C

Name of Sampling Staff (Print and Sign): KC

Sampling Equipment: Trowel

Decontamination Methods: Alconox

Preservation Method for PHC F1 Samples: methanol

Soil Sampling Location ID	UTM Coordinates		Sample Depth	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	Easting (m)			
DM-11			S 0.1-0.15	DUP MW23-S-150. GW well graded gravel w sand matrix	
			D 0.45-0.55	SW: well graded brown sand	
DM-12			S 0.05-0.1	SW: well graded brown sand	
			D 0.45-0.5	SW: well graded brown sand	
DM-13			S 0.10-0.15	GP: large gravel w med sand matrix, brown	
			D 0.45-0.55	GP: large gravel w brown med sand matrix	
DM-14			S 0.1-0.15	GP: large gravel w brown med sand matrix	
			D 0.4-0.5	SP: brown med sand	

Complete All Fields

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DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach):

Landfill Name (e.g. Tier II Disposal Facility): UPPER HELIPAD

Date and Time of Sampling Event:

Weather (°C, Wind Speed, Precipitation, Cloud Cover):

Name of Sampling Staff (Print and Sign): see Page 1

Sampling Equipment:

Decontamination Methods:

Preservation Method for PHC F1 Samples:

Soil Sampling Location ID	UTM Coordinates		Sample Depth	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	Easting (m)			
DM-15			S 0.05-0.10	GW: well graded gravel, mid brown matrix	
			D 0.45-0.55	DUP MW23-S-146.SP mid brown sand matrix	
DM-16			S 0.10-0.15	GP: poorly graded brown gravel w med brown sand matrix	
			D 0.45-0.55	SP. mid brown sand	
DM-17			S 0.05-0.10	GP large gravel w mid brown sand matrix	
			D 0.3-0.35	Refusal 0.35. GP: large gravel w mid brown sand.	

Complete All Fields

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DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M (Cape Dyer)

Landfill Name (e.g. Tier II Disposal Facility): UPPER SITE NON HAZ

Date and Time of Sampling Event: Aug 27, 2023, PM

Weather (°C, Wind Speed, Precipitation, Cloud Cover): Foggy till 13:00, clear skies 10°C

Name of Sampling Staff (Print and Sign): KC

Sampling Equipment: Trowel

Decontamination Methods: alconox

Preservation Method for PHC F1 Samples: methanol

Soil Sampling Location ID	UTM Coordinates		Sample Depth	Notes: *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	Photographs: *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	Easting (m)			
MW06-18-SOIL-	7395064.712	572285.298	S 0.1-0.15	GW: well graded gravel brown, Sand matrix	
			D 0.45-0.5	Wet. under water. well graded gravel. brown.	
MW06-19-SOIL-	7395142.541	572114.200	S 0.15-0.20	GP: Large boulders at surface, gravel w sand matrix underneath	
			Refusal	Refusal at 0.25, ~~none~~ Coarse gravel with 40% matrix 0.10 – 0.25 (barely sand for sample)	
MW06-20-SOIL-	7395204.031	572221.413	S 0.1-0.2	GW well graded gravel, brown sand matrix	
			D 0.4-0.45	Refusal 0.45. SP. Brown med sand	
MW07-21-SOIL-	7395180.707	572300.653	S 0.15-0.2	under boulder. GP 2cm gravel w. med brown sand matrix	
			D 0.45-0.5	DUP MW23-S-10 SP. Brown med Sand matrix	

Complete All Fields

CamScanner

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M (Cape Dyer)

Landfill Name (e.g. Tier II Disposal Facility): UPPER NWS

Date and Time of Sampling Event: Aug 28, 2023

Weather (°C, Wind Speed, Precipitation, Cloud Cover): sunny, clear skies, 40km winds, 7°C

Name of Sampling Staff (Print and Sign): KC

Sampling Equipment: Trowel

Decontamination Methods: Alconox

Preservation Method for PHC F1 Samples: Methanol

Soil Sampling Location ID	UTM Coordinates		Sample Depth	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	Easting (m)			
DM-18			S 0.05-0.1	Strong odour. MW 23-S-120. GP: poorly graded brown, >20% sand matrix	
			D 0.45-0.55	GP: poorly graded brown gravel, >30% sand matrix	
DM-19			S 0.05-0.1	GP: poorly graded brown gravel, 20% sand	
			D 0.45-0.55	GP: Same as above	
DM-20			S 0.05-0.1	GP: poorly graded brown gravel, 30% sand	
			D 0.45-0.55	~~GP~~ SP/GP: 50/50 (~~poorly~~ large gravel >5cm w coarse brown sand)	
DM-21			S 0.05-0.1	GP: poorly graded brown gravel w brown coarse sand matrix	
			D 0.45-0.55	SP: Brown coarse sand, 20% mix size gravel	
DM-22			S 0.1-0.15	~~Complete All Fields~~ GP: Brown coarse sand, 30% mix size gravel	
			D 0.45-0.55	SP: Brown coarse sand, 10% mix size gravel	

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DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M (Cape DYER)

Landfill Name (e.g. Tier II Disposal Facility): UPPER PALLET LINE

Date and Time of Sampling Event: Aug 31, 2023

Weather (°C, Wind Speed, Precipitation, Cloud Cover): sunny clear skies, 9°C, 40km winds

Name of Sampling Staff (Print and Sign): KC

Sampling Equipment: Trowel

Decontamination Methods: Alconox between samples

Preservation Method for PHC F1 Samples: methanol

Soil Sampling Location ID	UTM Coordinates		Sample Depth	Notes: *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	Photographs: *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	Easting (m)			
DM-53			S 0.10-0.15	GW: well graded brown gravel w sand matrix	
			D 0.45-0.5	GW: well graded brown gravel w sand matrix	
DM-54			S 0.10-0.15	DUP MW23-S-90. GP <5cm gravel and med brown sand	
			D 0.45-0.55	SP: med brown sand, <30% gravel	
DM-55			S 0.1-0.15	SP: med brown sand, <10% gravel	
			D 0.45-0.55	SP: med brown sand, <10% gravel	
DM56			S 0.1-0.15	SP: med brown sand <10% gravel	
			D 0.45-0.55	SP: med brown sand <20% gravel	
DM57			S 0.1-0.15	~~Complete All Fields~~ SP: med brown sand, <10% gravel	
			D 0.45-0.5	SP: med brown sand <10% gravel	

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach):

Landfill Name (e.g. Tier II Disposal Facility): UPPER PALLET LINE

Date and Time of Sampling Event:

Weather (°C, Wind Speed, Precipitation, Cloud Cover):

Name of Sampling Staff (Print and Sign): see page 1

Sampling Equipment:

Decontamination Methods:

Preservation Method for PHC F1 Samples:

Soil Sampling Location ID	UTM Coordinates		Sample Depth	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	Easting (m)			
DM-58			S 0.1-0.15	SP: med brown sand <10% gravel	
			D 0.45-0.55	SP: med brown sand <10% gravel	
DM-59			S 0.1-0.15	SP: med brown sand, <10% gravel	
			D 0.45-0.55	SP: med brown sand, <20% gravel	
DM-60	7394946.176	571933.473	S 0.05-0.1	GW: well graded brown gravel	
			D 0.45-0.55	SP: med brown sand, 10% gravel	
DM-61	7394819.635	571879.403	S 0.05-0.1	GW: well graded gravel brown	
			D 0.45-0.55	SP: med brown sand, 20% gravel	
DM-62	7394764.264	571859.083	S 0.1-0.15	DUP MW23-S-100. SP: med brown sand 10% gravel	
			D 0.45-0.5	SP: med brown sand, 20% gravel	

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M (Cape DYER)

Landfill Name (e.g. Tier II Disposal Facility): UPPER SITE SOUTH

Date and Time of Sampling Event: Aug 28, 2023

Weather (°C, Wind Speed, Precipitation, Cloud Cover): sunny clear skies, 30km winds, 6-12°C

Name of Sampling Staff (Print and Sign): KC

Sampling Equipment: Trowel

Decontamination Methods: Alconox between samples

Preservation Method for PHC F1 Samples: methanol

Soil Sampling Location ID	UTM Coordinates		Sample Depth	Notes: *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	Photographs: *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	Easting (m)			
DM23			S 0.05-0.1	SP: coarse brown sand	
			D 0.45-0.5	SP: coarse brown sand	
DM24			S 0.05-0.1	SP: Brown coarse sand <20% gravel	
			D 0.25-0.3	Refusal at 0.30. Brown coarse sand SP:	
DM25			S 0.1-0.15	GW: gravel (range of sizes) w coarse brown sand matrix	
			D 0.45-0.5	SP; coarse brown sand <10% gravel	
DM26			S 0.1-0.15	SP: Coarse brown sand <20% gravel	
			D 0.45-0.5	SP: coarse brown sand	
DM27			S 0.1-0.15	~~Complete All Fields~~ DUP MW23-S-130 SP: coarse brown sand	
			D 0.45-0.55	SP: coarse brown sand	

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DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach):

Landfill Name (e.g. Tier II Disposal Facility): UPPER SITE SOUTH

Date and Time of Sampling Event:

Weather (°C, Wind Speed, Precipitation, Cloud Cover):

Name of Sampling Staff (Print and Sign): see page 1

Sampling Equipment:

Decontamination Methods:

Preservation Method for PHC F1 Samples:

Soil Sampling Location ID	UTM Coordinates		Sample Depth	**Notes:** *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	**Photographs:** *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	Easting (m)			
DM28			S 0.10-0.15	GW: well graded brown gravel, 20% coarse sand matrix	
			D 0.4-0.45	SP: Coarse Sand ~~and~~ Brown	
DM29			S 0.1-0.15	DUP MW23-S-135. GW: well graded gravel, brown sand matrix	
			D 0.45-0.55	SP. Med brown sand, ~~moist~~	
DM30			S 0.1-0.15	GW: well graded gravel w coarse sand matrix	
			D 0.45-0.5	GW: same as above	

Complete All Fields

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DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M (Cape Dyer)

Landfill Name (e.g. Tier II Disposal Facility): UPPER TIER II

Date and Time of Sampling Event: Aug 25, 2023

Weather (°C, Wind Speed, Precipitation, Cloud Cover): 12°C, Overcast, thick fog

Name of Sampling Staff (Print and Sign): KC

Sampling Equipment: Trowel

Decontamination Methods: Alconox

Preservation Method for PHC F1 Samples: Methanol

Soil Sampling Location ID	UTM Coordinates		Sample Depth	Notes: *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	Photographs: *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	Easting (m)			
MW07-22-SOIL-	7394675.738	571165.127	S 0.1-0.2	GP: poorly graded gravel w 30% med brown sand	
			D 0.45-0.5	GP: same as above	
MW07-23-SOIL-	7394519.974	571120.080	S 0.1-0.2	GP: poorly graded gravel w 10% sand matrix	
			D 0.45-0.55	GP: Poorly graded gravel w 20% sand matrix	
MW08-24-SOIL-	7394583.383	571021.025	S 0.1-0.2	GP large gravel. w 20% coarse brown sand	
			D 0.45-0.5	DUP MW23-S-50. SP: Coarse brown sand 10% gravel (large)	
MW08-25-SOIL	7394665269	571008.353	S 0.1-0.2	GP large gravel w 30% coarse brown sand	
			D 0.45-0.5	GP same as above	
MW12-02-SOIL	7394706304	571095.827	S 0.1-0.2	GW ~~Complete All Fields~~ well graded gravel	
			D 0.35-0.4	GW well graded gravel	

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DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M (Cape Dyer)

Landfill Name (e.g. Tier II Disposal Facility): Upper West - West Lobe

Date and Time of Sampling Event: Aug 26 + Aug 30 2023

Weather (°C, Wind Speed, Precipitation, Cloud Cover): Overcast, 12°C / sunny 14°C on 30th

Name of Sampling Staff (Print and Sign): KC

Sampling Equipment: Trowel

Decontamination Methods: Alconox between samples

Preservation Method for PHC F1 Samples: methanol

Soil Sampling Location ID	UTM Coordinates		Sample Depth	Notes: *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	Photographs: *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	Easting (m)			
DM-31 26/8:45	7394952.541	571[illegible]931	S 0.1-0.15	GP: Large gravel pieces, brown	
			D 0.45-0.5	GP: Large gravel pieces, brown	
DM-32 26/10:10	7394901.265	571097.041	S 0.1-0.15	SW: well graded gravelly sand, brown	
			D 0.45-0.5	SW: well graded gravelly sand, brown	
DM-33 26/10:25	7394962.728	571076.251	S 0.1-0.15	SW: well graded gravelly sand, brown	
			D 0.45-05	MW23-5-60 SW: well graded gravelly sand, brown	
DM-34 26/11:20	7395008.827	571140.645	S 0.05-0.1	SW well graded, gravelly sand, brown	
			D 0.45-05	GW: well graded gravel, 30% sand, brown	
DM-35 30/14:20	7394939.250	571371.990	S 0.1-0.15	~~Complete All Fields~~ SW: well graded gravelly sand, brown	
			D 0.45-0.5	wet. well graded gravelly sand, brown,	

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DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach):

Landfill Name (e.g. Tier II Disposal Facility): Upper West - West Lobe

Date and Time of Sampling Event:

Weather (°C, Wind Speed, Precipitation, Cloud Cover): see page 1

Name of Sampling Staff (Print and Sign):

Sampling Equipment:

Decontamination Methods:

Preservation Method for PHC F1 Samples:

Soil Sampling Location ID	UTM Coordinates		Sample Depth	Notes: *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	Photographs: *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	Easting (m)			
DM-36	7394927.924	571283.855	S 0.05-0.1	GP: gravel >3cm, <10% brown sand	
			D 0.35-0.4	Refusal 0.40 (boulder). GP: gravel >3cm <10% brown sand matrix	
DM-37	7394920.179	571200.789	S 0.18-0.20	GP - large gravel, brown sand matrix fine to coarse	
			D 0.45-0.5	SP - large gravel 30%, brown sand med-coarse	
DM-38	7395055.979	517239.476	S 0.10-0.15	SP - large gravel, 20% brown sand med-coarse	
			D 0.4-0.5	" same as above	
DM-39	7395044.357	571356.449	S 0.05-0.10	GP: gravel >5cm, <20% brown sand matrix	
			D 0.4-0.5	SP - large gravel, 30% brown sand matrix	

24/11:45 26/11:55 26/9:06 30/13:45

Complete All Fields

CamScanner

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M (Cape Dyer)

Landfill Name (e.g. Tier II Disposal Facility): UPPER WEST - Center + East Lobe

Date and Time of Sampling Event: Aug 26, 30, 31 2023

Weather (°C, Wind Speed, Precipitation, Cloud Cover): Overcast, 10°C

Name of Sampling Staff (Print and Sign): KC

Sampling Equipment: Trowel

Decontamination Methods: Alconox between samples

Preservation Method for PHC F1 Samples: methanol

Soil Sampling Location ID	UTM Coordinates		Sample Depth	Notes: *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	Photographs: *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	Easting (m)			
DM-40			S 0.10-0.15	GW: well graded gravel, brown	
30/10:40			D 0.4-0.5	SW: well graded sand, 20% gravel, brown/grey	
DM 41			S 0.10-0.15	GW well graded gravel, brown	
30/10:20			D 0.45-0.55	GW - well graded gravel, brown	
DM 42			S 0.10-0.15	GP - Large gravel <10% sand matrix, no fines brown	
26/15:00			D 0.4-0.45	GP - same as above	
DM 43			S 0.10-0.3	GP - large gravel <10% sand matrix, no fines, brown	
26/15:35			D 0.4-0.5	GP - same as above	
DM 44			S 0.10-0.2	~~Complete All Fields~~ GP large gravel <20% sand matrix, brown	
26/16:00			D 0.45-0.5	wet. GP large gravel <10% sand matrix brown	

DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach):

Landfill Name (e.g. Tier II Disposal Facility): UPPERWEST – Center + East Lobe

Date and Time of Sampling Event:

Weather (°C, Wind Speed, Precipitation, Cloud Cover): see page 1

Name of Sampling Staff (Print and Sign):

Sampling Equipment:

Decontamination Methods:

Preservation Method for PHC F1 Samples:

Soil Sampling Location ID	UTM Coordinates		Sample Depth	Notes: *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	Photographs: *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	Easting (m)			
DM45			S 0.10-0.15	GP: large gravel w 30% sand brwn matrix	
30/15:30			D 0.45-0.55	DUP MW23-S-160. SP: med brown sand w <20% large gravel	
DM46			S 0.05-0.10	GP large gravel w20% brown med sand	
30/15:00			D 0.45-0.5	SP med brown sand w 20% <2cm gravel	
DM47			S 0.1-0.15	GP same as 46-S	
30/13:40			D 0.45-0.6	SP same as 46-D	
DM48			S 0.05-0.10	SP med brown sand, grey gravel <20%	
30/14:40			D 0.45-0.55	SP same as shallow	
DM49			S 0.05-0.1	GP ~~Complete All Fields~~ large gravel w 20% med brown sand	
30/14:10			D 0.5-0.55	GP large gravel w 30% med brown sand	

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DEW LINE LONG TERM LANDFILL MONITORING
SOIL SAMPLING LOG

Site Name (e.g. FOX-M Hall Beach):

Landfill Name (e.g. Tier II Disposal Facility): UPPER WEST - CENTER + East Lobe

Date and Time of Sampling Event:

Weather (°C, Wind Speed, Precipitation, Cloud Cover):

Name of Sampling Staff (Print and Sign): see page 1

Sampling Equipment:

Decontamination Methods:

Preservation Method for PHC F1 Samples:

Soil Sampling Location ID	UTM Coordinates		Sample Depth	Notes: *Including (but not limited to): visual/olfactory observations (soil type, colour, odour, evidence of contamination), reason for refusal if required depth not achieved, presence of organic matter, duplicate sample IDs, etc. The use of the Unified Soil Classification System to describe soils is encouraged.*	Photographs: *Number/ID; close up/wide angle/panoramic; location relative to monument/feature view direction relative to magnetic north; line of sight (looking from X to Y); include indication of scale*
	Northing (m)	Easting (m)			
DM50			S 0.05-0.1	SW: sand w gravel, brown	
			D 0.40-0.5	DUP MW23-5-80, SW: sand w gravel, brown	
DM51			S 0.1-0.15	SW: sand w gravel, brown	
			D 0.45-0.5	DUP MW[redacted]23-5-70, SW sand w gravel, brown	
DM52			S 0.10-0.15	SW: sand w gravel, brown	
			D 0.45-0.5	SW: sand w gravel, brown	

Aug 30/19:15 - Aug 30/19:30

Complete All Fields

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APPENDIX F.3

Monitoring Well Sampling Logs

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Lower Site Powerhouse Landfill
Date: 01-Sep-23
Time: 10:30
Weather (°C, Wind, Precipitation, Clouds): Cloudy
Monitoring Well ID: MW05-05
UTM Coordinates: 7387494 N 562719 E
Sample #: MW05-05
Duplicate #:
Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.:
Well Condition/Repair Requirements: Good
Lock Make/Model/Condition/Replaced: Replaced, New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.6
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.6
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☑ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 1.07 to toc
Depth to Water (From Top of Pipe) (m): 1.51 from toc
Calculated Static Water Level (mbgs): 0.46
Well Refusal Depth (m): 3.48 (Measure Refusal After Sampling)
Thickness of Water Column (m): 3.02
Water Volume (L): 6.1 (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☐ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details:
Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 1.05 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
10:05	100/2:00		6.23	0.114	126	5.9
10:08			5.97	0.119	123	4.98
10:11			5.77	0.125	124	4.13
10:14			5.58	0.13	124	3.39
10:17			5.36	0.136	123	2.38
10:20			5.38	0.137	146	2.36
10:23			5.35	0.133	165	2.27
10:26			5.34	0.13	156	2.41
Final:						

Clear? ☑ Y ☐ N
Colour:
PHC Sheen? ☐ Y ☑ N
PHC Odour? ☐ Y ☑ N
Free Product/PHC Globules? ☐ Y ☑ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☑ N
Type of Decontamination Fluid(s): Alconox + water + new tubing
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: LSPL_GW_007, LSPL_GW_008
Close Up/Wide Angle/Panoramic:
Direction:
Scale Indicated? ☑ Y ☐ N
Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Lower Site Powerhouse Landfill
Date: 01-Sep-23
Time: 11:30
Weather (°C, Wind, Precipitation, Clouds): partly sunny
Monitoring Well ID: MW05-06
UTM Coordinates: 7381512 E 562779 E
Sample #: MW05-06
Duplicate #: MW23-00 (DUP)
Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☑ Methanc ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good
Lock Make/Model/Condition/Replaced: Replaced, New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.6
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.6
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☑ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 0.95 to toc
Depth to Water (From Top of Pipe) (m): 1.75 from toc
Calculated Static Water Level (mbgs): 0.8
Well Refusal Depth (m): 3.48 (Measure Refusal After Sampling)
Thickness of Water Column (m): 2.68
Water Volume (L): 5.4 (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☐ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details:
Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 0.875 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
11:09	100/2:40		6.46	0.176	45.9	3.06
11:12			6.38	0.176	39.2	3.15
11:15			6.38	0.175	36	3.34
11:18			6.43	0.172	34.9	4.13
11:21			6.43	0.172	38.3	4.83
11:24			6.41	0.17	37.7	5.19
11:27			6.39	0.168	37.1	5.68
11:30			6.42	0.167	37.2	5.9
Final:						

Clear? ☑ Y ☐ N
Colour:
PHC Sheen? ☐ Y ☑ N
PHC Odour? ☐ Y ☑ N
Free Product/PHC Globules? ☐ Y ☑ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☑ N
Type of Decontamination Fluid(s): Alconox + water + new tubing
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: LSPL_GW_005, LSPL_GW_006
Close Up/Wide Angle/Panoramic:
Direction:
Scale Indicated? ☑ Y ☐ N
Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Lower Site Powerhouse Landfill
Date: 01-Sep-23
Time: 13:30
Weather (°C, Wind, Precipitation, Clouds): partly cloudy
Monitoring Well ID: MW05-07
UTM Coordinates: 7381512 N 562779 E
Sample #: MW05-07
Duplicate #:
Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good
Lock Make/Model/Condition/Replaced: Replaced, New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.6
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.6
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☑ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 1.15 to toc
Depth to Water (From Top of Pipe) (m): 1.80 from toc
Calculated Static Water Level (mbgs): 0.65
Well Refusal Depth (m): 3.52 (Measure Refusal After Sampling)
Thickness of Water Column (m): 2.87
Water Volume (L): 5.8 (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☑ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details:
Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 0.6 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
13:00	100/2:00		6.61	0.758	31.6	2.93
13:03			6.56	0.759	31.7	2.99
13:06			6.48	0.763	36.2	2.98
13:09			6.49	0.762	34.4	3.1
13:12			6.53	0.762	34.3	3.2
Final:						

Clear? ☑ Y ☐ N
Colour:
PHC Sheen? ☐ Y ☑ N
PHC Odour? ☐ Y ☑ N
Free Product/PHC Globules? ☐ Y ☑ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☑ N
Type of Decontamination Fluid(s): Alconox + water + new tubing
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: LSPL_GW_003, LSPL_GW_004
Close Up/Wide Angle/Panoramic:
Direction:
Scale Indicated? ☑ Y ☐ N
Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Lower Site Powerhouse Landfill
Date: 01-Sep-23
Time: 14:30
Weather (°C, Wind, Precipitation, Clouds): partly cloudy
Monitoring Well ID: MW05-08
UTM Coordinates: 7387403 N 562748 E
Sample #: MW05-08
Duplicate #:
Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good
Lock Make/Model/Condition/Replaced: Replaced, New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.6
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.6
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☑ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 1.015 to toc
Depth to Water (From Top of Pipe) (m): 1.465 from toc
Calculated Static Water Level (mbgs): 0.45
Well Refusal Depth (m): 3.42 (Measure Refusal After Sampling)
Thickness of Water Column (m): 2.97
Water Volume (L): 9 (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☑ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details:
Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 650 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
13:55	100/1:40		7.01	1.82	11.4	3.18
13:58			7.05	1.84	10.1	3.2
14:01			7.08	1.87	10.6	3.12
14:04			7.1	1.88	10	3.05
Final:						

Clear? ☑ Y ☐ N
Colour:
PHC Sheen? ☐ Y ☑ N
PHC Odour? ☐ Y ☑ N
Free Product/PHC Globules? ☐ Y ☑ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☑ N
Type of Decontamination Fluid(s): Alconox + water + new tubing
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: LSPL_GW_001, LSPL_GW_002
Close Up/Wide Angle/Panoramic:
Direction:
Scale Indicated? ☑ Y ☐ N
Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Lower Site Non-Hazardous Waste Landfill
Date: 01-Sep-23
Time: 16:30
Weather (°C, Wind, Precipitation, Clouds): cloudy, snow
Monitoring Well ID: MW05-09
UTM Coordinates: 7387071 N 563035 E
Sample #: MW05-09
Duplicate #:
Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good
Lock Make/Model/Condition/Replaced: New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.6
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.6
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☑ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 1.02 to toc
Depth to Water (From Top of Pipe) (m): 1.08 from toc
Calculated Static Water Level (mbgs): 0.06
Well Refusal Depth (m): 3.55 (Measure Refusal After Sampling)
Thickness of Water Column (m): 3.49
Water Volume (L): 10.6 (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☐ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details:
Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 0.8 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
15:55	100/1:30		6.52	0.382	5.4	1.85
15:58			6.34	0.38	4.1	1.98
16:01			6.33	0.378	4.5	2.01
16:04			6.28	0.379	3.5	2.01
16:07			6.28	0.378	3.4	2.02
			6.26	0.378	3.2	2.04
Final:						

Clear? ☑ Y ☐ N
Colour:
PHC Sheen? ☐ Y ☑ N
PHC Odour? ☐ Y ☑ N
Free Product/PHC Globules? ☐ Y ☑ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☑ N
Type of Decontamination Fluid(s): Alconox + water + new tubing
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: LSNHWL_GW_007 to LSNHWL_GW_009, LSNHWL_GW_012, LSNHWL_GW_016, LSNHWL_GW_017
Close Up/Wide Angle/Panoramic:
Direction:
Scale Indicated? ☑ Y ☐ N
Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Lower Site Non-Hazardous Waste Landfill
Date: 02-Sep-23
Time: 10:45
Weather (°C, Wind, Precipitation, Clouds): sunny
Monitoring Well ID: MW05-12
UTM Coordinates: 7387076 E 563107 E
Sample #: MW05-12
Duplicate #: MW23-10 (DUP)
Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good
Lock Make/Model/Condition/Replaced: New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.6
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.6
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☑ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 1.04 to toc
Depth to Water (From Top of Pipe) (m): 1.58 from toc
Calculated Static Water Level (mbgs): 0.54
Well Refusal Depth (m): 3.5 (Measure Refusal After Sampling)
Thickness of Water Column (m): 2.94
Water Volume (L): 8.9 (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☑ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details:
Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 0.8 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
10:15	100/1:30		6.5	0.171	14.2	12.79
10:18			6.18	0.178	13.4	12.46
10:21			6.07	0.182	12.3	12
10:24			6.05	0.183	12.3	11.21
10:27			6.06	0.183	12.4	10.98
Final:						

Clear? ☑ Y ☐ N
Colour:
PHC Sheen? ☐ Y ☑ N
PHC Odour? ☐ Y ☑ N
Free Product/PHC Globules? ☐ Y ☑ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☑ N
Type of Decontamination Fluid(s): Alconox + water + new tubing
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: LSNHWL_GW_005, LSNHWL_GW_006
Close Up/Wide Angle/Panoramic:
Direction:
Scale Indicated? ☑ Y ☐ N
Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Lower Site Non-Hazardous Waste Landfill
Date: 02-Sep-23
Time: 12:00
Weather (°C, Wind, Precipitation, Clouds): sunny
Monitoring Well ID: MW09-26
UTM Coordinates: 7386912 N 563063 E
Sample #: MW09-26
Duplicate #:
Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: 2 ponds 5 m away
Well Condition/Repair Requirements: Good
Lock Make/Model/Condition/Replaced: New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.6
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.6
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☑ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 0.70 to toc
Depth to Water (From Top of Pipe) (m): 0.95 from toc
Calculated Static Water Level (mbgs): 0.25
Well Refusal Depth (m): 2.9 (Measure Refusal After Sampling)
Thickness of Water Column (m): 2.65
Water Volume (L): 8.75 (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☐ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details:
Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 1 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
11:20	100/1:35		7.17	1.19	818	3.9
11:23			7.25	1.2	773	3.54
11:26			7.32	1.22	555	3.17
11:29			7.35	1.21	583	3.53
11:32			7.38	1.21	530	3.46
11:35						
Final:						

Clear? ☐ Y ☑ N
Colour: silty
PHC Sheen? ☐ Y ☑ N
PHC Odour? ☐ Y ☑ N
Free Product/PHC Globules? ☐ Y ☑ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☑ N
Type of Decontamination Fluid(s): Alconox + water + new tubing
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: LSNHWL_GW_003, LSNHWL_GW_004, LSNHWL_GW_013
Close Up/Wide Angle/Panoramic:
Direction:
Scale Indicated? ☑ Y ☐ N
Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Lower Site Non-Hazardous Waste Landfill
Date: 02-Sep-23
Time: 17:30
Weather (°C, Wind, Precipitation, Clouds): cloudy, snow
Monitoring Well ID: MW09-27
UTM Coordinates: 7386965 N 562926 E
Sample #: MW09-27
Duplicate #:
Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: some ponding
Well Condition/Repair Requirements: Good
Lock Make/Model/Condition/Replaced: New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.6
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.5
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☐ Interface Probe ☐ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 0.69 to toc
Depth to Water (From Top of Pipe) (m): 0.68 from toc
Calculated Static Water Level (mbgs): -0.01 (water above ground surface)
Well Refusal Depth (m): 2.85 (Measure Refusal After Sampling)
Thickness of Water Column (m): 2.86
Water Volume (L): 10 (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☐ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details:
Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 0.6 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
16:55	100/1:30		6.64	0.666	2.9	2.28
16:58			6.6	0.67	2.2	2.17
17:01			6.66	0.672	2	2.16
17:04			6.64	0.67	1.9	2.15
Final:						

Clear? ☑ Y ☐ N
Colour:
PHC Sheen? ☐ Y ☑ N
PHC Odour? ☐ Y ☑ N
Free Product/PHC Globules? ☐ Y ☑ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☑ N
Type of Decontamination Fluid(s): Alconox + water + new tubing
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: LSNHWL_GW_001, LSNHWL_GW_002
Close Up/Wide Angle/Panoramic:
Direction:
Scale Indicated? ☑ Y ☐ N
Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Lower Site Non-Hazardous Waste Landfill
Date: 01-Sep-23
Time: 16:00
Weather (°C, Wind, Precipitation, Clouds): cloudy, snow
Monitoring Well ID: MW09-28
UTM Coordinates: 7387019 N 562934 E
Sample #: MW09-28
Duplicate #:
Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.:
Well Condition/Repair Requirements: Good
Lock Make/Model/Condition/Replaced: New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.6
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.5
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☑ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 0.61 to toc
Depth to Water (From Top of Pipe) (m): 2.98 from toc
Calculated Static Water Level (mbgs): 0.02
Well Refusal Depth (m): 2.9 (Measure Refusal After Sampling)
Thickness of Water Column (m):
Water Volume (L): 0 (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☑ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details:
Maintained Purge Rate at ≤ 100 mL/min: ☐ Y ☐ N
Purge Rate: ☐ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): dry (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
Final:						

Clear? ☐ Y ☑ N
Colour:
PHC Sheen? ☐ Y ☑ N
PHC Odour? ☐ Y ☑ N
Free Product/PHC Globules? ☐ Y ☑ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☑ N
Type of Decontamination Fluid(s):
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: LSNHWL_GW_010, LSNHWL_GW_011, LSNHWL_GW_014, LSNHWL_GW_015
Close Up/Wide Angle/Panoramic:
Direction:
Scale Indicated? ☐ Y ☐ N
Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Lower Site Tier II Disposal Facility
Date: 02-Sep-23
Time: 15:45
Weather (°C, Wind, Precipitation, Clouds): cloudy
Monitoring Well ID: MW12-01
UTM Coordinates: 7388363 N 561888 E
Sample #: MW12-01
Duplicate #:
Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good
Lock Make/Model/Condition/Replaced: New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 4
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.5
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☑ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 0.86 to toc
Depth to Water (From Top of Pipe) (m): 1.01 from toc
Calculated Static Water Level (mbgs): 0.15
Well Refusal Depth (m): 3.85 (Measure Refusal After Sampling)
Thickness of Water Column (m): 3.6
Water Volume (L): 7.3 (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☑ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details:
Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 0.6 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
15:18	100/1:35		6.38	0.959	66.3	2.18
15:21			6.33	0.954	56.4	2.14
15:24			6.28	0.951	51.5	2.12
15:27			6.26	0.946	52.1	2.02
Final:						

Clear? ☑ Y ☐ N
Colour:
PHC Sheen? ☐ Y ☑ N
PHC Odour? ☐ Y ☑ N
Free Product/PHC Globules? ☐ Y ☑ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☑ N
Type of Decontamination Fluid(s): Alconox + water + new tubing
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: LST2DF_GW_005, LST2DF_GW_006
Close Up/Wide Angle/Panoramic:
Direction:
Scale Indicated? ☑ Y ☐ N
Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Lower Site Tier II Disposal Facility
Date: 02-Sep-23
Time: 16:30
Weather (°C, Wind, Precipitation, Clouds): cloudy
Monitoring Well ID: MW05-13
UTM Coordinates: 7388343 N 561959 E
Sample #: MW05-13
Duplicate #:
Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good interior, exterior casing damanged
Lock Make/Model/Condition/Replaced: New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.6
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.6
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☑ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 0.83 to toc
Depth to Water (From Top of Pipe) (m): 1.21 from toc
Calculated Static Water Level (mbgs): 0.38
Well Refusal Depth (m): 3.52 (Measure Refusal After Sampling)
Thickness of Water Column (m): 3.14
Water Volume (L): 6.4 (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☑ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details:
Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 0.6 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
16:05	100/1:30		7.17	0.649	114	2.39
16:08			7.19	0.644	111	2.41
16:11			7.25	0.642	109	2.36
16:14			7.29	0.645	109	2.33
Final:						

Clear? ☑ Y ☐ N
Colour:
PHC Sheen? ☐ Y ☑ N
PHC Odour? ☐ Y ☑ N
Free Product/PHC Globules? ☐ Y ☑ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☑ N
Type of Decontamination Fluid(s): Alconox + water + new tubing
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: LST2DF_GW_008, LST2DF_GW_009, LST2DF_GW_017 to LST2DF_GW_023
Close Up/Wide Angle/Panoramic:
Direction:
Scale Indicated? ☑ Y ☐ N
Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Lower Site Tier II Disposal Facility
Date: 02-Sep-23
Time: 15:00
Weather (°C, Wind, Precipitation, Clouds): cloudy
Monitoring Well ID: MW05-15
UTM Coordinates: 7388320 N 561789 E
Sample #: MW05-15
Duplicate #:
Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good, bentonite was removed from around interior pipe
Lock Make/Model/Condition/Replaced: New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.6
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.6
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☑ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 0.98 to toc
Depth to Water (From Top of Pipe) (m): 1.45 from toc
Calculated Static Water Level (mbgs): 0.47
Well Refusal Depth (m): 3.45 (Measure Refusal After Sampling)
Thickness of Water Column (m): 2.98
Water Volume (L): 6.05 (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☑ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details:
Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 0.8 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
14:25	100/1:30		6.96	0.437	251	3.86
14:28			6.9	0.441	174	3.64
14:31			6.82	0.447	146	3.54
14:34			6.89	0.451	121	3.48
14:37			6.88	0.452	95.5	3.43
Final:						

Clear? ☑ Y ☐ N
Colour:
PHC Sheen? ☐ Y ☑ N
PHC Odour? ☐ Y ☑ N
Free Product/PHC Globules? ☐ Y ☑ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☑ N
Type of Decontamination Fluid(s): Alconox + water + new tubing
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: LST2DF_GW_004, LST2DF_GW_007, LST2DF_GW_010 to LST2DF_GW_013
Close Up/Wide Angle/Panoramic:
Direction:
Scale Indicated? ☑ Y ☐ N
Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Lower Site Tier II Disposal Facility
Date: 02-Sep-23
Time: 14:00
Weather (°C, Wind, Precipitation, Clouds): cloudy
Monitoring Well ID: MW05-16
UTM Coordinates: 7388149 N 561877 E
Sample #: MW05-16
Duplicate #:
Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good, bentonite was removed from around interior pipe
Lock Make/Model/Condition/Replaced: New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.6
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.6
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☑ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 1.14 to toc
Depth to Water (From Top of Pipe) (m): 1.64 from toc
Calculated Static Water Level (mbgs): 0.5
Well Refusal Depth (m): 3.2 (Measure Refusal After Sampling)
Thickness of Water Column (m): 2.7
Water Volume (L): 4.2 (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☑ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details: calibrated before starting purging
Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 0.8 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
13:30	100/1:30		7.31	0.229	175	4.3
13:33			7.05	0.195	123	4
13:36			6.95	0.183	101	3.88
13:39			6.99	0.176	90.1	3.91
13:42			6.91	0.172	63.2	3.95
Final:						

Clear? ☑ Y ☐ N
Colour:
PHC Sheen? ☐ Y ☑ N
PHC Odour? ☐ Y ☑ N
Free Product/PHC Globules? ☐ Y ☑ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☑ N
Type of Decontamination Fluid(s): Alconox + water + new tubing
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: LST2DF_GW_001 to LST2DF_GW_003, LST2DF_GW_014 to LST2DF_GW_016
Close Up/Wide Angle/Panoramic:
Direction:
Scale Indicated? ☑ Y ☐ N
Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Upper Site Non Hazardous Waste Landfill
Date: 30-Aug-23
Time: 9:50
Weather (°C, Wind, Precipitation, Clouds): 1 degrees Celsius, sunny
Monitoring Well ID: MW06-18
UTM Coordinates: 7395068 N 572782 E
Sample #: MW06-18
Duplicate #:
Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good, bentonite repair completed August 29
Lock Make/Model/Condition/Replaced: New replaced ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.3
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.35
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☑ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 0.915 to toc
Depth to Water (From Top of Pipe) (m): 0.925 mb top of casing
Calculated Static Water Level (mbgs): 0.01
Well Refusal Depth (m): 3.16 (Measure Refusal After Sampling)
Thickness of Water Column (m): 3.14
Water Volume (L): 6.4 (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☑ Y ☐ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details: Calibrated before sampling
Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 0.75 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
9:50	100/1:45		9.08	0.533	343	10.78
9:54			8.98	0.539	350	9.84
9:57			8.98	0.546	347	9.25
10:00			9.06	0.553	342	8.79
10:03			9.12	0.556	334	8.4
Final:						

Clear? ☐ Y ☑ N
Colour: brown/yellow
PHC Sheen? ☐ Y ☑ N
PHC Odour? ☐ Y ☑ N
Free Product/PHC Globules? ☐ Y ☑ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☑ N
Type of Decontamination Fluid(s): Alconox + water + new tubing
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: USNHWL_GW_001 to USNHWL_GW_004, USNHWL_GW_014
Close Up/Wide Angle/Panoramic:
Direction: SW
Scale Indicated? ☑ Y ☐ N
Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Upper Site Non Hazardous Waste Landfill
Date: 30-Aug-23
Time: 15:45
Weather (°C, Wind, Precipitation, Clouds): 1 degrees Celsius, cloud
Monitoring Well ID: MW06-19
UTM Coordinates: 7395143 N 572115 E
Sample #: MW06-19
Duplicate #:
Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good, bentonite repair completed August 29
Lock Make/Model/Condition/Replaced: New replaced ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.4
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.4
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☑ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 0.88 to toc
Depth to Water (From Top of Pipe) (m): 1.54 mbtop
Calculated Static Water Level (mbgs): 0.66
Well Refusal Depth (m): 2.14 (Measure Refusal After Sampling)
Thickness of Water Column (m): 1.48
Water Volume (L): 3 (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☑ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details: see sheet
Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 0.6 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
15:10	100/2:00		7.33	0.06	43.7	3.34
15:13			7.22	0.06	41.9	3.4
15:16			7.19	0.06	31.9	3.25
15:19			7.16	0.06	22.3	3.17
15:22			7.13	0.06	29.8	3.1
Final:						

Clear? ☑ Y ☐ N
Colour:
PHC Sheen? ☐ Y ☑ N
PHC Odour? ☐ Y ☑ N
Free Product/PHC Globules? ☐ Y ☑ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☑ N
Type of Decontamination Fluid(s): Alconox + water + new tubing
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: USNHWL_GW_011 to USNHWL_GW_013, USNHWL_GW_0015, USNHWL_GW_016
Close Up/Wide Angle/Panoramic:
Direction: NW
Scale Indicated? ☑ Y ☐ N
Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Upper Site Non Hazardous Waste Landfill
Date: 30-Aug-23
Time: 14:10
Weather (°C, Wind, Precipitation, Clouds): 1 degrees Celsius, partly cloudy
Monitoring Well ID: MW06-20
UTM Coordinates: 7395204 N 572222 E
Sample #: MW06-20
Duplicate #: MW23-01 Field blank
Bottles Filled (by Parameter Type): ☐ PHC F1 ☐ Metals ☐ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☐ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good, bentonite repair completed August 29
Lock Make/Model/Condition/Replaced: New replaced ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.4
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.4
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☑ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 1.22
Depth to Water (From Top of Pipe) (m): 1.56
Calculated Static Water Level (mbgs): 0.134
Well Refusal Depth (m): 2.4 (Measure Refusal After Sampling)
Thickness of Water Column (m): 2.06
Water Volume (L): 4.2 (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☑ Y ☐ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details: see sheet
Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 0.55 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
13:55	100/1:40		7.66	0.044	304	6.14
13:58			7.64	0.043	299	5.89
14:01			7.41	0.041	281	5.74
14:04			7.26	0.037	280	5.64
Final:						

Clear? ☑ Y ☐ N
Colour: clear
PHC Sheen? ☐ Y ☑ N
PHC Odour? ☐ Y ☑ N
Free Product/PHC Globules? ☐ Y ☑ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☑ N
Type of Decontamination Fluid(s): Alconox + water + new tubing
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: USNHWL_GW_008, USNHWL_GW_009, USNHWL_GW_010
Close Up/Wide Angle/Panoramic:
Direction: W
Scale Indicated? ☑ Y ☐ N
Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Upper Site Non Hazardous Waste Landfill
Date: 30-Aug-23
Time: 11:30
Weather (°C, Wind, Precipitation, Clouds): 1 degrees Celsius, sunny
Monitoring Well ID: MW07-21
UTM Coordinates: 7395179 N 572301 E
Sample #: MW07-21
Duplicate #:
Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good, dent in casing (bentonite repair completed Aug 29)
Lock Make/Model/Condition/Replaced: New replaced ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.5
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.5
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☑ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 0.895
Depth to Water (From Top of Pipe) (m): 1.64
Calculated Static Water Level (mbgs): 0.75
Well Refusal Depth (m): 2.45 (Measure Refusal After Sampling)
Thickness of Water Column (m): 1.7
Water Volume (L): 3.5 (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☑ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details: see sheet
Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 0.75 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
11:30	100/2:00		8.02	0.041	506	2.8
11:33			7.81	0.042	474	4.08
11:36			7.54	0.039	450	4.08
11:39			7.48	0.038	414	3.88
11:42			7.46	0.034	406	3.71
11:45			7.43	0.038	379	3.6
Final:						

Clear? ☑ Y ☐ N
Colour: clear
PHC Sheen? ☐ Y ☑ N
PHC Odour? ☐ Y ☑ N
Free Product/PHC Globules? ☐ Y ☑ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☑ N
Type of Decontamination Fluid(s): Alconox + water + new tubing
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: USNHWL_GW_005, USNHWL_GW_006, USNHWL_GW_007
Close Up/Wide Angle/Panoramic:
Direction: W
Scale Indicated? ☑ Y ☐ N
Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M Landfill Name: Upper Site Tier II Disposal Facility

Date: 31-Aug-23 Time:

Weather (°C, Wind, Precipitation, Clouds): 0 degrees Celsius, partly cloudy

Monitoring Well ID: MW07-22 UTM Coordinates: 7694676 N 571165 E

Sample #: NOT SAMPLED Duplicate #:

Bottles Filled (by Parameter Type): ☐ PHC F1 ☐ Metals ☐ PHC F2-F4

Preservatives Used for PHC Fraction(s): ☐ Methanol ☐ Sodium Bisulfate ☐ Other: _____ ☐ None

Name(s) of Sampler(s):

Ponded Water, Snow Depth, etc.:

Well Condition/Repair Requirements: Good

Lock Make/Model/Condition/Replaced: New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 4 Diameter (cm): 4 (Pipe Diameter)

Depth to Top of Screen (mbgs): 1 Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☐ Interface Probe ☐ Water Level Tape ☐ Other

Well Stickup (Ground to Top of Pipe) (m): 0.91 m to top of casing

Depth to Water (From Top of Pipe) (m): 2.91 from top of casing

Calculated Static Water Level (mbgs): 2.00 mbgs

Well Refusal Depth (m): 2.14 m (Measure Refusal After Sampling)

Thickness of Water Column (m): 0.13 (Aug 29) Water Volume (L): 0.27 L (Calculated)

Free Product Thickness (mm): none Sludge/Silt in Well: ☐ Y ☐ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique:

Water Quality Parameter Equipment: Calibration Details:

Maintained Purge Rate at ≤ 100 mL/min: ☐ Y ☐ N Purge Rate: ☐ < Recharge Rate ☐ > Recharge Rate

Total Volume Purged (L): Dry (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
Went dry						
Final:						

Clear? ☐ Y ☐ N Colour:

PHC Sheen? ☐ Y ☐ N PHC Odour? ☐ Y ☐ N

Free Product/PHC Globules? ☐ Y ☐ N Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☐ Y ☐ N Decon Required? ☐ Y ☑ N

Type of Decontamination Fluid(s): # Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: UST2DF_GW_017 to UST2DF_GW_021, UST2DF_GW_027, UST2DF_GW_028, UST2DF_GW_040

Close Up/Wide Angle/Panoramic: Direction:

Scale Indicated? ☐ Y ☐ N Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Upper Site Tier II Disposal Facility
Date: 31-Aug-23
Time: 10:00
Weather (°C, Wind, Precipitation, Clouds): 0 degrees Celsius, partly cloudy
Monitoring Well ID: MW07-23
UTM Coordinates: 7394526 N 571120 E
Sample #: MW07-23
Duplicate #:
Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good
Lock Make/Model/Condition/Replaced: New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.6
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.7
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☑ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 1.02 m to toc
Depth to Water (From Top of Pipe) (m): 1.84 m to toc
Calculated Static Water Level (mbgs): 0.82 mbgs
Well Refusal Depth (m): 0.86 (Measure Refusal After Sampling)
Thickness of Water Column (m): 0.04
Water Volume (L): (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☐ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment:
Calibration Details: calibrated prior to sampling
Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 0.35 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
9:30	100/2:30		7.06	0.072	108	6.19
9:33			6.96	0.068	109	5.89
9:36			6.91	0.066	107	5.79
9:39			6.86	0.066	106	5.66
Final:						

Clear? ☑ Y ☐ N
Colour:
PHC Sheen? ☐ Y ☑ N
PHC Odour? ☐ Y ☑ N
Free Product/PHC Globules? ☐ Y ☑ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☑ N
Type of Decontamination Fluid(s): Alconox + water + new tubing
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: UST2DF_GW_012 to UST2DF_GW_016, UST2DF_GW_029 to UST2DF_GW_031
Close Up/Wide Angle/Panoramic:
Direction:
Scale Indicated? ☑ Y ☐ N
Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Upper Site Tier II Disposal Facility
Date: 31-Aug-23
Time: 11:00
Weather (°C, Wind, Precipitation, Clouds): 0 degrees Celsius, cloudy
Monitoring Well ID: MW08-24
UTM Coordinates: 7394585 N 570123 E
Sample #: MW08-24
Duplicate #:
Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good
Lock Make/Model/Condition/Replaced: New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.4
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.4
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☐ Interface Probe ☐ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 0.93 m to toc
Depth to Water (From Top of Pipe) (m): 1.80 m from toc
Calculated Static Water Level (mbgs): 0.82 mbgs
Well Refusal Depth (m): 1.41 mbgs (Measure Refusal After Sampling)
Thickness of Water Column (m): 0.54
Water Volume (L): 1.1 L (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☑ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details:
Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 0.5 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
10:30	100/1:50		9.04	0.067	64.8	6.16
10:33			9.15	0.066	62	5.83
10:36			9.03	0.065	58	5.48
10:39			9.09	0.065	63.4	5.26
Final:						

Clear? ☑ Y ☐ N
Colour:
PHC Sheen? ☐ Y ☑ N
PHC Odour? ☐ Y ☑ N
Free Product/PHC Globules? ☐ Y ☑ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☑ N
Type of Decontamination Fluid(s): Alconox + water + new tubing
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: UST2DF_GW_007 to UST2DF_GW_011, UST2DF_GW_032 to UST2DF_GW_034
Close Up/Wide Angle/Panoramic:
Direction:
Scale Indicated? ☑ Y ☐ N
Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M Landfill Name: Upper Site Tier II Disposal Facility

Date: 31-Aug-23 Time: 12:00

Weather (°C, Wind, Precipitation, Clouds): 1 degrees Celsius, partly cloudy

Monitoring Well ID: MW08-25 UTM Coordinates: 7394666 N 571010 E

Sample #: NOT SAMPLED Duplicate #:

Bottles Filled (by Parameter Type): ☐ PHC F1 ☐ Metals ☐ PHC F2-F4

Preservatives Used for PHC Fraction(s): ☐ Methanol ☐ Sodium Bisulfate ☐ Other: _____ ☐ None

Name(s) of Sampler(s): Evan Brown

Ponded Water, Snow Depth, etc.: N/A

Well Condition/Repair Requirements: Good

Lock Make/Model/Condition/Replaced: New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.5 Diameter (cm): 4 (Pipe Diameter)

Depth to Top of Screen (mbgs): 0.5 Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☑ Water Level Tape ☐ Other _____

Well Stickup (Ground to Top of Pipe) (m): 0.65 m to toc

Depth to Water (From Top of Pipe) (m): 2.07 m from toc

Calculated Static Water Level (mbgs): 1.42 mgbs

Well Refusal Depth (m): 1.78 (Measure Refusal After Sampling)

Thickness of Water Column (m): 0.36 Water Volume (L): 0.7 (Calculated)

Free Product Thickness (mm): none Sludge/Silt in Well: ☐ Y ☐ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic

Water Quality Parameter Equipment: Calibration Details:

Maintained Purge Rate at ≤ 100 mL/min: ☐ Y ☐ N Purge Rate: ☐ < Recharge Rate ☐ > Recharge Rate

Total Volume Purged (L): 0.4 L + dry (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
went dry						
Final:						

Clear? ☐ Y ☐ N Colour:

PHC Sheen? ☐ Y ☐ N PHC Odour? ☐ Y ☐ N

Free Product/PHC Globules? ☐ Y ☐ N Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☐ Y ☐ N Decon Required? ☐ Y ☑ N

Type of Decontamination Fluid(s): # Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: UST2DF_GW_002 to UST2DF_GW_006, UST2DF_GW_035, UST2DF_GW_038, UST2DF_GW_039

Close Up/Wide Angle/Panoramic: Direction:

Scale Indicated? ☐ Y ☐ N Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M Landfill Name: Upper Site Tier II Disposal Facility

Date: 31-Aug-23 Time:

Weather (°C, Wind, Precipitation, Clouds): 1 degrees Celsius, partly cloudy

Monitoring Well ID: MW12-02 UTM Coordinates: 7394708 N 571096 E

Sample #: NOT SAMPLED Duplicate #:

Bottles Filled (by Parameter Type): ☐ PHC F1 ☐ Metals ☐ PHC F2-F4

Preservatives Used for PHC Fraction(s): ☐ Methanol ☐ Sodium Bisulfate ☐ Other: _____ ☐ None

Name(s) of Sampler(s):

Ponded Water, Snow Depth, etc.:

Well Condition/Repair Requirements: Good

Lock Make/Model/Condition/Replaced: New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 4 Diameter (cm): 4 (Pipe Diameter)

Depth to Top of Screen (mbgs): 0.5 Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☐ Water Level Tape ☐ Other _____

Well Stickup (Ground to Top of Pipe) (m): 0.65 m

Depth to Water (From Top of Pipe) (m): 1.73

Calculated Static Water Level (mbgs): 1.08

Well Refusal Depth (m): 1.2 (Measure Refusal After Sampling)

Thickness of Water Column (m): 0.11 Water Volume (L): 0.22 (Calculated)

Free Product Thickness (mm): none Sludge/Silt in Well: ☐ Y ☐ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique:

Water Quality Parameter Equipment: Calibration Details:

Maintained Purge Rate at ≤ 100 mL/min: ☐ Y ☐ N Purge Rate: ☐ < Recharge Rate ☐ > Recharge Rate

Total Volume Purged (L): dry (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
went dry						
Final:						

Clear? ☐ Y ☐ N Colour:

PHC Sheen? ☐ Y ☐ N PHC Odour? ☐ Y ☐ N

Free Product/PHC Globules? ☐ Y ☐ N Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☐ Y ☐ N Decon Required? ☐ Y ☑ N

Type of Decontamination Fluid(s): # Washes/Rinses:

Photographic Records

Photograph Numbers/IDs: UST2DF_GW_022, to UST2DF_GW_026, UST2DF_GW_036, UST2DF_GW_037, UST2DF_GW_041 to UST2DF_GW_043

Close Up/Wide Angle/Panoramic: Direction:

Scale Indicated? ☐ Y ☐ N Line of Sight:

Complete All Fields

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Lower Site Tier II Disposal Facility 0
Date: September 2, 2023
Time: 15:45
Weather (°C, Wind, Precipitation, Clouds): Cloudy
Monitoring Well ID: MW12-01
UTM Coordinates: 7388363 N 561888 E
Sample #: MW12-01
Duplicate #:
Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good
Lock Make/Model/Condition/Replaced: New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 4
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.5
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☑ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 0.86 m to TOC
Depth to Water (From Top of Pipe) (m): 1.01 m from toc 2nd
Calculated Static Water Level (mbgs): 0.15 mbgs
Well Refusal Depth (m): 3.85 mbgs (Measure Refusal After Sampling)
Thickness of Water Column (m): 3.60 m
Water Volume (L): 7.3 L (Calculated)
Free Product Thickness (mm): None
Sludge/Silt in Well: ☐ Y ☒ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details:
Maintained Purge Rate at ≤ 100 mL/min: ☐ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 0.9 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	Rate$_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
15:18	100/7135		6.38	0.954	66.3	2.18
15:21			6.33	0.954	56.4	2.14
15:24			6.28	0.951	51.5	2.12
15:27			6.26	0.946	52.1	2.07
Final:						

Clear? ☒ Y ☐ N
Colour:
PHC Sheen? ☐ Y ☒ N
PHC Odour? ☐ Y ☒ N
Free Product/PHC Globules? ☐ Y ☒ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☒ Y ☐ N
Decon Required? ☐ Y ☐ N
Type of Decontamination Fluid(s): Alconox water then tubing
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs:
Close Up/Wide Angle/Panoramic:
Direction:
Scale Indicated? ☒ Y ☐ N
Line of Sight:

Complete All Fields

CamScanner

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M Landfill Name:

Date: September 2, 2023 Time: 16:30

Weather (°C, Wind, Precipitation, Clouds): Cloudy

Monitoring Well ID: MW05-13 UTM Coordinates: 7388343 N 561969 E

Sample #: MW05-13 Duplicate #:

Bottles Filled (by Parameter Type): ☑ PHC F1 ☐ Metals ☑ PHC F2-F4

Preservatives Used for PHC Fraction(s): ☐ Methanol ☐ Sodium Bisulfate ☐ Other: _____ ☐ None

Name(s) of Sampler(s): Evan Brown

Ponded Water, Snow Depth, etc.: N/A

Well Condition/Repair Requirements: Good interior ★ Exterior casing Damaged ★

Lock Make/Model/Condition/Replaced: New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.6 Diameter (cm): 4 (Pipe Diameter)

Depth to Top of Screen (mbgs): 0.6 Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☐ Water Level Tape ☐ Other _____

Well Stickup (Ground to Top of Pipe) (m): 0.83 m to TOC

Depth to Water (From Top of Pipe) (m): 1.21 m from TOC

Calculated Static Water Level (mbgs): 0.38 mbgs

Well Refusal Depth (m): 3.52 mbgs (Measure Refusal After Sampling)

Thickness of Water Column (m): 3.14 m Water Volume (L): 6.4L (Calculated)

Free Product Thickness (mm): none Sludge/Silt in Well: ☐ Y ☑ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic

Water Quality Parameter Equipment: Horiba Calibration Details:

Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate

Total Volume Purged (L): 1.8 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	Rate$_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
16:05	100/1:30		7.17	0.649	114	2.39
16:08			7.19	0.644	111	2.41
16:11			7.25	0.647	109	2.36
16:14			7.29	0.645	109	2.33
Final:						

Clear? ☑ Y ☐ N Colour:

PHC Sheen? ☐ Y ☑ N PHC Odour? ☐ Y ☑ N

Free Product/PHC Globules? ☐ Y ☑ N Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N Decon Required? ☐ Y ☐ N

Type of Decontamination Fluid(s): Alconox + water + new tubing # Washes/Rinses:

Photographic Records

Photograph Numbers/IDs:

Close Up/Wide Angle/Panoramic: Direction:

Scale Indicated? ☑ Y ☐ N Line of Sight:

Complete All Fields

CamScanner

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Lower Site Tier II Disposal Facility
Date: September 2 2023
Time: 15:00
Weather (°C, Wind, Precipitation, Clouds): Cloudy
Monitoring Well ID: MW05-15
UTM Coordinates: 7388320 N 561789 E
Sample #: MW05-15
Duplicate #:
Bottles Filled (by Parameter Type): ☒ PHC F1 ☒ Metals ☒ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☒ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good, Bentonite was removed from around interior pipe
Lock Make/Model/Condition/Replaced: New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.6
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.6
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☒ Interface Probe ☒ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 0.98 m to TOC
Depth to Water (From Top of Pipe) (m): 1.45 m from TOC
Calculated Static Water Level (mbgs): 0.47 mbgs
Well Refusal Depth (m): 3.45 mbgs (Measure Refusal After Sampling)
Thickness of Water Column (m): 2.98 m
Water Volume (L): 6.05L (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☒ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details:
Maintained Purge Rate at ≤ 100 mL/min: ☒ Y ☐ N
Purge Rate: ☒ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 1.6 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	Rate$_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
14:25	100/1:30		6.96	0.457	251	3.86
14:28			6.90	0.441	174	3.64
14:31			6.87	0.447	146	3.54
14:34			6.89	0.451	121	3.48
14:37			6.88	0.452	95.5	3.43
Final:						

Clear? ☒ Y ☐ N
Colour:
PHC Sheen? ☐ Y ☒ N
PHC Odour? ☐ Y ☒ N
Free Product/PHC Globules? ☐ Y ☒ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☒ Y ☐ N
Decon Required? ☐ Y ☐ N
Type of Decontamination Fluid(s): Alconox + water + new tubing
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs:
Close ~~Up~~/Wide ~~Angle~~/Panoramic:
Direction:
Scale Indicated? ☒ Y ☐ N
Line of Sight:

Complete All Fields

CamScanner

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Lower Site Tier II Disposal Facility
Date: September 2, 2023
Time: 14:00
Weather (°C, Wind, Precipitation, Clouds): Cloudy
Monitoring Well ID: MW05-16
UTM Coordinates: 7388149 N 561817 E
Sample #: MW05-16
Duplicate #:
Bottles Filled (by Parameter Type): ☑ PHC F1 ☐ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good, Bentonite was removed from around interior pipe
Lock Make/Model/Condition/Replaced: New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.6
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.6
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☒ Interface Probe ☒ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 1.14 m to TOC
Depth to Water (From Top of Pipe) (m): 1.64 m From TOC
Calculated Static Water Level (mbgs): 0.50 mbgs
Well Refusal Depth (m): 3.20 (Measure Refusal After Sampling)
Thickness of Water Column (m): 2.70
Water Volume (L): 4.20L (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☒ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details: Calibrated before starting purging
Maintained Purge Rate at ≤ 100 mL/min: ☒ Y ☐ N
Purge Rate: ☒ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 1.9 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	Rate$_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
13:30	100/1:30		7.31	0.279	175	4.30
13:33			7.05	0.195	123	4.00
13:36			6.95	0.183	101	3.88
13:39			6.99	0.176	90.1	3.97
13:42			6.91	0.172	63.2	3.95
Final:						

Clear? ☒ Y ☐ N
Colour: _____
PHC Sheen? ☐ Y ☒ N
PHC Odour? ☐ Y ☒ N
Free Product/PHC Globules? ☐ Y ☒ N
Other Odour? _____

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☒ Y ☐ N
Decon Required? ☐ Y ☐ N
Type of Decontamination Fluid(s): Alconox + water + new tubing
Washes/Rinses: _____

Photographic Records

Photograph Numbers/IDs: _____
Close Up/Wide Angle/Panoramic: _____
Direction: _____
Scale Indicated? ☒ Y ☐ N
Line of Sight: _____

Complete All Fields

CamScanner

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Upper Site Non-Hazardous Waste 0
Date: August 30, 2023
Time: 9:50
Weather (°C, Wind, Precipitation, Clouds): 1°C, Sunny
Monitoring Well ID: MW06-18
UTM Coordinates: 7395068.3N 572782 E
Sample #: MW06-18
Duplicate #:
Bottles Filled (by Parameter Type): ☐ PHC F1 ☐ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good (Bentonite Repair Completed Aug 29)
Lock Make/Model/Condition/Replaced: New Replaced ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.3
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.35
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☒ Interface Probe ☒ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 0.915 m to top of casing
Depth to Water (From Top of Pipe) (m): 0.925 mb top of casing
Calculated Static Water Level (mbgs): 0.01 mbgs
Well Refusal Depth (m): 3.16 (Measure Refusal After Sampling)
Thickness of Water Column (m): 3.14
Water Volume (L): 6.4L (Calculated)
Free Product Thickness (mm): N/A
Sludge/Silt in Well: ☒ Y ☐ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low Flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details: calibrated before Sampling
Maintained Purge Rate at ≤ 100 mL/min: ☒ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 19 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
9:50	100/145		9.08	0.533	343	10.78
9:54			8.98	0.539	350	9.84
9:57			8.98	0.546	347	9.25
10:00			9.06	0.553	342	8.79
10:03			9.12	0.556	334	8.40
Final:						

Clear? ☐ Y ☒ N
Colour: Brown/Yellow
PHC Sheen? ☐ Y ☒ N
PHC Odour? ☐ Y ☒ N
Free Product/PHC Globules? ☐ Y ☒ N
Other Odour? _____

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☒ Y ☐ N
Decon Required? ☐ Y ☐ N
Type of Decontamination Fluid(s): Alconox + water + new tubing used at each well
Washes/Rinses: _____

Photographic Records

Photograph Numbers/IDs: _____
Close Up/Wide Angle/Panoramic: _____
Direction: SW
Scale Indicated? ☒ Y ☐ N
Line of Sight: _____

Complete All Fields

CamScanner

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Upper Site Non-Hazardous Waste 0
Date: August 30, 2023
Time: 15:45
Weather (°C, Wind, Precipitation, Clouds): 1 C Cloudy
Monitoring Well ID: MW06-19
UTM Coordinates: 7395143 N 572113 E
Sample #: MW06-19
Duplicate #:
Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good (Bentonite Repair completed Aug 29)
Lock Make/Model/Condition/Replaced: New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.4
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.4
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☑ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 0.88 m to top of casing
Depth to Water (From Top of Pipe) (m): 1.54 mbtop
Calculated Static Water Level (mbgs): 0.66 mbgs
Well Refusal Depth (m): 2.14 (Measure Refusal After Sampling)
Thickness of Water Column (m): 1.48
Water Volume (L): 3.0 (Calculated)
Free Product Thickness (mm): N/A
Sludge/Silt in Well: ☐ Y ☑ N (Describe) clear

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details: (see sheet)
Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 1.6 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	Rate$_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
15:10	100/2:05		7.33	0.060	43.7	3.34
15:13			7.22	0.060	41.9	3.46
15:16			7.19	0.060	31.9	3.25
15:19			7.16	0.060	32.3	3.17
15:22			7.13	0.060	29.8	3.10
Final:						

Clear? ☑ Y ☐ N
Colour:
PHC Sheen? ☐ Y ☑ N
PHC Odour? ☐ Y ☑ N
Free Product/PHC Globules? ☐ Y ☑ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☐ N
Type of Decontamination Fluid(s): Alconox + water + new tubing used at each well
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs:
Close Up/Wide Angle/Panoramic: ✓
Direction: NW
Scale Indicated? ☑ Y ☐ N
Line of Sight:

Complete All Fields

CamScanner

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M Landfill Name: Upper Site Non-Hazardous Waste 0

Date: August 30, 2023 Time: 14:10

Weather (°C, Wind, Precipitation, Clouds): 1°C Partly Cloudy

Monitoring Well ID: MW06-20 UTM Coordinates: 7395204 N 572222 E

Sample #: MW06-20 Duplicate #: MW23-01 Field Blank

Bottles Filled (by Parameter Type): ☐ PHC F1 ☐ Metals ☐ PHC F2-F4

Preservatives Used for PHC Fraction(s): ☐ Methanol ☐ Sodium Bisulfate ☐ Other: _____ ☐ None

Name(s) of Sampler(s): Emma Brown

Ponded Water, Snow Depth, etc.: N/A

Well Condition/Repair Requirements: Good (Bentonite Repair Completed Aug 29)

Lock Make/Model/Condition/Replaced: New ABUS

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.4 Diameter (cm): 4 (Pipe Diameter)

Depth to Top of Screen (mbgs): 0.4 Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☒ Interface Probe ☒ Water Level Tape ☐ Other _____

Well Stickup (Ground to Top of Pipe) (m): 1.22

Depth to Water (From Top of Pipe) (m): 1.56

Calculated Static Water Level (mbgs): 0.434

Well Refusal Depth (m): 2.4 (Measure Refusal After Sampling)

Thickness of Water Column (m): 2.06 Water Volume (L): 4.2L (Calculated)

Free Product Thickness (mm): N/A Sludge/Silt in Well: ☒ Y ☐ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic

Water Quality Parameter Equipment: Horiba Calibration Details: (see sheet)

Maintained Purge Rate at ≤ 100 mL/min: ☐ Y ☐ N Purge Rate: ☒ < Recharge Rate ☐ > Recharge Rate

Total Volume Purged (L): 1.9 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	Rate$_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
13:55	100/1:40		7.66	0.044	304	6.14
13:58			7.64	0.043	299	5.89
14:01			7.41	0.041	281	5.74
14:04			7.26	0.037	230	5.64
Final:						

Clear? ☒ Y ☐ N Colour: Clear

PHC Sheen? ☐ Y ☒ N PHC Odour? ☐ Y ☒ N

Free Product/PHC Globules? ☐ Y ☒ N Other Odour? _____

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☒ Y ☐ N Decon Required? ☐ Y ☐ N

Type of Decontamination Fluid(s): Alkanox + water # Washes/Rinses: _____

+ new tubing used at each well

Photographic Records

Photograph Numbers/IDs: _____

Close Up/Wide Angle/Panoramic: _____ Direction: W

Scale Indicated? ☒ Y ☐ N Line of Sight: _____

Complete All Fields

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DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Upper Site Non-Hazardous Waste 0
Date: August 30, 2023
Time: 11:20
Weather (°C, Wind, Precipitation, Clouds): 1 C Sunny
Monitoring Well ID: MW07-21
UTM Coordinates: 7345179 N 572301 E
Sample #: MW07-21
Duplicate #:
Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: NA
Well Condition/Repair Requirements: Good, Dent in casing (Bentonite Repair Completed August)
Lock Make/Model/Condition/Replaced: New Replaced ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.5
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.5
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☒ Interface Probe ☑ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 0.895
Depth to Water (From Top of Pipe) (m): 1.640
Calculated Static Water Level (mbgs): 0.75
Well Refusal Depth (m): 2.45 (Measure Refusal After Sampling)
Thickness of Water Column (m): 1.70
Water Volume (L): 3.5L (Calculated)
Free Product Thickness (mm): N/A
Sludge/Silt in Well: ☐ Y ☒ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details: (see sheet)
Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 1.5 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	Rate$_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
11:30	100/2:00		8.02	0.041	506	5.80
11:33			7.81	0.042	479	4.08
11:36			7.54	0.039	450	4.08
11:39			7.48	0.038	414	3.89
11:42			7.46	0.039	405	3.71
11:45			7.43	0.038	379	3.60
Final:						

Clear? ☑ Y ☐ N
Colour: Clear
PHC Sheen? ☐ Y ☒ N
PHC Odour? ☐ Y ☒ N
Free Product/PHC Globules? ☐ Y ☒ N
Other Odour? _____

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☐ N
Type of Decontamination Fluid(s): Alconox + water + new tubing used at each well
Washes/Rinses: _____

Photographic Records

Photograph Numbers/IDs: _____
Close Up/Wide Angle/Panoramic: _____
Direction: W
Scale Indicated? ☑ Y ☐ N
Line of Sight: _____

Complete All Fields

CamScanner

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Upper Site Tier II Disposal Facility 0
Date: August 31, 2023
Time:
Weather (°C, Wind, Precipitation, Clouds): 0°C, partly cloudy
Monitoring Well ID: MW07-22
UTM Coordinates: 7344676 N571165 E
Sample #: NOT SAMPLED
Duplicate #:
Bottles Filled (by Parameter Type): ☐ PHC F1 ☐ Metals ☐ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☐ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s):
Ponded Water, Snow Depth, etc.:
Well Condition/Repair Requirements:
Lock Make/Model/Condition/Replaced:

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 4
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 1
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☐ Interface Probe ☐ Water Level Tape ☐ Other
Well Stickup (Ground to Top of Pipe) (m): 0.91 m to top of casing
Depth to Water (From Top of Pipe) (m): 2.91 from top of casing
Calculated Static Water Level (mbgs): 2.00 mbgs
Well Refusal Depth (m): 3.94 m (Measure Refusal After Sampling)
Thickness of Water Column (m): 0.13 (Aug 29)
Water Volume (L): 0.27L (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☐ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique:
Water Quality Parameter Equipment:
Calibration Details:
Maintained Purge Rate at ≤ 100 mL/min: ☐ Y ☐ N
Purge Rate: ☐ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): Dry (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
went dry						
Final:						

Clear? ☐ Y ☐ N
Colour:
PHC Sheen? ☐ Y ☐ N
PHC Odour? ☐ Y ☐ N
Free Product/PHC Globules? ☐ Y ☐ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☐ Y ☐ N
Decon Required? ☐ Y ☐ N
Type of Decontamination Fluid(s):
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs:
Close Up/Wide Angle/Panoramic:
Direction:
Scale Indicated? ☐ Y ☐ N
Line of Sight:

Complete All Fields

CamScanner

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M Landfill Name: Upper Site Tier II Disposal Facility 0

Date: August 31, 2023 Time: 10:00

Weather (°C, Wind, Precipitation, Clouds): 0°C, Partly Cloudy

Monitoring Well ID: MW07-23 UTM Coordinates: 7394523 N 571120 E

Sample #: MW07-23 Duplicate #:

Bottles Filled (by Parameter Type): ☑ PHC F1 ☑ Metals ☑ PHC F2-F4

Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None

Name(s) of Sampler(s): Evan Brown

Ponded Water, Snow Depth, etc.: N/A

Well Condition/Repair Requirements: Good

Lock Make/Model/Condition/Replaced: New ABUS 10/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.6 Diameter (cm): 4 (Pipe Diameter)

Depth to Top of Screen (mbgs): 0.7 Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☒ Interface Probe ☒ Water Level Tape ☐ Other _____

Well Stickup (Ground to Top of Pipe) (m): 1.02 m to TOC

Depth to Water (From Top of Pipe) (m): 1.84 m from TOC

Calculated Static Water Level (mbgs): 0.82 mbgs

Well Refusal Depth (m): 0.86 (Measure Refusal After Sampling)

Thickness of Water Column (m): 0.04 Water Volume (L): _____ (Calculated)

Free Product Thickness (mm): none Sludge/Silt in Well: ☐ Y ☐ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow Peristaltic

Water Quality Parameter Equipment: _____ Calibration Details: calibrated prior to sampling

Maintained Purge Rate at ≤ 100 mL/min: ☒ Y ☐ N Purge Rate: ☒ < Recharge Rate ☐ > Recharge Rate

Total Volume Purged (L): 1.1 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	Rate$_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
9:30	100/2:30		7.06	0.072	108	6.19
9:33			6.96	0.068	109	5.89
9:36			6.91	0.066	107	5.79
9:39			6.86	0.066	106	5.66
Final:						

Clear? ☒ Y ☐ N Colour: _____

PHC Sheen? ☐ Y ☒ N PHC Odour? ☐ Y ☒ N

Free Product/PHC Globules? ☐ Y ☒ N Other Odour? _____

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☒ Y ☐ N Decon Required? ☐ Y ☐ N

Type of Decontamination Fluid(s): Alconox + water + new tubing # Washes/Rinses: _____

Photographic Records

Photograph Numbers/IDs: _____

Close Up/Wide Angle/Panoramic: _____ Direction: _____

Scale Indicated? ☒ Y ☐ N Line of Sight: _____

Complete All Fields

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DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Upper Site Tier II Disposal Facility 0
Date: August 31, 2023
Time: 11:00
Weather (°C, Wind, Precipitation, Clouds): 0°C, Cloudy
Monitoring Well ID: MW08-24
UTM Coordinates: 7394585 N 570123 E
Sample #: MW08-24
Duplicate #:
Bottles Filled (by Parameter Type): ☐ PHC F1 ☐ Metals ☑ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☑ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good
Lock Make/Model/Condition/Replaced: New ABUS 70/45

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.4
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.4
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☐ Interface Probe ☐ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 0.93 m to TOC
Depth to Water (From Top of Pipe) (m): 1.80 m from TOC
Calculated Static Water Level (mbgs): 0.87 mbgs
Well Refusal Depth (m): 1.41 mbgs (Measure Refusal After Sampling)
Thickness of Water Column (m): 0.54
Water Volume (L): 1.1L (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☑ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment: Horiba
Calibration Details:
Maintained Purge Rate at ≤ 100 mL/min: ☑ Y ☐ N
Purge Rate: ☑ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 1.8 (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	Rate$_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
10:30	100/1:50		9.04	0.067	64.8	6.16
10:33			9.15	0.066	62.0	5.83
10:36			9.03	0.065	58.0	5.48
10:39			9.09	0.065	63.4	5.26
Final:						

Clear? ☑ Y ☐ N
Colour:
PHC Sheen? ☐ Y ☑ N
PHC Odour? ☐ Y ☑ N
Free Product/PHC Globules? ☐ Y ☑ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☑ Y ☐ N
Decon Required? ☐ Y ☐ N
Type of Decontamination Fluid(s): Alconox + water + new tubing
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs:
Close Up/Wide Angle/Panoramic:
Direction:
Scale Indicated? ☑ Y ☐ N
Line of Sight:

Complete All Fields

CamScanner

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M
Landfill Name: Upper Site Tier II Disposal Facility 0
Date: August 31, 2023
Time: 12:00
Weather (°C, Wind, Precipitation, Clouds): 1°C Partly Cloudy
Monitoring Well ID: MW08-25
UTM Coordinates: 7394666 N 571010 E
Sample #: ~~MW08-25~~ NOT SAMPLED
Duplicate #:
Bottles Filled (by Parameter Type): ☐ PHC F1 ☐ Metals ☐ PHC F2-F4
Preservatives Used for PHC Fraction(s): ☐ Methanol ☐ Sodium Bisulfate ☐ Other: _____ ☐ None
Name(s) of Sampler(s): Evan Brown
Ponded Water, Snow Depth, etc.: N/A
Well Condition/Repair Requirements: Good
Lock Make/Model/Condition/Replaced: New ABUS

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 3.5
Diameter (cm): 4 (Pipe Diameter)
Depth to Top of Screen (mbgs): 0.5
Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☒ Interface Probe ☒ Water Level Tape ☐ Other _____
Well Stickup (Ground to Top of Pipe) (m): 0.65 m to top of casing
Depth to Water (From Top of Pipe) (m): 2.07 m from top of casing
Calculated Static Water Level (mbgs): 1.42 mbgs
Well Refusal Depth (m): 1.78 m (Measure Refusal After Sampling)
Thickness of Water Column (m): 0.36 (Aug 29)
Water Volume (L): 0.7 (Calculated)
Free Product Thickness (mm): none
Sludge/Silt in Well: ☐ Y ☐ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique: Low flow peristaltic
Water Quality Parameter Equipment:
Calibration Details:
Maintained Purge Rate at ≤ 100 mL/min: ☐ Y ☐ N
Purge Rate: ☐ < Recharge Rate ☐ > Recharge Rate
Total Volume Purged (L): 0.4L + Dry (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	Rate$_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
went dry						
Final:						

Clear? ☐ Y ☐ N
Colour:
PHC Sheen? ☐ Y ☐ N
PHC Odour? ☐ Y ☐ N
Free Product/PHC Globules? ☐ Y ☐ N
Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☐ Y ☐ N
Decon Required? ☐ Y ☐ N
Type of Decontamination Fluid(s):
Washes/Rinses:

Photographic Records

Photograph Numbers/IDs:
Close Up/Wide Angle/Panoramic:
Direction:
Scale Indicated? ☐ Y ☐ N
Line of Sight:

Complete All Fields

CamScanner

DEW LINE LONG TERM LANDFILL MONITORING
MONITORING WELL LOG

Site Name (e.g. BAR-1 Komakuk Beach): DYE-M Landfill Name: Upper Site Tier II Disposal Facility 0

Date: August 31, 2023 Time:

Weather (°C, Wind, Precipitation, Clouds):

Monitoring Well ID: MW12-02 UTM Coordinates: 7394707 N 571096 E

Sample #: Not SAMPLED Duplicate #:

Bottles Filled (by Parameter Type): ☐ PHC F1 ☐ Metals ☐ PHC F2-F4

Preservatives Used for PHC Fraction(s): ☐ Methanol ☐ Sodium Bisulfate ☐ Other: _____ ☐ None

Name(s) of Sampler(s):

Ponded Water, Snow Depth, etc.:

Well Condition/Repair Requirements:

Lock Make/Model/Condition/Replaced:

Pre-Measured Data (From Well Log)

Depth of Well (mbgs): 4 Diameter (cm): 4 (Pipe Diameter)

Depth to Top of Screen (mbgs): 0.5 Screen Length (m): 2

Field Measurements and Observations

Measurement Method: ☑ Interface Probe ☐ Water Level Tape ☐ Other

Well Stickup (Ground to Top of Pipe) (m): 0.65m

Depth to Water (From Top of Pipe) (m): 1.73

Calculated Static Water Level (mbgs): 1.08

Well Refusal Depth (m): 1.20 (Measure Refusal After Sampling)

Thickness of Water Column (m): 0.11 Water Volume (L): 0.22 (Calculated)

Free Product Thickness (mm): none Sludge/Silt in Well: ☐ Y ☐ N (Describe)

Purging Information Summary

Purging/Sampling Equipment/Technique:

Water Quality Parameter Equipment: Calibration Details:

Maintained Purge Rate at ≤ 100 mL/min: ☐ Y ☐ N Purge Rate: ☐ < Recharge Rate ☐ > Recharge Rate

Total Volume Purged (L): Dry (Total Volume Over Multiple Events, if Applicable)

Time (24HR)	$Rate_{purge}$ (mL/min)	Purge Volume (L)	pH	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)
went dry						
Final:						

Clear? ☐ Y ☐ N Colour:

PHC Sheen? ☐ Y ☐ N PHC Odour? ☐ Y ☐ N

Free Product/PHC Globules? ☐ Y ☐ N Other Odour?

Decontamination of Sampling Equipment

All Equipment Dedicated/Single Use? ☐ Y ☐ N Decon Required? ☐ Y ☐ N

Type of Decontamination Fluid(s): # Washes/Rinses:

Photographic Records

Photograph Numbers/IDs:

Close Up/Wide Angle/Panoramic: Direction:

Scale Indicated? ☐ Y ☐ N Line of Sight:

Complete All Fields

CamScanner

APPENDIX F.4

Soil Thermal Property Logs

DEW LINE LONG TERM MONITORING
SOIL THERMAL PROPERTIES MONITORING LOG

Site Name (e.g. FOX-M Hall Beach): DYE - M Page of

Landfill Name (e.g. Tier II Disposal Facility): Lower Tier II

Weather (°C, Wind Speed, Precipitation, Cloud Cover): 7°C, 5 Km/hr, no precip, partly cloudy

Name of Sampling Staff (Print and Sign): Tyler Chaplo

Sampling Equipment: METER TEMPOS Thermal Properties Analyser

Soil Sample Location: DM-TS-02 Sensor: SH3 Reading Mode: Diffusivity / Heat Capacity Northing: 7388208.187

Date Aug 31/23 Power Mode: high Easting: 561765.276

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetric Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm^2/s	C: $MJ/m^3·K$	ρ: C·cm/W
DM-TS-02-S	0.15	12:51	4.15	2.08	0.897	2.319	/
		12:57	4.21	2.094	0.9	2.327	/
		13:01	4.19	2.003	0.9	2.227	/
DM-TS-02-D	0.55	13:13	2.81	1.902	0.87	2.187	/
		13:26	2.88	1.858	0.83	2.238	/
		13:32	3.03	1.908	0.851	2.234	/

ele, 332.414

Soil Sample Location: DM-TS-01 Sensor: TR3 ↳ Rocky Reading Mode: Soil Northing: 7388241.953

Date Aug 31 Power Mode: high Easting: 561671.858

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetric Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm2/s	C: MJ/m3·K	ρ: C·cm/W
DM-TS-01-S	0.22	14:30	3.98	1.588	/	/	63
		14:34	4.08	1.655	/	/	60.4
		14:38	4.15	1.811	/	/	55.2
DM-TS-01-D	0.55	14:57	3.35	1.724	/	/	57.4
		15:01	3.39	2.041	/	/	49
		15:04	3.43	1.935	/	/	51.7
		15:07	3.41	1.948	/	/	51.3

ele 329.38

Table I: Sensor/Mode Guide for DEW Line

Condition for Use	Equipment Settings		Readings
	Sensor	Reading Mode	
Default / Preferred Setting	SH-3	Diffusivity/Heat Capacity	Temperature, Thermal Conductivity, Diffusivity, Volumetric Heat Capacity
If SH-3 Cannot Be Used (e.g. Hard Or Coarse Soils)	TR-3	Soil	Temperature, Thermal Conductivity, Resistivity
Frozen Soil	TR-3	Conductivity/Resistivity in Power Mode: Low Power	Temperature, Thermal Conductivity, Resistivity

Notes:

1. Collect samples and readings from two depths at each location: shallow samples from 0.1-0.3 m below ground surface (mbgs) and deep samples from 0.50 mbgs within cover material or 1.0 mbgs within native ground. Refer to SOW Section 5.9 for details.
2. Collect readings in triplicate. Repeat until 3 readings give similar values. Leave sample probe in same place for each set of readings.
3. At one soil thermal property monitoring location per site, collect readings with both the SH-3 and TR-3 sensors.
4. Take photographs of all monitoring locations.

DEW LINE LONG TERM MONITORING
SOIL THERMAL PROPERTIES MONITORING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M Page of

Landfill Name (e.g. Tier II Disposal Facility): Lower Tier II

Weather (°C, Wind Speed, Precipitation, Cloud Cover): 7°C, Partly cloudy, wind 5 km/hr, no precip.

Name of Sampling Staff (Print and Sign): Tyler Chaplin

Sampling Equipment: METER TEMPOS Thermal Properties Analyser

Soil Sample Location: DM-TS-04 Sensor: TR3 Reading Mode: Soil Northing: 7388274.072

Date Aug 31/23 ↳ cobbles Power Mode: high Easting: 561916.696

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetric Heat Capacity	Resistivity	ele.
		Units	°C	K: W/m·K	D: mm^2/s	C: $MJ/m^3·K$	ρ: C·cm/W	
DM-TS-04-S	0.22	10:56	3.34	1.861	/	/	53.7	339.14
		11:01	3.43	1.798	/	/	55.6	
		11:09	3.50	1.887	/	/	53	
DM-TS-04-D	0.42	11:24	3.50	2.504	/	/	39.9	
		11:30	3.55	2.465	/	/	40.6	
		11:35	3.57	2.377	/	/	42.1	

Redissel

Soil Sample Location: DM-TS-03 Sensor: TR3 Reading Mode: Soil Northing: 7388240.796

Date Aug 31/23 ↳ cobbles Power Mode: high Easting: 561845.308

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetric Heat Capacity	Resistivity	ele,
		Units	°C	K: W/m·K	D: mm2/s	C: MJ/m3·K	ρ: C·cm/W	
DM-TS-03-S	0.19	11:53	4.18	2.01	/	/	49.7	338.98
		11:58	4.27	2.019	/	/	49.5	
		12:02	4.33	2.034	/	/	49.2	
DM-TS-03-D	0.41	12:17	3.75	2.081	/	/	48.1	
		12:21	3.80	2.311	/	/	43.3	
		12:29	3.82	1.714	/	/	58.3	
		12:33	3.86	2.294	/	/	43.6	

Redissel

Table I: Sensor/Mode Guide for DEW Line

Condition for Use	Equipment Settings		Readings
	Sensor	Reading Mode	
Default / Preferred Setting	SH-3	Diffusivity/Heat Capacity	Temperature, Thermal Conductivity, Diffusivity, Volumetric Heat Capacity
If SH-3 Cannot Be Used (e.g. Hard Or Coarse Soils)	TR-3	Soil	Temperature, Thermal Conductivity, Resistivity
Frozen Soil	TR-3	Conductivity/Resistivity in Power Mode: Low Power	Temperature, Thermal Conductivity, Resistivity

Notes:

1. Collect samples and readings from two depths at each location: shallow samples from 0.1-0.3 m below ground surface (mbgs) and deep samples from 0.50 mbgs within cover material or 1.0 mbgs within native ground. Refer to SOW Section 5.9 for details.
2. Collect readings in triplicate. Repeat until 3 readings give similar values. Leave sample probe in same place for each set of readings.
3. At one soil thermal property monitoring location per site, collect readings with both the SH-3 and TR-3 sensors.
4. Take photographs of all monitoring locations.

DEW LINE LONG TERM MONITORING
SOIL THERMAL PROPERTIES MONITORING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M Page of

Landfill Name (e.g. Tier II Disposal Facility): Lower Tier II

Weather (°C, Wind Speed, Precipitation, Cloud Cover): 6°C, Partly cloudy, wind 5 km/hr, no precipitation

Name of Sampling Staff (Print and Sign): Tyler Chapko

Sampling Equipment: METER TEMPOS Thermal Properties Analyser

Soil Sample Location: DM-TS-05 Sensor: SH3 Reading Mode: Diffusivity / heat capacity Northing: 7388341.587

Date Aug 31/23 Power Mode: high Easting: 562018.108

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm^2/s	C: $MJ/m^3·K$	ρ: C·cm/W
DM-TS-05-S	0.23	9:53	2.85	1.977	0.833	2.375	/
		10:00	2.96	2.013	0.842	2.392	/
		10:05	2.93	2.018	0.842	2.398	/

ele. 331.46

Soil Sample Location: DM-TS-05 Sensor: TR3 Reading Mode: Soil Northing: Same as above

Date Aug 31/23 Power Mode: high Easting:

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm2/s	C: MJ/m3·K	ρ: C·cm/W
DM-TS-05-D	0.53	10:21	2.83	1.750	/	/	57.1
		10:26	2.89	1.800	/	/	55.6
		10:30	2.94	1.831	/	/	54.6

Refusal

Table I: Sensor/Mode Guide for DEW Line

Condition for Use	Equipment Settings		Readings
	Sensor	Reading Mode	
Default / Preferred Setting	SH-3	Diffusivity/Heat Capacity	Temperature, Thermal Conductivity, Diffusivity, Volumetric Heat Capacity
If SH-3 Cannot Be Used (e.g. Hard Or Coarse Soils)	TR-3	Soil	Temperature, Thermal Conductivity, Resistivity
Frozen Soil	TR-3	Conductivity/Resistivity in Power Mode: Low Power	Temperature, Thermal Conductivity, Resistivity

Notes:

1. Collect samples and readings from two depths at each location: shallow samples from 0.1-0.3 m below ground surface (mbgs) and deep samples from 0.50 mbgs within cover material or 1.0 mbgs within native ground. Refer to SOW Section 5.9 for details.
2. Collect readings in triplicate. Repeat until 3 readings give similar values. Leave sample probe in same place for each set of readings.
3. At one soil thermal property monitoring location per site, collect readings with both the SH-3 and TR-3 sensors.
4. Take photographs of all monitoring locations.

DEW LINE LONG TERM MONITORING
SOIL THERMAL PROPERTIES MONITORING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M Page of

Landfill Name (e.g. Tier II Disposal Facility): Powerhouse

Weather (°C, Wind Speed, Precipitation, Cloud Cover): 2°C, wind 50km/hr, light Snow, Cloudy

Name of Sampling Staff (Print and Sign): Tyler Chapko

Sampling Equipment: METER TEMPOS Thermal Properties Analyser

Soil Sample Location: DM-TS-06 Sensor: TR3 Reading Mode: Soil Northing: 7387524.229

Date Sept. 1/23 Power Mode: High Easting: 562776.603

elev. 362.885

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm^2/s	C: $MJ/m^3·K$	ρ: C·cm/W
DM-TS-06-S	0.23	16:43	3.14	1.911	/	/	52.3
		16:46	3.20	1.934	/	/	51.7
		16:50	3.24	1.891	/	/	52.9

Soil Sample Location: Same as above Sensor: Reading Mode: Northing:

Date Power Mode: Easting:

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm2/s	C: MJ/m3·K	ρ: C·cm/W
DM-TS-06-D	0.50	17:01	2.60	2.207	/	/	45.3
		17:05	2.64	2.393	/	/	41.8
		17:09	2.67	2.039	/	/	49

Table I: Sensor/Mode Guide for DEW Line

Condition for Use	Equipment Settings		Readings
	Sensor	Reading Mode	
Default / Preferred Setting	SH-3	Diffusivity/Heat Capacity	Temperature, Thermal Conductivity, Diffusivity, Volumetric Heat Capacity
If SH-3 Cannot Be Used (e.g. Hard Or Coarse Soils)	TR-3	Soil	Temperature, Thermal Conductivity, Resistivity
Frozen Soil	TR-3	Conductivity/Resistivity in Power Mode: Low Power	Temperature, Thermal Conductivity, Resistivity

Notes:

1. Collect samples and readings from two depths at each location: shallow samples from 0.1-0.3 m below ground surface (mbgs) and deep samples from 0.50 mbgs within cover material or 1.0 mbgs within native ground. Refer to SOW Section 5.9 for details.
2. Collect readings in triplicate. Repeat until 3 readings give similar values. Leave sample probe in same place for each set of readings.
3. At one soil thermal property monitoring location per site, collect readings with both the SH-3 and TR-3 sensors.
4. Take photographs of all monitoring locations.

DEW LINE LONG TERM MONITORING
SOIL THERMAL PROPERTIES MONITORING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M Page of

Landfill Name (e.g. Tier II Disposal Facility): Powerhouse

Weather (°C, Wind Speed, Precipitation, Cloud Cover): 2°C, 40 km/hr, no precip, Partly Cloudy

Name of Sampling Staff (Print and Sign): Tyler Chapko

Sampling Equipment: METER TEMPOS Thermal Properties Analyser

Soil Sample Location: DM-TS-07 Sensor: TR3 Reading Mode: Soil Northing: 7387473.642

Date Sept. 1/23 Rocky Power Mode: high Easting: 562759.662

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm^2/s	C: $MJ/m^3·K$	ρ: C·cm/W
DM-TS-07-S	0.23	12:55	2.47	1.073	/	/	93.2
		13:00	2.54	1.154	/	/	86.7
		13:04	2.58	1.16	/	/	86.2
L	7	13:08	2.62	1.141	/	/	87.6

elev. 368.007

Soil Sample Location: DM-TS-07 Sensor: Same as above Reading Mode: Northing:

Date Power Mode: Easting:

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm2/s	C: MJ/m3·K	ρ: C·cm/W
DM-TS-07-D	0.46	13:25	2.95	1.481	/	/	67.5
		13:33	2.97	1.48	/	/	67.6
		13:37	2.99	1.481	/	/	67.5

Table I: Sensor/Mode Guide for DEW Line

Condition for Use	Equipment Settings		Readings
	Sensor	Reading Mode	
Default / Preferred Setting	SH-3	Diffusivity/Heat Capacity	Temperature, Thermal Conductivity, Diffusivity, Volumetric Heat Capacity
If SH-3 Cannot Be Used (e.g. Hard Or Coarse Soils)	TR-3	Soil	Temperature, Thermal Conductivity, Resistivity
Frozen Soil	TR-3	Conductivity/Resistivity in Power Mode: Low Power	Temperature, Thermal Conductivity, Resistivity

Notes:

1. Collect samples and readings from two depths at each location: shallow samples from 0.1-0.3 m below ground surface (mbgs) and deep samples from 0.50 mbgs within cover material or 1.0 mbgs within native ground. Refer to SOW Section 5.9 for details.
2. Collect readings in triplicate. Repeat until 3 readings give similar values. Leave sample probe in same place for each set of readings.
3. At one soil thermal property monitoring location per site, collect readings with both the SH-3 and TR-3 sensors.
4. Take photographs of all monitoring locations.

DEW LINE LONG TERM MONITORING
SOIL THERMAL PROPERTIES MONITORING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M Page of

Landfill Name (e.g. Tier II Disposal Facility): Powerhouse

Weather (°C, Wind Speed, Precipitation, Cloud Cover): 2°C, 40-50 km/hr wind, no precip, Sunny/Partly cloudy

Name of Sampling Staff (Print and Sign): Tyler Chafe

Sampling Equipment: METER TEMPOS Thermal Properties Analyser

Soil Sample Location: DM-TS-08 Sensor: TR3 Reading Mode: Soil Northing: 7387446.634

Date Sept. 1/23 ↳ cobbles Power Mode: high Easting: 562758.951

elev. 369.366

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm^2/s	C: $MJ/m^3·K$	ρ: C·cm/W
DM-TS-08-S	0.23	11:10	2.41	1.261	/	/	79.3
		11:15	2.47	1.497	/	/	66.8
		11:19	2.50	1.485	/	/	67.3
↳	↳	11:23	2.54	1.507	/	/	66.3

Soil Sample Location: Same as above Sensor: Reading Mode: ↑↑ Northing:

Date Power Mode: Easting:

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm2/s	C: MJ/m3·K	ρ: C·cm/W
DM-TS-08-D	0.48	11:49	3.15	1.06	/	/	94.4
		11:54	3.17	1.226	/	/	81.5
		12:00	3.18	1.221	/	/	81.9
↳	↳	12:03	3.18	1.219	/	/	82

Table I: Sensor/Mode Guide for DEW Line

Condition for Use	Equipment Settings		Readings
	Sensor	Reading Mode	
Default / Preferred Setting	SH-3	Diffusivity/Heat Capacity	Temperature, Thermal Conductivity, Diffusivity, Volumetric Heat Capacity
If SH-3 Cannot Be Used (e.g. Hard Or Coarse Soils)	TR-3	Soil	Temperature, Thermal Conductivity, Resistivity
Frozen Soil	TR-3	Conductivity/Resistivity in Power Mode: Low Power	Temperature, Thermal Conductivity, Resistivity

Notes:

1. Collect samples and readings from two depths at each location: shallow samples from 0.1-0.3 m below ground surface (mbgs) and deep samples from 0.50 mbgs within cover material or 1.0 mbgs within native ground. Refer to SOW Section 5.9 for details.
2. Collect readings in triplicate. Repeat until 3 readings give similar values. Leave sample probe in same place for each set of readings.
3. At one soil thermal property monitoring location per site, collect readings with both the SH-3 and TR-3 sensors.
4. Take photographs of all monitoring locations.

DEW LINE LONG TERM MONITORING
SOIL THERMAL PROPERTIES MONITORING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M Page of

Landfill Name (e.g. Tier II Disposal Facility): Lower Powerhouse

Weather (°C, Wind Speed, Precipitation, Cloud Cover): 7°C, 5 km/hr, no precip., Partly cloudy

Name of Sampling Staff (Print and Sign): Tyler Chaplo

Sampling Equipment: METER TEMPOS Thermal Properties Analyser

Soil Sample Location: DM-TS-09 Sensor: TR3 Reading Mode: Soil Northing: 7387598.796

Date Aug 31/23 Power Mode: high Easting: 562764.567

elev. 365.34±

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm^2/s	C: $MJ/m^3·K$	ρ: C·cm/W
DM-TS-09-S	0.23	15:43	4.85	2.222	✓	✓	45
		15:48	4.93	1.978	✓	✓	50.6
		15:52	4.97	1.947	✓	✓	51.4
DM-TS-09-D	0.51	16:11	2.85	2.636	✓	✓	37.9
		16:16	2.91	2.457	✓	✓	40.7
		16:20	2.95	2.51	✓	✓	39.8
		16:24	2.96	2.58	✓	✓	38.8

Refused

Soil Sample Location: _____ Sensor: _____ Reading Mode: _____ Northing: _____

Date _____ Power Mode: _____ Easting: _____

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm2/s	C: MJ/m3·K	ρ: C·cm/W

Table I: Sensor/Mode Guide for DEW Line

Condition for Use	Equipment Settings		Readings
	Sensor	Reading Mode	
Default / Preferred Setting	SH-3	Diffusivity/Heat Capacity	Temperature, Thermal Conductivity, Diffusivity, Volumetric Heat Capacity
If SH-3 Cannot Be Used (e.g. Hard Or Coarse Soils)	TR-3	Soil	Temperature, Thermal Conductivity, Resistivity
Frozen Soil	TR-3	Conductivity/Resistivity in Power Mode: Low Power	Temperature, Thermal Conductivity, Resistivity

Notes:

1. Collect samples and readings from two depths at each location: shallow samples from 0.1-0.3 m below ground surface (mbgs) and deep samples from 0.50 mbgs within cover material or 1.0 mbgs within native ground. Refer to SOW Section 5.9 for details.
2. Collect readings in triplicate. Repeat until 3 readings give similar values. Leave sample probe in same place for each set of readings.
3. At one soil thermal property monitoring location per site, collect readings with both the SH-3 and TR-3 sensors.
4. Take photographs of all monitoring locations.

DEW LINE LONG TERM MONITORING
SOIL THERMAL PROPERTIES MONITORING LOG

Site Name (e.g. FOX-M Hall Beach): Dye-M Page of

Landfill Name (e.g. Tier II Disposal Facility): Upper tier II

Weather (°C, Wind Speed, Precipitation, Cloud Cover): 6°C, windy 40-50 km/hr, clear / rolling fog, no rain

Name of Sampling Staff (Print and Sign): Tyler Chapko

Sampling Equipment: METER TEMPOS Thermal Properties Analyser

Soil Sample Location: DM-TS-10 Sensor: SH3 Reading Mode: diffusivity/heat cap. Northing: 7394705.079

Date Aug 25/23 Power Mode: High Easting: 571110.140 Elev. 644.109

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm²/s	C: MJ/m³·K	ρ: C·cm/W
DM-TS-10-S	0.22	11:00	2.51	1.728	0.53	3.262	/
		11:10	2.57	1.715	0.525	3.267	/
		11:23	2.64	1.712	0.524	3.268	/
refusal DM-TS-10-D	0.71	11:49	1.81	1.529	0.663	2.306	/
		11:58	1.95	1.574	0.674	2.334	/
		12:03	1.96	1.584	0.677	2.338	/

Soil Sample Location: DM-TS-12 Sensor: SH3 Reading Mode: diffusivity / heat capacity Northing: 7394612.979

Date Aug 25/23 Power Mode: High Easting: 571114.602 Elev. 648.120

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm2/s	C: MJ/m3·K	ρ: C·cm/W
DM-TS-12-S	0.19	14:20	4.39	1.666	0.498	3.346	/
		14:30	4.29	1.74	0.494	3.523	/
		14:36	4.29	1.752	0.498	3.517	/
R3 too coarse material DM-TS-12-D	0.46	15:00	2.96	2.054	/	/	48.7
		15:04	3.02	1.98	/	/	50.5
		15:09	3.03	2.028	/	/	49.3

soil / high

Table I: Sensor/Mode Guide for DEW Line

Condition for Use	Equipment Settings		Readings
	Sensor	Reading Mode	
Default / Preferred Setting	SH-3	Diffusivity/Heat Capacity	Temperature, Thermal Conductivity, Diffusivity, Volumetric Heat Capacity
If SH-3 Cannot Be Used (e.g. Hard Or Coarse Soils)	TR-3	Soil	Temperature, Thermal Conductivity, Resistivity
Frozen Soil	TR-3	Conductivity/Resistivity in Power Mode: Low Power	Temperature, Thermal Conductivity, Resistivity

Notes:

1. Collect samples and readings from two depths at each location: shallow samples from 0.1-0.3 m below ground surface (mbgs) and deep samples from 0.50 mbgs within cover material or 1.0 mbgs within native ground. Refer to SOW Section 5.9 for details.
2. Collect readings in triplicate. Repeat until 3 readings give similar values. Leave sample probe in same place for each set of readings.
3. At one soil thermal property monitoring location per site, collect readings with both the SH-3 and TR-3 sensors.
4. Take photographs of all monitoring locations.

DEW LINE LONG TERM MONITORING
SOIL THERMAL PROPERTIES MONITORING LOG

Site Name (e.g. FOX-M Hall Beach): Dye-M Page of

Landfill Name (e.g. Tier II Disposal Facility): Upper Tier II

Weather (°C, Wind Speed, Precipitation, Cloud Cover): 5°C, 10-15 km/hr, light rain, Cloudy

Name of Sampling Staff (Print and Sign): Tyler Chaplin

Sampling Equipment: METER TEMPOS Thermal Properties Analyser

Soil Sample Location: DM-TS-13 Sensor: SH3 Reading Mode: diffusivity/heat capacity Northing: 7394517.396

Date Aug 26/23 Power Mode: high Easting: 571102.851

Elev. 637.46

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm^2/s	C: $MJ/m^3 \cdot K$	ρ: C·cm/W
DM-TS-13-S	0.26	10:08	2.22	1.234	0.435	2.836	/
		10:16	2.20	1.264	0.435	2.9	/
		10:21	2.17	1.255	0.43	2.917	/
DM-TS-13-D	0.51 (Refusal)	11:00	1.70	1.605	0.895	1.794	/
		11:09	1.75	1.599	0.807	1.928	/
		11:13	1.85	1.567	0.752	2.083	/

Soil Sample Location: DM-TS-13 Sensor: TR3 Reading Mode: Soil Northing: Same as above

Date Aug 26/23 Power Mode: high Easting:

Duplicate for ...

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity	
		Units	°C	K: W/m·K	D: mm2/s	C: MJ/m3·K	ρ: C·cm/W	
DM-TS-13-S	0.26	10:13	1.67	1.96	/	/	51	
		10:19	1.74	1.903	/	/	52.6	
		10:25	1.78	1.927	/	/	51.9	
DM-TS-13-S	0.51 (Refusal)	10:58	0.86	1.476	/	/	67.7	→ Invalid
		11:05	0.92	1.665	/	/	60.1	
		11:11	0.97	1.65	/	/	60.6	
		11:16	1.05	1.675	/	/	59.7	→ extra due to first test

Table I: Sensor/Mode Guide for DEW Line

Condition for Use	Equipment Settings		Readings
	Sensor	Reading Mode	
Default / Preferred Setting	SH-3	Diffusivity/Heat Capacity	Temperature, Thermal Conductivity, Diffusivity, Volumetric Heat Capacity
If SH-3 Cannot Be Used (e.g. Hard Or Coarse Soils)	TR-3	Soil	Temperature, Thermal Conductivity, Resistivity
Frozen Soil	TR-3	Conductivity/Resistivity in Power Mode: Low Power	Temperature, Thermal Conductivity, Resistivity

Notes:

1. Collect samples and readings from two depths at each location: shallow samples from 0.1-0.3 m below ground surface (mbgs) and deep samples from 0.50 mbgs within cover material or 1.0 mbgs within native ground. Refer to SOW Section 5.9 for details.
2. Collect readings in triplicate. Repeat until 3 readings give similar values. Leave sample probe in same place for each set of readings.
3. At one soil thermal property monitoring location per site, collect readings with both the SH-3 and TR-3 sensors.
4. Take photographs of all monitoring locations.

DEW LINE LONG TERM MONITORING
SOIL THERMAL PROPERTIES MONITORING LOG

Site Name (e.g. FOX-M Hall Beach): Dye-M Page of

Landfill Name (e.g. Tier II Disposal Facility): upper tier II

Weather (°C, Wind Speed, Precipitation, Cloud Cover): 5°C, 10-15 km/hr, light rain, cloudy

Name of Sampling Staff (Print and Sign): Tyler Chaplin

Sampling Equipment: METER TEMPOS Thermal Properties Analyser

Soil Sample Location: DM-TS-11 Sensor: TR3 (Too coarse) Reading Mode: Soil Northing: 7394 618.630

Date Aug 26/23 Power Mode: High Easting: 571 059.272 Elev. 646.46

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetric Heat Capacity	Resistivity	
		Units	°C	K: W/m·K	D: mm^2/s	C: $MJ/m^3·K$	ρ: C·cm/W	
DM-TS-11-S	0.19	8:55	3.22	0.6042	/	/	166	
		9:01	3.25	0.602	/	/	166	
		9:06	3.29	0.6022	/	/	166	
DM-TS-11-D	0.49	9:27	3.22	1.21	/	/	82.6	→ Invalid
		9:34	3.26	1.394	/	/	71.7	
		9:39	3.29	1.422	/	/	70.3	
		9:43	3.31	1.466	/	/	68.2	extra due to first test

Soil Sample Location: / Sensor: / Reading Mode: / Northing: /

Date / Power Mode: / Easting: /

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetric Heat Capacity	Resistivity	serial
		Units	°C	K: W/m·K	D: mm2/s	C: MJ/m3·K	ρ: C·cm/W	
Verification SH3	/	Standard	22.50	0.382	0.206	1.856	/	03475
	Aug 9/23	WPG	24.5	0.3924	0.201	1.948	/	
	Aug 26/23	Dye-M	18.93	0.3898	0.205	1.906	/	
Verification TR3	/	Standard	21.40	0.289	/	/	/	03455
	Aug 9/23	WPG	23.30	0.2764	/	/	/	"
	Aug 26/23	DYE-M	18.67	0.2665	/	/	/	"

Table I: Sensor/Mode Guide for DEW Line

Condition for Use	Equipment Settings		Readings
	Sensor	Reading Mode	
Default / Preferred Setting	SH-3	Diffusivity/Heat Capacity	Temperature, Thermal Conductivity, Diffusivity, Volumetric Heat Capacity
If SH-3 Cannot Be Used (e.g. Hard Or Coarse Soils)	TR-3	Soil	Temperature, Thermal Conductivity, Resistivity
Frozen Soil	TR-3	Conductivity/Resistivity in Power Mode: Low Power	Temperature, Thermal Conductivity, Resistivity

Notes:

1. Collect samples and readings from two depths at each location: shallow samples from 0.1-0.3 m below ground surface (mbgs) and deep samples from 0.50 mbgs within cover material or 1.0 mbgs within native ground. Refer to SOW Section 5.9 for details.
2. Collect readings in triplicate. Repeat until 3 readings give similar values. Leave sample probe in same place for each set of readings.
3. At one soil thermal property monitoring location per site, collect readings with both the SH-3 and TR-3 sensors.
4. Take photographs of all monitoring locations.

DEW LINE LONG TERM MONITORING
SOIL THERMAL PROPERTIES MONITORING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M

Landfill Name (e.g. Tier II Disposal Facility): Lower Site Tier II Disposal Facility

Weather (°C, Wind Speed, Precipitation, Cloud Cover): 7°C, 5 km/hr wind, no precipitation, partly cloudy

Name of Sampling Staff (Print and Sign): Tyler Chapko

Sampling Equipment: METER TEMPOS Thermal Properties Analyser

Soil Sample Location: DM-TS-01 **Sensor:** TR-3 **Reading Mode:** Soil **Northing:** 7388241.953

Date 31-Aug-23 **Power Mode:** High **Easting:** 561621.858

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm^2/s	C: $MJ/m^3·K$	ρ: C·cm/W
DM-TS-01-S	0.22	14:30	3.98	1.588	~	~	63.0
		14:34	4.08	1.655	~	~	60.4
		14:38	4.15	1.811	~	~	55.2
DM-TS-01-D	0.55	14:57	3.35	1.724	~	~	57.4
		15:01	3.39	2.041	~	~	49.0
		15:04	3.43	1.935	~	~	51.7
		15:07	3.41	1.948	~	~	51.3

Soil Sample Location: DM-TS-02 **Sensor:** SH-3 **Reading Mode:** Diffusivity/Heat Capacity **Northing:** 7388208.187

Date 31-Aug-23 **Power Mode:** High **Easting:** 561765.276

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm2/s	C: MJ/m3·K	ρ: C·cm/W
DM-TS-02-S	0.15	12:51	4.15	2.080	0.897	2.319	~
		12:57	4.21	2.094	0.900	2.327	~
		13:01	4.19	2.003	0.900	2.227	~
DM-TS-02-D	0.55	13:13	2.81	1.902	0.870	2.187	~
		13:26	2.88	1.858	0.830	2.238	~
		13:32	3.03	1.908	0.851	2.234	~

Table I: Sensor/Mode Guide for DEW Line

Condition for Use	Equipment Settings		Readings
	Sensor	Reading Mode	
Default / Preferred Setting	SH-3	Diffusivity/Heat Capacity	Temperature, Thermal Conductivity, Diffusivity, Volumetric Heat Capacity
If SH-3 Cannot Be Used (e.g. Hard Or Coarse Soils)	TR-3	Soil	Temperature, Thermal Conductivity, Resistivity
Frozen Soil	TR-3	Conductivity/Resistivity in Power Mode: Low Power	Temperature, Thermal Conductivity, Resistivity

Notes:

1. Collect samples and readings from two depths at each location: shallow samples from 0.1-0.3 m below ground surface (mbgs) and deep samples from 0.50 mbgs within cover material or 1.0 mbgs within native ground. Refer to SOW Section 5.9 for details.
2. Collect readings in triplicate. Repeat until 3 readings give similar values. Leave sample probe in same place for each set of readings.
3. At one soil thermal property monitoring location per site, collect readings with both the SH-3 and TR-3 sensors.
4. Take photographs of all monitoring locations.

DEW LINE LONG TERM MONITORING
SOIL THERMAL PROPERTIES MONITORING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M

Landfill Name (e.g. Tier II Disposal Facility): Lower Site Tier II Disposal Facility

Weather (°C, Wind Speed, Precipitation, Cloud Cover): 7°C, 5 km/hr wind, no precipitation, partly cloudy

Name of Sampling Staff (Print and Sign): Tyler Chapko

Sampling Equipment: METER TEMPOS Thermal Properties Analyser

Soil Sample
Location: DM-TS-03 **Sensor:** TR-3 **Reading Mode:** Soil **Northing:** 7388240.796

Date 31-Aug-23 **Power Mode:** High **Easting:** 561845.308

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm^2/s	C: $MJ/m^3·K$	ρ: C·cm/W
DM-TS-03-S	0.19	11:53	4.18	2.010	~	~	49.7
		11:58	4.27	2.019	~	~	49.5
		12:02	4.33	2.034	~	~	49.2
DM-TS-03-D	0.41	12:17	3.75	2.081	~	~	48.1
		12:21	3.80	2.311	~	~	43.3
		12:29	3.82	1.714	~	~	58.3
		12:33	3.86	2.294	~	~	43.6

Soil Sample
Location: DM-TS-04 **Sensor:** TR-3 **Reading Mode:** Soil **Northing:** 7388274.072

Date 31-Aug-23 **Power Mode:** High **Easting:** 561916.696

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm2/s	C: MJ/m3·K	ρ: C·cm/W
DM-TS-04-S	0.22	10:56	3.34	1.861	~	~	53.7
		11:01	3.43	1.798	~	~	55.6
		11:09	3.50	1.887	~	~	53.0
DM-TS-04-D	0.42	11:24	3.50	2.504	~	~	39.9
		11:30	3.55	2.465	~	~	40.6
		11:35	3.57	2.377	~	~	42.1

Table I: Sensor/Mode Guide for DEW Line

Condition for Use	Equipment Settings		Readings
	Sensor	Reading Mode	
Default / Preferred Setting	SH-3	Diffusivity/Heat Capacity	Temperature, Thermal Conductivity, Diffusivity, Volumetric Heat Capacity
If SH-3 Cannot Be Used (e.g. Hard Or Coarse Soils)	TR-3	Soil	Temperature, Thermal Conductivity, Resistivity
Frozen Soil	TR-3	Conductivity/Resistivity in Power Mode: Low Power	Temperature, Thermal Conductivity, Resistivity

Notes:
1. Collect samples and readings from two depths at each location: shallow samples from 0.1-0.3 m below ground surface (mbgs) and deep samples from 0.50 mbgs within cover material or 1.0 mbgs within native ground. Refer to SOW Section 5.9 for details.
2. Collect readings in triplicate. Repeat until 3 readings give similar values. Leave sample probe in same place for each set of readings.
3. At one soil thermal property monitoring location per site, collect readings with both the SH-3 and TR-3 sensors.
4. Take photographs of all monitoring locations.

DEW LINE LONG TERM MONITORING
SOIL THERMAL PROPERTIES MONITORING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M

Landfill Name (e.g. Tier II Disposal Facility): Lower Site Tier II Disposal Facility

Weather (°C, Wind Speed, Precipitation, Cloud Cover): 6°C, 5 km/hr wind, no precipitation, partly cloudy

Name of Sampling Staff (Print and Sign): Tyler Chapko

Sampling Equipment: METER TEMPOS Thermal Properties Analyser

Soil Sample Location: DM-TS-05 **Sensor:** SH-3 **Reading Mode:** Diffusivity/Heat Capacity **Northing:** 7388341.587

Date 31-Aug-23 **Power Mode:** High **Easting:** 562018.108

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm^2/s	C: $MJ/m^3·K$	ρ: C·cm/W
DM-TS-05-S	0.23	9:53	2.85	1.977	0.833	2.375	~
		10:00	2.96	2.013	0.842	2.392	~
		10:05	2.93	2.018	0.842	2.398	~

Soil Sample Location: DM-TS-05 **Sensor:** TR-3 **Reading Mode:** Soil **Northing:** 7388341.587

Date 31-Aug-23 **Power Mode:** High **Easting:** 562018.108

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm2/s	C: MJ/m3·K	ρ: C·cm/W
DM-TS-05-D	0.53	10:21	2.83	1.750	~	~	57.1
		10:26	2.89	1.800	~	~	55.6
		10:30	2.94	1.831	~	~	54.6

Table I: Sensor/Mode Guide for DEW Line

Condition for Use	Equipment Settings		Readings
	Sensor	Reading Mode	
Default / Preferred Setting	SH-3	Diffusivity/Heat Capacity	Temperature, Thermal Conductivity, Diffusivity, Volumetric Heat Capacity
If SH-3 Cannot Be Used (e.g. Hard Or Coarse Soils)	TR-3	Soil	Temperature, Thermal Conductivity, Resistivity
Frozen Soil	TR-3	Conductivity/Resistivity in Power Mode: Low Power	Temperature, Thermal Conductivity, Resistivity

Notes:

1. Collect samples and readings from two depths at each location: shallow samples from 0.1-0.3 m below ground surface (mbgs) and deep samples from 0.50 mbgs within cover material or 1.0 mbgs within native ground. Refer to SOW Section 5.9 for details.
2. Collect readings in triplicate. Repeat until 3 readings give similar values. Leave sample probe in same place for each set of readings.
3. At one soil thermal property monitoring location per site, collect readings with both the SH-3 and TR-3 sensors.
4. Take photographs of all monitoring locations.

DEW LINE LONG TERM MONITORING
SOIL THERMAL PROPERTIES MONITORING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M

Landfill Name (e.g. Tier II Disposal Facility): Lower Site Powerhouse Landfill

Weather (°C, Wind Speed, Precipitation, Cloud Cover): 2°C, 50 km/hr wind, light snow, cloudy

Name of Sampling Staff (Print and Sign): Tyler Chapko

Sampling Equipment: METER TEMPOS Thermal Properties Analyser

Soil Sample Location: DM-TS-06 **Sensor:** TR-3 **Reading Mode:** Soil **Northing:** 7387524.229

Date 1-Sep-23 **Power Mode:** High **Easting:** 562776.603

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm^2/s	C: $MJ/m^3·K$	ρ: C·cm/W
DM-TS-06-S	0.23	16:43	3.14	1.911	~	~	52.3
		16:46	3.20	1.934	~	~	51.7
		16:50	3.24	1.891	~	~	52.9
DM-TS-06-D	0.5	17:01	2.60	2.207	~	~	45.3
		17:05	2.64	2.393	~	~	41.8
		17:09	2.67	2.039	~	~	49.0

Soil Sample Location: _____ **Sensor:** _____ **Reading Mode:** _____ **Northing:** _____

Date _____ **Power Mode:** _____ **Easting:** _____

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm2/s	C: MJ/m3·K	ρ: C·cm/W

Table I: Sensor/Mode Guide for DEW Line

Condition for Use	Equipment Settings		Readings
	Sensor	Reading Mode	
Default / Preferred Setting	SH-3	Diffusivity/Heat Capacity	Temperature, Thermal Conductivity, Diffusivity, Volumetric Heat Capacity
If SH-3 Cannot Be Used (e.g. Hard Or Coarse Soils)	TR-3	Soil	Temperature, Thermal Conductivity, Resistivity
Frozen Soil	TR-3	Conductivity/Resistivity in Power Mode: Low Power	Temperature, Thermal Conductivity, Resistivity

Notes:

1. Collect samples and readings from two depths at each location: shallow samples from 0.1-0.3 m below ground surface (mbgs) and deep samples from 0.50 mbgs within cover material or 1.0 mbgs within native ground. Refer to SOW Section 5.9 for details.
2. Collect readings in triplicate. Repeat until 3 readings give similar values. Leave sample probe in same place for each set of readings.
3. At one soil thermal property monitoring location per site, collect readings with both the SH-3 and TR-3 sensors.
4. Take photographs of all monitoring locations.

DEW LINE LONG TERM MONITORING
SOIL THERMAL PROPERTIES MONITORING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M

Landfill Name (e.g. Tier II Disposal Facility): Lower Site Powerhouse Landfill

Weather (°C, Wind Speed, Precipitation, Cloud Cover): 2°C, 40 km/hr wind, no precipitation, partly cloudy

Name of Sampling Staff (Print and Sign): Tyler Chapko

Sampling Equipment: METER TEMPOS Thermal Properties Analyser

Soil Sample Location: DM-TS-07 **Sensor:** TR-3 **Reading Mode:** Soil **Northing:** 7387473.642

Date 31-Aug-23 **Power Mode:** High **Easting:** 562759.662

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm^2/s	C: $MJ/m^3·K$	ρ: C·cm/W
DM-TS-07-S	0.23	12:55	2.47	1.073	~	~	93.2
		13:00	2.54	1.154	~	~	86.7
		13:04	2.58	1.160	~	~	86.2
		13:08	2.62	1.141	~	~	87.6
DM-TS-07-D	0.46	13:25	2.95	1.481	~	~	67.5
		13:33	2.97	1.480	~	~	67.6
		13:37	2.99	1.481	~	~	67.5

Soil Sample Location: _____ **Sensor:** _____ **Reading Mode:** _____ **Northing:** _____

Date _____ **Power Mode:** _____ **Easting:** _____

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm2/s	C: MJ/m3·K	ρ: C·cm/W

Table I: Sensor/Mode Guide for DEW Line

Condition for Use	Equipment Settings		Readings
	Sensor	Reading Mode	
Default / Preferred Setting	SH-3	Diffusivity/Heat Capacity	Temperature, Thermal Conductivity, Diffusivity, Volumetric Heat Capacity
If SH-3 Cannot Be Used (e.g. Hard Or Coarse Soils)	TR-3	Soil	Temperature, Thermal Conductivity, Resistivity
Frozen Soil	TR-3	Conductivity/Resistivity in Power Mode: Low Power	Temperature, Thermal Conductivity, Resistivity

Notes:

1. Collect samples and readings from two depths at each location: shallow samples from 0.1-0.3 m below ground surface (mbgs) and deep samples from 0.50 mbgs within cover material or 1.0 mbgs within native ground. Refer to SOW Section 5.9 for details.
2. Collect readings in triplicate. Repeat until 3 readings give similar values. Leave sample probe in same place for each set of readings.
3. At one soil thermal property monitoring location per site, collect readings with both the SH-3 and TR-3 sensors.
4. Take photographs of all monitoring locations.

DEW LINE LONG TERM MONITORING
SOIL THERMAL PROPERTIES MONITORING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M

Landfill Name (e.g. Tier II Disposal Facility): Lower Site Powerhouse Landfill

Weather (°C, Wind Speed, Precipitation, Cloud Cover): 2-3°C, 40-50 km/hr wind, no precipitation, sunny to partly cloudy

Name of Sampling Staff (Print and Sign): Tyler Chapko

Sampling Equipment: METER TEMPOS Thermal Properties Analyser

Soil Sample Location: DM-TS-08 **Sensor:** TR-3 **Reading Mode:** Soil **Northing:** 7387446.634

Date 1-Sep-23 **Power Mode:** High **Easting:** 562758.951

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm^2/s	C: $MJ/m^3·K$	ρ: C·cm/W
DM-TS-08-S	0.23	11:10	2.41	1.261	~	~	79.3
		11:15	2.47	1.497	~	~	66.8
		11:19	2.50	1.485	~	~	67.3
		11:23	2.54	1.507	~	~	66.3
DM-TS-08-D	0.48	11:49	3.15	1.060	~	~	94.4
		11:54	3.17	1.226	~	~	81.5
		12:00	3.18	1.221	~	~	81.9
		12:03	3.18	1.219	~	~	82.0

Soil Sample Location: _____ **Sensor:** _____ **Reading Mode:** _____ **Northing:** _____

Date _____ **Power Mode:** _____ **Easting:** _____

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm2/s	C: MJ/m3·K	ρ: C·cm/W

Table I: Sensor/Mode Guide for DEW Line

Condition for Use	Equipment Settings		Readings
	Sensor	Reading Mode	
Default / Preferred Setting	SH-3	Diffusivity/Heat Capacity	Temperature, Thermal Conductivity, Diffusivity, Volumetric Heat Capacity
If SH-3 Cannot Be Used (e.g. Hard Or Coarse Soils)	TR-3	Soil	Temperature, Thermal Conductivity, Resistivity
Frozen Soil	TR-3	Conductivity/Resistivity in Power Mode: Low Power	Temperature, Thermal Conductivity, Resistivity

Notes:

1. Collect samples and readings from two depths at each location: shallow samples from 0.1-0.3 m below ground surface (mbgs) and deep samples from 0.50 mbgs within cover material or 1.0 mbgs within native ground. Refer to SOW Section 5.9 for details.
2. Collect readings in triplicate. Repeat until 3 readings give similar values. Leave sample probe in same place for each set of readings.
3. At one soil thermal property monitoring location per site, collect readings with both the SH-3 and TR-3 sensors.
4. Take photographs of all monitoring locations.

DEW LINE LONG TERM MONITORING
SOIL THERMAL PROPERTIES MONITORING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M

Landfill Name (e.g. Tier II Disposal Facility): Lower Site Powerhouse Landfill

Weather (°C, Wind Speed, Precipitation, Cloud Cover): 7°C, 5 km/hr wind, no precipitation, partly cloudy

Name of Sampling Staff (Print and Sign): Tyler Chapko

Sampling Equipment: METER TEMPOS Thermal Properties Analyser

Soil Sample Location: DM-TS-09 **Sensor:** TR-3 **Reading Mode:** Soil **Northing:** 7387398.796

Date 31-Aug-23 **Power Mode:** High **Easting:** 562764.567

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm^2/s	C: $MJ/m^3·K$	ρ: C·cm/W
DM-TS-09-S	0.23	15:43	4.85	2.222	~	~	45.0
		15:48	4.93	1.978	~	~	50.6
		15:52	4.97	1.947	~	~	51.4
DM-TS-09-D	0.51	16:11	2.85	2.636	~	~	37.9
		16:16	2.91	2.457	~	~	40.7
		16:20	2.95	2.510	~	~	39.8
		16:24	2.96	2.580	~	~	38.8

Soil Sample Location: _____ **Sensor:** _____ **Reading Mode:** _____ **Northing:** _____

Date _____ **Power Mode:** _____ **Easting:** _____

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm2/s	C: MJ/m3·K	ρ: C·cm/W

Table I: Sensor/Mode Guide for DEW Line

Condition for Use	Equipment Settings		Readings
	Sensor	Reading Mode	
Default / Preferred Setting	SH-3	Diffusivity/Heat Capacity	Temperature, Thermal Conductivity, Diffusivity, Volumetric Heat Capacity
If SH-3 Cannot Be Used (e.g. Hard Or Coarse Soils)	TR-3	Soil	Temperature, Thermal Conductivity, Resistivity
Frozen Soil	TR-3	Conductivity/Resistivity in Power Mode: Low Power	Temperature, Thermal Conductivity, Resistivity

Notes:

1. Collect samples and readings from two depths at each location: shallow samples from 0.1-0.3 m below ground surface (mbgs) and deep samples from 0.50 mbgs within cover material or 1.0 mbgs within native ground. Refer to SOW Section 5.9 for details.
2. Collect readings in triplicate. Repeat until 3 readings give similar values. Leave sample probe in same place for each set of readings.
3. At one soil thermal property monitoring location per site, collect readings with both the SH-3 and TR-3 sensors.
4. Take photographs of all monitoring locations.

DEW LINE LONG TERM MONITORING
SOIL THERMAL PROPERTIES MONITORING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M

Landfill Name (e.g. Tier II Disposal Facility): Upper Site Tier II Disposal Facility

Weather (°C, Wind Speed, Precipitation, Cloud Cover): 6°C, 40-50 km/hr wind, no precipitation, rolling fog

Name of Sampling Staff (Print and Sign): Tyler Chapko

Sampling Equipment: METER TEMPOS Thermal Properties Analyser

Soil Sample Location: DM-TS-10 **Sensor:** SH-3 **Reading Mode:** Diffusivity/Heat Capacity **Northing:** 7394705.079

Date 25-Aug-23 **Power Mode:** High **Easting:** 571110.140

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm^2/s	C: $MJ/m^3·K$	ρ: C·cm/W
DM-TS-10-S	0.22	11:00	2.51	1.728	0.530	3.262	~
		11:10	2.57	1.715	0.525	3.267	~
		11:23	2.64	1.712	0.524	3.268	~
DM-TS-10-D	0.71	11:49	1.81	1.529	0.663	2.306	~
		11:58	1.95	1.574	0.674	2.334	~
		12:03	1.96	1.584	0.677	2.338	~

Soil Sample Location: DM-TS-12 **Sensor:** SH-3 / TR-3 **Reading Mode:** Diffusivity/Heat Capacity or Soil **Northing:** 7394612.979

Date 25-Aug-23 **Power Mode:** High **Easting:** 571114.602

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm2/s	C: MJ/m3·K	ρ: C·cm/W
DM-TS-12-S (SH-3)	0.19	14:20	4.39	1.666	0.498	3.346	~
		14:30	4.29	1.740	0.494	3.523	~
		14:36	4.29	1.752	0.498	3.517	~
DM-TS-12-D (TR-3)	0.46	15:00	2.96	2.054	~	~	48.7
		15:04	3.02	1.980	~	~	50.5
		15:09	3.03	2.028	~	~	49.3

Table I: Sensor/Mode Guide for DEW Line

Condition for Use	Equipment Settings		Readings
	Sensor	Reading Mode	
Default / Preferred Setting	SH-3	Diffusivity/Heat Capacity	Temperature, Thermal Conductivity, Diffusivity, Volumetric Heat Capacity
If SH-3 Cannot Be Used (e.g. Hard Or Coarse Soils)	TR-3	Soil	Temperature, Thermal Conductivity, Resistivity
Frozen Soil	TR-3	Conductivity/Resistivity in Power Mode: Low Power	Temperature, Thermal Conductivity, Resistivity

Notes:

1. Collect samples and readings from two depths at each location: shallow samples from 0.1-0.3 m below ground surface (mbgs) and deep samples from 0.50 mbgs within cover material or 1.0 mbgs within native ground. Refer to SOW Section 5.9 for details.
2. Collect readings in triplicate. Repeat until 3 readings give similar values. Leave sample probe in same place for each set of readings.
3. At one soil thermal property monitoring location per site, collect readings with both the SH-3 and TR-3 sensors.
4. Take photographs of all monitoring locations.

DEW LINE LONG TERM MONITORING
SOIL THERMAL PROPERTIES MONITORING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M

Landfill Name (e.g. Tier II Disposal Facility): Upper Site Tier II Disposal Facility

Weather (°C, Wind Speed, Precipitation, Cloud Cover): 5°C, 10-15 km/hr wind, light drizzle, cloudy

Name of Sampling Staff (Print and Sign): Tyler Chapko

Sampling Equipment: METER TEMPOS Thermal Properties Analyser

Soil Sample
Location: DM-TS-11 **Sensor:** TR-3 **Reading Mode:** Soil **Northing:** 7394618.630

Date 26-Aug-23 **Power Mode:** High **Easting:** 571059.272

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm^2/s	C: $MJ/m^3·K$	ρ: C·cm/W
DM-TS-11-S	0.19	8:55	3.22	0.604	~	~	166
		9:01	3.25	0.602	~	~	166
		9:06	3.29	0.602	~	~	166
DM-TS-11-D	0.49	9:27	3.22	1.210	~	~	82.6
		9:34	3.26	1.394	~	~	71.7
		9:39	3.29	1.422	~	~	70.3
		9:43	3.31	1.466	~	~	68.2

Soil Sample
Location: Indoors **Sensor:** _____ **Reading Mode:** _____ **Northing:** _____

Date _____ **Power Mode:** _____ **Easting:** _____

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm2/s	C: MJ/m3·K	ρ: C·cm/W
SH-3 Verifications (SN: 03475)	~	Standard	22.5	0.382	0.206	1.856	~
	Aug.9/23	Winnipeg	24.5	0.392	0.201	1.948	~
	Aug.26/23	DYE-M	18.9	0.390	0..205	1.906	~
TR-3 Verifications (SN: 03455)	~	Standard	21.4	0.289	~	~	~
	Aug.9/23	Winnipeg	23.3	0.276	~	~	~
	Aug.26/23	DYE-M	18.7	0.267	~	~	~

Table I: Sensor/Mode Guide for DEW Line

Condition for Use	Equipment Settings		Readings
	Sensor	Reading Mode	
Default / Preferred Setting	SH-3	Diffusivity/Heat Capacity	Temperature, Thermal Conductivity, Diffusivity, Volumetric Heat Capacity
If SH-3 Cannot Be Used (e.g. Hard Or Coarse Soils)	TR-3	Soil	Temperature, Thermal Conductivity, Resistivity
Frozen Soil	TR-3	Conductivity/Resistivity in Power Mode: Low Power	Temperature, Thermal Conductivity, Resistivity

Notes:
1. Collect samples and readings from two depths at each location: shallow samples from 0.1-0.3 m below ground surface (mbgs) and deep samples from 0.50 mbgs within cover material or 1.0 mbgs within native ground. Refer to SOW Section 5.9 for details.
2. Collect readings in triplicate. Repeat until 3 readings give similar values. Leave sample probe in same place for each set of readings.
3. At one soil thermal property monitoring location per site, collect readings with both the SH-3 and TR-3 sensors.
4. Take photographs of all monitoring locations.

DEW LINE LONG TERM MONITORING
SOIL THERMAL PROPERTIES MONITORING LOG

Site Name (e.g. FOX-M Hall Beach): DYE-M

Landfill Name (e.g. Tier II Disposal Facility): Upper Site Tier II Disposal Facility

Weather (°C, Wind Speed, Precipitation, Cloud Cover): 5°C, 10-15 km/hr wind, light drizzle, cloudy

Name of Sampling Staff (Print and Sign): Tyler Chapko

Sampling Equipment: METER TEMPOS Thermal Properties Analyser

Soil Sample Location: DM-TS-13 **Sensor:** SH-3 **Reading Mode:** Diffusivity/Heat Capacity **Northing:** 7394577.396

Date 26-Aug-23 **Power Mode:** High **Easting:** 571102.851

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm^2/s	C: $MJ/m^3·K$	ρ: C·cm/W
DM-TS-13-S	0.26	10:08	2.22	1.234	0.435	2.836	~
		10:16	2.20	1.264	0.435	2.900	~
		10:21	2.17	1.255	0.430	2.917	~
DM-TS-13-D	0.51	11:00	1.70	1.605	0.895	1.794	~
		11:09	1.75	1.599	0.807	1.928	~
		11:13	1.85	1.567	0.752	2.083	~

Soil Sample Location: DM-TS-13 **Sensor:** TR-3 **Reading Mode:** Soil **Northing:** 7394577.396

Date 26-Aug-23 **Power Mode:** High **Easting:** 571102.851

Sample ID (e.g. FM-TS-01)	Depth[1] (m)	Time of Reading	Temperature	Thermal Conductivity	Diffusivity	Volumetic Heat Capacity	Resistivity
		Units	°C	K: W/m·K	D: mm2/s	C: MJ/m3·K	ρ: C·cm/W
DM-TS-13-S	0.26	10:13	1.67	1.960	~	~	51.0
		10:19	1.74	1.903	~	~	52.6
		10:25	1.78	1.927	~	~	51.9
DM-TS-13-D	0.51	10:58	0.86	1.476	~	~	67.7
		11:05	0.92	1.665	~	~	60.1
		11:11	0.97	1.650	~	~	60.6
		11:16	1.05	1.675	~	~	59.7

Table I: Sensor/Mode Guide for DEW Line

Condition for Use	Equipment Settings		Readings
	Sensor	Reading Mode	
Default / Preferred Setting	SH-3	Diffusivity/Heat Capacity	Temperature, Thermal Conductivity, Diffusivity, Volumetric Heat Capacity
If SH-3 Cannot Be Used (e.g. Hard Or Coarse Soils)	TR-3	Soil	Temperature, Thermal Conductivity, Resistivity
Frozen Soil	TR-3	Conductivity/Resistivity in Power Mode: Low Power	Temperature, Thermal Conductivity, Resistivity

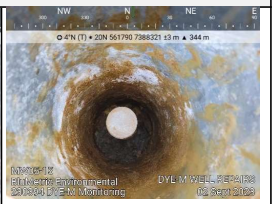
Notes:

1. Collect samples and readings from two depths at each location: shallow samples from 0.1-0.3 m below ground surface (mbgs) and deep samples from 0.50 mbgs within cover material or 1.0 mbgs within native ground. Refer to SOW Section 5.9 for details.
2. Collect readings in triplicate. Repeat until 3 readings give similar values. Leave sample probe in same place for each set of readings.
3. At one soil thermal property monitoring location per site, collect readings with both the SH-3 and TR-3 sensors.
4. Take photographs of all monitoring locations.

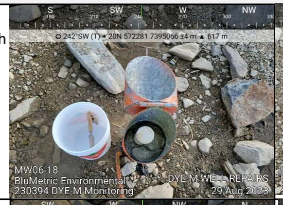
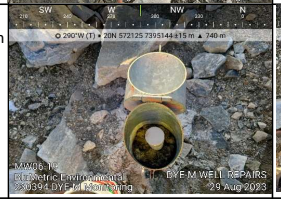
APPENDIX F.5

Well Repair Log

DYE-M Well Repair Plan with Photos

MW ID	Repairs Required	Repair Plan	Equipment/Supplies	Before	After
DYE-M Lower Site Tier II Disposal Facility					
MW05-15	Bentonite observed inside well casing. Removed and properly disposed of.	Removed bentonite using a gloved hand or a narrow trowel. Placed in bucket (with lid), disposed of in Iqaluit.	Nitrile gloves, narrow (bulb planting) trowel, 5 gallon pail with lid.		
	Conducted maintenance so that the exterior casing cover closed and locked properly.	Confirmed in 2018 notes that it is the exterior casing that is heaved, but closeses fine.	Allen keys, piece of wood, shovel, sledge hammer		
MW05-16 (Added Repair)	Bentonite observed inside well casing. Removed and properly disposed of.	Removed bentonite using a gloved hand or a narrow trowel. Placed in bucket (with lid), disposed of in Iqaluit.	Nitrile gloves, narrow (bulb planting) trowel, 5 gallon pail with lid.		
MW12-01	Conducted maintenance so that the exterior casing cover closed and locked properly.	Confirmed in 2018 notes that it is the exterior casing that is heaved, but closeses fine.	Allen keys, piece of wood, shovel, sledge hammer		
DYE-M Lower Site Powerhouse Landfill					
MW05-08	Removed the torn gasket.	Threaded fitting not effected by gasket. Removed gasket. Cap put back on after photo.	1 1/2" gasket (o-ring)		
DYE-M Lower Site Non-Hazardous Waste Landfill					
MW05-09	Bentonite observed inside well casing. Removed and properly disposed of.	Removed bentonite using a gloved hand or a narrow trowel. Placed in bucket (with lid), disposed of in Iqaluit.	Nitrile gloves, narrow (bulb planting) trowel, 5 gallon pail with lid.		
MW09-28	Sand has been observed inside the well pipe in 2018. Remove sand and disposed of properly.	Water noted in casing in previous photos. Remove water prior to accessing PVC using a turkey baster. A 1.25" wide flighted hand auger was used to remove sand from bottom of well pipe. Well was dry after removal of sand.	Turkey baster, 1.25" flighted auger with extensions		

DYE-M Well Repair Plan with Photos

MW ID	Repairs Required	Repair Plan	Equipment/Supplies	Before	After
DYE-M Upper Site Tier II Disposal Facility					
MW07-22	Replaced missing well caps/j-plugs.	Installed new well cap or J-plug	1 1/2" J-plugs and PVC slip caps		
MW12-02	The cover and locking rim on the external casing was replaced.	Replace casing lid with new 6" well cap and collar.	6" well aluminum cap and collar		
DYE-M Upper Site Non-Hazardous Waste Landfill					
MW06-18	Bentonite observed inside well casing. Removed and properly disposed of.	Removed bentonite using a gloved hand or a narrow trowel. Placed in bucket (with lid), disposed of in Iqaluit.	Nitrile gloves, narrow (bulb planting) trowel, 5 gallon pail with lid.		
MW06-19	Bentonite observed inside well casing. Removed and properly disposed of.	Removed bentonite using a gloved hand or a narrow trowel. Placed in bucket (with lid), disposed of in Iqaluit.	Nitrile gloves, narrow (bulb planting) trowel, 5 gallon pail with lid.		

APPENDIX G

Photographs

APPENDIX G.1

Photo Sheets



Photo 1: Photo log #35. Surged bentonite around MW05-15 prior to well repairs. LST2DF_GW_010. Facing northwest.



Photo 2: Photo log #36. Close up of surged bentonite around MW05-15 prior to well repairs. LST2DF_011. Facing north northwest.



Photo 3: Photo log #37. Bentonite removed from MW05-15 following well repairs. LST2DF_GW_012. Facing northwest.

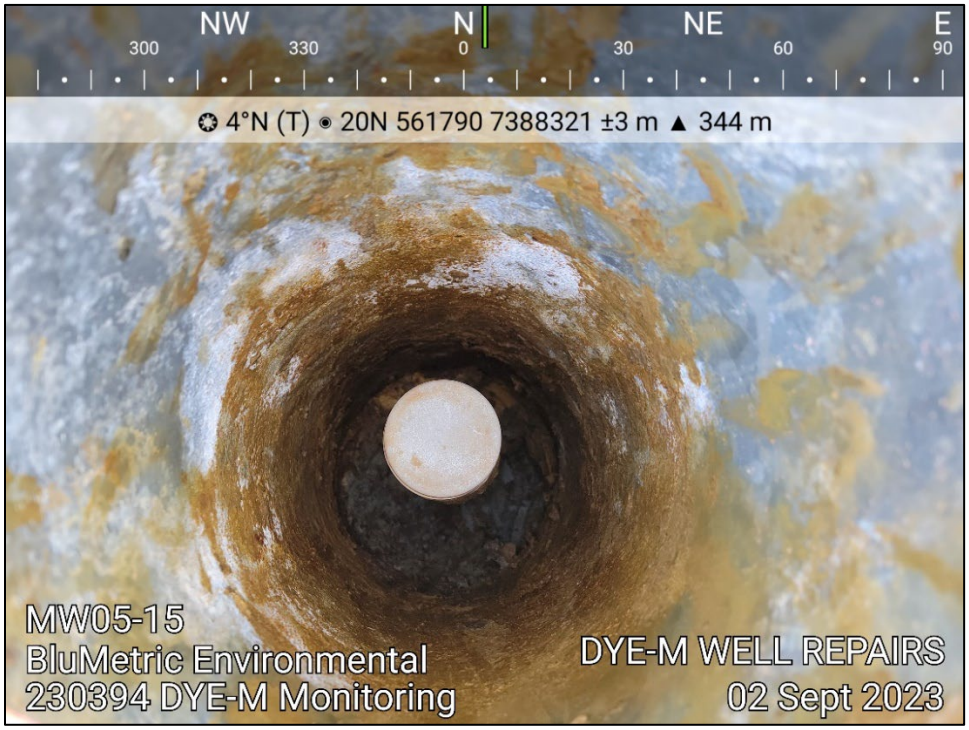


Photo 4: Photo log #38. Close up of bentonite removed from MW05-15 following well repairs. LST2DF_GW_013. Facing north.

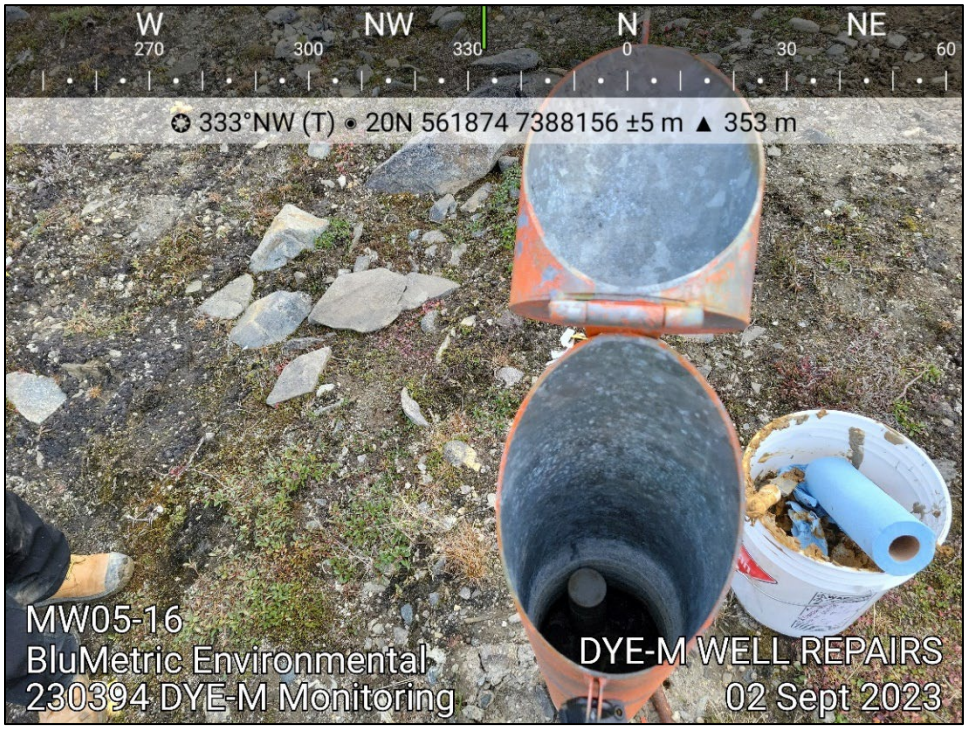


Photo 5: Photo log #39. Surged bentonite around MW05-16 prior to well repairs. LST2DF_GW_014. Facing northwest.

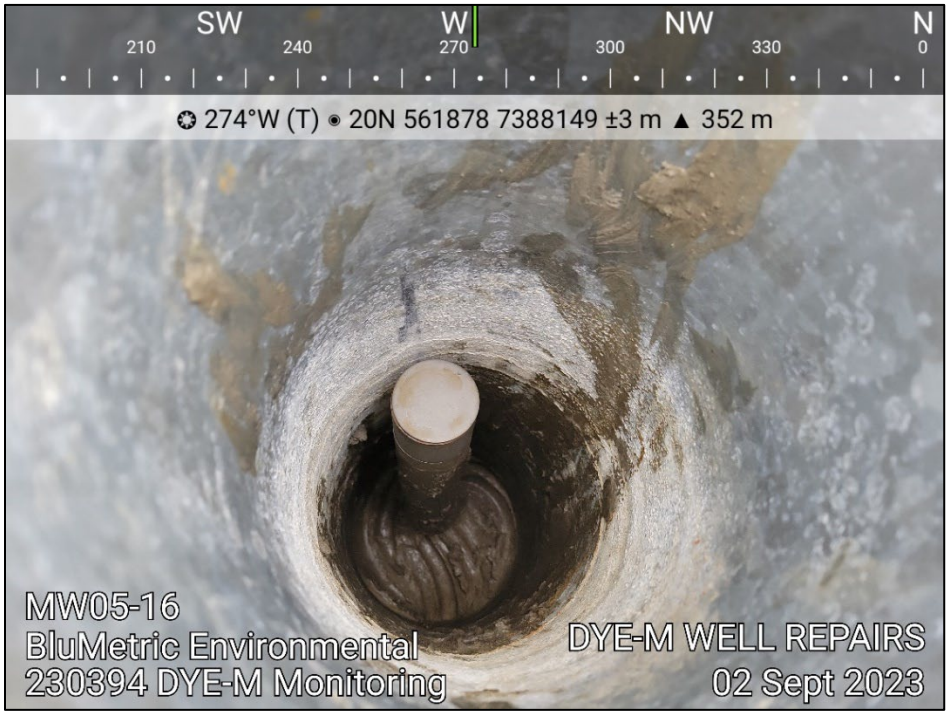


Photo 6: Photo log #40. Close up of bentonite removed from MW05-16 following well repairs. LST2DF_GW_015. Facing west.



Photo 7: Photo log #41. Bentonite removed from MW05-16 following well repairs. LST2DF_GW_016. Facing north.

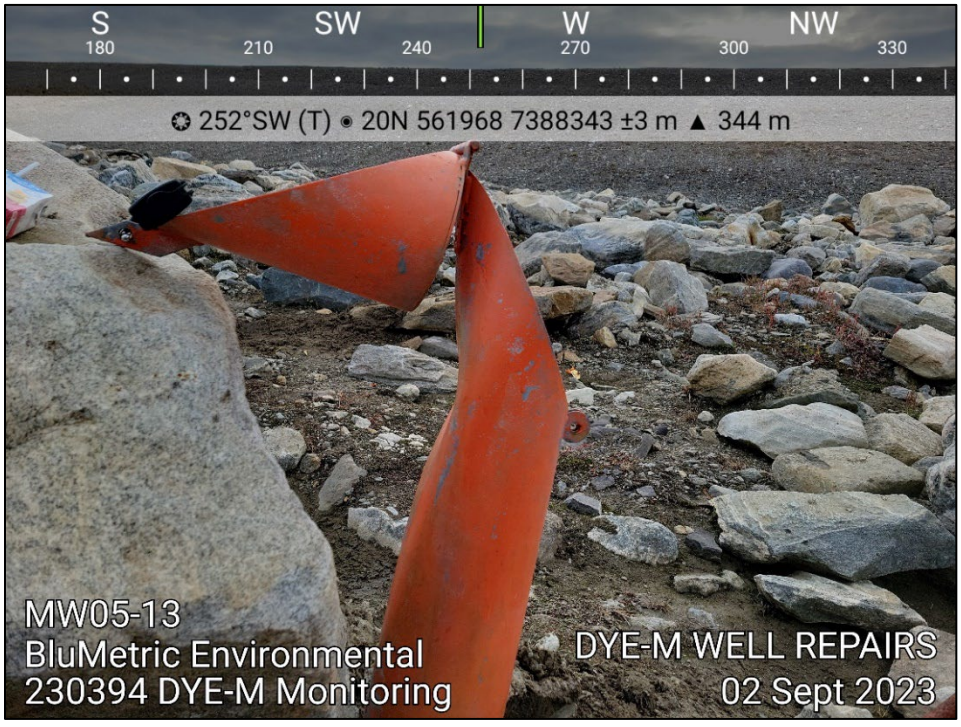


Photo 8: Photo log #42. Bent casing at MW05-13. Unable to perform well repairs. LST2DF_GW_017. Facing west southwest.



Photo 9: Photo log #43. Close up of bent casing at MW05-13. LST2FD_GW_018. Facing east southeast.



Photo 10: Photo log #44. Close up of water pooling inside well casing at MW05-13 prior to well repairs. A rock was used to wedge well pipe from well casing allowing well cap to be removed. LST2DF_GW_019. Facing north northwest.



Photo 11: Photo log #45. Well casing at MW05-13 unable to seal properly. LST2DF_GW_020. Facing southwest.

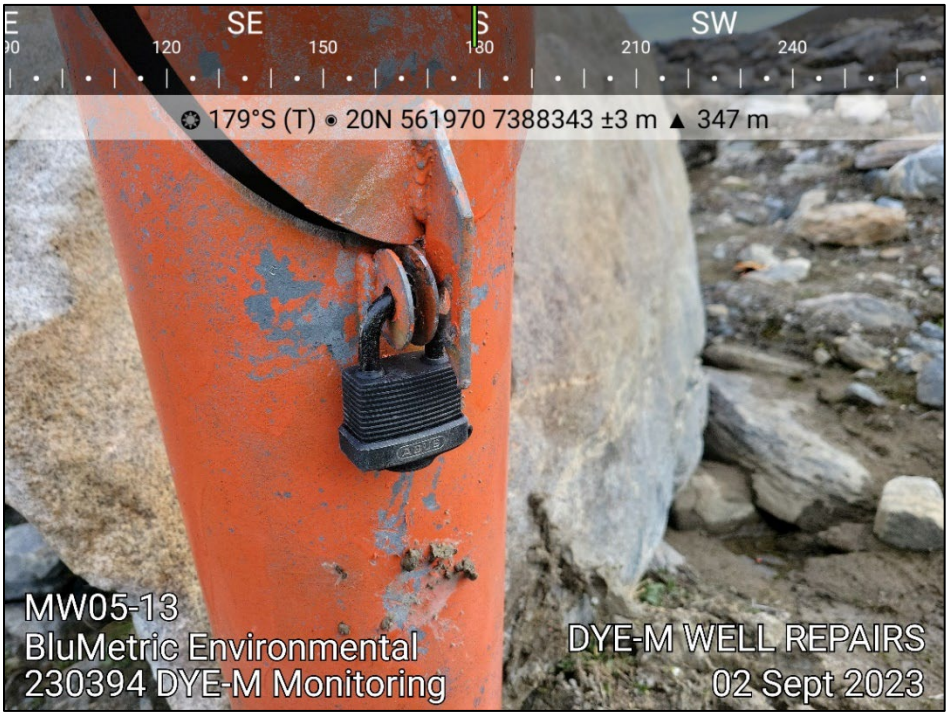


Photo 12: Photo log #46. Close up of well unable to be locked at MW05-13. LST2DF_GW_021. Facing south.



Photo 13: Photo log #47. Well casing at MW05-13 showing gap between base and lid. LST2DF_GW_022. Facing south southwest.



Photo 14: Photo log #1634. Feature C (erosion); rated 'Marginal'. Varying degrees of self-armouring erosion, multiple rilling channels. This photo is representative of observations of portions of this Feature oriented perpendicular to slope throughout its extent. Looking southeast; LST2DF_VI_119.jpg.

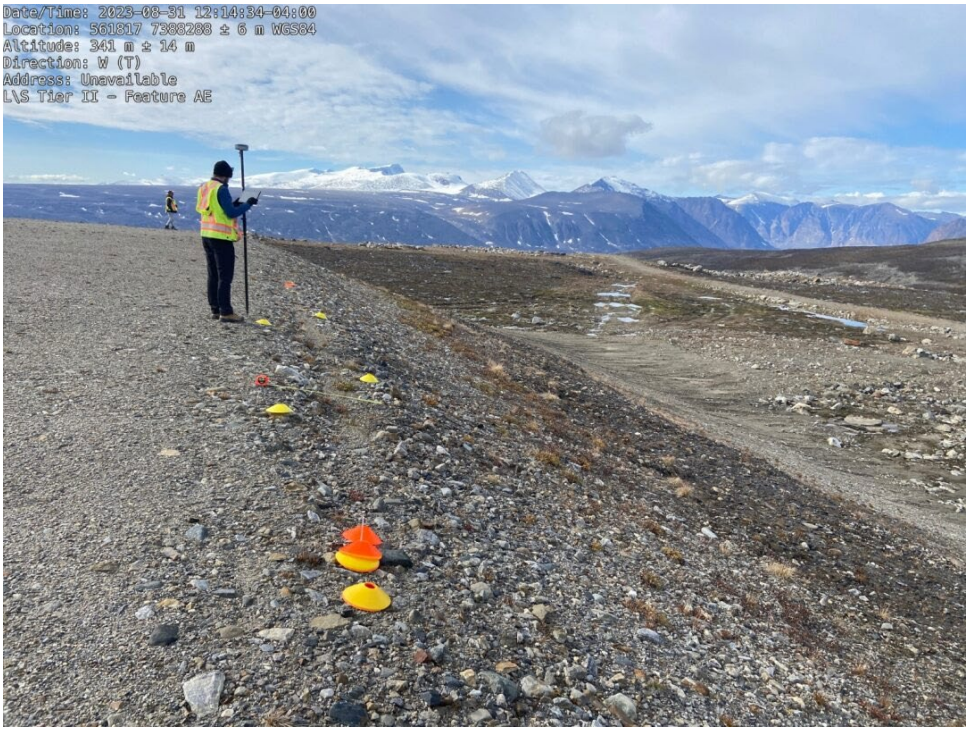


Photo 15: Photo log #1621. Feature AE (lateral movement or slump); rated 'Marginal'. Located at north crest, east portion. Facing west; LST2DF_VI_106.jpg.



Photo 16: Photo log #1623. Marginal slump at north crest, west side at Feature AE. LST2DF_VI_108. Facing northeast.



Photo 17: Photo log #1616. Feature F (sloughing); rated 'Marginal'. Located at north crest, west portion. Facing southwest; LST2DF_VI_101.jpg.



Photo 18: Photo log #1608. 'Marginal' minor sloughing (Feature F) and seepage (Feature E). LST2DF_VI_093.jpg. Facing east.



Photo 19: Photo log #1596. Marginal 1” to 8” tension cracks above head scarps at Features Z & O. Sloughed at seepage line AD, ground is very soft, cracked, and slope has moved. LST2DF_VI_081. Facing northwest.



Photo 20: Photo log #1600. Marginal 1” to 8” tension cracks above head scarps at Features Z & O. Sloughed at seepage line AD, ground is very soft, cracked, and slope has moved. LST2DF_VI_085. Facing south.

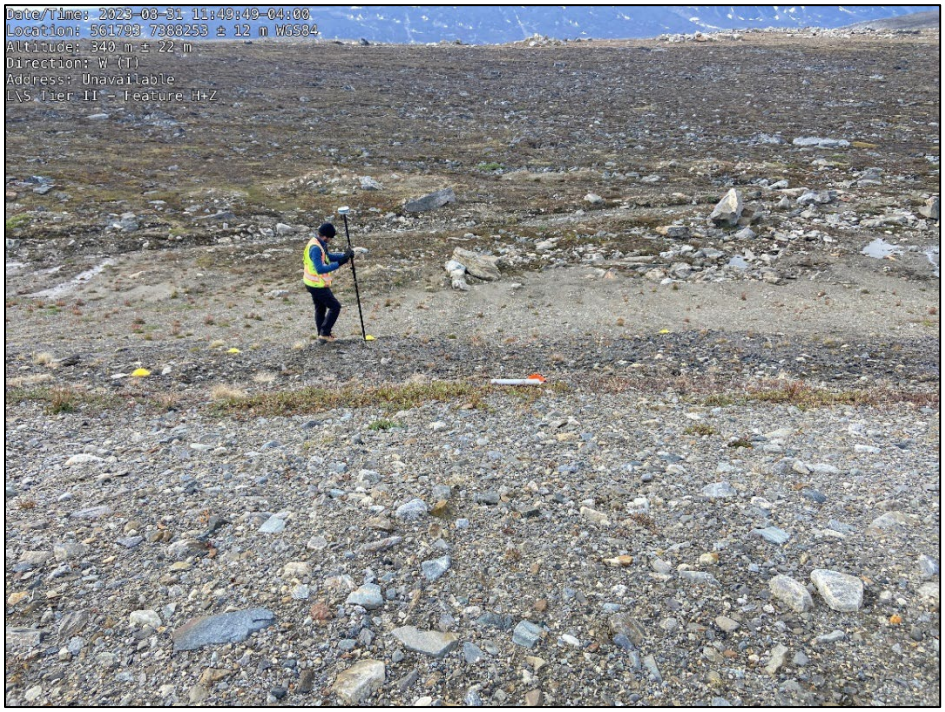


Photo 21: Photo log #1604. Marginal 1” to 8” tension cracks above head scarps at Features Z & O. Sloughed at seepage line AD, ground is very soft, cracked, and slope has moved. LST2DF_VI_089. Facing west.



Photo 22: Photo log #1605. 'Marginal' rated soft ground, cracking, and sloughing at Feature AA and 'Marginal' rated seepage at Feature E. LST2DF_VI_090.jpg. Facing northeast.



Photo 23: Photo log #1609. 'Marginal' rated soft ground, cracking, and sloughing at Feature AA and 'Marginal' rated seepage at Feature E. LST2DF_VI_094.jpg. Facing east.



Photo 24: Photo log #1613. 'Marginal' rated soft ground, cracking, and sloughing at Feature AA and 'Marginal' rated seepage at Feature E. LST2DF_VI_098.jpg. Facing west.



Photo 25: Photo log #1617. 'Marginal' rated soft ground, cracking, and sloughing at Feature AA and 'Marginal' rated seepage at Feature E. LST2DF_VI_102.jpg. Facing west.



Photo 26: Photo log #1599. Marginal tension cracking at Feature O. LST2DF_VI_084. Facing south.



Photo 27: Photo log #1597. Marginal 1” to 8” tension cracks at Feature O (includes Z). Sloughed ground is very soft, cracked, and slope has moved. LST2DF_VI_082. Facing north.



Photo 28: Photo log #1603. Marginal 1” to 8” tension cracks at Feature O (includes Z). Sloughed ground is very soft, cracked, and slope has moved. LST2DF_VI_088. Facing southeast.



Photo 29: Photo log #1592. Marginal groundwater seepage out of Tier II at Feature AD. LST2DF_VI_077. Facing south.



Photo 30: Photo log #1595. Marginal groundwater seepage out of Tier II at Feature AD. Seepage is indicated by the darker ground parallel to the bottom of the slope. Pylon shown for scale. LST2DF_VI_080. Facing south.



Photo 31: Photo log #1938. Overview of locations of 'Marginal' ranked Features located on north slope of Lower Site Tier II Disposal Facility (from left to right in this photo, these include Features C, AA, F, AE, H/Z/I/O, and E). Note the crest to crest dimension of the north slope is approximately 152 m. Features are associated with wetter (darker) areas and areas of disruption to the slope, as shown in the right hand half of the photo. LST2DF_AA_006. Facing south.

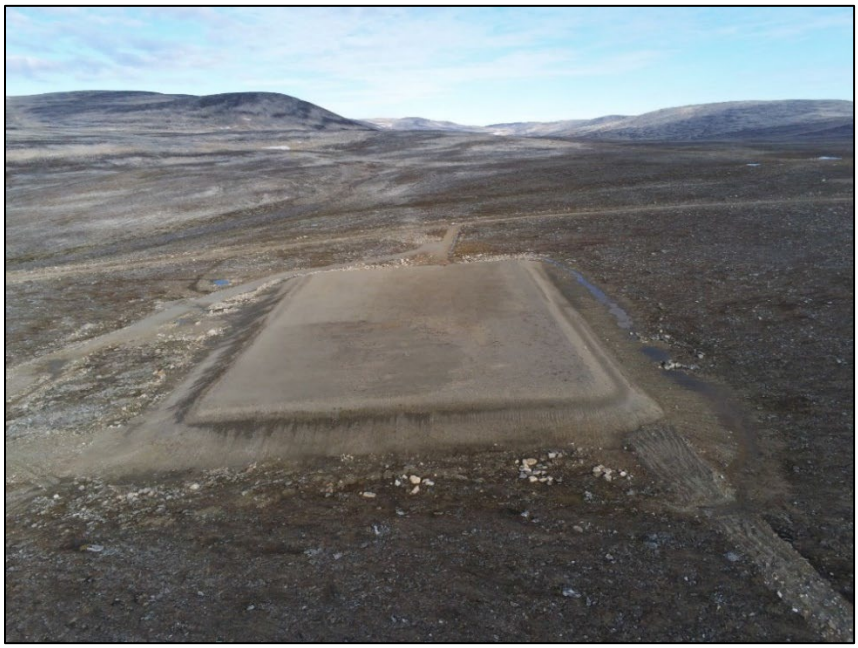


Photo 32: Photo log #1940. Overview of locations of 'Marginal' ranked Features located on west slope of Lower Site Tier II Disposal Facility (from left to right, these include Features H and AD). Note the crest to crest dimension of the west slope is approximately 107 m. LST2DF_AA_008. Facing east.



Photo 1: Photo log #14. Field technician with auger to complete well repairs at MW09-28. LSNHWL_GW_014. Facing east.



Photo 2: Photo log #15. Well repairs performed on MW09-28 to remove sand from inside well. LSNHWL_GW_015. Facing west northwest.



Photo 3: Photo log #16. Inside well MW05-09 after removing surged bentonite. LSNHWL_GW_016. Facing east.

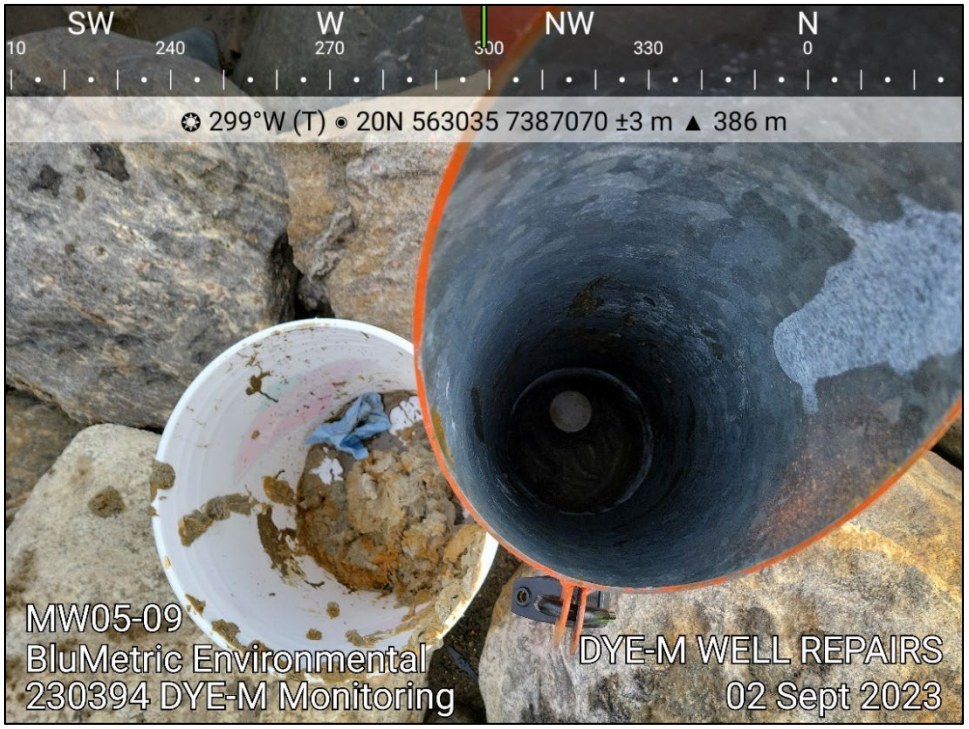


Photo 4: Photo log #17. Completed well repairs with removed bentonite. MW05-09. LSNHWL_GW_017. Facing northwest.



Photo 5: Photo log #1219. Marginal cracking at Feature P, L's, AD, AG, AH, AI, AK, AL and R. Previous cracks have joined, and multiple new cracks are present. LSNHWL_VI_006. Facing northeast.



Photo 6: Photo log #1223. Marginal cracking at Feature P, L's, AD, AG, AH, AI, AK, AL and R. Previous cracks have joined, and multiple new cracks are to be present. LSNHWL_VI_010. Facing northeast.



Photo 7: Photo log #1228. Marginal cracking at Feature P, L's, AD, AG, AH, AI, AK, AL and R. Previous cracks have joined, and multiple new cracks are present. LSNHWL_VI_015. Facing northeast.



Photo 8: Photo log #1233. Marginal cracking at Feature P, L's, AD, AG, AH, AI, AK, AL and R. Previous cracks have joined, and multiple new cracks are to be present. LSNHWL_VI_020. Facing west.



Photo 9: Photo log #1379. Marginal area of tension cracking at Feature Y. LSNHWL_VI_166. Facing northwest.



Photo 10: Photo log #1376. Marginal area of tension cracking and potential slope movement at Feature Y1. LSNHWL_VI_163. Facing northwest.



Photo 11: Photo log #1275. Marginal tension cracking at Feature AE and AF. LSNHWL_VI_062. Facing northeast.



Photo 1: Photo log #107. Well casing at MW12-02 prior to well repairs. UST2DF_GW_043. Facing southeast.



Photo 2: Photo log #106. New well cap and collar at MW12-02 following well repairs. UST2DF_GW_042. Facing southwest.



Photo 3: Photo log #85. Missing cap at MW07-22 prior to well repairs. UST2DF_GW_021. Facing southwest.

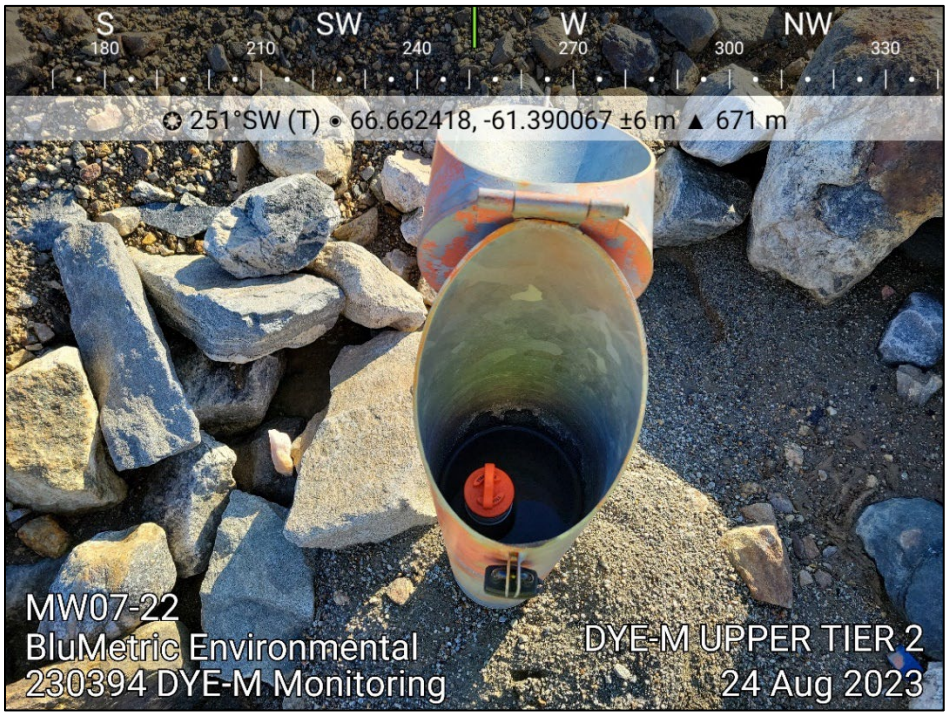


Photo 4: Photo log #104. New J-Plug at MW07-22 following well repairs. UST2DF_GW_040. Facing west southwest.



Photo 1: Photo log #62. Surged bentonite at MW06-18 prior to well repairs. USNHWL_GW_014.

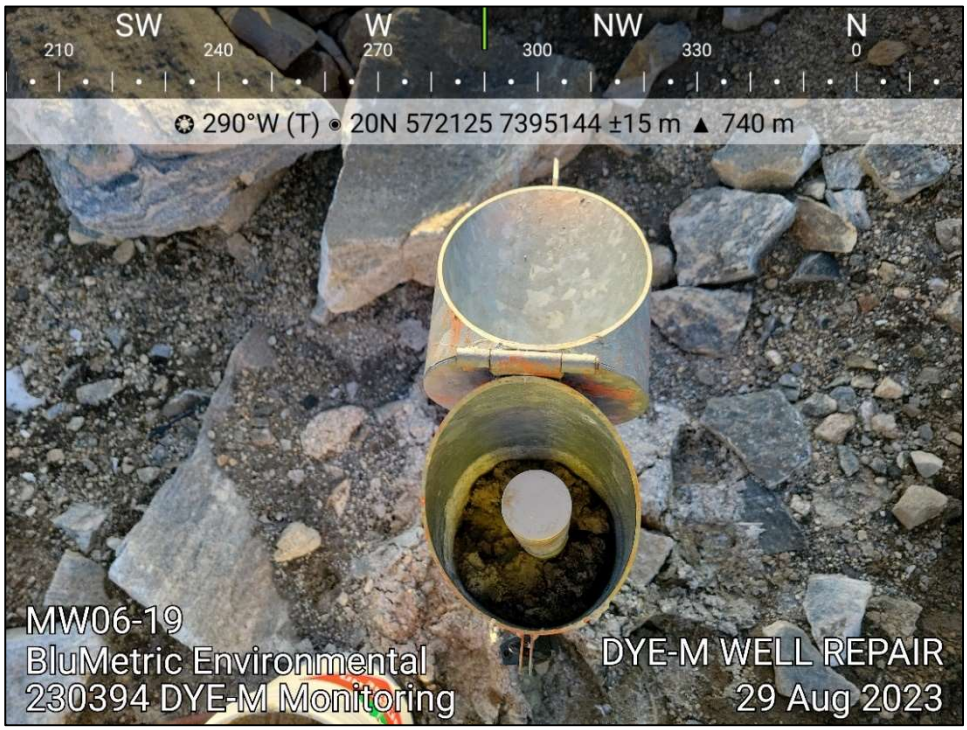


Photo 2: Photo log #63. Surged bentonite at MW06-19 prior to well repairs. WSNHWL_GW_015.



Photo 3: Photo log #64. Bentonite removed from MW06-19 following well repairs. USNHWL_GW_016.

APPENDIX G.2

Photolog Master Sheet
Electronic copies of photographs were provided to DCC in electronic format (.jpg)

DYE-Main 2023 Photo Log

Photo Reference #	Site	File Name	Date	View Direction	Description	X (m) Easting	Y (m) Northing	Plotted on Figure?
1	Lower Site Non-Hazardous Waste Landfill	LSNHWL_GW_001.jpg	27-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill MW09-27	562923	7386969	Y
2	Lower Site Non-Hazardous Waste Landfill	LSNHWL_GW_002.jpg	27-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill MW09-27 Top	562924	7386965	Y
3	Lower Site Non-Hazardous Waste Landfill	LSNHWL_GW_003.jpg	27-Aug-23	South	Lower Site Non Hazardous Waste Landfill MW09-26	563063	7386913	Y
4	Lower Site Non-Hazardous Waste Landfill	LSNHWL_GW_004.jpg	27-Aug-23	South	Lower Site Non Hazardous Waste Landfill MW09-26 Top	563063	7386913	N
5	Lower Site Non-Hazardous Waste Landfill	LSNHWL_GW_005.jpg	27-Aug-23	West	Lower Site Non Hazardous Waste Landfill MW05-12	563109	7387076	Y
6	Lower Site Non-Hazardous Waste Landfill	LSNHWL_GW_006.jpg	27-Aug-23	North	Lower Site Non Hazardous Waste Landfill MW05-12 Top	563107	7387075	Y
7	Lower Site Non-Hazardous Waste Landfill	LSNHWL_GW_007.jpg	27-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill MW05-09	563034	7387073	Y
8	Lower Site Non-Hazardous Waste Landfill	LSNHWL_GW_008.jpg	27-Aug-23	South	Lower Site Non Hazardous Waste Landfill MW05-09 Top	563034	7387072	Y
9	Lower Site Non-Hazardous Waste Landfill	LSNHWL_GW_009.jpg	27-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill MW05-09 Inside Well	563034	7387072	Y
10	Lower Site Non-Hazardous Waste Landfill	LSNHWL_GW_010.jpg	27-Aug-23	West	Lower Site Non Hazardous Waste Landfill MW09-28	562936	7387015	Y
11	Lower Site Non-Hazardous Waste Landfill	LSNHWL_GW_011.jpg	27-Aug-23	West	Lower Site Non Hazardous Waste Landfill MW09-28 Top	562935	7387017	Y
12	Lower Site Non-Hazardous Waste Landfill	LSNHWL_GW_012.jpg	27-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill MW05-09	563036	7387068	Y
13	Lower Site Non-Hazardous Waste Landfill	LSNHWL_GW_013.jpg	27-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill MW09-26 Test Pit	563068	7386920	Y
14	Lower Site Non-Hazardous Waste Landfill	LSNHWL_GW_014.jpg	27-Aug-23	East	Lower Site Non Hazardous Waste Landfill MW09-28 Well Repairs	562915	7387048	Y
15	Lower Site Non-Hazardous Waste Landfill	LSNHWL_GW_015.jpg	27-Aug-23	West Northw	Lower Site Non Hazardous Waste Landfill MW09-28 Well Repairs	562934	7387019	Y
16	Lower Site Non-Hazardous Waste Landfill	LSNHWL_GW_016.jpg	27-Aug-23	East	Lower Site Non Hazardous Waste Landfill MW05-09 Well Condition	563034	7387071	N
17	Lower Site Non-Hazardous Waste Landfill	LSNHWL_GW_017.jpg	27-Aug-23	Northwest	Lower Site Non Hazardous Waste Landfill MW05-09 Well Repair	563035	7387070	N
18	Lower Site Powerhouse Landfill	LSPL_GW_001.jpg	1-Sep-23	East	Lower Site Powerhouse Landfill MW05-08	562745	7387407	Y
19	Lower Site Powerhouse Landfill	LSPL_GW_002.jpg	1-Sep-23	Southeast	Lower Site Powerhouse Landfill MW05-08 Top	562746	7387404	Y
20	Lower Site Powerhouse Landfill	LSPL_GW_003.jpg	1-Sep-23	Southeast	Lower Site Powerhouse Landfill MW05-07	562808	7387474	Y
21	Lower Site Powerhouse Landfill	LSPL_GW_004.jpg	1-Sep-23	Southeast	Lower Site Powerhouse Landfill MW05-07 Top	562807	7387476	Y
22	Lower Site Powerhouse Landfill	LSPL_GW_005.jpg	1-Sep-23	South	Lower Site Powerhouse Landfill MW05-06	562782	7387513	Y
23	Lower Site Powerhouse Landfill	LSPL_GW_006.jpg	1-Sep-23	North	Lower Site Powerhouse Landfill MW05-06 Top	562781	7387513	Y
24	Lower Site Powerhouse Landfill	LSPL_GW_007.jpg	1-Sep-23	Southeast	Lower Site Powerhouse Landfill MW05-05	562714	7387497	Y
25	Lower Site Powerhouse Landfill	LSPL_GW_008.jpg	1-Sep-23	Northwest	Lower Site Powerhouse Landfill MW05-05 Top	562717	7387493	Y
26	Lower Site Tier II Disposal Facility	LST2DF_GW_001.jpg	2-Sep-23	South Southe	Lower Site Tier II Disposal Facility MW05-16	561876	7388152	Y
27	Lower Site Tier II Disposal Facility	LST2DF_GW_002.jpg	2-Sep-23	North	Lower Site Tier II Disposal Facility MW05-16 Top	561876	7388150	Y
28	Lower Site Tier II Disposal Facility	LST2DF_GW_003.jpg	2-Sep-23	North Northe	Lower Site Tier II Disposal Facility MW05-16 Inside Well	561876	7388150	Y
29	Lower Site Tier II Disposal Facility	LST2DF_GW_004.jpg	2-Sep-23	South Southe	Lower Site Tier II Disposal Facility MW05-15	561788	7388324	Y
30	Lower Site Tier II Disposal Facility	LST2DF_GW_005.jpg	2-Sep-23	South	Lower Site Tier II Disposal Facility MW12-01	561887	7388365	Y
31	Lower Site Tier II Disposal Facility	LST2DF_GW_006.jpg	2-Sep-23	South	Lower Site Tier II Disposal Facility MW12-01 Top	561889	7388364	Y
32	Lower Site Tier II Disposal Facility	LST2DF_GW_007.jpg	2-Sep-23	Southwest	Lower Site Tier II Disposal Facility MW05-15 Top	561789	7388321	Y
33	Lower Site Tier II Disposal Facility	LST2DF_GW_008.jpg	2-Sep-23	Southwest	Lower Site Tier II Disposal Facility MW05-13	561968	7388346	Y
34	Lower Site Tier II Disposal Facility	LST2DF_GW_009.jpg	2-Sep-23	Southwest	Lower Site Tier II Disposal Facility MW05-13 Top	561969	7388345	N
35	Lower Site Tier II Disposal Facility	LST2DF_GW_010.jpg	2-Sep-23	Northwest	Lower Site Tier II Disposal Facility MW05-15 Well Condition	561788	7388321	Y
36	Lower Site Tier II Disposal Facility	LST2DF_GW_011.jpg	2-Sep-23	Northwest	Lower Site Tier II Disposal Facility MW05-15 Inside Well Condition	561788	7388321	Y
37	Lower Site Tier II Disposal Facility	LST2DF_GW_012.jpg	2-Sep-23	Northwest	Lower Site Tier II Disposal Facility MW05-15 Well Repair	561789	7388319	Y
38	Lower Site Tier II Disposal Facility	LST2DF_GW_013.jpg	2-Sep-23	North	Lower Site Tier II Disposal Facility MW05-15 Well Repair Complete	561790	7388321	Y
39	Lower Site Tier II Disposal Facility	LST2DF_GW_014.jpg	2-Sep-23	North Northw	Lower Site Tier II Disposal Facility MW05-16 Well Condition	561874	7388156	Y
40	Lower Site Tier II Disposal Facility	LST2DF_GW_015.jpg	2-Sep-23	West	Lower Site Tier II Disposal Facility MW05-16 Well Repair	561878	7388149	Y
41	Lower Site Tier II Disposal Facility	LST2DF_GW_016.jpg	2-Sep-23	North	Lower Site Tier II Disposal Facility MW05-16 Well Repair Complete	561877	7388149	Y
42	Lower Site Tier II Disposal Facility	LST2DF_GW_017.jpg	2-Sep-23	West Southw	Lower Site Tier II Disposal Facility MW05-13 Well Condition	561968	7388343	Y
43	Lower Site Tier II Disposal Facility	LST2DF_GW_018.jpg	2-Sep-23	East Southea	Lower Site Tier II Disposal Facility MW05-13 Well Condition Top	561968	7388344	Y
44	Lower Site Tier II Disposal Facility	LST2DF_GW_019.jpg	2-Sep-23	North Northw	Lower Site Tier II Disposal Facility MW05-13 Inside Well Condition	561968	7388344	Y
45	Lower Site Tier II Disposal Facility	LST2DF_GW_020.jpg	2-Sep-23	Southwest	Lower Site Tier II Disposal Facility MW05-13 Casing Condition	561969	7388347	Y
46	Lower Site Tier II Disposal Facility	LST2DF_GW_021.jpg	2-Sep-23	South	Lower Site Tier II Disposal Facility MW05-13 Lock Condition	561970	7388343	Y
47	Lower Site Tier II Disposal Facility	LST2DF_GW_022.jpg	2-Sep-23	South	Lower Site Tier II Disposal Facility MW05-13 Casing Condition	561968	7388342	Y
48	Lower Site Tier II Disposal Facility	LST2DF_GW_023.jpg	2-Sep-23	North	Lower Site Tier II Disposal Facility MW05-13 Test Pit	571756	7394991	N
49	Upper Site Non-Hazardous Waste Landfill	USNHWL_GW_001.jpg	27-Aug-23	North Northw	Upper Site Non Hazardous Waste Landfill MW06-18	572283	7395066	Y
50	Upper Site Non-Hazardous Waste Landfill	USNHWL_GW_002.jpg	27-Aug-23	Southwest	Upper Site Non Hazardous Waste Landfill MW06-18	572282	7395069	Y
51	Upper Site Non-Hazardous Waste Landfill	USNHWL_GW_003.jpg	27-Aug-23	Southwest	Upper Site Non Hazardous Waste Landfill MW06-18 Top	572282	7395071	Y
52	Upper Site Non-Hazardous Waste Landfill	USNHWL_GW_004.jpg	27-Aug-23	Southwest	Upper Site Non Hazardous Waste Landfill MW06-18 Top	572282	7395071	Y
53	Upper Site Non-Hazardous Waste Landfill	USNHWL_GW_005.jpg	27-Aug-23	South	Upper Site Non Hazardous Waste Landfill MW07-21	572303	7395182	Y
54	Upper Site Non-Hazardous Waste Landfill	USNHWL_GW_006.jpg	27-Aug-23	West Southw	Upper Site Non Hazardous Waste Landfill MW07-21 Top	572297	7395181	Y
55	Upper Site Non-Hazardous Waste Landfill	USNHWL_GW_007.jpg	27-Aug-23	West Southw	Upper Site Non Hazardous Waste Landfill MW07-21 Top	572298	7395176	Y
56	Upper Site Non-Hazardous Waste Landfill	USNHWL_GW_008.jpg	27-Aug-23	West Southw	Upper Site Non Hazardous Waste Landfill MW06-20	572219	7395206	Y
57	Upper Site Non-Hazardous Waste Landfill	USNHWL_GW_009.jpg	27-Aug-23	Southwest	Upper Site Non Hazardous Waste Landfill MW06-20 Top	572218	7395206	Y
58	Upper Site Non-Hazardous Waste Landfill	USNHWL_GW_010.jpg	27-Aug-23	West	Upper Site Non Hazardous Waste Landfill MW06-20 Top	572218	7395207	Y
59	Upper Site Non-Hazardous Waste Landfill	USNHWL_GW_011.jpg	27-Aug-23	West	Upper Site Non Hazardous Waste Landfill MW06-19	572116	7395139	N
60	Upper Site Non-Hazardous Waste Landfill	USNHWL_GW_012.jpg	27-Aug-23	West	Upper Site Non Hazardous Waste Landfill MW06-19 Top	572112	7395141	Y
61	Upper Site Non-Hazardous Waste Landfill	USNHWL_GW_013.jpg	27-Aug-23	West	Upper Site Non Hazardous Waste Landfill MW06-19 Top	572112	7395141	Y
62	Upper Site Non-Hazardous Waste Landfill	USNHWL_GW_014.jpg	27-Aug-23	Southwest W	Upper Site Non Hazardous Waste Landfill MW06-18 Well Condition	572281	7395066	Y
63	Upper Site Non-Hazardous Waste Landfill	USNHWL_GW_015.jpg	27-Aug-23	West Northw	Upper Site Non Hazardous Waste Landfill MW06-19 Well Condition	572125	7395144	Y
64	Upper Site Non-Hazardous Waste Landfill	USNHWL_GW_016.jpg	27-Aug-23	West Northw	Upper Site Non Hazardous Waste Landfill MW06-19 Well Repair	572114	7395141	Y
65	Upper Site Tier II Disposal Facility	UST2DF_GW_001.jpg	24-Aug-23	West	Upper Site Tier II Disposal Facility Benchmark 8	570907	7394703	N
66	Upper Site Tier II Disposal Facility	UST2DF_GW_002.jpg	24-Aug-23	South	Upper Site Tier II Disposal Facility MW08-25	571013	7394673	Y
67	Upper Site Tier II Disposal Facility	UST2DF_GW_003.jpg	24-Aug-23	East Southea	Upper Site Tier II Disposal Facility MW08-25	571006	7394666	Y
68	Upper Site Tier II Disposal Facility	UST2DF_GW_004.jpg	24-Aug-23	East Southea	Upper Site Tier II Disposal Facility MW08-25 Top	571010	7394668	Y
69	Upper Site Tier II Disposal Facility	UST2DF_GW_005.jpg	24-Aug-23	Southeast	Upper Site Tier II Disposal Facility MW08-25 Top	571011	7394665	Y
70	Upper Site Tier II Disposal Facility	UST2DF_GW_006.jpg	24-Aug-23	Southeast	Upper Site Tier II Disposal Facility MW08-25	571012	7394668	N
71	Upper Site Tier II Disposal Facility	UST2DF_GW_007.jpg	24-Aug-23	West	Upper Site Tier II Disposal Facility MW08-24	571026	7394584	Y
72	Upper Site Tier II Disposal Facility	UST2DF_GW_008.jpg	24-Aug-23	West Northw	Upper Site Tier II Disposal Facility MW08-24	571026	7394585	N
73	Upper Site Tier II Disposal Facility	UST2DF_GW_009.jpg	24-Aug-23	East	Upper Site Tier II Disposal Facility MW08-24	571022	7394582	Y
74	Upper Site Tier II Disposal Facility	UST2DF_GW_010.jpg	24-Aug-23	East	Upper Site Tier II Disposal Facility MW08-24 Top	571027	7394586	Y
75	Upper Site Tier II Disposal Facility	UST2DF_GW_011.jpg	24-Aug-23	East Northea	Upper Site Tier II Disposal Facility MW08-24 Top	571024	7394586	Y
76	Upper Site Tier II Disposal Facility	UST2DF_GW_012.jpg	24-Aug-23	East	Upper Site Tier II Disposal Facility MW07-23	571102	7394519	Y
77	Upper Site Tier II Disposal Facility	UST2DF_GW_013.jpg	24-Aug-23	East	Upper Site Tier II Disposal Facility MW07-23	571102	7394519	Y
78	Upper Site Tier II Disposal Facility	UST2DF_GW_014.jpg	24-Aug-23	North Northe	Upper Site Tier II Disposal Facility MW07-23	571115	7394520	Y
79	Upper Site Tier II Disposal Facility	UST2DF_GW_015.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility MW07-23 Top	571163	7394675	Y
80	Upper Site Tier II Disposal Facility	UST2DF_GW_016.jpg	24-Aug-23	Northwest	Upper Site Tier II Disposal Facility MW07-23 Top	571121	7394524	Y
81	Upper Site Tier II Disposal Facility	UST2DF_GW_017.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility MW07-22	571168	7394666	Y
82	Upper Site Tier II Disposal Facility	UST2DF_GW_018.jpg	24-Aug-23	East	Upper Site Tier II Disposal Facility MW07-22	571168	7394666	Y
83	Upper Site Tier II Disposal Facility	UST2DF_GW_019.jpg	24-Aug-23	West	Upper Site Tier II Disposal Facility MW07-22	571169	7394672	Y
84	Upper Site Tier II Disposal Facility	UST2DF_GW_020.jpg	24-Aug-23	Southwest	Upper Site Tier II Disposal Facility MW07-22	571165	7394679	Y
85	Upper Site Tier II Disposal Facility	UST2DF_GW_021.jpg	24-Aug-23	Southwest	Upper Site Tier II Disposal Facility MW07-22 Top	571166	7394678	Y
86	Upper Site Tier II Disposal Facility	UST2DF_GW_022.jpg	24-Aug-23	West	Upper Site Tier II Disposal FacilityMW12-02	571104	7394710	N
87	Upper Site Tier II Disposal Facility	UST2DF_GW_023.jpg	24-Aug-23	Southeast	Upper Site Tier II Disposal Facility MW12-02	571095	7394709	Y
88	Upper Site Tier II Disposal Facility	UST2DF_GW_024.jpg	24-Aug-23	East Southea	Upper Site Tier II Disposal Facility MW12-02	571098	7394708	Y
89	Upper Site Tier II Disposal Facility	UST2DF_GW_025.jpg	24-Aug-23	Southeast	Upper Site Tier II Disposal Facility MW12-02 Top	571097	7394708	N
90	Upper Site Tier II Disposal Facility	UST2DF_GW_026.jpg	24-Aug-23	South	Upper Site Tier II Disposal Facility MW12-02 Top	571096	7394709	Y
91	Upper Site Tier II Disposal Facility	UST2DF_GW_027.jpg	24-Aug-23	West Southw	Upper Site Tier II Disposal Facility MW07-22	571165	7394676	Y
92	Upper Site Tier II Disposal Facility	UST2DF_GW_028.jpg	25-Aug-23	North	Upper Site Tier II Disposal Facility MW07-22 Test Pit Location	571165	7394673	Y
93	Upper Site Tier II Disposal Facility	UST2DF_GW_029.jpg	25-Aug-23	Northwest	Upper Site Tier II Disposal Facility MW07-23 Test Pit Location	571118	7394520	Y
94	Upper Site Tier II Disposal Facility	UST2DF_GW_030.jpg	25-Aug-23	North Northw	Upper Site Tier II Disposal Facility MW07-23 Test Pit	571122	7394521	Y
95	Upper Site Tier II Disposal Facility	UST2DF_GW_031.jpg	25-Aug-23	East	Upper Site Tier II Disposal Facility MW07-23 Covered Test Pit	571120	7394525	Y
96	Upper Site Tier II Disposal Facility	UST2DF_GW_032.jpg	25-Aug-23	East	Upper Site Tier II Disposal Facility MW08-24 Test Pit Location	571021	7394587	Y
97	Upper Site Tier II Disposal Facility	UST2DF_GW_033.jpg	25-Aug-23	East Southea	Upper Site Tier II Disposal Facility MW08-24 Test Pit	571023	7394583	Y
98	Upper Site Tier II Disposal Facility	UST2DF_GW_034.jpg	25-Aug-23	East Southea	Upper Site Tier II Disposal Facility MW08-24 Covered Test Pit	571020	7394587	Y
99	Upper Site Tier II Disposal Facility	UST2DF_GW_035.jpg	25-Aug-23	South	Upper Site Tier II Disposal Facility MW08-25 Test Pit Location	571011	7394667	Y
100	Upper Site Tier II Disposal Facility	UST2DF_GW_036.jpg	25-Aug-23	Southeast	Upper Site Tier II Disposal Facility MW12-02	571096	7394715	Y
101	Upper Site Tier II Disposal Facility	UST2DF_GW_037.jpg	25-Aug-23	South Southw	Upper Site Tier II Disposal Facility MW12-02 Top	571098	7394709	Y
102	Upper Site Tier II Disposal Facility	UST2DF_GW_038.jpg	25-Aug-23	North Northw	Upper Site Tier II Disposal Facility MW08-25	571009	7394670	Y
103	Upper Site Tier II Disposal Facility	UST2DF_GW_039.jpg	25-Aug-23	South Southw	Upper Site Tier II Disposal Facility MW08-25 Covered Test Pit	571010	7394667	Y
104	Upper Site Tier II Disposal Facility	UST2DF_GW_040.jpg	24-Aug-23	West Southw	Upper Site Tier II Disposal Facility MW07-22 J Plug Added	571162	7394666	Y
105	Upper Site Tier II Disposal Facility	UST2DF_GW_041.jpg	25-Aug-23	South Southw	Upper Site Tier II Disposal Facility MW12-02 Inside Well after Well Repair	571097	7394709	Y
106	Upper Site Tier II Disposal Facility	UST2DF_GW_042.jpg	25-Aug-23	Southeast	Upper Site Tier II Disposal Facility MW12-02 New Casing Replacement	571092	7394709	Y
107	Upper Site Tier II Disposal Facility	UST2DF_GW_043.jpg	24-Aug-23	Southeast	Upper Site Tier II Disposal Facility MW12-02 Casing Condition Before	571089	7394716	Y
108	Upper Site Helipad Debris Area	USHL_SS_001.jpg	29-Aug-23	West Southw	Upper Site Helipad Debris Area DM-12 Test Pit Location	572751	7394853	Y
109	Upper Site Helipad Debris Area	USHL_SS_002.jpg	29-Aug-23	Southwest	Upper Site Helipad Debris Area DM-12 Test Pit	572751	7394853	Y
110	Upper Site Helipad Debris Area	USHL_SS_003.jpg	29-Aug-23	West Southw	Upper Site Helipad Debris Area DM-13 Test Pit Location	572759	7394823	Y
111	Upper Site Helipad Debris Area	USHL_SS_004.jpg	29-Aug-23	West Southw	Upper Site Helipad Debris Area DM-13 Test Pit	572758	7394826	Y
112	Upper Site Helipad Debris Area	USHL_SS_005.jpg	29-Aug-23	Northwest	Upper Site Helipad Debris Area DM-14 Test Pit Location	572733	7394792	Y
113	Upper Site Helipad Debris Area	USHL_SS_006.jpg	29-Aug-23	Southwest	Upper Site Helipad Debris Area DM-12 Covered Test Pit	572751	7394856	Y
114	Upper Site Helipad Debris Area	USHL_SS_007.jpg	29-Aug-23	North	Upper Site Helipad Debris Area DM-14 Test Pit	572734	7394792	Y
115	Upper Site Helipad Debris Area	USHL_SS_008.jpg	29-Aug-23	Northwest	Upper Site Helipad Debris Area DM-13 Covered Test Pit	572758	7394825	Y
116	Upper Site Helipad Debris Area	USHL_SS_009.jpg	29-Aug-23	North	Upper Site Helipad Debris Area DM-14 Covered Test Pit	572731	7394789	Y
117	Upper Site Helipad Debris Area	USHL_SS_010.jpg	29-Aug-23	Northwest	Upper Site Helipad Debris Area DM-15 Test Pit Location	572718	7394768	Y
118	Upper Site Helipad Debris Area	USHL_SS_011.jpg	29-Aug-23	West	Upper Site Helipad Debris Area DM-15 Test Pit	572719	7394766	Y
119	Upper Site Helipad Debris Area	USHL_SS_012.jpg	29-Aug-23	Northwest	Upper Site Helipad Debris Area DM-16 Test Pit Location	572682	7394776	Y
120	Upper Site Helipad Debris Area	USHL_SS_013.jpg	29-Aug-23	North	Upper Site Helipad Debris Area DM-17 Test Pit Location	572648	7394802	Y
121	Upper Site Helipad Debris Area	USHL_SS_014.jpg	29-Aug-23	North Northw	Upper Site Helipad Debris Area DM-16 Test Pit	572679	7394778	Y
122	Upper Site Helipad Debris Area	USHL_SS_015.jpg	29-Aug-23	North Northw	Upper Site Helipad Debris Area DM-17 Test Pit	572649	7394802	Y
123	Upper Site Helipad Debris Area	USHL_SS_016.jpg	29-Aug-23	Northest	Upper Site Helipad Debris Area DM-16 Covered Test Pit	572679	7394774	Y
124	Upper Site Helipad Debris Area	USHL_SS_017.jpg	29-Aug-23	West Southw	Upper Site Helipad Debris Area DM-15 Covered Test Pit	572716	7394771	Y
125	Upper Site Helipad Debris Area	USHL_SS_018.jpg	29-Aug-23	Northwest	Upper Site Helipad Debris Area DM-11 Test Pit Location	572701	7394835	Y
126	Upper Site Helipad Debris Area	USHL_SS_019.jpg	29-Aug-23	North Northw	Upper Site Helipad Debris Area DM-17 Covered Test Pit	572654	7394801	Y
127	Upper Site Helipad Debris Area	USHL_SS_020.jpg	29-Aug-23	Northwest	Upper Site Helipad Debris Area DM-11 Test Pit	572704	7394825	Y
128	Upper Site Helipad Debris Area	USHL_SS_021.jpg	29-Aug-23	Northwest	Upper Site Helipad Debris Area DM-11 Covered Test Pit	572702	7394825	Y
129	Upper Site Helipad Debris Area	USHL_SS_022.jpg	29-Aug-23	North	Upper Site Helipad Debris Area DM-12-S Resample Location	572740	7394839	Y
130	Upper Site Helipad Debris Area	USHL_SS_023.jpg	29-Aug-23	North Northw	Upper Site Helipad Debris Area DM-12-S Resample Test Pit	572729	7394844	Y
131	Upper Site Helipad Debris Area	USHL_SS_024.jpg	29-Aug-23	Northest	Upper Site Helipad Debris Area DM-12-S Covered Test Pit	572733	7394839	Y
132	Upper Site Non-Hazardous Waste Landfill	USNHWL_SS_001.jpg	27-Aug-23	Northwest	Upper Site Non Hazardous Waste Facility MW06-18 Test Pit Location	572282	7395066	Y
133	Upper Site Non-Hazardous Waste Landfill	USNHWL_SS_002.jpg	27-Aug-23	Northwest	Upper Site Non Hazardous Waste Facility MW06-18 Test Pit	572283	7395068	Y

134	Upper Site Non-Hazardous Waste Landfill	USNHWL_SS_003.jpg	27-Aug-23	West	Upper Site Non Hazardous Waste Facility MW06-18 Covered Test Pit	572282	7395070	Y
135	Upper Site Non-Hazardous Waste Landfill	USNHWL_SS_004.jpg	27-Aug-23	South	Upper Site Non Hazardous Waste Facility MW07-21 Test Pit Location	572301	7395184	Y
136	Upper Site Non-Hazardous Waste Landfill	USNHWL_SS_005.jpg	27-Aug-23	West	Upper Site Non Hazardous Waste Facility MW07-21 Top	572299	7395180	Y
137	Upper Site Non-Hazardous Waste Landfill	USNHWL_SS_006.jpg	27-Aug-23	Northwest	Upper Site Non Hazardous Waste Facility MW07-21 Test Pit	572299	7395178	Y
138	Upper Site Non-Hazardous Waste Landfill	USNHWL_SS_007.jpg	27-Aug-23	South Southe	Upper Site Non Hazardous Waste Facility MW07-21 Covered Test Pit	572296	7395185	Y
139	Upper Site Non-Hazardous Waste Landfill	USNHWL_SS_008.jpg	27-Aug-23	South Southe	Upper Site Non Hazardous Waste Facility MW06-20 Test Pit Location	572219	7395206	Y
140	Upper Site Non-Hazardous Waste Landfill	USNHWL_SS_009.jpg	27-Aug-23	Southeast	Upper Site Non Hazardous Waste Facility MW06-20 Test Pit	572216	7395206	N
141	Upper Site Non-Hazardous Waste Landfill	USNHWL_SS_010.jpg	27-Aug-23	East Southea	Upper Site Non Hazardous Waste Facility MW06-19 Test Pit Location	572111	7395137	Y
142	Upper Site Non-Hazardous Waste Landfill	USNHWL_SS_011.jpg	27-Aug-23	Northwest	Upper Site Non Hazardous Waste Facility MW06-19 Top	572110	7395142	Y
143	Upper Site Non-Hazardous Waste Landfill	USNHWL_SS_012.jpg	27-Aug-23	West	Upper Site Non Hazardous Waste Facility MW06-20 Covered Test Pit	572218	7395209	N
144	Upper Site Non-Hazardous Waste Landfill	USNHWL_SS_013.jpg	27-Aug-23	South	Upper Site Non Hazardous Waste Facility MW06-19 Covered Test Pit	572111	7395145	Y
145	Upper Site North Warning System Landfill	USNWSL_SS_001.jpg	27-Aug-23	North	Upper Site Non Hazardous Waste Facility DM-19 Test Pit Location	572600	7394631	Y
146	Upper Site North Warning System Landfill	USNWSL_SS_002.jpg	27-Aug-23	North	Upper Site Non Hazardous Waste Facility DM-23 Test Pit Location	572582	7394625	Y
147	Upper Site North Warning System Landfill	USNWSL_SS_003.jpg	27-Aug-23	West Southw	Upper Site Non Hazardous Waste Facility DM-19 Test Pit	572603	7394631	Y
148	Upper Site North Warning System Landfill	USNWSL_SS_004.jpg	27-Aug-23	North Northw	Upper Site Non Hazardous Waste Facility DM-20 Test Pit	572582	7394623	N
149	Upper Site North Warning System Landfill	USNWSL_SS_005.jpg	27-Aug-23	Northwest	Upper Site Non Hazardous Waste Facility DM-20 Test PIt Location	572567	7394660	Y
150	Upper Site North Warning System Landfill	USNWSL_SS_006.jpg	27-Aug-23	West	Upper Site Non Hazardous Waste Facility DM-19 Covered Test Pit	572604	7394633	Y
151	Upper Site North Warning System Landfill	USNWSL_SS_007.jpg	27-Aug-23	West	Upper Site Non Hazardous Waste Facility DM-23 Covered Test Pit	572584	7394626	Y
152	Upper Site North Warning System Landfill	USNWSL_SS_008.jpg	27-Aug-23	West Southw	Upper Site Non Hazardous Waste Facility DM-20 Test Pit	572567	7394661	Y
153	Upper Site North Warning System Landfill	USNWSL_SS_009.jpg	27-Aug-23	West	Upper Site Non Hazardous Waste Facility DM-21 Test Pit Location	572524	7394687	Y
154	Upper Site North Warning System Landfill	USNWSL_SS_010.jpg	27-Aug-23	West	Upper Site Non Hazardous Waste Facility DM-20 Covered Test Pit	572566	7394662	Y
155	Upper Site North Warning System Landfill	USNWSL_SS_011.jpg	27-Aug-23	Northwest	Upper Site Non Hazardous Waste Facility DM-21 Test Pit	572524	7394687	Y
156	Upper Site North Warning System Landfill	USNWSL_SS_012.jpg	27-Aug-23	North Northw	Upper Site Non Hazardous Waste Facility DM-22 Test Pit Location	572491	7394724	Y
157	Upper Site North Warning System Landfill	USNWSL_SS_013.jpg	27-Aug-23	West Southw	Upper Site Non Hazardous Waste Facility DM-21 Covered Test Pit	572524	7394690	Y
158	Upper Site North Warning System Landfill	USNWSL_SS_014.jpg	27-Aug-23	North	Upper Site Non Hazardous Waste Facility DM-18 Test Pit	572601	7394736	Y
159	Upper Site North Warning System Landfill	USNWSL_SS_015.jpg	27-Aug-23	North Northe	Upper Site Non Hazardous Waste Facility DM-18 Test Pit Location	572603	7394732	Y
160	Upper Site North Warning System Landfill	USNWSL_SS_016.jpg	27-Aug-23	Northeast	Upper Site Non Hazardous Waste Facility DM-18 Test Pit	572600	7394734	Y
161	Upper Site North Warning System Landfill	USNWSL_SS_017.jpg	27-Aug-23	North	Upper Site Non Hazardous Waste Facility DM-22 Covered Test Pit	572490	7394725	Y
162	Upper Site North Warning System Landfill	USNWSL_SS_018.jpg	27-Aug-23	North	Upper Site Non Hazardous Waste Facility DM-22 Covered Test Pit	572489	7394726	Y
163	Upper Site Pallet Line Landfill	USPLL_SS_001.jpg	31-Aug-23	Northwest	Upper Site Pallet Line Landfill DM-60 Test Pit	571935	7394947	Y
164	Upper Site Pallet Line Landfill	USPLL_SS_002.jpg	31-Aug-23	Southwest	Upper Site Pallet Line Landfill DM-61 Test Pit Location	571877	7394823	Y
165	Upper Site Pallet Line Landfill	USPLL_SS_003.jpg	31-Aug-23	North Northw	Upper Site Pallet Line Landfill DM-61 Test Pit	571876	7394823	Y
166	Upper Site Pallet Line Landfill	USPLL_SS_004.jpg	31-Aug-23	West Northw	Upper Site Pallet Line Landfill DM-60 Covered Test Pit	571932	7394951	Y
167	Upper Site Pallet Line Landfill	USPLL_SS_005.jpg	31-Aug-23	Northwest	Upper Site Pallet Line Landfill DM-61 Covered Test Pit	571879	7394819	Y
168	Upper Site Pallet Line Landfill	USPLL_SS_006.jpg	31-Aug-23	Southwest	Upper Site Pallet Line Landfill DM-62 Test Pit Location	571859	7394771	Y
169	Upper Site Pallet Line Landfill	USPLL_SS_007.jpg	31-Aug-23	North	Upper Site Pallet Line Landfill DM-62 Test Pit	571858	7394765	Y
170	Upper Site Pallet Line Landfill	USPLL_SS_008.jpg	31-Aug-23	Northwest	Upper Site Pallet Line Landfill DM-59 Test Pit Location	571793	7394751	Y
171	Upper Site Pallet Line Landfill	USPLL_SS_009.jpg	31-Aug-23	Northwest	Upper Site Pallet Line Landfill DM-62 Covered Test Pit	571857	7394764	Y
172	Upper Site Pallet Line Landfill	USPLL_SS_010.jpg	31-Aug-23	West	Upper Site Pallet Line Landfill DM-59 Test Pit	571792	7394752	Y
173	Upper Site Pallet Line Landfill	USPLL_SS_011.jpg	31-Aug-23	Southwest	Upper Site Pallet Line Landfill DM-58 Test Pit Location	571726	7394791	Y
174	Upper Site Pallet Line Landfill	USPLL_SS_012.jpg	31-Aug-23	North Northw	Upper Site Pallet Line Landfill DM-59 Covered Test Pit	571790	7394754	Y
175	Upper Site Pallet Line Landfill	USPLL_SS_013.jpg	31-Aug-23	North Northw	Upper Site Pallet Line Landfill DM-58 Test Pit	571727	7394789	Y
176	Upper Site Pallet Line Landfill	USPLL_SS_014.jpg	31-Aug-23	Northwest	Upper Site Pallet Line Landfill DM-57 Test Pit Location	571578	7394749	Y
177	Upper Site Pallet Line Landfill	USPLL_SS_015.jpg	31-Aug-23	West	Upper Site Pallet Line Landfill DM-58 Covered Test Pit	571729	7394789	Y
178	Upper Site Pallet Line Landfill	USPLL_SS_016.jpg	31-Aug-23	West Northw	Upper Site Pallet Line Landfill DM-57 Test Pit	571578	7394748	Y
179	Upper Site Pallet Line Landfill	USPLL_SS_017.jpg	31-Aug-23	West	Upper Site Pallet Line Landfill DM-56 Test Pit Location	571535	7394776	Y
180	Upper Site Pallet Line Landfill	USPLL_SS_018.jpg	31-Aug-23	Northwest	Upper Site Pallet Line Landfill DM-57 Covered Test Pit	571579	7394767	Y
181	Upper Site Pallet Line Landfill	USPLL_SS_019.jpg	31-Aug-23	East Northea	Upper Site Pallet Line Landfill DM-56 Test Pit	571532	7394776	Y
182	Upper Site Pallet Line Landfill	USPLL_SS_020.jpg	31-Aug-23	North Northe	Upper Site Pallet Line Landfill DM-55 Test Pit Location	571543	7394820	Y
183	Upper Site Pallet Line Landfill	USPLL_SS_021.jpg	31-Aug-23	Northwest	Upper Site Pallet Line Landfill DM-56 Covered Test Pit	571535	7394773	Y
184	Upper Site Pallet Line Landfill	USPLL_SS_022.jpg	31-Aug-23	South Southw	Upper Site Pallet Line Landfill DM-55 Test Pit	571543	7394839	Y
185	Upper Site Pallet Line Landfill	USPLL_SS_023.jpg	31-Aug-23	North	Upper Site Pallet Line Landfill DM-54 Test Pit Location	571670	7394853	Y
186	Upper Site Pallet Line Landfill	USPLL_SS_024.jpg	31-Aug-23	South Southw	Upper Site Pallet Line Landfill DM-55 Covered Test Pit	571547	7394839	Y
187	Upper Site Pallet Line Landfill	USPLL_SS_025.jpg	31-Aug-23	Northeast	Upper Site Pallet Line Landfill DM-54 Test Pit	571671	7394856	Y
188	Upper Site Pallet Line Landfill	USPLL_SS_026.jpg	31-Aug-23	East Southea	Upper Site Pallet Line Landfill DM-54 Covered Test Pit	571669	7394852	Y
189	Upper Site Pallet Line Landfill	USPLL_SS_027.jpg	31-Aug-23	Northwest	Upper Site Pallet Line Landfill DM-53 Test Pit Location	571754	7394992	Y
190	Upper Site Pallet Line Landfill	USPLL_SS_028.jpg	31-Aug-23	Southeast	Upper Site Pallet Line Landfill DM-51 Test Pit Location	571624	7394980	Y
191	Upper Site Pallet Line Landfill	USPLL_SS_029.jpg	31-Aug-23	South Southw	Upper Site Pallet Line Landfill DM-50 Test Pit Location	571693	7394981	Y
192	Upper Site South Landfill West	USSLW_SS_001.jpg	28-Aug-23	North Northw	Upper Site South Landfill West DM-24 Test Pit Location	572619	7394549	Y
193	Upper Site South Landfill West	USSLW_SS_002.jpg	28-Aug-23	North Northe	Upper Site South Landfill West DM-25 Test Pit Location	572562	7394547	Y
194	Upper Site South Landfill West	USSLW_SS_003.jpg	28-Aug-23	East Southea	Upper Site South Landfill West DM-24 Test Pit	572616	7394549	Y
195	Upper Site South Landfill West	USSLW_SS_004.jpg	28-Aug-23	East Southea	Upper Site South Landfill West DM-24 Covered Test Pit	572651	7394442	N
196	Upper Site South Landfill West	USSLW_SS_005.jpg	28-Aug-23	East Southea	Upper Site South Landfill West DM-26 Test Pit Location	572522	7394551	Y
197	Upper Site South Landfill West	USSLW_SS_006.jpg	28-Aug-23	Northeast	Upper Site South Landfill West DM-25 Test Pit	572563	7394547	Y
198	Upper Site South Landfill West	USSLW_SS_007.jpg	28-Aug-23	Northwest	Upper Site South Landfill West DM-26 Test Pit	572523	7394548	Y
199	Upper Site South Landfill West	USSLW_SS_008.jpg	28-Aug-23	North Northw	Upper Site South Landfill West DM-27 Test Pit Location	572479	7394516	Y
200	Upper Site South Landfill West	USSLW_SS_009.jpg	28-Aug-23	West Northw	Upper Site South Landfill West DM-25 Covered Test Pit	572564	7394545	Y
201	Upper Site South Landfill West	USSLW_SS_010.jpg	28-Aug-23	Northwest	Upper Site South Landfill West DM-27 Test Pit	572478	7394516	Y
202	Upper Site South Landfill West	USSLW_SS_011.jpg	28-Aug-23	West Southw	Upper Site South Landfill West DM-30 Test Pit Location	572495	7394621	Y
203	Upper Site South Landfill West	USSLW_SS_012.jpg	28-Aug-23	Southwest	Upper Site South Landfill West DM-26 Covered Test Pit	572523	7394548	Y
204	Upper Site South Landfill West	USSLW_SS_013.jpg	28-Aug-23	Northeast	Upper Site South Landfill West DM-27 Covered Test Pit	572479	7394516	Y
205	Upper Site South Landfill West	USSLW_SS_014.jpg	28-Aug-23	Northwest	Upper Site South Landfill West DM-28 Test Pit	572458	7394542	Y
206	Upper Site South Landfill West	USSLW_SS_015.jpg	28-Aug-23	North Northw	Upper Site South Landfill West DM-29 Test Pit Location	572449	7394597	Y
207	Upper Site South Landfill West	USSLW_SS_016.jpg	28-Aug-23	Southwest	Upper Site South Landfill West DM-28 Covered Test Pit	572449	7394537	Y
208	Upper Site South Landfill West	USSLW_SS_017.jpg	28-Aug-23	North Northw	Upper Site South Landfill West DM-29 Test Pit	572451	7394592	Y
209	Upper Site South Landfill West	USSLW_SS_018.jpg	28-Aug-23	West Northw	Upper Site South Landfill West DM-30 Test Pit Location	572495	7394621	Y
210	Upper Site South Landfill West	USSLW_SS_019.jpg	28-Aug-23	West	Upper Site South Landfill West DM-30 Test Pit	572497	7394624	Y
211	Upper Site South Landfill West	USSLW_SS_020.jpg	28-Aug-23	North	Upper Site South Landfill West DM-29 Test Pit Location	572451	7394588	Y
212	Upper Site South Landfill West	USSLW_SS_021.jpg	28-Aug-23	West Southw	Upper Site South Landfill West DM-30 Covered Test Pit	572495	7394621	Y
213	Upper Site Tier II Disposal Facility	UST2DF_SS_001.jpg	25-Aug-23	Southwest	Upper Site Tier II Disposal Facility MW12-02 Test Pit Location	571097	7394709	Y
214	Upper Site Tier II Disposal Facility	UST2DF_SS_002.jpg	25-Aug-23	Southwest	Upper Site Tier II Disposal Facility MW12-02 Test Pit	571096	7394707	Y
215	Upper Site Tier II Disposal Facility	UST2DF_SS_003.jpg	25-Aug-23	South	Upper Site Tier II Disposal Facility MW12-02 Covered Test Pit	571097	7394709	N
216	Upper Site Tier II Disposal Facility	UST2DF_SS_004.jpg	25-Aug-23	North	Upper Site Tier II Disposal Facility MW07-22 Test Pit Location	571164	7394673	Y
217	Upper Site Tier II Disposal Facility	UST2DF_SS_005.jpg	25-Aug-23	South	Upper Site Tier II Disposal Facility MW07-22 Test Pit	571164	7394677	N
218	Upper Site Tier II Disposal Facility	UST2DF_SS_006.jpg	25-Aug-23	North	Upper Site Tier II Disposal Facility MW07-22 Covered Test Pit	571165	7394673	Y
219	Upper Site Tier II Disposal Facility	UST2DF_SS_007.jpg	25-Aug-23	North Northw	Upper Site Tier II Disposal Facility MW07-23 Test Pit Location	571119	7394520	Y
220	Upper Site Tier II Disposal Facility	UST2DF_SS_008.jpg	25-Aug-23	North Northw	Upper Site Tier II Disposal Facility MW07-23 Test Pit	571122	7394521	Y
221	Upper Site Tier II Disposal Facility	UST2DF_SS_009.jpg	25-Aug-23	East	Upper Site Tier II Disposal Facility MW07-23 Covered Test Pit	571120	7394525	Y
222	Upper Site Tier II Disposal Facility	UST2DF_SS_010.jpg	25-Aug-23	East	Upper Site Tier II Disposal Facility MW08-24 Test Pit Location	571021	7394587	Y
223	Upper Site Tier II Disposal Facility	UST2DF_SS_011.jpg	25-Aug-23	East Southea	Upper Site Tier II Disposal Facility MW08-24 Test Pit	571023	7394583	Y
224	Upper Site Tier II Disposal Facility	UST2DF_SS_012.jpg	25-Aug-23	East Southea	Upper Site Tier II Disposal Facility MW08-24 Covered Test Pit	571020	7394587	N
225	Upper Site Tier II Disposal Facility	UST2DF_SS_013.jpg	25-Aug-23	South	Upper Site Tier II Disposal Facility MW08-25 Test Pit Location	571011	7394667	Y
226	Upper Site Tier II Disposal Facility	UST2DF_SS_014.jpg	25-Aug-23	North Northw	Upper Site Tier II Disposal Facility MW08-25 Test Pit	571009	7394670	Y
227	Upper Site Tier II Disposal Facility	UST2DF_SS_015.jpg	25-Aug-23	South Southw	Upper Site Tier II Disposal Facility MW08-25 Covered Test Pit	571010	7394667	Y
228	Upper Site West Landfill - Centre Lobe	USWLCE_SS_001.jpg	30-Aug-23	Northwest	Upper Site West Landfill - Centre Lobe DM-41 Test Pit Location	571444	7394993	Y
229	Upper Site West Landfill - Centre Lobe	USWLCE_SS_002.jpg	30-Aug-23	Northwest	Upper Site West Landfill - Centre Lobe DM-41 Test Pit	571447	7394996	Y
230	Upper Site West Landfill - West Lobe	USWLWL_SS_003.jpg	30-Aug-23	North Northw	Upper Site West Landfill - West Lobe DM-40 Test Pit Location	571547	7395001	Y
231	Upper Site West Landfill - West Lobe	USWLWL_SS_004.jpg	30-Aug-23	North Northw	Upper Site West Landfill - West Lobe DM-40 Test Pit	571542	7394999	Y
232	Upper Site West Landfill - West Lobe	USWLWL_SS_005.jpg	30-Aug-23	Northwest	Upper Site West Landfill - West Lobe DM-52 Test Pit Location	571644	7395027	N
233	Upper Site West Landfill - Centre Lobe	USWLCE_SS_006.jpg	30-Aug-23	Northwest	Upper Site West Landfill - Centre Lobe DM-41 Covered Test Pit	571444	7394997	Y
234	Upper Site West Landfill - West Lobe	USWLWL_SS_007.jpg	30-Aug-23	West Northw	Upper Site West Landfill - West Lobe DM-40 Covered Test Pit	571548	7395002	Y
235	Upper Site West Landfill - West Lobe	USWLWL_SS_008.jpg	30-Aug-23	West	Upper Site West Landfill - West Lobe DM-52 Test Pit	571645	7395029	N
236	Upper Site West Landfill - East Lobe	USWLCE_SS_009.jpg	30-Aug-23	West Northw	Upper Site West Landfill East Lobe DM-47 Test Pit Location	571694	7395058	Y
237	Upper Site West Landfill - West Lobe	USWLWL_SS_010.jpg	30-Aug-23	West Northw	Upper Site West Landfill - West Lobe DM-52 Covered Test Pit	571645	7395029	N
238	Upper Site West Landfill - East Lobe	USWLCE_SS_011.jpg	30-Aug-23	Northwest	Upper Site West Landfill East Lobe DM-47 Test Pit	571691	7395060	Y
239	Upper Site West Landfill - East Lobe	USWLCE_SS_012.jpg	30-Aug-23	Northwest	Upper Site West Landfill East Lobe DM-49 Test Pit Location	571740	7395113	Y
240	Upper Site West Landfill - East Lobe	USWLCE_SS_013.jpg	30-Aug-23	West Southw	Upper Site West Landfill East Lobe DM-48 Test PIt Location	571670	7395132	Y
241	Upper Site West Landfill - East Lobe	USWLCE_SS_014.jpg	30-Aug-23	North Northw	Upper Site West Landfill East Lobe DM-47 Covered Test Pit	571690	7395059	Y
242	Upper Site West Landfill - East Lobe	USWLCE_SS_015.jpg	30-Aug-23	Southwest	Upper Site West Landfill East Lobe DM-49 Test Pit	571735	7395115	Y
243	Upper Site West Landfill - Centre Lobe	USWLCE_SS_016.jpg	30-Aug-23	Southwest	Upper Site West Landfill Centre Lobe DM-46 Test Pit Location	571624	7395123	Y
244	Upper Site West Landfill - Centre Lobe	USWLCE_SS_017.jpg	30-Aug-23	Southwest	Upper Site West Landfill Centre Lobe DM-45 Test Pit Location	571560	7395123	Y
245	Upper Site West Landfill - East Lobe	USWLCE_SS_018.jpg	30-Aug-23	West Northw	Upper Site West Landfill East Lobe DM-49 Covered Test Pit	571737	7395112	Y
246	Upper Site West Landfill - East Lobe	USWLCE_SS_019.jpg	30-Aug-23	Northwest	Upper Site West Landfill East Lobe DM-48 Test Pit	571668	7395129	Y
247	Upper Site West Landfill - Centre Lobe	USWLCE_SS_020.jpg	30-Aug-23	West	Upper Site West Landfill Centre Lobe DM-46 Test Pit	571626	7395117	Y
248	Upper Site West Landfill - East Lobe	USWLCE_SS_021.jpg	30-Aug-23	West Northw	Upper Site West Landfill East Lobe DM-48 Covered Test Pit	571670	7395125	Y
249	Upper Site West Landfill - Centre Lobe	USWLCE_SS_022.jpg	30-Aug-23	Northwest	Upper Site West Landfill Centre Lobe DM-46 Covered Test Pit	571626	7395116	Y
250	Upper Site West Landfill - West Lobe	USWLWL_SS_023.jpg	30-Aug-23	West Northw	Upper Site West Landfill - West Lobe DM-35 Test Pit	571374	7394945	Y
251	Upper Site West Landfill - Centre Lobe	USWLCE_SS_024.jpg	30-Aug-23	West	Upper Site West Landfill Centre Lobe DM-45 Covered Test Pit	571562	7395114	Y
252	Upper Site West Landfill - Centre Lobe	USWLCE_SS_025.jpg	26-Aug-23	North Northe	Upper Site West Landfill Centre Lobe DM-43 Test Pit Location	571425	7395083	Y
253	Upper Site West Landfill - Centre Lobe	USWLCE_SS_026.jpg	26-Aug-23	South Southw	Upper Site West Landfill Centre Lobe DM-44 Test Pit Location	571482	7395113	Y
254	Upper Site West Landfill - Centre Lobe	USWLCE_SS_027.jpg	26-Aug-23	Southeast	Upper Site West Landfill Centre Lobe DM-42 Test Pit	571384	7395048	Y
255	Upper Site West Landfill - Centre Lobe	USWLCE_SS_028.jpg	26-Aug-23	Northeast	Upper Site West Landfill Centre Lobe DM-42 Covered Test Pit	571394	7395051	Y
256	Upper Site West Landfill - Centre Lobe	USWLCE_SS_029.jpg	26-Aug-23	South	Upper Site West Landfill Centre Lobe DM-43 Test Pit	571427	7395083	Y
257	Upper Site West Landfill - Centre Lobe	USWLCE_SS_030.jpg	26-Aug-23	South	Upper Site West Landfill Centre Lobe DM-43 Covered Test Pit	571427	7395085	Y
258	Upper Site West Landfill - Centre Lobe	USWLCE_SS_031.jpg	26-Aug-23	Southwest	Upper Site West Landfill Centre Lobe DM-44 Test Pit	571481	7395111	Y
259	Upper Site West Landfill - Centre Lobe	USWLCE_SS_032.jpg	26-Aug-23	South	Upper Site West Landfill Centre Lobe DM-44 Covered Test Pit	571477	7395113	Y
260	Upper Site West Landfill - West Lobe	USWLWL_SS_033.jpg	31-Aug-23	North	Upper Site West Landfill - West Lobe DM-51 Test Pit Location	571628	7394986	Y
261	Upper Site West Landfill - West Lobe	USWLWL_SS_034.jpg	31-Aug-23	North Northe	Upper Site West Landfill - West Lobe DM-50 Test Pit Location	571695	7394987	Y
262	Upper Site West Landfill - West Lobe	USWLWL_SS_035.jpg	31-Aug-23	East Northea	Upper Site West Landfill - West Lobe DM-51 Test Pit	571625	7394984	Y
263	Upper Site West Landfill - West Lobe	USWLWL_SS_036.jpg	31-Aug-23	Northwest	Upper Site West Landfill - West Lobe DM-50 Test Pit	571692	7394988	Y
264	Upper Site West Landfill - West Lobe	USWLWL_SS_037.jpg	31-Aug-23	North Northe	Upper Site West Landfill - West Lobe DM-53 Covered Test Pit	571757	7394990	Y
265	Upper Site West Landfill - West Lobe	USWLWL_SS_038.jpg	26-Aug-23	North Northe	Upper Site West Landfill - West Lobe DM-37 Test Pit Location	571197	7394919	Y
266	Upper Site West Landfill - West Lobe	USWLWL_SS_039.jpg	26-Aug-23	East	Upper Site West Landfill - West Lobe DM-31 Test Pit Location	571162	7394955	Y
267	Upper Site West Landfill - West Lobe	USWLWL_SS_040.jpg	26-Aug-23	South Southe	Upper Site West Landfill - West Lobe DM-31 Test Pit	571165	7394958	Y
268	Upper Site West Landfill - West Lobe	USWLWL_SS_041.jpg	26-Aug-23	North Northw	Upper Site West Landfill - West Lobe DM-32 Test Pit Location	571096	7394902	Y
269	Upper Site West Landfill - West Lobe	USWLWL_SS_042.jpg	26-Aug-23	North Northe	Upper Site West Landfill - West Lobe DM-37 Test Pit	571200	7394918	Y
270	Upper Site West Landfill - West Lobe	USWLWL_SS_043.jpg	26-Aug-23	North Northw	Upper Site West Landfill - West Lobe DM-31 Covered Test Pit	571165	7394952	Y
271	Upper Site West Landfill - West Lobe	USWLWL_SS_044.jpg	26-Aug-23	West	Upper Site West Landfill - West Lobe DM-33 Test Pit Location	571077	7394966	Y

272	Upper Site West Landfill - West Lobe	USWLWL_SS_045.jpg	26-Aug-23	North Northw	Upper Site West Landfill - West Lobe DM-37 Covered Test Pit	571199	7394920	Y
273	Upper Site West Landfill - West Lobe	USWLWL_SS_046.jpg	26-Aug-23	East Northea	Upper Site West Landfill - West Lobe DM-32 Test Pit	571094	7394905	Y
274	Upper Site West Landfill - West Lobe	USWLWL_SS_047.jpg	26-Aug-23	East	Upper Site West Landfill - West Lobe DM-32 Covered Test Pit	571095	7394907	Y
275	Upper Site West Landfill - West Lobe	USWLWL_SS_048.jpg	26-Aug-23	West Southw	Upper Site West Landfill - West Lobe DM-33 Test Pit	571076	7394966	Y
276	Upper Site West Landfill - West Lobe	USWLWL_SS_049.jpg	26-Aug-23	West	Upper Site West Landfill - West Lobe DM-34 Test Pit Location	571147	7395013	Y
277	Upper Site West Landfill - West Lobe	USWLWL_SS_050.jpg	26-Aug-23	Northeast	Upper Site West Landfill - West Lobe DM-38 Test Pit Location	571237	7395057	Y
278	Upper Site West Landfill - West Lobe	USWLWL_SS_051.jpg	26-Aug-23	North	Upper Site West Landfill - West Lobe DM-33 Covered Test Pit	571075	7394962	Y
279	Upper Site West Landfill - West Lobe	USWLWL_SS_052.jpg	26-Aug-23	Southwest	Upper Site West Landfill - West Lobe DM-34 Covered Hle	571147	7394991	Y
280	Upper Site West Landfill - West Lobe	USWLWL_SS_053.jpg	26-Aug-23	Northeast	Upper Site West Landfill - West Lobe DM-39 Test Pit Location	571355	7395042	Y
281	Upper Site West Landfill - West Lobe	USWLWL_SS_054.jpg	26-Aug-23	North Northw	Upper Site West Landfill - West Lobe DM-38 Test Pit	571264	7395048	Y
282	Upper Site West Landfill - West Lobe	USWLWL_SS_055.jpg	26-Aug-23	North Northe	Upper Site West Landfill - West Lobe DM-38 Covered Test Pit	571241	7395059	Y
283	Upper Site West Landfill - Centre Lobe	USWLCE_SS_056.jpg	26-Aug-23	South Southe	Upper Site West Landfill Centre Lobe DM-42 Test Pit Location	571384	7395046	Y
284	Upper Site West Landfill - West Lobe	USWLWL_SS_057.jpg	26-Aug-23	North	Upper Site West Landfill - West Lobe DM-39 Test Pit	571358	7395047	Y
285	Upper Site West Landfill - West Lobe	USWLWL_SS_058.jpg	26-Aug-23	Southeast	Upper Site West Landfill - West Lobe DM-39 Covered Test Pit	571355	7395043	Y
286	Upper Site West Landfill - West Lobe	USWLWL_SS_059.jpg	26-Aug-23	North Northe	Upper Site West Landfill - West Lobe DM-35 Test Pit Location	571370	7394939	Y
287	Upper Site West Landfill - West Lobe	USWLWL_SS_060.jpg	26-Aug-23	North	Upper Site West Landfill - West Lobe DM-36 Test Pit Location	571282	7394927	Y
288	Upper Site West Landfill - West Lobe	USWLWL_SS_061.jpg	26-Aug-23	Northeast	Upper Site West Landfill - West Lobe DM-35 Test Pit	571372	7394947	Y
289	Upper Site West Landfill - West Lobe	USWLWL_SS_062.jpg	26-Aug-23	North	Upper Site West Landfill - West Lobe DM-35 Covered Test Pit	571374	7394945	Y
290	Upper Site West Landfill - West Lobe	USWLWL_SS_063.jpg	26-Aug-23	Northwest	Upper Site West Landfill - West Lobe DM-36 Test Pit	571281	7394931	Y
291	Upper Site West Landfill - West Lobe	USWLWL_SS_064.jpg	26-Aug-23	West	Upper Site West Landfill - West Lobe DM-36 Covered Test Pit	571283	7394930	Y
292	Upper Site West Landfill - West Lobe	USWLWL_SS_065.jpg	26-Aug-23	West Southw	Upper Site West Landfill - West Lobe DM-60 Test Pit Location	571932	7394949	N
293	Lower Site Non-Hazardous Waste Landfill	LSNHWL_SS_001.jpg	27-Aug-23	North Northe	Lower Site Non Hazardous Waste Landfill MW09-28 Test Pit Location	562936	7387015	N
294	Lower Site Non-Hazardous Waste Landfill	LSNHWL_SS_002.jpg	27-Aug-23	North	Lower Site Non Hazardous Waste Landfill MW09-28 Test Pit	562939	7387015	N
295	Lower Site Non-Hazardous Waste Landfill	LSNHWL_SS_003.jpg	27-Aug-23	East Southea	Lower Site Non Hazardous Waste Landfill MW05-09 Test Pit Location	563033	7387073	N
296	Lower Site Non-Hazardous Waste Landfill	LSNHWL_SS_004.jpg	27-Aug-23	East	Lower Site Non Hazardous Waste Landfill MW09-28 Covered Test Pit	562935	7387018	N
297	Lower Site Non-Hazardous Waste Landfill	LSNHWL_SS_005.jpg	27-Aug-23	East Southea	Lower Site Non Hazardous Waste Landfill MW05-09 Test Pit	563034	7387073	N
298	Lower Site Non-Hazardous Waste Landfill	LSNHWL_SS_006.jpg	27-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill MW05-12 Test Pit Location	563108	7387080	N
299	Lower Site Non-Hazardous Waste Landfill	LSNHWL_SS_007.jpg	27-Aug-23	South Southw	Lower Site Non Hazardous Waste Landfill MW05-12 Covered Test Pit	563108	7387082	N
300	Lower Site Non-Hazardous Waste Landfill	LSNHWL_SS_008.jpg	27-Aug-23	North	Lower Site Non Hazardous Waste Landfill MW09-27 Test Pit Location	562925	7386964	N
301	Lower Site Non-Hazardous Waste Landfill	LSNHWL_SS_009.jpg	27-Aug-23	North	Lower Site Non Hazardous Waste Landfill MW09-27 Test Pit	562927	7386963	N
302	Lower Site Non-Hazardous Waste Landfill	LSNHWL_SS_010.jpg	27-Aug-23	West	Lower Site Non Hazardous Waste Landfill MW09-26 Test Pit Location	563067	7386914	N
303	Lower Site Non-Hazardous Waste Landfill	LSNHWL_SS_011.jpg	27-Aug-23	South Southe	Lower Site Non Hazardous Waste Landfill MW09-26 Existing Well	563073	7386891	N
304	Lower Site Non-Hazardous Waste Landfill	LSNHWL_SS_012.jpg	27-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill MW09-27 Existing Well	562925	7386962	N
305	Lower Site Non-Hazardous Waste Landfill	LSNHWL_SS_013.jpg	27-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill MW09-26 Existing Well	563068	7386915	N
306	Lower Site Tier II Disposal Facility	LST2DF_SS_001.jpg	2-Sep-23	East Southea	Lower Site Tier II Disposal Facility MW05-16 Test Pit Location	561874	7388147	Y
307	Lower Site Tier II Disposal Facility	LST2DF_SS_002.jpg	2-Sep-23	South	Lower Site Tier II Disposal Facility MW05-16 Test Pit	561874	7388148	Y
308	Lower Site Tier II Disposal Facility	LST2DF_SS_003.jpg	2-Sep-23	South Southe	Lower Site Tier II Disposal Facility MW05-16 Covered Test Pit	561873	7388149	Y
309	Lower Site Tier II Disposal Facility	LST2DF_SS_004.jpg	2-Sep-23	Northeast	Lower Site Tier II Disposal Facility MW05-15 Test Pit Location	561786	7388321	Y
310	Lower Site Tier II Disposal Facility	LST2DF_SS_005.jpg	2-Sep-23	Northeast	Lower Site Tier II Disposal Facility MW05-15 Test Pit	561784	7388319	Y
311	Lower Site Tier II Disposal Facility	LST2DF_SS_006.jpg	2-Sep-23	Southeast	Lower Site Tier II Disposal Facility MW05-15 Covered Test Pit	561785	7388321	Y
312	Lower Site Tier II Disposal Facility	LST2DF_SS_007.jpg	2-Sep-23	North Northw	Lower Site Tier II Disposal Facility MW12-01 Test Pit Location	561888	7388359	Y
313	Lower Site Tier II Disposal Facility	LST2DF_SS_008.jpg	2-Sep-23	North	Lower Site Tier II Disposal Facility MW12-01 Test Pit	561890	7388361	Y
314	Lower Site Tier II Disposal Facility	LST2DF_SS_009.jpg	2-Sep-23	North	Lower Site Tier II Disposal Facility MW12-01 Covered Test Pit	561889	7388359	Y
315	Lower Site Tier II Disposal Facility	LST2DF_SS_010.jpg	2-Sep-23	West Northw	Lower Site Tier II Disposal Facility MW05-13 Test Pit Location	561968	7388340	N
316	Lower Site Tier II Disposal Facility	LST2DF_SS_011.jpg	2-Sep-23	West Northw	Lower Site Tier II Disposal Facility MW05-13 Test Pit	561968	7388341	N
317	Lower Site Tier II Disposal Facility	LST2DF_SS_012.jpg	2-Sep-23	Southwest	Lower Site Tier II Disposal Facility MW05-13 Covered Test Pit	561970	7388342	N
318	Lower Site Crossroads Landfill	LSCL_SS_001.jpg	1-Sep-23	Southwest	Lower Site Crossroads Landfill DM-01 Test Pit Location	562654	7387613	Y
319	Lower Site Crossroads Landfill	LSCL_SS_002.jpg	1-Sep-23	West Northw	Lower Site Crossroads Landfill DM-01 Test Pit	562651	7387610	Y
320	Lower Site Crossroads Landfill	LSCL_SS_003.jpg	1-Sep-23	North Northw	Lower Site Crossroads Landfill DM-01 Covered Test Pit	562653	7387615	Y
321	Lower Site Crossroads Landfill	LSCL_SS_004.jpg	1-Sep-23	West Northw	Lower Site Crossroads Landfill DM-03 Test Pit Location	562595	7387680	Y
322	Lower Site Crossroads Landfill	LSCL_SS_005.jpg	1-Sep-23	South Southw	Lower Site Crossroads Landfill DM-03 Test Pit	562598	7387673	Y
323	Lower Site Crossroads Landfill	LSCL_SS_006.jpg	1-Sep-23	West	Lower Site Crossroads Landfill DM-02 Test Pit Location	562569	7387645	Y
324	Lower Site Crossroads Landfill	LSCL_SS_007.jpg	1-Sep-23	Northeast	Lower Site Crossroads Landfill DM-03 Covered Test Pit	562601	7387678	Y
325	Lower Site Crossroads Landfill	LSCL_SS_008.jpg	1-Sep-23	South Southe	Lower Site Crossroads Landfill DM-02 Test Pit	562571	7387644	Y
326	Lower Site Crossroads Landfill	LSCL_SS_009.jpg	1-Sep-23	South Southe	Lower Site Crossroads Landfill DM-02 Covered Test Pit	562568	7387644	Y
327	Lower Site Foundations Landfill	LSFL_SS_001.jpg	1-Sep-23	East Southea	Lower Site Foundations Landfill DM-04 Test Pit Location	562761	7387533	Y
328	Lower Site Foundations Landfill	LSFL_SS_002.jpg	1-Sep-23	Southeast	Lower Site Foundations Landfill DM-04 Test Pit	562763	7387537	Y
329	Lower Site Foundations Landfill	LSFL_SS_003.jpg	1-Sep-23	Northeast	Lower Site Foundations Landfill DM-06 Test Pit Location	562760	7387622	Y
330	Lower Site Foundations Landfill	LSFL_SS_004.jpg	1-Sep-23	East Northea	Lower Site Foundations Landfill DM-04 Covered Test Pit	562757	7387534	Y
331	Lower Site Foundations Landfill	LSFL_SS_005.jpg	1-Sep-23	Northwest	Lower Site Foundations Landfill DM-06 Test Pit	562762	7387621	Y
332	Lower Site Foundations Landfill	LSFL_SS_006.jpg	1-Sep-23	Northwest	Lower Site Foundations Landfill DM-06 Covered Test Pit	562766	7387619	Y
333	Lower Site Foundations Landfill	LSFL_SS_007.jpg	1-Sep-23	North	Lower Site Foundations Landfill DM-05 Test Pit Location	562707	7387596	Y
334	Lower Site Foundations Landfill	LSFL_SS_008.jpg	1-Sep-23	South	Lower Site Foundations Landfill DM-05 Test Pit	562709	7387594	Y
335	Lower Site Foundations Landfill	LSFL_SS_009.jpg	1-Sep-23	North Northe	Lower Site Foundations Landfill DM-05 Covered Test Pit	562710	7387596	Y
336	Lower Site North Warning System Landfill	LSNWSL_SS_001.jpg	2-Sep-23	West	Lower Site North Warning System Landfill DM-08 Test Pit Location	561454	7388943	Y
337	Lower Site North Warning System Landfill	LSNWSL_SS_002.jpg	2-Sep-23	West	Lower Site North Warning System Landfill DM-09 Test Pit Location	561458	7388906	Y
338	Lower Site North Warning System Landfill	LSNWSL_SS_003.jpg	2-Sep-23	Southwest	Lower Site North Warning System Landfill DM-10 Test Pit Location	561420	7388891	Y
339	Lower Site North Warning System Landfill	LSNWSL_SS_004.jpg	2-Sep-23	West Southw	Lower Site North Warning System Landfill DM-07 Test Pit Location	561375	7388948	Y
340	Lower Site North Warning System Landfill	LSNWSL_SS_005.jpg	2-Sep-23	West Northw	Lower Site North Warning System Landfill DM-08 Test Pit	561451	7388942	Y
341	Lower Site North Warning System Landfill	LSNWSL_SS_006.jpg	2-Sep-23	Northwest	Lower Site North Warning System Landfill DM-08 Covered Test Pit	561452	7388940	Y
342	Lower Site North Warning System Landfill	LSNWSL_SS_007.jpg	2-Sep-23	West Northw	Lower Site North Warning System Landfill DM-09 Test Pit	561458	7388908	Y
343	Lower Site North Warning System Landfill	LSNWSL_SS_008.jpg	2-Sep-23	Southwest	Lower Site North Warning System Landfill DM-09 Covered Test Pit	561458	7388908	Y
344	Lower Site North Warning System Landfill	LSNWSL_SS_009.jpg	2-Sep-23	West Northw	Lower Site North Warning System Landfill DM-10 Test Pit	561419	7388890	Y
345	Lower Site North Warning System Landfill	LSNWSL_SS_010.jpg	2-Sep-23	South Southe	Lower Site North Warning System Landfill DM-07 Test Pit	561374	7388947	Y
346	Lower Site North Warning System Landfill	LSNWSL_SS_011.jpg	2-Sep-23	West Northw	Lower Site North Warning System Landfill DM-10 Covered Test Pit	561421	7388890	Y
347	Lower Site North Warning System Landfill	LSNWSL_SS_012.jpg	2-Sep-23	North Northw	Lower Site North Warning System Landfill DM-07 Covered Test Pit	561374	7388946	Y
348	Lower Site Powerhouse Landfill	LSPL_SS_001.jpg	1-Sep-23	North Northw	Lower Site Powerhouse Landfill MW05-08 Test Pit Location	562745	7387403	Y
349	Lower Site Powerhouse Landfill	LSPL_SS_002.jpg	1-Sep-23	North Northe	Lower Site Powerhouse Landfill MW05-07 Test Pit Location	562808	7387474	Y
350	Lower Site Powerhouse Landfill	LSPL_SS_003.jpg	1-Sep-23	West Northw	Lower Site Powerhouse Landfill MW05-06 Test Pit Location	562776	7387516	Y
351	Lower Site Powerhouse Landfill	LSPL_SS_004.jpg	1-Sep-23	East Southea	Lower Site Powerhouse Landfill MW05-05 Test Pit Location	562711	7387495	Y
352	Lower Site Powerhouse Landfill	LSPL_SS_005.jpg	1-Sep-23	West	Lower Site Powerhouse Landfill MW05-06 Test Pit	562782	7387509	Y
353	Lower Site Powerhouse Landfill	LSPL_SS_006.jpg	1-Sep-23	East Southea	Lower Site Powerhouse Landfill MW05-05 Test Pit	562710	7387486	Y
354	Lower Site Powerhouse Landfill	LSPL_SS_007.jpg	1-Sep-23	South Southe	Lower Site Powerhouse Landfill MW05-08 Test Pit	562744	7387407	Y
355	Lower Site Powerhouse Landfill	LSPL_SS_008.jpg	1-Sep-23	East	Lower Site Powerhouse Landfill MW05-05 Covered Test Pit	562715	7387492	Y
356	Lower Site Powerhouse Landfill	LSPL_SS_009.jpg	1-Sep-23	Southwest	Lower Site Powerhouse Landfill MW05-06 Covered Test Pit	562783	7387516	Y
357	Lower Site Powerhouse Landfill	LSPL_SS_010.jpg	1-Sep-23	South	Lower Site Powerhouse Landfill MW05-07 Test Pit	562809	7387486	Y
358	Lower Site Powerhouse Landfill	LSPL_SS_011.jpg	1-Sep-23	South	Lower Site Powerhouse Landfill MW05-07 Covered Test Pit	562812	7387473	Y
359	Lower Site Powerhouse Landfill	LSPL_SS_012.jpg	1-Sep-23	South Southw	Lower Site Powerhouse Landfill MW05-08 Covered Test Pit	562747	7387405	Y
360	Lower Site Tier II Disposal Facility	LST2DF_ST_045.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility DM-TS-01 Location	561611	7388256	Y
361	Lower Site Powerhouse Landfill	LSPL_ST_002.jpg	31-Aug-23	North	Lower Site Powerhouse Landfill DM-TS-09 Location+G296:G367	562762	7387398	Y
362	Lower Site Powerhouse Landfill	LSPL_ST_003.jpg	31-Aug-23	East	Lower Site Powerhouse Landfill DM-TS-09 Location	562759	7387406	Y
363	Lower Site Powerhouse Landfill	LSPL_ST_004.jpg	31-Aug-23	South	Lower Site Powerhouse Landfill DM-TS-09 Location	562768	7387410	Y
364	Lower Site Powerhouse Landfill	LSPL_ST_005.jpg	31-Aug-23	West	Lower Site Powerhouse Landfill DM-TS-09 Location	562771	7387400	Y
365	Lower Site Powerhouse Landfill	LSPL_ST_006.jpg	31-Aug-23	Northwest	Lower Site Powerhouse Landfill DM-TS-09 Test Pit Measurement	562758	7387401	Y
366	Lower Site Powerhouse Landfill	LSPL_ST_007.jpg	31-Aug-23	Northwest	Lower Site Powerhouse Landfill DM-TS-09 Tempos Measurement	562756	7387427	N
367	Lower Site Powerhouse Landfill	LSPL_ST_008.jpg	31-Aug-23	North	Lower Site Powerhouse Landfill DM-TS-09 Test Pit	562772	7387406	Y
368	Lower Site Powerhouse Landfill	LSPL_ST_009.jpg	31-Aug-23	Northwest	Lower Site Powerhouse Landfill DM-TS-09 Test Pit Depth Measurement	562755	7387390	N
369	Lower Site Powerhouse Landfill	LSPL_ST_010.jpg	31-Aug-23	Northwest	Lower Site Powerhouse Landfill DM-TS-09 Covered Test Pit	562773	7387392	N
370	Lower Site Powerhouse Landfill	LSPL_ST_011.jpg	31-Aug-23	North	Lower Site Powerhouse Landfill DM-TS-08 Location	562756	7387443	Y
371	Lower Site Powerhouse Landfill	LSPL_ST_012.jpg	31-Aug-23	East	Lower Site Powerhouse Landfill DM-TS-08 Location	562752	7387447	Y
372	Lower Site Powerhouse Landfill	LSPL_ST_013.jpg	31-Aug-23	South	Lower Site Powerhouse Landfill DM-TS-08 Location	562757	7387452	Y
373	Lower Site Powerhouse Landfill	LSPL_ST_014.jpg	31-Aug-23	West	Lower Site Powerhouse Landfill DM-TS-08 Location	562763	7387448	Y
374	Lower Site Powerhouse Landfill	LSPL_ST_015.jpg	31-Aug-23	Southeast	Lower Site Powerhouse Landfill DM-TS-08 Test Pit Measurement	562756	7387445	Y
375	Lower Site Powerhouse Landfill	LSPL_ST_016.jpg	31-Aug-23	Southeast	Lower Site Powerhouse Landfill DM-TS-08 Tempos Measurement	562756	7387451	Y
376	Lower Site Powerhouse Landfill	LSPL_ST_017.jpg	31-Aug-23	Southeast	Lower Site Powerhouse Landfill DM-TS-08 Tempos Measurement	562763	7387450	Y
377	Lower Site Powerhouse Landfill	LSPL_ST_018.jpg	31-Aug-23	East	Lower Site Powerhouse Landfill DM-TS-08 Test Pit	562757	7387458	Y
378	Lower Site Powerhouse Landfill	LSPL_ST_019.jpg	31-Aug-23	North	Lower Site Powerhouse Landfill DM-TS-08 Covered Test Pit	562752	7387442	Y
379	Lower Site Powerhouse Landfill	LSPL_ST_020.jpg	31-Aug-23	Northeast	Lower Site Powerhouse Landfill DM-TS-07 Location	562758	7387471	Y
380	Lower Site Powerhouse Landfill	LSPL_ST_021.jpg	31-Aug-23	West	Lower Site Powerhouse Landfill DM-TS-07 Location	562764	7387473	Y
381	Lower Site Powerhouse Landfill	LSPL_ST_022.jpg	31-Aug-23	South	Lower Site Powerhouse Landfill DM-TS-07 Location	562762	7387479	Y
382	Lower Site Powerhouse Landfill	LSPL_ST_023.jpg	31-Aug-23	East	Lower Site Powerhouse Landfill DM-TS-07 Location	562755	7387475	Y
383	Lower Site Powerhouse Landfill	LSPL_ST_024.jpg	31-Aug-23	East	Lower Site Powerhouse Landfill DM-TS-07 Test Pit Measurement	562760	7387475	Y
384	Lower Site Powerhouse Landfill	LSPL_ST_025.jpg	31-Aug-23	East	Lower Site Powerhouse Landfill DM-TS-07 Test Pit Depth Measurement	562760	7387481	Y
385	Lower Site Powerhouse Landfill	LSPL_ST_026.jpg	31-Aug-23	Southeast	Lower Site Powerhouse Landfill DM-TS-07 Test Pit Depth Measurement	562758	7387475	Y
386	Lower Site Powerhouse Landfill	LSPL_ST_027.jpg	31-Aug-23	North	Lower Site Powerhouse Landfill DM-TS-07 Covered Test Pit	562763	7387478	Y
387	Lower Site Powerhouse Landfill	LSPL_ST_028.jpg	31-Aug-23	South	Lower Site Powerhouse Landfill DM-TS-06 Location	562775	7387530	N
388	Lower Site Powerhouse Landfill	LSPL_ST_029.jpg	31-Aug-23	West	Lower Site Powerhouse Landfill DM-TS-06 Location	562781	7387526	Y
389	Lower Site Powerhouse Landfill	LSPL_ST_030.jpg	31-Aug-23	North	Lower Site Powerhouse Landfill DM-TS-06 Location	562777	7387519	Y
390	Lower Site Powerhouse Landfill	LSPL_ST_031.jpg	31-Aug-23	East	Lower Site Powerhouse Landfill DM-TS-06 Location	562772	7387525	Y
391	Lower Site Powerhouse Landfill	LSPL_ST_032.jpg	31-Aug-23	East	Lower Site Powerhouse Landfill DM-TS-06 Test Pit Measurement	562781	7387522	Y
392	Lower Site Powerhouse Landfill	LSPL_ST_033.jpg	31-Aug-23	North	Lower Site Powerhouse Landfill DM-TS-06 Test Pit Depth Measurement	562776	7387524	Y
393	Lower Site Powerhouse Landfill	LSPL_ST_034.jpg	31-Aug-23	Northeast	Lower Site Powerhouse Landfill DM-TS-06 Tempos Measurement	562777	7387528	Y
394	Lower Site Powerhouse Landfill	LSPL_ST_035.jpg	31-Aug-23	South	Lower Site Powerhouse Landfill DM-TS-06 Covered Test Pit	562776	7387527	Y
395	Lower Site Tier II Disposal Facility	LST2DF_ST_001.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility DM-TS-05 Location	562017	7388350	Y
396	Lower Site Tier II Disposal Facility	LST2DF_ST_002.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility DM-TS-05 Location	562023	7388341	Y
397	Lower Site Tier II Disposal Facility	LST2DF_ST_003.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility DM-TS-05 Location	562019	7388335	Y
398	Lower Site Tier II Disposal Facility	LST2DF_ST_004.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility DM-TS-05 Location	562012	7388340	Y
399	Lower Site Tier II Disposal Facility	LST2DF_ST_005.jpg	31-Aug-23	Southeat	Lower Site Tier II Disposal Facility DM-TS-05 Test Pit Measurement	562016	7388343	Y
400	Lower Site Tier II Disposal Facility	LST2DF_ST_006.jpg	31-Aug-23	N/A	Lower Site Tier II Disposal Facility DM-TS-05 Tempos Measurement	N/A	N/A	Y
401	Lower Site Tier II Disposal Facility	LST2DF_ST_007.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility DM-TS-05 Test Pit Depth Measurement	562009	7388345	Y
402	Lower Site Tier II Disposal Facility	LST2DF_ST_008.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility DM-TS-05 Covered Test Pit	562017	7388343	Y
403	Lower Site Tier II Disposal Facility	LST2DF_ST_009.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility DM-TS-04 Location	561915	7388283	Y
404	Lower Site Tier II Disposal Facility	LST2DF_ST_010.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility DM-TS-04 Location	561910	7388276	Y
405	Lower Site Tier II Disposal Facility	LST2DF_ST_011.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility DM-TS-04 Location	561915	7388270	Y
406	Lower Site Tier II Disposal Facility	LST2DF_ST_012.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility DM-TS-04 Location	561921	7388278	Y
407	Lower Site Tier II Disposal Facility	LST2DF_ST_013.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility DM-TS-04 Test Pit Measurement	561916	7388280	Y
408	Lower Site Tier II Disposal Facility	LST2DF_ST_014.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility DM-TS-04 Test Pit Depth Measurement	561914	7388276	Y
409	Lower Site Tier II Disposal Facility	LST2DF_ST_015.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility DM-TS-04 Test Pit	561918	7388270	Y

410	Lower Site Tier II Disposal Facility	LST2DF_ST_016.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility DM-TS-04 Tempos Measurement	561916	7388277	Y
411	Lower Site Tier II Disposal Facility	LST2DF_ST_017.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility DM-TS-04 Test Pit	561929	7388265	Y
412	Lower Site Tier II Disposal Facility	LST2DF_ST_018.jpg	31-Aug-23	Northeast	Lower Site Tier II Disposal Facility DM-TS-04 Test Pit	561905	7388277	Y
413	Lower Site Tier II Disposal Facility	LST2DF_ST_019.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility DM-TS-04 Covered Test Pit	561912	7388275	Y
414	Lower Site Tier II Disposal Facility	LST2DF_ST_020.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility DM-TS-03 Location	561847	7388241	Y
415	Lower Site Tier II Disposal Facility	LST2DF_ST_021.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility DM-TS-03 Location	561845	7388251	Y
416	Lower Site Tier II Disposal Facility	LST2DF_ST_022.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility DM-TS-03 Location	561837	7388243	Y
417	Lower Site Tier II Disposal Facility	LST2DF_ST_023.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility DM-TS-03 Location	561842	7388237	Y
418	Lower Site Tier II Disposal Facility	LST2DF_ST_024.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility DM-TS-03 Test Pit Measurement	561845	7388244	Y
419	Lower Site Tier II Disposal Facility	LST2DF_ST_025.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility DM-TS-03 Temos Measurement	561843	7388243	Y
420	Lower Site Tier II Disposal Facility	LST2DF_ST_026.jpg	31-Aug-23	N/A	Lower Site Tier II Disposal Facility DM-TS-03 Test Pit Depth Measurement	N/A	N/A	N
421	Lower Site Tier II Disposal Facility	LST2DF_ST_027.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility DM-TS-03 Test Pit	561842	7388241	Y
422	Lower Site Tier II Disposal Facility	LST2DF_ST_028.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility DM-TS-03 Covered Test Pit	561842	7388245	Y
423	Lower Site Tier II Disposal Facility	LST2DF_ST_029.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility DM-TS-02 Location	561763	7388206	Y
424	Lower Site Tier II Disposal Facility	LST2DF_ST_030.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility DM-TS-02 Location	561758	7388213	Y
425	Lower Site Tier II Disposal Facility	LST2DF_ST_031.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility DM-TS-02 Location	561762	7388218	Y
426	Lower Site Tier II Disposal Facility	LST2DF_ST_032.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility DM-TS-02 Location	561769	7388214	Y
427	Lower Site Tier II Disposal Facility	LST2DF_ST_033.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility DM-TS-02 Test Pit Measurement	561763	7388215	Y
428	Lower Site Tier II Disposal Facility	LST2DF_ST_034.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility DM-TS-02 Test Pit Depth Measurement	561763	7388207	Y
429	Lower Site Tier II Disposal Facility	LST2DF_ST_035.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility DM-TS-02 Test Pit Depth Measurement	561765	7388210	Y
430	Lower Site Tier II Disposal Facility	LST2DF_ST_036.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility DM-TS-02 Covered Test Pit	561758	7388209	Y
431	Lower Site Tier II Disposal Facility	LST2DF_ST_037.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility DM-TS-01 Location	561622	7388240	N
432	Lower Site Tier II Disposal Facility	LST2DF_ST_038.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility DM-TS-01 Location	561617	7388242	Y
433	Lower Site Tier II Disposal Facility	LST2DF_ST_039.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility DM-TS-01 Location	561621	7388249	Y
434	Lower Site Tier II Disposal Facility	LST2DF_ST_040.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility DM-TS-01 Location	561627	7388245	Y
435	Lower Site Tier II Disposal Facility	LST2DF_ST_041.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility DM-TS-01 Test Pit Measurement	561622	7388243	Y
436	Lower Site Tier II Disposal Facility	LST2DF_ST_042.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility DM-TS-01 Test Pit Depth Measurement	561633	7388244	Y
437	Lower Site Tier II Disposal Facility	LST2DF_ST_043.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility DM-TS-01 Test Pit Depth Measurement	561618	7388243	Y
438	Lower Site Tier II Disposal Facility	LST2DF_ST_044.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility DM-TS-01 Test Pit Depth Measurement	561622	7388245	Y
439	Upper Site Tier II Disposal Facility	UST2DF_ST_001.jpg	25-Aug-23	Northeast	Upper Site Tier II Disposal Facility DM-TS-10 Location	571108	7393700	N
440	Upper Site Tier II Disposal Facility	UST2DF_ST_002.jpg	25-Aug-23	Southeast	Upper Site Tier II Disposal Facility DM-TS-10 Location	571106	7394707	Y
441	Upper Site Tier II Disposal Facility	UST2DF_ST_003.jpg	25-Aug-23	West	Upper Site Tier II Disposal Facility DM-TS-10 Location	571116	7394704	Y
442	Upper Site Tier II Disposal Facility	UST2DF_ST_004.jpg	25-Aug-23	Northwest	Upper Site Tier II Disposal Facility DM-TS-10 Location	571113	7394698	Y
443	Upper Site Tier II Disposal Facility	UST2DF_ST_005.jpg	25-Aug-23	Northeast	Upper Site Tier II Disposal Facility DM-TS-10 Test Pit Measurement	571110	7394702	Y
444	Upper Site Tier II Disposal Facility	UST2DF_ST_006.jpg	25-Aug-23	West	Upper Site Tier II Disposal Facility DM-TS-10 Test Pit Depth Measurement	571110	7394704	Y
445	Upper Site Tier II Disposal Facility	UST2DF_ST_007.jpg	25-Aug-23	Southeast	Upper Site Tier II Disposal Facility DM-TS-10 Test Pit Depth Measurement	571110	7394703	Y
446	Upper Site Tier II Disposal Facility	UST2DF_ST_008.jpg	25-Aug-23	South	Upper Site Tier II Disposal Facility DM-TS-10 Test Pit	571110	7394703	Y
447	Upper Site Tier II Disposal Facility	UST2DF_ST_009.jpg	25-Aug-23	Northeast	Upper Site Tier II Disposal Facility DM-TS-10 Covered Test Pit	571108	7394699	Y
448	Upper Site Tier II Disposal Facility	UST2DF_ST_010.jpg	25-Aug-23	West	Upper Site Tier II Disposal Facility DM-TS-12 Location	571114	7394611	Y
449	Upper Site Tier II Disposal Facility	UST2DF_ST_011.jpg	25-Aug-23	East	Upper Site Tier II Disposal Facility DM-TS-12 Location	571110	7394612	Y
450	Upper Site Tier II Disposal Facility	UST2DF_ST_012.jpg	25-Aug-23	South	Upper Site Tier II Disposal Facility DM-TS-12 Location	571114	7394618	Y
451	Upper Site Tier II Disposal Facility	UST2DF_ST_013.jpg	25-Aug-23	West	Upper Site Tier II Disposal Facility DM-TS-12 Location	571120	7394609	Y
452	Upper Site Tier II Disposal Facility	UST2DF_ST_014.jpg	25-Aug-23	North	Upper Site Tier II Disposal Facility DM-TS-12 Location	571112	7394604	Y
453	Upper Site Tier II Disposal Facility	UST2DF_ST_015.jpg	25-Aug-23	Northwest	Upper Site Tier II Disposal Facility DM-TS-12 Test Pit Depth Measurement	571114	7394611	Y
454	Upper Site Tier II Disposal Facility	UST2DF_ST_016.jpg	25-Aug-23	Northwest	Upper Site Tier II Disposal Facility DM-TS-12 Test Pit Depth Measurement	571113	7394613	Y
455	Upper Site Tier II Disposal Facility	UST2DF_ST_017.jpg	25-Aug-23	East	Upper Site Tier II Disposal Facility DM-TS-12 Covered Test Pit	571113	7394612	Y
456	Upper Site Tier II Disposal Facility	UST2DF_ST_018.jpg	25-Aug-23	South	Upper Site Tier II Disposal Facility DM-TS-11 Location	571057	7394625	Y
457	Upper Site Tier II Disposal Facility	UST2DF_ST_019.jpg	25-Aug-23	West	Upper Site Tier II Disposal Facility DM-TS-11 Location	571063	7394616	Y
458	Upper Site Tier II Disposal Facility	UST2DF_ST_020.jpg	25-Aug-23	North	Upper Site Tier II Disposal Facility DM-TS-11 Location	571053	7394612	Y
459	Upper Site Tier II Disposal Facility	UST2DF_ST_021.jpg	25-Aug-23	East	Upper Site Tier II Disposal Facility DM-TS-11 Location	571047	7394621	Y
460	Upper Site Tier II Disposal Facility	UST2DF_ST_022.jpg	25-Aug-23	East	Upper Site Tier II Disposal Facility DM-TS-11 Location	571055	7394619	Y
461	Upper Site Tier II Disposal Facility	UST2DF_ST_023.jpg	25-Aug-23	South	Upper Site Tier II Disposal Facility DM-TS-11 Tempos Measurement	571056	7394620	Y
462	Upper Site Tier II Disposal Facility	UST2DF_ST_024.jpg	25-Aug-23	South	Upper Site Tier II Disposal Facility DM-TS-11 Test Pit Depth Measurement	571058	7394620	Y
463	Upper Site Tier II Disposal Facility	UST2DF_ST_025.jpg	25-Aug-23	Southwest	Upper Site Tier II Disposal Facility DM-TS-11 Covered Test Pit	571059	7394619	Y
464	Upper Site Tier II Disposal Facility	UST2DF_ST_026.jpg	25-Aug-23	Northeast	Upper Site Tier II Disposal Facility DM-TS-13 Location	571099	7394508	Y
465	Upper Site Tier II Disposal Facility	UST2DF_ST_027.jpg	25-Aug-23	Southeast	Upper Site Tier II Disposal Facility DM-TS-13 Location	571094	7394521	Y
466	Upper Site Tier II Disposal Facility	UST2DF_ST_028.jpg	25-Aug-23	Southwest	Upper Site Tier II Disposal Facility DM-TS-13 Location	571106	7394523	Y
467	Upper Site Tier II Disposal Facility	UST2DF_ST_029.jpg	25-Aug-23	Northwest	Upper Site Tier II Disposal Facility DM-TS-13 Location	571109	7394512	Y
468	Upper Site Tier II Disposal Facility	UST2DF_ST_030.jpg	25-Aug-23	Southeast	Upper Site Tier II Disposal Facility DM-TS-13 Location	571100	7394517	Y
469	Upper Site Tier II Disposal Facility	UST2DF_ST_031.jpg	25-Aug-23	Northeast	Upper Site Tier II Disposal Facility DM-TS-13 Tempos Measurement	571102	7394515	Y
470	Upper Site Tier II Disposal Facility	UST2DF_ST_032.jpg	25-Aug-23	East	Upper Site Tier II Disposal Facility DM-TS-13 Test Pit Depth Measurement	571101	7394516	Y
471	Upper Site Tier II Disposal Facility	UST2DF_ST_033.jpg	25-Aug-23	East	Upper Site Tier II Disposal Facility DM-TS-13 Covered Test Pit	571099	7394517	Y
472	Lower Site Powerhouse Landfill	LSPL_TH_001.jpg	27-Aug-23	Southwest	Lower Site Powerhouse Landfill VT-6	562756	7387455	Y
473	Lower Site Powerhouse Landfill	LSPL_TH_002.jpg	27-Aug-23	Southwest	Lower Site Powerhouse Landfill VT-6 Data Logger	562759	7387456	Y
474	Lower Site Powerhouse Landfill	LSPL_TH_003.jpg	27-Aug-23	Southwest	Lower Site Powerhouse Landfill VT-6 Location	562758	7387452	Y
475	Lower Site Powerhouse Landfill	LSPL_TH_004.jpg	27-Aug-23	Northwest	Lower Site Powerhouse Landfill VT-5	562760	7387478	Y
476	Lower Site Powerhouse Landfill	LSPL_TH_005.jpg	27-Aug-23	N/A	Lower Site Powerhouse Landfill VT-5 Data Logger	N/A	N/A	N
477	Lower Site Powerhouse Landfill	LSPL_TH_006.jpg	27-Aug-23	East	Lower Site Powerhouse Landfill VT-5	562751	7387476	Y
478	Lower Site Powerhouse Landfill	LSPL_TH_007.jpg	27-Aug-23	West	Lower Site Powerhouse Landfill VT-5 Location	562762	7387483	Y
479	Lower Site Powerhouse Landfill	LSPL_TH_008.jpg	27-Aug-23	Southeast	Lower Site Powerhouse Landfill VT-7	562789	7387449	Y
480	Lower Site Powerhouse Landfill	LSPL_TH_009.jpg	27-Aug-23	N/A	Lower Site Powerhouse Landfill VT-7 Data Logger	N/A	N/A	Y
481	Lower Site Powerhouse Landfill	LSPL_TH_010.jpg	27-Aug-23	N/A	Lower Site Powerhouse Landfill VT-7	N/A	N/A	Y
482	Lower Site Powerhouse Landfill	LSPL_TH_011.jpg	27-Aug-23	South	Lower Site Powerhouse Landfill VT-7 Location	562786	7387456	Y
483	Lower Site Tier II Disposal Facility	LST2DF_TH_001.jpg	27-Aug-23	Southwest	Lower Site Tier II Disposal Facility VT-3	561926	7388281	Y
484	Lower Site Tier II Disposal Facility	LST2DF_TH_002.jpg	27-Aug-23	South	Lower Site Tier II Disposal Facility VT-3 Data Logger	561927	7388280	Y
485	Lower Site Tier II Disposal Facility	LST2DF_TH_003.jpg	27-Aug-23	South	Lower Site Tier II Disposal Facility VT-3 Location	561927	7388294	N
486	Lower Site Tier II Disposal Facility	LST2DF_TH_004.jpg	27-Aug-23	West	Lower Site Tier II Disposal Facility VT-1	561881	7388321	N
487	Lower Site Tier II Disposal Facility	LST2DF_TH_005.jpg	27-Aug-23	N/A	Lower Site Tier II Disposal Facility VT-1 Data Logger	N/A	N/A	N
488	Lower Site Tier II Disposal Facility	LST2DF_TH_006.jpg	27-Aug-23	Northwest	Lower Site Tier II Disposal Facility VT-1	561876	7388320	N
489	Lower Site Tier II Disposal Facility	LST2DF_TH_007.jpg	27-Aug-23	Northwest	Lower Site Tier II Disposal Facility VT-1 Location	561883	7388319	N
490	Lower Site Tier II Disposal Facility	LST2DF_TH_008.jpg	27-Aug-23	Southweast	Lower Site Tier II Disposal Facility VT-2	561835	7388237	N
491	Lower Site Tier II Disposal Facility	LST2DF_TH_009.jpg	27-Aug-23	Southeast	Lower Site Tier II Disposal Facility VT-2 Data Logger	561839	7388236	Y
492	Lower Site Tier II Disposal Facility	LST2DF_TH_010.jpg	27-Aug-23	Southwest	Lower Site Tier II Disposal Facility VT-2	561838	7388236	Y
493	Lower Site Tier II Disposal Facility	LST2DF_TH_011.jpg	27-Aug-23	Southwest	Lower Site Tier II Disposal Facility VT-2	561834	7388240	Y
494	Lower Site Tier II Disposal Facility	LST2DF_TH_012.jpg	27-Aug-23	Southeast	Lower Site Tier II Disposal Facility VT-2 Location	561832	7388235	Y
495	Lower Site Tier II Disposal Facility	LST2DF_TH_013.jpg	27-Aug-23	South	Lower Site Tier II Disposal Facility VT-4	561865	7388179	N
496	Lower Site Tier II Disposal Facility	LST2DF_TH_014.jpg	27-Aug-23	N/A	Lower Site Tier II Disposal Facility VT-4 Data Logger	N/A	N/A	N
497	Lower Site Tier II Disposal Facility	LST2DF_TH_015.jpg	27-Aug-23	Southwest	Lower Site Tier II Disposal Facility VT-4	561861	7388188	N
498	Lower Site Tier II Disposal Facility	LST2DF_TH_016.jpg	27-Aug-23	Southwest	Lower Site Tier II Disposal Facility VT-4 Location	561864	7388186	N
499	Lower Site Tier II Disposal Facility	LST2DF_TH_017.jpg	27-Aug-23	Southeast	Lower Site Tier II Disposal Facility VT-BL Location	561630	7388229	Y
500	Lower Site Tier II Disposal Facility	LST2DF_TH_018.jpg	27-Aug-23	Southeast	Lower Site Tier II Disposal Facility VT-BL	561630	7388229	Y
501	Lower Site Tier II Disposal Facility	LST2DF_TH_019.jpg	27-Aug-23	South	Lower Site Tier II Disposal Facility VT-BL	561631	7388228	Y
502	Lower Site Tier II Disposal Facility	LST2DF_TH_020.jpg	27-Aug-23	East	Lower Site Tier II Disposal Facility VT-BL	561632	7388224	Y
503	Lower Site Tier II Disposal Facility	LST2DF_TH_021.jpg	27-Aug-23	East	Lower Site Tier II Disposal Facility VT-BL Data Logger	561624	7388218	Y
504	Lower Site Tier II Disposal Facility	LST2DF_TH_022.jpg	27-Aug-23	Southeast	Lower Site Tier II Disposal Facility VT-BL	561628	7388227	Y
505	Lower Site Tier II Disposal Facility	LST2DF_TH_023.jpg	27-Aug-23	North	Lower Site Tier II Disposal Facility VT-BL	561630	7388227	Y
506	Lower Site Tier II Disposal Facility	LST2DF_TH_024.jpg	27-Aug-23	South	Lower Site Tier II Disposal Facility VT-BL Location	561629	7388227	Y
507	Lower Site Tier II Disposal Facility	LST2DF_TH_025.jpg	27-Aug-23	East	Lower Site Tier II Disposal Facility VT-BL Location	561626	7388227	Y
508	Upper Site Tier II Disposal Facility	UST2DF_TH_001.jpg	24-Aug-23	West	Upper Site Tier II Disposal Facility VT-8	571056	7394608	Y
509	Upper Site Tier II Disposal Facility	UST2DF_TH_002.jpg	24-Aug-23	West	Upper Site Tier II Disposal Facility VT-8 Thermistor	571052	7394619	Y
510	Upper Site Tier II Disposal Facility	UST2DF_TH_003.jpg	24-Aug-23	Northwest	Upper Site Tier II Disposal Facility VT-20	588453	7595949	N
511	Upper Site Tier II Disposal Facility	UST2DF_TH_004.jpg	24-Aug-23	Northwest	Upper Site Tier II Disposal Facility VT-20 Thermistor	571121	7394612	N
512	Upper Site Tier II Disposal Facility	UST2DF_TH_005.jpg	24-Aug-23	Northwest	Upper Site Tier II Disposal Facility VT-10 Location	571121	7394610	Y
513	Upper Site Tier II Disposal Facility	UST2DF_TH_006.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility VT-10 Ultra-Logger Storage Unit	571120	7394611	Y
514	Upper Site Tier II Disposal Facility	UST2DF_TH_007.jpg	24-Aug-23	West	Upper Site Tier II Disposal Facility VT-10 Wiring	571117	7394608	Y
515	Upper Site Tier II Disposal Facility	UST2DF_TH_008.jpg	24-Aug-23	Northwest	Upper Site Tier II Disposal Facility VT-10 Logger Out of Well	588397	7595951	N
516	Upper Site Tier II Disposal Facility	UST2DF_TH_009.jpg	24-Aug-23	Northwest	Upper Site Tier II Disposal Facility VT-10 Replacement Logger	588429	7595925	N
517	Upper Site Tier II Disposal Facility	UST2DF_TH_010.jpg	24-Aug-23	North	Upper Site Tier II Disposal Facility VT-10 Replacement Logger in Well	571125	7394604	Y
518	Upper Site Tier II Disposal Facility	UST2DF_TH_011.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility VT-11 Wiring	571129	7394655	Y
519	Upper Site Tier II Disposal Facility	UST2DF_TH_012.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility VT-11 Location	571127	7394656	Y
520	Upper Site Tier II Disposal Facility	UST2DF_TH_013.jpg	24-Aug-23	East	Upper Site Tier II Disposal Facility VT-11 Ultra-Logger Storage Unit and Thermistor	571130	7394655	Y
521	Upper Site Tier II Disposal Facility	UST2DF_TH_014.jpg	24-Aug-23	East	Upper Site Tier II Disposal Facility VT-11 Replacement Logger in Well	571130	7394653	Y
522	Upper Site Tier II Disposal Facility	UST2DF_TH_015.jpg	24-Aug-23	East	Upper Site Tier II Disposal Facility VT-8	571051	7394621	Y
523	Upper Site Tier II Disposal Facility	UST2DF_TH_016.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility VT-8 Data Logger and Thermistor	571060	7394631	Y
524	Upper Site Tier II Disposal Facility	UST2DF_TH_017.jpg	24-Aug-23	East	Upper Site Tier II Disposal Facility VT-8 Wiring	571051	7394611	N
525	Upper Site Tier II Disposal Facility	UST2DF_TH_018.jpg	24-Aug-23	Northwest	Upper Site Tier II Disposal Facility VT-8 Location	571054	7394613	Y
526	Upper Site Tier II Disposal Facility	UST2DF_TH_019.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility VT-9 Data Logger and Thermistor	571085	7394555	Y
527	Upper Site Tier II Disposal Facility	UST2DF_TH_020.jpg	24-Aug-23	Northwest	Upper Site Tier II Disposal Facility VT-9 Well Measurement	571089	7394558	Y
528	Upper Site Tier II Disposal Facility	UST2DF_TH_021.jpg	24-Aug-23	Northwest	Upper Site Tier II Disposal Facility VT-9 Well	588476	7595971	N
529	Upper Site Tier II Disposal Facility	UST2DF_TH_022.jpg	24-Aug-23	North	Upper Site Tier II Disposal Facility VT-9 Location	571089	7394557	Y
530	Upper Site Tier II Disposal Facility	UST2DF_TH_023.jpg	24-Aug-23	West	Upper Site Tier II Disposal Facility VT-BU Well	571142	7394471	Y
531	Upper Site Tier II Disposal Facility	UST2DF_TH_024.jpg	24-Aug-23	West	Upper Site Tier II Disposal Facility VT-BU Data Logger and Thermistor	571143	7394471	Y
532	Upper Site Tier II Disposal Facility	UST2DF_TH_025.jpg	24-Aug-23	Southwest	Upper Site Tier II Disposal Facility VT-BU Replacement Logger in Well	571143	7394471	Y
533	Upper Site Tier II Disposal Facility	UST2DF_TH_026.jpg	24-Aug-23	Northwest	Upper Site Tier II Disposal Facility VT-BU Location	571144	7394471	Y
534	Upper Site Helipad Debris Area	USHL_VI_001.jpg	28-Aug-23	North	Upper Site Helipad Debris Area Feature M	572658	7394793	N
535	Upper Site Helipad Debris Area	USHL_VI_002.jpg	28-Aug-23	Northeast	Upper Site Helipad Debris Area Feature M	572659	7394788	Y
536	Upper Site Helipad Debris Area	USHL_VI_003.jpg	28-Aug-23	Northeast	Upper Site Helipad Debris Area Feature M	572657	7394790	N
537	Upper Site Helipad Debris Area	USHL_VI_004.jpg	28-Aug-23	Northeast	Upper Site Helipad Debris Area Feature M	572657	7394793	N
538	Upper Site Helipad Debris Area	USHL_VI_005.jpg	28-Aug-23	North	Upper Site Helipad Debris Area Feature M	572656	7394796	Y
539	Upper Site Helipad Debris Area	USHL_VI_006.jpg	28-Aug-23	Northeast	Upper Site Helipad Debris Area Feature M	572655	7394805	N
540	Upper Site Helipad Debris Area	USHL_VI_007.jpg	28-Aug-23	South	Upper Site Helipad Debris Area Feature M	572655	7394807	Y
541	Upper Site Helipad Debris Area	USHL_VI_008.jpg	28-Aug-23	Northeast	Upper Site Helipad Debris Area 1116	572651	7394801	N
542	Upper Site Helipad Debris Area	USHL_VI_009.jpg	28-Aug-23	North	Upper Site Helipad Debris Area 1146	572669	7394779	N
543	Upper Site Helipad Debris Area	USHL_VI_010.jpg	28-Aug-23	South	Upper Site Helipad Debris Area Representative Vegetation	572720	7394807	Y
544	Upper Site Helipad Debris Area	USHL_VI_011.jpg	28-Aug-23	Northwest	Upper Site Helipad Debris Area Representative Vegetation	572721	7394807	Y
545	Upper Site Helipad Debris Area	USHL_VI_012.jpg	28-Aug-23	West	Upper Site Helipad Debris Area Representative Vegetation	572717	7394801	Y
546	Upper Site Helipad Debris Area	USHL_VI_013.jpg	28-Aug-23	East	Upper Site Helipad Debris Area Feature B	572676	7394801	Y
547	Upper Site Helipad Debris Area	USHL_VI_014.jpg	28-Aug-23	South	Upper Site Helipad Debris Area Feature B	572680	7394809	Y

548	Upper Site Helipad Debris Area	USHL_VI_015.jpg	28-Aug-23	South	Upper Site Helipad Debris Area Feature B	572686	7394813	N
549	Upper Site Helipad Debris Area	USHL_VI_016.jpg	28-Aug-23	Southeast	Upper Site Helipad Debris Area South Slope	572674	7394799	N
550	Upper Site Helipad Debris Area	USHL_VI_017.jpg	28-Aug-23	North	Upper Site Helipad Debris Area Feature B	572695	7394782	N
551	Upper Site Helipad Debris Area	USHL_VI_018.jpg	28-Aug-23	Northeast	Upper Site Helipad Debris Area Feature B	572695	7394782	N
552	Upper Site Helipad Debris Area	USHL_VI_019.jpg	28-Aug-23	Northwest	Upper Site Helipad Debris Area Feature B	572707	7394783	N
553	Upper Site Helipad Debris Area	USHL_VI_020.jpg	28-Aug-23	South	Upper Site Helipad Debris Area Feature B	572698	7394812	N
554	Upper Site Helipad Debris Area	USHL_VI_021.jpg	28-Aug-23	West	Upper Site Helipad Debris Area 1145	572688	7394792	N
555	Upper Site Helipad Debris Area	USHL_VI_022.jpg	28-Aug-23	Southeast	Upper Site Helipad Debris Area 1145	572682	7394793	N
556	Upper Site Helipad Debris Area	USHL_VI_023.jpg	28-Aug-23	North	Upper Site Helipad Debris Area 1140	572696	7394767	N
557	Upper Site Helipad Debris Area	USHL_VI_024.jpg	28-Aug-23	West	Upper Site Helipad Debris Area South Slope	572713	7394772	N
558	Upper Site Helipad Debris Area	USHL_VI_025.jpg	28-Aug-23	East	Upper Site Helipad Debris Area South Slope	572703	7394770	N
559	Upper Site Helipad Debris Area	USHL_VI_026.jpg	28-Aug-23	North	Upper Site Helipad Debris Area 1144	572721	7394776	N
560	Upper Site Helipad Debris Area	USHL_VI_027.jpg	28-Aug-23	East	Upper Site Helipad Debris Area Feature G	572716	7394791	Y
561	Upper Site Helipad Debris Area	USHL_VI_028.jpg	28-Aug-23	Northeast	Upper Site Helipad Debris Area Feature G	572722	7394781	N
562	Upper Site Helipad Debris Area	USHL_VI_029.jpg	28-Aug-23	Northwest	Upper Site Helipad Debris Area Feature G	572723	7394784	N
563	Upper Site Helipad Debris Area	USHL_VI_030.jpg	28-Aug-23	Northwest	Upper Site Helipad Debris Area Feature G	572729	7394781	Y
564	Upper Site Helipad Debris Area	USHL_VI_031.jpg	28-Aug-23	North	Upper Site Helipad Debris Area 1136	572718	7394797	N
565	Upper Site Helipad Debris Area	USHL_VI_032.jpg	28-Aug-23	North	Upper Site Helipad Debris Area Feature H	572722	7394803	N
566	Upper Site Helipad Debris Area	USHL_VI_033.jpg	28-Aug-23	Southwest	Upper Site Helipad Debris Area Feature H	572728	7394827	Y
567	Upper Site Helipad Debris Area	USHL_VI_034.jpg	28-Aug-23	South	Upper Site Helipad Debris Area Feature H	572719	7394833	Y
568	Upper Site Helipad Debris Area	USHL_VI_035.jpg	28-Aug-23	East	Upper Site Helipad Debris Area Feature H	572705	7394818	N
569	Upper Site Helipad Debris Area	USHL_VI_036.jpg	28-Aug-23	Northeast	Upper Site Helipad Debris Area Feature H	572709	7394832	N
570	Upper Site Helipad Debris Area	USHL_VI_037.jpg	28-Aug-23	Southwest	Upper Site Helipad Debris Area Feature H	572717	7394841	N
571	Upper Site Helipad Debris Area	USHL_VI_038.jpg	28-Aug-23	Northeast	Upper Site Helipad Debris Area Feature A	572730	7394840	N
572	Upper Site Helipad Debris Area	USHL_VI_039.jpg	28-Aug-23	East	Upper Site Helipad Debris Area Feature A	572730	7394840	N
573	Upper Site Helipad Debris Area	USHL_VI_040.jpg	28-Aug-23	Southwest	Upper Site Helipad Debris Area Feature A1	572727	7394484	N
574	Upper Site Helipad Debris Area	USHL_VI_041.jpg	28-Aug-23	Northeast	Upper Site Helipad Debris Area Feature A1	572719	7394833	Y
575	Upper Site Helipad Debris Area	USHL_VI_042.jpg	28-Aug-23	North	Upper Site Helipad Debris Area Feature I	572730	7394820	Y
576	Upper Site Helipad Debris Area	USHL_VI_043.jpg	28-Aug-23	West	Upper Site Helipad Debris Area Feature I	572737	7394823	N
577	Upper Site Helipad Debris Area	USHL_VI_044.jpg	28-Aug-23	Southwest	Upper Site Helipad Debris Area 1142	572753	7394830	N
578	Upper Site Helipad Debris Area	USHL_VI_045.jpg	28-Aug-23	Northeast	Upper Site Helipad Debris Area	572749	7394825	N
579	Upper Site Helipad Debris Area	USHL_VI_046.jpg	28-Aug-23	Northwest	Upper Site Helipad Debris Area 1143	572757	7394839	N
580	Upper Site Helipad Debris Area	USHL_VI_047.jpg	28-Aug-23	Southwest	Upper Site Helipad Debris Area 1138	572746	7394839	N
581	Upper Site Helipad Debris Area	USHL_VI_048.jpg	28-Aug-23	Northwest	Upper Site Helipad Debris Area 1139	572740	7394843	N
582	Upper Site Helipad Debris Area	USHL_VI_049.jpg	28-Aug-23	North	Upper Site Helipad Debris Area Feature J	572728	7394853	N
583	Upper Site Helipad Debris Area	USHL_VI_050.jpg	28-Aug-23	Southeast	Upper Site Helipad Debris Area Feature J	572726	7394860	Y
584	Upper Site Helipad Debris Area	USHL_VI_051.jpg	28-Aug-23	North	Upper Site Helipad Debris Area Truck Rutting	572698	7394857	Y
585	Upper Site Helipad Debris Area	USHL_VI_052.jpg	28-Aug-23	East	Upper Site Helipad Debris Area Feature K	572708	7394858	Y
586	Upper Site Helipad Debris Area	USHL_VI_053.jpg	28-Aug-23	North	Upper Site Helipad Debris Area Feature K	572712	7394854	Y
587	Upper Site Helipad Debris Area	USHL_VI_054.jpg	28-Aug-23	Northeast	Upper Site Helipad Debris Area Feature L	572712	7394837	Y
588	Upper Site Helipad Debris Area	USHL_VI_055.jpg	28-Aug-23	Southeast	Upper Site Helipad Debris Area Feature L/E	572712	7394839	Y
589	Upper Site Helipad Debris Area	USHL_VI_056.jpg	28-Aug-23	North	Upper Site Helipad Debris Area Feature L/E	572713	7394832	N
590	Upper Site Helipad Debris Area	USHL_VI_057.jpg	28-Aug-23	North	Upper Site Helipad Debris Area Feature L/E	572704	7394832	N
591	Upper Site Helipad Debris Area	USHL_VI_058.jpg	28-Aug-23	East	Upper Site Helipad Debris Area Feature L/E	572702	7394836	N
592	Upper Site Helipad Debris Area	USHL_VI_059.jpg	28-Aug-23	Northeast	Upper Site Helipad Debris Area 1132	572682	7394818	N
593	Upper Site Helipad Debris Area	USHL_VI_060.jpg	28-Aug-23	Northeast	Upper Site Helipad Debris Area Feature C	572671	7394825	N
594	Upper Site Helipad Debris Area	USHL_VI_061.jpg	28-Aug-23	North	Upper Site Helipad Debris Area Feature C	572675	7394821	Y
595	Upper Site Helipad Debris Area	USHL_VI_062.jpg	28-Aug-23	West	Upper Site Helipad Debris Area Feature C	572684	7394823	Y
596	Upper Site Helipad Debris Area	USHL_VI_063.jpg	28-Aug-23	East	Upper Site Helipad Debris Area 1136	572681	7394816	N
597	Upper Site Helipad Debris Area	USHL_VI_064.jpg	28-Aug-23	Southeast	Upper Site Helipad Debris Area 1135	572682	7394814	N
598	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_001.jpg	28-Aug-23	Northeast	Upper Site Non Hazardous Waste Landfill 976	572172	7395061	N
599	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_002.jpg	28-Aug-23	Northeast	Upper Site Non Hazardous Waste Landfill 976	572156	7395060	N
600	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_003.jpg	28-Aug-23	North	Upper Site Non Hazardous Waste Landfill 975	572136	7395073	N
601	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_004.jpg	28-Aug-23	Northwest	Upper Site Non Hazardous Waste Landfill 972	572146	7395081	N
602	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_005.jpg	28-Aug-23	East	Upper Site Non Hazardous Waste Landfill 969	572156	7395074	N
603	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_006.jpg	28-Aug-23	Southwest	Upper Site Non Hazardous Waste Landfill NW Slope	572136	7395123	N
604	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_007.jpg	28-Aug-23	North	Upper Site Non Hazardous Waste Landfill NW Slope	572135	7395114	N
605	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_008.jpg	28-Aug-23	East	Upper Site Non Hazardous Waste Landfill 956	572134	7395120	N
606	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_009.jpg	28-Aug-23	South	Upper Site Non Hazardous Waste Landfill 971	572146	7395167	N
607	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_010.jpg	28-Aug-23	East	Upper Site Non Hazardous Waste Landfill 965	572152	7395188	N
608	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_011.jpg	28-Aug-23	Southeast	Upper Site Non Hazardous Waste Landfill 965	572154	7395187	N
609	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_012.jpg	28-Aug-23	North	Upper Site Non Hazardous Waste Landfill Feature G	572156	7395178	Y
610	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_013.jpg	28-Aug-23	Southeast	Upper Site Non Hazardous Waste Landfill Feature G	572152	7395183	Y
611	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_014.jpg	28-Aug-23	East	Upper Site Non Hazardous Waste Landfill 968	572147	7395198	N
612	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_015.jpg	28-Aug-23	South	Upper Site Non Hazardous Waste Landfill 973	572148	7395200	N
613	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_016.jpg	28-Aug-23	Southeast	Upper Site Non Hazardous Waste Landfill Representative Vegetation	572178	7395172	Y
614	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_017.jpg	28-Aug-23	East	Upper Site Non Hazardous Waste Landfill Representative Vegetation	572178	7395173	Y
615	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_018.jpg	28-Aug-23	South	Upper Site Non Hazardous Waste Landfill 960	572194	7395162	N
616	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_019.jpg	28-Aug-23	East	Upper Site Non Hazardous Waste Landfill 960	572191	7395160	N
617	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_020.jpg	28-Aug-23	Southwest	Upper Site Non Hazardous Waste Landfill 960	572198	7395160	N
618	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_021.jpg	28-Aug-23	Northwest	Upper Site Non Hazardous Waste Landfill 957	572179	7395119	N
619	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_022.jpg	28-Aug-23	East	Upper Site Non Hazardous Waste Landfill Cover	572165	7395123	N
620	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_023.jpg	28-Aug-23	West	Upper Site Non Hazardous Waste Landfill Cover	572189	7395143	N
621	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_024.jpg	28-Aug-23	East	Upper Site Non Hazardous Waste Landfill 977	572178	7395145	N
622	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_025.jpg	28-Aug-23	South	Upper Site Non Hazardous Waste Landfill 960	572185	7395167	N
623	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_026.jpg	28-Aug-23	South	Upper Site Non Hazardous Waste Landfill 955	572229	7395175	N
624	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_027.jpg	28-Aug-23	Northwest	Upper Site Non Hazardous Waste Landfill 967	572228	7395173	N
625	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_028.jpg	28-Aug-23	East	Upper Site Non Hazardous Waste Landfill North Slope	572227	7395172	N
626	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_029.jpg	28-Aug-23	East	Upper Site Non Hazardous Waste Landfill North Slope	572227	7395172	N
627	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_030.jpg	28-Aug-23	Southeast	Upper Site Non Hazardous Waste Landfill Cover	572229	7395171	N
628	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_031.jpg	28-Aug-23	Southeast	Upper Site Non Hazardous Waste Landfill Cover	572227	7395171	N
629	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_032.jpg	28-Aug-23	Southeast	Upper Site Non Hazardous Waste Landfill 958	572262	7395151	N
630	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_033.jpg	28-Aug-23	South	Upper Site Non Hazardous Waste Landfill 978	572251	7395124	N
631	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_034.jpg	28-Aug-23	Northeast	Upper Site Non Hazardous Waste Landfill 979	572240	7395104	N
632	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_035.jpg	28-Aug-23	Southwest	Upper Site Non Hazardous Waste Landfill 980	572242	7395105	N
633	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_036.jpg	28-Aug-23	East	Upper Site Non Hazardous Waste Landfill 370	572241	7395104	N
634	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_037.jpg	28-Aug-23	West	Upper Site Non Hazardous Waste Landfill 959	572271	7395116	N
635	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_038.jpg	28-Aug-23	East	Upper Site Non Hazardous Waste Landfill Cover	572269	7395118	N
636	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_039.jpg	28-Aug-23	Southeast	Upper Site Non Hazardous Waste Landfill Cover	572267	7395119	N
637	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_040.jpg	28-Aug-23	Southwest	Upper Site Non Hazardous Waste Landfill Feature F	572286	7395094	Y
638	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_041.jpg	28-Aug-23	Northwest	Upper Site Non Hazardous Waste Landfill Feature F	572286	7395093	Y
639	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_042.jpg	28-Aug-23	Northwest	Upper Site Non Hazardous Waste Landfill 974	572296	7395096	N
640	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_043.jpg	28-Aug-23	West	Upper Site Non Hazardous Waste Landfill South Slope	572295	7395090	N
641	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_044.jpg	28-Aug-23	Southeast	Upper Site Non Hazardous Waste Landfill South Slope	572290	7395092	N
642	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_045.jpg	28-Aug-23	Northeast	Upper Site Non Hazardous Waste Landfill 962	572300	7395093	N
643	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_046.jpg	28-Aug-23	South	Upper Site Non Hazardous Waste Landfill SE Corner	572299	7395100	N
644	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_047.jpg	28-Aug-23	Northeast	Upper Site Non Hazardous Waste Landfill East Crest	572308	7395129	N
645	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_048.jpg	28-Aug-23	West	Upper Site Non Hazardous Waste Landfill Cover	572311	7395131	N
646	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_049.jpg	28-Aug-23	Northwest	Upper Site Non Hazardous Waste Landfill Cover	572311	7395131	N
647	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_050.jpg	28-Aug-23	South	Upper Site Non Hazardous Waste Landfill Feature E	572310	7395145	Y
648	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_051.jpg	28-Aug-23	East	Upper Site Non Hazardous Waste Landfill Feature E	572308	7395136	N
649	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_052.jpg	28-Aug-23	Northest	Upper Site Non Hazardous Waste Landfill Feature E	572306	7395135	Y
650	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_053.jpg	28-Aug-23	South	Upper Site Non Hazardous Waste Landfill 963	572312	7395149	N
651	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_054.jpg	28-Aug-23	Northwest	Upper Site Non Hazardous Waste Landfill 966	572314	7395150	N
652	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_055.jpg	28-Aug-23	North	Upper Site Non Hazardous Waste Landfill North Slope	572313	7395152	N
653	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_056.jpg	28-Aug-23	Northeast	Upper Site Non Hazardous Waste Landfill 964	572214	7395085	N
654	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_057.jpg	28-Aug-23	Southwest	Upper Site Non Hazardous Waste Landfill South Slope	572216	7395090	N
655	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_058.jpg	28-Aug-23	Northeast	Upper Site Non Hazardous Waste Landfill Feature H	572211	7395072	N
656	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_059.jpg	28-Aug-23	North	Upper Site Non Hazardous Waste Landfill Feature H	572214	7395073	Y
657	Upper Site Non-Hazardous Waste Landfill	USNHWL_VI_060.jpg	28-Aug-23	East	Upper Site Non Hazardous Waste Landfill Feature H	572205	7395081	Y
658	Upper Site North Warning System Landfill	USNWSL_VI_001.jpg	27-Aug-23	South	Upper Site North Warning System Landfill 1023	572612	7394706	N
659	Upper Site North Warning System Landfill	USNWSL_VI_002.jpg	27-Aug-23	Northeast	Upper Site North Warning System Landfill 1014	572607	7394692	N
660	Upper Site North Warning System Landfill	USNWSL_VI_003.jpg	27-Aug-23	Southwest	Upper Site North Warning System Landfill East Slope	572619	7394696	N
661	Upper Site North Warning System Landfill	USNWSL_VI_004.jpg	27-Aug-23	North	Upper Site North Warning System Landfill East Slope	572620	7394687	N
662	Upper Site North Warning System Landfill	USNWSL_VI_005.jpg	27-Aug-23	Northeast	Upper Site North Warning System Landfill Feature B	572568	7394653	Y
663	Upper Site North Warning System Landfill	USNWSL_VI_006.jpg	27-Aug-23	Northwest	Upper Site North Warning System Landfill Feature B	572575	7394653	Y
664	Upper Site North Warning System Landfill	USNWSL_VI_007.jpg	27-Aug-23	Southeast	Upper Site North Warning System Landfill South Toe	572553	7394673	N
665	Upper Site North Warning System Landfill	USNWSL_VI_008.jpg	27-Aug-23	Northwest	Upper Site North Warning System Landfill South Toe	572569	7394656	N
666	Upper Site North Warning System Landfill	USNWSL_VI_009.jpg	27-Aug-23	East	Upper Site North Warning System Landfill Feature E	572535	7394688	N
667	Upper Site North Warning System Landfill	USNWSL_VI_010.jpg	27-Aug-23	Northeast	Upper Site North Warning System Landfill Feature E	572546	7394678	Y
668	Upper Site North Warning System Landfill	USNWSL_VI_011.jpg	27-Aug-23	Northwest	Upper Site North Warning System Landfill Feature E	572552	7394675	Y
669	Upper Site North Warning System Landfill	USNWSL_VI_012.jpg	27-Aug-23	Southwest	Upper Site North Warning System Landfill Feature E	572547	7394681	N
670	Upper Site North Warning System Landfill	USNWSL_VI_013.jpg	27-Aug-23	Northeast	Upper Site North Warning System Landfill 1022	572529	7394671	N
671	Upper Site North Warning System Landfill	USNWSL_VI_014.jpg	27-Aug-23	Northeast	Upper Site North Warning System Landfill 1028	572530	7394680	N
672	Upper Site North Warning System Landfill	USNWSL_VI_015.jpg	27-Aug-23	Northwest	Upper Site North Warning System Landfill 1012	572538	7394687	N
673	Upper Site North Warning System Landfill	USNWSL_VI_016.jpg	27-Aug-23	West	Upper Site North Warning System Landfill 1026	572588	7394659	N
674	Upper Site North Warning System Landfill	USNWSL_VI_017.jpg	27-Aug-23	Southeast	Upper Site North Warning System Landfill 1013	572593	7394669	N
675	Upper Site North Warning System Landfill	USNWSL_VI_018.jpg	27-Aug-23	West	Upper Site North Warning System Landfill Feature C	572601	7394678	N
676	Upper Site North Warning System Landfill	USNWSL_VI_019.jpg	27-Aug-23	North	Upper Site North Warning System Landfill Feature C	572598	7394674	Y
677	Upper Site North Warning System Landfill	USNWSL_VI_020.jpg	27-Aug-23	Northwest	Upper Site North Warning System Landfill Feature C	572593	7394672	Y
678	Upper Site North Warning System Landfill	USNWSL_VI_021.jpg	27-Aug-23	North	Upper Site North Warning System Landfill Feature C	572591	7394672	Y
679	Upper Site North Warning System Landfill	USNWSL_VI_022.jpg	27-Aug-23	Northwest	Upper Site North Warning System Landfill Feature C	572580	7394674	Y
680	Upper Site North Warning System Landfill	USNWSL_VI_023.jpg	27-Aug-23	Northeast	Upper Site North Warning System Landfill Feature C	572575	7394675	N

681	Upper Site North Warning System Landfill	USNWSL_VI_024.jpg	27-Aug-23	Northeast	Upper Site North Warning System Landfill Feature C	572572	7394679	N
682	Upper Site North Warning System Landfill	USNWSL_VI_025.jpg	27-Aug-23	Northwest	Upper Site North Warning System Landfill Feature C	572570	7394680	N
683	Upper Site North Warning System Landfill	USNWSL_VI_026.jpg	27-Aug-23	Northeast	Upper Site North Warning System Landfill Feature C	572566	7394684	N
684	Upper Site North Warning System Landfill	USNWSL_VI_027.jpg	27-Aug-23	North	Upper Site North Warning System Landfill Feature C	572546	7394695	N
685	Upper Site North Warning System Landfill	USNWSL_VI_028.jpg	27-Aug-23	Northeast	Upper Site North Warning System Landfill Feature C	572540	7394697	N
686	Upper Site North Warning System Landfill	USNWSL_VI_029.jpg	27-Aug-23	Northeast	Upper Site North Warning System Landfill Feature C	572544	7394705	Y
687	Upper Site North Warning System Landfill	USNWSL_VI_030.jpg	27-Aug-23	Southwest	Upper Site North Warning System Landfill 1018	572591	7394684	N
688	Upper Site North Warning System Landfill	USNWSL_VI_031.jpg	27-Aug-23	Southwest	Upper Site North Warning System Landfill 1005	572571	7394703	N
689	Upper Site North Warning System Landfill	USNWSL_VI_032.jpg	27-Aug-23	South	Upper Site North Warning System Landfill South Slope	572564	7394714	N
690	Upper Site North Warning System Landfill	USNWSL_VI_033.jpg	27-Aug-23	Southeast	Upper Site North Warning System Landfill South Slope	572559	7394713	N
691	Upper Site North Warning System Landfill	USNWSL_VI_034.jpg	27-Aug-23	Northwest	Upper Site North Warning System Landfill South Slope	572564	7394710	N
692	Upper Site North Warning System Landfill	USNWSL_VI_035.jpg	27-Aug-23	Northeast	Upper Site North Warning System Landfill Vegetation	572563	7394708	Y
693	Upper Site North Warning System Landfill	USNWSL_VI_036.jpg	27-Aug-23	North	Upper Site North Warning System Landfill Vegetation	572563	7394709	Y
694	Upper Site North Warning System Landfill	USNWSL_VI_037.jpg	27-Aug-23	East	Upper Site North Warning System Landfill Feature F	572526	7394690	N
695	Upper Site North Warning System Landfill	USNWSL_VI_038.jpg	27-Aug-23	Northeast	Upper Site North Warning System Landfill Feature F	572524	7394688	N
696	Upper Site North Warning System Landfill	USNWSL_VI_039.jpg	27-Aug-23	North	Upper Site North Warning System Landfill Feature F	572527	7394683	Y
697	Upper Site North Warning System Landfill	USNWSL_VI_040.jpg	27-Aug-23	East	Upper Site North Warning System Landfill 1003	572537	7394709	N
698	Upper Site North Warning System Landfill	USNWSL_VI_041.jpg	27-Aug-23	East	Upper Site North Warning System Landfill 1004	572542	7394710	N
699	Upper Site North Warning System Landfill	USNWSL_VI_042.jpg	27-Aug-23	Southeast	Upper Site North Warning System Landfill 1020	572509	7394726	N
700	Upper Site North Warning System Landfill	USNWSL_VI_043.jpg	27-Aug-23	Southwest	Upper Site North Warning System Landfill 1020	572508	7394728	N
701	Upper Site North Warning System Landfill	USNWSL_VI_044.jpg	27-Aug-23	North	Upper Site North Warning System Landfill 1021	572502	7394718	N
702	Upper Site North Warning System Landfill	USNWSL_VI_045.jpg	27-Aug-23	North	Upper Site North Warning System Landfill 1029	572510	7394724	N
703	Upper Site North Warning System Landfill	USNWSL_VI_046.jpg	27-Aug-23	North	Upper Site North Warning System Landfill Feature D	572534	7394739	Y
704	Upper Site North Warning System Landfill	USNWSL_VI_047.jpg	27-Aug-23	West	Upper Site North Warning System Landfill Feature D	572542	7394744	N
705	Upper Site North Warning System Landfill	USNWSL_VI_048.jpg	27-Aug-23	South	Upper Site North Warning System Landfill Feature D	572539	7394749	Y
706	Upper Site North Warning System Landfill	USNWSL_VI_049.jpg	27-Aug-23	West	Upper Site North Warning System Landfill North Slope	572534	7394753	N
707	Upper Site North Warning System Landfill	USNWSL_VI_050.jpg	27-Aug-23	Northeast	Upper Site North Warning System Landfill North Slope	572521	7394746	N
708	Upper Site North Warning System Landfill	USNWSL_VI_051.jpg	27-Aug-23	Southeast	Upper Site North Warning System Landfill West Side	572529	7394746	N
709	Upper Site North Warning System Landfill	USNWSL_VI_052.jpg	27-Aug-23	East	Upper Site North Warning System Landfill West Side	572523	7394740	N
710	Upper Site North Warning System Landfill	USNWSL_VI_053.jpg	27-Aug-23	West	Upper Site North Warning System Landfill West Side	572547	7394473	N
711	Upper Site North Warning System Landfill	USNWSL_VI_054.jpg	27-Aug-23	Northwest	Upper Site North Warning System Landfill 1019	572605	7394712	N
712	Upper Site North Warning System Landfill	USNWSL_VI_055.jpg	27-Aug-23	Northwest	Upper Site North Warning System Landfill 1024	572599	7394715	N
713	Upper Site North Warning System Landfill	USNWSL_VI_056.jpg	27-Aug-23	Southeast	Upper Site North Warning System Landfill Tire Tracks	572572	7394729	Y
714	Upper Site North Warning System Landfill	USNWSL_VI_057.jpg	27-Aug-23	East	Upper Site North Warning System Landfill Tire Tracks 1016	572565	7394712	N
715	Upper Site North Warning System Landfill	USNWSL_VI_058.jpg	27-Aug-23	Northwest	Upper Site North Warning System Landfill Cover	572604	7394683	N
716	Upper Site North Warning System Landfill	USNWSL_VI_059.jpg	27-Aug-23	Northeast	Upper Site North Warning System Landfill Cover	572593	7394682	N
717	Upper Site South Landfill West	USSLW_VI_001.jpg	28-Aug-23	South	Upper Site South Landfill West 1081	572620	7394609	N
718	Upper Site South Landfill West	USSLW_VI_002.jpg	28-Aug-23	Northwest	Upper Site South Landfill West 1082	572619	7394609	N
719	Upper Site South Landfill West	USSLW_VI_003.jpg	28-Aug-23	Northwest	Upper Site South Landfill West 1086 Feature M (absence)	572609	7394605	Y
720	Upper Site South Landfill West	USSLW_VI_004.jpg	28-Aug-23	North	Upper Site South Landfill West Feature K	572589	7394597	Y
721	Upper Site South Landfill West	USSLW_VI_005.jpg	28-Aug-23	North	Upper Site South Landfill West Representative Vegetation	572587	7394594	N
722	Upper Site South Landfill West	USSLW_VI_006.jpg	28-Aug-23	West	Upper Site South Landfill West 1051 Feature F2 (absence)	572591	7394592	Y
723	Upper Site South Landfill West	USSLW_VI_007.jpg	28-Aug-23	Northwest	Upper Site South Landfill West Feature Q	572579	7394596	N
724	Upper Site South Landfill West	USSLW_VI_008.jpg	28-Aug-23	Northeast	Upper Site South Landfill West Representative Vegetation	572577	7394598	Y
725	Upper Site South Landfill West	USSLW_VI_009.jpg	28-Aug-23	Southwest	Upper Site South Landfill West 1050 Feature F1 (absence)	572583	7394606	Y
726	Upper Site South Landfill West	USSLW_VI_010.jpg	28-Aug-23	West	Upper Site South Landfill West 1087	572580	7394611	N
727	Upper Site South Landfill West	USSLW_VI_011.jpg	28-Aug-23	Southeast	Upper Site South Landfill West 1079	572587	7394614	N
728	Upper Site South Landfill West	USSLW_VI_012.jpg	28-Aug-23	East	Upper Site South Landfill West North Slope	572581	7394624	N
729	Upper Site South Landfill West	USSLW_VI_013.jpg	28-Aug-23	West	Upper Site South Landfill West North Slope	572595	7394620	N
730	Upper Site South Landfill West	USSLW_VI_014.jpg	28-Aug-23	South	Upper Site South Landfill West 1066	572569	7394617	N
731	Upper Site South Landfill West	USSLW_VI_015.jpg	28-Aug-23	Northeast	Upper Site South Landfill West Feature P	572547	7394624	N
732	Upper Site South Landfill West	USSLW_VI_016.jpg	28-Aug-23	North	Upper Site South Landfill West Feature P	572546	7394627	N
733	Upper Site South Landfill West	USSLW_VI_017.jpg	28-Aug-23	Southwest	Upper Site South Landfill West Feature P	572550	7394629	N
734	Upper Site South Landfill West	USSLW_VI_018.jpg	28-Aug-23	Northwest	Upper Site South Landfill West Feature P	572555	7394622	N
735	Upper Site South Landfill West	USSLW_VI_019.jpg	28-Aug-23	East	Upper Site South Landfill West Feature P	572541	7394627	N
736	Upper Site South Landfill West	USSLW_VI_020.jpg	28-Aug-23	South	Upper Site South Landfill West 1069	572547	7394621	N
737	Upper Site South Landfill West	USSLW_VI_021.jpg	28-Aug-23	West	Upper Site South Landfill West 1083	572557	7394638	N
738	Upper Site South Landfill West	USSLW_VI_022.jpg	28-Aug-23	Southwest	Upper Site South Landfill West Feature E (absence)	572529	7394604	Y
739	Upper Site South Landfill West	USSLW_VI_023.jpg	28-Aug-23	Southwest	Upper Site South Landfill West 1088	572521	7394616	N
740	Upper Site South Landfill West	USSLW_VI_024.jpg	28-Aug-23	Northeast	Upper Site South Landfill West Representative Vegetation	572504	7394616	N
741	Upper Site South Landfill West	USSLW_VI_025.jpg	28-Aug-23	Southwest	Upper Site South Landfill West 1084	572493	7394617	N
742	Upper Site South Landfill West	USSLW_VI_026.jpg	28-Aug-23	Northeast	Upper Site South Landfill West Feature H (absence)	572475	7394571	N
743	Upper Site South Landfill West	USSLW_VI_027.jpg	28-Aug-23	Southwest	Upper Site South Landfill West Feature H	572483	7394578	N
744	Upper Site South Landfill West	USSLW_VI_028.jpg	28-Aug-23	Southwest	Upper Site South Landfill West Feature H	572490	7394580	N
745	Upper Site South Landfill West	USSLW_VI_029.jpg	28-Aug-23	Northeast	Upper Site South Landfill West Feature H	572486	7394579	N
746	Upper Site South Landfill West	USSLW_VI_030.jpg	28-Aug-23	Northeast	Upper Site South Landfill West Feature H	572490	7394583	N
747	Upper Site South Landfill West	USSLW_VI_031.jpg	28-Aug-23	Southeast	Upper Site South Landfill West Feature H	572492	7394586	N
748	Upper Site South Landfill West	USSLW_VI_032.jpg	28-Aug-23	South	Upper Site South Landfill West Feature H (absence)	572501	7394592	Y
749	Upper Site South Landfill West	USSLW_VI_033.jpg	28-Aug-23	Northeast	Upper Site South Landfill West Feature H Veg	572504	7394592	N
750	Upper Site South Landfill West	USSLW_VI_034.jpg	28-Aug-23	Northwest	Upper Site South Landfill West Feature H (absence)	572511	7394585	Y
751	Upper Site South Landfill West	USSLW_VI_035.jpg	28-Aug-23	Northwest	Upper Site South Landfill West Feature H	572506	7394576	N
752	Upper Site South Landfill West	USSLW_VI_036.jpg	28-Aug-23	Southeast	Upper Site South Landfill West 1053	572500	7394580	N
753	Upper Site South Landfill West	USSLW_VI_037.jpg	28-Aug-23	Northeast	Upper Site South Landfill West Feature R	572461	7394584	Y
754	Upper Site South Landfill West	USSLW_VI_038.jpg	28-Aug-23	Northeast	Upper Site South Landfill West Feature R	572460	7394582	N
755	Upper Site South Landfill West	USSLW_VI_039.jpg	28-Aug-23	West	Upper Site South Landfill West Feature R	572464	7394581	Y
756	Upper Site South Landfill West	USSLW_VI_040.jpg	28-Aug-23	Northeast	Upper Site South Landfill West 1075	572456	7394582	N
757	Upper Site South Landfill West	USSLW_VI_041.jpg	28-Aug-23	South	Upper Site South Landfill West 1074	572456	7394586	N
758	Upper Site South Landfill West	USSLW_VI_042.jpg	28-Aug-23	Northeast	Upper Site South Landfill West Feature H	572466	7394566	N
759	Upper Site South Landfill West	USSLW_VI_043.jpg	28-Aug-23	Southwest	Upper Site South Landfill West Feature H	572476	7394574	N
760	Upper Site South Landfill West	USSLW_VI_044.jpg	28-Aug-23	Northeast	Upper Site South Landfill West Feature H	572474	7394571	N
761	Upper Site South Landfill West	USSLW_VI_045.jpg	28-Aug-23	Southwest	Upper Site South Landfill West 1089	572485	7394564	N
762	Upper Site South Landfill West	USSLW_VI_046.jpg	28-Aug-23	Northeast	Upper Site South Landfill West Feature H	572485	7394564	N
763	Upper Site South Landfill West	USSLW_VI_047.jpg	28-Aug-23	Northeast	Upper Site South Landfill West Feature H	572485	7394565	N
764	Upper Site South Landfill West	USSLW_VI_048.jpg	28-Aug-23	Southwest	Upper Site South Landfill West Feature H	572491	7394570	N
765	Upper Site South Landfill West	USSLW_VI_049.jpg	28-Aug-23	Northwest	Upper Site South Landfill West 1076	572468	7394549	N
766	Upper Site South Landfill West	USSLW_VI_050.jpg	28-Aug-23	North	Upper Site South Landfill West Representative Vegetation	572472	7394543	Y
767	Upper Site South Landfill West	USSLW_VI_051.jpg	28-Aug-23	Southwest	Upper Site South Landfill West Representative Vegetation	572475	7394543	N
768	Upper Site South Landfill West	USSLW_VI_052.jpg	28-Aug-23	Northeast	Upper Site South Landfill West 1045	572464	7394537	N
769	Upper Site South Landfill West	USSLW_VI_053.jpg	28-Aug-23	East	Upper Site South Landfill West SW Corner	572443	7394535	N
770	Upper Site South Landfill West	USSLW_VI_054.jpg	28-Aug-23	North	Upper Site South Landfill West SW Corner	572445	7394536	N
771	Upper Site South Landfill West	USSLW_VI_055.jpg	28-Aug-23	North	Upper Site South Landfill West Feature A	572467	7394535	N
772	Upper Site South Landfill West	USSLW_VI_056.jpg	28-Aug-23	Northeast	Upper Site South Landfill West Feature A	572469	7394537	N
773	Upper Site South Landfill West	USSLW_VI_057.jpg	28-Aug-23	Northeast	Upper Site South Landfill West Feature A	572469	7394537	N
774	Upper Site South Landfill West	USSLW_VI_058.jpg	28-Aug-23	Northwest	Upper Site South Landfill West 1085	572484	7394538	N
775	Upper Site South Landfill West	USSLW_VI_059.jpg	28-Aug-23	Northwest	Upper Site South Landfill West South Slope	572484	7394527	N
776	Upper Site South Landfill West	USSLW_VI_060.jpg	28-Aug-23	East	Upper Site South Landfill West South Slope Feature J (absence)	572474	7394531	Y
777	Upper Site South Landfill West	USSLW_VI_061.jpg	28-Aug-23	North	Upper Site South Landfill West South Slope East	572492	7394530	N
778	Upper Site South Landfill West	USSLW_VI_062.jpg	28-Aug-23	South	Upper Site South Landfill West South Slope East	572496	7394555	N
779	Upper Site South Landfill West	USSLW_VI_063.jpg	28-Aug-23	Northeast	Upper Site South Landfill West Feature H1	572509	7394558	N
780	Upper Site South Landfill West	USSLW_VI_064.jpg	28-Aug-23	Northwest	Upper Site South Landfill West Feature H2	572514	7394558	N
781	Upper Site South Landfill West	USSLW_VI_065.jpg	28-Aug-23	Southwest	Upper Site South Landfill West Feature H3	572516	7394568	N
782	Upper Site South Landfill West	USSLW_VI_066.jpg	28-Aug-23	East	Upper Site South Landfill West Feature H4	572505	7394566	N
783	Upper Site South Landfill West	USSLW_VI_067.jpg	28-Aug-23	Southwest	Upper Site South Landfill West 1077	572532	7394569	N
784	Upper Site South Landfill West	USSLW_VI_068.jpg	28-Aug-23	East	Upper Site South Landfill West South Slope	572520	7394562	N
785	Upper Site South Landfill West	USSLW_VI_069.jpg	28-Aug-23	Northwest	Upper Site South Landfill West South Slope	572541	7394548	N
786	Upper Site South Landfill West	USSLW_VI_070.jpg	28-Aug-23	North	Upper Site South Landfill West South Slope	572541	7394549	N
787	Upper Site South Landfill West	USSLW_VI_071.jpg	28-Aug-23	South	Upper Site South Landfill West South Slope	572546	7394574	N
788	Upper Site South Landfill West	USSLW_VI_072.jpg	28-Aug-23	Northeast	Upper Site South Landfill West Feature S	572544	7394579	Y
789	Upper Site South Landfill West	USSLW_VI_073.jpg	28-Aug-23	Southeast	Upper Site South Landfill West Feature S	572542	7394579	Y
790	Upper Site South Landfill West	USSLW_VI_074.jpg	28-Aug-23	Northwest	Upper Site South Landfill West 1078	572547	7394578	N
791	Upper Site South Landfill West	USSLW_VI_075.jpg	28-Aug-23	South	Upper Site South Landfill West 1052 Feature G (absence)	572553	7394597	Y
792	Upper Site South Landfill West	USSLW_VI_076.jpg	28-Aug-23	Northeast	Upper Site South Landfill West Feature H2	572547	7394573	N
793	Upper Site South Landfill West	USSLW_VI_077.jpg	28-Aug-23	East	Upper Site South Landfill West Feature H2	572555	7394584	N
794	Upper Site South Landfill West	USSLW_VI_078.jpg	28-Aug-23	Southwest	Upper Site South Landfill West Feature H3	572559	7394589	N
795	Upper Site South Landfill West	USSLW_VI_079.jpg	28-Aug-23	West	Upper Site South Landfill West Feature H4	572566	7394581	N
796	Upper Site South Landfill West	USSLW_VI_080.jpg	28-Aug-23	West	Upper Site South Landfill West South Slope	572564	7394568	N
797	Upper Site South Landfill West	USSLW_VI_081.jpg	28-Aug-23	North	Upper Site South Landfill West South Slope	572572	7394562	N
798	Upper Site South Landfill West	USSLW_VI_082.jpg	28-Aug-23	West	Upper Site South Landfill West South Slope	572587	7394563	N
799	Upper Site South Landfill West	USSLW_VI_083.jpg	28-Aug-23	North	Upper Site South Landfill West Feature T	572587	7394569	Y
800	Upper Site South Landfill West	USSLW_VI_084.jpg	28-Aug-23	East	Upper Site South Landfill West Feature T	572587	7394571	Y
801	Upper Site South Landfill West	USSLW_VI_085.jpg	28-Aug-23	Southwest	Upper Site South Landfill West 1062 Feature I (absence)	572582	7394581	Y
802	Upper Site South Landfill West	USSLW_VI_086.jpg	28-Aug-23	South	Upper Site South Landfill West Feature H3	572599	7394575	N
803	Upper Site South Landfill West	USSLW_VI_087.jpg	28-Aug-23	North	Upper Site South Landfill West Feature H4	572602	7394571	N
804	Upper Site South Landfill West	USSLW_VI_088.jpg	28-Aug-23	Northwest	Upper Site South Landfill West Feature H5	572606	7394573	N
805	Upper Site South Landfill West	USSLW_VI_089.jpg	28-Aug-23	North	Upper Site South Landfill West Feature T1	572613	7394559	Y
806	Upper Site South Landfill West	USSLW_VI_090.jpg	28-Aug-23	Northwest	Upper Site South Landfill West Feature T1	572613	7394559	Y
807	Upper Site South Landfill West	USSLW_VI_091.jpg	28-Aug-23	Southeast	Upper Site South Landfill West Feature T1	572601	7394571	Y
808	Upper Site South Landfill West	USSLW_VI_092.jpg	28-Aug-23	North	Upper Site South Landfill West Feature T1	572619	7394554	Y
809	Upper Site South Landfill West	USSLW_VI_093.jpg	28-Aug-23	South	Upper Site South Landfill West Feature H4	572614	7394584	N
810	Upper Site South Landfill West	USSLW_VI_094.jpg	28-Aug-23	South	Upper Site South Landfill West Feature H5	572615	7394577	N
811	Upper Site South Landfill West	USSLW_VI_095.jpg	28-Aug-23	North	Upper Site South Landfill West Feature H6	572614	7394566	N
812	Upper Site South Landfill West	USSLW_VI_096.jpg	28-Aug-23	East	Upper Site South Landfill West Feature H7	572603	7394576	N
813	Upper Site South Landfill West	USSLW_VI_097.jpg	28-Aug-23	East	Upper Site South Landfill West Feature U	572614	7394584	N
814	Upper Site South Landfill West	USSLW_VI_098.jpg	28-Aug-23	Northwest	Upper Site South Landfill West Feature U	572620	7394582	Y
815	Upper Site South Landfill West	USSLW_VI_099.jpg	28-Aug-23	South	Upper Site South Landfill West Feature U	572616	7394593	Y
816	Upper Site Tier II Disposal Facility	UST2DF_VI_001.jpg	24-Aug-23	Northwest	Upper Site Tier II Disposal Facility Feature K	571121	7394649	Y

817	Upper Site Tier II Disposal Facility	UST2DF_VI_002.jpg	24-Aug-23	East	Upper Site Tier II Disposal Facility Feature L	571115	7394675	Y
818	Upper Site Tier II Disposal Facility	UST2DF_VI_003.jpg	24-Aug-23	Southeast	Upper Site Tier II Disposal Facility Feature L	571115	7394676	N
819	Upper Site Tier II Disposal Facility	UST2DF_VI_004.jpg	24-Aug-23	West	Upper Site Tier II Disposal Facility Feature A	571095	7394661	N
820	Upper Site Tier II Disposal Facility	UST2DF_VI_005.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility Feature A	571083	7394655	Y
821	Upper Site Tier II Disposal Facility	UST2DF_VI_006.jpg	24-Aug-23	North	Upper Site Tier II Disposal Facility Feature A	571087	7394655	Y
822	Upper Site Tier II Disposal Facility	UST2DF_VI_007.jpg	24-Aug-23	North	Upper Site Tier II Disposal Facility Feature B1	571065	7394645	Y
823	Upper Site Tier II Disposal Facility	UST2DF_VI_008.jpg	24-Aug-23	North	Upper Site Tier II Disposal Facility Feature B2	571069	7394644	Y
824	Upper Site Tier II Disposal Facility	UST2DF_VI_009.jpg	24-Aug-23	North	Upper Site Tier II Disposal Facility Feature B3	571068	7394643	N
825	Upper Site Tier II Disposal Facility	UST2DF_VI_010.jpg	24-Aug-23	North	Upper Site Tier II Disposal Facility Feature B4	571070	7394643	N
826	Upper Site Tier II Disposal Facility	UST2DF_VI_011.jpg	24-Aug-23	North	Upper Site Tier II Disposal Facility Feature B5	571055	7394640	N
827	Upper Site Tier II Disposal Facility	UST2DF_VI_012.jpg	24-Aug-23	North	Upper Site Tier II Disposal Facility Feature B6	571058	7394641	Y
828	Upper Site Tier II Disposal Facility	UST2DF_VI_013.jpg	24-Aug-23	Southeast	Upper Site Tier II Disposal Facility Feature B7	571056	7394644	N
829	Upper Site Tier II Disposal Facility	UST2DF_VI_014.jpg	24-Aug-23	Northwest	Upper Site Tier II Disposal Facility Feature C	571054	7394625	N
830	Upper Site Tier II Disposal Facility	UST2DF_VI_015.jpg	24-Aug-23	Northwest	Upper Site Tier II Disposal Facility Feature C	571050	7394462	N
831	Upper Site Tier II Disposal Facility	UST2DF_VI_016.jpg	24-Aug-23	Southwest	Upper Site Tier II Disposal Facility Toe	571045	7394663	N
832	Upper Site Tier II Disposal Facility	UST2DF_VI_017.jpg	24-Aug-23	East	Upper Site Tier II Disposal Facility Toe	571047	7394665	N
833	Upper Site Tier II Disposal Facility	UST2DF_VI_018.jpg	24-Aug-23	East	Upper Site Tier II Disposal Facility Feature M	571114	7394701	Y
834	Upper Site Tier II Disposal Facility	UST2DF_VI_019.jpg	24-Aug-23	Southwest	Upper Site Tier II Disposal Facility Feature M	571116	7394702	Y
835	Upper Site Tier II Disposal Facility	UST2DF_VI_020.jpg	24-Aug-23	West	Upper Site Tier II Disposal Facility Feature M	571118	7394699	N
836	Upper Site Tier II Disposal Facility	UST2DF_VI_021.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility Feature J	571076	7394583	N
837	Upper Site Tier II Disposal Facility	UST2DF_VI_022.jpg	24-Aug-23	North	Upper Site Tier II Disposal Facility Feature J	571082	7394577	Y
838	Upper Site Tier II Disposal Facility	UST2DF_VI_023.jpg	24-Aug-23	Southeast	Upper Site Tier II Disposal Facility Feature J	571067	7394595	Y
839	Upper Site Tier II Disposal Facility	UST2DF_VI_024.jpg	24-Aug-23	East	Upper Site Tier II Disposal Facility Feature J	571073	7394584	N
840	Upper Site Tier II Disposal Facility	UST2DF_VI_025.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility Feature D	571077	7394558	Y
841	Upper Site Tier II Disposal Facility	UST2DF_VI_026.jpg	24-Aug-23	West	Upper Site Tier II Disposal Facility Feature D	571087	7394558	Y
842	Upper Site Tier II Disposal Facility	UST2DF_VI_027.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility Feature D	571078	7394560	Y
843	Upper Site Tier II Disposal Facility	UST2DF_VI_028.jpg	24-Aug-23	North	Upper Site Tier II Disposal Facility Feature N	571069	7394576	Y
844	Upper Site Tier II Disposal Facility	UST2DF_VI_029.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility Feature N	571067	7394582	N
845	Upper Site Tier II Disposal Facility	UST2DF_VI_030.jpg	24-Aug-23	East	Upper Site Tier II Disposal Facility Feature N	571065	7394589	Y
846	Upper Site Tier II Disposal Facility	UST2DF_VI_031.jpg	24-Aug-23	North	Upper Site Tier II Disposal Facility Cover	571099	7394563	N
847	Upper Site Tier II Disposal Facility	UST2DF_VI_032.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility Cover	571098	7394562	N
848	Upper Site Tier II Disposal Facility	UST2DF_VI_033.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility Cover	571097	7394560	N
849	Upper Site Tier II Disposal Facility	UST2DF_VI_034.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility South Slope	571125	7394570	N
850	Upper Site Tier II Disposal Facility	UST2DF_VI_035.jpg	24-Aug-23	West	Upper Site Tier II Disposal Facility South Slope	571125	7394569	N
851	Upper Site Tier II Disposal Facility	UST2DF_VI_036.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility Feature F	571158	7394596	N
852	Upper Site Tier II Disposal Facility	UST2DF_VI_037.jpg	24-Aug-23	East	Upper Site Tier II Disposal Facility Feature F	571154	7394603	Y
853	Upper Site Tier II Disposal Facility	UST2DF_VI_038.jpg	24-Aug-23	Southeast	Upper Site Tier II Disposal Facility Feature F	571153	7394605	N
854	Upper Site Tier II Disposal Facility	UST2DF_VI_039.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility Feature E (absence)	571145	7394574	Y
855	Upper Site Tier II Disposal Facility	UST2DF_VI_040.jpg	24-Aug-23	Southeast	Upper Site Tier II Disposal Facility Feature E (absence)	571143	7394586	Y
856	Upper Site Tier II Disposal Facility	UST2DF_VI_041.jpg	24-Aug-23	Northwest	Upper Site Tier II Disposal Facility Cover	571163	7394605	N
857	Upper Site Tier II Disposal Facility	UST2DF_VI_042.jpg	24-Aug-23	West	Upper Site Tier II Disposal Facility Cover	571162	7394605	N
858	Upper Site Tier II Disposal Facility	UST2DF_VI_043.jpg	24-Aug-23	Southwest	Upper Site Tier II Disposal Facility Cover	571162	7394605	N
859	Upper Site Tier II Disposal Facility	UST2DF_VI_044.jpg	24-Aug-23	North	Upper Site Tier II Disposal Facility Feature O	571113	7394649	Y
860	Upper Site Tier II Disposal Facility	UST2DF_VI_045.jpg	24-Aug-23	North	Upper Site Tier II Disposal Facility Feature O	571112	7394651	Y
861	Upper Site Tier II Disposal Facility	UST2DF_VI_046.jpg	24-Aug-23	Northwest	Upper Site Tier II Disposal Facility Feature P	571117	7394647	Y
862	Upper Site Tier II Disposal Facility	UST2DF_VI_047.jpg	24-Aug-23	North	Upper Site Tier II Disposal Facility Feature P	571117	7394647	N
863	Upper Site Tier II Disposal Facility	UST2DF_VI_048.jpg	24-Aug-23	North	Upper Site Tier II Disposal Facility Feature P	571117	7394647	N
864	Upper Site Tier II Disposal Facility	UST2DF_VI_049.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility Feature P	571110	7394655	N
865	Upper Site Tier II Disposal Facility	UST2DF_VI_050.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility Feature P	571110	7394655	Y
866	Upper Site Tier II Disposal Facility	UST2DF_VI_051.jpg	24-Aug-23	Southeast	Upper Site Tier II Disposal Facility Cover	571122	7394686	N
867	Upper Site Tier II Disposal Facility	UST2DF_VI_052.jpg	24-Aug-23	South	Upper Site Tier II Disposal Facility Cover	571125	7394686	N
868	Upper Site Tier II Disposal Facility	UST2DF_VI_053.jpg	24-Aug-23	Southwest	Upper Site Tier II Disposal Facility Cover	571127	7394683	N
869	Upper Site Tier II Disposal Facility	UST2DF_VI_054.jpg	24-Aug-23	Southeast	Upper Site Tier II Disposal Facility Feature H	571123	7394695	N
870	Upper Site Tier II Disposal Facility	UST2DF_VI_055.jpg	24-Aug-23	Northwest	Upper Site Tier II Disposal Facility Feature H	571125	7394693	N
871	Upper Site Tier II Disposal Facility	UST2DF_VI_056.jpg	24-Aug-23	Southeast	Upper Site Tier II Disposal Facility Feature H Water Source	571150	7394664	N
872	Upper Site Tier II Disposal Facility	UST2DF_VI_057.jpg	24-Aug-23	Southeast	Upper Site Tier II Disposal Facility Feature H Water Source	571150	7394664	N
873	Upper Site Tier II Disposal Facility	UST2DF_VI_058.jpg	24-Aug-23	Northwest	Upper Site Tier II Disposal Facility NE Toe	571183	7394619	N
874	Upper Site Tier II Disposal Facility	UST2DF_VI_059.jpg	24-Aug-23	South	Upper Site Tier II Disposal Facility NE Toe	571184	7394618	N
875	Upper Site Tier II Disposal Facility	UST2DF_VI_060.jpg	24-Aug-23	Southwest	Upper Site Tier II Disposal Facility NE Toe	571182	7394619	N
876	Upper Site Tier II Disposal Facility	UST2DF_VI_061.jpg	24-Aug-23	Northwest	Upper Site Tier II Disposal Facility SE Toe	571197	7394591	N
877	Upper Site Tier II Disposal Facility	UST2DF_VI_062.jpg	24-Aug-23	West	Upper Site Tier II Disposal Facility SE Toe	571199	7394591	N
878	Upper Site Tier II Disposal Facility	UST2DF_VI_063.jpg	24-Aug-23	Southwest	Upper Site Tier II Disposal Facility SW Toe	571139	7394550	N
879	Upper Site Tier II Disposal Facility	UST2DF_VI_064.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility SW Toe	571138	7394551	N
880	Upper Site Tier II Disposal Facility	UST2DF_VI_065.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility W Corner Toe	571087	7394514	N
881	Upper Site Tier II Disposal Facility	UST2DF_VI_066.jpg	24-Aug-23	North	Upper Site Tier II Disposal Facility W Corner Toe	571087	7394514	N
882	Upper Site Tier II Disposal Facility	UST2DF_VI_067.jpg	24-Aug-23	Southeast	Upper Site Tier II Disposal Facility W Toe	571034	7394581	N
883	Upper Site Tier II Disposal Facility	UST2DF_VI_068.jpg	24-Aug-23	North	Upper Site Tier II Disposal Facility W Toe	571035	7394582	N
884	Upper Site Tier II Disposal Facility	UST2DF_VI_069.jpg	24-Aug-23	North	Upper Site Tier II Disposal Facility W Toe	571035	7394582	N
885	Upper Site Tier II Disposal Facility	UST2DF_VI_070.jpg	24-Aug-23	East	Upper Site Tier II Disposal Facility NW Corner Toe	571010	7394640	N
886	Upper Site Tier II Disposal Facility	UST2DF_VI_071.jpg	24-Aug-23	Southeast	Upper Site Tier II Disposal Facility NW Corner Toe	571011	7394643	N
887	Upper Site Tier II Disposal Facility	UST2DF_VI_072.jpg	24-Aug-23	Southeast	Upper Site Tier II Disposal Facility NW Corner Toe	571009	7394639	N
888	Upper Site Tier II Disposal Facility	UST2DF_VI_073.jpg	24-Aug-23	East	Upper Site Tier II Disposal Facility N Toe	571035	7394658	N
889	Upper Site Tier II Disposal Facility	UST2DF_VI_074.jpg	24-Aug-23	Southwest	Upper Site Tier II Disposal Facility N Toe	571036	7394660	N
890	Upper Site Tier II Disposal Facility	UST2DF_VI_075.jpg	24-Aug-23	Southwest	Upper Site Tier II Disposal Facility	571132	7394722	N
891	Upper Site Tier II Disposal Facility	UST2DF_VI_076.jpg	24-Aug-23	South	Upper Site Tier II Disposal Facility	571132	7394722	N
892	Upper Site Tier II Disposal Facility	UST2DF_VI_077.jpg	24-Aug-23	East	Upper Site Tier II Disposal Facility Cover	571053	7394624	N
893	Upper Site Tier II Disposal Facility	UST2DF_VI_078.jpg	24-Aug-23	Southeast	Upper Site Tier II Disposal Facility Cover	571053	7394624	N
894	Upper Site Tier II Disposal Facility	UST2DF_VI_079.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility Representative Vegetation	571053	7394608	N
895	Upper Site Tier II Disposal Facility	UST2DF_VI_080.jpg	24-Aug-23	Northeast	Upper Site Tier II Disposal Facility Representative Vegetation	571062	7394592	N
896	Upper Site Tier II Disposal Facility	UST2DF_VI_081.jpg	24-Aug-23	North	Upper Site Tier II Disposal Facility Representative Vegetation	571064	7394591	N
897	Upper Site Tier II Disposal Facility	UST2DF_VI_082.jpg	24-Aug-23	North	Upper Site Tier II Disposal Facility Representative Vegetation	571097	7394536	N
898	Upper Site Tier II Disposal Facility	UST2DF_VI_083.jpg	24-Aug-23	Northwest	Upper Site Tier II Disposal Facility Feature Q	571064	7394541	N
899	Upper Site Tier II Disposal Facility	UST2DF_VI_084.jpg	24-Aug-23	East	Upper Site Tier II Disposal Facility Feature Q	571050	7394560	N
900	Upper Site Tier II Disposal Facility	UST2DF_VI_085.jpg	24-Aug-23	East	Upper Site Tier II Disposal Facility Feature Q	571055	7394646	N
901	Upper Site Tier II Disposal Facility	UST2DF_VI_086.jpg	24-Aug-23	Southeast	Upper Site Tier II Disposal Facility Feature Q	571062	7394638	N
902	Upper Site Tier II Disposal Facility	UST2DF_VI_087.jpg	24-Aug-23	Northwest	Upper Site Tier II Disposal Facility Feature Q	571080	7394626	N
903	Upper Site Tier II Disposal Facility	UST2DF_VI_088.jpg	24-Aug-23	East	Upper Site Tier II Disposal Facility Feature Q	571082	7394623	N
904	Upper Site West Landfill - Centre Lobe	USWLCE_VI_001.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe 741	571645	7395055	N
905	Upper Site West Landfill - Centre Lobe	USWLCE_VI_002.jpg	26-Aug-23	West	Upper Site West Landfill Centre Lobe 767	571652	7395046	N
906	Upper Site West Landfill - Centre Lobe	USWLCE_VI_003.jpg	26-Aug-23	South	Upper Site West Landfill Centre Lobe Feature E	571629	7395099	Y
907	Upper Site West Landfill - Centre Lobe	USWLCE_VI_004.jpg	26-Aug-23	Southwest	Upper Site West Landfill Centre Lobe Feature E	571627	7395095	N
908	Upper Site West Landfill - Centre Lobe	USWLCE_VI_005.jpg	26-Aug-23	Southeast	Upper Site West Landfill Centre Lobe Feature E	571612	7395082	N
909	Upper Site West Landfill - Centre Lobe	USWLCE_VI_006.jpg	26-Aug-23	Northeast	Upper Site West Landfill Centre Lobe Feature E	571614	7395082	N
910	Upper Site West Landfill - Centre Lobe	USWLCE_VI_007.jpg	26-Aug-23	South	Upper Site West Landfill Centre Lobe Feature E	571621	7395077	N
911	Upper Site West Landfill - Centre Lobe	USWLCE_VI_008.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe Feature E	571630	7395072	Y
912	Upper Site West Landfill - Centre Lobe	USWLCE_VI_009.jpg	26-Aug-23	South	Upper Site West Landfill Centre Lobe 742	571637	7395096	N
913	Upper Site West Landfill - Centre Lobe	USWLCE_VI_010.jpg	26-Aug-23	West	Upper Site West Landfill Centre Lobe 742	571638	7395098	N
914	Upper Site West Landfill - Centre Lobe	USWLCE_VI_011.jpg	26-Aug-23	South	Upper Site West Landfill Centre Lobe Feature F	571559	7395101	Y
915	Upper Site West Landfill - Centre Lobe	USWLCE_VI_012.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe Feature F	571559	7395083	Y
916	Upper Site West Landfill - Centre Lobe	USWLCE_VI_013.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe Feature F	571558	7395082	N
917	Upper Site West Landfill - Centre Lobe	USWLCE_VI_014.jpg	26-Aug-23	West	Upper Site West Landfill Centre Lobe 723	571556	7395081	N
918	Upper Site West Landfill - Centre Lobe	USWLCE_VI_015.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe Feature V	571533	7395078	Y
919	Upper Site West Landfill - Centre Lobe	USWLCE_VI_016.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe Feature V	571528	7395091	N
920	Upper Site West Landfill - Centre Lobe	USWLCE_VI_017.jpg	26-Aug-23	South	Upper Site West Landfill Centre Lobe Feature V	571528	7395103	N
921	Upper Site West Landfill - Centre Lobe	USWLCE_VI_018.jpg	26-Aug-23	South	Upper Site West Landfill Centre Lobe Feature V	571529	7395107	Y
922	Upper Site West Landfill - Centre Lobe	USWLCE_VI_019.jpg	26-Aug-23	East	Upper Site West Landfill Centre Lobe 743	571515	7395101	N
923	Upper Site West Landfill - Centre Lobe	USWLCE_VI_020.jpg	26-Aug-23	East	Upper Site West Landfill Centre Lobe 747	571507	7395108	N
924	Upper Site West Landfill - Centre Lobe	USWLCE_VI_021.jpg	26-Aug-23	West	Upper Site West Landfill Centre Lobe 748	571512	7395110	N
925	Upper Site West Landfill - Centre Lobe	USWLCE_VI_022.jpg	26-Aug-23	Northwest	Upper Site West Landfill Centre Lobe Features O&P	571477	7395055	N
926	Upper Site West Landfill - Centre Lobe	USWLCE_VI_023.jpg	26-Aug-23	Northwest	Upper Site West Landfill Centre Lobe Features O&P	571474	7395063	Y
927	Upper Site West Landfill - Centre Lobe	USWLCE_VI_024.jpg	26-Aug-23	Northwest	Upper Site West Landfill Centre Lobe Features O&P	571471	7395069	N
928	Upper Site West Landfill - Centre Lobe	USWLCE_VI_025.jpg	26-Aug-23	Southeast	Upper Site West Landfill Centre Lobe Cover	571475	7395051	N
929	Upper Site West Landfill - Centre Lobe	USWLCE_VI_026.jpg	26-Aug-23	Southeast	Upper Site West Landfill Centre Lobe Cover	571477	7395050	N
930	Upper Site West Landfill - Centre Lobe	USWLCE_VI_027.jpg	26-Aug-23	Southwest	Upper Site West Landfill Centre Lobe Cover	571477	7395052	N
931	Upper Site West Landfill - Centre Lobe	USWLCE_VI_028.jpg	26-Aug-23	West	Upper Site West Landfill Centre Lobe Cover	571477	7395052	N
932	Upper Site West Landfill - Centre Lobe	USWLCE_VI_029.jpg	26-Aug-23	Northeast	Upper Site West Landfill Centre Lobe Cover	571477	7395052	N
933	Upper Site West Landfill - Centre Lobe	USWLCE_VI_030.jpg	26-Aug-23	Southwest	Upper Site West Landfill Centre Lobe 746	571471	7395079	N
934	Upper Site West Landfill - Centre Lobe	USWLCE_VI_031.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe Feature J	571452	7395047	N
935	Upper Site West Landfill - Centre Lobe	USWLCE_VI_032.jpg	26-Aug-23	Southeast	Upper Site West Landfill Centre Lobe Feature J	571454	7395052	N
936	Upper Site West Landfill - Centre Lobe	USWLCE_VI_033.jpg	26-Aug-23	Northwest	Upper Site West Landfill Centre Lobe Feature J	571455	7395053	Y
937	Upper Site West Landfill - Centre Lobe	USWLCE_VI_034.jpg	26-Aug-23	Southeast	Upper Site West Landfill Centre Lobe Feature J	571444	7395074	Y
938	Upper Site West Landfill - Centre Lobe	USWLCE_VI_035.jpg	26-Aug-23	West	Upper Site West Landfill Centre Lobe Feature J	571445	7395074	N
939	Upper Site West Landfill - Centre Lobe	USWLCE_VI_036.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe 701	571434	7395037	N
940	Upper Site West Landfill - Centre Lobe	USWLCE_VI_037.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe 705	571421	7395031	N
941	Upper Site West Landfill - Centre Lobe	USWLCE_VI_038.jpg	26-Aug-23	East	Upper Site West Landfill Centre Lobe Cover	571423	7395035	N
942	Upper Site West Landfill - Centre Lobe	USWLCE_VI_039.jpg	26-Aug-23	East	Upper Site West Landfill Centre Lobe 745	571401	7395069	N
943	Upper Site West Landfill - Centre Lobe	USWLCE_VI_040.jpg	26-Aug-23	Southeast	Upper Site West Landfill Centre Lobe 763	571401	7395065	N
944	Upper Site West Landfill - Centre Lobe	USWLCE_VI_041.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe Feature K	571396	7395048	N
945	Upper Site West Landfill - Centre Lobe	USWLCE_VI_042.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe Feature K	571400	7395049	N
946	Upper Site West Landfill - Centre Lobe	USWLCE_VI_043.jpg	26-Aug-23	Southwest	Upper Site West Landfill Centre Lobe Feature K	571403	7395068	Y
947	Upper Site West Landfill - Centre Lobe	USWLCE_VI_044.jpg	26-Aug-23	South	Upper Site West Landfill Centre Lobe Feature K	571395	7395067	Y
948	Upper Site West Landfill - Centre Lobe	USWLCE_VI_045.jpg	26-Aug-23	East	Upper Site West Landfill Centre Lobe Feature K	571396	7395063	N
949	Upper Site West Landfill - Centre Lobe	USWLCE_VI_046.jpg	26-Aug-23	East	Upper Site West Landfill Centre Lobe 712	571400	7395040	N
950	Upper Site West Landfill - Centre Lobe	USWLCE_VI_047.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe 672	571397	7395010	N
951	Upper Site West Landfill - Centre Lobe	USWLCE_VI_048.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe 754	571394	7395017	N
952	Upper Site West Landfill - Centre Lobe	USWLCE_VI_049.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe 669	571399	7395025	N
953	Upper Site West Landfill - Centre Lobe	USWLCE_VI_050.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe 703	571416	7395023	N
954	Upper Site West Landfill - Centre Lobe	USWLCE_VI_051.jpg	26-Aug-23	Northwest	Upper Site West Landfill Centre Lobe 714	571428	7395019	N

955	Upper Site West Landfill - Centre Lobe	USWLCE_VI_052.jpg	26-Aug-23	East	Upper Site West Landfill Centre Lobe 704	571414	7395042	N
956	Upper Site West Landfill - Centre Lobe	USWLCE_VI_053.jpg	26-Aug-23	West	Upper Site West Landfill Centre Lobe 711	571452	7395009	N
957	Upper Site West Landfill - Centre Lobe	USWLCE_VI_054.jpg	26-Aug-23	West	Upper Site West Landfill Centre Lobe 750	571449	7395014	N
958	Upper Site West Landfill - Centre Lobe	USWLCE_VI_055.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe 702	571446	7395014	N
959	Upper Site West Landfill - Centre Lobe	USWLCE_VI_056.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe 710	571469	7394998	N
960	Upper Site West Landfill - Centre Lobe	USWLCE_VI_057.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe 713	571474	7395018	N
961	Upper Site West Landfill - Centre Lobe	USWLCE_VI_058.jpg	26-Aug-23	N/A	Upper Site West Landfill Centre Lobe 753	N/A	N/A	N
962	Upper Site West Landfill - Centre Lobe	USWLCE_VI_059.jpg	26-Aug-23	East	Upper Site West Landfill Centre Lobe SW Toe	571447	7394996	N
963	Upper Site West Landfill - Centre Lobe	USWLCE_VI_060.jpg	26-Aug-23	Northwest	Upper Site West Landfill Centre Lobe Feature H	571484	7395025	Y
964	Upper Site West Landfill - Centre Lobe	USWLCE_VI_061.jpg	26-Aug-23	South	Upper Site West Landfill Centre Lobe Feature H	571478	7395036	Y
965	Upper Site West Landfill - Centre Lobe	USWLCE_VI_062.jpg	26-Aug-23	Northeast	Upper Site West Landfill Centre Lobe Feature H	571475	7395029	N
966	Upper Site West Landfill - Centre Lobe	USWLCE_VI_063.jpg	26-Aug-23	East	Upper Site West Landfill Centre Lobe Feature Q	571493	7395047	Y
967	Upper Site West Landfill - Centre Lobe	USWLCE_VI_064.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe Feature Q	571495	7395039	Y
968	Upper Site West Landfill - Centre Lobe	USWLCE_VI_065.jpg	26-Aug-23	East	Upper Site West Landfill Centre Lobe Feature T	571480	7395010	Y
969	Upper Site West Landfill - Centre Lobe	USWLCE_VI_066.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe Feature T	571488	7394998	N
970	Upper Site West Landfill - Centre Lobe	USWLCE_VI_067.jpg	26-Aug-23	West	Upper Site West Landfill Centre Lobe Feature T	571508	7394998	Y
971	Upper Site West Landfill - Centre Lobe	USWLCE_VI_068.jpg	26-Aug-23	East	Upper Site West Landfill Centre Lobe Representative Vegetation	571505	7394997	Y
972	Upper Site West Landfill - Centre Lobe	USWLCE_VI_069.jpg	26-Aug-23	West	Upper Site West Landfill Centre Lobe Feature W	571541	7394999	Y
973	Upper Site West Landfill - Centre Lobe	USWLCE_VI_070.jpg	26-Aug-23	Southwest	Upper Site West Landfill Centre Lobe Feature W	571539	7395004	N
974	Upper Site West Landfill - Centre Lobe	USWLCE_VI_071.jpg	26-Aug-23	Southeast	Upper Site West Landfill Centre Lobe Feature W	571528	7395000	N
975	Upper Site West Landfill - Centre Lobe	USWLCE_VI_072.jpg	26-Aug-23	Northeast	Upper Site West Landfill Centre Lobe Feature W	571528	7394993	Y
976	Upper Site West Landfill - Centre Lobe	USWLCE_VI_073.jpg	26-Aug-23	East	Upper Site West Landfill Centre Lobe Feature S	571549	7395016	Y
977	Upper Site West Landfill - Centre Lobe	USWLCE_VI_074.jpg	26-Aug-23	Southeast	Upper Site West Landfill Centre Lobe Feature S	571550	7395015	N
978	Upper Site West Landfill - Centre Lobe	USWLCE_VI_075.jpg	26-Aug-23	Northeast	Upper Site West Landfill Centre Lobe Feature S	571559	7395011	N
979	Upper Site West Landfill - Centre Lobe	USWLCE_VI_076.jpg	26-Aug-23	West	Upper Site West Landfill Centre Lobe Feature S	571577	7395024	Y
980	Upper Site West Landfill - Centre Lobe	USWLCE_VI_077.jpg	26-Aug-23	Southwest	Upper Site West Landfill Centre Lobe Feature S	571563	7395023	N
981	Upper Site West Landfill - Centre Lobe	USWLCE_VI_078.jpg	26-Aug-23	West	Upper Site West Landfill Centre Lobe Feature N	571622	7395026	N
982	Upper Site West Landfill - Centre Lobe	USWLCE_VI_079.jpg	26-Aug-23	West	Upper Site West Landfill Centre Lobe Feature N	571613	7395025	N
983	Upper Site West Landfill - Centre Lobe	USWLCE_VI_080.jpg	26-Aug-23	Northeast	Upper Site West Landfill Centre Lobe Feature N	571596	7395021	Y
984	Upper Site West Landfill - Centre Lobe	USWLCE_VI_081.jpg	26-Aug-23	East	Upper Site West Landfill Centre Lobe Feature N	571603	7395028	N
985	Upper Site West Landfill - Centre Lobe	USWLCE_VI_082.jpg	26-Aug-23	Southwest	Upper Site West Landfill Centre Lobe Feature N	571632	7395033	Y
986	Upper Site West Landfill - Centre Lobe	USWLCE_VI_083.jpg	26-Aug-23	East	Upper Site West Landfill Centre Lobe Feature N	571631	7395034	Y
987	Upper Site West Landfill - Centre Lobe	USWLCE_VI_084.jpg	26-Aug-23	West	Upper Site West Landfill Centre Lobe Feature N	571654	7395040	Y
988	Upper Site West Landfill - Centre Lobe	USWLCE_VI_085.jpg	26-Aug-23	East	Upper Site West Landfill Centre Lobe Feature N	571635	7395034	N
989	Upper Site West Landfill - Centre Lobe	USWLCE_VI_086.jpg	26-Aug-23	Southeast	Upper Site West Landfill Centre Lobe Feature N	571636	7395034	N
990	Upper Site West Landfill - Centre Lobe	USWLCE_VI_087.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe Representative Vegetation	571627	7395041	Y
991	Upper Site West Landfill - Centre Lobe	USWLCE_VI_088.jpg	26-Aug-23	Northwest	Upper Site West Landfill Centre Lobe 724	571607	7395041	N
992	Upper Site West Landfill - Centre Lobe	USWLCE_VI_089.jpg	26-Aug-23	Northeast	Upper Site West Landfill Centre Lobe 717	571584	7395034	N
993	Upper Site West Landfill - Centre Lobe	USWLCE_VI_090.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe 716	571589	7395051	N
994	Upper Site West Landfill - Centre Lobe	USWLCE_VI_091.jpg	26-Aug-23	East	Upper Site West Landfill Centre Lobe 715	571576	7395062	N
995	Upper Site West Landfill - Centre Lobe	USWLCE_VI_092.jpg	26-Aug-23	West	Upper Site West Landfill Centre Lobe 723	571592	7395068	N
996	Upper Site West Landfill - Centre Lobe	USWLCE_VI_093.jpg	26-Aug-23	Northeast	Upper Site West Landfill Centre Lobe Cover	571555	7395032	N
997	Upper Site West Landfill - Centre Lobe	USWLCE_VI_094.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe Cover	571557	7395033	N
998	Upper Site West Landfill - Centre Lobe	USWLCE_VI_095.jpg	26-Aug-23	Southwest	Upper Site West Landfill Centre Lobe Cover	571564	7395038	N
999	Upper Site West Landfill - Centre Lobe	USWLCE_VI_096.jpg	26-Aug-23	South	Upper Site West Landfill Centre Lobe Cover	571559	7395041	N
1000	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_097.jpg	26-Aug-23	Northeast	Upper Site West Landfill Centre Lobe A (former Feature L)	571636	7394981	Y
1001	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_098.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe A 757	571647	7394985	N
1002	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_099.jpg	26-Aug-23	East	Upper Site West Landfill Centre Lobe A 760	571647	7394987	N
1003	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_100.jpg	26-Aug-23	East	Upper Site West Landfill Centre Lobe A 761 Feature U	571648	7394982	N
1004	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_101.jpg	26-Aug-23	East	Upper Site West Landfill Centre Lobe A 762 Feature U	571657	7394981	N
1005	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_102.jpg	26-Aug-23	West	Upper Site West Landfill Centre Lobe A (former Feature L)	571662	7394987	Y
1006	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_103.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe A 736	571665	7394985	N
1007	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_104.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe A 763	571677	7394987	N
1008	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_105.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe A 737	571682	7394988	N
1009	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_106.jpg	26-Aug-23	West	Upper Site West Landfill Centre Lobe A (former Feature L)	571674	7395001	Y
1010	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_107.jpg	26-Aug-23	Northwest	Upper Site West Landfill Centre Lobe A 765	571681	7395008	N
1011	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_108.jpg	26-Aug-23	Southeast	Upper Site West Landfill Centre Lobe A 766	571675	7395016	N
1012	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_109.jpg	26-Aug-23	Southwest	Upper Site West Landfill Centre Lobe A 706	571670	7395024	N
1013	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_110.jpg	26-Aug-23	South	Upper Site West Landfill Centre Lobe A 733	571663	7395027	N
1014	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_111.jpg	26-Aug-23	Southwest	Upper Site West Landfill Centre Lobe A 732	571664	7395029	N
1015	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_112.jpg	26-Aug-23	West	Upper Site West Landfill Centre Lobe A 707	571662	7395022	N
1016	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_113.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe A 739	571662	7395012	N
1017	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_114.jpg	26-Aug-23	Northeast	Upper Site West Landfill Centre Lobe A 740	571659	7395011	N
1018	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_115.jpg	26-Aug-23	North	Upper Site West Landfill Centre Lobe A 758	571643	7394996	N
1019	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_116.jpg	26-Aug-23	South	Upper Site West Landfill Centre Lobe A 734	571641	7395004	N
1020	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_117.jpg	26-Aug-23	Southeast	Upper Site West Landfill Centre Lobe A Feature U	571668	7394985	Y
1021	Upper Site West Landfill - Centre Lobe A	USWLCE_VI_118.jpg	26-Aug-23	South	Upper Site West Landfill Centre Lobe A Feature U	571669	7394982	Y
1022	Upper Site West Landfill - East Lobe	USWLCE_VI_119.jpg	26-Aug-23	East	Upper Site West Landfill East Lobe 731	571688	7395067	N
1023	Upper Site West Landfill - East Lobe	USWLCE_VI_120.jpg	26-Aug-23	West	Upper Site West Landfill East Lobe South Edge	571715	7395062	N
1024	Upper Site West Landfill - East Lobe	USWLCE_VI_121.jpg	26-Aug-23	East	Upper Site West Landfill East Lobe South Edge	571707	7395064	N
1025	Upper Site West Landfill - East Lobe	USWLCE_VI_122.jpg	26-Aug-23	North	Upper Site West Landfill East Lobe Feature D 660	571737	7395062	N
1026	Upper Site West Landfill - East Lobe	USWLCE_VI_123.jpg	26-Aug-23	North	Upper Site West Landfill East Lobe NE Toe	571752	7395066	N
1027	Upper Site West Landfill - East Lobe	USWLCE_VI_124.jpg	26-Aug-23	Southeast	Upper Site West Landfill East Lobe Feature D	571724	7395102	Y
1028	Upper Site West Landfill - East Lobe	USWLCE_VI_125.jpg	26-Aug-23	North	Upper Site West Landfill East Lobe Feature D	571732	7395079	Y
1029	Upper Site West Landfill - East Lobe	USWLCE_VI_126.jpg	26-Aug-23	North	Upper Site West Landfill East Lobe Feature D	571728	7395084	N
1030	Upper Site West Landfill - East Lobe	USWLCE_VI_127.jpg	26-Aug-23	South	Upper Site West Landfill East Lobe Feature D	571729	7395090	N
1031	Upper Site West Landfill - East Lobe	USWLCE_VI_128.jpg	26-Aug-23	West	Upper Site West Landfill East Lobe 728	571728	7395103	N
1032	Upper Site West Landfill - East Lobe	USWLCE_VI_129.jpg	26-Aug-23	North	Upper Site West Landfill East Lobe 664	571725	7395105	N
1033	Upper Site West Landfill - East Lobe	USWLCE_VI_130.jpg	26-Aug-23	Northwest	Upper Site West Landfill East Lobe North Toe	571707	7395117	N
1034	Upper Site West Landfill - East Lobe	USWLCE_VI_131.jpg	26-Aug-23	Southwest	Upper Site West Landfill East Lobe North Toe	571687	7395125	N
1035	Upper Site West Landfill - East Lobe	USWLCE_VI_132.jpg	26-Aug-23	West	Upper Site West Landfill East Lobe Feature B	571695	7395122	Y
1036	Upper Site West Landfill - East Lobe	USWLCE_VI_133.jpg	26-Aug-23	West	Upper Site West Landfill East Lobe Feature B	571695	7395122	N
1037	Upper Site West Landfill - East Lobe	USWLCE_VI_134.jpg	26-Aug-23	West	Upper Site West Landfill East Lobe Feature B	571686	7395125	N
1038	Upper Site West Landfill - East Lobe	USWLCE_VI_135.jpg	26-Aug-23	Southwest	Upper Site West Landfill East Lobe Feature B	571686	7395125	Y
1039	Upper Site West Landfill - East Lobe	USWLCE_VI_136.jpg	26-Aug-23	East	Upper Site West Landfill East Lobe Feature B	571678	7395125	N
1040	Upper Site West Landfill - East Lobe	USWLCE_VI_137.jpg	26-Aug-23	Southeast	Upper Site West Landfill East Lobe Feature B	571680	7395128	Y
1041	Upper Site West Landfill - East Lobe	USWLCE_VI_138.jpg	26-Aug-23	South	Upper Site West Landfill East Lobe Representative Vegetation	571682	7395122	Y
1042	Upper Site West Landfill - East Lobe	USWLCE_VI_139.jpg	26-Aug-23	Southeast	Upper Site West Landfill East Lobe Representative Vegetation	571681	7395120	Y
1043	Upper Site West Landfill - East Lobe	USWLCE_VI_140.jpg	26-Aug-23	South	Upper Site West Landfill East Lobe Cover	571669	7395119	N
1044	Upper Site West Landfill - East Lobe	USWLCE_VI_141.jpg	26-Aug-23	Southeast	Upper Site West Landfill East Lobe Cover	571667	7395116	N
1045	Upper Site West Landfill - East Lobe	USWLCE_VI_142.jpg	26-Aug-23	North	Upper Site West Landfill East Lobe 752	571668	7395086	N
1046	Upper Site West Landfill - East Lobe	USWLCE_VI_143.jpg	26-Aug-23	East	Upper Site West Landfill East Lobe 725	571664	7395087	N
1047	Upper Site West Landfill - East Lobe	USWLCE_VI_144.jpg	26-Aug-23	Northwest	Upper Site West Landfill East Lobe 755	571669	7395071	N
1048	Upper Site West Landfill - East Lobe	USWLCE_VI_145.jpg	26-Aug-23	East	Upper Site West Landfill East Lobe 755	571667	7395070	N
1049	Upper Site West Landfill - East Lobe	USWLCE_VI_146.jpg	26-Aug-23	North	Upper Site West Landfill East Lobe West Toe	571662	7395076	N
1050	Upper Site West Landfill - West Lobe	USWLWL_VI_001.jpg	25-Aug-23	Northeast	Upper Site West Landfill West Lobe West End	571096	7394903	N
1051	Upper Site West Landfill - West Lobe	USWLWL_VI_002.jpg	25-Aug-23	North	Upper Site West Landfill West Lobe West End	571096	7394901	N
1052	Upper Site West Landfill - West Lobe	USWLWL_VI_003.jpg	25-Aug-23	Northeast	Upper Site West Landfill West Lobe Feature A2	571092	7394917	N
1053	Upper Site West Landfill - West Lobe	USWLWL_VI_004.jpg	25-Aug-23	West	Upper Site West Landfill West Lobe Feature A2	571102	7394923	Y
1054	Upper Site West Landfill - West Lobe	USWLWL_VI_005.jpg	25-Aug-23	Northeast	Upper Site West Landfill West Lobe Feature A3	571089	7394926	Y
1055	Upper Site West Landfill - West Lobe	USWLWL_VI_006.jpg	25-Aug-23	Northeast	Upper Site West Landfill West Lobe Feature A4	571087	7394929	Y
1056	Upper Site West Landfill - West Lobe	USWLWL_VI_007.jpg	25-Aug-23	Northeast	Upper Site West Landfill West Lobe Feature A	571109	7394944	Y
1057	Upper Site West Landfill - West Lobe	USWLWL_VI_008.jpg	25-Aug-23	West	Upper Site West Landfill West Lobe Feature A1	571125	7394957	Y
1058	Upper Site West Landfill - West Lobe	USWLWL_VI_009.jpg	25-Aug-23	Northeast	Upper Site West Landfill West Lobe Feature S1	571100	7394943	N
1059	Upper Site West Landfill - West Lobe	USWLWL_VI_010.jpg	25-Aug-23	Northeast	Upper Site West Landfill West Lobe NE Edge	571092	7394971	N
1060	Upper Site West Landfill - West Lobe	USWLWL_VI_011.jpg	25-Aug-23	Southwest	Upper Site West Landfill West Lobe NE Edge	571092	7394972	N
1061	Upper Site West Landfill - West Lobe	USWLWL_VI_012.jpg	25-Aug-23	East	Upper Site West Landfill West Lobe Feature G	571147	7394981	Y
1062	Upper Site West Landfill - West Lobe	USWLWL_VI_013.jpg	25-Aug-23	Southeast	Upper Site West Landfill West Lobe Feature N	571154	7395018	Y
1063	Upper Site West Landfill - West Lobe	USWLWL_VI_014.jpg	25-Aug-23	Southeast	Upper Site West Landfill West Lobe Feature N	571153	7395017	Y
1064	Upper Site West Landfill - West Lobe	USWLWL_VI_015.jpg	25-Aug-23	East	Upper Site West Landfill West Lobe Feature F	571170	7395016	Y
1065	Upper Site West Landfill - West Lobe	USWLWL_VI_016.jpg	25-Aug-23	Northeast	Upper Site West Landfill West Lobe Feature F	571174	7395015	Y
1066	Upper Site West Landfill - West Lobe	USWLWL_VI_017.jpg	25-Aug-23	Northeast	Upper Site West Landfill West Lobe Feature 0o	571167	7394992	Y
1067	Upper Site West Landfill - West Lobe	USWLWL_VI_018.jpg	25-Aug-23	East	Upper Site West Landfill West Lobe Feature L	571213	7395001	Y
1068	Upper Site West Landfill - West Lobe	USWLWL_VI_019.jpg	25-Aug-23	Southeast	Upper Site West Landfill West Lobe Feature L	571214	7395002	N
1069	Upper Site West Landfill - West Lobe	USWLWL_VI_020.jpg	25-Aug-23	Southeast	Upper Site West Landfill West Lobe Feature L	571218	7395004	N
1070	Upper Site West Landfill - West Lobe	USWLWL_VI_021.jpg	25-Aug-23	South	Upper Site West Landfill West Lobe Feature L	571224	7395004	N
1071	Upper Site West Landfill - West Lobe	USWLWL_VI_022.jpg	25-Aug-23	West	Upper Site West Landfill West Lobe Feature L	571232	7395001	Y
1072	Upper Site West Landfill - West Lobe	USWLWL_VI_023.jpg	25-Aug-23	West	Upper Site West Landfill West Lobe Feature L	571230	7394997	N
1073	Upper Site West Landfill - West Lobe	USWLWL_VI_024.jpg	25-Aug-23	Northwest	Upper Site West Landfill West Lobe Feature L	571223	7394992	Y
1074	Upper Site West Landfill - West Lobe	USWLWL_VI_025.jpg	25-Aug-23	East	Upper Site West Landfill West Lobe Feature L	571219	7395000	N
1075	Upper Site West Landfill - West Lobe	USWLWL_VI_026.jpg	25-Aug-23	East	Upper Site West Landfill West Lobe Feature P	571242	7395009	Y
1076	Upper Site West Landfill - West Lobe	USWLWL_VI_027.jpg	25-Aug-23	West	Upper Site West Landfill West Lobe Feature P	571262	7395013	Y
1077	Upper Site West Landfill - West Lobe	USWLWL_VI_028.jpg	25-Aug-23	East	Upper Site West Landfill West Lobe Feature M	571328	7394978	Y
1078	Upper Site West Landfill - West Lobe	USWLWL_VI_029.jpg	25-Aug-23	East	Upper Site West Landfill West Lobe Feature M	571329	7394979	N
1079	Upper Site West Landfill - West Lobe	USWLWL_VI_030.jpg	25-Aug-23	Southwest	Upper Site West Landfill West Lobe Feature M	571340	7394982	Y
1080	Upper Site West Landfill - West Lobe	USWLWL_VI_031.jpg	25-Aug-23	Southeast	Upper Site West Landfill West Lobe Feature M	571333	7394971	N
1081	Upper Site West Landfill - West Lobe	USWLWL_VI_032.jpg	25-Aug-23	South	Upper Site West Landfill West Lobe Feature D	571316	7394924	Y
1082	Upper Site West Landfill - West Lobe	USWLWL_VI_033.jpg	25-Aug-23	Southeast	Upper Site West Landfill West Lobe Feature D	571314	7394924	N
1083	Upper Site West Landfill - West Lobe	USWLWL_VI_034.jpg	25-Aug-23	South	Upper Site West Landfill West Lobe Feature D	571313	7394924	Y
1084	Upper Site West Landfill - West Lobe	USWLWL_VI_035.jpg	25-Aug-23	Southeast	Upper Site West Landfill West Lobe Feature D	571310	7394920	N
1085	Upper Site West Landfill - West Lobe	USWLWL_VI_036.jpg	25-Aug-23	East	Upper Site West Landfill West Lobe Feature D	571308	7394913	N
1086	Upper Site West Landfill - West Lobe	USWLWL_VI_037.jpg	25-Aug-23	North	Upper Site West Landfill West Lobe Feature D	571316	7394909	N
1087	Upper Site West Landfill - West Lobe	USWLWL_VI_038.jpg	25-Aug-23	Northeast	Upper Site West Landfill West Lobe Feature D	571314	7394915	N
1088	Upper Site West Landfill - West Lobe	USWLWL_VI_039.jpg	26-Aug-23	South	Upper Site West Landfill West Lobe Feature I (577)	571348	7394977	N

1089	Upper Site West Landfill - West Lobe	USWLWL_VI_040.jpg	26-Aug-23	North	Upper Site West Landfill West Lobe 619	571374	7394991	N
1090	Upper Site West Landfill - West Lobe	USWLWL_VI_041.jpg	26-Aug-23	Southeast	Upper Site West Landfill West Lobe 618	571362	7395041	N
1091	Upper Site West Landfill - West Lobe	USWLWL_VI_042.jpg	26-Aug-23	West	Upper Site West Landfill West Lobe 621	571364	7395040	N
1092	Upper Site West Landfill - West Lobe	USWLWL_VI_043.jpg	26-Aug-23	Northwest	Upper Site West Landfill West Lobe 615	571351	7395025	N
1093	Upper Site West Landfill - West Lobe	USWLWL_VI_044.jpg	26-Aug-23	South	Upper Site West Landfill West Lobe North Cover	571351	7395026	N
1094	Upper Site West Landfill - West Lobe	USWLWL_VI_045.jpg	26-Aug-23	Southwest	Upper Site West Landfill West Lobe North Cover	571350	7395025	N
1095	Upper Site West Landfill - West Lobe	USWLWL_VI_046.jpg	26-Aug-23	Northwest	Upper Site West Landfill West Lobe North Cover	571349	7395023	N
1096	Upper Site West Landfill - West Lobe	USWLWL_VI_047.jpg	26-Aug-23	Northwest	Upper Site West Landfill West Lobe 617	571343	7395065	N
1097	Upper Site West Landfill - West Lobe	USWLWL_VI_048.jpg	26-Aug-23	Southeast	Upper Site West Landfill West Lobe 591	571342	7395065	N
1098	Upper Site West Landfill - West Lobe	USWLWL_VI_049.jpg	26-Aug-23	Southeast	Upper Site West Landfill West Lobe Feature T	571331	7395089	Y
1099	Upper Site West Landfill - West Lobe	USWLWL_VI_050.jpg	26-Aug-23	Southwest	Upper Site West Landfill West Lobe Feature T	571336	7395070	N
1100	Upper Site West Landfill - West Lobe	USWLWL_VI_051.jpg	26-Aug-23	South	Upper Site West Landfill West Lobe Feature T	571334	7395069	N
1101	Upper Site West Landfill - West Lobe	USWLWL_VI_052.jpg	26-Aug-23	Northwest	Upper Site West Landfill West Lobe Feature T	571350	7395049	Y
1102	Upper Site West Landfill - West Lobe	USWLWL_VI_053.jpg	26-Aug-23	West	Upper Site West Landfill West Lobe 620	571323	7395097	N
1103	Upper Site West Landfill - West Lobe	USWLWL_VI_054.jpg	26-Aug-23	Southeast	Upper Site West Landfill West Lobe 622	571325	7395098	N
1104	Upper Site West Landfill - West Lobe	USWLWL_VI_055.jpg	26-Aug-23	Southwest	Upper Site West Landfill West Lobe North Crest	571308	7395080	N
1105	Upper Site West Landfill - West Lobe	USWLWL_VI_056.jpg	26-Aug-23	Southeast	Upper Site West Landfill West Lobe North Crest	571308	7395080	N
1106	Upper Site West Landfill - West Lobe	USWLWL_VI_057.jpg	26-Aug-23	Southeast	Upper Site West Landfill West Lobe 592	571275	7395063	N
1107	Upper Site West Landfill - West Lobe	USWLWL_VI_058.jpg	26-Aug-23	West	Upper Site West Landfill West Lobe North Crest	571273	7395063	N
1108	Upper Site West Landfill - West Lobe	USWLWL_VI_059.jpg	26-Aug-23	Northeast	Upper Site West Landfill West Lobe North Crest	571273	7395063	N
1109	Upper Site West Landfill - West Lobe	USWLWL_VI_060.jpg	26-Aug-23	Northeast	Upper Site West Landfill West Lobe 623	571268	7395060	N
1110	Upper Site West Landfill - West Lobe	USWLWL_VI_061.jpg	26-Aug-23	East	Upper Site West Landfill West Lobe Cover	571263	7395025	N
1111	Upper Site West Landfill - West Lobe	USWLWL_VI_062.jpg	26-Aug-23	Southeast	Upper Site West Landfill West Lobe Cover	571263	7395025	N
1112	Upper Site West Landfill - West Lobe	USWLWL_VI_063.jpg	26-Aug-23	Southwest	Upper Site West Landfill West Lobe Cover	571267	7395026	N
1113	Upper Site West Landfill - West Lobe	USWLWL_VI_064.jpg	26-Aug-23	West	Upper Site West Landfill West Lobe Cover	571209	7395011	N
1114	Upper Site West Landfill - West Lobe	USWLWL_VI_065.jpg	26-Aug-23	East	Upper Site West Landfill West Lobe Cover	571204	7395012	N
1115	Upper Site West Landfill - West Lobe	USWLWL_VI_066.jpg	26-Aug-23	East	Upper Site West Landfill West Lobe 593	571147	7395007	N
1116	Upper Site West Landfill - West Lobe	USWLWL_VI_067.jpg	26-Aug-23	Northeast	Upper Site West Landfill West Lobe 594	571086	7394958	N
1117	Upper Site West Landfill - West Lobe	USWLWL_VI_068.jpg	26-Aug-23	East	Upper Site West Landfill West Lobe 594	571086	7394958	N
1118	Upper Site West Landfill - West Lobe	USWLWL_VI_069.jpg	26-Aug-23	North	Upper Site West Landfill West Lobe 630	571127	7394932	N
1119	Upper Site West Landfill - West Lobe	USWLWL_VI_070.jpg	26-Aug-23	Northeast	Upper Site West Landfill West Lobe Feature H	571202	7394934	Y
1120	Upper Site West Landfill - West Lobe	USWLWL_VI_071.jpg	26-Aug-23	Northeast	Upper Site West Landfill West Lobe Feature H	571204	7394935	N
1121	Upper Site West Landfill - West Lobe	USWLWL_VI_072.jpg	26-Aug-23	North	Upper Site West Landfill West Lobe Feature H	571206	7394928	N
1122	Upper Site West Landfill - West Lobe	USWLWL_VI_073.jpg	26-Aug-23	West	Upper Site West Landfill West Lobe Feature H	571216	7394940	Y
1123	Upper Site West Landfill - West Lobe	USWLWL_VI_074.jpg	26-Aug-23	Southwest	Upper Site West Landfill West Lobe Feature H	571213	7394942	N
1124	Upper Site West Landfill - West Lobe	USWLWL_VI_075.jpg	26-Aug-23	Northeast	Upper Site West Landfill West Lobe 606	571207	7394946	N
1125	Upper Site West Landfill - West Lobe	USWLWL_VI_076.jpg	26-Aug-23	Northeast	Upper Site West Landfill West Lobe Feature Q	571230	7394925	N
1126	Upper Site West Landfill - West Lobe	USWLWL_VI_077.jpg	26-Aug-23	East	Upper Site West Landfill West Lobe Feature Q	571227	7394929	Y
1127	Upper Site West Landfill - West Lobe	USWLWL_VI_078.jpg	26-Aug-23	Northwest	Upper Site West Landfill West Lobe Feature Q	571241	7394926	N
1128	Upper Site West Landfill - West Lobe	USWLWL_VI_079.jpg	26-Aug-23	Southwest	Upper Site West Landfill West Lobe Feature Q	571240	7394940	Y
1129	Upper Site West Landfill - West Lobe	USWLWL_VI_080.jpg	26-Aug-23	South	Upper Site West Landfill West Lobe Feature Q	571235	7394944	N
1130	Upper Site West Landfill - West Lobe	USWLWL_VI_081.jpg	26-Aug-23	Northeast	Upper Site West Landfill West Lobe 625	571246	7394900	N
1131	Upper Site West Landfill - West Lobe	USWLWL_VI_082.jpg	26-Aug-23	North	Upper Site West Landfill West Lobe 626	571255	7394915	N
1132	Upper Site West Landfill - West Lobe	USWLWL_VI_083.jpg	26-Aug-23	Northeast	Upper Site West Landfill West Lobe 626	571255	7394915	N
1133	Upper Site West Landfill - West Lobe	USWLWL_VI_084.jpg	26-Aug-23	Northeast	Upper Site West Landfill West Lobe 627	571253	7394944	N
1134	Upper Site West Landfill - West Lobe	USWLWL_VI_085.jpg	26-Aug-23	Northeast	Upper Site West Landfill West Lobe 628	571254	7394969	N
1135	Upper Site West Landfill - West Lobe	USWLWL_VI_086.jpg	26-Aug-23	East	Upper Site West Landfill West Lobe Feature K	571276	7394978	Y
1136	Upper Site West Landfill - West Lobe	USWLWL_VI_087.jpg	26-Aug-23	East	Upper Site West Landfill West Lobe Feature K	571278	7394979	N
1137	Upper Site West Landfill - West Lobe	USWLWL_VI_088.jpg	26-Aug-23	West	Upper Site West Landfill West Lobe Feature K	571280	7394978	Y
1138	Upper Site West Landfill - West Lobe	USWLWL_VI_089.jpg	26-Aug-23	Southeast	Upper Site West Landfill West Lobe Feature U	571286	7394971	Y
1139	Upper Site West Landfill - West Lobe	USWLWL_VI_090.jpg	26-Aug-23	South	Upper Site West Landfill West Lobe Feature U	571288	7394974	Y
1140	Upper Site West Landfill - West Lobe	USWLWL_VI_091.jpg	26-Aug-23	West	Upper Site West Landfill West Lobe Water	571258	7394959	N
1141	Upper Site West Landfill - West Lobe	USWLWL_VI_092.jpg	26-Aug-23	Northeast	Upper Site West Landfill West Lobe Feature E	571299	7394935	Y
1142	Upper Site West Landfill - West Lobe	USWLWL_VI_093.jpg	26-Aug-23	Southwest	Upper Site West Landfill West Lobe Feature E	571306	7394939	Y
1143	Upper Site West Landfill - West Lobe	USWLWL_VI_094.jpg	26-Aug-23	East	Upper Site West Landfill West Lobe 610	571290	7394955	N
1144	Upper Site West Landfill - West Lobe	USWLWL_VI_095.jpg	26-Aug-23	Southeast	Upper Site West Landfill West Lobe 629	571291	7394955	N
1145	Upper Site West Landfill - West Lobe	USWLWL_VI_096.jpg	26-Aug-23	Northeast	Upper Site West Landfill West Lobe Representative Vegetation	571151	7394979	N
1146	Upper Site West Landfill - West Lobe	USWLWL_VI_097.jpg	26-Aug-23	Northeast	Upper Site West Landfill West Lobe Representative Vegetation	571202	7395009	Y
1147	Upper Site West Landfill - West Lobe	USWLWL_VI_098.jpg	26-Aug-23	North	Upper Site West Landfill West Lobe Representative Vegetation	571217	7394997	Y
1148	Lower Site Crossroads Landfill	LSCL_VI_001.jpg	31-Aug-23	West	Lower Site Crossroads Landfill Feature N	562637	7387636	Y
1149	Lower Site Crossroads Landfill	LSCL_VI_002.jpg	31-Aug-23	North	Lower Site Crossroads Landfill Feature N	562634	7387635	Y
1150	Lower Site Crossroads Landfill	LSCL_VI_003.jpg	31-Aug-23	Northwest	Lower Site Crossroads Landfill 213	562610	7387634	N
1151	Lower Site Crossroads Landfill	LSCL_VI_004.jpg	31-Aug-23	East	Lower Site Crossroads Landfill 201	562613	7387635	N
1152	Lower Site Crossroads Landfill	LSCL_VI_005.jpg	31-Aug-23	East	Lower Site Crossroads Landfill 202	562612	7387650	N
1153	Lower Site Crossroads Landfill	LSCL_VI_006.jpg	31-Aug-23	South	Lower Site Crossroads Landfill Cover	562615	7387651	N
1154	Lower Site Crossroads Landfill	LSCL_VI_007.jpg	31-Aug-23	West	Lower Site Crossroads Landfill Cover	562617	7387649	N
1155	Lower Site Crossroads Landfill	LSCL_VI_008.jpg	31-Aug-23	Northwest	Lower Site Crossroads Landfill Cover	562618	7387646	N
1156	Lower Site Crossroads Landfill	LSCL_VI_009.jpg	31-Aug-23	North	Lower Site Crossroads Landfill Cover	562616	7387643	N
1157	Lower Site Crossroads Landfill	LSCL_VI_010.jpg	31-Aug-23	Northeast	Lower Site Crossroads Landfill Cover	562611	7387645	N
1158	Lower Site Crossroads Landfill	LSCL_VI_011.jpg	31-Aug-23	East	Lower Site Crossroads Landfill 204	562630	7387646	N
1159	Lower Site Crossroads Landfill	LSCL_VI_012.jpg	31-Aug-23	Southwest	Lower Site Crossroads Landfill Feature M	562639	7387649	Y
1160	Lower Site Crossroads Landfill	LSCL_VI_013.jpg	31-Aug-23	South	Lower Site Crossroads Landfill Feature M	562638	7387645	N
1161	Lower Site Crossroads Landfill	LSCL_VI_014.jpg	31-Aug-23	North	Lower Site Crossroads Landfill Feature M	562635	7387638	Y
1162	Lower Site Crossroads Landfill	LSCL_VI_015.jpg	31-Aug-23	Southwest	Lower Site Crossroads Landfill 210	562645	7387648	Y
1163	Lower Site Crossroads Landfill	LSCL_VI_016.jpg	31-Aug-23	Northwest	Lower Site Crossroads Landfill 211	562646	7387647	N
1164	Lower Site Crossroads Landfill	LSCL_VI_017.jpg	31-Aug-23	Southeast	Lower Site Crossroads Landfill 200	562604	7387669	N
1165	Lower Site Crossroads Landfill	LSCL_VI_018.jpg	31-Aug-23	East	Lower Site Crossroads Landfill 199	562598	7387670	N
1166	Lower Site Crossroads Landfill	LSCL_VI_019.jpg	31-Aug-23	East	Lower Site Crossroads Landfill Feature K	562579	7387662	N
1167	Lower Site Crossroads Landfill	LSCL_VI_020.jpg	31-Aug-23	East	Lower Site Crossroads Landfill Feature K	562577	7387663	Y
1168	Lower Site Crossroads Landfill	LSCL_VI_021.jpg	31-Aug-23	West	Lower Site Crossroads Landfill Feature K	562582	7387666	Y
1169	Lower Site Crossroads Landfill	LSCL_VI_022.jpg	31-Aug-23	Southeast	Lower Site Crossroads Landfill Feature L	562582	7387664	Y
1170	Lower Site Crossroads Landfill	LSCL_VI_023.jpg	31-Aug-23	Southeast	Lower Site Crossroads Landfill Feature L	562582	7387665	N
1171	Lower Site Crossroads Landfill	LSCL_VI_024.jpg	31-Aug-23	Northwest	Lower Site Crossroads Landfill Feature L	562587	7387659	Y
1172	Lower Site Crossroads Landfill	LSCL_VI_025.jpg	31-Aug-23	East	Lower Site Crossroads Landfill 198	562584	7387652	N
1173	Lower Site Crossroads Landfill	LSCL_VI_026.jpg	31-Aug-23	Southeast	Lower Site Crossroads Landfill Feature R	562578	7387652	Y
1174	Lower Site Crossroads Landfill	LSCL_VI_027.jpg	31-Aug-23	Southeast	Lower Site Crossroads Landfill Feature R	562581	7387652	N
1175	Lower Site Crossroads Landfill	LSCL_VI_028.jpg	31-Aug-23	Northwest	Lower Site Crossroads Landfill Feature R	562587	7387649	Y
1176	Lower Site Crossroads Landfill	LSCL_VI_029.jpg	31-Aug-23	Southeast	Lower Site Crossroads Landfill East Slope	562596	7387646	N
1177	Lower Site Crossroads Landfill	LSCL_VI_030.jpg	31-Aug-23	Northwest	Lower Site Crossroads Landfill East Slope	562602	7387640	N
1178	Lower Site Foundations Landfill	LSFL_VI_001.jpg	31-Aug-23	Northwest	Lower Site Foundations Landfill Feature P	562747	7387547	Y
1179	Lower Site Foundations Landfill	LSFL_VI_002.jpg	31-Aug-23	North	Lower Site Foundations Landfill Feature P	562746	7387549	Y
1180	Lower Site Foundations Landfill	LSFL_VI_003.jpg	31-Aug-23	Northwest	Lower Site Foundations Landfill Feature P	562745	7387550	N
1181	Lower Site Foundations Landfill	LSFL_VI_004.jpg	31-Aug-23	Southeast	Lower Site Foundations Landfill Feature P	562738	7387559	N
1182	Lower Site Foundations Landfill	LSFL_VI_005.jpg	31-Aug-23	Southeast	Lower Site Foundations Landfill Feature Q	562745	7387551	Y
1183	Lower Site Foundations Landfill	LSFL_VI_006.jpg	31-Aug-23	East	Lower Site Foundations Landfill Feature Q	562744	7387550	N
1184	Lower Site Foundations Landfill	LSFL_VI_007.jpg	31-Aug-23	East	Lower Site Foundations Landfill Feature Q	562744	7387550	Y
1185	Lower Site Foundations Landfill	LSFL_VI_008.jpg	31-Aug-23	North	Lower Site Foundations Landfill 228	562738	7387566	N
1186	Lower Site Foundations Landfill	LSFL_VI_009.jpg	31-Aug-23	North	Lower Site Foundations Landfill 229	562734	7387577	N
1187	Lower Site Foundations Landfill	LSFL_VI_010.jpg	31-Aug-23	North	Lower Site Foundations Landfill 231	562743	7387605	N
1188	Lower Site Foundations Landfill	LSFL_VI_011.jpg	31-Aug-23	West	Lower Site Foundations Landfill Cover	562748	7387607	N
1189	Lower Site Foundations Landfill	LSFL_VI_012.jpg	31-Aug-23	South	Lower Site Foundations Landfill Cover	562743	7387609	N
1190	Lower Site Foundations Landfill	LSFL_VI_013.jpg	31-Aug-23	Southeast	Lower Site Foundations Landfill Cover	562740	7387608	N
1191	Lower Site Foundations Landfill	LSFL_VI_014.jpg	31-Aug-23	Northeast	Lower Site Foundations Landfill Cover	562740	7387601	N
1192	Lower Site Foundations Landfill	LSFL_VI_015.jpg	31-Aug-23	East	Lower Site Foundations Landfill 231	562726	7387598	N
1193	Lower Site Foundations Landfill	LSFL_VI_016.jpg	31-Aug-23	South	Lower Site Foundations Landfill 243	562738	7387631	N
1194	Lower Site Foundations Landfill	LSFL_VI_017.jpg	31-Aug-23	Southwest	Lower Site Foundations Landfill NW Slope	562740	7387630	N
1195	Lower Site Foundations Landfill	LSFL_VI_018.jpg	31-Aug-23	Southeast	Lower Site Foundations Landfill NE Slope	562739	7387630	N
1196	Lower Site Foundations Landfill	LSFL_VI_019.jpg	31-Aug-23	Southeast	Lower Site Foundations Landfill Feature M	562768	7387593	Y
1197	Lower Site Foundations Landfill	LSFL_VI_020.jpg	31-Aug-23	West	Lower Site Foundations Landfill Feature M	562775	7387591	Y
1198	Lower Site Foundations Landfill	LSFL_VI_021.jpg	31-Aug-23	Northwest	Lower Site Foundations Landfill Feature M	562770	7387585	N
1199	Lower Site Foundations Landfill	LSFL_VI_022.jpg	31-Aug-23	North	Lower Site Foundations Landfill 241	562777	7387569	N
1200	Lower Site Foundations Landfill	LSFL_VI_023.jpg	31-Aug-23	South	Lower Site Foundations Landfill SE Slope	562778	7387574	Y
1201	Lower Site Foundations Landfill	LSFL_VI_024.jpg	31-Aug-23	East	Lower Site Foundations Landfill Feature D	562774	7387588	Y
1202	Lower Site Foundations Landfill	LSFL_VI_025.jpg	31-Aug-23	North	Lower Site Foundations Landfill Feature D	562778	7387585	Y
1203	Lower Site Foundations Landfill	LSFL_VI_026.jpg	31-Aug-23	West	Lower Site Foundations Landfill Feature D	562777	7387588	Y
1204	Lower Site Foundations Landfill	LSFL_VI_027.jpg	31-Aug-23	East	Lower Site Foundations Landfill Cover	562751	7387565	N
1205	Lower Site Foundations Landfill	LSFL_VI_028.jpg	31-Aug-23	Southwest	Lower Site Foundations Landfill Cover	562756	7387566	N
1206	Lower Site Foundations Landfill	LSFL_VI_029.jpg	31-Aug-23	Northwest	Lower Site Foundations Landfill Cover	562761	7387561	N
1207	Lower Site Foundations Landfill	LSFL_VI_030.jpg	31-Aug-23	West	Lower Site Foundations Landfill South Slope	562757	7387552	N
1208	Lower Site Foundations Landfill	LSFL_VI_031.jpg	31-Aug-23	Northeast	Lower Site Foundations Landfill South Slope	562754	7387550	N
1209	Lower Site Foundations Landfill	LSFL_VI_032.jpg	31-Aug-23	West	Lower Site Foundations Landfill Feature K + L	562770	7387549	Y
1210	Lower Site Foundations Landfill	LSFL_VI_033.jpg	31-Aug-23	Northeast	Lower Site Foundations Landfill Feature K + L	562765	7387551	Y
1211	Lower Site Foundations Landfill	LSFL_VI_034.jpg	31-Aug-23	North	Lower Site Foundations Landfill Feature 240	562774	7387551	N
1212	Lower Site Foundations Landfill	LSFL_VI_035.jpg	31-Aug-23	Northeast	Lower Site Foundations Landfill Feature N	562739	7387626	Y
1213	Lower Site Foundations Landfill	LSFL_VI_036.jpg	31-Aug-23	Northeast	Lower Site Foundations Landfill Feature N	562740	7387627	Y
1214	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_001.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill North Slope	562932	7387058	N
1215	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_002.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill North Slope	562932	7387058	N
1216	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_003.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill North Slope	562932	7387058	N
1217	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_004.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill North Slope	562932	7387058	N
1218	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_005.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill North Slope	562932	7387058	N
1219	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_006.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature P and AD-AL	562932	7387056	Y
1220	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_007.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill Feature P and AD-AL	562932	7387057	Y
1221	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_008.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature P and AD-AL	562938	7387060	Y
1222	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_009.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature P and AD-AL	562938	7387060	Y
1223	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_010.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature P and AD-AL	562938	7387059	Y
1224	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_011.jpg	29-Aug-23	East	Lower Site Non Hazardous Waste Landfill Feature P and AD-AL	562938	7387059	Y

1225	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_012.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature P and AD-AL	563036	7387062	Y
1226	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_013.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature P and AD-AL	563042	7387060	Y
1227	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_014.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature P and AD-AL	563045	7387063	Y
1228	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_015.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature P and AD-AL	563047	7387065	Y
1229	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_016.jpg	29-Aug-23	West	Lower Site Non Hazardous Waste Landfill Feature P and AD-AL	563061	7387071	Y
1230	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_017.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature P and AD-AL	563060	7387072	Y
1231	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_018.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature P and AD-AL	563035	7387061	Y
1232	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_019.jpg	29-Aug-23	West	Lower Site Non Hazardous Waste Landfill Feature P and AD-AL	563031	7387057	Y
1233	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_020.jpg	29-Aug-23	West	Lower Site Non Hazardous Waste Landfill Feature P and AD-AL	562870	7387204	N
1234	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_021.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill Feature BA	562943	7387016	Y
1235	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_022.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature BA	562944	7387015	Y
1236	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_023.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Feature BA	562945	7387012	Y
1237	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_024.jpg	29-Aug-23	West	Lower Site Non Hazardous Waste Landfill Feature AA	563018	7386986	N
1238	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_025.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Feature AA	563015	7386982	Y
1239	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_026.jpg	29-Aug-23	Norhtwest	Lower Site Non Hazardous Waste Landfill Feature AA	563011	7386987	Y
1240	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_027.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Feature AA	563006	7386996	Y
1241	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_028.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Feature AA	563001	7387005	N
1242	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_029.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Feature AA	562989	7387022	Y
1243	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_030.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill Feature AA	562984	7387031	Y
1244	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_031.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill Feature AA	562984	7387030	Y
1245	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_032.jpg	29-Aug-23	West	Lower Site Non Hazardous Waste Landfill Feature AA1	563078	7386953	N
1246	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_033.jpg	29-Aug-23	East	Lower Site Non Hazardous Waste Landfill Feature AA1	563071	7386953	Y
1247	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_034.jpg	29-Aug-23	West	Lower Site Non Hazardous Waste Landfill Feature AA1	563067	7386953	N
1248	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_035.jpg	29-Aug-23	West	Lower Site Non Hazardous Waste Landfill Feature AA1	563049	7386956	N
1249	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_036.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill Feature AA1	563044	7386955	N
1250	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_037.jpg	29-Aug-23	Norhtwest	Lower Site Non Hazardous Waste Landfill Feature AA1	563037	7386955	N
1251	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_038.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill Feature AA1	563015	7386982	N
1252	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_039.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Cover	563015	7386978	N
1253	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_040.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Cover	563023	7386981	N
1254	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_041.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Representative Vegetation	563023	7386967	Y
1255	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_042.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill Representative Vegetation	563002	7386948	Y
1256	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_043.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Representative Vegetation	563009	7386958	Y
1257	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_044.jpg	29-Aug-23	East	Lower Site Non Hazardous Waste Landfill Feature AA1	563010	7386960	N
1258	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_045.jpg	29-Aug-23	South	Lower Site Non Hazardous Waste Landfill Feature AZ	562984	7387029	Y
1259	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_046.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill Feature AC	562985	7387026	Y
1260	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_047.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill Feature AC	562985	7387027	N
1261	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_048.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Feature AC	562987	7387025	Y
1262	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_049.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature N O Q	563024	7387057	Y
1263	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_050.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature N O Q	563014	7387053	Y
1264	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_051.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill Feature N O Q	563008	7387050	Y
1265	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_052.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature N O Q	563005	7387048	Y
1266	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_053.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature N O Q	562991	7387035	Y
1267	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_054.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill Feature M	562965	7387021	N
1268	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_055.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Feature AB	562956	7387012	Y
1269	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_056.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill Feature AB	562954	7387013	N
1270	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_057.jpg	29-Aug-23	East	Lower Site Non Hazardous Waste Landfill Feature AJ	563023	7387056	N
1271	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_058.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature AJ	563026	7387050	N
1272	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_059.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature AJ	563025	7387050	N
1273	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_060.jpg	29-Aug-23	West	Lower Site Non Hazardous Waste Landfill Feature AJ	563038	7387055	Y
1274	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_061.jpg	29-Aug-23	West	Lower Site Non Hazardous Waste Landfill Feature AE + AF	563020	7387042	N
1275	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_062.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature AE + AF	563014	7387039	N
1276	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_063.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature AE + AF	563014	7387039	N
1277	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_064.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature AY	563031	7387037	Y
1278	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_065.jpg	29-Aug-23	West	Lower Site Non Hazardous Waste Landfill Feature AY	563035	7387038	Y
1279	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_066.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature BB	563026	7387044	Y
1280	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_067.jpg	29-Aug-23	West	Lower Site Non Hazardous Waste Landfill Feature BB	563028	7387044	N
1281	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_068.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature BC	563044	7387056	Y
1282	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_069.jpg	29-Aug-23	South	Lower Site Non Hazardous Waste Landfill Feature BC	563046	7387058	N
1283	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_070.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature AN	563053	7387055	Y
1284	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_071.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature AN	563056	7387057	Y
1285	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_072.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature AN	563055	7387056	N
1286	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_073.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Feature AM	563051	7387062	Y
1287	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_074.jpg	29-Aug-23	South	Lower Site Non Hazardous Waste Landfill Feature AM	563051	7387062	Y
1288	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_075.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Feature L1	563048	7387063	Y
1289	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_076.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature L1	563052	7387065	N
1290	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_077.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature L1	563063	7387072	N
1291	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_078.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill East Slope	563060	7387066	N
1292	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_079.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill East Slope	563060	7387067	N
1293	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_080.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill East Slope	563063	7387063	N
1294	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_081.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill East Slope	563071	7387050	N
1295	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_082.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill East Slope	563079	7387039	N
1296	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_083.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill East Slope	563093	7387015	N
1297	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_084.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill East Slope	563105	7386995	N
1298	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_085.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill East Slope	563116	7386979	N
1299	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_086.jpg	29-Aug-23	East	Lower Site Non Hazardous Waste Landfill East Slope	563134	7386947	N
1300	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_087.jpg	29-Aug-23	Norhtwest	Lower Site Non Hazardous Waste Landfill East Slope	563148	7386949	Y
1301	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_088.jpg	29-Aug-23	Northwest	Lower Site Non Hazardous Waste Landfill East Slope	563143	7386958	Y
1302	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_089.jpg	29-Aug-23	Northwest	Lower Site Non Hazardous Waste Landfill East Slope	563132	7386977	Y
1303	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_090.jpg	29-Aug-23	Northwest	Lower Site Non Hazardous Waste Landfill East Slope	563124	7386991	Y
1304	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_091.jpg	29-Aug-23	Northwest	Lower Site Non Hazardous Waste Landfill East Slope	563117	7387000	Y
1305	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_092.jpg	29-Aug-23	Northwest	Lower Site Non Hazardous Waste Landfill East Slope	563108	7387013	Y
1306	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_093.jpg	29-Aug-23	Northwest	Lower Site Non Hazardous Waste Landfill East Slope	563089	7387042	Y
1307	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_094.jpg	29-Aug-23	Northwest	Lower Site Non Hazardous Waste Landfill East Slope	563083	7387053	Y
1308	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_095.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature S	563080	7387060	Y
1309	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_096.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature S	563079	7387058	N
1310	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_097.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature W	563029	7387035	Y
1311	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_098.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature W	563031	7387044	Y
1312	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_099.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Feature W	563052	7387041	Y
1313	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_100.jpg	29-Aug-23	East	Lower Site Non Hazardous Waste Landfill 457	563046	7387004	N
1314	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_101.jpg	29-Aug-23	South	Lower Site Non Hazardous Waste Landfill 456	563047	7387011	N
1315	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_102.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature BD	563084	7387037	Y
1316	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_103.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature BD	563083	7387035	N
1317	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_104.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature BD	563081	7387034	N
1318	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_105.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature BD	563067	7387025	Y
1319	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_106.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill Feature BD	563067	7387030	N
1320	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_107.jpg	29-Aug-23	Northwest	Lower Site Non Hazardous Waste Landfill Feature BD	563077	7387020	Y
1321	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_108.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Feature A0	563083	7387037	N
1322	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_109.jpg	29-Aug-23	South	Lower Site Non Hazardous Waste Landfill Feature A0	563082	7387042	N
1323	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_110.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill Feature AP	563117	7386983	N
1324	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_111.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Feature AP	563120	7386980	Y
1325	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_112.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill Feature AQ	563109	7386997	N
1326	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_113.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Feature AQ	563113	7386993	Y
1327	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_114.jpg	29-Aug-23	West	Lower Site Non Hazardous Waste Landfill 458	563085	7386971	N
1328	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_115.jpg	29-Aug-23	West	Lower Site Non Hazardous Waste Landfill 458	563085	7386973	N
1329	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_116.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill 459	563082	7386968	N
1330	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_117.jpg	29-Aug-23	East	Lower Site Non Hazardous Waste Landfill 460	563076	7386971	N
1331	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_118.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Feature X	563076	7386971	N
1332	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_119.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Feature X	563105	7386937	Y
1333	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_120.jpg	29-Aug-23	East	Lower Site Non Hazardous Waste Landfill Feature X	563102	7386939	Y
1334	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_121.jpg	29-Aug-23	West	Lower Site Non Hazardous Waste Landfill Feature X	563115	7386942	N
1335	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_122.jpg	29-Aug-23	West	Lower Site Non Hazardous Waste Landfill Feature G2	562946	7386941	N
1336	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_123.jpg	29-Aug-23	West	Lower Site Non Hazardous Waste Landfill 320	563134	7386944	N
1337	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_124.jpg	29-Aug-23	West	Lower Site Non Hazardous Waste Landfill South Slope	563119	7386943	Y
1338	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_125.jpg	29-Aug-23	West	Lower Site Non Hazardous Waste Landfill South Slope	563111	7386946	Y
1339	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_126.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill South Slope	563094	7386946	Y
1340	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_127.jpg	29-Aug-23	East	Lower Site Non Hazardous Waste Landfill Feature AR	563077	7386948	N
1341	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_128.jpg	29-Aug-23	South	Lower Site Non Hazardous Waste Landfill Feature AR	563082	7386950	N
1342	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_129.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature AR	563088	7386951	Y
1343	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_130.jpg	29-Aug-23	Northwest	Lower Site Non Hazardous Waste Landfill Feature BE	563078	7386948	Y
1344	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_131.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Feature BE	563069	7386959	Y
1345	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_132.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Feature BE	563069	7386960	N
1346	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_133.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Feature BE	563068	7386961	Y
1347	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_134.jpg	29-Aug-23	Northwest	Lower Site Non Hazardous Waste Landfill 438	563051	7386976	N
1348	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_135.jpg	29-Aug-23	East	Lower Site Non Hazardous Waste Landfill 438a	563050	7386969	N
1349	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_136.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature BF	563061	7387011	Y
1350	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_137.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature BF	563058	7387002	Y
1351	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_138.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature BF	563040	7386970	Y
1352	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_139.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature T	563041	7386939	N
1353	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_140.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature T	563046	7386937	Y
1354	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_141.jpg	29-Aug-23	West	Lower Site Non Hazardous Waste Landfill Feature U	563064	7386936	N
1355	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_142.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature V	563034	7386935	Y
1356	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_143.jpg	29-Aug-23	East	Lower Site Non Hazardous Waste Landfill Feature AS-AT-AU-AW	562978	7386914	Y
1357	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_144.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill Feature AS-AT-AU-AW	562977	7386915	Y
1358	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_145.jpg	29-Aug-23	East	Lower Site Non Hazardous Waste Landfill Feature AS-AT-AU-AW	562982	7386916	Y
1359	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_146.jpg	29-Aug-23	South	Lower Site Non Hazardous Waste Landfill Feature AS-AT-AU-AW	562992	7386919	Y
1360	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_147.jpg	29-Aug-23	East	Lower Site Non Hazardous Waste Landfill Feature AS-AT-AU-AW	563000	7386924	Y
1361	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_148.jpg	29-Aug-23	South	Lower Site Non Hazardous Waste Landfill Feature AS-AT-AU-AW	563008	7386928	Y
1362	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_149.jpg	29-Aug-23	East	Lower Site Non Hazardous Waste Landfill Feature AS-AT-AU-AW	563014	7386931	Y

1363	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_150.jpg	29-Aug-23	South	Lower Site Non Hazardous Waste Landfill Feature AS-AT-AU-AW	563020	7386933	Y
1364	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_151.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature AS-AT-AU-AW	563024	7386934	Y
1365	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_152.jpg	29-Aug-23	West	Lower Site Non Hazardous Waste Landfill Feature AS-AT-AU-AW	563026	7386929	Y
1366	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_153.jpg	29-Aug-23	South	Lower Site Non Hazardous Waste Landfill Feature BG	563031	7386960	Y
1367	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_154.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature BG	563030	7386957	N
1368	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_155.jpg	29-Aug-23	South	Lower Site Non Hazardous Waste Landfill Feature BG	563027	7386955	Y
1369	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_156.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Feature BG	563024	7386933	N
1370	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_157.jpg	29-Aug-23	East	Lower Site Non Hazardous Waste Landfill 436	562999	7386953	N
1371	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_158.jpg	29-Aug-23	Northwest	Lower Site Non Hazardous Waste Landfill 436a	562999	7386953	N
1372	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_159.jpg	29-Aug-23	Northwest	Lower Site Non Hazardous Waste Landfill 453	562990	7386949	N
1373	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_160.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill 450	562973	7386911	N
1374	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_161.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill 449	562972	7386910	N
1375	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_162.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill 451	562972	7386911	N
1376	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_163.jpg	29-Aug-23	Northwest	Lower Site Non Hazardous Waste Landfill Feature Y1	562972	7386912	Y
1377	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_164.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature Y1	562970	7386912	N
1378	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_165.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill Feature Y1	562966	7386916	Y
1379	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_166.jpg	29-Aug-23	Northwest	Lower Site Non Hazardous Waste Landfill Feature Y	562965	7386916	Y
1380	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_167.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Feature Y	562964	7386918	N
1381	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_168.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Feature Y	562964	7386918	N
1382	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_169.jpg	29-Aug-23	Northwest	Lower Site Non Hazardous Waste Landfill Feature Y	562963	7386923	N
1383	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_170.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill Feature Y	562961	7386926	Y
1384	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_171.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature D	562953	7386933	Y
1385	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_172.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature D	562960	7386935	Y
1386	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_173.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill West Slope	562951	7386939	Y
1387	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_174.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill West Slope	562948	7386946	Y
1388	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_175.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill West Slope	562943	7386953	Y
1389	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_176.jpg	29-Aug-23	Northwest	Lower Site Non Hazardous Waste Landfill West Slope	562946	7386954	Y
1390	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_177.jpg	29-Aug-23	Northwest	Lower Site Non Hazardous Waste Landfill West Slope	562941	7386961	Y
1391	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_178.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill West Slope	562936	7386964	Y
1392	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_179.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill West Slope	562934	7386970	N
1393	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_180.jpg	29-Aug-23	Northwest	Lower Site Non Hazardous Waste Landfill West Slope	562934	7386975	Y
1394	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_181.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Feature K	562940	7386975	Y
1395	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_182.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill Cover	562978	7386978	N
1396	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_183.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Cover	562979	7386977	N
1397	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_184.jpg	29-Aug-23	Northwest	Lower Site Non Hazardous Waste Landfill Cover	562979	7386977	N
1398	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_185.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill Cover	562979	7386977	N
1399	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_186.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill BH1	562991	7386971	Y
1400	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_187.jpg	29-Aug-23	Northwest	Lower Site Non Hazardous Waste Landfill BH2	562991	7386971	Y
1401	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_188.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill BI	562986	7387010	Y
1402	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_189.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill BI	562980	7387008	N
1403	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_190.jpg	29-Aug-23	Southwest	Lower Site Non Hazardous Waste Landfill BI	562980	7387007	N
1404	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_191.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill BI	562964	7387002	Y
1405	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_192.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill N+O+Q	562936	7387006	N
1406	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_193.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill Feature BA	562937	7387009	N
1407	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_194.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill Feature BA	562938	7387008	N
1408	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_195.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill 357	562922	7386988	N
1409	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_196.jpg	29-Aug-23	South	Lower Site Non Hazardous Waste Landfill 357	562922	7386988	N
1410	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_197.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill North Slope	562921	7386991	N
1411	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_198.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill North Slope	562922	7386992	N
1412	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_199.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill North Slope	562927	7386998	N
1413	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_200.jpg	29-Aug-23	East	Lower Site Non Hazardous Waste Landfill North Slope	562930	7387000	N
1414	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_201.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill 427	562953	7386999	N
1415	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_202.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill 426	562964	7387004	N
1416	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_203.jpg	29-Aug-23	Northeast	Lower Site Non Hazardous Waste Landfill 454	562984	7386969	N
1417	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_204.jpg	29-Aug-23	North	Lower Site Non Hazardous Waste Landfill Cover	562988	7386967	N
1418	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_205.jpg	29-Aug-23	West	Lower Site Non Hazardous Waste Landfill Cover	562991	7386971	N
1419	Lower Site Non-Hazardous Waste Landfill	LSNHWL_VI_206.jpg	29-Aug-23	Southeast	Lower Site Non Hazardous Waste Landfill Cover	562986	7386973	N
1420	Lower Site North Warning System Landfill	LSNWSL_VI_001.jpg	27-Aug-23	Northwest	Lower Site North Warning System Landfill	561451	7388933	N
1421	Lower Site North Warning System Landfill	LSNWSL_VI_002.jpg	27-Aug-23	Southwest	Lower Site North Warning System Landfill	561452	7388939	N
1422	Lower Site North Warning System Landfill	LSNWSL_VI_003.jpg	27-Aug-23	South	Lower Site North Warning System Landfill Representative Vegetation	561449	7388932	Y
1423	Lower Site North Warning System Landfill	LSNWSL_VI_004.jpg	27-Aug-23	West	Lower Site North Warning System Landfill Representative Vegetation	561445	7388933	Y
1424	Lower Site North Warning System Landfill	LSNWSL_VI_005.jpg	27-Aug-23	Southwest	Lower Site North Warning System Landfill Representative Vegetation	561448	7388931	Y
1425	Lower Site North Warning System Landfill	LSNWSL_VI_006.jpg	27-Aug-23	Northeast	Lower Site North Warning System Landfill	561441	7388925	N
1426	Lower Site North Warning System Landfill	LSNWSL_VI_007.jpg	27-Aug-23	Northwest	Lower Site North Warning System Landfill	561439	7388928	N
1427	Lower Site North Warning System Landfill	LSNWSL_VI_008.jpg	27-Aug-23	Northeast	Lower Site North Warning System Landfill	561426	7388934	N
1428	Lower Site North Warning System Landfill	LSNWSL_VI_009.jpg	27-Aug-23	Northwest	Lower Site North Warning System Landfill	561423	7388935	N
1429	Lower Site North Warning System Landfill	LSNWSL_VI_010.jpg	27-Aug-23	North	Lower Site North Warning System Landfill	561405	7388939	N
1430	Lower Site North Warning System Landfill	LSNWSL_VI_011.jpg	27-Aug-23	Northwest	Lower Site North Warning System Landfill	561405	7388943	N
1431	Lower Site North Warning System Landfill	LSNWSL_VI_012.jpg	27-Aug-23	Northeast	Lower Site North Warning System Landfill	561391	7388947	N
1432	Lower Site North Warning System Landfill	LSNWSL_VI_013.jpg	27-Aug-23	South	Lower Site North Warning System Landfill	561394	7388966	N
1433	Lower Site North Warning System Landfill	LSNWSL_VI_014.jpg	27-Aug-23	South	Lower Site North Warning System Landfill	561393	7388964	N
1434	Lower Site North Warning System Landfill	LSNWSL_VI_015.jpg	27-Aug-23	Southeast	Lower Site North Warning System Landfill	561394	7388962	N
1435	Lower Site North Warning System Landfill	LSNWSL_VI_016.jpg	27-Aug-23	Northwest	Lower Site North Warning System Landfill	561403	7388958	N
1436	Lower Site North Warning System Landfill	LSNWSL_VI_017.jpg	27-Aug-23	North	Lower Site North Warning System Landfill	561398	7388953	N
1437	Lower Site North Warning System Landfill	LSNWSL_VI_018.jpg	27-Aug-23	Southwest	Lower Site North Warning System Landfill	561387	7388953	N
1438	Lower Site North Warning System Landfill	LSNWSL_VI_019.jpg	27-Aug-23	North	Lower Site North Warning System Landfill	561386	7388945	N
1439	Lower Site North Warning System Landfill	LSNWSL_VI_020.jpg	27-Aug-23	Northeast	Lower Site North Warning System Landfill	561384	7388946	N
1440	Lower Site North Warning System Landfill	LSNWSL_VI_021.jpg	27-Aug-23	Northeast	Lower Site North Warning System Landfill	561385	7388942	N
1441	Lower Site North Warning System Landfill	LSNWSL_VI_022.jpg	27-Aug-23	Southeast	Lower Site North Warning System Landfill 16	561383	7388942	N
1442	Lower Site North Warning System Landfill	LSNWSL_VI_023.jpg	27-Aug-23	Southeast	Lower Site North Warning System Landfill 16	561383	7388941	N
1443	Lower Site North Warning System Landfill	LSNWSL_VI_024.jpg	27-Aug-23	East	Lower Site North Warning System Landfill 38	561374	7388935	N
1444	Lower Site North Warning System Landfill	LSNWSL_VI_025.jpg	27-Aug-23	East	Lower Site North Warning System Landfill 38	561372	7388932	N
1445	Lower Site North Warning System Landfill	LSNWSL_VI_026.jpg	27-Aug-23	Northeast	Lower Site North Warning System Landfill 39	561375	7388931	N
1446	Lower Site North Warning System Landfill	LSNWSL_VI_027.jpg	27-Aug-23	West	Lower Site North Warning System Landfill 37	561395	7388922	N
1447	Lower Site North Warning System Landfill	LSNWSL_VI_028.jpg	27-Aug-23	Northwest	Lower Site North Warning System Landfill 28	561393	7388924	N
1448	Lower Site North Warning System Landfill	LSNWSL_VI_029.jpg	27-Aug-23	Southeast	Lower Site North Warning System Landfill 8	561385	7388930	N
1449	Lower Site North Warning System Landfill	LSNWSL_VI_030.jpg	27-Aug-23	Southwest	Lower Site North Warning System Landfill 17	561409	7388932	N
1450	Lower Site North Warning System Landfill	LSNWSL_VI_031.jpg	27-Aug-23	Southwest	Lower Site North Warning System Landfill 10	561409	7388944	N
1451	Lower Site North Warning System Landfill	LSNWSL_VI_032.jpg	27-Aug-23	East	Lower Site North Warning System Landfill 6	561404	7388937	N
1452	Lower Site North Warning System Landfill	LSNWSL_VI_033.jpg	27-Aug-23	Northwest	Lower Site North Warning System Landfill 14	561397	7388949	N
1453	Lower Site North Warning System Landfill	LSNWSL_VI_034.jpg	27-Aug-23	Southeast	Lower Site North Warning System Landfill 12	561405	7388944	N
1454	Lower Site North Warning System Landfill	LSNWSL_VI_035.jpg	27-Aug-23	Northeat	Lower Site North Warning System Landfill 13	561410	7388937	N
1455	Lower Site North Warning System Landfill	LSNWSL_VI_036.jpg	27-Aug-23	West	Lower Site North Warning System Landfill 11	561413	7388937	N
1456	Lower Site North Warning System Landfill	LSNWSL_VI_037.jpg	27-Aug-23	Southeast	Lower Site North Warning System Landfill 30	561408	7388927	N
1457	Lower Site North Warning System Landfill	LSNWSL_VI_038.jpg	27-Aug-23	East	Lower Site North Warning System Landfill 18	561411	7388929	N
1458	Lower Site North Warning System Landfill	LSNWSL_VI_039.jpg	27-Aug-23	Northwest	Lower Site North Warning System Landfill West Slope	561411	7388907	N
1459	Lower Site North Warning System Landfill	LSNWSL_VI_040.jpg	27-Aug-23	East	Lower Site North Warning System Landfill West Slope	561406	7388910	N
1460	Lower Site North Warning System Landfill	LSNWSL_VI_041.jpg	27-Aug-23	West	Lower Site North Warning System Landfill 36	561434	7388899	N
1461	Lower Site North Warning System Landfill	LSNWSL_VI_042.jpg	27-Aug-23	Northeast	Lower Site North Warning System Landfill 33	561431	7388896	N
1462	Lower Site North Warning System Landfill	LSNWSL_VI_043.jpg	27-Aug-23	Southeast	Lower Site North Warning System Landfill 25	561426	7388908	N
1463	Lower Site North Warning System Landfill	LSNWSL_VI_044.jpg	27-Aug-23	Northeast	Lower Site North Warning System Landfill South Slope	561441	7388912	N
1464	Lower Site North Warning System Landfill	LSNWSL_VI_045.jpg	27-Aug-23	South	Lower Site North Warning System Landfill South Slope	561445	7388916	N
1465	Lower Site North Warning System Landfill	LSNWSL_VI_046.jpg	27-Aug-23	North	Lower Site North Warning System Landfill 3	561430	7388913	N
1466	Lower Site North Warning System Landfill	LSNWSL_VI_047.jpg	27-Aug-23	Southeast	Lower Site North Warning System Landfill 24	561433	7388921	N
1467	Lower Site North Warning System Landfill	LSNWSL_VI_048.jpg	27-Aug-23	Northeast	Lower Site North Warning System Landfill 4	561435	7388926	N
1468	Lower Site North Warning System Landfill	LSNWSL_VI_049.jpg	27-Aug-23	East	Lower Site North Warning System Landfill 23	561435	7388930	N
1469	Lower Site North Warning System Landfill	LSNWSL_VI_050.jpg	27-Aug-23	North	Lower Site North Warning System Landfill 5	561436	7388933	N
1470	Lower Site North Warning System Landfill	LSNWSL_VI_051.jpg	27-Aug-23	East	Lower Site North Warning System Landfill 7	561420	7388937	N
1471	Lower Site North Warning System Landfill	LSNWSL_VI_052.jpg	27-Aug-23	South	Lower Site North Warning System Landfill 29	561424	7388948	N
1472	Lower Site North Warning System Landfill	LSNWSL_VI_053.jpg	27-Aug-23	Southeast	Lower Site North Warning System Landfill 20	561426	7388948	N
1473	Lower Site North Warning System Landfill	LSNWSL_VI_054.jpg	27-Aug-23	South	Lower Site North Warning System Landfill 21	561432	7388946	N
1474	Lower Site North Warning System Landfill	LSNWSL_VI_055.jpg	27-Aug-23	Southeast	Lower Site North Warning System Landfill 22	561438	7388938	N
1475	Lower Site North Warning System Landfill	LSNWSL_VI_056.jpg	27-Aug-23	West	Lower Site North Warning System Landfill Feature E	571150	7394664	Y
1476	Lower Site North Warning System Landfill	LSNWSL_VI_057.jpg	27-Aug-23	Southeast	Lower Site North Warning System Landfill Feature E	561401	7388957	Y
1477	Lower Site North Warning System Landfill	LSNWSL_VI_058.jpg	27-Aug-23	East	Lower Site North Warning System Landfill Feature E	561404	7388957	N
1478	Lower Site North Warning System Landfill	LSNWSL_VI_059.jpg	27-Aug-23	South	Lower Site North Warning System Landfill Feature E	571184	7394618	N
1479	Lower Site North Warning System Landfill	LSNWSL_VI_060.jpg	27-Aug-23	Southwest	Lower Site North Warning System Landfill Feature B-D	561422	7388949	Y
1480	Lower Site North Warning System Landfill	LSNWSL_VI_061.jpg	27-Aug-23	Northeast	Lower Site North Warning System Landfill Feature A	561447	7388925	Y
1481	Lower Site North Warning System Landfill	LSNWSL_VI_062.jpg	27-Aug-23	Northwest	Lower Site North Warning System Landfill Feature A	561453	7388926	Y
1482	Lower Site North Warning System Landfill	LSNWSL_VI_063.jpg	27-Aug-23	Southwest	Lower Site North Warning System Landfill Feature A	561456	7388935	N
1483	Lower Site North Warning System Landfill	LSNWSL_VI_064.jpg	27-Aug-23	North	Lower Site North Warning System Landfill From TII	561563	7388281	N
1484	Lower Site Powerhouse Landfill	LSPL_VI_001.jpg	27-Aug-23	Southeast	Lower Site Powerhouse Landfill 264	562722	7387446	N
1485	Lower Site Powerhouse Landfill	LSPL_VI_002.jpg	27-Aug-23	Northwest	Lower Site Powerhouse Landfill West Slope	562726	7387439	N
1486	Lower Site Powerhouse Landfill	LSPL_VI_003.jpg	27-Aug-23	Southwest	Lower Site Powerhouse Landfill Feature C	562727	7387461	N
1487	Lower Site Powerhouse Landfill	LSPL_VI_004.jpg	27-Aug-23	Northwest	Lower Site Powerhouse Landfill Feature C	562727	7387460	N
1488	Lower Site Powerhouse Landfill	LSPL_VI_005.jpg	27-Aug-23	Southeast	Lower Site Powerhouse Landfill Feature C	562722	7387460	Y
1489	Lower Site Powerhouse Landfill	LSPL_VI_006.jpg	27-Aug-23	South	Lower Site Powerhouse Landfill Feature D	562735	7387463	Y
1490	Lower Site Powerhouse Landfill	LSPL_VI_007.jpg	27-Aug-23	Southwest	Lower Site Powerhouse Landfill Feature D	562735	7387463	Y
1491	Lower Site Powerhouse Landfill	LSPL_VI_008.jpg	27-Aug-23	Southwest	Lower Site Powerhouse Landfill Representative Vegetation	562736	7387462	Y
1492	Lower Site Powerhouse Landfill	LSPL_VI_009.jpg	27-Aug-23	Southeast	Lower Site Powerhouse Landfill Representative Vegetation	562745	7387462	Y
1493	Lower Site Powerhouse Landfill	LSPL_VI_010.jpg	27-Aug-23	Northeast	Lower Site Powerhouse Landfill Representative Vegetation	562757	7387461	Y
1494	Lower Site Powerhouse Landfill	LSPL_VI_011.jpg	27-Aug-23	Southwest	Lower Site Powerhouse Landfill 255	562738	7387464	Y
1495	Lower Site Powerhouse Landfill	LSPL_VI_012.jpg	27-Aug-23	Southeast	Lower Site Powerhouse Landfill 262	562739	7387468	N
1496	Lower Site Powerhouse Landfill	LSPL_VI_013.jpg	27-Aug-23	Southwest	Lower Site Powerhouse Landfill 261	562773	7387478	N
1497	Lower Site Powerhouse Landfill	LSPL_VI_014.jpg	27-Aug-23	West	Lower Site Powerhouse Landfill 260	562781	7387457	N
1498	Lower Site Powerhouse Landfill	LSPL_VI_015.jpg	27-Aug-23	North	Lower Site Powerhouse Landfill 258	562770	7387436	N
1499	Lower Site Powerhouse Landfill	LSPL_VI_016.jpg	27-Aug-23	Northeast	Lower Site Powerhouse Landfill 257	562756	7387432	N
1500	Lower Site Powerhouse Landfill	LSPL_VI_017.jpg	27-Aug-23	Northwest	Lower Site Powerhouse Landfill Cover	562761	7387436	N

1501	Lower Site Powerhouse Landfill	LSPL_VI_018.jpg	27-Aug-23	Southwest	Lower Site Powerhouse Landfill 263	562730	7387486	N
1502	Lower Site Powerhouse Landfill	LSPL_VI_019.jpg	27-Aug-23	Northeast	Lower Site Powerhouse Landfill North Slope	562722	7387479	N
1503	Lower Site Powerhouse Landfill	LSPL_VI_020.jpg	27-Aug-23	Southeast	Lower Site Powerhouse Landfill North East Slope	562739	7387506	N
1504	Lower Site Powerhouse Landfill	LSPL_VI_021.jpg	27-Aug-23	Southwest	Lower Site Powerhouse Landfill North East Slope	562746	7387506	N
1505	Lower Site Powerhouse Landfill	LSPL_VI_022.jpg	27-Aug-23	West	Lower Site Powerhouse Landfill East Slope	562791	7387499	N
1506	Lower Site Powerhouse Landfill	LSPL_VI_023.jpg	27-Aug-23	Southeast	Lower Site Powerhouse Landfill East Slope	562783	7387501	N
1507	Lower Site Powerhouse Landfill	LSPL_VI_024.jpg	27-Aug-23	Northwest	Lower Site Powerhouse Landfill East Slope	562809	7387441	N
1508	Lower Site Powerhouse Landfill	LSPL_VI_025.jpg	27-Aug-23	West	Lower Site Powerhouse Landfill East Slope	562809	7387445	N
1509	Lower Site Powerhouse Landfill	LSPL_VI_026.jpg	27-Aug-23	Southwest	Lower Site Powerhouse Landfill East Slope	562807	7387453	N
1510	Lower Site Powerhouse Landfill	LSPL_VI_027.jpg	27-Aug-23	North	Lower Site Powerhouse Landfill South Slope	562789	7387414	N
1511	Lower Site Powerhouse Landfill	LSPL_VI_028.jpg	27-Aug-23	Northwest	Lower Site Powerhouse Landfill South Slope	562792	7387415	N
1512	Lower Site Powerhouse Landfill	LSPL_VI_029.jpg	27-Aug-23	West	Lower Site Powerhouse Landfill South Slope	562796	7387420	N
1513	Lower Site Powerhouse Landfill	LSPL_VI_030.jpg	27-Aug-23	East	Lower Site Powerhouse Landfill South West Slope	562754	7387420	N
1514	Lower Site Powerhouse Landfill	LSPL_VI_031.jpg	27-Aug-23	West	Lower Site Powerhouse Landfill South West Slope	562770	7387422	N
1515	Lower Site Powerhouse Landfill	LSPL_VI_032.jpg	27-Aug-23	North	Lower Site Powerhouse Landfill West Slope	562741	7387408	N
1516	Lower Site Tier II Disposal Facility	LST2DF_VI_001.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility 97	561951	7388262	N
1517	Lower Site Tier II Disposal Facility	LST2DF_VI_002.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility 148	561973	7388247	N
1518	Lower Site Tier II Disposal Facility	LST2DF_VI_003.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility 92	561968	7388254	N
1519	Lower Site Tier II Disposal Facility	LST2DF_VI_004.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility 149	561978	7388244	N
1520	Lower Site Tier II Disposal Facility	LST2DF_VI_005.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility 119	561994	7388251	N
1521	Lower Site Tier II Disposal Facility	LST2DF_VI_006.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility 157	561980	7388241	N
1522	Lower Site Tier II Disposal Facility	LST2DF_VI_007.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility 78	561967	7388239	N
1523	Lower Site Tier II Disposal Facility	LST2DF_VI_008.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility Feature Y	561962	7388242	Y
1524	Lower Site Tier II Disposal Facility	LST2DF_VI_009.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility Feature Y	561962	7388242	N
1525	Lower Site Tier II Disposal Facility	LST2DF_VI_010.jpg	31-Aug-23	Northeast	Lower Site Tier II Disposal Facility Feature Y	561948	7388236	Y
1526	Lower Site Tier II Disposal Facility	LST2DF_VI_011.jpg	31-Aug-23	Northeast	Lower Site Tier II Disposal Facility Feature Y	561951	7388232	N
1527	Lower Site Tier II Disposal Facility	LST2DF_VI_012.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility 93	561952	7388241	N
1528	Lower Site Tier II Disposal Facility	LST2DF_VI_013.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility 94	561836	7388296	N
1529	Lower Site Tier II Disposal Facility	LST2DF_VI_014.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility Feature L	561940	7388229	Y
1530	Lower Site Tier II Disposal Facility	LST2DF_VI_015.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility Feature L	561940	7388229	N
1531	Lower Site Tier II Disposal Facility	LST2DF_VI_016.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility Feature L	561934	7388223	N
1532	Lower Site Tier II Disposal Facility	LST2DF_VI_017.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility Feature L	561927	7388222	Y
1533	Lower Site Tier II Disposal Facility	LST2DF_VI_018.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility Feature L	561927	7388224	N
1534	Lower Site Tier II Disposal Facility	LST2DF_VI_019.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility South Slope	561920	7388218	N
1535	Lower Site Tier II Disposal Facility	LST2DF_VI_020.jpg	31-Aug-23	Northeast	Lower Site Tier II Disposal Facility South Slope	561916	7388216	N
1536	Lower Site Tier II Disposal Facility	LST2DF_VI_021.jpg	31-Aug-23	Northeast	Lower Site Tier II Disposal Facility Feature L1	561910	7388211	Y
1537	Lower Site Tier II Disposal Facility	LST2DF_VI_022.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility Feature L1	561910	7388217	Y
1538	Lower Site Tier II Disposal Facility	LST2DF_VI_023.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility Feature L1	561910	7388217	N
1539	Lower Site Tier II Disposal Facility	LST2DF_VI_024.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility 147	561909	7388217	N
1540	Lower Site Tier II Disposal Facility	LST2DF_VI_025.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility Feature AB	561877	7388266	Y
1541	Lower Site Tier II Disposal Facility	LST2DF_VI_026.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility Feature AB	561870	7388271	Y
1542	Lower Site Tier II Disposal Facility	LST2DF_VI_027.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility Feature AB	561852	7388300	Y
1543	Lower Site Tier II Disposal Facility	LST2DF_VI_028.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Feature AB	561850	7388305	Y
1544	Lower Site Tier II Disposal Facility	LST2DF_VI_029.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Feature AB	561851	7388297	Y
1545	Lower Site Tier II Disposal Facility	LST2DF_VI_030.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Feature AB	561862	7388286	Y
1546	Lower Site Tier II Disposal Facility	LST2DF_VI_031.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility Feature AB	561858	7388267	Y
1547	Lower Site Tier II Disposal Facility	LST2DF_VI_032.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility Feature AB	561882	7388274	Y
1548	Lower Site Tier II Disposal Facility	LST2DF_VI_033.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility Feature AB	561870	7388265	Y
1549	Lower Site Tier II Disposal Facility	LST2DF_VI_034.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility Feature R/S	561870	7388264	Y
1550	Lower Site Tier II Disposal Facility	LST2DF_VI_035.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Feature R/S	561882	7388240	Y
1551	Lower Site Tier II Disposal Facility	LST2DF_VI_036.jpg	31-Aug-23	Northeast	Lower Site Tier II Disposal Facility Feature R/S	561877	7388226	Y
1552	Lower Site Tier II Disposal Facility	LST2DF_VI_037.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility Feature R/S	561903	7388234	Y
1553	Lower Site Tier II Disposal Facility	LST2DF_VI_038.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Feature R/S	561893	7388226	Y
1554	Lower Site Tier II Disposal Facility	LST2DF_VI_039.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Feature R/S	561899	7388212	Y
1555	Lower Site Tier II Disposal Facility	LST2DF_VI_040.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Feature R/S	561901	7388211	Y
1556	Lower Site Tier II Disposal Facility	LST2DF_VI_041.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility Feature R/S	561903	7388208	Y
1557	Lower Site Tier II Disposal Facility	LST2DF_VI_042.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility 146	561870	7388214	N
1558	Lower Site Tier II Disposal Facility	LST2DF_VI_043.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility 143	561864	7388231	N
1559	Lower Site Tier II Disposal Facility	LST2DF_VI_044.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility Feature K	561854	7388184	N
1560	Lower Site Tier II Disposal Facility	LST2DF_VI_045.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility Feature K	561865	7388188	N
1561	Lower Site Tier II Disposal Facility	LST2DF_VI_046.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility Feature K	561876	7388194	N
1562	Lower Site Tier II Disposal Facility	LST2DF_VI_047.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Feature K	561881	7388200	N
1563	Lower Site Tier II Disposal Facility	LST2DF_VI_048.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility Feature K	561881	7388202	N
1564	Lower Site Tier II Disposal Facility	LST2DF_VI_049.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility Feature K	561880	7388201	N
1565	Lower Site Tier II Disposal Facility	LST2DF_VI_050.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility Veg	561893	7388198	N
1566	Lower Site Tier II Disposal Facility	LST2DF_VI_051.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility Veg	561893	7388198	N
1567	Lower Site Tier II Disposal Facility	LST2DF_VI_052.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility AC/AC1	561855	7388183	Y
1568	Lower Site Tier II Disposal Facility	LST2DF_VI_053.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility AC/AC1	561853	7388183	Y
1569	Lower Site Tier II Disposal Facility	LST2DF_VI_054.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility AC/AC1	561853	7388187	Y
1570	Lower Site Tier II Disposal Facility	LST2DF_VI_055.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility AC/AC1	561840	7388180	Y
1571	Lower Site Tier II Disposal Facility	LST2DF_VI_056.jpg	31-Aug-23	Northeast	Lower Site Tier II Disposal Facility Feature B	561838	7388229	N
1572	Lower Site Tier II Disposal Facility	LST2DF_VI_057.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility Feature B	561851	7388233	N
1573	Lower Site Tier II Disposal Facility	LST2DF_VI_058.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility Feature B	561850	7388231	N
1574	Lower Site Tier II Disposal Facility	LST2DF_VI_059.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility Feature B	561846	7388229	N
1575	Lower Site Tier II Disposal Facility	LST2DF_VI_060.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Feature B	561849	7388217	N
1576	Lower Site Tier II Disposal Facility	LST2DF_VI_061.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility Feature B	561854	7388210	N
1577	Lower Site Tier II Disposal Facility	LST2DF_VI_062.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility Feature Q	561862	7388250	N
1578	Lower Site Tier II Disposal Facility	LST2DF_VI_063.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility Feature Q	561862	7388249	N
1579	Lower Site Tier II Disposal Facility	LST2DF_VI_064.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility Feature G1	561829	7388179	N
1580	Lower Site Tier II Disposal Facility	LST2DF_VI_065.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility Feature G1	561827	7388182	N
1581	Lower Site Tier II Disposal Facility	LST2DF_VI_066.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility Feature G1	561820	7388188	N
1582	Lower Site Tier II Disposal Facility	LST2DF_VI_067.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Feature G1	561818	7388188	N
1583	Lower Site Tier II Disposal Facility	LST2DF_VI_068.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility Feature G1	561821	7388185	N
1584	Lower Site Tier II Disposal Facility	LST2DF_VI_069.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility Feature J	561830	7388191	N
1585	Lower Site Tier II Disposal Facility	LST2DF_VI_070.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility Feature J	561827	7388196	Y
1586	Lower Site Tier II Disposal Facility	LST2DF_VI_071.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility Feature J	561824	7388201	N
1587	Lower Site Tier II Disposal Facility	LST2DF_VI_072.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Feature J	561821	7388208	Y
1588	Lower Site Tier II Disposal Facility	LST2DF_VI_073.jpg	31-Aug-23	Northeast	Lower Site Tier II Disposal Facility Feature J1	561816	7388220	N
1589	Lower Site Tier II Disposal Facility	LST2DF_VI_074.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Feature J1	561810	7388227	Y
1590	Lower Site Tier II Disposal Facility	LST2DF_VI_075.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility Feature J1	561816	7388218	N
1591	Lower Site Tier II Disposal Facility	LST2DF_VI_076.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility Feature J1	561819	7388205	Y
1592	Lower Site Tier II Disposal Facility	LST2DF_VI_077.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility Feature AD	561793	7388252	N
1593	Lower Site Tier II Disposal Facility	LST2DF_VI_078.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility Feature AD	561798	7388248	N
1594	Lower Site Tier II Disposal Facility	LST2DF_VI_079.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility Feature AD	561803	7388231	N
1595	Lower Site Tier II Disposal Facility	LST2DF_VI_080.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility Feature AD	561807	7388224	N
1596	Lower Site Tier II Disposal Facility	LST2DF_VI_081.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility Feature H+Z	561793	7388252	Y
1597	Lower Site Tier II Disposal Facility	LST2DF_VI_082.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility Feature H+Z	561790	7388246	Y
1598	Lower Site Tier II Disposal Facility	LST2DF_VI_083.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility Feature H+Z	561786	7388253	Y
1599	Lower Site Tier II Disposal Facility	LST2DF_VI_084.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility Feature H+Z	561780	7388275	Y
1600	Lower Site Tier II Disposal Facility	LST2DF_VI_085.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility Feature Z/O	561782	7388276	Y
1601	Lower Site Tier II Disposal Facility	LST2DF_VI_086.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility Feature H+Z	561788	7388273	Y
1602	Lower Site Tier II Disposal Facility	LST2DF_VI_087.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility Feature H+Z	561788	7388273	Y
1603	Lower Site Tier II Disposal Facility	LST2DF_VI_088.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Feature H+Z	561790	7388272	Y
1604	Lower Site Tier II Disposal Facility	LST2DF_VI_089.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility Feature H+Z	561793	7388253	Y
1605	Lower Site Tier II Disposal Facility	LST2DF_VI_090.jpg	31-Aug-23	Northeast	Lower Site Tier II Disposal Facility Feature AD+E,F,AA	561781	7388276	Y
1606	Lower Site Tier II Disposal Facility	LST2DF_VI_091.jpg	31-Aug-23	Northeast	Lower Site Tier II Disposal Facility Feature AD+E,F,AA	561784	7388280	Y
1607	Lower Site Tier II Disposal Facility	LST2DF_VI_092.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility Feature AD+E,F,AA	561783	7388286	Y
1608	Lower Site Tier II Disposal Facility	LST2DF_VI_093.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility Feature AD+E,F,AA	561790	7388291	Y
1609	Lower Site Tier II Disposal Facility	LST2DF_VI_094.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility Feature AD+E,F,AA	561807	7388296	Y
1610	Lower Site Tier II Disposal Facility	LST2DF_VI_095.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility Feature AD+E,F,AA	561812	7388298	Y
1611	Lower Site Tier II Disposal Facility	LST2DF_VI_096.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Feature AD+E,F,AA	561831	7388303	Y
1612	Lower Site Tier II Disposal Facility	LST2DF_VI_097.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility Feature AD+E,F,AA	561836	7388305	Y
1613	Lower Site Tier II Disposal Facility	LST2DF_VI_098.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility Feature AD+E,F,AA	561840	7388299	Y
1614	Lower Site Tier II Disposal Facility	LST2DF_VI_099.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility Feature AD+E,F,AA	561834	7388303	Y
1615	Lower Site Tier II Disposal Facility	LST2DF_VI_100.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility Feature AD+E,F,AA	561828	7388303	Y
1616	Lower Site Tier II Disposal Facility	LST2DF_VI_101.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility Feature AD+E,F,AA	561824	7388297	Y
1617	Lower Site Tier II Disposal Facility	LST2DF_VI_102.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility Feature AD+E,F,AA	561822	7388291	Y
1618	Lower Site Tier II Disposal Facility	LST2DF_VI_103.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility 151	561792	7388272	N
1619	Lower Site Tier II Disposal Facility	LST2DF_VI_104.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility 142	561810	7388285	N
1620	Lower Site Tier II Disposal Facility	LST2DF_VI_105.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility Feature AE	561820	7388288	N
1621	Lower Site Tier II Disposal Facility	LST2DF_VI_106.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility Feature AE	561817	7388288	Y
1622	Lower Site Tier II Disposal Facility	LST2DF_VI_107.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility Feature AE	561814	7388283	N
1623	Lower Site Tier II Disposal Facility	LST2DF_VI_108.jpg	31-Aug-23	Northeast	Lower Site Tier II Disposal Facility Feature AE	561804	7388281	Y
1624	Lower Site Tier II Disposal Facility	LST2DF_VI_109.jpg	31-Aug-23	Northeast	Lower Site Tier II Disposal Facility Feature AF	561819	7388288	Y
1625	Lower Site Tier II Disposal Facility	LST2DF_VI_110.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility Feature AF	561827	7388294	N
1626	Lower Site Tier II Disposal Facility	LST2DF_VI_111.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility Feature AF	561838	7388299	N
1627	Lower Site Tier II Disposal Facility	LST2DF_VI_112.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility Feature AF	561836	7388296	N
1628	Lower Site Tier II Disposal Facility	LST2DF_VI_113.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility north slope Feature C	561854	7388306	Y
1629	Lower Site Tier II Disposal Facility	LST2DF_VI_114.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility north slope Feature C	561863	7388310	Y
1630	Lower Site Tier II Disposal Facility	LST2DF_VI_115.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility 67	561873	7388315	N
1631	Lower Site Tier II Disposal Facility	LST2DF_VI_116.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility 153	561871	7388319	N
1632	Lower Site Tier II Disposal Facility	LST2DF_VI_117.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Feature C	561864	7388325	Y
1633	Lower Site Tier II Disposal Facility	LST2DF_VI_118.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Feature C	561858	7388324	Y
1634	Lower Site Tier II Disposal Facility	LST2DF_VI_119.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Feature C	561861	7388325	N
1635	Lower Site Tier II Disposal Facility	LST2DF_VI_120.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility 71	561913	7388335	N
1636	Lower Site Tier II Disposal Facility	LST2DF_VI_121.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility 70	561900	7388327	N
1637	Lower Site Tier II Disposal Facility	LST2DF_VI_122.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility north slope Feature C	561894	7388327	Y
1638	Lower Site Tier II Disposal Facility	LST2DF_VI_123.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility north slope Feature C	561885	7388322	Y

1639	Lower Site Tier II Disposal Facility	LST2DF_VI_124.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility north slope Feature C	561925	7388360	Y
1640	Lower Site Tier II Disposal Facility	LST2DF_VI_125.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility north slope Feature C	561924	7388360	Y
1641	Lower Site Tier II Disposal Facility	LST2DF_VI_126.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility East Slope	561929	7388356	N
1642	Lower Site Tier II Disposal Facility	LST2DF_VI_127.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility East Slope	561930	7388356	N
1643	Lower Site Tier II Disposal Facility	LST2DF_VI_128.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility Feature	561954	7388293	Y
1644	Lower Site Tier II Disposal Facility	LST2DF_VI_129.jpg	31-Aug-23	Northeast	Lower Site Tier II Disposal Facility Feature	561947	7388293	Y
1645	Lower Site Tier II Disposal Facility	LST2DF_VI_130.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility Feature	561947	7388291	Y
1646	Lower Site Tier II Disposal Facility	LST2DF_VI_131.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility Feature	561948	7388303	Y
1647	Lower Site Tier II Disposal Facility	LST2DF_VI_132.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility Feature	561944	7388315	Y
1648	Lower Site Tier II Disposal Facility	LST2DF_VI_133.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility Feature	561938	7388325	Y
1649	Lower Site Tier II Disposal Facility	LST2DF_VI_134.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility Feature	561934	7388332	N
1650	Lower Site Tier II Disposal Facility	LST2DF_VI_135.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Feature	561927	7388347	N
1651	Lower Site Tier II Disposal Facility	LST2DF_VI_136.jpg	31-Aug-23	Northwest	Lower Site Tier II Disposal Facility Feature X	561973	7388256	Y
1652	Lower Site Tier II Disposal Facility	LST2DF_VI_137.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility Feature X	561965	7388261	Y
1653	Lower Site Tier II Disposal Facility	LST2DF_VI_138.jpg	31-Aug-23	Northeast	Lower Site Tier II Disposal Facility Feature X	561965	7388262	N
1654	Lower Site Tier II Disposal Facility	LST2DF_VI_139.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility Feature X	561966	7388262	N
1655	Lower Site Tier II Disposal Facility	LST2DF_VI_140.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility Feature X	561970	7388262	Y
1656	Lower Site Tier II Disposal Facility	LST2DF_VI_141.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Feature X	561959	7388282	N
1657	Lower Site Tier II Disposal Facility	LST2DF_VI_142.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility Feature AG	561904	7388284	N
1658	Lower Site Tier II Disposal Facility	LST2DF_VI_143.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility Feature AG	561898	7388280	N
1659	Lower Site Tier II Disposal Facility	LST2DF_VI_144.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility Feature AG	561896	7388278	N
1660	Lower Site Tier II Disposal Facility	LST2DF_VI_145.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility Feature AG	561889	7388274	N
1661	Lower Site Tier II Disposal Facility	LST2DF_VI_146.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility Feature AG	561874	7388270	N
1662	Lower Site Tier II Disposal Facility	LST2DF_VI_147.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility Cover	561947	7388279	N
1663	Lower Site Tier II Disposal Facility	LST2DF_VI_148.jpg	31-Aug-23	West	Lower Site Tier II Disposal Facility Cover	561946	7388278	N
1664	Lower Site Tier II Disposal Facility	LST2DF_VI_149.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility Cover	561945	7388275	N
1665	Lower Site Tier II Disposal Facility	LST2DF_VI_150.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Cover	561942	7388281	N
1666	Lower Site Tier II Disposal Facility	LST2DF_VI_151.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Cover	561915	7388330	N
1667	Lower Site Tier II Disposal Facility	LST2DF_VI_152.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility Cover	561917	7388330	N
1668	Lower Site Tier II Disposal Facility	LST2DF_VI_153.jpg	31-Aug-23	Southwest	Lower Site Tier II Disposal Facility 115	561922	7388330	N
1669	Lower Site Tier II Disposal Facility	LST2DF_VI_154.jpg	31-Aug-23	South	Lower Site Tier II Disposal Facility Feature AH	561971	7388351	N
1670	Lower Site Tier II Disposal Facility	LST2DF_VI_155.jpg	31-Aug-23	Southeast	Lower Site Tier II Disposal Facility Feature AH	561945	7388324	N
1671	Lower Site Tier II Disposal Facility	LST2DF_VI_156.jpg	31-Aug-23	East	Lower Site Tier II Disposal Facility Feature AH	561941	7388307	N
1672	Lower Site Tier II Disposal Facility	LST2DF_VI_157.jpg	31-Aug-23	North	Lower Site Tier II Disposal Facility Feature AH	561952	7388282	N
1673	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_001.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 1 Feature W	571585	7394904	Y
1674	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_002.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 1 Feature W	571595	7394908	Y
1675	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_003.jpg	30-Aug-23	Southwest	Upper Site Pallet Line Landfill Lobe 1 Feature W	571594	7394907	N
1676	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_004.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 1 819	571589	7394923	N
1677	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_005.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 1 820	571591	7394920	N
1678	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_006.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 1 870	571598	7394918	N
1679	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_007.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 1 Cover	571599	7394914	N
1680	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_008.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Lobe 1 Cover	571600	7394921	N
1681	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_009.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 1 891	571589	7394488	N
1682	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_010.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 1 905	571586	7394882	N
1683	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_011.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 1 824	571598	7394488	N
1684	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_012.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 1 Feature AF	571606	7394879	Y
1685	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_013.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 1 Feature AF	571608	7394878	N
1686	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_014.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 1 Feature AF	571610	7394878	N
1687	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_015.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 1 Feature AF	571627	7394876	Y
1688	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_016.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 1 871	571619	7394882	N
1689	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_017.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 1 Feature AE	571640	7394877	Y
1690	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_018.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 1 Veg	571650	7394874	N
1691	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_019.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 1 SE Slope	571666	7394869	N
1692	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_020.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 1 East Slope	571667	7394867	N
1693	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_021.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 1 Feature AD	571671	7394873	Y
1694	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_022.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 1 Feature AD	571673	7394876	Y
1695	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_023.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 1 873	571642	7394866	N
1696	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_024.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 1 872	571652	7394894	N
1697	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_025.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 1 Cover	571652	7394895	N
1698	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_026.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 1 Cover	571656	7394897	N
1699	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_027.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 1 Feature KL	571696	7394898	N
1700	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_028.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 1 Feature KL	571696	7394899	Y
1701	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_029.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 1 Feature KL	571696	7394899	N
1702	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_030.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 1 Feature KL	571701	7394903	N
1703	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_031.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 1 Feature KL	571708	7394907	N
1704	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_032.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 1 Feature KL	571718	7394904	Y
1705	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_033.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 1 Feature 903	571721	7394900	N
1706	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_034.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 1 Feature C	571728	7394872	Y
1707	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_035.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 1 876	571730	7394868	N
1708	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_036.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 1 South Cover	571737	7394866	N
1709	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_037.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 1 Feature AC	571755	7394865	Y
1710	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_038.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 1 866	571765	7394872	N
1711	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_039.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 1 Feature AU	571778	7394881	N
1712	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_040.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 1 Feature AU	571783	7394884	Y
1713	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_041.jpg	30-Aug-23	Southwest	Upper Site Pallet Line Landfill Lobe 1 Feature AU	571787	7394887	N
1714	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_042.jpg	30-Aug-23	Southwest	Upper Site Pallet Line Landfill Lobe 1 Feature AU	571786	7394891	Y
1715	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_043.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 1 867	571793	7394899	N
1716	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_044.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 1 901	571812	7394932	N
1717	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_045.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 1 902	571816	7394927	N
1718	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_046.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 1 Feature AB	571812	7394934	Y
1719	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_047.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 1 Feature AA	571808	7394945	Y
1720	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_048.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Lobe 1 823	571809	7394948	N
1721	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_049.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 1 887	571806	7394951	Y
1722	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_050.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Lobe 1 822	571804	7394966	Y
1723	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_051.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Lobe 1 821	571802	7394970	N
1724	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_052.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 1 868	571796	7394954	N
1725	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_053.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 1 888	571786	7394976	N
1726	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_054.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 1 NE Cover	571785	7394979	N
1727	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_055.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 1 Vegetation	571787	7394973	Y
1728	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_056.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 1 896	571769	7394978	N
1729	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_057.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 1 Cover	571768	7394979	N
1730	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_058.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Lobe 1 875	571763	7394931	N
1731	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_059.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 1 Cover	571765	7394930	N
1732	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_060.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 1 Cover	571762	7394925	N
1733	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_061.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 1 Cover	571757	7394929	N
1734	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_062.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 1 874	571715	7394929	N
1735	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_063.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 1 Cover	571720	7394927	N
1736	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_064.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 1 Cover	571721	7394935	N
1737	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_065.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 1 Feature AG	571675	7394936	Y
1738	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_066.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 1 Feature AG	571683	7394926	N
1739	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_067.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 1 Feature AG	571687	7394938	Y
1740	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_068.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 1 Feature AG	571695	7394930	N
1741	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_069.jpg	30-Aug-23	Northwest	Upper Site Pallet Line Landfill Lobe 1 Feature AG	571698	7394930	N
1742	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_070.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 1 Feature AG	571698	7394933	Y
1743	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_071.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 1 Feature AQ	571671	7394933	N
1744	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_072.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 1 Feature AQ	571671	7394933	N
1745	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_073.jpg	30-Aug-23	Northwest	Upper Site Pallet Line Landfill Lobe 1 Feature AQ	571675	7394930	N
1746	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_074.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 1 Feature AQ	571673	7394934	Y
1747	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_075.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 1 Vegetation	571786	7394978	Y
1748	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_076.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 1 Cover	571629	7394914	N
1749	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_077.jpg	30-Aug-23	Northwest	Upper Site Pallet Line Landfill Lobe 1 Cover	571630	7394913	N
1750	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_078.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 1 Cover	571629	7394910	N
1751	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_079.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 1 Cover	571627	7394913	N
1752	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_080.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 1 913	571598	7394944	N
1753	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_081.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 1 890	571594	7394946	N
1754	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_082.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 1 North Toe	571595	7394955	N
1755	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_083.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 1 894	571658	7394957	N
1756	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_084.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 1 North Slope	571651	7394956	N
1757	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_085.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 1 Feature AI	571711	7394966	Y
1758	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_086.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 1 Feature AI	571703	7394951	N
1759	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_087.jpg	30-Aug-23	Northwest	Upper Site Pallet Line Landfill Lobe 1 Feature AI	571704	7394953	N
1760	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_088.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 1 Feature AI	571678	7394956	Y
1761	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_089.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 1 North Slope	571717	7394969	N
1762	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_090.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 1 889	571722	7394965	N
1763	Upper Site Pallet Line Landfill Lobe 1	USPLL_VI_091.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 1 869	571716	7394966	N
1764	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_092.jpg	30-Aug-23	Northwest	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature AM	571768	7394796	Y
1765	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_093.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature AM	571749	7394794	Y
1766	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_094.jpg	30-Aug-23	Northwest	Upper Site Pallet Line Landfill Lobe 2,3,4 Exposed Debris Outside LF	571796	7394751	Y
1767	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_095.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 2,3,4 Exposed Debris Outside LF	571803	7394758	N
1768	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_096.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Lobe 2,3,4 Exposed Debris Outside LF	571789	7394766	Y
1769	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_097.jpg	30-Aug-23	Northwest	Upper Site Pallet Line Landfill Lobe 2,3,4 914	571749	7394760	N
1770	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_098.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 2,3,4 857	571743	7394812	N
1771	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_099.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 2,3,4 West Cover	571754	7394815	N
1772	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_100.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 2,3,4 West Cover	571753	7394808	N
1773	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_101.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 2,3,4 West Cover	571747	7394811	N
1774	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_102.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Lobe 2,3,4 856	571760	7394837	N
1775	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_103.jpg	30-Aug-23	Southwest	Upper Site Pallet Line Landfill Lobe 2,3,4 865	571773	7394841	N
1776	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_104.jpg	30-Aug-23	Southwest	Upper Site Pallet Line Landfill Lobe 2,3,4 898	571777	7394852	N

1777	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_105.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 2,3,4 Cover	571789	7394847	N
1778	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_106.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 2,3,4 Veg	571776	7394797	N
1779	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_107.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature A/AV	571793	7394825	Y
1780	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_108.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature A/AV	571795	7394804	Y
1781	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_109.jpg	30-Aug-23	Northwest	Upper Site Pallet Line Landfill Lobe 2,3,4 Vegetation	571798	7394827	Y
1782	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_110.jpg	30-Aug-23	Northwest	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature S	571806	7394845	N
1783	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_111.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature S	571798	7394853	N
1784	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_112.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature AS	571798	7394853	Y
1785	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_113.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 2,3,4 862	571834	7394856	N
1786	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_114.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature AO	571863	7394872	Y
1787	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_115.jpg	30-Aug-23	Northwest	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature A1	571854	7394867	N
1788	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_116.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature A2	571852	7394865	Y
1789	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_117.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature A3	571851	7394874	N
1790	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_118.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 2,3,4 NW Slope	571846	7394905	N
1791	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_119.jpg	30-Aug-23	Southwest	Upper Site Pallet Line Landfill Lobe 2,3,4 NW Slope	571847	7394907	N
1792	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_120.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 2,3,4 802	571866	7394913	N
1793	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_121.jpg	30-Aug-23	Southwest	Upper Site Pallet Line Landfill Lobe 2,3,4 897	571863	7394925	N
1794	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_122.jpg	30-Aug-23	Southwest	Upper Site Pallet Line Landfill Lobe 2,3,4 899	571863	7394938	N
1795	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_123.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Lobe 2,3,4 892	571874	7394931	N
1796	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_124.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Lobe 2,3,4 North Cover	571883	7394925	N
1797	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_125.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 2,3,4 North Cover	571883	7394926	N
1798	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_126.jpg	30-Aug-23	Southwest	Upper Site Pallet Line Landfill Lobe 2,3,4 Vegetation	571880	7394912	Y
1799	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_127.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature AK	571909	7394903	Y
1800	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_128.jpg	30-Aug-23	Southwest	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature AK	571918	7394910	Y
1801	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_129.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature AW	571931	7394932	Y
1802	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_130.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature AW	571924	7394933	Y
1803	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_131.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 2,3,4 NE Cover	571938	7394933	N
1804	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_132.jpg	30-Aug-23	Northwest	Upper Site Pallet Line Landfill Lobe 2,3,4 882	571962	7394893	N
1805	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_133.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 2,3,4 883	571937	7394904	N
1806	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_134.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 2,3,4 883	571937	7394904	N
1807	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_135.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature R/AR	571948	7394883	Y
1808	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_136.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature R/AR	571952	7394883	Y
1809	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_137.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature R/AR	571958	7394883	Y
1810	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_138.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 2,3,4 900	571924	7394882	N
1811	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_139.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 2,3,4 East Slope	571923	7394880	N
1812	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_140.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 2,3,4 881	571912	7394887	N
1813	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_141.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 2,3,4 Vegetation	571910	7394848	Y
1814	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_142.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature AX	571903	7394847	Y
1815	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_143.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature AX	571897	7394846	N
1816	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_144.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature AX	571893	7394851	Y
1817	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_145.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature AN/AL	571867	7394850	Y
1818	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_146.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature AN/AL	571864	7394838	N
1819	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_147.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature AN	571860	7394838	N
1820	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_148.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature AN	571860	7394838	Y
1821	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_149.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature AN1	571863	7394837	Y
1822	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_150.jpg	30-Aug-23	Southwest	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature AL	571864	7394834	Y
1823	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_151.jpg	30-Aug-23	Southwest	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature AL	571862	7394833	N
1824	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_152.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature AL	571854	7394829	Y
1825	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_153.jpg	30-Aug-23	Northwest	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature T	571849	7394816	Y
1826	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_154.jpg	30-Aug-23	Northwest	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature T	571846	7394824	N
1827	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_155.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature T	571842	7394831	Y
1828	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_156.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 2,3,4 861	571841	7394830	N
1829	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_157.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 2,3,4 860	571839	7394826	N
1830	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_158.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 2,3,4 859	571855	7394800	N
1831	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_159.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Lobe 2,3,4 South Cover	571850	7394805	N
1832	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_160.jpg	30-Aug-23	Southwest	Upper Site Pallet Line Landfill Lobe 2,3,4 South Cover	571848	7394780	N
1833	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_161.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 2,3,4 South Cover	571836	7394776	N
1834	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_162.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 2,3,4 908	571806	7394762	N
1835	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_163.jpg	30-Aug-23	Northwest	Upper Site Pallet Line Landfill Lobe 2,3,4 South Slope	571805	7394759	N
1836	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_164.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 2,3,4 858	571803	7394781	N
1837	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_165.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature B	571784	7394801	N
1838	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_166.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature B	571782	7394796	Y
1839	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_167.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature B	571787	7394788	N
1840	Upper Site Pallet Line Landfill Lobe 2,3,4	USPLL_VI_168.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 2,3,4 Feature B	571790	7394780	Y
1841	Upper Site Pallet Line Landfill Lobe 5	USPLL_VI_169.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Lobe 5 863	571957	7394919	N
1842	Upper Site Pallet Line Landfill Lobe 5	USPLL_VI_170.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 5 893	571957	7394931	N
1843	Upper Site Pallet Line Landfill Lobe 5	USPLL_VI_171.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 5 864	571994	7394936	N
1844	Upper Site Pallet Line Landfill Lobe 5	USPLL_VI_172.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 5 806	571996	7394937	N
1845	Upper Site Pallet Line Landfill Lobe 5	USPLL_VI_173.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 5 Cover	571984	7394927	N
1846	Upper Site Pallet Line Landfill Lobe 5	USPLL_VI_174.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 5 Cover	571982	7394926	N
1847	Upper Site Pallet Line Landfill Lobe 5	USPLL_VI_175.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Lobe 5 Cover	571987	7394930	N
1848	Upper Site Pallet Line Landfill Lobe 5	USPLL_VI_176.jpg	30-Aug-23	Southwest	Upper Site Pallet Line Landfill Lobe 5 Cover	571986	7394929	N
1849	Upper Site Pallet Line Landfill Lobe 5	USPLL_VI_177.jpg	30-Aug-23	Southwest	Upper Site Pallet Line Landfill Lobe 5 Feature P	572000	7394921	N
1850	Upper Site Pallet Line Landfill Lobe 5	USPLL_VI_178.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Lobe 5 West Slope	571997	7394929	N
1851	Upper Site Pallet Line Landfill Lobe 5	USPLL_VI_179.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 5 West Slope	571999	7394920	N
1852	Upper Site Pallet Line Landfill Lobe 5	USPLL_VI_180.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 5 Feature Q	571988	7394914	N
1853	Upper Site Pallet Line Landfill Lobe 5	USPLL_VI_181.jpg	30-Aug-23	Northwest	Upper Site Pallet Line Landfill Lobe 5 Feature Q	571997	7394914	Y
1854	Upper Site Pallet Line Landfill Lobe 5	USPLL_VI_182.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Lobe 5 Vegetation Feature P1	571941	7394915	Y
1855	Upper Site Pallet Line Landfill Lobe 5	USPLL_VI_183.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Lobe 5 910	571973	7394920	N
1856	Upper Site Pallet Line Landfill Lobe 5	USPLL_VI_184.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Lobe 5 South Slope	571982	7394917	N
1857	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_185.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Abandoned Lobe North Toe	571564	7394882	N
1858	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_186.jpg	30-Aug-23	Northwest	Upper Site Pallet Line Landfill Abandoned Lobe North Toe	571572	7394878	N
1859	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_187.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Abandoned Lobe 815	571565	7394881	N
1860	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_188.jpg	30-Aug-23	Southesat	Upper Site Pallet Line Landfill Abandoned Lobe 816	571560	7394883	N
1861	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_189.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Abandoned Lobe 817	571566	7394876	N
1862	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_190.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Abandoned Lobe 814	571573	7394875	N
1863	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_191.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Abandoned Lobe Feature U	571578	7394871	Y
1864	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_192.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Abandoned Lobe Feature U	571578	7394871	N
1865	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_193.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Abandoned Lobe Feature U	571582	7394868	N
1866	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_194.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Abandoned Lobe Feature U	571585	7394865	N
1867	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_195.jpg	30-Aug-23	Northwest	Upper Site Pallet Line Landfill Abandoned Lobe Feature U	571587	7394862	Y
1868	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_196.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Abandoned Lobe 885	571586	7394862	N
1869	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_197.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Abandoned Lobe Feature V	571562	7394874	N
1870	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_198.jpg	30-Aug-23	Northwest	Upper Site Pallet Line Landfill Abandoned Lobe Feature V	571572	7394864	Y
1871	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_199.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Abandoned Lobe Feature V	571575	7394867	Y
1872	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_200.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Abandoned Lobe Feature V	571567	7394870	N
1873	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_201.jpg	30-Aug-23	Southeast	Upper Site Pallet Line Landfill Abandoned Lobe 895	571553	7394871	N
1874	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_202.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Abandoned Lobe 917	571549	7394875	N
1875	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_203.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Abandoned Lobe 880	571561	7394858	N
1876	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_204.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Abandoned Lobe 877	571584	7394854	N
1877	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_205.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Abandoned Lobe Feature AZ	571578	7394836	Y
1878	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_206.jpg	30-Aug-23	Southwest	Upper Site Pallet Line Landfill Abandoned Lobe Feature AS	571578	7394835	N
1879	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_207.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Abandoned Lobe Feature AZ	571574	7394831	Y
1880	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_208.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Abandoned Lobe 830	571577	7394821	N
1881	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_209.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Abandoned Lobe 886	571594	7394816	N
1882	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_210.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Abandoned Lobe East Slope	571593	7394806	N
1883	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_211.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Abandoned Lobe East Slope	571593	7394819	N
1884	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_212.jpg	30-Aug-23	Southwest	Upper Site Pallet Line Landfill Abandoned Lobe Vegetation	571597	7394809	Y
1885	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_213.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Abandoned Lobe 879	571590	7394778	N
1886	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_214.jpg	30-Aug-23	West	Upper Site Pallet Line Landfill Abandoned Lobe 911	571605	7394775	N
1887	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_215.jpg	30-Aug-23	Northwest	Upper Site Pallet Line Landfill Abandoned Lobe 911	571606	7394772	N
1888	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_216.jpg	30-Aug-23	Northwest	Upper Site Pallet Line Landfill Abandoned Lobe 912	571569	7394767	N
1889	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_217.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Abandoned Lobe South Slope	571567	7394768	N
1890	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_218.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Abandoned Lobe West Slope	571548	7394783	N
1891	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_219.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Abandoned Lobe West Slope	571551	7394791	N
1892	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_220.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Abandoned Lobe Cover	571563	7394803	N
1893	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_221.jpg	30-Aug-23	Northeast	Upper Site Pallet Line Landfill Abandoned Lobe Cover	571558	7394806	N
1894	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_222.jpg	30-Aug-23	Southwest	Upper Site Pallet Line Landfill Abandoned Lobe 916	571561	7394815	N
1895	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_223.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Abandoned Lobe 915	571558	7394808	N
1896	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_224.jpg	30-Aug-23	North	Upper Site Pallet Line Landfill Abandoned Lobe West Slope	571556	7394849	N
1897	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_225.jpg	30-Aug-23	South	Upper Site Pallet Line Landfill Abandoned Lobe West Slope	571555	7394853	N
1898	Upper Site Pallet Line Landfill Abandoned Lobe	USPLL_VI_227.jpg	30-Aug-23	East	Upper Site Pallet Line Landfill Abandoned Lobe Cover	571555	7394850	N
1899	Lower Site Crossroads Landfill	LSCL_AA_001.jpg	24-Aug-23	N/A	Plane photo Lower Site Crossroads Landfill	N/A	N/A	N
1900	Lower Site Crossroads Landfill	LSCL_AA_002.jpg	24-Aug-23	N/A	Drone Photo Lower Site Crossroads Landfill	562529	7387683	N
1901	Lower Site Crossroads Landfill	LSCL_AA_003.jpg	24-Aug-23	N/A	Drone Photo Lower Site Crossroads Landfill	562543	7387590	N
1902	Lower Site Crossroads Landfill	LSCL_AA_004.jpg	24-Aug-23	N/A	Drone Photo Lower Site Crossroads Landfill	562663	7387717	N
1903	Lower Site Crossroads Landfill	LSCL_AA_005.jpg	24-Aug-23	N/A	Plane photo Lower Site Crossroads Landfill	562443	7387650	N
1904	Lower Site Crossroads Landfill	LSCL_AA_006.jpg	24-Aug-23	N/A	Plane photo Lower Site Crossroads Landfill	562469	7387589	N
1905	Lower Site Foundations Landfill	LSFL_AA_001.jpg	24-Aug-23	N/A	Plane photo Lower Site Foundations Landfill	N/A	N/A	N
1906	Lower Site Foundations Landfill	LSFL_AA_002.jpg	24-Aug-23	N/A	Drone Photo Lower Site Foundations Landfill	562713	7387687	N
1907	Lower Site Foundations Landfill	LSFL_AA_003.jpg	24-Aug-23	N/A	Drone Photo Lower Site Foundations Landfill	562864	7387567	N
1908	Lower Site Foundations Landfill	LSFL_AA_004.jpg	24-Aug-23	N/A	Plane photo Lower Site Foundations Landfill	562520	7387528	N
1909	Lower Site Non-Hazardous Waste Landfill	LSNHWL_AA_001.jpg	31-Aug-23	N/A	Plane photo Lower Site Non-Hazardous Waste Landfill	N/A	N/A	N
1910	Lower Site Non-Hazardous Waste Landfill	LSNHWL_AA_002.jpg	31-Aug-23	N/A	Drone Photo Lower Site Non Hazardous Waste Landfill	562890	7386979	N
1911	Lower Site Non-Hazardous Waste Landfill	LSNHWL_AA_003.jpg	31-Aug-23	N/A	Drone Photo Lower Site Non Hazardous Waste Landfill	562890	7386979	N
1912	Lower Site Non-Hazardous Waste Landfill	LSNHWL_AA_004.jpg	31-Aug-23	N/A	Drone Photo Lower Site Non Hazardous Waste Landfill	562892	7386886	N
1913	Lower Site Non-Hazardous Waste Landfill	LSNHWL_AA_005.jpg	31-Aug-23	N/A	Drone Photo Lower Site Non Hazardous Waste Landfill	562955	7386825	N
1914	Lower Site Non-Hazardous Waste Landfill	LSNHWL_AA_006.jpg	31-Aug-23	N/A	Drone Photo Lower Site Non Hazardous Waste Landfill	563187	7386893	N

1915	Lower Site Non-Hazardous Waste Landfill	LSNHWL_AA_007.jpg	31-Aug-23	N/A	Drone Photo Lower Site Non Hazardous Waste Landfill	563221	7387017	N
1916	Lower Site Non-Hazardous Waste Landfill	LSNHWL_AA_008.jpg	31-Aug-23	N/A	Drone Photo Lower Site Non Hazardous Waste Landfill	563209	7387017	N
1917	Lower Site Non-Hazardous Waste Landfill	LSNHWL_AA_009.jpg	31-Aug-23	N/A	Drone Photo Lower Site Non Hazardous Waste Landfill	563120	7387139	N
1918	Lower Site Non-Hazardous Waste Landfill	LSNHWL_AA_010.jpg	31-Aug-23	N/A	Drone Photo Lower Site Non Hazardous Waste Landfill	562923	7387134	N
1919	Lower Site Non-Hazardous Waste Landfill	LSNHWL_AA_011.jpg	31-Aug-23	N/A	Drone Photo Lower Site Non Hazardous Waste Landfill	562636	7387283	N
1920	Lower Site North Warning System Landfill	LSNWSL_AA_001.jpg	31-Aug-23	N/A	Plane photo Lower Site North Warning System Landfill	N/A	N/A	N
1921	Lower Site North Warning System Landfill	LSNWSL_AA_002.jpg	31-Aug-23	N/A	Drone Photo Lower Site North Warning System Landfill	N/A	N/A	N
1922	Lower Site North Warning System Landfill	LSNWSL_AA_003.jpg	31-Aug-23	N/A	Drone Photo Lower Site North Warning System Landfill	561494	7388806	N
1923	Lower Site North Warning System Landfill	LSNWSL_AA_004.jpg	31-Aug-23	N/A	Drone Photo Lower Site North Warning System Landfill	561371	7388803	N
1924	Lower Site North Warning System Landfill	LSNWSL_AA_005.jpg	31-Aug-23	N/A	Drone Photo Lower Site North Warning System Landfill	561318	7388988	N
1925	Lower Site North Warning System Landfill	LSNWSL_AA_006.jpg	31-Aug-23	N/A	Drone Photo Lower Site North Warning System Landfill	561415	7389021	N
1926	Lower Site Powerhouse Landfill	LSPL_AA_001.jpg	31-Aug-23	N/A	Plane photo Lower Site Powerhouse Landfill	N/A	N/A	N
1927	Lower Site Powerhouse Landfill	LSPL_AA_002.jpg	31-Aug-23	N/A	Plane photo Lower Site Powerhouse, Foundations and Crossroads Landfills	N/A	N/A	N
1928	Lower Site Powerhouse Landfill	LSPL_AA_003.jpg	31-Aug-23	N/A	Drone Photo Lower Site Powerhouse Landfill	562866	7387474	N
1929	Lower Site Powerhouse Landfill	LSPL_AA_004.jpg	31-Aug-23	N/A	Drone Photo Lower Site Powerhouse Landfill	562795	7387348	N
1930	Lower Site Powerhouse Landfill	LSPL_AA_005.jpg	31-Aug-23	N/A	Drone Photo Lower Site Powerhouse Landfill	562636	7387283	N
1931	Lower Site Powerhouse Landfill	LSPL_AA_006.jpg	31-Aug-23	N/A	Plane photo Lower Site Powerhouse Landfill	562584	7387405	N
1932	Lower Site Powerhouse Landfill	LSPL_AA_007.jpg	31-Aug-23	N/A	Plane photo Lower Site Powerhouse Landfill	562610	7387375	N
1933	Lower Site Tier II Disposal Facility	LST2DF_AA_001.jpg	31-Aug-23	N/A	Plane photo Lower Site Tier II Disposal Facility	N/A	N/A	N
1934	Lower Site Tier II Disposal Facility	LST2DF_AA_002.jpg	31-Aug-23	N/A	Plane photo Lower Site Tier II Disposal Facility	N/A	N/A	N
1935	Lower Site Tier II Disposal Facility	LST2DF_AA_003.jpg	31-Aug-23	N/A	Plane photo Lower Site Tier II Disposal Facility	N/A	N/A	N
1936	Lower Site Tier II Disposal Facility	LST2DF_AA_004.jpg	31-Aug-23	N/A	Plane photo Lower Site Tier II Disposal Facility	N/A	N/A	N
1937	Lower Site Tier II Disposal Facility	LST2DF_AA_005.jpg	31-Aug-23	N/A	Drone Photo Lower Site Tier II Disposal Facility	561946	7388413	N
1938	Lower Site Tier II Disposal Facility	LST2DF_AA_006.jpg	31-Aug-23	N/A	Drone Photo Lower Site Tier II Disposal Facility	561786	7388410	N
1939	Lower Site Tier II Disposal Facility	LST2DF_AA_007.jpg	31-Aug-23	N/A	Drone Photo Lower Site Tier II Disposal Facility	561665	7388314	N
1940	Lower Site Tier II Disposal Facility	LST2DF_AA_008.jpg	31-Aug-23	N/A	Drone Photo Lower Site Tier II Disposal Facility	561706	7388129	N
1941	Lower Site Tier II Disposal Facility	LST2DF_AA_009.jpg	31-Aug-23	N/A	Drone Photo Lower Site Tier II Disposal Facility	561806	7388069	N
1942	Lower Site Tier II Disposal Facility	LST2DF_AA_010.jpg	31-Aug-23	N/A	Drone Photo Lower Site Tier II Disposal Facility	562016	7388043	N
1943	Miscellaneous DYE-M Aerials	MISC_AA_001.jpg	24-Aug-23	N/A	Plane photo between Lower Site Landfills	N/A	N/A	N
1944	Miscellaneous DYE-M Aerials	MISC_AA_002.jpg	24-Aug-23	N/A	Plane photo Northwest of Lower Site Landfills	N/A	N/A	N
1945	Miscellaneous DYE-M Aerials	MISC_AA_003.jpg	24-Aug-23	N/A	Plane photo Northwest of Lower Site Landfills	N/A	N/A	N
1946	Miscellaneous DYE-M Aerials	MISC_AA_004.jpg	24-Aug-23	N/A	Plane photo Southwest of Lower Site Landfills	N/A	N/A	N
1947	Miscellaneous DYE-M Aerials	MISC_AA_005.jpg	24-Aug-23	N/A	Drone Photo Looking towards Exeter Bay	562924	7387103	N
1948	Miscellaneous DYE-M Aerials	MISC_AA_006.jpg	24-Aug-23	N/A	Drone Photo Looking towards Exeter Bay	562924	7387103	N
1949	Miscellaneous DYE-M Aerials	MISC_AA_007.jpg	24-Aug-23	N/A	Plane Photo Looking towards Exeter Bay	562199	7387552	N
1950	Miscellaneous DYE-M Aerials	MISC_AA_008.jpg	24-Aug-23	N/A	Plane Photo Looking towards Exeter Bay	561997	7387764	N
1951	Miscellaneous DYE-M Aerials	MISC_AA_009.jpg	24-Aug-23	N/A	Plane Photo Looking towards Exeter Bay	561658	7388066	N
1952	Miscellaneous DYE-M Aerials	MISC_AA_010.jpg	24-Aug-23	N/A	Plane photo Northwest of Lower Site Landfills	560179	7389303	N
1953	Miscellaneous DYE-M Aerials	MISC_AA_011.jpg	24-Aug-23	N/A	Plane photo Northwest of Lower Site Landfills	560262	7389429	N
1954	Miscellaneous DYE-M Aerials	MISC_AA_012.jpg	24-Aug-23	N/A	Plane photo Northeast of Lower Site Landfills	562290	7387894	N
1955	Miscellaneous DYE-M Aerials	MISC_AA_013.jpg	24-Aug-23	N/A	Plane photo Northeast of Lower Site Landfills	562328	7387833	N
1956	Miscellaneous DYE-M Aerials	MISC_AA_014.jpg	24-Aug-23	N/A	Plane Photo Looking between Lower Site Powerhouse and Air Hangar	562699	7387222	N
1957	Upper Site Pallet Line Landfill	USPLL_AA_001.jpg	26-Aug-23	N/A	Drone Photo Upper Site Pallet Line Landfill	571614	7394904	N
1958	Upper Site Pallet Line Landfill	USPLL_AA_002.jpg	26-Aug-23	N/A	Drone Photo Upper Site Pallet Line Landfill	571357	7394866	N
1959	Upper Site Pallet Line Landfill	USPLL_AA_003.jpg	26-Aug-23	N/A	Drone Photo Upper Site Pallet Line Landfill	571379	7394960	N
1960	Upper Site Pallet Line Landfill	USPLL_AA_004.jpg	26-Aug-23	N/A	Drone Photo Upper Site Pallet Line Landfill	571516	7394901	N
1961	Upper Site Pallet Line Landfill	USPLL_AA_005.jpg	26-Aug-23	N/A	Drone Photo Upper Site Pallet Line Landfill	571516	7394901	N
1962	Upper Site Pallet Line Landfill	USPLL_AA_006.jpg	26-Aug-23	N/A	Drone Photo Upper Site Pallet Line Landfill	571665	7394843	N
1963	Upper Site Pallet Line Landfill	USPLL_AA_007.jpg	26-Aug-23	N/A	Drone Photo Upper Site Pallet Line Landfill	571692	7394720	N
1964	Upper Site Pallet Line Landfill	USPLL_AA_008.jpg	26-Aug-23	N/A	Drone Photo Upper Site Pallet Line Landfill	571692	7394720	N
1965	Upper Site Tier II Disposal Facility	UST2DF_AA_001.jpg	24-Aug-23	N/A	Drone Photo Upper Site Tier II Disposal Facility	571077	7394766	N
1966	Upper Site Tier II Disposal Facility	UST2DF_AA_002.jpg	24-Aug-23	N/A	Drone Photo Upper Site Tier II Disposal Facility	571779	7395156	N
1967	Upper Site Tier II Disposal Facility	UST2DF_AA_003.jpg	24-Aug-23	N/A	Drone Photo Upper Site Tier II Disposal Facility	570962	7394484	N
1968	Upper Site West Landfill - Centre and East Lobes	USWLCE_AA_001.jpg	26-Aug-23	N/A	Drone Photo Upper Site West Landfill Centre East	571779	7395156	N
1969	Upper Site West Landfill - Centre and East Lobes	USWLCE_AA_002.jpg	26-Aug-23	N/A	Drone Photo Upper Site West Landfill Centre East	571779	7395156	N
1970	Upper Site West Landfill - Centre and East Lobes	USWLCE_AA_003.jpg	26-Aug-23	N/A	Drone Photo Upper Site West Landfill Centre East	571779	7395156	N
1971	Upper Site West Landfill - Centre and East Lobes	USWLCE_AA_004.jpg	26-Aug-23	N/A	Drone Photo Upper Site West Landfill Centre East	571628	7394842	N
1972	Upper Site West Landfill - Centre and East Lobes	USWLCE_AA_005.jpg	26-Aug-23	N/A	Drone Photo Upper Site West Landfill Centre East	571480	7394869	N
1973	Upper Site West Landfill - Centre and East Lobes	USWLCE_AA_006.jpg	26-Aug-23	N/A	Drone Photo Upper Site West Landfill Centre East	571357	7394866	N
1974	Upper Site West Landfill - Centre and East Lobes	USWLCE_AA_007.jpg	26-Aug-23	N/A	Drone Photo Upper Site West Landfill Centre East	571201	7394707	N
1975	Upper Site West Landfill - Centre and East Lobes	USWLCE_AA_008.jpg	26-Aug-23	N/A	Drone Photo Upper Site West Landfill Centre East	571065	7394766	N
1976	Upper Site West Landfill - Centre and East Lobes	USWLCE_AA_009.jpg	26-Aug-23	N/A	Drone Photo Upper Site West Landfill Centre East	571343	7394928	N
1977	Upper Site West Landfill - Centre and East Lobes	USWLCE_AA_010.jpg	26-Aug-23	N/A	Drone Photo Upper Site West Landfill Centre East	571379	7394960	N
1978	Upper Site West Landfill - Centre and East Lobes	USWLCE_AA_011.jpg	26-Aug-23	N/A	Drone Photo Upper Site West Landfill Centre East	571379	7394960	N
1979	Upper Site West Landfill - Centre and East Lobes	USWLCE_AA_012.jpg	26-Aug-23	N/A	Drone Photo Upper Site West Landfill Centre East	571379	7394960	N
1980	Upper Site West Landfill - West Lobe	USWLW_AA_001.jpg	26-Aug-23	N/A	Drone Photo Upper Site West Landfill West	571612	7394966	N
1981	Upper Site West Landfill - West Lobe	USWLW_AA_002.jpg	26-Aug-23	N/A	Drone Photo Upper Site West Landfill West	571623	7395028	N
1982	Upper Site West Landfill - West Lobe	USWLW_AA_003.jpg	26-Aug-23	N/A	Drone Photo Upper Site West Landfill West	571697	7395030	N
1983	Upper Site West Landfill - West Lobe	USWLW_AA_004.jpg	26-Aug-23	N/A	Drone Photo Upper Site West Landfill West	571697	7395030	N
1984	Upper Site West Landfill - West Lobe	USWLW_AA_005.jpg	26-Aug-23	N/A	Drone Photo Upper Site West Landfill West	571759	7395001	N
1985	Upper Site West Landfill - West Lobe	USWLW_AA_006.jpg	26-Aug-23	N/A	Drone Photo Upper Site West Landfill West	571760	7394970	N
1986	Upper Site West Landfill - West Lobe	USWLW_AA_007.jpg	26-Aug-23	N/A	Drone Photo Upper Site West Landfill West	571807	7395033	N