Submission Transmittal Cover

To:	Claudia Simonato	**Phone:**	1-403-613-6328
Company:	PSPC	**Fax:**	
E-mail Address:	Claudia.Simonato@tpsgc-pwgsc.gc.ca		
From:	Jonathan Markiewicz	**Phone:**	1-514-984-6405
Company:	Sudliq Developments Ltd.	**Fax:**	867.925.8190
Date:	July 4, 2024	**Pages: (incl. cover)**	
Project Title:	**Coral Harbour Remediation Project**		
Client Project No.:	**R.112158.017**		
Submittal Title:	FSTS Withdrawal Procedure and Safety Plan		
Submittal No.:	031	**Specification:**	02 65 00.01

Issued For:

- ☐ Information
- ☒ As Requested
- ☐ Review
- ☐ Tender
- ☐ Construction
- ☐ Other

Delivered By:

- ☐ Courier
- ☐ Hand
- ☒ E-Mail
- ☐ Other (i.e. Pickup)

CONTRACTOR CERTIFICATION Jonathan Markiewicz Digitally signed by: Jonathan Markiewicz DN: CN = Jonathan Markiewicz email = jonathanm@milestoneenv.ca C = CA O = Milestone Environmental Contracting Inc. OU = Eastern and Northern Canada Date: 2024.07.04 08:08:02 -04'00'	CONTRACTOR COMMENTS Revised based on client comments.
ENGINEER CERTIFICATION	ENGINEER COMMENTS

FSTS Withdrawal from Service Procedure & Safety Plan

Prepared For:

Public Works and Government Services Canada

Travaux publics et Services gouvernementaux Canada

Public Works and Government Services Canada
9700 Jasper Avenue, Suite 1000
Edmonton, Alberta T5J 4C3

Project: ***EW699-222278/001 – Coral Harbour Remediation Project***
Coral Harbour, Nunavut

Document History:

The Document Author is authorized to make the following types of changes to the document without requiring that the document be re-approved:

- Editorial, formatting, and spelling
- Clarification

To request a change to this document, contact the Document Author or Owner.

Changes to this document are summarized in the following table in reverse chronological order (latest version first).

Revision	Date	Created by	Short Description of Changes
000		Paul Bandler	Initial draft
001	June 21, 2024	Paul Bandler	Revised based on client comments
002	June 28, 2024	Paul Bandler	NAPEG Engineer Reivew
003	July 3, 2024	Jonathan Markiewicz	NAPEG Engineer Supervision

Approval / Acknowledgements / Acceptance

Prepared By:

Paul Bandler, Project Manager	July 3,2024	
Name and Title (please print)	Date	Signature

Donny Sousa, General Superintendent, PM2, PM3	July 3,2024	
Name and Title (please print)	Date	Signature

Reviewed By:

Jonathan Markiewicz, Senior Project Manager	July 3,2024	Jonathan Markiewicz Digitally signed by: Jonathan Markiewicz DN: CN = Jonathan Markiewicz email = jonathanm@milestoneenv.ca C = CA O = Milestone Environmental Contracting Inc. OU = Eastern and Northern Canada Date: 2024.07.04 08:07:36 -04'00'
Name and Title (please print)	Date	Signature

Tyler Libby, Project Manager, PM2, PM3	July 3,2024	
Name and Title (please print)	Date	Signature

Mark Somers, P.Eng (NAPEG)	July 3,2024	REGISTERED PROFESSIONAL ENGINEER M.J. SOMERS LICENSEE 3/7/24 NT/NU
Name and Title (please print)	Date	Signature

Approved By:

Dino Bruce, SDL Superintendent	July 3,2024	
Name and Title (please print)	Date	Signature

Client Acceptance:

Name and Title (please print)	Date	Signature

All aspects of the work will be conducted in accordance with:

- ✓ Local / Provincial / Federal Legislation, Permits and Regulations, as applicable
- ✓ Site Specific Health and Safety Plan (HASP)

NOTE: All site personnel must read and acknowledge review of the HASP, prior to start of any work. Refer to Sign-off Sheet – MEHS # 24 – 1. Example is included at the end of the HASP.

Table of Contents

1 PROJECT INFORMATION AND BACKGROUND

This FSTS Withdrawal from Service Procedure and Safety Plan (The Plan) will be retained on the site during field activities and will be reviewed, as necessary. The plan will be amended or revised as project activities or conditions change or when supplemental information becomes available.

1.1 Project Information and Background

Project Number:	PWGSC – EW699-222278/001/NCS Milestone – 03230272
Client(s):	Public Works and Government Services Canada (PWGSC) on behalf of Crown-Indigenous Relations and Northern Affairs (CIRNAC)
Client Reference Number(s):	PWGSC Project Reference - R.112158.017 Contract Number - EW699-222278/001/NCS
Project Site Name:	Coral Harbour Site
Site Address:	Coral Harbour, NU The project Site is located approximately 10 kilometres (km) northwest of the Hamlet of Coral Harbour, Nunavut, on Southampton Island.
Project Manager:	Dino Bruce Tyler Libby / Jonathan Markiewicz
MILESTONE Office Location:	200 – 1550 Laperriere Avenue, Ottawa, Ontario, K1Z 7T2
Project Start Date:	June, 2023
Project End Date:	March 31, 2025
Site Background:	The former military base in Coral Harbour was used by Canadian and American forces during the construction of the Distant Early Warning (DEW) Line in Northern Canada during the Second World War and for various other northern projects. The Site was active from the 1940s until the 1970s and the on-site infrastructure included an airstrip, hospital, and housing for military personnel. When the Site was decommissioned in the 1970s, most buildings were decommissioned, and remaining equipment was abandoned. Several areas of environmental concern (AECs) including physical hazards related to unconsolidated surface debris and aged structures, and environmental impacts associated with soil contamination, buried debris, petroleum liquids in tanks and barrels and hazardous building materials remain on-site. These AECs and physical hazards are the target of the remediation activities under this contract.

Surrounding Areas: The Site is located along the local road system in the vicinity of the active Coral Harbour Airstrip and northwest of the town proper.

The areas around the Site are generally flat with limited ground cover. The surface soils are mostly gravel deposits with fine materials. Permafrost is at an approximate depth of 1 meter below ground surface (mbgs).

Work to be Performed: The primary components of the Remediation Works to be carried out are highlighted in this section:

- Abatement, packaging and proper off-site disposal of hazardous liquids and solids.
- Incineration of acceptable liquid and solid waste on site.
- Demolition, segregation and proper disposal of remaining buildings and tanks.
- Sorting and proper disposal of surface debris.
- Excavation, sorting and proper disposal of buried debris.
- Excavation and treatment or disposal of contaminated soil:
  - Type B soil to be properly packaged and diposed off-site
  - Type A soil to be disposed in non-hazardous waste landfill (NHW) on site.
  - Tier II Soil to be properly packaged and disposed off-site.
- Construction, filling and operation of the on-site LTU.
- Construction, filling and closure of the on-site non-hazardous waste landfill (NHW).
- Backfilling of excavated areas with clean fill.

Potential Contaminants:

Fuel in barrels and tanks
Potential Batteries
PHCs F1-F4 and BTEX in soil
PAHs in soil
Glycol
Mercury (thermostats)
Metals associated with car batteries
Asbestos containing materials (ACMs) associated with buildings
Lead-amended paint associated with buildings
Potential for PCBs in light ballasts

2 ON-SITE ORGANIZATION, COORDINATION AND CONTACTS

This Plan has been prepared by Milestone Environmental Contracting Inc. (**MILESTONE**) on behalf of Sudliq Developments Ltd. (**SDL**) *The Project Team*.

Milestone is a TSSA certified Fuels Safety Contractor and has considerable experience decommissioning storage tank systems. This Plan was prepared with direct input from Donny Sousa who is a TSSA licensed Petroleum Mechanic level 2 and 3 and has considerable experience decommissioning tanks and fuel storage and conveyance systems. Mr. Sousa's certification is attached. This plan was reviewed by Tyler Libby who is also a licensed PM2 and PM3 level Petroleum Mechanic. His credentials are also attached. Both Mr. Sousa and Mr. Libby will supervise the execution of this work and will be coordinating and communicating with the team throughout all steps of this work.

The following is a list of key project contacts.

Prime Contractor:	**Sudliq Development Ltd. *(SDL)*** **Dino Bruce – 902-957-0485**
Senior Project Manager :	Name: **Jonathan Markiewicz - Milestone** Cellular: 514-984-6405 Email: jonathanm@milestoneenv.ca
Project Manager; licensed Petroleum Mechanic, PM2 & PM3	Name: **Tyler Libby - Milestone** Cellular 647-385-4173 Office: 519-260-0221 # 507 Email: tylerL@milestoneenv.ca
Project Superintendent and On-Site Health and Safety Coordinator :	Name: **David Jones - Milestone** Cellular: 905-872-0144 Office: 613-656-4173 Email: davej@milestoneenv.ca
Emergency Response:	**Coral Harbour Health Centre** 867-925-9916
Client:	Company: **PWGSC** Name: **Claudia Simonato** Cellular: 403-613-6328 Email: Claudia.Simonato@tpsgc-pwgsc.gc.ca
Consultant:	Company: **Stantec** Name: **Lindsay van Noortwyk** Cellular: 780-232-1114 Email: Lindsay.vannoortwyk@stantec.com
PWGSC Construction Representative:	Company: **Stantec** Name: **David Cox** Cellular: 902-471-9682 Email: david.cox@stantec.com
PWGSC Construction Representative:	Company: **Stantec** Name: **Sam Caldwell** Cellular: 902-574-7474 Email: Sam.caldwell@stantec.com

3 PURPOSE

The purpose of this Plan is to outline the procedures, health and safety precautions and training necessary to properly complete the withdrawal from service of the fuel storage tank system (FSTS) including tanks and associated piping at the Site consistent with the contract, and applicable regulations and guidance documents.

This Plan is to be read in conjunction with Submittal 005 – Site-specific Health and Safety Plan and Submittal 010 – Barrel Processing Methodology.

3.1 Scope of Plan

See Specification Section 02 65 00.01 – FSTS Withdrawal From Service

In general the FSTS withdrawal from services involves:

- Safe opening and emptying of all tanks on site.
- Incineration (fuels), treatment (water) or off-site disposal of tank contents based on analytical results and consistent with guidelines and regulations (see below).
- Cleaning of all tanks and piping.
- Dismantling of FSTS infrastructure including piping, tanks and containment structures.
- Disposal of FSTS infrastructure to the on-site NHW.

The following table summarizes the tanks at site to be withdrawn from service under this plan:

Tank #	Colour	Capacity	Contents	Reg #
1	Rust / red	Vertical; 13,000 Imp Gallon	Empty, residual sludge	E 324767-2 (Plate #) A 280779
2	Rust / red	Vertical; 13,000 Imp Gallon	Empty, residual sludge	E 363568-2 (plate #) A 280799
3	Rust / red	Vertical; 13,000 Imp Gallon	Empty, residual sludge	E 363568-3 (plate #) A 280800
4	Rust / red	Vertical; 13,000 Imp Gallon	Empty, residual sludge	E 363568-1 (Plate #) A 280784
5	Green	Vertical; 10,000 gal (approx.)	Empty, residual sludge	No plate
6	Green	Vertical; 10,000 gal (approx.)	Empty, residual sludge	No plate
7	Green	Vertical; 10,000 gal (approx.)	Empty, residual sludge	No plate
8	Green	Horizontal; 3,100 gal	Empty, residual sludge	Plate illegible
9	Green	Horizontal; 3,100 gal	Empty, residual sludge	43 (Plate #)
10	Grey	Horizontal; 300 gal	Empty, residual sludge	No Plate

- 1 Imperial Gallon = 4.546 L

This scope of work will only start once lead paint abatement is completed consistent with Submittal 017 – Lead Abatement Plan.

3.2 Applicable Regulations and Guidelines

Regulatory requirements and applicable guidelines for sampling design as well as safe works include:

- Canadian Standards Association, Code of Practice for Safety in Demolition of Structures (CSA Standard S350-M1980 (R2003)).

- Storage Tanks Systems for Petroleum Products and Allied Petroleum Products Regulations (SOR/2008-197).
- Canada Labour Code – Occupational Health and Safety (R.S.C. 1985, c.L-2).
  Canada Occupational Health and Safety Regulations (SOR/86-304).
- Environment, Health & Safety Control Framework, Northern Contaminated Sites Program (INAC, 2008).
- Construction Project Safety Management Guide, 5th Edition (PWGSC, 2008).
- Abandoned Military Site Remediation Protocol (INAC, 2009).
- Spill Contingency Planning and Reporting Regulations (R-068-93).
- Consolidation of Occupational Health and Safety Regulations (R-003-2016).
- Consolidation of Safety Act (R.S.N.W.T. 1988, c.S-1; as amended by S.Nu. 2015, c.19).
- Environmental Guideline for Used Oil and Waste Fuel, June 2012.
- Tank Tip #9 – Withdrawal and Removal of Storage Tank Systems (ECCC, 2019)
- Transportation of Dangerous Goods Act, 1992 and Regulations (SOR/2001-286).
- API Standard 653 – tank Inspection, Repair, Alteration and Reconstruction
- API Standard 2219 – Safe Operation of Vacuum Trucks in Petroleum Services.

3.2.1 Supervision under the Regulation

The works subsequently described herein will be carried out in accordance with the applicable regulations and standards. Specifically, that the works will be Supervised by the following Engineer, as required by SOR/2008-197: Mark Somers, P.Eng (NAPEG # L2304) of Blumetric Environmental Inc. Whereas SOR/2008-197 does not define "supervision," Environment and Climate Change Canada (ECCC), the authority having jurisdiction with respect to tank withdrawals, confirmed in June 28, 2024 email that the responsibility lies with the Professional Engineer in charge of tank system removal/decommission to determine what is the appropriate level of supervision, and with the storage tank owner/operator to document compliance with SOR/2008-197.

As such, the Engineer has defined and delegated the following tasks to ensure that the works described herein are carried out in accordance with the applicable regulations and standards:

- Field measurements of tank vapours are recorded and provided to the Engineer prior to commencing decommissioning activities,
- Photographs and decommissioning activity reports (vapour monitoring, drain and dismantle peripheral lines, tank emptying and contents disposal, tank inspections, tank dismantling and disposal) will be prepared and sent to the Engineer daily

4 WORK DETAIL

4.1 Health Safety and Emergency Response

4.1.1 Health and Safety

Details on health and safety are presented in the Site-Specific Health and Safety plan (Submittal 005).

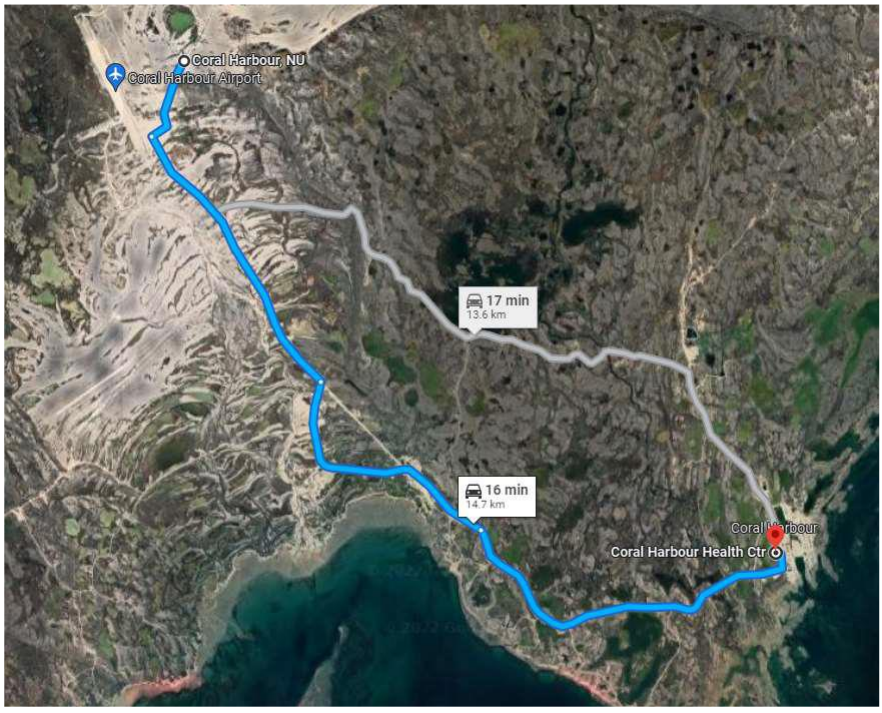
There is a first aid attendant at the onsite camp. They can be reached by Radio. List of other fist aiders within the work crew will be available in the SSHASP on site and discussed during daily tail gate meetings.

4.1.2 Nearest Hospital & Clinic

Hospital:	Name:	Coral Harbour Health Centre
	Telephone:	867-925-9916

Driving directions – 15 km / Approximately 17 minutes:

Head southwest toward Coral Harbour Airport Rd - 1.2 km
Turn left and continue onto Coral Harbour Airport Rd - 4.2 km
Turn right to stay on Coral Harbour Airport Rd - 3.8 km
Coral Harbour Airport Rd tu
rns slightly right and becomes Coral Harbour Airport Rd - 5.4 km
Turn left - 60 m



Task specific hazards and planned mitigation measures are summarized in the following table.

Personal protective equipment (PPE) will be required per Section 01 35 29.13 – Health, Safety, and Emergency Response Procedures for Contaminated Sites and in compliance with NIOSH Guidelines.

NOTE: Confined space entry is <u>not</u> planned as part of this work procedure.

Table 1: Summary of Task Specific Hazards and Mitigation Measures

Task- Specific Hazard	**Mitigation Measures**
Respiratory risk from organic vapours in drums and tanks.	Staff to be trained and properly fitted with minimum half-face respirators with organic vapour (OV) cartridges.
Chemical hazards: - Organic liquids in tanks and other vessels - Detergents and chemical cleaners - Wash water and rinsate - Fuel to run pumps	- Staff to be trained on proper use and fitted with adequate PPE including, eye protection, respirators with OV cartridges, hard hat, rubber safety boots, double gloves (chemically resistant on the outside and latex on the inside) and disposable chemical resistant-coated coveralls. - Eye wash stations to be available during work. - Material safety data sheets will be available for all new chemical products. - Spill kits will be on hand. - Properly rated fire extinguishers will be on hand
Physical Hazards: - Slips, trips, falls - Noise - Heavy equipment - Explosive risk from combustible vapours and pressurized vessels - Working at heights - Flying debris	- Proper foot wear and extra care to be taken when suited up in PPE. - Heavy equipment, compressors, water pumps. Ear protection to be available as needed. - Hard hats to be worn. Eye contact and clear communication with operators. - Combustible gas monitoring throughout (see below) - Non-sparking tools and equipment including pumps and compressors with proper grounding to be used to open, cut, evacuate and manipulate vessels. - Use of man-lift with proper tie-off and fall restraint equipment. - Work exclusion zone to be establishing during tank cutting to prevent strikes by fall or flying debris. - Fire watch.

The **Work Area** will include the tank farm and the west part of AEC 6. It will be accessed by the trail from the airport road, which is where hazard signs and barricades will be placed during heavy equipment work and tank cutting.

A **Decontamination Zone** will be established within the work areas where handling of transfer equipment, containers and contents occurs (e.g. sampling, consolidation/transfer, washing, etc.) to prevent tracking potentially contaminated liquids outside of the work area. The decontamination zone will be lined to contain any liquids and oily residues and will be equipped with boot wash, rinse down and rinsate containment. Rinsate will be passed through the process water treatment system. Waste containers will be present to discard used/soiled PPE.

The work will be conducted with one person present outside of the tank area, who is fully suited in protective clothing to observe the work in case of any unexpected health and safety concerns and also to assist as needed.

4.2 Communications Plan

All personnel assigned to this ask will received the necessary training during season start-up orientation or through specific training sessions including, respirator fit testing, fall restraint, working at heights, 40- hour HAZWOPPER, decontamination procedures, etc.

The team will review health and safety, spill response, emergency response and check-in protocols daily during the tail-gate meetings.

The designated team will review the work plan and work sequence as well as, PPE and any specific hazards or environmental concerns with the foreman at the work site prior to stat up.

The work will be lead by an experienced foreman on site and supervised by licensed Petroleum Mechanics.

The team will be in radio contact with the Site Superintendent during work. Any emergency will be radioed to the Site Superintendent immediately and health, fire or environmental response personnel will be called to the scene with appropriate support equipment per the SSHASP. A copy of the SSHASP will be on site in the work truck.

If there are any uncertainties in the work procedure or if unexpected conditions are encountered, work will stop and the supervisor will be contacted by radio or cell phone. Conditions will be reviewed and a plan will be revised to proceed.

Heavy equipment will communicate with ground forces by radio and hand signals.

Vehicle and heavy equipment movement around the site will be supported by flaggers or other hand signals from ground forces.

The Owner's Representative will be apprised of work progress through daily reports or through onsite meetings as relevant. 24-hours notice will be given in writing for any inspections.

4.3 Tank Opening and Venting

Top hatches of tanks will be accessed by man lift. Personnel will be trained in the proper use of fall restraint and will utilize the necessary procedures for working at heights including harnesses and establishing adequate tie-off points. Procedures to be followed for working at heights are detailed in MECI Safe Job Procedure #53 in the SSHASP (Submittal 005).

Top hatches will be opened with non-sparking tools. Tanks will be dipped to confirm quantity of any residual water, fuel or sludge. Once it is confirmed the contents are below the level of the lower hatch it will be opened as well. If contents quantities are above the lower hatch height they will be pumped down from the upper hatch by the method described below.

Air monitoring inside the tank will be completed as described below. Briefly, a calibrated multi-gas meter will be inserted into the top hatch and readings will be allowed to stabilize. Readings will be taken from the top hatch and the bottom hatch. Readings will be recorded with date and time. Personnel will NOT enter the tank.

Tanks will be vented by venturi method. A venturi device will be affixed to the upper hatch opening to create an airtight seal to the tank. The venturi will be grounded to the tank to mitigate static discharge by air flow during venting. Air suction will be establishing through the venturi with an air compressor. The tank will be vented for 15

minutes and air quality will be monitored again. Additional 15-minute rounds of venting will be completed if required to achieve safe levels of oxygen and LEL before any further work occurs.

4.3.1 Explosive vapour monitoring

The Project Team will monitor each tank for air quality indicators and flammable/combustible vapour using a calibrated instrument (such as the MultiRae) and the measurement will be recorded. The area immediately inside tank inlets will be tested (Tanks will not be entered).

This work plan applies to all work tasks that can create high temperature conditions, that can create a source of ignition, such as open flame, sparks, or static discharge as well as tasks that cannot produce a source of ignition. The hot work tasks include, but are not limited to welding, thermal or oxygen cutting or heating and grinding. The cold work tasks include the manual opening of barrels and tanks, and unscrewing/cutting of pipe connection joints.

The explosive vapour monitoring protocol is as follows:

- If the measured concentration of flammable/explosive gas or vapours is < 5% of the Lower Explosive Limit (LEL) and the concentration of O_2 is < 23%, the hot work is permitted.
- If the measured concentration of flammable/explosive gas or vapours is <10% LEL, then cold work is permitted but hot work is not permitted.
- If the measured concentration of flammable/explosive gas or vapours is <25% LEL, only inspection is permitted. No hot or cold work is permitted.

If these requirements are not met, the evaluated container/ barrel/ tank/ pipeline must be drained or ventilated and purged until the acceptable LEL value is obtained. Meanwhile, all personnel should be moved to a safe location.

The MultiRae will be calibrated on a regular basis according to manufacturer's instructions, and will be function tested or 'bump' tested prior to use each day to ensure that it is working properly.

The initial screening will include the measurement of vapours to determine the percentage of the LEL for the suspected fuel that is present and will dictate what type of work can be conducted.

The recommended action levels for protection of human health during vapour monitoring are summarized below. Readings should be compared to these levels and appropriate actions should be taken as noted and may include changing the PPE required in the work area to address the hazard or removing workers from the area.

Table 7: Explosive Vapour Monitoring - Guide to potential chemical hazards, monitoring and action levels

Chemical/ Gas	**Method of Detection**	**Threshold Limit Value –Time Weighted Average[a]**	**Recommended Action Level**
Oxygen	MultiRAE Plus	--	**> 23.5 %** oxygen rich – exit immediately, explosion potential (move to a safe location, upwind, uphill) **< 19.5 %** oxygen poor requires supplied air
Explosive Vapours (BTEX-VOC-methane)	MultiRAE Plus	N/A	**Risk of intoxication** (measured using PID) : at **50 ppm VOCs** on MultiRae Plus wear half face respirator with OV cartridges **Risk of explosivity** (measured using LEL) : at **10% LEL measured** on the MultiRae Plus, Occupational Monitoring team should be notified and the team should be moved to a safe location as a precaution.

Chemical/ Gas	Method of Detection	Threshold Limit Value –Time Weighted Average[a]	Recommended Action Level
H_2S (trace amounts in Bunker C oil)	MultiRAE Plus	1 ppm [a]	**Risk of intoxication:** Inhalation risk only if heated. Over **5 ppm** on MultiRae Plus, Wear half face respirator with acid gas cartridges. **>10 ppm** move to a safe location **Prevent skin and eye contact**

Notes:

TWA – threshold limit value- Time Weighted Average (TWA) – the time-weighted average concentration for a conventional 8 hour workday and a 40 hour workweek, to which it is believed that nearly all workers may be repeatedly exposed, day after day, without adverse effect.

[a] - American Conference of Industrial Hygienists TLVs/TWAs (2011)

STEL – threshold limit value – Short Term Exposure Limit: a 15 minute TWA exposure which should not be exceeded at any time during a workday. Exposures above the TLV-TWA up to the STEL should not be longer than 15 minutes and should not occur more than four times per day and there should be at least 60 minutes between successive exposures in this range.

NA – not available

4.4 Verify, Drain and Dismantle Peripheral Lines

This work will start by addressing the peripheral piping and distribution infrastructure. Piping will be removed from the tanks to a point of above ground termination, or a point at which they transition underground. Sections of buried pipe will be capped and left in the ground.

Pipe sections will be vented with compressed air and monitored for combustible vapour levels as described above. Residual contents will be drained and if needed pipe sections will be flushed with water and or mild detergent. Residues and rinsate will be contained for treatment, incineration and or disposal off-site according to Submittal 010 – Barrel Processing Methodology.

Pipes will be sectioned by cold cut methods with mechanical shear or other non-sparking tools. Pipe cuts will be made over secondary containment to capture residual contents, if any.

4.5 Tank Emptying and Contents Disposal

Once combustible vapour levels are deemed safe, the tank will be emptied of waste fluids by inserting hoses through the lower (or upper, if needed) hatch connected to a diaphragm pump. Hoses and pumps will be grounded to mitigate static discharges. Personnel will follow SJP #17 (Submittal 00 – SSHASP) for handling of Petroleum Products.

Residual fuel will be removed to mobile tanks (e.g. truck-mounted tank, or tote strapped to a flatbed) for incineration on site. Water from tanks and any wash water will be passed through an oil-water separator, setup with proper secondary containment, to capture any fuel globules and then will be treated on site per Submittal 008 – Process water treatment. Water treatment steps will occur at the processing area setup in AEC 2. Water will be moved to the processing area in totes strapped to truck flatbeds.

Sludge and sediments removal will occur once the top and sides of the tank have been removed and the vessel is no longer considered a confined space, and has substantial ambient air flow.

Air monitoring will continue in the work area and respiratory protection including filtration for organic vapours will be available, if needed.

If necessary, an absorbent product, such as Oil-Dri or similar, will be mixed with sludge to increase solid state and ease of removal. SDS records for absorbents will be available at the work site for review. Ratio of absorbent added will vary based on sludge consistency according to manufactures recommendations. Sludge will be placed in sealable totes, overpacks or drip-tight super-sacs using hand tools such as shovels, sealed and palletized for transport and disposal off-site (see Submittal 010).

Once sludge and sediments are removed, the tank will be rinsed down by pressure washer with hot water – a mild detergent will be added, if needed. Rinse water will be captured in the base of the tank and pumped to totes for transport and treatment on site per Submittal 008.

4.6 Tank Inspections

Once the tanks are cleaned and dried the Owner's representative will be notified and provisions will be made for inspection. 24 hour advanced notice will be provided.

4.7 Tank Dismantling

Once the tank is vented and it is deemed safe, and liquid contents have been removed the upper part of the tank will be cut into movable sections using a hydraulic shear attached to an excavator. The tank will be punctured at the top seam and cut downwards along the wall leaving approximately 1 m of the tank wall intact and connected to the base for sludge containment. At this point de-sludging and washing will occur as needed. Remaining tank walls and ends will be cut into sections practical for safe loading and transport.

During cutting a 30m exclusion zone will be established around the tank to minimize the likelihood of injury from potential projectiles and to allow space for the excavator to maneuver around the tank. The exclusion zone will be established prior to the start of heavy equipment work using barricades, pilons, caution tape and spotters. Road access to the tank farm area will be restricted during this period. Signs indicating the specific hazards will be posted.

Once the tanks and piping are removed from the tank farm, the berms and liners will be disposed as well. The tank farm area will be made clear for any soil testing that is required by the Owner's Representative.

4.8 Disposal Infrastructure

Once cleaned and cut, tank sections, piping, liner and other infrastructure will be disposed in the on-site non-hazardous waste landfill. No soil excavation or disposal is included within the current scope of work. As such, the soils used to construct the berms will be spread and the area regraded to match the surrounding terrain upon inspection and approval by the Owner's representative.

4.9 Reporting

The decommissioning work will be documented throughout with both written and photographic logs of the steps taken and well as quantities of the contents, dates of disposal and any tank identification numbers.

Once tanks are removed from service SDL will provide the requisite documentation to the Owner consistent with Section 02 65 00.01 – 3.12.9.

APPENDIX A:

Technical
Standards and
Safety Authority

Ontario Registration of a Fuels Safety Contracto

Technical Standards and Safety Ac

This Registration is issued to carry on business as a

Petroleum Contractor

Registration Number:
000210984

Located at:

1550 LAPERRIERE AVE
UNIT 200
OTTAWA ON K1Z 7T2
CANADA

Expires on: May 12, 2025

MILESTONE ENVIRONMENTAL CONTRACTING INC
1550 LAPERRIERE AVE
UNIT 200
OTTAWA ON K1Z 7T2
CANADA

Issued by the Director

This Licence Is Not Transferable.

OPERATION OF THIS BUSINESS WITHOUT A VALID REGISTRATION IS AN OFFENCE UNDER THE ACT.

This registration, or a copy of the registration, shall be displayed in a conspicuous place at the business premises set out on the registration.

Issued under the ***Technical Standards and Safety Act, 2000,***
and the applicable regulation and subject to the limitations thereof.

For all enquiries or to update any of the information on this registration, please contact the Technical Standards and Safety Authority.

Telephone: 1.877.682.8772
E-mail: *customerservices@tssa.org*

MILESTONE ENVIRONMENTAL CONTRACTING INC
1550 LAPERRIERE AVE, UNIT 200
OTTAWA ON K1Z 7T2
CANADA

Detach this strip and store in safe place. You will need the information shown on this strip to replace a lost, stolen or destroyed certificate.

Full Name	Certificate No.	Expiry Date
TYLER ALLEN LIBBY	000161514	2026-04-08

Technical Standards and Safety Authority

Ontario Certificate of Qualification
Issued under the ***Technical Standards and Safety Act***
Fuels Safety Regulation

Certificate:
PM.2, PM.3, PMH

TYLER ALLEN LIBBY
402 MALBOEUF COURT,
MILTON ON L9T 7Y3
CANADA

2024-05-06	000161514	2026-04-08
Issue Date	Certificate No.	Expiry Date

TYLER ALLEN LIBBY

You are hereby certified as a (an):

PM.2, PM.3, PMH

2024-05-06	000161514	2026-04-08
Issue Date	Certificate No.	Expiry Date

For all inquiries or to update any of the information on this certificate, please contact:

Technical Standards and Safety Authority
345 Carlingview Drive
Toronto, Ontario M9W 6N9

E-mail: customerservices@tssa.org

Tel: 416.734.3300
Toll Free: 1.877.682.8772
Fax: 416.231.4903

You may also report any errors or changes to your contact information online at www.tssa.org.

IMPORTANT NOTE

You must notify Technical Standards and Safety Authority of any change to your name or address within **30 days of the change.**

Issued under the ***Technical Standards and Safety Act, 2000***
and the applicable regulation and subject to the limitations thereof.
Certification of Petroleum Equipment Mechanics (O.Reg.#216/01)
Fuel Industry Certificates Regulation (O.Reg.#215/01)

TYLER ALLEN LIBBY
402 MALBOEUF COURT,
MILTON ON L9T 7Y3
CANADA

Detach this strip and store in safe place. You will need the information shown on this strip to replace a lost, stolen or destroyed certificate.

Full Name	Certificate No.	Expiry Date
DONNY MAURICIO SOUSA	FS C-2001 - 0739012	2025-09-30

Technical Standards and Safety Authority

Ontario Certificate of Qualification
Issued under the ***Technical Standards and Safety Act***
Fuels Safety Regulation

Certificate:
PM.2, PM.3, PMH

DONNY MAURICIO SOUSA
956 WINDHAM ROAD 11,
WINDHAM CENTRE ON N0E 2A0
CANADA

DONNY MAURICIO SOUSA

You are hereby certified as a (an):

PM.2, PM.3, PMH

Issue Date	*Certificate No.*	*Expiry Date*	Issue Date	Certificate No.	Expiry Date
2023-08-11	*FS C-2001 - 0739012*	*2025-09-30*	2023-08-11	FS C-2001 - 0739012	2025-09-30