AECOM

CanZinco Ltd.

Nanisivik Mine
Summary of Contaminated Soil Remediation Progress – December 31, 2007

Prepared by:

Gartner Lee Limited doing business as AECOM
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Date: November, 2008

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November 17, 2008 Project Number: 50338

Mr. Robert Carreau
Corporate Manager, Environmental Affairs
Breakwater Resources Ltd.
Suite 950, 95 Wellington Street East
Toronto, ON M5J 2N7

Dear Mr. Carreau:

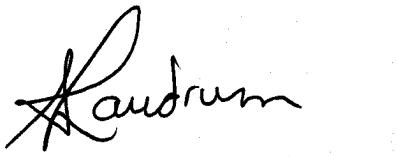
Re: Nanisivik Mine Summary of Contaminated Soil Remediation Progress, December 31, 2007

On behalf of Gartner Lee Limited doing business as AECOM, I am pleased to submit the *Nanisivik Mine Summary of Contaminated Soil Remediation Progress – December 31, 2007* report. This report serves to document the remedial activities that were undertaken, and the sample results that verify those activities at the Nanisivik Mine as of December 31, 2007. The site is being remediated to meet the Nanisivik Mine site-specific remedial targets for soil quality. Areas of contaminated soil requiring remediation were identified in *2003 Phase 3 Environmental Site Assessment, Nanisivik Mine, Nunavut* (Gartner Lee Limited, 2004a).

The remediation of twelve areas of petroleum hydrocarbon contaminated soil and one area of metal contaminated soil are reported. All confirmatory soil sample results meet the remediation objectives set forth for the Nanisivik Mine. The remediation at the dock site as of December 31, 2007 is reported in a separate letter report, *GLL 50338 - Nanisivik Mine Summary of Contaminated Soil Remediation Interim Close Out Report: Dock Area,* dated April 9, 2008.

It has been a pleasure to provide support during the reclamation and closure of the Nanisivik Mine.

Sincerely,
Gartner Lee Limited doing business as AECOM



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AL:al
Encl. Nanisivik Mine, Summary of Contaminated Soil Remediation Progress - December 31, 2007

Signature Page

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PERMIT TO PRACTICE
GARTNER LEE LIMITED
Signature A. Laudrum
Date Nov 17, 2008
PERMIT NUMBER: P 324
The Association of Professional Engineers, Geologists and Geophysicists of the NWT / NU

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1. Introduction

The Nanisivik Mine, located on the south shore of Strathcona Sound near the community of Arctic Bay in the North Baffin region, produced lead and zinc mineral concentrates from 1976 to 2002. The mine was most recently operated and operated by CanZinco Ltd., a wholly owned subsidiary of Breakwater Resources Ltd.

An Environmental Site Assessment ("ESA") conducted in 2002 and 2003 identified petroleum hydrocarbon and metal contaminated soil, *2003 Phase 3 Environmental Site Assessment, Nanisivik Mine, Nunavut* (Gartner Lee 2004a). Based on the results of these investigations, areas of contaminated soil were identified for remediation during mine closure and site reclamation.

To December 31, 2007, CanZinco Ltd. has remediated fourteen areas: twelve areas of petroleum hydrocarbon contaminated soil, one area of metal contaminated soil and an area with co-contaminated soil at the dock site. Remediation at the dock site is reported in a separate letter report*, GLL 50338 - Nanisivik Mine Summary of Contaminated Soil Remediation Interim Close Out Report: Dock Area*, dated April 9, 2008 (Gartner Lee 2008). Remediation of residual contaminated soil at the dock site, the former townsite, the road to dock, the east adit treatment facility, the industrial complex and the warehouse yard is to be completed in 2008. The areas remediated to date and those remaining to be remediated in 2008 are shown on Figure 50338-01: *Contaminated Soil Remediation Progress, December 31, 2007*.

The overall objective of the reclamation and closure plan is to minimize the environmental and human risks from any residual contamination of the site resulting from the operation of the mine. This is achieved primarily through ensuring that at least 95% of any soil that is in excess of the established risk objectives for the site is treated and/or isolated from the receiving environment.

2. Background

The thirteen remediated areas being reported herein include areas of petroleum hydrocarbon contaminated soil at the former carpenter shop, the landfarm cell at the landfill site, the former ANFO plant area, the former maintenance shop area at K-Baseline and a former fuel drum storage area on the STOL Airstrip. In addition, areas of petroleum hydrocarbon contaminated soil at the side of the roadways were remediated in the vicinity of former above-ground storage tanks ("AST"s) at K-Baseline, Oceanview, the main 00 Portal, Area 14, and the East Open Pit, and at the former refuge stations at 17N Portal and the East Open Pit. The management of metal contaminated soil on the apron at the STOL Airstrip is also included in this report.

ESA investigations conducted by Gartner Lee Limited in 2002 and 2003 had identified the following about the areas reportedly remediated:

Carpenter Shop

- Residual petroleum hydrocarbon contaminated soil remained at the carpenter shop. Efforts had been made by the mine operators to clean up a spill in 1999.

Landfarm Cell

- The hydrocarbon impacted soil excavated by the mine operators at the carpenter shop was placed in a lined landfarm cell at the landfill as a remediation measure. Soil sample results obtained during the ESA investigations determined that approximately 25% of the soil in the landfarm had been reclaimed in the landfarm treatment.

West Adit Area

- Hydrocarbon contaminated soil was identified at the former ANFO plant.
- Hydrocarbon contaminated soil was identified at the main 00 Portal AST fuelling station.

K-Baseline

- Hydrocarbon contaminated soil was identified at the former equipment fuelling station AST.
- Hydrocarbon contaminated soil was identified at the former K-Baseline maintenance shop.

Oceanview

- Hydrocarbon contaminated soil was identified at the former equipment fuelling station AST.

Area 14

- Hydrocarbon contaminated soil was identified at the former equipment fuelling station AST.

East Open Pit

- Hydrocarbon contaminated soil was identified at the AST adjacent to the refuge station.
- Hydrocarbon contaminated soil was identified at the former equipment fuelling station AST.

17 North Portal

- Hydrocarbon contaminated soil was identified at the AST adjacent to the refuge station.

STOL Airstrip

- Hydrocarbon contaminated soil was identified at the east end of the airstrip. The contaminated soil extended less than 45 m downgradient of an area of visible surface staining; and
- Lead contaminated soil was identified on the apron at the south side of the airstrip. It did not extend away from the apron.

3. Remediation Objectives

3.1 Soil Quality Objectives

A three-tiered approach for the assessment and remediation of contaminated sites has been established by the Canadian Council of Ministers of the Environment ("CCME"). Generic guidelines represent the first tier, while a second tier allows limited modification of the guidelines to establish site-specific remedial objectives. The third tier uses risk assessment procedures to establish remediation objectives at contaminated sites on a site-specific basis. The first tier guidelines represent generic recommendations that are based on a conservative application of the most current scientific information without consideration of possible site-specific, special considerations. The first tier objectives for remediation have been used for the sites reported here for hydrocarbons contamination. Site specific remediation objectives have been approved for this site for relevant metals. The application of these objectives is considered further below.

3.1.1 Site-Specific Remediation Objectives for Metals

The Nunavut Water Board ("NWB") approved a Human Health and Ecological Risk Assessment ("HHERA") for the Nanisivik Mine prepared by Jacques Whitford Environmental Limited ("JWEL"), *Human Health and Ecological Risk Assessment, Nanisivik Mine, Nunavut* (JWEL, 2003). The study determined concentrations of potential contaminants of concern (cadmium, copper, lead, silver and zinc) in surface soil below which no adverse health effects would be expected based on land use. The mine site was divided into three areas for the HHERA based on current and likely future uses:

- the town area – assumed to continue as residential land use;
- the dock area – assumed to continue as commercial/light industrial land use; and
- the general mine area – assumed to be used for recreational and hunting purposes.

Site-specific Soil Quality Remediation Objectives ("SQRO's") were determined for the potential contaminants of concern as identified on Table A.

Table A. Site-Specific SQRO's for Metals

Objectives	Cadmium mg/kg	Copper mg/kg	Lead mg/kg	Silver mg/kg	Zinc mg/kg
Town Area	35	5,900	700	NA	10,800
Dock Area	2,800	5,900	4,500	NA	44,000
General Mine Area	50	5,900	1,050	18,000	23,400

NA maximum silver surface soil concentrations obtained in the Phase 2 ESA Investigations at the town area and dock area were less than the generic CCME guidelines and therefore site-specific SQRO's were not developed.

3.1.2 Generic Federal CCME Guidelines for Petroleum Hydrocarbons

First tier generic Residential Land (RL) and Commercial Land (CL) use standards and guidelines for petroleum hydrocarbons as set out in the following references were used:

- Canada Wide Standards for Petroleum Hydrocarbons in Soil ("PHC CWS"), CCME April 2001;
- Canada Wide Standards for Petroleum Hydrocarbons in Soil ("PHC CWS"), CCME January 2008 and
- Canadian Environmental Quality Guidelines ("CEQG"), CCME 2007.

The PHC CWS is a CCME remedial guideline for petroleum hydrocarbon impacted soil and has been used to assess soil quality for hydrocarbons at the Nanisivik mine. In this guideline, petroleum hydrocarbons are subdivided according to specified ranges of equivalent carbon number:

- PHC CWS fraction F1 encompasses the range of equivalent carbon number from C6 to C10. Constituents of fraction F1 include the volatile fraction of most hydrocarbons mixtures (including gasoline) such as benzene, toluene, ethylbenzene and xylene ("BTEX"). BTEX is managed separately and therefore should be subtracted from this fraction;
- PHC CWS fraction F2 encompasses the range of equivalent carbon number from C11 through C16. Constituents of fraction F2 are semi-volatile petroleum hydrocarbons and include constituents of gasoline and diesel fuels;
- PHC CWS fraction F3 encompasses the range of equivalent carbon number from C17 through C34. Constituents of fraction F3 include typical lubricating oils and greases, heavy fuel oils, road oils and asphalts; and
- PHC CWS fraction F4 encompasses ranges of equivalent carbon number from C35 through C50+. PHC within this fraction often make up a significant proportion of crude oils.

The PHC CWS also includes consideration of fine-grained versus coarse-grained soils in the determination of guideline values. The soils at Nanisivik are predominately coarse-grained. The median grain size is greater than 75 micrometres (µm).

The aromatic compounds benzene, toluene, ethylbenzene and xylene ("BTEX") are assessed and managed under the CCME CEQG (CCME 2007).

When the PHC CWS was implemented in 2001, a commitment was made by the CCME to review new scientific information and experience with implementation, and update the standard after five years. The remedial standards were reviewed and in January 2008 new standards were introduced (CCME 2008a). Key changes to the PHC CWS are:

- The remedial objective for fraction F1 in coarse-grained surface soil has become less stringent.
- The remedial objectives for fractions F2 and F3 in coarse-grained surface soil have become more stringent.

- First tier remedial objectives are no longer given for depths between 1.5 m and 3 m below ground level due to jurisdictional differences in interpreting requirements.
- The ecological soil contact pathway levels can no longer be discounted between 1.5 m and 3 m below ground level without a more detailed assessment. The ecological soil contact pathway is the exposure pathway that sets the lower limit on the remedial objectives for fractions F1 to F4.

The jurisdiction of Nunavut has not developed guidelines for the application of the criteria for depths between 1.5 m and 3 m below ground level. As they have not adopted the new objectives (CCME 2008b), the remediation objectives for the Nanisivik Mine remain defined by the 2001 criteria. The first tier soil quality objectives for PHC CWS fractions F1 to F4 are as follows for the remedial work reported:

Table B. SQRO's for Petroleum Hydrocarbon

Objectives for Coarse-Grained Soils		F1 mg/kg	F2 mg/kg	F3 mg/kg	F4 mg/kg
Residential	**Surface (0 to 1.5 m depth)**	130	450	400	2,800
Land Use	**Subsoil (>1.5 m depth)**	350	1,500	2,500	10,000
Commercial	**Surface (0 to 1.5 m depth)**	330	760	1,700	3,300
Land Use	**Subsoil (>1.5 m depth)**	700	2,000	3,500	10,000

3.2 Confirmatory Sampling Objectives

A soil sampling plan to confirm the success of contaminated soil remediation was described in the NWB approved *Nanisivik Mine 2004 Reclamation and Closure Plan* (CanZinco 2004), and the *Nanisivik Mine Reclamation and Closure Monitoring Plan* (Gartner Lee 2004b).

Confirmation samples were collected in a 25 m grid-based pattern and analyzed at a laboratory accredited by the Canadian Association for Environmental Analytical Laboratories. As noted above, the objectives of the reclamation and closure plan are to capture at least 95% of soil containing contaminants in excess of the SQRO's in each remediation area. Contaminant concentrations in any residual soils should not exceed twice the SQRO's (Gartner Lee 2004b).

4. Methodology

4.1 Delineation

The preliminary boundaries of the areas to be remediated at the Carpenter Shop, the ANFO Plant at the West Adit Area, K-Baseline, the STOL Airstrip and the industrial complex were further delineated for excavation on the basis of field screening measurements from soil samples obtained from boreholes

drilled in April and May 2005. The boreholes were advanced with an air rotary quarry drill. The soil samples were collected from the drill returns that accumulated at the mouth of the borehole. Visual appearance and odour of the soil, along with field screening measurements obtained from the boreholes were used to delineate the areas to be excavated.

Areas known to have localized near surface contamination did not undergo further delineation prior to commencing excavation. These areas included the Landfarm Cell, the AST in the West Adit Area, Oceanview, Area 14, East Open Pit and 17 North Portal. The extent of metal contamination present at the apron of the STOL Airstrip had been delineated during the ESA investigations.

On-site field screening of samples was completed by either Gartner Lee Limited ("Gartner Lee"), or CanZinco employees trained by Gartner Lee in sampling procedures and protocols.

The concentration of organic vapour in soil impacted by hydrocarbons was measured on-site using a bag-headspace method. This method involves placing soil in a sealable polyethylene bag, sealing the bag, disaggregating the soil in the bag and allowing organic vapours to accumulate in the bag's headspace. The concentration of organic vapour was then measured using a portable photo-ionization detector ("PID"). The results of the PID measurements combined with the visual appearance of the soil and olfactory indicators were used on-site to determine if additional excavation was required to meet the site remediation objectives.

Concentrations of lead and zinc were assessed on-site using a XMET portable X-Ray Fluorescence (XRF) elemental analyzer. The results of the XRF analyses were used as a field screening tool to determine if additional excavation was required to meet the site remediation objectives.

4.2 Excavation

Soil reclamation began in April 2005. Soils from the aforementioned contaminated areas were removed with an excavator then loaded into trucks for disposal in either the underground mine or in the east open pit as approved by the NWB. Additional reclamation of contaminated soil at the industrial complex, along the concentrate haul road, in the town site and dock site is required.

Due to the extent of permafrost the soil had to be loosened to allow for excavation. This was accomplished through various techniques including: excavator mounted ripping tooth; bulldozer mounted ripper; and drilling and blasting.

To direct the excavation activities, soil samples were collected across the floor and walls of the excavation and field screened for hydrocarbons and/or lead and zinc as discussed above. Excavation of contaminated soils proceeded until the on-site screening procedures indicated that the excavation objectives had been achieved. On-site screening of samples for petroleum hydrocarbons and lead and zinc was completed by either Gartner Lee, or CanZinco employees trained by Gartner Lee as described previously.

The contaminated soil excavated from the carpenter shop, landfarm cell, ANFO plant, main 00 portal, Area 14 and STOL airstrip was disposed of in the underground workings. Contaminated soil excavated from Oceanview, K-Baseline, the East Open Pit area and the 17 North portal was disposed of in an area approved of by the NWB within the East Open Pit and buried under a thermal cover.

4.3 Confirmation Sampling

Once field screening results indicated that the material remaining in the excavation would meet the SQRO's, then confirmation samples for laboratory analysis were collected in accordance with accepted sampling procedures and protocols by either GLL or CanZinco employees trained by GLL.

Each excavation area was subdivided into individual composite sampling areas of approximately 25 m by 25 m (or less) as required to cover the floor of the excavation. Wall samples were composited over a length of 25 m on the wall of the excavation. Combining four or five evenly spaced aliquots of soil within the individual composite sample area created composite samples. A single aliquot of soil from a specific point is a discrete Quality Assurance/Quality Control ("QA/QC") sample and these samples were collected randomly to test the homogeneity of composite sample areas.

Additional QA/QC samples were obtained by collecting field duplicates. Field duplicates are two different samples collected at the same location and with the same sampling procedure. These samples were collected in separate containers with different sample identifiers and analysed at the laboratory as a blind duplicate.

The soil samples were submitted to Accutest Laboratories Ltd., of Ottawa, for analysis of PHC and metals, as appropriate based on the contaminates of concern for a given area. Further excavation was undertaken in areas where the laboratory analytical results did not meet the SQROs and additional confirmatory samples were taken upon completion of the excavation.

The limits of the excavations in the areas remediated are shown on Figures: 50338-2 to 50338-10.

5. Analytical Results

Results for sixty three (63) confirmatory soil samples analyzed for PHC fractions F2 to F4 are summarized on Table 1 (back of report) and the corresponding figure. Five (5) samples were selected for analysis of PHC fraction F1 and four (4) samples were selected for the additional analysis of BTEX. The results are referenced to the approved Nanisivik Mine SQRO's. Table C illustrates the area and type of PHC samples collected.

Table C. Sample Summary: Petroleum Hydrocarbons

Area	Total Area (m^2)	Volume (m^3)	Floor Composite	Floor QA/QC	Wall Composite	Wall QA/QC	Total
Carpenter Shop	4,400	6,410	9		6	6	21
Landfarm cell	1,150	1,710	3				3
ANFO Plant	1,752	5,160	3		3		6
AST Main Portal	225	20	1		1		2
K-Baseline	3,084	5,352	5	2	5	2	14
Oceanview	1,007	50	2				2
Area 14	225	20	1				1
East Open Pit	600	60	2	1	2		5
17 North portal	225	20	1				1
STOL Airstrip	1,185	2,410	4		5	1	10
Total	**13,853**	**21,212**	**31**	**3**	**22**	**9**	**65**

Results for two confirmatory soil samples analyzed for cadmium, lead and zinc are summarized on Table 2. The results are referenced to the approved Nanisivik Mine SQRO's in Table 2 and on the corresponding figures. Table D illustrates the area and type of metal samples collected.

Table D. Sample Summary: Metals

Area	Total Area (m^2)	Volume (m^3)	Floor Composite	Floor QA/QC	Wall Composite	Wall QA/QC	Total
STOL Apron	400	360	1	1			2

All confirmatory soil sample results meet the petroleum hydrocarbon and metal SQRO's set forth for the Nanisivik Mine.

5.1 Quality Assurance and Quality Control

QA/QC measures associated with the collection and analysis of the soil samples included: the comparison of on-site field screening samples, and the submission of discrete QA/QC samples (for comparison with composite samples) and blind duplicates to the analytical laboratory. One sample pair has been evaluated for metals and ten sample pairs have been evaluated for PHC. Two QA/QC sample sets were collected prior to the completion of remediation and are therefore not remediation confirmation samples.

The complete listing of laboratory QA/QC samples and their Relative Percent Difference ("RpD's") are located in Table 3: Quality Assurance and Quality Control Remediation Samples – Hydrocarbons and Table 4: Quality Assurance and Quality Control Remediation Samples – Metals. Results that are either

below the detection limit or one or both of the pairs have results below the Practical Quantitation Limit ("PQL") and the RpD's are identified as not applicable.

The variance between the PHC CWS fraction F1 results for sample LF-5154-F-C (466 mg/kg) and its discrete QA/QC sample LF-5155-F-D (1600 mg/kg) and fraction F3 for sample LF-5156-F-C (803 mg/kg) and its discrete QA/QC sample LF-5157-F-D (281 mg/kg) is indicative of the variation of soil quality at a single point compared to that composited from a larger area, in an area that does not yet meet the SQRO's (the samples do not represent the final conditions of this area, the Landfarm Cell. Further excavation was undertaken during 2005 to meet the SQRO's).

The QA/QC sample pair analysed for metals has cadmium values below detection limit and lead and zinc values with acceptable RpD's (i.e. below the RpD limit of 50%).

5.2 Discussion

Sixty-three remediation confirmation samples were analyzed for hydrocarbons and two remediation confirmation samples were analyzed for metals. All confirmatory soil sample results meet the SQRO's set forth for the Nanisivik Mine.

Carpenter Shop

- Residual petroleum hydrocarbon contaminated soil was excavated and placed underground.

Landfarm Cell

- The hydrocarbon impacted soil, and liner associated with the landfarm cell within the landfill, was excavated and disposed of underground. The area has been covered by the toe of the thermal landfill cover.

West Adit Area

- Hydrocarbon contaminated soil at the former ANFO plant was excavated and disposed of underground.
- Hydrocarbon contaminated soil at the main 00 Portal AST fuelling station was excavated and disposed of underground. The area is covered by in excess of 1.5 m of soil The soil cover was placed to close the main 00 Portal and as part of the West Open Pit thermal cover.

K-Baseline

- Hydrocarbon contaminated soil at the former equipment fuelling station AST was excavated, and disposed of within the East Open Pit, in accordance with NWB approval. The excavated area backfilled with more than 1.5 m of soil.
- Hydrocarbon contaminated soil at the former K-Baseline maintenance shop was excavated and disposed of within approved area of the East Open Pit.

Oceanview

- Hydrocarbon contaminated soil at the former equipment fuelling station AST was excavated and disposed of within an approved area of the East Open Pit.

Area 14

- Hydrocarbon contaminated soil at the former equipment fuelling station AST was excavated and disposed of underground. The area has been partially covered by the toe of the Area 14 thermal cover.

East Open Pit

- Hydrocarbon contaminated soil at the AST adjacent to the refuge station was excavated and disposed of within an approved area of the East Open Pit. The area has been covered by the toe of the East Open Pit thermal cover.
- Hydrocarbon contaminated soil at the former equipment fuelling station AST was excavated and disposed of within an approved area of the East Open Pit.

17 North Portal

- Hydrocarbon contaminated soil at the AST adjacent to the refuge station was excavated and disposed of within the mine workings area.

STOL Airstrip

- Hydrocarbon contaminated soil at the east end of the airstrip was excavated and disposed of underground; and
- Lead contaminated soil on the apron at the south side of the airstrip was excavated and disposed of underground.

6. Conclusion and Recommendations

Based on confirmatory sampling program conducted consistent with good practice, the remediation of the hydrocarbon contamination at the former carpenter shop, the landfarm cell, the former ANFO plant, the Main 00 portal, K-Baseline, Oceanview, Area 14, the East Open Pit, 17N Portal and the STOL Airstrip and has been completed to meet the Nanisivik Mine remedial targets, as documented in the approved *Nanisivik Mine 2004 Reclamation and Closure Plan* (CanZinco 2004). The remediation of the metal contaminated soil on the apron at the STOL Airstrip has also been completed to satisfy the Nanisivik Mine remedial targets.

Metal and hydrocarbon contaminated soil remains at the former industrial complex and the town site. At the dock site, hydrocarbon contamination remains at both the current and former location of the fuel pump building. Additional excavation and soil placement in approved waste disposal locations on-site is recommended to achieve the reclamation objectives.

7. References

Canadian Council of Ministers of the Environment (CCME), 1999 – Updated 2007:
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Gartner Lee Limited (Gartner Lee), 2004a:
2003 Phase 3 Environmental Site Assessment, Nanisivik Mine, Nunavut, February 2004.

Gartner Lee Limited (Gartner Lee), 2004b:
Nanisivik Mine Reclamation and Closure Monitoring Plan, February 2004.

Jacques Whitford Environmental Limited (JWEL), 2003:
Human Health and ecological Risk Assessment, Nanisivik Mine, Nunavut, October 21, 2003.

List of Tables

Table 1. Remediation Confirmation Soil Samples - Petroleum Hydrocarbons

		Location		Carpenter Shop							
AECOM		Sample ID:		CS-5608-W-C	CS-5679-W-C	CS-5680-F-C	CS-5681-F-C	CS-5682-F-C	CS-5684-F-C	CS-5685-W-C	CS-5686-W-C
		Sample Date:		22-Jul-05	02-Aug-05	02-Aug-05	02-Aug-05	02-Aug-05	02-Aug-05	02-Aug-05	03-Aug-05
		Sample Depth (m):		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		ACCUTEST File #:		2514550	2515445	2515445	2515445	2515445	2515445	2515445	2515573
		Field Screen (ppm)		0	15	0	0	0	0	0	0
		Nanisivik Mine SQROs									
PARAMETER	**UNITS**	**CCME RL**	**CCME CL**	**Analytical Results**							
Extractable Hydrocarbons[a]											
F1 (C6-C10) surface [c,d]	ug/g	130	330	-	-	-	-	-	-	-	-
F1 (C6-C10) subsoil [c,d]	ug/g	350	700								
F2 (C10-C16) surface [c,d]	ug/g	450	760	52	<20	<20	<20	<20	<20	<20	29
F2 (C10-C16) subsoil [c,d]	ug/g	1500	2000								
F3 (C16-C34) surface [c,d]	ug/g	400	1700	<20	<20	<20	<20	<20	<20	<20	<20
F3 (C16-C34) subsoil [c,d]	ug/g	2500	3500								
F4 (C34-C50) surface [c,d]	ug/g	2800	3300	<20	<20	<20	<20	<20	<20	<20	<20
F4 (C34-C50) subsoil [c,d]	ug/g	10000	10000								
Non-Halogenated Volatiles[b]											
Benzene	ug/g	0.0095[g]	0.03	-	-	-	-	-	-	-	-
Ethylbenzene	ug/g	0.82	0.082	-	-	-	-	-	-	-	-
Toluene	ug/g	0.37	0.37	-	-	-	-	-	-	-	-
Total Xylenes[f]	ug/g	11	11	-	-	-	-	-	-	-	-
Meta- & para- Xylene	ug/g	<11	<11	-	-	-	-	-	-	-	-
Ortho-xylene	ug/g	<11	<11	-	-	-	-	-	-	-	-

Bold *Concentration greater than or equal to the CCME soil guideline for residential (RL) land use, and less than the guideline for commercial land use.*

Bold *Concentration greater than or equal to the CCME soil guideline for commercial (CL) land use.*

Notes:

"<" = Less than analytical method detection limit.

"-" = Analysis not conducted, or no guideline.

a) Petroleum Hydrocarbon Canada-Wide Standards (PHC CWS). The site-specific exposure pathways used to determine the standards include: protection of ecological soil contact direct contact and management limit.

b) Canadian Environmental Quality Guidelines (CEQG). The site-specific factors used for determining the soil quality guideline include: soil ingestion, soil contact and nutrient cycling.

c) Guidelines are dependant upon depth of sample (surface, subsoil >1.5m depth). Surface guidelines applied.

d) Guideline is dependant on medium grain size of soil analyzed (<75 µm, Coarse >75 µm). Median grain size of soil sampled is coarse.

e) Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.

f) Total Xylene calculated as the sum of meta, para and ortho Xylenes.

g) Detection limit greater than guideline criteria.

Table 1. Remediation Confirmation Soil Samples - Petroleum Hydrocarbons

		Location		Carpenter Shop							
AECOM		Sample ID:		CS-5712-W-C	CS-5713-F-C	CS-5714-W-C	CS-5716-F-C	CS-5717-F-C	CS-5718-F-C	CS-5830-W-D	CS-5831-W-D
		Sample Date:		03-Aug-05	03-Aug-05	03-Aug-05	03-Aug-05	03-Aug-05	03-Aug-05	22-Aug-05	22-Aug-05
		Sample Depth (m):		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		ACCUTEST File #:		2515573	2515573	2515573	2515573	2515573	2515573	2517048	2517048
		Field Screen (ppm)		0	0	0	25	5	0	0	0
PARAMETER	UNITS	Nanisivik Mine SQROs CCME RL	CCME CL	Analytical Results							
Extractable Hydrocarbons[a]											
F1 (C6-C10) surface [c,d]	ug/g	130	330	-	-	-	-	-	-	-	-
F1 (C6-C10) subsoil [c,d]	ug/g	350	700								
F2 (C10-C16) surface [c,d]	ug/g	450	760	52	<20	31	382	<20	174	<20	<20
F2 (C10-C16) subsoil [c,d]	ug/g	1500	2000								
F3 (C16-C34) surface [c,d]	ug/g	400	1700	183	218	68	<20	<20	<20	<21	<22
F3 (C16-C34) subsoil [c,d]	ug/g	2500	3500								
F4 (C34-C50) surface [c,d]	ug/g	2800	3300	<20	<20	<20	<20	<20	<20	<20	<20
F4 (C34-C50) subsoil [c,d]	ug/g	10000	10000								
Non-Halogenated Volatiles[b]											
Benzene	ug/g	0.0095[g]	0.03	-	-	-	-	-	-	-	-
Ethylbenzene	ug/g	0.82	0.082	-	-	-	-	-	-	-	-
Toluene	ug/g	0.37	0.37	-	-	-	-	-	-	-	-
Total Xylenes[f]	ug/g	11	11	-	-	-	-	-	-	-	-
Meta- & para- Xylene	ug/g	<11	<11	-	-	-	-	-	-	-	-
Ortho-xylene	ug/g	<11	<11	-	-	-	-	-	-	-	-

Bold *Concentration greater than or equal to the CCME soil guideline for residential (RL) land use, and less than the guideline for commercial land use.*

Bold *Concentration greater than or equal to the CCME soil guideline for commercial (CL) land use.*

Notes:

"<" = Less than analytical method detection limit.

"-" = Analysis not conducted, or no guideline.

a) Petroleum Hydrocarbon Canada-Wide Standards (PHC CWS). The site-specific exposure pathways used to determine the standards include: protection of ecological soil contact direct contact and management limit.

b) Canadian Environmental Quality Guidelines (CEQG). The site-specific factors used for determining the soil quality guideline include: soil ingestion, soil contact and nutrient cycling.

c) Guidelines are dependant upon depth of sample (surface, subsoil >1.5m depth). Surface guidelines applied.

d) Guideline is dependant on medium grain size of soil analyzed (<75 µm, Coarse >75 µm). Median grain size of soil sampled is coarse.

e) Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.

f) Total Xylene calculated as the sum of meta, para and ortho Xylenes.

g) Detection limit greater than guideline criteria.

Table 1. Remediation Confirmation Soil Samples - Petroleum Hydrocarbons

		Location	Carpenter Shop					Landfarm		
AECOM		Sample ID:	CS-5832-W-Q	CS-5833-W-D	CS-5834-W-D	CS-5835-W-Q	CS-5921-F-C	LF-5152-F-C	LF-5261-F-C	LF-5300-F-C
		Sample Date:	22-Aug-05	22-Aug-05	22-Aug-05	22-Aug-05	05-Oct-05	06-May-05	06-Jun-05	15-Jul-05
		Sample Depth (m):	0.0	0.0	0.0	0.0	0.0	<1.5	<1.5	<1.5
		ACCUTEST File #:	2517048	2517048	2517048	2517048	2520550	2508647	2510747	2511713
		Field Screen (ppm)	0	0	0	0	-	10	0	15
		Nanisivik Mine SQROs								
PARAMETER	UNITS	CCME RL	CCME CL	Analytical Results							
Extractable Hydrocarbons[a]										
F1 (C6-C10) surface [c,d]	ug/g	130	330	-	-	-	-	-	<20	-	-
F1 (C6-C10) subsoil [c,d]	ug/g	350	700								
F2 (C10-C16) surface [c,d]	ug/g	450	760	<20	<20	<20	<20	<20	25	<20	173
F2 (C10-C16) subsoil [c,d]	ug/g	1500	2000								
F3 (C16-C34) surface [c,d]	ug/g	400	1700	<20	<20	<20	<20	<20	55	119	260
F3 (C16-C34) subsoil [c,d]	ug/g	2500	3500								
F4 (C34-C50) surface [c,d]	ug/g	2800	3300	<20	<20	<20	<20	<20	<20	56	<20
F4 (C34-C50) subsoil [c,d]	ug/g	10000	10000								
Non-Halogenated Volatiles[b]										
Benzene	ug/g	0.0095[g]	0.03	-	-	-	-	-	-	-	-
Ethylbenzene	ug/g	0.82	0.082	-	-	-	-	-	-	-	-
Toluene	ug/g	0.37	0.37	-	-	-	-	-	-	-	-
Total Xylenes[f]	ug/g	11	11	-	-	-	-	-	-	-	-
Meta- & para- Xylene	ug/g	<11	<11	-	-	-	-	-	-	-	-
Ortho-xylene	ug/g	<11	<11	-	-	-	-	-	-	-	-

Bold *Concentration greater than or equal to the CCME soil guideline for residential (RL) land use, and less than the guideline for commercial land use.*

Bold *Concentration greater than or equal to the CCME soil guideline for commercial (CL) land use.*

Notes:

"<" = Less than analytical method detection limit.

"-" = Analysis not conducted, or no guideline.

a) Petroleum Hydrocarbon Canada-Wide Standards (PHC CWS). The site-specific exposure pathways used to determine the standards include: protection of ecological soil contact direct contact and management limit.

b) Canadian Environmental Quality Guidelines (CEQG). The site-specific factors used for determining the soil quality guideline include: soil ingestion, soil contact and nutrient cycling.

c) Guidelines are dependant upon depth of sample (surface, subsoil >1.5m depth). Surface guidelines applied.

d) Guideline is dependant on medium grain size of soil analyzed (<75 µm, Coarse >75 µm). Median grain size of soil sampled is coarse.

e) Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.

f) Total Xylene calculated as the sum of meta, para and ortho Xylenes.

g) Detection limit greater than guideline criteria.

Table 1. Remediation Confirmation Soil Samples - Petroleum Hydrocarbons

		Location		West Adit Area							
AECOM		Sample ID:		ANFO-5255-W-C	ANFO-5256-W-C	ANFO-5257-W-C	ANFO-5258-F-C	ANFO-5259-F-C	ANFO-5269-F-C	WOP-5913-F-C	WOP-5914-W-C
		Sample Date:		01-Jun-05	01-Jun-05	01-Jun-05	04-Jun-05	04-Jun-05	07-Jun-05	28-Oct-05	28-Oct-05
		Sample Depth (m):		0.0	0.0	0.0	0.0	0.0	0.0	>3.0	>3.0
		ACCUTEST File #:		2510237	2510237	2510237	2510471	2510471	2510747	2519957	2519957
		Field Screen (ppm)		0	0	5	0	0	5	-	-
		Nanisivik Mine SQROs									
PARAMETER	UNITS	CCME RL	CCME CL	Analytical Results							
Extractable Hydrocarbons[a]											
F1 (C6-C10) surface[c,d]	ug/g	130	330	-	-	-	-	-	-		
F1 (C6-C10) subsoil[c,d]	ug/g	350	700							-	-
F2 (C10-C16) surface[c,d]	ug/g	450	760	<20	<20	<20	<20	<20	<20		
F2 (C10-C16) subsoil[c,d]	ug/g	1500	2000							<20	<20
F3 (C16-C34) surface[c,d]	ug/g	400	1700	51	34	25	<20	<20	<20		
F3 (C16-C34) subsoil[c,d]	ug/g	2500	3500							240	474
F4 (C34-C50) surface[c,d]	ug/g	2800	3300	<20	<20	<20	<20	<20	<20		
F4 (C34-C50) subsoil[c,d]	ug/g	10000	10000							<20	126
Non-Halogenated Volatiles[b]											
Benzene	ug/g	0.0095[g]	0.03	-	-	-	-	-	-	-	-
Ethylbenzene	ug/g	0.82	0.082	-	-	-	-	-	-	-	-
Toluene	ug/g	0.37	0.37	-	-	-	-	-	-	-	-
Total Xylenes[f]	ug/g	11	11	-	-	-	-	-	-	-	-
Meta- & para- Xylene	ug/g	<11	<11	-	-	-	-	-	-	-	-
Ortho-xylene	ug/g	<11	<11	-	-	-	-	-	-	-	-

Bold *Concentration greater than or equal to the CCME soil guideline for residential (RL) land use, and less than the guideline for commercial land use.*

Bold *Concentration greater than or equal to the CCME soil guideline for commercial (CL) land use.*

Notes:

"<" = Less than analytical method detection limit.

"-" = Analysis not conducted, or no guideline.

a) Petroleum Hydrocarbon Canada-Wide Standards (PHC CWS). The site-specific exposure pathways used to determine the standards include: protection of ecological soil contact direct contact and management limit.

b) Canadian Environmental Quality Guidelines (CEQG). The site-specific factors used for determining the soil quality guideline include: soil ingestion, soil contact and nutrient cycling.

c) Guidelines are dependant upon depth of sample (surface, subsoil >1.5m depth). Surface guidelines applied.

d) Guideline is dependant on medium grain size of soil analyzed (<75 µm, Coarse >75 µm). Median grain size of soil sampled is coarse.

e) Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.

f) Total Xylene calculated as the sum of meta, para and ortho Xylenes.

g) Detection limit greater than guideline criteria.

Table 1. Remediation Confirmation Soil Samples - Petroleum Hydrocarbons

		Location		K-Baseline							
AECOM		Sample ID:		KB-5187-F-C	KB-5189-W-C	KB-5190-F-C	KB-5191-F-C	KB-5491-W-C	KB-5492-W-Q	KB-5493-W-C	KB-5494-W-Q
		Sample Date:		20-May-05	20-May-05	20-May-05	20-May-05	04-Jul-05	04-Jul-05	04-Jul-05	04-Jul-05
		Sample Depth (m):		0.0	0.0	~1.5	~2.0	0.0	0.0	~2.0	~2.0
		ACCUTEST File #:		2509220	2509220	2509220	2509220	2513244	2513244	2513244	2513244
		Field Screen (ppm)		20	0	5	0	-	-	-	-
		Nanisivik Mine SQROs									
PARAMETER	**UNITS**	**CCME RL**	**CCME CL**	**Analytical Results**							
Extractable Hydrocarbons[a]											
F1 (C6-C10) surface [c,d]	ug/g	130	330	<20	<20			-	-		
F1 (C6-C10) subsoil [c,d]	ug/g	350	700			<20	<20			-	-
F2 (C10-C16) surface [c,d]	ug/g	450	760	229	<20			<20	28		
F2 (C10-C16) subsoil [c,d]	ug/g	1500	2000			106	141			80	<20
F3 (C16-C34) surface [c,d]	ug/g	400	1700	27	<20			44	161		
F3 (C16-C34) subsoil [c,d]	ug/g	2500	3500			<20	<20			<20	<20
F4 (C34-C50) surface [c,d]	ug/g	2800	3300	<20	<20			<20	<20		
F4 (C34-C50) subsoil [c,d]	ug/g	10000	10000			<20	<20			<20	<20
Non-Halogenated Volatiles[b]											
Benzene	ug/g	0.0095[g]	0.03	<0.05	<0.05	<0.05	<0.05	-	-	-	-
Ethylbenzene	ug/g	0.82	0.082	<0.1	<0.1	<0.1	<0.1	-	-	-	-
Toluene	ug/g	0.37	0.37	<0.1	<0.1	<0.1	<0.1	-	-	-	-
Total Xylenes[f]	ug/g	11	11	<0.3	<0.3	<0.3	<0.3	-	-	-	-
Meta- & para- Xylene	ug/g	<11	<11	<0.2	<0.2	<0.2	<0.2	-	-	-	-
Ortho-xylene	ug/g	<11	<11	<0.1	<0.1	<0.1	<0.1	-	-	-	-

Bold *Concentration greater than or equal to the CCME soil guideline for residential (RL) land use, and less than the guideline for commercial land use.*

Bold *Concentration greater than or equal to the CCME soil guideline for commercial (CL) land use.*

Notes:

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"-" = Analysis not conducted, or no guideline.

a) Petroleum Hydrocarbon Canada-Wide Standards (PHC CWS). The site-specific exposure pathways used to determine the standards include: protection of ecological soil contact direct contact and management limit.

b) Canadian Environmental Quality Guidelines (CEQG). The site-specific factors used for determining the soil quality guideline include: soil ingestion, soil contact and nutrient cycling.

c) Guidelines are dependant upon depth of sample (surface, subsoil >1.5m depth). Surface guidelines applied.

d) Guideline is dependant on medium grain size of soil analyzed (<75 µm, Coarse >75 µm). Median grain size of soil sampled is coarse.

e) Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.

f) Total Xylene calculated as the sum of meta, para and ortho Xylenes.

g) Detection limit greater than guideline criteria.

Table 1. Remediation Confirmation Soil Samples - Petroleum Hydrocarbons

AECOM

		Location		K-Baseline						Ocean View	
		Sample ID:		KB-5502-W-C	KB-5547-F-D	KB-5558-F-D	KB-5559-F-C	KB-5560-F-C	KB-5602-W-C	OCVIEW-5899-F-C	OCVIEW-5900-F-C
		Sample Date:		22-Jun-05	10-Jul-05	12-Jul-05	12-Jul-05	12-Jul-05	22-Jul-05	02-Sep-05	02-Sep-05
		Sample Depth (m):		~2.0	>3.0	~2.0	~2.0	0.0	~2.5	0.0	0.0
		ACCUTEST File #:		2512739	2513933	2513933	2513933	2513933	2514550	2517857	2517857
		Field Screen (ppm)		-	50	5	10	5	0	-	0
PARAMETER	UNITS	Nanisivik Mine SQROs CCME RL	Nanisivik Mine SQROs CCME CL	Analytical Results							
Extractable Hydrocarbons[a]											
F1 (C6-C10) surface [c,d]	ug/g	130	330					-			
F1 (C6-C10) subsoil [c,d]	ug/g	350	700	-	-	-	-		-		
F2 (C10-C16) surface [c,d]	ug/g	450	760					100		<20	<20
F2 (C10-C16) subsoil [c,d]	ug/g	1500	2000	22	437	<20	56		56		
F3 (C16-C34) surface [c,d]	ug/g	400	1700					<20		23	39
F3 (C16-C34) subsoil [c,d]	ug/g	2500	3500	<20	<20	<20	<20		<20		
F4 (C34-C50) surface [c,d]	ug/g	2800	3300					<20		<20	<20
F4 (C34-C50) subsoil [c,d]	ug/g	10000	10000	<20	<20	<20	<20		<20		
Non-Halogenated Volatiles[b]											
Benzene	ug/g	0.0095[g]	0.03	-	-	-	-	-	-	-	-
Ethylbenzene	ug/g	0.82	0.082	-	-	-	-	-	-	-	-
Toluene	ug/g	0.37	0.37	-	-	-	-	-	-	-	-
Total Xylenes[f]	ug/g	11	11	-	-	-	-	-	-	-	-
Meta- & para- Xylene	ug/g	<11	<11	-	-	-	-	-	-	-	-
Ortho-xylene	ug/g	<11	<11	-	-	-	-	-	-	-	-

Bold *Concentration greater than or equal to the CCME soil guideline for residential (RL) land use, and less than the guideline for commercial land use.*

Bold *Concentration greater than or equal to the CCME soil guideline for commercial (CL) land use.*

Notes:

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a) Petroleum Hydrocarbon Canada-Wide Standards (PHC CWS). The site-specific exposure pathways used to determine the standards include: protection of ecological soil contact direct contact and management limit.

b) Canadian Environmental Quality Guidelines (CEQG). The site-specific factors used for determining the soil quality guideline include: soil ingestion, soil contact and nutrient cycling.

c) Guidelines are dependant upon depth of sample (surface, subsoil >1.5m depth). Surface guidelines applied.

d) Guideline is dependant on medium grain size of soil analyzed (<75 µm, Coarse >75 µm). Median grain size of soil sampled is coarse.

e) Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.

f) Total Xylene calculated as the sum of meta, para and ortho Xylenes.

g) Detection limit greater than guideline criteria.

Table 1. Remediation Confirmation Soil Samples - Petroleum Hydrocarbons

		Location	AREA 14	East Open Pit				17NP
		Sample ID:	A14-5915-F-C	EOP-5565-F-D	EOP-5566-W-C	EOP-5567-W-C	EOP-5578-F-C	EOP-5579-F-C	17NP-5619-F-C
		Sample Date:	28-Sep-05	14-Jul-05	14-Jul-05	14-Jul-05	16-Jul-05	29-Jul-05	26-Jul-05
		Sample Depth (m):	~2.0	0.0	0.0	0.0	0.0	>3.0	0.0
		ACCUTEST File #:	2519957	2514381	2514381	2514381	2514390	2514390	2514949
		Field Screen (ppm)	-	5	5	0	5	5	-
		Nanisivik Mine SQROs							
PARAMETER	UNITS	CCME RL	CCME CL	Analytical Results						
Extractable Hydrocarbons[a]										
F1 (C6-C10) surface[c,d]	ug/g	130	330		-	-	-	-		-
F1 (C6-C10) subsoil[c,d]	ug/g	350	700	-					-	
F2 (C10-C16) surface[c,d]	ug/g	450	760		102	23	<20	55		<20
F2 (C10-C16) subsoil[c,d]	ug/g	1500	2000	<20					<20	
F3 (C16-C34) surface[c,d]	ug/g	400	1700		<20	27	<20	<20		<20
F3 (C16-C34) subsoil[c,d]	ug/g	2500	3500	<20					<20	
F4 (C34-C50) surface[c,d]	ug/g	2800	3300		<20	<20	<20	<20		<20
F4 (C34-C50) subsoil[c,d]	ug/g	10000	10000	<20					<20	
Non-Halogenated Volatiles[b]										
Benzene	ug/g	0.0095[g]	0.03	-	-	-	-	-	-	-
Ethylbenzene	ug/g	0.82	0.082	-	-	-	-	-	-	-
Toluene	ug/g	0.37	0.37	-	-	-	-	-	-	-
Total Xylenes[f]	ug/g	11	11	-	-	-	-	-	-	-
Meta- & para- Xylene	ug/g	<11	<11	-	-	-	-	-	-	-
Ortho-xylene	ug/g	<11	<11	-	-	-	-	-	-	-

Bold *Concentration greater than or equal to the CCME soil guideline for residential (RL) land use, and less than the guideline for commercial land use.*

Bold *Concentration greater than or equal to the CCME soil guideline for commercial (CL) land use.*

Notes:

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"-" = Analysis not conducted, or no guideline.

a) Petroleum Hydrocarbon Canada-Wide Standards (PHC CWS). The site-specific exposure pathways used to determine the standards include: protection of ecological soil contact direct contact and management limit.

b) Canadian Environmental Quality Guidelines (CEQG). The site-specific factors used for determining the soil quality guideline include: soil ingestion, soil contact and nutrient cycling.

c) Guidelines are dependant upon depth of sample (surface, subsoil >1.5m depth). Surface guidelines applied.

d) Guideline is dependant on medium grain size of soil analyzed (<75 µm, Coarse >75 µm). Median grain size of soil sampled is coarse.

e) Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.

f) Total Xylene calculated as the sum of meta, para and ortho Xylenes.

g) Detection limit greater than guideline criteria.

Table 1. Remediation Confirmation Soil Samples - Petroleum Hydrocarbons

AECOM

		Location		Short Takeoff and Landing							
		Sample ID:		STOL-5279-W-C	STOL-5310-W-C	STOL-5719-W-C	STOL-5720-W-C	STOL-5721-F-C	STOL-5906-F-C	STOL-5908-W-C	STOL-5909-W-Q
		Sample Date:		15-Jun-05	15-Jun-05	06-Aug-05	06-Aug-05	06-Aug-05	21-Sep-05	21-Sep-05	21-Sep-05
		Sample Depth (m):		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		ACCUTEST File #:		2511736	2511736	2516006	2516006	2516006	2519300	2519300	2519300
		Field Screen (ppm)		10	0	0	0	0	0	5	0
		Nanisivik Mine SQROs									
PARAMETER	**UNITS**	**CCME RL**	**CCME CL**	**Analytical Results**							
Extractable Hydrocarbons[a]											
F1 (C6-C10) surface [c,d]	ug/g	130	330	-	-	-	-	-	-	-	-
F1 (C6-C10) subsoil [c,d]	ug/g	350	700								
F2 (C10-C16) surface [c,d]	ug/g	450	760	<20	<20	<20	<20	61	<20	<20	<20
F2 (C10-C16) subsoil [c,d]	ug/g	1500	2000								
F3 (C16-C34) surface [c,d]	ug/g	400	1700	<20	<20	<20	<20	<20	<20	<20	<20
F3 (C16-C34) subsoil [c,d]	ug/g	2500	3500								
F4 (C34-C50) surface [c,d]	ug/g	2800	3300	<20	<20	36	<20	<20	<20	<20	<20
F4 (C34-C50) subsoil [c,d]	ug/g	10000	10000								
Non-Halogenated Volatiles[b]											
Benzene	ug/g	0.0095[g]	0.03	-	-	-	-	-	-	-	-
Ethylbenzene	ug/g	0.82	0.082	-	-	-	-	-	-	-	-
Toluene	ug/g	0.37	0.37	-	-	-	-	-	-	-	-
Total Xylenes[f]	ug/g	11	11	-	-	-	-	-	-	-	-
Meta- & para- Xylene	ug/g	<11	<11	-	-	-	-	-	-	-	-
Ortho-xylene	ug/g	<11	<11	-	-	-	-	-	-	-	-

Bold *Concentration greater than or equal to the CCME soil guideline for residential (RL) land use, and less than the guideline for commercial land use.*

Bold *Concentration greater than or equal to the CCME soil guideline for commercial (CL) land use.*

Notes:

"<" = Less than analytical method detection limit.

"-" = Analysis not conducted, or no guideline.

a) Petroleum Hydrocarbon Canada-Wide Standards (PHC CWS). The site-specific exposure pathways used to determine the standards include: protection of ecological soil contact direct contact and management limit.

b) Canadian Environmental Quality Guidelines (CEQG). The site-specific factors used for determining the soil quality guideline include: soil ingestion, soil contact and nutrient cycling.

c) Guidelines are dependant upon depth of sample (surface, subsoil >3.0m depth). Surface guidelines applied.

d) Guideline is dependant on medium grain size of soil analyzed (<75 µm, Coarse >75 µm). Median grain size of soil sampled is coarse.

e) Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.

f) Total Xylene calculated as the sum of meta, para and ortho Xylenes.

g) Detection limit greater than guideline criteria.

Table 1. Remediation Confirmation Soil Samples - Petroleum Hydrocarbons

		Location		Short Takeoff and Landing	
AECOM		Sample ID:		STOL-8113-F-C	STOL-8114-F-C
		Sample Date:		29-Aug-07	29-Aug-07
		Sample Depth (m):		0.0	0.0
		ACCUTEST File #:		2720168	2720165
		Field Screen (ppm)		0	0
		Nanisivik Mine SQROs			
PARAMETER	UNITS	CCME RL	CCME CL	Analytical Results	
Extractable Hydrocarbons[a]					
F1 (C6-C10) surface [c,d]	ug/g	130	330	-	-
F1 (C6-C10) subsoil [c,d]	ug/g	350	700		
F2 (C10-C16) surface [c,d]	ug/g	450	760	<20	<20
F2 (C10-C16) subsoil [c,d]	ug/g	1500	2000		
F3 (C16-C34) surface [c,d]	ug/g	400	1700	<20	<20
F3 (C16-C34) subsoil [c,d]	ug/g	2500	3500		
F4 (C34-C50) surface [c,d]	ug/g	2800	3300	<20	<20
F4 (C34-C50) subsoil [c,d]	ug/g	10000	10000		
Non-Halogenated Volatiles[b]					
Benzene	ug/g	0.0095[g]	0.03	-	-
Ethylbenzene	ug/g	0.82	0.082	-	-
Toluene	ug/g	0.37	0.37	-	-
Total Xylenes[f]	ug/g	11	11	-	-
Meta- & para- Xylene	ug/g	<11	<11	-	-
Ortho-xylene	ug/g	<11	<11	-	-

Bold *Concentration greater than or equal to the CCME soil guideline for residential (RL) land use, and less than the guideline for commercial land use.*

Bold *Concentration greater than or equal to the CCME soil guideline for commercial (CL) land use.*

Notes:

"<" = Less than analytical method detection limit.

"-" = Analysis not conducted, or no guideline.

a) Petroleum Hydrocarbon Canada-Wide Standards (PHC CWS). The site-specific exposure pathways used to determine the standards include: protection of ecological soil contact direct contact and management limit.

b) Canadian Environmental Quality Guidelines (CEQG). The site-specific factors used for determining the soil quality guideline include: soil ingestion, soil contact and nutrient cycling.

c) Guidelines are dependant upon depth of sample (surface, subsoil >3.0m depth). Surface guidelines applied.

d) Guideline is dependant on medium grain size of soil analyzed (<75 µm, Coarse >75 µm). Median grain size of soil sampled is coarse.

e) Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.

f) Total Xylene calculated as the sum of meta, para and ortho Xylenes.

g) Detection limit greater than guideline criteria.

Table 2. Remediation Confirmation Soil Samples - Potential Metal Contaminants of Concern

AECOM		Location	Short Takeoff and Landing	
		Test pit ID:	-	-
		Sample ID:	STOL-5150-F-C	STOL-5151-F-Q
		Sample Date:	05-May-05	05-May-05
		Sample from (m):	0.0	0.0
		Sample to (m):	0.0	0.0
		ACCUTEST File #:	2508647	2508647
		Nanisivik Mine SQRO[a]		
PARAMETER	**Units**	**General Mine**	**Analytical Results**	
Total Metals				
Cadmium	mg/kg	50	<0.5	<0.5
Lead	mg/kg	1050	16	12
Zinc	mg/kg	23400	78	63

Bold *Concentration greater than or equal to the site specific SQRO for the General Mine Area.*

Notes:
"<" = Less than analytical method detection limit.
"-" = Analysis not conducted, or no guideline.

a) The site specific Soil Quality Remediation Objectives (SQROs) for the Nanisivik Mine Site are based on the approved Human Health and Ecological Risk Assessment, Nunavut Mine, Nunavut, Jacques Whitford Environmental Limited, October 2003.

Table 3. Quality Assurance and Quality Control Remediation Soil Samples - Petroleum Hydrocarbons

AECOM			Location	Carpenter Shop		Landfarm		K-Baseline				East Open Pit	STOL
			Sample ID	CS-5831-W-D	CS-5834-W-D	LF-5154-F-C	LF-5156-F-C	KB-5491-W-C	KB-5493-W-C	KB-5559-F-C	KB-5559-F-C	EOP-5578-F-C	STOL-5908-W-C
			Duplicate ID	CS-5832-W-Q	CS-5835-W-Q	LF-5155-F-D	LF-5157-F-D	KB-5492-W-Q	KB-5494-W-Q	KB-5547-F-D	KB-5558-F-D	EOP-5565-F-D	STOL-5909-W-Q
PARAMETER	**Units**	**MDL**	**PQL**										
Extractable Hydrocarbons				**Analytical Results**									
PHC Fraction 1													
Sample Result	mg/kg	20	100	-	-	<20	<20	-	-	-	-	-	-
Duplicate Result	mg/kg	20	100	-	-	42	<20	-	-	-	-	-	-
RpD	**%**			-	-	na	na	-	-	-	-	-	-
PHC Fraction 2													
Sample Result	mg/kg	20	100	<20	<20	466	334	<20	80	56	56	55	<20
Duplicate Result	mg/kg	20	100	<20	<20	1600	281	28	<20	437	<20	102	<20
RpD	**%**			na	na	**110%**	17%	na	na	na	na	na	na
PHC Fraction 3													
Sample Result	mg/kg	20	100	<20	<20	188	803	44	<20	<20	<20	<20	<20
Duplicate Result	mg/kg	20	100	<20	<20	161	267	161	<20	<20	<20	<20	<20
RpD	**%**			na	na	15%	**100%**	na	na	na	na	na	na
PHC Fraction 4													
Sample Result	mg/kg	20	100	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Duplicate Result	mg/kg	20	100	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
RpD	**%**			na	na	na	na	na	na	na	na	na	na

Bold *RpD Value is greater than or equal to 50% and the concentrations of both samples are greater than the PQL.*

Notes:

na RpD value is not applicable because one or both results are less than the PQL.

*RpD Relative Percent Difference = (Difference/Average)*100.*

*PQL Practical Quantitation Limit = 5 * Method Detection Limit (MDL).*

MDL Method Detection Limit of analysis.

.

Table 4. Quality Assurance and Quality Control Remediation Soil Samples - Potential Metal Contaminants of Concern

AECOM				Location	STOL
				Sample ID	STOL-5150-F-C
				Duplicate ID	STOL-5151-F-Q
PARAMETER	**Units**	**MDL**	**PQL**		**Analytical Results**
Cadmium (Cd)					
Sample Result	mg/kg	1	5		<0.5
Duplicate Result	mg/kg	1	5		<0.5
RpD	**%**				na
Lead (Pb)					
Sample Result	mg/kg	1	5		16
Duplicate Result	mg/kg	1	5		12
RpD	**%**				29%
Zinc (Zn)					
Sample Result	mg/kg	1	5		78
Duplicate Result	mg/kg	1	5		63
RpD	**%**				21%

Bold *RpD Value is greater than or equal to 50% and the concentrations of both samples are greater than the PQL.*

Notes:

na RpD value is not applicable because one or both results are less than the PQL.

*RpD Relative Percent Difference = (Difference/Average)*100.*

*PQL Practical Quantitation Limit = 5 * Method Detection Limit (MDL).*

MDL Method Detection Limit of analysis.

.

List of Figures

LEGEND:

- ROAD
- GROUND CONTOUR (50 m INTERVAL)
- SHORELINE, DRAINAGE, STREAMS
- INTERMITTENT DRAINAGE
- HIGH TIDE LINE – SURVEYED
- TOP OF BANK
- PIPELINE
- EXTENT OF UNDERGROUND WORKINGS
- MINING AREA
- FORMER MINE INFRASTRUCTURE
- AREA OF CONCERN TO BE REMEDIATED
- AREA REMEDIATED

0 125 250 500 750 1000 1250m

SCALE 1:25,000

SOURCE OF DRAWING:

ORIGINAL FIGURES PROVIDED BY NANISIVIK MINE

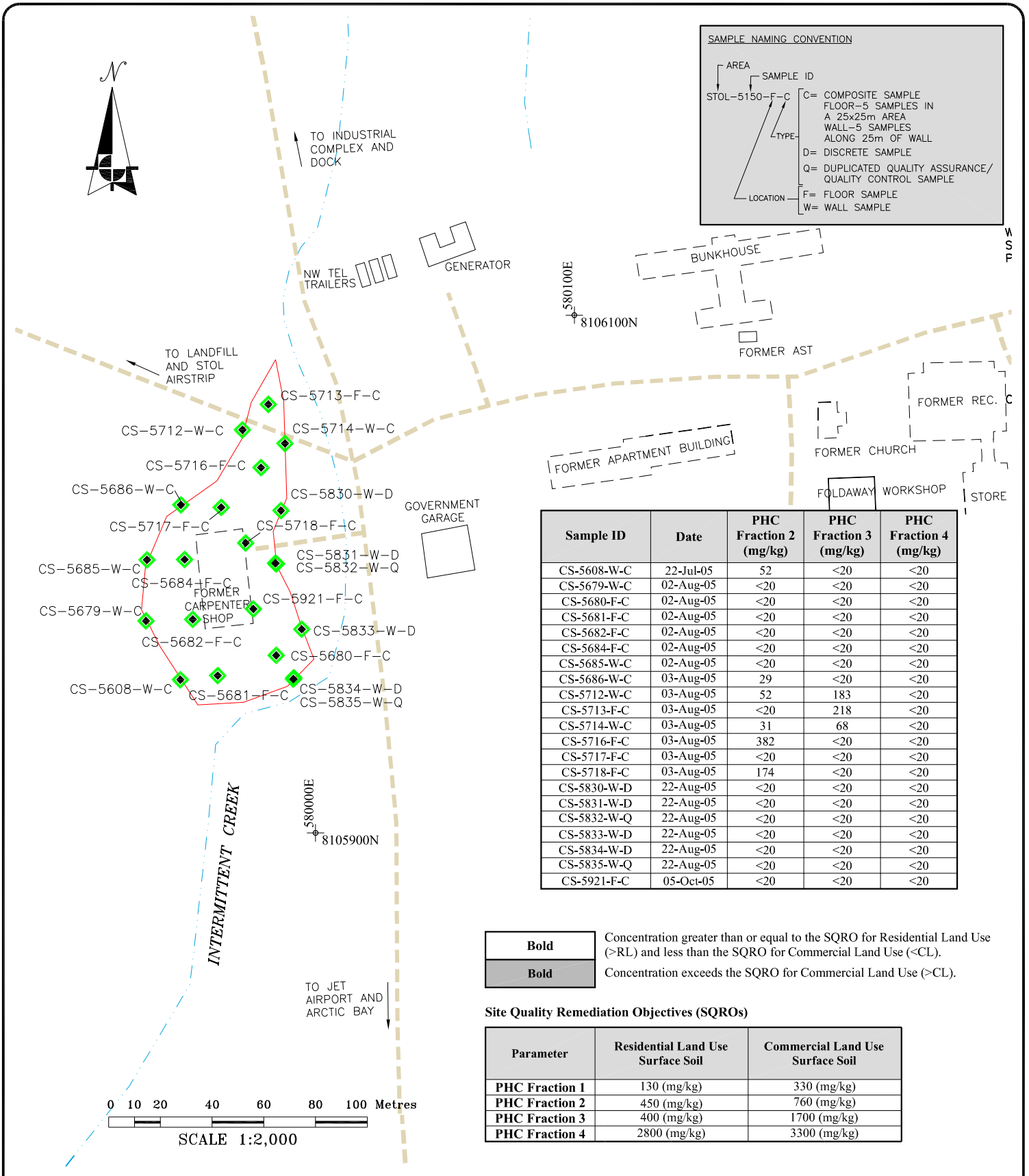
DRAWING INFORMATION:	
REVIEWED BY:	AL
DRAWN BY:	CCL
DATE ISSUED:	MAY, 2008
PROJECT NUMBER:	50-338
FILE NAME:	50338_B6_02.DWG
REVISION:	0

Project: Soil Reclamation and Confirmation
Location: Nanisivik, Nunavut
Client: Breakwater Resources

CONTAMINATED SOIL REMEDIATION PROGRESS DECEMBER 31, 2007

Gartner Lee

Figure No. 50338-1



Sample ID	Date	PHC Fraction 2 (mg/kg)	PHC Fraction 3 (mg/kg)	PHC Fraction 4 (mg/kg)
CS-5608-W-C	22-Jul-05	52	<20	<20
CS-5679-W-C	02-Aug-05	<20	<20	<20
CS-5680-F-C	02-Aug-05	<20	<20	<20
CS-5681-F-C	02-Aug-05	<20	<20	<20
CS-5682-F-C	02-Aug-05	<20	<20	<20
CS-5684-F-C	02-Aug-05	<20	<20	<20
CS-5685-W-C	02-Aug-05	<20	<20	<20
CS-5686-W-C	03-Aug-05	29	<20	<20
CS-5712-W-C	03-Aug-05	52	183	<20
CS-5713-F-C	03-Aug-05	<20	218	<20
CS-5714-W-C	03-Aug-05	31	68	<20
CS-5716-F-C	03-Aug-05	382	<20	<20
CS-5717-F-C	03-Aug-05	<20	<20	<20
CS-5718-F-C	03-Aug-05	174	<20	<20
CS-5830-W-D	22-Aug-05	<20	<20	<20
CS-5831-W-D	22-Aug-05	<20	<20	<20
CS-5832-W-Q	22-Aug-05	<20	<20	<20
CS-5833-W-D	22-Aug-05	<20	<20	<20
CS-5834-W-D	22-Aug-05	<20	<20	<20
CS-5835-W-Q	22-Aug-05	<20	<20	<20
CS-5921-F-C	05-Oct-05	<20	<20	<20

Bold	Concentration greater than or equal to the SQRO for Residential Land Use (>RL) and less than the SQRO for Commercial Land Use (<CL).
Bold	Concentration exceeds the SQRO for Commercial Land Use (>CL).

Site Quality Remediation Objectives (SQROs)

Parameter	Residential Land Use Surface Soil	Commercial Land Use Surface Soil
PHC Fraction 1	130 (mg/kg)	330 (mg/kg)
PHC Fraction 2	450 (mg/kg)	760 (mg/kg)
PHC Fraction 3	400 (mg/kg)	1700 (mg/kg)
PHC Fraction 4	2800 (mg/kg)	3300 (mg/kg)

LEGEND:

- ROAD
- DRAINAGE, STREAMS
- INTERMITTENT DRAINAGE
- EXCAVATION LIMITS
- SAMPLE LOCATION
- FORMER BUILDING
- < RL
- > RL < CL
- > CL

PROJECTION: UTM Zone 16N, NAD83

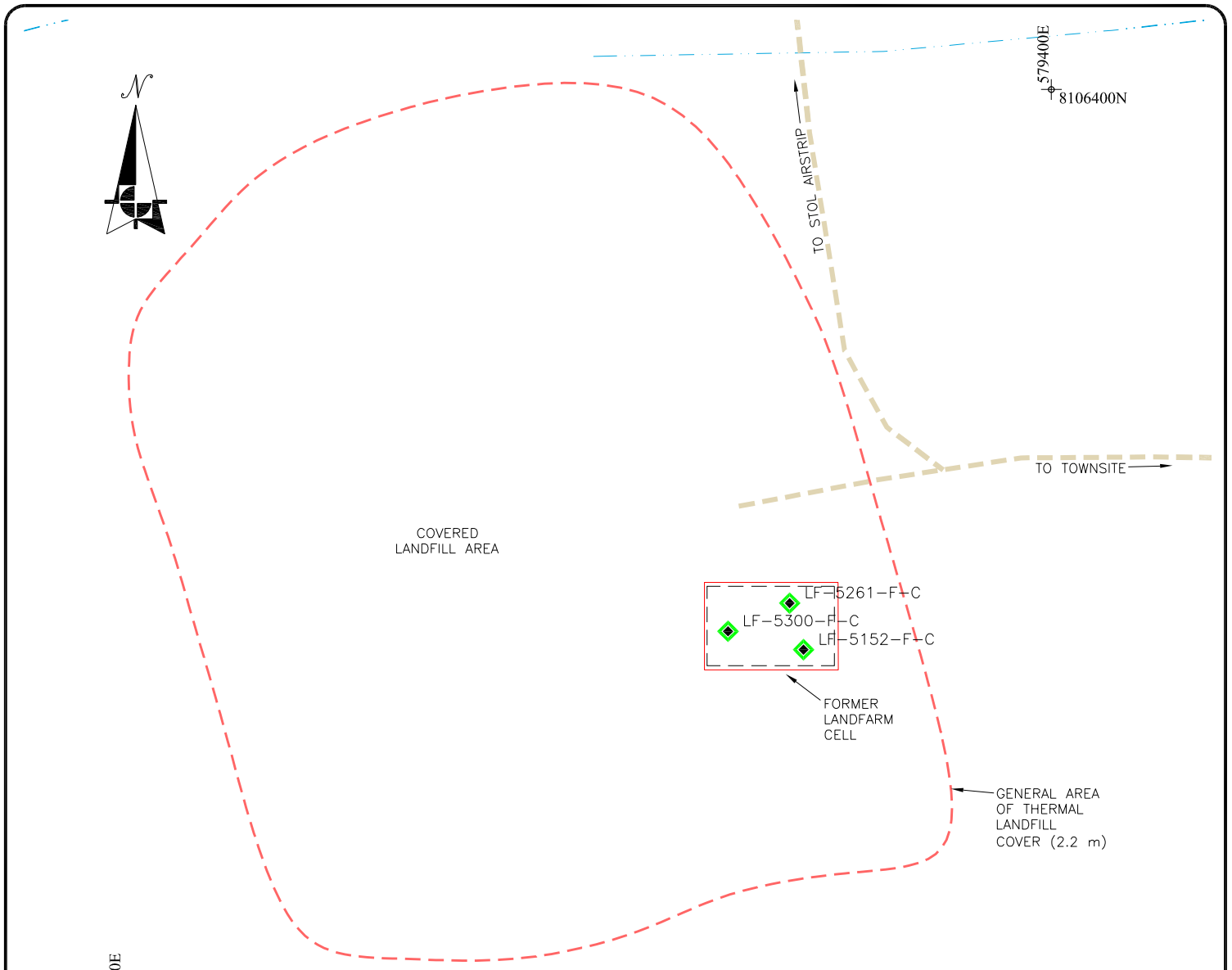
REVIEWED BY: AL
PREPARED BY: CCL
DATE ISSUED: MAY 2008
PROJECT NUMBER: 50-338
FILE NAME: 50338_By6_Rem.dwg
REVISION: 1

Project: Contaminated Site Remediation
Location: Nanisivik Mine, Nunavut
Client: CanZinco Limited

CARPENTER SHOP CONFIRMATION SOIL SAMPLES

Gartner Lee

Figure No. 50338-2



SAMPLE NAMING CONVENTION

AREA — SAMPLE ID

STOL–5150–F–C

TYPE:
- C= COMPOSITE SAMPLE FLOOR–5 SAMPLES IN A 25x25m AREA WALL–5 SAMPLES ALONG 25m OF WALL
- D= DISCRETE SAMPLE
- Q= DUPLICATED QUALITY ASSURANCE/ QUALITY CONTROL SAMPLE

LOCATION:
- F= FLOOR SAMPLE
- W= WALL SAMPLE

0 10 20 40 60 80 100 Metres

SCALE 1:2,000

Sample ID	Date	PHC Fraction 1 (mg/kg)	PHC Fraction 2 (mg/kg)	PHC Fraction 3 (mg/kg)	PHC Fraction 4 (mg/kg)
LF-5152-F-C	06-May-05	<20	25	55	<20
LF-5261-F-C	06-Jun-05	-	<20	119	56
LF-5300-F-C	15-Jul-05	-	173	260	<20

Bold	Concentration greater than or equal to the SQRO for Residential Land Use (>RL) and less than the SQRO for Commercial Land Use (<CL).
Bold	Concentration exceeds the SQRO for Commercial Land Use (>CL).

Site Quality Remediation Objectives (SQROs)

Parameter	Residential Land Use Surface Soil	Commercial Land Use Surface Soil
PHC Fraction 1	130 (mg/kg)	330 (mg/kg)
PHC Fraction 2	450 (mg/kg)	760 (mg/kg)
PHC Fraction 3	400 (mg/kg)	1700 (mg/kg)
PHC Fraction 4	2800 (mg/kg)	3300 (mg/kg)

LEGEND:
- ROAD
- DRAINAGE, STREAMS
- INTERMITTENT DRAINAGE
- EXCAVATION LIMITS
- SAMPLE LOCATION
- FORMER BUILDING
- < RL
- > RL < CL
- > CL

PROJECTION: UTM Zone 16N, NAD 83

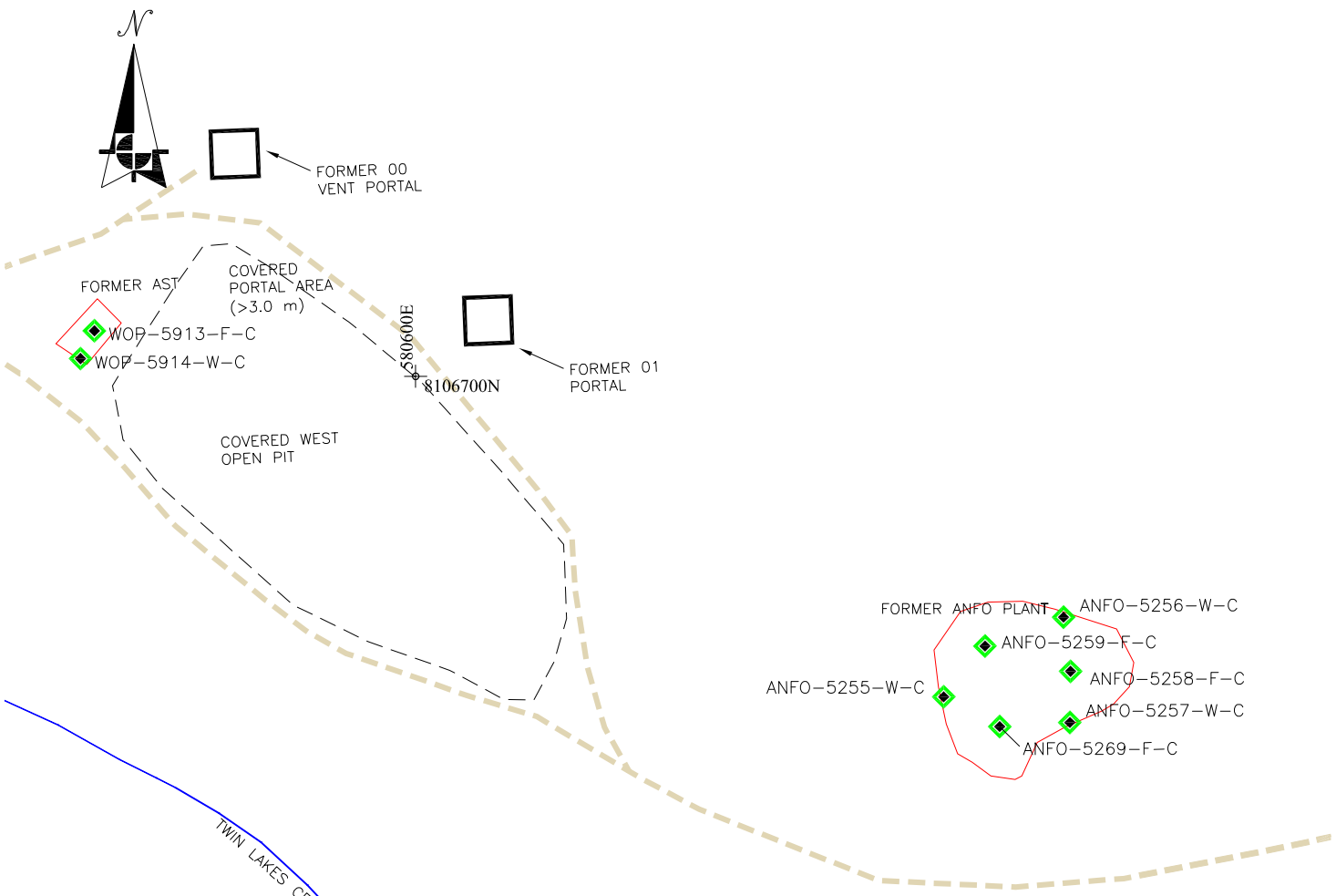
REVIEWED BY: AL
PREPARED BY: CCL
DATE ISSUED: MAY 2008
PROJECT NUMBER: 50-338
FILE NAME: 50338_By6_Rem.dwg
REVISION: 1

Project: Contaminated Site Remediation
Location: Nanisivik Mine, Nunavut
Client: CanZinco Limited

LANDFARM CONFIRMATION SOIL SAMPLES

Gartner Lee

Figure No. 50338-3



SAMPLE NAMING CONVENTION

STOL-5150-F-C

- AREA
- SAMPLE ID
- TYPE
  - C= COMPOSITE SAMPLE FLOOR-5 SAMPLES IN A 25x25m AREA WALL-5 SAMPLES ALONG 25m OF WALL
  - D= DISCRETE SAMPLE
  - Q= DUPLICATED QUALITY ASSURANCE/ QUALITY CONTROL SAMPLE
- LOCATION
  - F= FLOOR SAMPLE
  - W= WALL SAMPLE

0 10 20 40 60 80 100 Metres

SCALE 1:2,000

Sample ID	Date	PHC Fraction 2 (mg/kg)	PHC Fraction 3 (mg/kg)	PHC Fraction 4 (mg/kg)
ANFO-5255-W-C	01-Jun-05	<20	51	<20
ANFO-5256-W-C	01-Jun-05	<20	34	<20
ANFO-5257-W-C	01-Jun-05	<20	25	<20
ANFO-5258-F-C	04-Jun-05	<20	<20	<20
ANFO-5259-F-C	04-Jun-05	<20	<20	<20
ANFO-5269-F-C	07-Jun-05	<20	<20	<20
WOP-5913-F-C	28-Oct-05	<20	240	<20
WOP-5914-W-C	28-Oct-05	<20	474	126

Bold	Concentration greater than or equal to the SQRO for Residential Land Use (>RL) and less than the SQRO for Commercial Land Use (<CL).
Bold	Concentration exceeds the SQRO for Commercial Land Use (>CL).

Site Quality Remediation Objectives (SQROs)

Parameter	Residential Land Use Surface Soil | Subsoil (>1.5 m bgl)	Commercial Land Use Surface Soil | Subsoil (>1.5 m bgl)
PHC Fraction 2	450 (mg/kg) | 1500 (mg/kg)	760 (mg/kg) | 2000 (mg/kg)
PHC Fraction 3	400 (mg/kg) | 2500 (mg/kg)	1700 (mg/kg | 3500 (mg/kg)
PHC Fraction 4	2800 (mg/kg) |10000 (mg/kg)	3300 (mg/kg) | 10000 (mg/kg)

LEGEND:

- ROAD
- DRAINAGE, STREAMS
- INTERMITTENT DRAINAGE
- EXCAVATION LIMITS
- SAMPLE LOCATION
- FORMER BUILDING
- < RL
- > RL < CL
- > CL

PROJECTION:
UTM Zone 16N, NAD 83

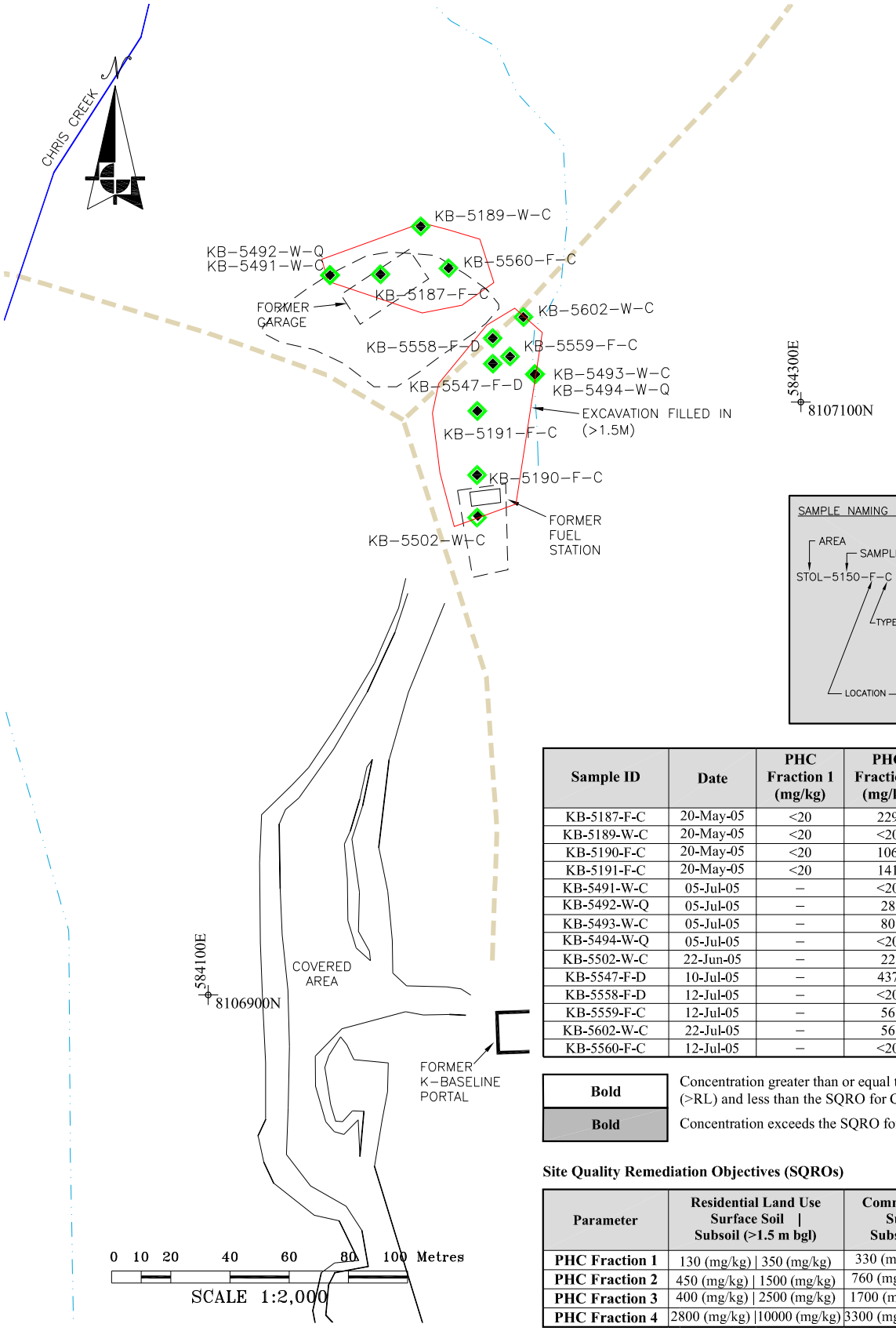
REVIEWED BY: AL
PREPARED BY: CCL
DATE ISSUED: MAY 2008
PROJECT NUMBER: 50-338
FILE NAME: 50338_By6_Rem.dwg
REVISION: 1

Project: Contaminated Site Remediation
Location: Nanisivik Mine, Nunavut
Client: CanZinco Limited

WEST ADIT AREA CONFIRMATION SOIL SAMPLES

Gartner Lee

Figure No. 50338-4



SAMPLE NAMING CONVENTION

AREA — SAMPLE ID

STOL-5150-F-C

TYPE:
- C= COMPOSITE SAMPLE FLOOR-5 SAMPLES IN A 25x25m AREA WALL-5 SAMPLES ALONG 25m OF WALL
- D= DISCRETE SAMPLE
- Q= DUPLICATED QUALITY ASSURANCE/ QUALITY CONTROL SAMPLE

LOCATION:
- F= FLOOR SAMPLE
- W= WALL SAMPLE

Sample ID	Date	PHC Fraction 1 (mg/kg)	PHC Fraction 2 (mg/kg)	PHC Fraction 3 (mg/kg)	PHC Fraction 4 (mg/kg)
KB-5187-F-C	20-May-05	<20	229	27	<20
KB-5189-W-C	20-May-05	<20	<20	<20	<20
KB-5190-F-C	20-May-05	<20	106	<20	<20
KB-5191-F-C	20-May-05	<20	141	<20	<20
KB-5491-W-C	05-Jul-05	–	<20	44	<20
KB-5492-W-Q	05-Jul-05	–	28	161	<20
KB-5493-W-C	05-Jul-05	–	80	<20	<20
KB-5494-W-Q	05-Jul-05	–	<20	<20	<20
KB-5502-W-C	22-Jun-05	–	22	<20	<20
KB-5547-F-D	10-Jul-05	–	437	<20	<20
KB-5558-F-D	12-Jul-05	–	<20	<20	<20
KB-5559-F-C	12-Jul-05	–	56	<20	<20
KB-5602-W-C	22-Jul-05	–	56	<20	<20
KB-5560-F-C	12-Jul-05	–	<20	<20	<20

Bold	Concentration greater than or equal to the SQRO for Residential Land Use (>RL) and less than the SQRO for Commercial Land Use (<CL).
Bold	Concentration exceeds the SQRO for Commercial Land Use (>CL).

Site Quality Remediation Objectives (SQROs)

Parameter	Residential Land Use Surface Soil | Subsoil (>1.5 m bgl)	Commercial Land Use Surface Soil | Subsoil (>1.5 m bgl)
PHC Fraction 1	130 (mg/kg) | 350 (mg/kg)	330 (mg/kg) | 700 (mg/kg)
PHC Fraction 2	450 (mg/kg) | 1500 (mg/kg)	760 (mg/kg) | 2000 (mg/kg)
PHC Fraction 3	400 (mg/kg) | 2500 (mg/kg)	1700 (mg/kg | 3500 (mg/kg)
PHC Fraction 4	2800 (mg/kg) |10000 (mg/kg)	3300 (mg/kg) | 10000 (mg/kg)

LEGEND:
- ROAD
- DRAINAGE, STREAMS
- INTERMITTENT DRAINAGE
- EXCAVATION LIMITS
- SAMPLE LOCATION
- FORMER BUILDING
- < RL
- > RL < CL
- > CL

PROJECTION: UTM Zone 16N, NAD83

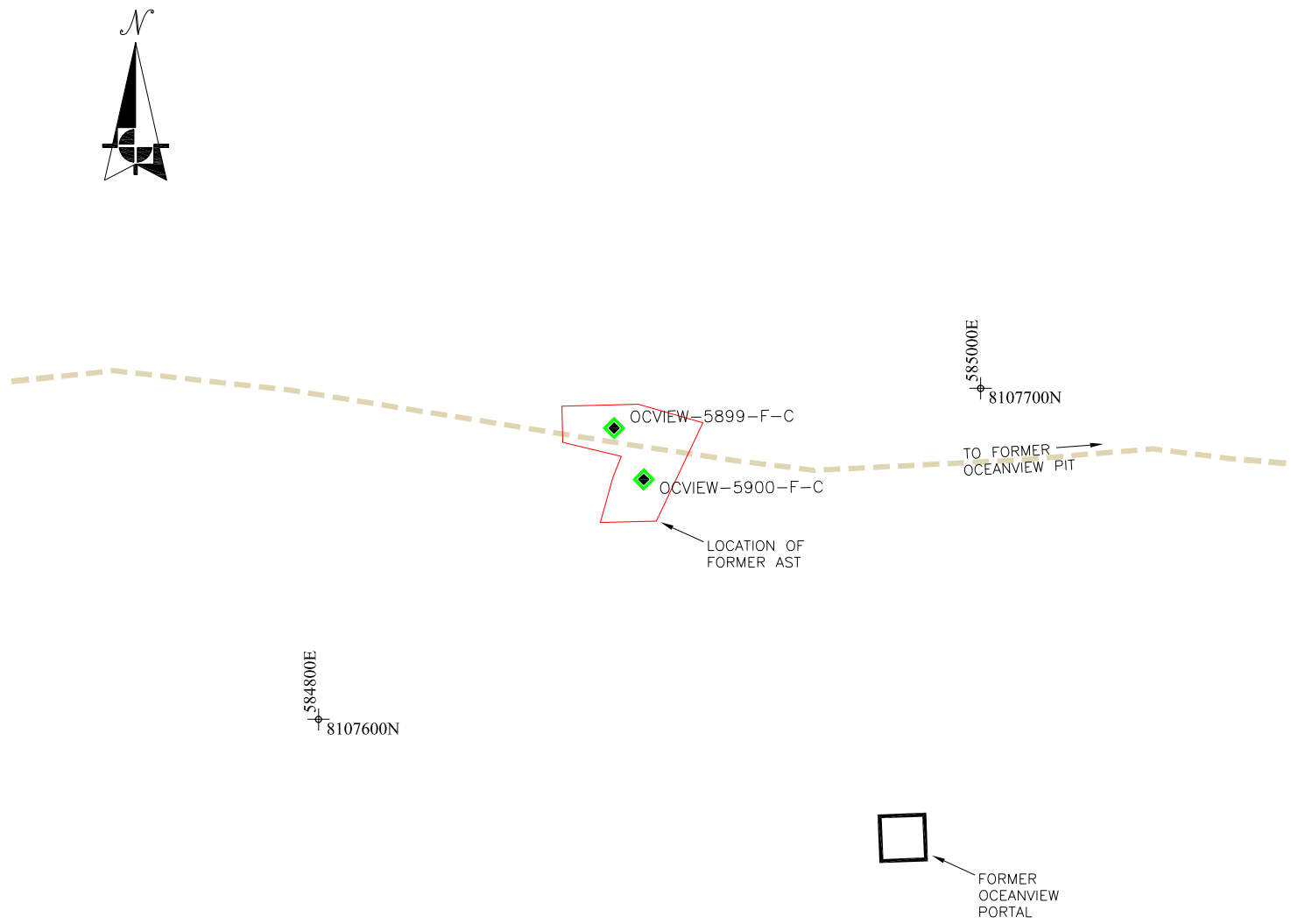
REVIEWED BY: AL
PREPARED BY: CCL
DATE ISSUED: MAY 2008
PROJECT NUMBER: 50-338
FILE NAME: 50338_By6_Rem.dwg
REVISION: 1

Project: Contaminated Site Remediation
Location: Nanisivik Mine, Nunavut
Client: CanZinco Limited

K-BASELINE CONFIRMATION SOIL SAMPLES

Gartner Lee

Figure No. 50338-5



SAMPLE NAMING CONVENTION

AREA — SAMPLE ID — TYPE — LOCATION

STOL-5150-F-C

- C= COMPOSITE SAMPLE
  - FLOOR-5 SAMPLES IN A 25x25m AREA
  - WALL-5 SAMPLES ALONG 25m OF WALL
- D= DISCRETE SAMPLE
- Q= DUPLICATED QUALITY ASSURANCE/ QUALITY CONTROL SAMPLE
- F= FLOOR SAMPLE
- W= WALL SAMPLE

0 10 20 40 60 80 100 Metres

SCALE 1:2,000

Sample ID	Date	PHC Fraction 2 (mg/kg)	PHC Fraction 3 (mg/kg)	PHC Fraction 4 (mg/kg)
OCVIEW-5899-F-C	02-Sep-05	<20	23	<20
OCVIEW-5900-F-C	02-Sep-05	<20	39	<20

Bold	Concentration greater than or equal to the SQRO for Residential Land Use (>RL) and less than the SQRO for Commercial Land Use (<CL).
Bold	Concentration exceeds the SQRO for Commercial Land Use (>CL).

Site Quality Remediation Objectives (SQROs)

Parameter	Residential Land Use Surface Soil	Commercial Land Use Surface Soil
PHC Fraction 2	450 (mg/kg)	760 (mg/kg)
PHC Fraction 3	400 (mg/kg)	1700 (mg/kg)
PHC Fraction 4	2800 (mg/kg)	3300 (mg/kg)

LEGEND:

- ROAD
- DRAINAGE, STREAMS
- INTERMITTENT DRAINAGE
- EXCAVATION LIMITS
- SAMPLE LOCATION
- FORMER BUILDING
- < RL
- > RL < CL
- > CL

PROJECTION:
UTM Zone 16N, NAD83

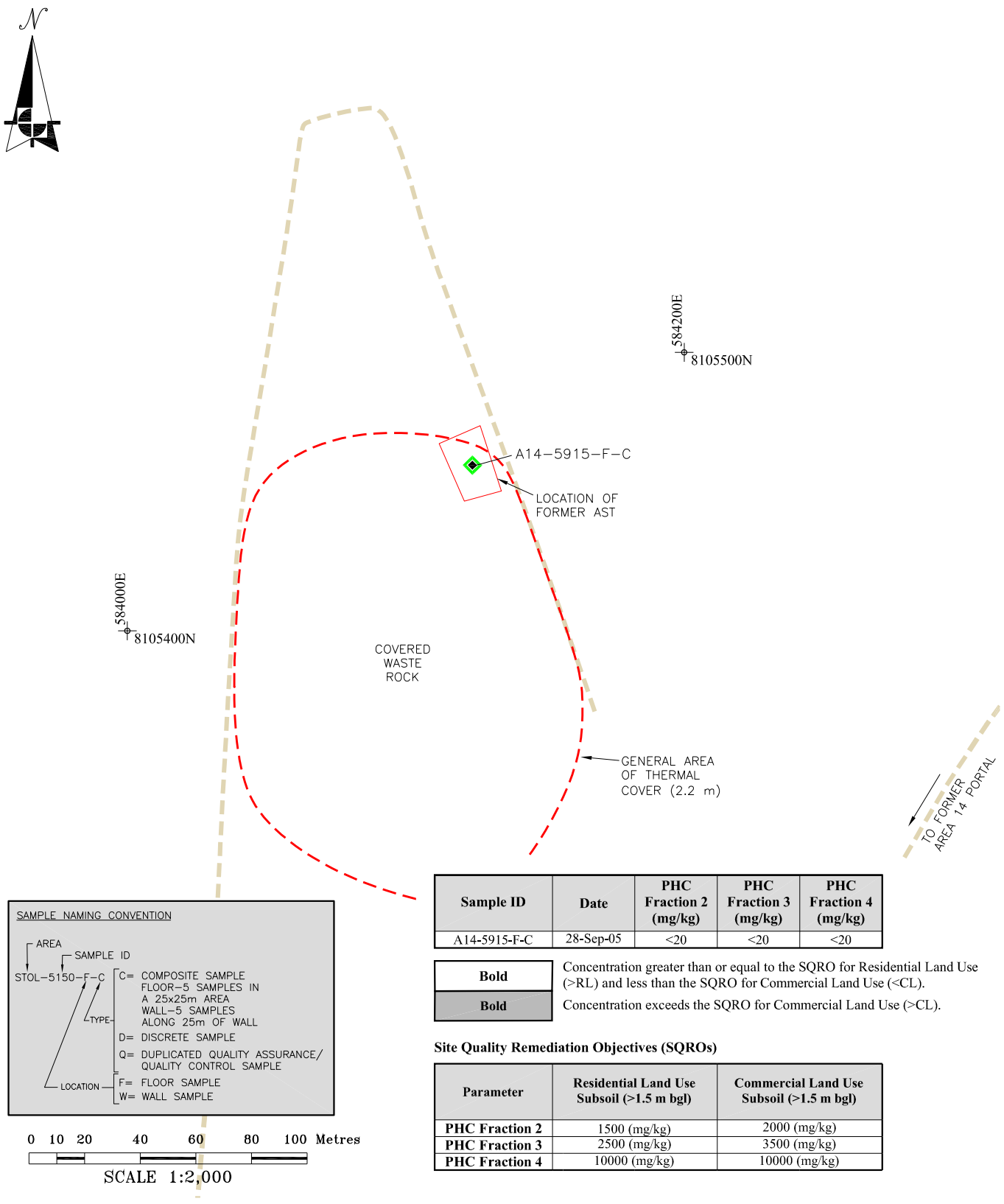
REVIEWED BY: AL
PREPARED BY: CCL
DATE ISSUED: MAY 2008
PROJECT NUMBER: 50-338
FILE NAME: 50338_By6_Rem.dwg
REVISION: 1

Project: Contaminated Site Remediation
Location: Nanisivik Mine, Nunavut
Client: CanZinco Limited

OCEAN VIEW CONFIRMATION SOIL SAMPLES

Gartner Lee

Figure No. 50338-6



Sample ID	Date	PHC Fraction 2 (mg/kg)	PHC Fraction 3 (mg/kg)	PHC Fraction 4 (mg/kg)
A14-5915-F-C	28-Sep-05	<20	<20	<20

Bold	Concentration greater than or equal to the SQRO for Residential Land Use (>RL) and less than the SQRO for Commercial Land Use (<CL).
Bold	Concentration exceeds the SQRO for Commercial Land Use (>CL).

Site Quality Remediation Objectives (SQROs)

Parameter	Residential Land Use Subsoil (>1.5 m bgl)	Commercial Land Use Subsoil (>1.5 m bgl)
PHC Fraction 2	1500 (mg/kg)	2000 (mg/kg)
PHC Fraction 3	2500 (mg/kg)	3500 (mg/kg)
PHC Fraction 4	10000 (mg/kg)	10000 (mg/kg)

LEGEND:

- ROAD
- DRAINAGE, STREAMS
- INTERMITTENT DRAINAGE
- EXCAVATION LIMITS
- SAMPLE LOCATION
- FORMER BUILDING
- < RL
- > RL < CL
- > CL

PROJECTION: UTM Zone 16N, NAD 83

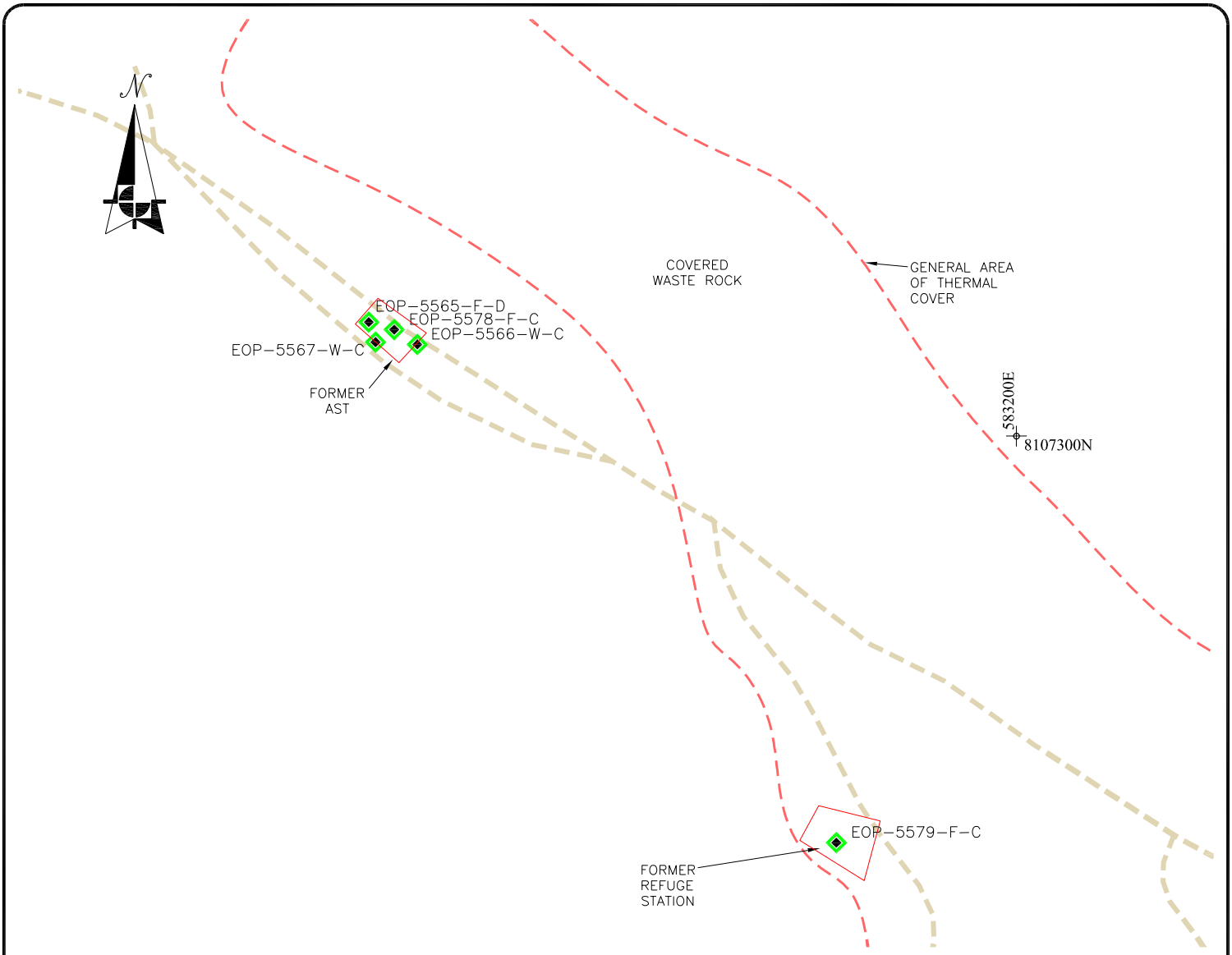
REVIEWED BY: AL
PREPARED BY: CCL
DATE ISSUED: May 2008
PROJECT NUMBER: 50-338
FILE NAME: 50338_By6_Rem.dwg
REVISION: 1

Project: Contaminated Site Remediation
Location: Nanisivik Mine, Nunavut
Client: CanZinco Limited

AREA 14
CONFIRMATION SOIL SAMPLES

Gartner Lee

Figure No. 50338-7



Sample ID	Date	PHC Fraction 2 (mg/kg)	PHC Fraction 3 (mg/kg)	PHC Fraction 4 (mg/kg)
EOP-5565-F-D	14-Jul-05	102	<20	<20
EOP-5566-W-C	14-Jul-05	23	27	<20
EOP-5567-W-C	14-Jul-05	<20	<20	<20
EOP-5578-F-C	16-Jul-05	55	<20	<20
EOP-5579-F-C	29-Jul-05	<20	<20	<20

Bold	Concentration greater than or equal to the SQRO for Residential Land Use (>RL) and less than the SQRO for Commercial Land Use (<CL).
Bold	Concentration exceeds the SQRO for Commercial Land Use (>CL).

Site Quality Remediation Objectives (SQROs)

Parameter	Residential Land Use Surface Soil	Commercial Land Use Surface Soil
PHC Fraction 2	450 (mg/kg)	760 (mg/kg)
PHC Fraction 3	400 (mg/kg)	1700 (mg/kg)
PHC Fraction 4	2800 (mg/kg)	3300 (mg/kg)

SAMPLE NAMING CONVENTION

AREA — SAMPLE ID

STOL-5150-F-C

TYPE:
- C= COMPOSITE SAMPLE FLOOR-5 SAMPLES IN A 25x25m AREA WALL-5 SAMPLES ALONG 25m OF WALL
- D= DISCRETE SAMPLE
- Q= DUPLICATED QUALITY ASSURANCE/ QUALITY CONTROL SAMPLE

LOCATION:
- F= FLOOR SAMPLE
- W= WALL SAMPLE

0 10 20 40 60 80 100 Metres

SCALE 1:2,000

LEGEND:

- ROAD
- DRAINAGE, STREAMS
- INTERMITTENT DRAINAGE
- EXCAVATION LIMITS
- SAMPLE LOCATION
- FORMER BUILDING
- < RL
- > RL < CL
- > CL

PROJECTION:
UTM Zone 16N, NAD 83

REVIEWED BY: AL
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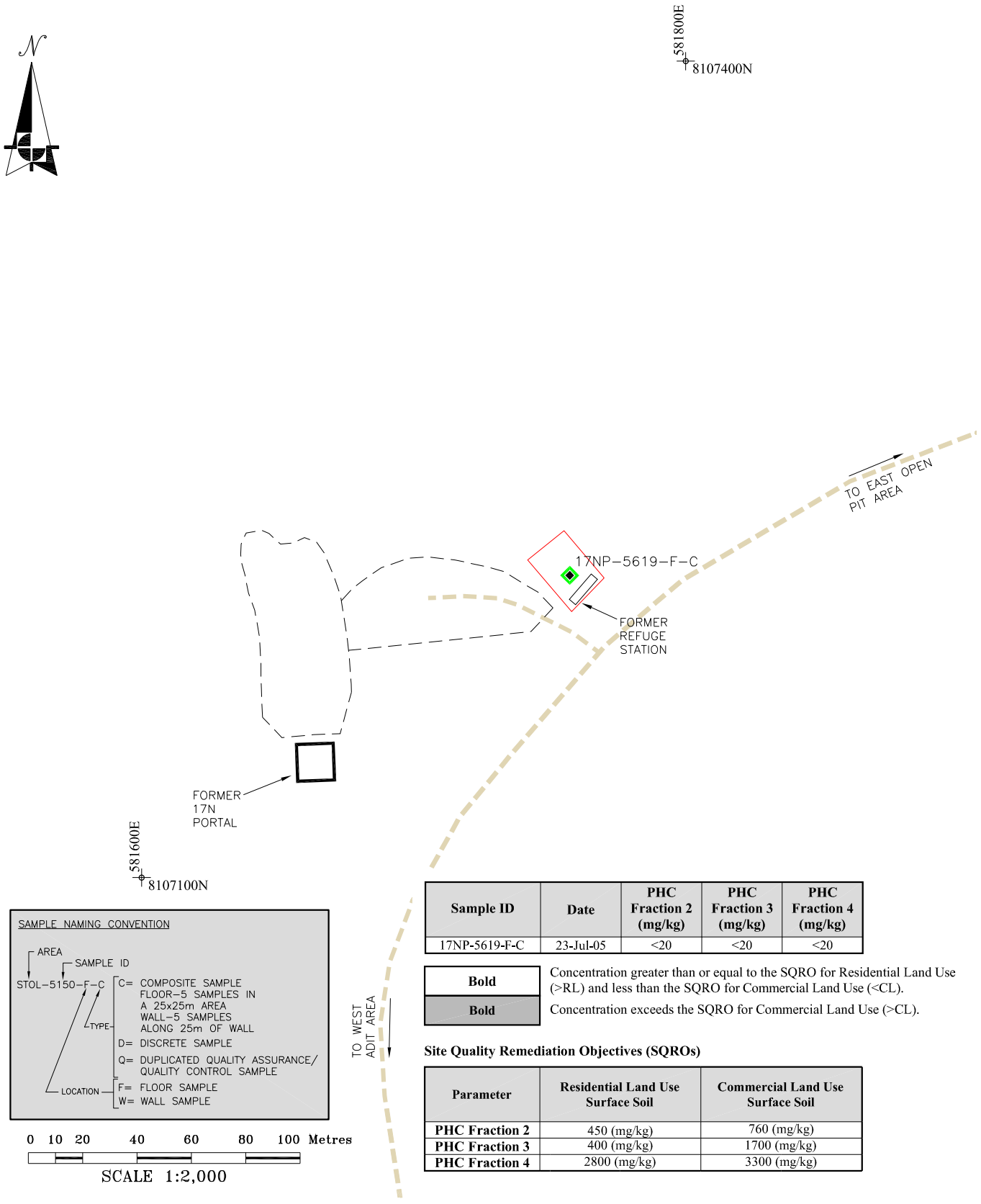
Project: Contaminated Site Remediation
Location: Nanisivik Mine, Nunavut
Client: CanZinco Limited

EAST OPEN PIT CONFIRMATION SOIL SAMPLES

Gartner Lee

Figure No. 50338-8



Sample ID	Date	PHC Fraction 2 (mg/kg)	PHC Fraction 3 (mg/kg)	PHC Fraction 4 (mg/kg)
17NP-5619-F-C	23-Jul-05	<20	<20	<20

Bold	Concentration greater than or equal to the SQRO for Residential Land Use (>RL) and less than the SQRO for Commercial Land Use (<CL).
Bold	Concentration exceeds the SQRO for Commercial Land Use (>CL).

Site Quality Remediation Objectives (SQROs)

Parameter	Residential Land Use Surface Soil	Commercial Land Use Surface Soil
PHC Fraction 2	450 (mg/kg)	760 (mg/kg)
PHC Fraction 3	400 (mg/kg)	1700 (mg/kg)
PHC Fraction 4	2800 (mg/kg)	3300 (mg/kg)

LEGEND:

- ROAD
- DRAINAGE, STREAMS
- INTERMITTENT DRAINAGE
- EXCAVATION LIMITS
- SAMPLE LOCATION
- FORMER BUILDING
- < RL
- > RL < CL
- > CL

PROJECTION: UTM Zone 16N, DAD 83

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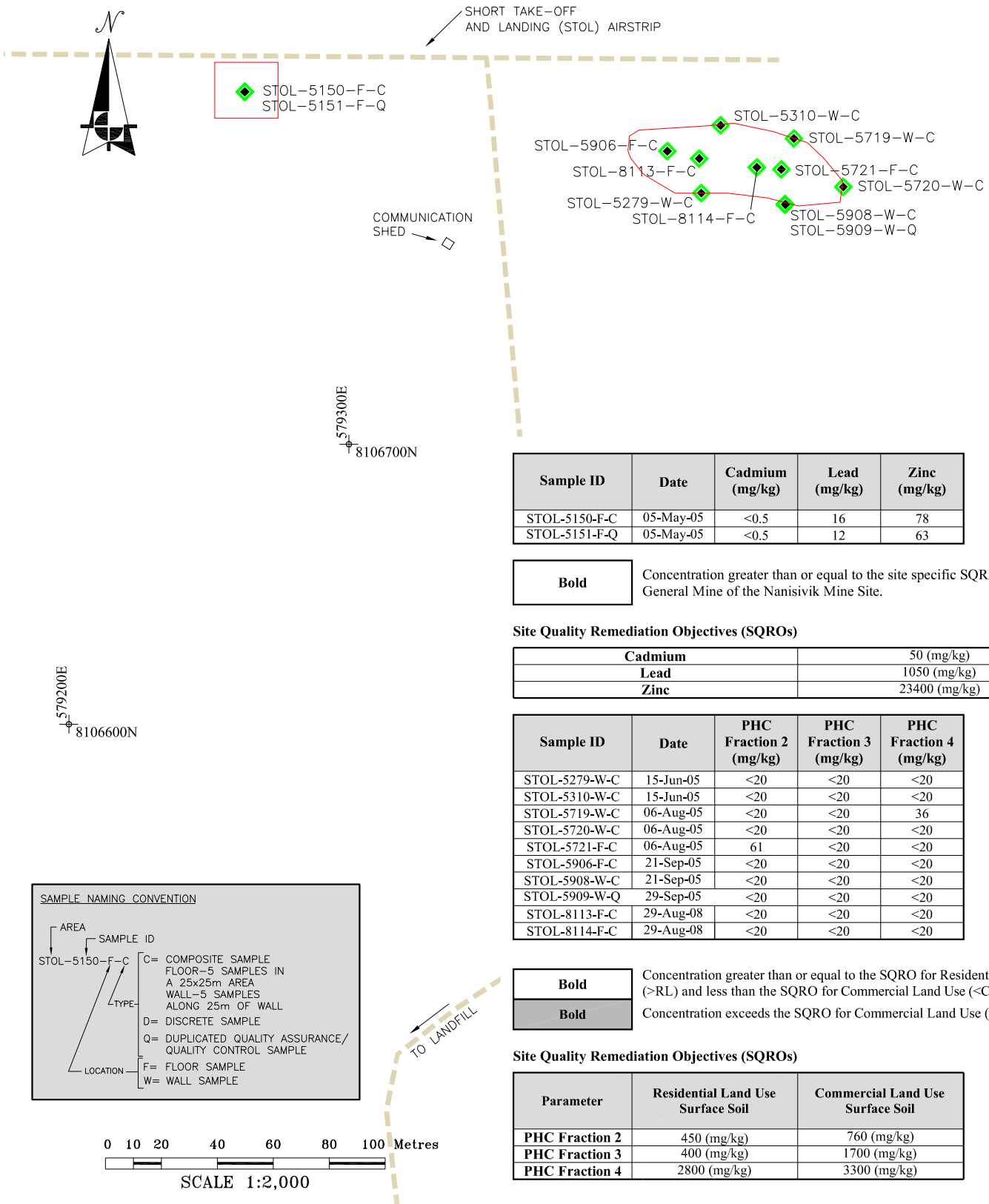
Location: Nanisivik Mine, Nunavut
Client: CanZinco Limited

17 NORTH PORTAL CONFIRMATION SOIL SAMPLES

Gartner Lee

Figure No. 50338-9



Sample ID	Date	Cadmium (mg/kg)	Lead (mg/kg)	Zinc (mg/kg)
STOL-5150-F-C	05-May-05	<0.5	16	78
STOL-5151-F-Q	05-May-05	<0.5	12	63

Bold — Concentration greater than or equal to the site specific SQRP for the General Mine of the Nanisivik Mine Site.

Site Quality Remediation Objectives (SQROs)

Cadmium	50 (mg/kg)
Lead	1050 (mg/kg)
Zinc	23400 (mg/kg)

Sample ID	Date	PHC Fraction 2 (mg/kg)	PHC Fraction 3 (mg/kg)	PHC Fraction 4 (mg/kg)
STOL-5279-W-C	15-Jun-05	<20	<20	<20
STOL-5310-W-C	15-Jun-05	<20	<20	<20
STOL-5719-W-C	06-Aug-05	<20	<20	36
STOL-5720-W-C	06-Aug-05	<20	<20	<20
STOL-5721-F-C	06-Aug-05	61	<20	<20
STOL-5906-F-C	21-Sep-05	<20	<20	<20
STOL-5908-W-C	21-Sep-05	<20	<20	<20
STOL-5909-W-Q	29-Sep-05	<20	<20	<20
STOL-8113-F-C	29-Aug-08	<20	<20	<20
STOL-8114-F-C	29-Aug-08	<20	<20	<20

Bold — Concentration greater than or equal to the SQRO for Residential Land Use (>RL) and less than the SQRO for Commercial Land Use (<CL).

Bold — Concentration exceeds the SQRO for Commercial Land Use (>CL).

Site Quality Remediation Objectives (SQROs)

Parameter	Residential Land Use Surface Soil	Commercial Land Use Surface Soil
PHC Fraction 2	450 (mg/kg)	760 (mg/kg)
PHC Fraction 3	400 (mg/kg)	1700 (mg/kg)
PHC Fraction 4	2800 (mg/kg)	3300 (mg/kg)

LEGEND:

- ROAD
- DRAINAGE, STREAMS
- INTERMITTENT DRAINAGE
- EXCAVATION LIMITS
- SAMPLE LOCATION
- FORMER BUILDING
- < RL
- > RL < CL
- > CL

PROJECTION:
UTM Zone 16N, NAD 83

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STOL AIRSTRIP CONFIRMATION SOIL SAMPLES

Gartner Lee

Figure No. 50338-10