Kolbinson, Rita

From: Kwan, Linda
Sent: Thursday, January 22, 2015 11:22 AM
To: DOMINO (CITYVAN)
Subject: FW: Tank closure - 498 Drake (1300 Richards)

-----Original Message-----
From: Steve Boyce [mailto:steve.boyce@activeearth.ca]
Sent: Wednesday, January 21, 2015 3:48 PM
To: Kwan, Linda
Cc: Mayberry, Jennifer
Subject: Tank closure - 498 Drake (1300 Richards)

Hi Linda,

As discussed and reported, our tank remediation closure samples determined that no soil contamination (RL+) has migrated from the Site onto City lands.

Not that "odours" may have migrated to city lands, and we understand that future discussions will likely be required to assess soil vapour and groundwater quality on City lands.

Virtually all RL+ contamination has been removed from the site. A narrow band of odourous soil (possibly RL+) remains ON-SITE along the edge of the excavation. This soil cannot be safely removed until we able to proceed with shoring. This soil will be disposed as RL+ for added due diligence.

As discussed, please forward this to the permitting department so they can unfreeze the stage 1 excavation and shoring permit as soon as possible.

We trust this is sufficient to meet your current needs. Please advise if the permit will not be unfrozen by end of day tomorrow.

Cheers,

Steve Boyce
Active Earth Engineering Ltd.
160 - 2250 Boundary Road
Burnaby, BC V5M 3Z3
Cell 778.888.0473

Katigbak, Veronica

From: Kwan, Linda
Sent: Thursday, April 29, 2010 11:57 AM
To: DOMINO (CITYVAN)
Subject: FW: Karis Place 1338 Seymour Street - Waste Discharge Permit No. SC 090401 Closure Report

Please domino.

Thank you,
Linda

From: Kwan, Linda
Sent: Thursday, April 29, 2010 11:55 AM
To: 'steve@arranenvironmental.com'
Subject: RE: Karis Place 1338 Seymour Street - Waste Discharge Permit No. SC 090401 Closure Report

Hi Stephen,

I am satisfied with the pH and TSS results and have minimal concerns with the excavation/ground water when directed to the storm sewer system as long as the excavation/ground water meets the storm water quality. Please supply monitoring reports when the discharges are directed to storm. I will cancel your Waste Discharge Permit SC 09-0401 (expiry date April 20/10).

Regards,

Linda Kwan
Analyst
City of Vancouver
Licences & Inspections, Environmental Protection Branch
Tel: 604.873.7733 Email: Linda.kwan@vancouver.ca
vancouver.ca/inspections

From: Stephen Sims [mailto:steve@arranenvironmental.com]
Sent: Wednesday, April 28, 2010 9:34 AM
To: Kwan, Linda
Cc: 'Brad Bunt'; 'Alex Sartori'
Subject: Karis Place 1338 Seymour Street - Waste Discharge Permit No. SC 090401 Closure Report

Hi Linda,

Please find attached the closure report for Waste Discharge Permit No. SC 090401 at 1338 Seymour Street. If you have questions please contact me by email or by phone at 604-319-6078.

4/29/2010

Thanks,
Steve

--

J. Stephen Sims, BSc, BIT
Independent Associate

sartori
environmental
services inc.

Mobile: *604-319-6078*
Email: *steve@arranenvironmental.com*

CITY OF VANCOUVER

HAZARDOUS MATERIALS REPORT FORM BU461941

DEMOLITION PERMIT # : _____

BUILDING PERMIT # : _____

DATE ISSUED: _____

ADDRESS: 1300 Richards Street, Vancouver

BUILDING TYPE: SINGLE FAMILY ☐ MULTIPLE FAMILY ☐ COMMERCIAL ☒
INSTITUTIONAL ☐ INDUSTRIAL ☒

DATE OF DEMOLITION/DECONSTRUCTION: _____

APPLICANT
NAME: 0888189 BC Ltd
ADDRESS: Suite 3502, 1088 Burrard Street, Vancouver, BC V6Z 2R9

TEL: 604.893.7131 FAX: BUSINESS LICENSE #:

CONTRACTOR or DEMOLITION CONTRACTOR
NAME: Matcon Demolition Ltd
ADDRESS: 2208 Hartley Avenue, Coquitlam, BC V3K 6X3

TEL: 604.520.5909 FAX: BUSINESS LICENSE #: 14-109661

HAZARDOUS MATERIALS

	PRESENT	NOT PRESENT	REMOVED	TYPE AND LOCATION
ASBESTOS	☑	☐	☐	PIPE ELBOWS 1ST FLOOR, 2ND FLOOR PARKING 2ND-VINYL FLOOR TILE, TEXTURE COAT
DRYWALL	☑	☐	☐	1ST FLOOR
UNDERGROUND STORAGE TANKS	☐	☐	☐	(UNKNOWN)
PCBs	☑	☐	☐	RESIDENCE
ABANDONED CHEMICALS	☑	☐	☐	THROUGHOUT (HOUSEHOLD) *PLASTIC THROWAWAY
OTHERS (*see other side for examples*)	☑	☐	☐	LEAD BASED PAINT

CONDITIONS

1. **A Hazardous Materials Survey completed by a qualified person, as defined in WorkSafeBC Guideline 6.6-3, MUST be submitted with this form.**
2. **All hazardous materials identified above and/or in the attached survey shall be handled and disposed of in accordance with all applicable rules and regulations. (See *other side for contacts.*) In the event that hazardous materials are found during the demolition process, work must cease until they are removed.**
3. **Documentation from the survey, removal and disposal of hazardous materials (*i.e. receipts*, inspection reports, clearance letters, WorkSafeBC Notice of Projects, sampling reports, waste manifests, etc.) must be kept for a 6-month period and produced upon request for inspection purposes.**

CERTIFICATION

To be completed by the licensed contractor, demolition contractor or environmental consultant.

I, Jeremy Hinton, certify that the information provided on this form is consistent with the findings of the attached Hazardous Materials Survey, and that all hazardous materials identified here or found during demolition will be removed in accordance with all applicable regulations.

Signature _____ Date June 12, 2014

Matcon Demolition Ltd — Company

Estimator/Coordinator — Position

BU461941

SURE Hazmat and Testing

March 11, 2014

Wall Financial Corporation
Suite 3502, 1088 Burrard Street
Vancouver, BC
V6Z 2R9

Attention: **Edmund Siqueira**
Head of Construction

Reference: **Pre-Demolition Building Materials Investigation**
1300 Richards Street, Vancouver, BC

Sure Hazmat and Testing has, in accordance with your request, completed an investigation for hazardous materials and to identify any immediate hazards to workers during the demolition of the building located at 1300 Richards Street in Vancouver, BC. The scope of work included all accessible areas of the building. The investigation was destructive in nature throughout the 2nd floor and included limited demolition of walls and floors to determine the presence of any concealed hazardous materials. The investigation was non-destructive throughout the 1st and 3rd floors. We report the following:

The site consists of a three storey, wood framed building. The date of construction is unknown. The building primarily functioned as an office building. Exterior finishes include some stucco and a tar and gravel roof. Interior finishes include plaster and drywall walls, drywall and wood plank ceilings, ceramic tile, vinyl sheet flooring, vinyl floor tile, carpet and laminate floors.

Representative samples of suspect asbestos-containing building materials were collected and analyzed. A visual inspection was conducted of thermostatic controls for the presence of mercury. Older light fixtures were inspected for the presence of PCB-containing ballasts. A visual inspection was performed for evidence of rodent activity and fungal contamination. A total of one hundred (100) samples were collected and analyzed for the presence of asbestos fibres. A total of fifteen (15) samples were collected and submitted for analysis of lead content.

Analytical Methodology

Asbestos

Samples were analyzed at the in-house laboratory of Sure Hazmat and Testing in accordance with the NIOSH 9002 PLM Bulk Sampling Analytical Method using polarized light microscopy and dispersion staining techniques. The detection limit of this method is listed as <1%. A copy of our Asbestos Bulk Results spreadsheet is attached to this report for your information and records. All records should be retained for a period of ten years as required by WorkSafe BC.

All samples will be stored at our laboratory for two months before being disposed of. Should you wish to keep these samples beyond this, please notify us within this period.

Lead-Based Finishes

Suspect leaded paint finishes were submitted to Maxxam Analytics for analysis of lead content. For leaded paint finishes, samples were digested using nitric acid/hydrogen peroxide followed by analysis using Inductively Coupled Plasma Spectroscopy (ICAP) and/or Inductively Coupled Plasma/Mass Spectroscopy (ICPMS).

The federal *Hazardous Products Act* (HPA) under Surface Coating Materials regulation defines leaded paint or lead-based surface coating materials with a total lead concentration of 0.009% or 90 µg/g. This is the current accepted standard by WorkSafe BC for identification of lead-based paint. Paint finishes that contain lead equal to or greater than 90 µg/g are considered to present a risk to pregnant women & children and a risk assessment must be conducted by a qualified person prior to the performance of any work that impacts lead-based paint finishes in work areas with high risk individuals in adjacent occupied areas.

Asbestos-Containing Material Results

First Floor

Four (4) samples of drywall taping compound were collected from throughout the "Loving Spoon" Unit. One (1) of the four samples was determined to be asbestos-containing. Based on these results all drywall finishes within the Loving Spoon Unit are considered to be asbestos-containing.

Pipe elbows with asbestos-containing parging cement were observed on the First Floor.

Red duct mastic present on ventilation ductwork was inaccessible and is assumed to be asbestos-containing.

Second Floor

One (1) sample of parging cement was collected from pipe elbows within Suite 200 and was determined to be asbestos-containing. Pipe elbows were also observed within the suite across the hall from Suite 200.

Third Floor

Two (2) samples of texture coat were collected from Suite 301. Both samples were determined to be asbestos-containing. Asbestos-containing texture coat was only observed in this suite.

Asbestos-containing vinyl floor tiles were observed in the following locations
- Suite 301 beneath the laminate flooring
- Suite 301 Storage Room
- Front Washroom beneath ceramic tiles
- Front Hallway, Bottom Layer
- Hallway adjacent Rear Washroom
- Office Adjacent Vault beneath Carpet

Throughout

Two (2) samples of window glazing mastic were collected and both samples were determined to be asbestos-containing. All window glazing mastic is considered to be asbestos-containing.

Exterior

One (1) sample of window caulking was collected from the Rooftop Elevator Penthouse and was determined to be asbestos-containing.

Three (3) samples of mastic were collected from the Rooftop parapet wall, stumps and vent flashings. All three samples were determined to be asbestos-containing.

Non-Asbestos Material Results

Please refer to bulk sample results spreadsheet for exact sample locations.

First Floor

The following materials were sampled from the first floor and determined to be non-asbestos:
- Skim coat and plaster
- Skim coat adjacent entrance of Wow Branding Unit
- Vinyl floor tiles
- Adhesive Mastic
- Levelling Compound
- Drywall taping compound within the Wow Branding Unit
- Red mastic in the Loving Spoon unit adjacent the loading bay
- Cementicious material at the drain pipe joint within the Loving Spoon unit

Second Floor

The following materials were sampled from the second floor and determined to be non-asbestos:
- Skim coat and plaster
- Drywall taping compound
- Carpet glue
- Fire stop
- Window caulking
- Paper underlay
- Brick mortar
- Skim coat on brick
- Vinyl floor tiles
- Levelling compound
- Adhesive mastic
- Vinyl sheet flooring
- Vinyl stair tread

Third Floor

The following materials were sampled from the third floor and determined to be non-asbestos:
- Drywall taping compound
- Skim coat on concrete
- Vinyl sheet flooring
- Brick mortar
- Wall texture finish
- Levelling compound
- Carpet glue
- Adhesive mastic
- Skim coat and plaster

Exterior

The following materials were sampled from the exterior and determined to be non-asbestos:
- Stucco
- Window putty
- Tar and gravel roofing
- Tar building paper

Other Hazardous Materials

Lead-Based Finish Results

Suspect leaded paint finishes were sampled from throughout the building. Table 1 shows the concentration of lead in paint for these samples.

Table 1 – Paint Sample Results

Sample #	Sample Location	Lead Concentration (µg/g)	HPA Standard Level (µg/g)
L01	3rd Floor – Rear Hallway Adjacent Elevator, White Drywall Paint	<3.0	90
L02	3rd Floor – Rear Hallway, Grey Floor Paint	**101**	90
L03	3rd Floor – Rear Hallway – White Wood Ceiling	**701**	90
L04	3rd Floor – Storage – White on Brick	**420**	90
L05	3rd Floor – Grey Doorframe Paint	<30	90
L06	2nd Floor – White Drywall Paint	<3.0	90
L07	2nd Floor – Hallway – Grey Floor Paint	**1480**	90
L08	2nd Floor – Suite across Hall from 200 – Silver Pipe Paint	48.6	90
L09	Suite 200 – Front Windows – White Wood Frame	**7250**	90
L10	2nd Floor – Stairwell Landing – Grey Window Frame	**1340**	90
L11	2nd Floor – Stairwell – Red Block Wall Paint	**1810**	90
L12	2nd Floor – Stairwell – Grey Railing Paint	25.3	90
L13	2nd Floor – Fire Escape – Black Railing Paint	<18	90
L14	Exterior Window Sill	**14900**	90
L15	Exterior Wall	**543**	90

Note: Bold values exceed standard level

The concentration of lead was above the HPA standard level of 90 µg/g nine of the fifteen samples collected. The concentration of lead was below the HPA standard level of 90 µg/g for interior drywall paint, interior doorframe paint, interior railing paint and interior pipe paint.

Leaded vent flashings are present on the roof of the building.

Fluorescent light fixtures with ballasts suspected to contain PCBs are present in the Residence. No other suspect PCB-containing components were observed or suspected to be present.

Mercury-vapour fluorescent light tubes were observed in the Residence.

A thermostatic control with a liquid mercury vial is present in the building.

Multiple household chemical and paint containers were observed within the building.

No other hazardous materials were observed.

Conclusions and Recommendations

Asbestos

Asbestos-containing materials are present in the following locations:

- Window glazing mastic on all windows
- Drywall taping compound on drywall finishes within the First Floor Loving Spoon Unit
- Parging cement on pipe elbows within the 1st and 2nd Floors
- Red duct mastic on ventilation ductwork of the 1st Floor.
- Texture finish within Suite 301
- Vinyl floor tile within Suite 301 beneath the laminate flooring
- Vinyl floor tile within Suite 301 Storage Room
- Vinyl floor tile within the 3rd Floor Front Washroom beneath ceramic tiles
- Vinyl floor tile within the 3rd Floor Front Hallway, Bottom Layer
- Vinyl floor tile within the Hallway adjacent Rear Washroom
- Vinyl floor tile within a 3rd Floor Office Adjacent to the Vault beneath Carpet
- Window caulking around the elevator penthouse window
- Tar mastic on rooftop stumps and vent flashings
- Mastic on the rooftop parapet wall

All asbestos-containing materials must be removed prior to demolition activities by a qualified hazardous materials contractor using appropriate work procedures as defined by WorkSafe BC.

Due to building occupants the survey was non-destructive in occupied units throughout the first and third floors. The 2nd floor was unoccupied and destructive testing was conducted. Due to occupant contents it is possible that concealed materials may be present in these areas. Once the building is unoccupied, Sure Hazmat should be contacted to conduct a final inspection within these areas.

Lead

Lead based finishes are present in the following locations:

- Interior white paint on wood and brick
- Grey floor paint on concrete and wood
- Concrete block wall paint
- Interior window frame/sill paint
- Exterior window frame/sill paint
- Exterior wall paint

The presence of lead based paint finishes does not pose an immediate hazard to building occupants when present in good condition and left undisturbed. Any peeling paint and paint chips must be cleaned up following lead safe work procedures.

This section is intended to aid in compliance with WorkSafe BC regulations, and is not intended to replace a Risk Assessment conducted on site by a qualified person prior to the start of lead abatement work.

As per the WorkSafe BC publication "Lead-Containing Paints and Coatings Preventing Exposure in the Construction Industry" all lead-containing waste materials must be sampled and analyzed using the standard Toxicity Characteristic Leaching Procedure (TCLP). This procedure is designed to determine the leachability of lead in liquid and solid wastes.

For manual demolition of lead-based finishes, the following safe work procedures should be followed, at a minimum:

- Supply appropriate notification to WorkSafe BC,
- Personal Protective Equipment must include half face respiratory protection fitted with P100 filters and approved disposable coveralls with head and foot covers,
- Use of lead hazard or appropriate warning tape and warning signs around the perimeter of the work area and a polyethylene drop sheet,
- HEPA-equipped vacuum for local exhaust ventilation and to ensure removal of all lead-based materials,
- Mist the peeling paint with water before scraping,
- Remove waste by wet sweeping or HEPA-vacuuming – dry sweeping is not permitted,
- Hand and face wash station,
- Air monitoring is recommended on the first day of work, one day per week, and any time work procedures are significantly changed.

Leaded vent flashings should be removed and properly recycled, or disposed of as hazardous waste at an approved facility.

Polychlorinated Biphenyls (PCBs)

Older suspect light ballasts must be inspected prior to removal of fixtures for the manufacturer's identification code to determine the presence of PCBs. If the light ballast is PCB-containing, the ballast must be disposed of in an impermeable waste container for disposal by a qualified hazardous materials contractor. Confirmed PCB-containing light ballasts must be handled and removed following appropriate work procedures as defined by WorkSafe BC OH&S regulation. Disposal of PCBs must be performed in accordance with BC Ministry of Environment Hazardous Waste regulation.

Mercury

Fluorescent lights with mercury-vapour tubes are present in the building. Avoid breaking large quantities of mercury-vapour tubes indoors. Workers handling broken tubes should wear nitrile gloves covered by leather gloves, at a minimum, to avoid exposure to residual mercury on the tubes.

When thermostatic controls with liquid mercury vials are disposed of, the mercury vials must remain intact and packaged in an impermeable waste container for disposal by a qualified hazardous materials contractor. Disposal must be conducted in accordance with the BC Ministry of Environment Hazardous Waste regulations.

Household Paint and Chemical Containers

Chemical and paint containers should be assessed to determine if any of the material remains in the container, and should be disposed of at the appropriate facility for each type of chemical. Paint may be recycled at a Product Care recycling facility. Any containers with contents that cannot be identified should be disposed of as hazardous waste at an approved facility. Any person handling sealed and intact chemical containers should wear nitrile gloves to prevent skin contact. Any leaking or broken chemical containers should be removed by a qualified hazardous material contractor.

WorkSafe-BC Requirements

This section is intended to aid in compliance with WorkSafe BC regulations, and is not intended to replace a Risk Assessment conducted on site by a qualified person prior to the start of asbestos abatement work.

Prior to the performance of any work that impacts asbestos-containing materials, it is a regulatory requirement that a qualified person perform a Risk Assessment. This requirement is in compliance with the WorkSafe-BC Occupational Health & Safety (OH&S) Regulation *Part 6 "Substance Specific Requirements";* specifically Section 6.6 subsections (1), (2), (3) and (4). The following recommendations are presented:

During the removal of asbestos-containing texture finish, **High Risk** asbestos safe work procedures must be followed, including the following at a minimum:

- Supply appropriate notification to WorkSafe BC,
- Personal Protective Equipment must include full-face Powered Air Purifying (PAPR) respiratory protection fitted with P100 filters and approved disposable coveralls with head and foot covers,
- Application of amended water to the asbestos materials being disturbed,
- Complete isolation of the work area by means of a full polyethylene enclosure,
- Use of asbestos barrier tape and warning signs around the perimeter of the work area,
- Use of HEPA-filtered, DOP tested negative air units, exhausted outside the building,
- Creation of a negative pressure atmosphere within the work area,
- HEPA-equipped vacuum for local exhaust ventilation and to ensure removal of all asbestos materials,
- Full shower decontamination facilities,
- Air monitoring.

During the removal of asbestos-containing drywall taping compound, **Modified Moderate Risk** asbestos safe work procedures must be followed, including the following at a minimum:

- Supply appropriate notification to WorkSafe BC,
- Personal Protective Equipment must include full-face Powered Air Purifying (PAPR) respiratory protection fitted with P100 filters and approved disposable coveralls with head and foot covers,
- Application of amended water to the asbestos materials being disturbed,
- Complete isolation of the work area by means of a full polyethylene enclosure,
- Use of asbestos barrier tape and warning signs around the perimeter of the work area,
- Use of HEPA-filtered, DOP tested negative air units, exhausted outside the building,
- Creation of a negative pressure atmosphere within the work area,
- HEPA-equipped vacuum for local exhaust ventilation and to ensure removal of all asbestos materials,
- Full shower decontamination facilities for overhead work,
- Hand and face wash station,
- Air monitoring.

During the removal of asbestos-containing vinyl floor tile, window glazing mastic, window caulking, red duct mastic and tar mastic, **Moderate Risk** asbestos safe work procedures must be followed, including the following at a minimum:

- Supply appropriate notification to WorkSafe BC,
- Personal Protective Equipment must include tight-fitting half face piece respiratory protection fitted with P100 filters and approved disposable coveralls with head and foot covers,
- Application of amended water to the asbestos materials being disturbed,
- Use of asbestos barrier tape and warning signs around the perimeter of the work area,
- Use of HEPA-filtered, DOP tested negative air units, exhausted outside the building,
- HEPA-equipped vacuum for local exhaust ventilation and to ensure removal of all asbestos materials,
- Hand and face wash station,
- Air monitoring.

During the removal of asbestos-containing parging cement on pipe elbows, **Moderate Risk (Glovebag)** asbestos safe work procedures must be followed, including the following at a minimum:

- Supply appropriate notification to WorkSafe BC,
- Personal Protective Equipment must include tight-fitting half face piece respiratory protection fitted with P100 filters and approved disposable coveralls with head and foot covers,
- Application of amended water to the asbestos materials being disturbed,
- Use of asbestos barrier tape and warning signs around the perimeter of the work area,
- Use of HEPA-filtered, DOP tested negative air units, exhausted outside the building,
- Creation of a negative pressure atmosphere within the work area,
- HEPA-equipped vacuum for local exhaust ventilation and to ensure removal of all asbestos materials,
- Hand and face wash station,
- Air monitoring.

To comply with Part 6 of the WorkSafe-BC OH&S Regulation, specifically Section 6.32 relating to documentation, the client should acquire copies of the asbestos abatement contractor's Notice of Project (NOP), abatement procedures, air monitoring results and any documentation issued to WorkSafe-BC. These documents are required to be stored and held for 10 years.

Limitations

This report is intended for the exclusive use of the client to determine the likely locations of hazardous materials prior to the planned demolition of the building. **This report is not a Specification or Scope of Work and the use of this document as such will be at the sole risk of the user.**

The contents of this report were based on a site visit conducted by Sure Hazmat and Testing personnel. Please note that some asbestos products may not have been accessible on the day of our survey and may remain unidentified. Asbestos products are sometimes used behind wall partitions, on mechanical systems located in pipe chases, in sub-floors or other concealed areas, and assumptions have been made as to the likely contents of those areas. Should a suspect material be encountered, all work must be stopped and Sure Hazmat will investigate immediately. Hazardous materials investigation does not include investigation for the presence of subsurface contamination or underground storage tanks.

If further clarification is required, please contact our office. Thank you for having Sure Hazmat and Testing perform this work for you.

Prepared by:

Ryan Verhelst, B.Sc, *Project Co-ordinator*
Sure Hazmat and Testing

Reviewed by:

John Shaw, *Principal*
Sure Hazmat and Testing

Encl. Laboratory Bulk Report
Site Photos
Ref: 6697-R01

Photo # 1 – Asbestos-containing vent flashing mastic

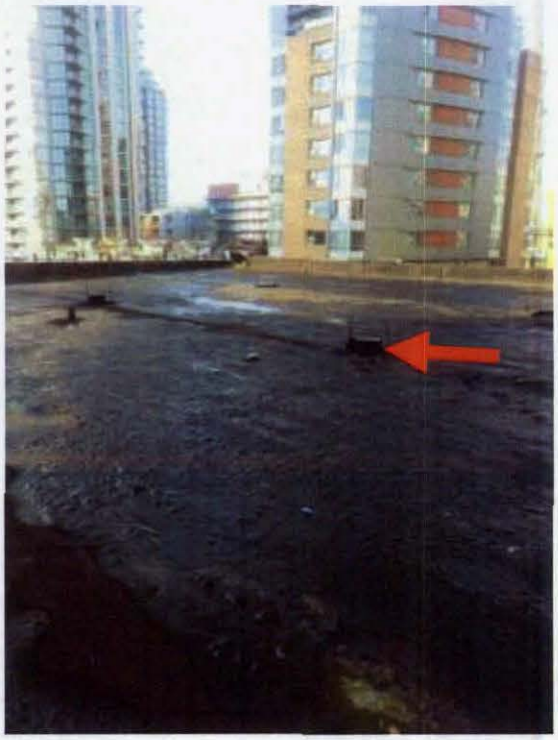

Photo # 2 – Asbestos-containing mastic on stumps

Photo # 3 – Asbestos-containing window glazing mastic

Photo # 4 – Asbestos-containing vinyl floor tiles present in areas on the 3rd Floor

Photo # 5 – Asbestos-containing ceiling texture finish in Suite 301

Photo # 6 – Asbestos-containing parging cement on pipe elbows within Suite 200.

Photo # 7 – Assumed asbestos-containing red duct mastic

Bu461941

SURE Hazmat and Testing

101-4268 Lozells Avenue
Burnaby, B.C.
Tel: 604.444.0204

Bulk Asbestos Results

Client: 6697 - Wall Financial

Sampled By/ Date: R. Verhelst, January 2014

Reference: 1300 Richards Street, Vancouver, BC

Client	Date Analyzed	Analyst	Sample Location	Material Type	Other Materials glass, synthetics, cellulose	Asbestos Type & Amount
6697-01	29-Jan-14	LP	1st Floor - Lobby	Skim Coat	Non-Fibrous 90% Other Fibres >5%	Non-Detected
				Plaster	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-02	29-Jan-14	LP	1st Floor - Wow Branding - Kitchen	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-03	29-Jan-14	LP	1st Floor - Wow Branding - Meeting Rm	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-04	29-Jan-14	LP	1st Floor - Wow Branding Adjacent to the Furnace Room	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-05	29-Jan-14	LP	1st Floor - Wow Branding Adjacent Entrance	Skim Coat	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-06	29-Jan-14	LP	1st Floor - Wow Branding- Kitchen	Vinyl Floor Tile (White)	Non-Fibrous 90% Other Fibres >5%	Non-Detected
				Vinyl Floor Tile (Blue)	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-07	29-Jan-14	LP	1st Floor - Loving Spoon Adj. Door to Loading Bay	Red Mastic	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-08	29-Jan-14	LP	1st Floor - Loving Spoon Rear Washroom	Vinyl Floor Tile	Non-Fibrous 90% Other Fibres >5%	Non-Detected
				Mastic	Non-Fibrous 90% Other Fibres >5%	Non-Detected
				Levelling Compound - White	Non-Fibrous 90% Other Fibres >5%	Non-Detected
				Levelling Compound - Brown	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-09	29-Jan-14	LP	1st Floor - Loving Spoon Rear Sink Area	Levelling Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-10	29-Jan-14	LP	1st Floor - Loving Spoon Drain Pipe @ Joint	Cementicious Material	Non-Fibrous 90% Other Fibres >5%	Non-Detected

Note: Chrysotile is part of the Serpentine Asbestos Mineral Group

AIHA Proficiency Analytical Testing Programs, LLC Lab #193144

*Samples analyzed in accordance with NIOSH 9002 PLM Bulk Sampling Method

Sure Hazmat and Testing is an active participant of the American Industrial Hygiene Association (AIHA) Bulk Asbestos Proficiency Analytical Testing (BAPAT).

101-4268 Lozells Avenue
Burnaby, B.C.
Tel: 604.444.0204

SURE Hazmat and Testing

Bulk Asbestos Results

Client: 6697 - Wall Financial

Sampled By/ Date: R. Verhelst, January 2014

Reference: 1300 Richards Street, Vancouver, BC

Client	Date Analyzed	Analyst	Sample Location	Material Type	Other Materials glass, synthetics, cellulose	Asbestos Type & Amount
6697-11	29-Jan-14	LP	1st Floor - Loving Spoon Rear Sink Area	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	**Chrysotile 1-3%**
6697-12	29-Jan-14	LP	1st Floor - Loving Spoon Rear Washroom	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-13	29-Jan-14	LP	1st Floor - Loving Spoon Cooler Area	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-14	29-Jan-14	LP	1st Floor - Loving Spoon Front Corner Office	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-15	29-Jan-14	LP	2nd Floor - 200 - Office Area Beneath Carpet	Carpet Glue	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-16	29-Jan-14	LP	2nd Floor - 200 - Main Area Pipe Elbow	Parging Cement	Non-Fibrous 90% Other Fibres >5%	**Chrysotile 20-30%**
6697-17	29-Jan-14	LP	2nd Floor - 200 - Main Area Chimney at Pipe Penetration	Fire Stop	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-18	29-Jan-14	LP	2nd Floor - 200 Main Area Adj Chimney, Ceiling @ Pipe Pen.	Fire Stop	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-19	29-Jan-14	LP	2nd Floor - 200 - Main Area Between Wood and Brick	Window Caulking	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-20	29-Jan-14	LP	2nd Floor - 200 - Main Area	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected

Note* Chrysotile is part of the Serpentine Asbestos Mineral Group

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Reference: 1300 Richards Street, Vancouver, BC

Client	Date Analyzed	Analyst	Sample Location	Material Type	Other Materials glass, synthetics, cellulose	Asbestos Type & Amount
6697-21	29-Jan-14	LP	2nd Floor - 200 - Storage Area	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-22	29-Jan-14	LP	2nd Floor - Suite across from 200 Interior Wall	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-23	29-Jan-14	LP	2nd Floor - Suite across from 200 Front Wall	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-24	29-Jan-14	LP	2nd Floor - Suite across from 200 Beneath Laminate Flooring	Paper Underlay	Non-Fibrous >5% Other Fibres 90%	Non-Detected
6697-25	29-Jan-14	LP	2nd Floor - Suite 202 Product	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-26	29-Jan-14	LP	2nd Floor - Suite 205	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-27	29-Jan-14	LP	2nd Floor - Central Unit Ceiling Pipe Penetration	Fire Stop	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-28	29-Jan-14	LP	2nd Floor - Suite Adjacent Washrooms	Brick Mortar	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-29	29-Jan-14	LP	2nd Floor - Suite Adjacent Washrooms	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-30	29-Jan-14	LP	2nd Floor - Rear Suite Adj. Fire Exit	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected

Note* Chrysotile is part of the Serpentine Asbestos Mineral Group

AIHA Proficiency Analytical Testing Programs, LLC Lab #193144

*Samples analyzed in accordance with NIOSH 9002 PLM Bulk Sampling Method

Sure Hazmat and Testing is an active participant of the American Industrial Hygiene Association (AIHA) Bulk Asbestos Proficiency Analytical Testing (PAPAT).

101-4268 Lozells Avenue
Burnaby, B.C.
Tel: 604.444.0204

SURE Hazmat and Testing

Bulk Asbestos Results

Client: 6697 - Wall Financial

Sampled By/ Date: R. Verhelst, January 2014

Reference: 1300 Richards Street, Vancouver, BC

Client	Date Analyzed	Analyst	Sample Location	Material Type	Other Materials glass, synthetics, cellulose	Asbestos Type & Amount
6697-31	29-Jan-14	LP	2nd Floor - Rear Suite Adj. Fire Exit	Vinyl Floor Tile (Black)	Non-Fibrous 90% Other Fibres >5%	Non-Detected
				Vinyl Floor Tile (White)	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-32	29-Jan-14	LP	2nd Floor - Fire Exit Stairwell Landing	Skim Coat on Brick	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-33	29-Jan-14	LP	2nd Floor - Hallway - Rear	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-34	29-Jan-14	LP	2nd Floor - Hallway - Central	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-35	29-Jan-14	LP	2nd Floor - Hallway - Front	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-36	29-Jan-14	LP	Main Stairwell - 2nd Floor Landing	Skim Coat	Non-Fibrous 90% Other Fibres >5%	Non-Detected
				Plaster		Non-Detected
6697-37	29-Jan-14	LP	Main Stairwell - Stairwell to 3rd Level	Skim Coat	Non-Fibrous 90% Other Fibres >5%	Non-Detected
				Plaster		Non-Detected
6697-38	29-Jan-14	LP	Main Stairwell - 2nd Floor Landing	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-39	29-Jan-14	LP	Main Stairwell - 2nd Floor Landing	Vinyl Sheet Flooring	Non-Fibrous 90% Other Fibres >5%	Non-Detected
				Jute Backing	Non-Fibrous >5% Other Fibres 90%	Non-Detected
				Levelling Compound and Mastic	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-40	29-Jan-14	LP	Main Stairwell - 2nd Floor	Vinyl Stair Tread	Non-Fibrous 90% Other Fibres >5%	Non-Detected

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AIHA Proficiency Analytical Testing Programs, LLC Lab #193144

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Tel: 604.444.0204

SURE Hazmat and Testing

Bulk Asbestos Results

Client: 6697 - Wall Financial

Sampled By/ Date: R. Verhelst, January 2014

Reference: 1300 Richards Street, Vancouver, BC

Client	Date Analyzed	Analyst	Sample Location	Material Type	Other Materials glass, synthetics, cellulose	Asbestos Type & Amount
6697-41	29-Jan-14	LP	3rd Floor - 301 Adjacent Entrance Door	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-42	29-Jan-14	LP	3rd Floor - 301 Adjacent Front Windows	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-43	29-Jan-14	LP	3rd Floor - 301 Rear Wall (Opposite Entrance)	Wall Texture	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-44	29-Jan-14	LP	3rd Floor - 301 Main Area Ceiling	Texture Finish	Non-Fibrous 90% Other Fibres >5%	**Chrysotile 3-5%**
6697-45	29-Jan-14	LP	3rd Floor - 301 Storage Room Ceiling	Texture Finish	Non-Fibrous 90% Other Fibres >5%	**Chrysotile 3-5%**
6697-46	29-Jan-14	LP	3rd Floor - 301 Front Windows	Window Mastic	Non-Fibrous 90% Other Fibres >5%	**Chrysotile 3-5%**
6697-47	29-Jan-14	LP	3rd Floor - Washroom Adj Vault Beneath Ceramic Tiles	Vinyl Covering Vinyl Floor Tile Mastic	Non-Fibrous 90% Other Fibres >5% Non-Fibrous 80% Other Fibres >5% Non-Fibrous 90% Other Fibres >5%	Non-Detected **Chrysotile 5-10%** Non-Detected
6697-48	29-Jan-14	LP	3rd Floor - Telus Closet Adj Vault Adjacent Main Washroom	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-49	29-Jan-14	LP	3rd Floor - 303	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-50	29-Jan-14	LP	3rd Floor - 303 Under Carpet	Levelling Compound Glue	Non-Fibrous 90% Other Fibres >5%	Non-Detected Non-Detected

Note* Chrysotile is part of the Serpentine Asbestos Mineral Group

AIHA Proficiency Analytical Testing Programs, LLC Lab #193144

*Samples analyzed in accordance with NIOSH 9002 PLM Bulk Sampling Method

Sure Hazmat and Testing is an active participant of the American Industrial Hygiene Association (AIHA) Bulk Asbestos Proficiency Analytical Testing (BAPAT).

101-4268 Lozells Avenue
Burnaby, B.C.
Tel: 604.444.0204

SURE Hazmat and Testing

Bulk Asbestos Results

Client: 6697 - Wall Financial

Sampled By/ Date: R. Verhelst, January 2014

Reference: 1300 Richards Street, Vancouver, BC

Client	Date Analyzed	Analyst	Sample Location	Material Type	Other Materials glass, synthetics, cellulose	Asbestos Type & Amount
6697-51	29-Jan-14	LP	3rd Floor - 303 on Concrete Wall	Skim Coat	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-52	29-Jan-14	LP	3rd Floor - Office Adjacent Vault	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-53	29-Jan-14	LP	3rd Floor - Office Adjacent Vault Under Carpet	Vinyl Floor Tile Mastic	Non-Fibrous 80% Other Fibres >5%	**Chrysotile 5-10%**
6697-54	29-Jan-14	LP	3rd Floor - Office Adjacent Vault	Window Mastic	Non-Fibrous 70% Other Fibres >5%	**Chrysotile 10-20%**
6697-55	29-Jan-14	LP	3rd Floor - Hallway Outside Rear Washroom	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-56	29-Jan-14	LP	3rd Floor - Hallway Outside Rear Washroom	Vinyl Floor Tile Mastic	Non-Fibrous 80% Other Fibres >5% Non-Fibrous 90% Other Fibres >5%	**Chrysotile 5-10%** Non-Detected
6697-57	29-Jan-14	LP	3rd Floor - Rear Washroom Red	Vinyl Sheet Flooring *Jute Backing*	Non-Fibrous 90% Other Fibres >5% Non-Fibrous >5% Other Fibres 90%	Non-Detected Non-Detected
6697-58	29-Jan-14	LP	3rd Floor - Storage Between Suite 306 and Rear Wash	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-59	29-Jan-14	LP	3rd Floor - Storage Between Suite 306 and Rear Wash	Brick Mortar	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-60	29-Jan-14	LP	3rd Floor - Suite 306	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected

Note* Chrysotile is part of the Serpentine Asbestos Mineral Group

AIHA Proficiency Analytical Testing Programs, LLC Lab #193144

*Samples analyzed in accordance with NIOSH 9002 PLM Bulk Sampling Method

Sure Hazmat and Testing is an active participant of the American Industrial Hygiene Association (AIHA) Bulk Asbestos Proficiency Analytical Testing (BAPAT).

101-4268 Lozells Avenue
Burnaby, B.C.
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SURE Hazmat and Testing

Bulk Asbestos Results

Client: 6697 - Wall Financial

Sampled By/ Date: R. Verhelst, January 2014

Reference: 1300 Richards Street, Vancouver, BC

Client	Date Analyzed	Analyst	Sample Location	Material Type	Other Materials glass, synthetics, cellulose	Asbestos Type & Amount
6697-61	31-Jan-14	LP	3rd Floor - Hallway Adjacent Suite 303	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-62	31-Jan-14	LP	3rd Floor - Hallway Adjacent Elevator	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-63	31-Jan-14	LP	3rd Floor - Hallway Adjacent 306	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-64	31-Jan-14	LP	3rd Floor - Hallway Adjacent Vault	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-65	31-Jan-14	LP	3rd Floor - Hallway Adjacent Suite 301	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-66	31-Jan-14	LP	3rd Floor - Hallway Adj Window adjacent to elevator	Skim Coat Plaster	Non-Fibrous 90% Other Fibres >5% Non-Fibrous 90% Other Fibres >5%	Non-Detected Non-Detected
6697-67	31-Jan-14	LP	3rd Floor - Hallway Adjacent Vault	Vinyl Sheet Flooring Vinyl Covering Jute Backing Vinyl Floor Tile	Non-Fibrous 90% Other Fibres >5% Non-Fibrous 90% Other Fibres >5% Non-Fibrous >5% Other Fibres 90% Non-Fibrous 80% Other Fibres >5%	Non-Detected Non-Detected Non-Detected **Chrysotile 5-10%**
6697-68	31-Jan-14	LP	3rd Floor - Window Adjacent 3rd Floor Stairwell	Window Mastic	Non-Fibrous 70% Other Fibres >5%	***Chrysotile 10-20%***
6697-69	31-Jan-14	LP	Roof - Elevator Penthouse	Window Caulking	Non-Fibrous 60% Other Fibres >5%	**Chrysotile 20-30%**
6697-70	31-Jan-14	LP	Roof - Elevator Penthouse	Window Putty	Non-Fibrous 90% Other Fibres >5%	Non-Detected

Note: Chrysotile is part of the Serpentine Asbestos Mineral Group

AIHA Proficiency Analytical Testing Programs, LLC Lab #193144

*Samples analyzed in accordance with NIOSH 9002 PLM Bulk Sampling Method

Sure Hazmat and Testing is an active participant of the American Industrial Hygiene Association (AIHA) Bulk Asbestos Proficiency Analytical Testing (PAPAT).

101-4268 Lozells Avenue
Burnaby, B.C.
Tel: 604.444.0204

SURE Hazmat and Testing

Bulk Asbestos Results

Client: 6697 - Wall Financial

Sampled By/ Date: R. Verhelst, January 2014

Reference: 1300 Richards Street, Vancouver, BC

Client	Date Analyzed	Analyst	Sample Location	Material Type	Other Materials glass, synthetics, cellulose	Asbestos Type & Amount
6697-71	31-Jan-14	LP	Front Exterior Window	Window Putty	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-72	31-Jan-14	LP	Roof - Southwest	Tar and Gravel	Non-Fibrous 80% Other Fibres 20%	Non-Detected
6697-73	31-Jan-14	LP	Roof - North	Tar and Gravel	Non-Fibrous 80% Other Fibres 20%	Non-Detected
6697-74	31-Jan-14	LP	Roof - East	Tar and Gravel	Non-Fibrous 80% Other Fibres 20%	Non-Detected
6697-75	31-Jan-14	LP	Roof - Stumps	Tar Mastic	Non-Fibrous 80% Other Fibres >5%	**Chrysotile 5-10%**
6697-76	31-Jan-14	LP	Roof - Vent Flashing	Mastic	Non-Fibrous 75% Other Fibres >5%	**Chrysotile 10-15%**
6697-77	31-Jan-14	LP	Roof - Parapet Wall	Mastic	Non-Fibrous 60% Other Fibres >5%	**Chrysotile 20-30%**
6697-78	31-Jan-14	LP	Rear Alley - Stucco Patch	Stucco Tar Paper	Non-Fibrous 90% Other Fibres >5% Non-Fibrous 20% Other Fibres 80%	Non-Detected Non-Detected
6697-79	31-Jan-14	LP	Front Exterior Window Sill	Stucco	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-80	31-Jan-14	LP	Front Exterior wall	Stucco	Non-Fibrous 90% Other Fibres >5%	Non-Detected

Note* Chrysotile is part of the Serpentine Asbestos Mineral Group

AIHA Proficiency Analytical Testing Programs, LLC Lab #193144

*Samples analyzed in accordance with NIOSH 9002 PLM Bulk Sampling Method

Sure Hazmat and Testing is an active participant of the American Industrial Hygiene Association (AIHA) Bulk Asbestos Proficiency Analytical Testing (PAPAT)

101-4268 Lozells Avenue
Burnaby, B.C.
Tel: 604 444 0204

SURE Hazmat and Testing

Bulk Asbestos Results

Client: 6697 - Wall Financial

Sampled By/ Date: R. Verhelst, January 2014

Reference: 1300 Richards Street, Vancouver, BC

Client	Date Analyzed	Analyst	Sample Location	Material Type	Other Materials glass, synthetics, cellulose	Asbestos Type & Amount
6697-81	31-Jan-14	LP	Exterior Wall (Drake Street) Adjacent Loading Bay	Stucco	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-82	31-Jan-14	LP	Exterior Wall (Drake Street)	Stucco	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-83	31-Jan-14	LP	Rear Alley	Stucco	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-84	31-Jan-14	LP	Rear Alley Adjacent 1320	Stucco	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-85	31-Jan-14	LP	1st Floor - Wow Branding Adjacent Entrance	Skim Coat	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-86	31-Jan-14	LP	1st Floor - Wow Branding Adjacent Entrance	Skim Coat	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-87	31-Jan-14	LP	1st Floor - Loving Spoon Adjacent Loading Bay	Red Mastic	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-88	31-Jan-14	LP	1st Floor - Loving Spoon Adjacent Loading Bay	Red Masitc	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-89	31-Jan-14	LP	2nd Floor - 200 - Main Area Between Wood and Brick	Window Caulking	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-90	31-Jan-14	LP	2nd Floor - 200 - Main Area Between Wood and Brick	Window Caulking	Non-Fibrous 90% Other Fibres >5%	Non-Detected

Note* Chrysotile is part of the Serpentine Asbestos Mineral Group

AIHA Proficiency Analytical Testing Programs, LLC Lab #193144

*Samples analyzed in accordance with NIOSH 9002 PLM Bulk Sampling Method

Sure Hazmat and Testing is an active participant of the American Industrial Hygiene Association (AIHA) Bulk Asbestos Proficiency Analytical Testing (BAPAT).

101-4268 Lozells Avenue
Burnaby, B.C.
Tel: 604.444.0204

SURE Hazmat and Testing

Bulk Asbestos Results

Client: 6697 - Wall Financial

Sampled By/ Date: R. Verhelst, January 2014

Reference: 1300 Richards Street, Vancouver, BC

Client	Date Analyzed	Analyst	Sample Location	Material Type	Other Materials glass, synthetics, cellulose	Asbestos Type & Amount
6697-91	31-Jan-14	LP	2nd Floor - Fire Exit Stairwell Landing	Skim Coat on Brick	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-92	31-Jan-14	LP	2nd Floor - Fire Exit Stairwell Landing	Skim Coat on Brick	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-93	31-Jan-14	LP	Suite 301	Wall Texture	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-94	31-Jan-14	LP	Suite 301	Wall Texture	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-95	31-Jan-14	LP	3rd Floor - Suite 303	Skim Coat on Concrete	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-96	31-Jan-14	LP	3rd Floor - Suite 303	Skim Coat on Concrete	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-97	31-Jan-14	LP	Elevator Penthouse	Window Putty	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-98	31-Jan-14	LP	Elevator Penthouse	Window Putty	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-99	31-Jan-14	LP	Front Exterior Window	Window Putty	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-100	31-Jan-14	LP	Front Exterior Window	Window Putty	Non-Fibrous 90% Other Fibres >5%	Non-Detected

Note* Chrysotile is part of the Serpentine Asbestos Mineral Group

AIHA Proficiency Analytical Testing Programs, LLC Lab #193144

*Samples analyzed in accordance with NIOSH 9002 PLM Bulk Sampling Method

Sure Hazmat and Testing is an active participant of the American Industrial Hygiene Association (AIHA) Bulk Asbestos Proficiency Analytical Testing (PAPAT).

101-4268 Lozells Avenue
Burnaby, B.C.
Tel: 604.444.0204

SURE Hazmat and Testing

Bulk Asbestos Results

Client: 6697 - Wall Financial

Sampled By/ Date: R. Verhelst, January 2014

Reference: 1320 Richards Street, Vancouver, BC

Client	Date Analyzed	Analyst	Sample Location	Material Type	Other Materials glass, synthetics, cellulose	Asbestos Type & Amount
6697-101	31-Jan-14	LP	1st Floor - Front Storage	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-102	31-Jan-14	LP	1st Floor - Storage Adj. Front Stairwell	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-103	31-Jan-14	LP	1st Floor - Storage Adj. Front Stairwell	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-104	31-Jan-14	LP	1st Floor - Front Stairwell	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-105	31-Jan-14	LP	1st Floor - Rear Stairwell	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-106	31-Jan-14	LP	1st Floor - Stairs to Cellar	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-107	31-Jan-14	LP	1st Floor - Adj. Electrical Panel	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-108	31-Jan-14	LP	1st Floor - Original Mens Washroom	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-109	31-Jan-14	LP	1st Floor - Adjacent Rear Exit Adjacent Orignal Mens Washroom	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected
6697-110	31-Jan-14	LP	1st Floor - New Area Behind Counter	Drywall Taping Compound	Non-Fibrous 90% Other Fibres >5%	Non-Detected

Note* Chrysotile is part of the Serpentine Asbestos Mineral Group

AIHA Proficiency Analytical Testing Programs, LLC Lab #193144

*Samples analyzed in accordance with NIOSH 9002 PLM Bulk Sampling Method

Sure Hazmat and Testing is an active participant of the American Industrial Hygiene Association (AIHA) Bulk Asbestos Proficiency Analytical Testing (PAPAT).

Maxxam

Success Through Science

Your Project #: 6697 WALL FINANCIAL
Site Location: 1300 RICHARDS STREET
Your C.O.C. #: G078580, G080617

Attention: Ryan Verhelst
Sure Hazmat & Testing
101-4268 Lozells Avenue
BURNABY, BC
CANADA V5A 0C6

Report Date: 2014/02/07
Report #: R1512922
Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B408754
Received: 2014/02/04, 09:10

Sample Matrix: PAINT
Samples Received: 15

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Elements by ICP-AES (acid extr. solid)	15	2014/02/07	2014/02/07	BBY7SOP-00018	EPA 6010c

* Results relate only to the items tested.

Encryption Key

Maxxam
07 Feb 2014 16:28:16 -08:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jasmeen Jatana, Project Manager
Email: JJatana@maxxam.ca
Phone# (604) 734 7276

==========

This report has been generated and distributed using a secure automated process.
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B408754
Report Date: 2014/02/07

Sure Hazmat & Testing
Client Project #: 6697 WALL FINANCIAL
Site Location: 1300 RICHARDS STREET
Sampler Initials: RV

LEAD IN PAINT CHIPS (PAINT)

Maxxam ID		IP4471	IP4472	IP4473	IP4474		IP4475		IP4476		
	UNITS	L01-3-REAR HALL ADJ ELEVATOR-WHITE D/WALL PAINT	L02-3-REAR HALL-GREY FLOOR PAINT	L03-3-REAR HALL-WHITE WOOD CEILING	L04-3-STORAGE-WHITE ON BRICK	RDL	L05--3-GREY DOOR FRAME PAINT	RDL	L06-2-HALL-WHITE D/WALL PAINT	RDL	QC Batch
Total Metals by ICP											
Total Lead (Pb)	mg/kg	<3.0	101	701	420	3.0	<30(1)	30	<3.0	3.0	7374911

Maxxam ID		IP4477	IP4478	IP4479	IP4480	IP4481		
	UNITS	L07-2 HALL-GREY FLOOR PAINT	L08-SUITE ACROSS FROM 200-SILVER PIPE PAINT	L09-200 FRONT WINDOWS-WHITE FRAME	L10-2-STAIRWELL LANDING-GREY WINDOW FRAME	L11-2-STAIRWELL-RED BLK WALL PAINT	RDL	QC Batch
Total Metals by ICP								
Total Lead (Pb)	mg/kg	1480	48.6	7250	1340	1810	3.0	7374911

Maxxam ID		IP4482		IP4483		IP4484	IP4485		
	UNITS	L12-2-STAIRWELL-GREY RAILING PAINT	RDL	L13-FIRE ESCAPE-BLACK RAILING	RDL	L14-EXT WINDOW SILL-BEIGE	L15-FRONT EXT WALL-BROWN	RDL	QC Batch
Total Metals by ICP									
Total Lead (Pb)	mg/kg	25.3	3.0	<18(1)	18	14900	543	3.0	7374911

RDL = Reportable Detection Limit
(1) - Detection limits raised due to insufficient sample volume.

Maxxam Job #: B408754
Report Date: 2014/02/07

Sure Hazmat & Testing
Client Project #: 6697 WALL FINANCIAL
Site Location: 1300 RICHARDS STREET
Sampler Initials: RV

QUALITY ASSURANCE REPORT

			Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7374911	Total Lead (Pb)	2014/02/07	<3.0	mg/kg	2.8	35	98	80 - 120

N/A = Not Applicable
RPD = Relative Percent Difference
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Maxxam

4606 Canada Way, Burnaby, BC Canada V5G 1K5 Ph: 604 734 7276 Toll Free: 1 800 665 6566 Fax: 604 731 2386

Maxxam Job#: B408754

CHAIN OF CUSTODY RECORD

Page: 1 of 2

G 078580

Invoice To: Require Report? Yes ☐ No ☐

Company Name: SureHazmat
Contact Name: Ryan Verhelst
Address: 101-4268 Lozells Ave
Burnaby BC V5A 0C6
Phone / Fax#: Ph: 778-899-2959 Fax:
E-mail RVerhelst@Surehazmat.com

Report To:

Company Name:
Contact Name:
Address:
PC:
Phone / Fax#: Ph: Fax:
E-mail

PO #:
Quotation #:
Project #: 6697
Proj. Name: Wall Financial
Location: 1300 Richards St.
Sampled By: RV

REGULATORY REQUIREMENTS SERVICE REQUESTED:

☐ CSR
☐ CCME
☐ BC Water Quality
☐ Other
☐ DRINKING WATER

☒ Regular Turn Around Time (TAT) (5 days for most tests)
☐ RUSH (Please contact the lab)
☐ 1 Day ☐ 2 Day ☐ 3 Day
Date Required:

Special Instructions:

Return Cooler ☐ Ship Sample Bottles (please specify) ☐

ANALYSIS REQUESTED

	Sample Identification	Lab Identification	Sample Type	Date/Time Sampled
1	L01-3-Rear Hall adj Elevator-White c/wall		PAINT	
2	L02-3-Rear Hall-Grey Floor		PAINT	
3	L03-3-Rear Hall-White wood Ceiling			
4	L04-3-Storage-White on BRICK			
5	L05-3-Grey Door Frame		PAINT	
6	L06-2-Hall-White c/wall		PAINT	
7	L07-2 Hall-Grey Floor		PAINT	
8	L08-Suite Across From 200-Silver Pipe		PAINT	
9	L09-200 Front Windows-White Frame			
10	L10-2-Stairwell Landing-Grey Window Frame			
11	L11-2-Stairwell-Red Blk Wall		PAINT	
12	L12-2-Stairwell-Grey Railing		PAINT	

Lead in Paint

B408754

Laboratory Use Only

Samples are from a Drinking Water Source? YES ☐ NO ☐
Does source supply multiple households? YES ☐ NO ☐

*Relinquished by:	Date (YY/MM/DD):	Time:	Received by:	Date (YY/MM/DD):	Time:
Ryan Verhelst	14/02/04	9:10	[illegible]	2014/02/04	09:10

Time Sensitive ☐

Temperature on Receipt (°C): NA

Custody Seal Intact on Cooler? NA Yes ☐ No ☐

*IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Maxxam Yellow: Client

COC-1005 (09/10)

Maxxam International Corporation o/a Maxxam Analytics

Maxxam

4606 Canada Way, Burnaby, BC Canada V5G 1K5 Ph: 604 734 7276 Toll Free: 1 800 665 8566 Fax: 604 731 2386

CHAIN OF CUSTODY RECORD

Page: 2 of 2

G 080617

Maxxam Job#: B408754

Invoice To: Require Report? Yes [ ] No [ ]

Company Name: Sure HazMAT
Contact Name: Ryan VERHELST
Address:
PC:
Phone / Fax#: Ph: Fax:
E-mail

Report To:

Company Name:
Contact Name:
Address:
PC:
Phone / Fax#: Ph: Fax:
E-mail

PO #:
Quotation #:
Project #: ~~300 Richards~~ 6697
Proj. Name: WALL F.NANCIAL
Location: 130 Richards
Sampled By: RV

REGULATORY REQUIREMENTS SERVICE REQUESTED:

- [ ] CSR
- [ ] CCME
- [ ] BC Water Quality
- [ ] Other
- [ ] DRINKING WATER

- [ ] Regular Turn Around Time (TAT) (5 days for most tests)
- [ ] RUSH (Please contact the lab)
- [ ] 1 Day [ ] 2 Day [ ] 3 Day
- Date Required:

Special Instructions:

Return Cooler [ ] **Ship Sample Bottles (please specify)** [ ]

ANALYSIS REQUESTED: BTEX/VPH, MTBE, VOC/VPH, EPH, TEH, PAH, LEPH/HEPH, CCME-PHC (Fractions 1-4 Plus BTEX), CCME-PHC (Fractions 2-4), CCME BTEX (Fraction 1 Plus BTEX), PCB, Phenols by 4AAP, Phenols by GCMS, TOG, MOG, SWOG, Dissolved Metals (Field Filtered? Y/N), Total Metals (Field Acidified? Y/N), Nitrate, Nitrite, Ammonia, Chloride, Fluoride, Sulphate, Total Suspended Solids-TSS, TDS, pH, Conductivity, Alkalinity, BOD, COD, Coliform, Total & E.coli, Fecal, Asbestos, Lead in Paint, HOLD

	Sample Identification	Lab Identification	Sample Type	Date/Time Sampled	Lead in Paint	Samples are from a Drinking Water Source?	Does source supply multiple households?
1	L13 - FIRE ESCAPE - BLACK RAILING				✓		
2	L14 - EXT WINDOW SILL - BEIGE				✓		
3	L15 - FRONT EXT WALL - BROWN				✓		
4							
5							
6							
7							
8							
9							
10							
11							
12							

Lab ID annotations (left margin): GP1483, GP1484, GP1485

B408754

*Relinquished by:	Date (YY/MM/DD):	Time:	Received by:	Date (YY/MM/DD):	Time:	Time Sensitive	Temperature on Receipt (°C)	Custody Seal Intact on Cooler?
Ryan Verhelst	14/02/04	9:10	[signature]	2014/02/04	09:10	[ ]	NA	NA (Yes / No)

Laboratory Use Only

IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Maxxam Yellow: Client

COC-1026 (05/10)

Maxxam International Corporation o/a Maxxam Analytics

Closure Form & Detailed Closure Rpt
1/2 1300 Richards (498 Drake)

Cabuay, Malou

From:	Kwan, Linda
Sent:	Tuesday, January 27, 2015 1:02 PM
To:	DOMINO (CITYVAN)
Subject:	FW: Tank Closure Report - 1300 Richards Street (498 Drake)
Attachments:	1300 Richards (498 Drake) Closure Form.PDF

From: Steve Boyce [mailto:steve.boyce@activeearth.ca]
Sent: Friday, January 16, 2015 3:21 PM
To: Kwan, Linda
Cc: 'James Burton'; 'Grant Myles'; 'Jason Rook'
Subject: Tank Closure Report - 1300 Richards Street (498 Drake)

Linda – further to our chat, please see the attachment tank closure form.
Our detailed closure report can be downloaded here.

We trust this provides everything you need at this time.

As discussed, we hope the City can review this immediately.
Please forward to Jenn as discussed and confirm whether the excavation and/or permitting process is now allowed to proceed.

To summarize:

- The tank was appropriately decommissioned.
- CL standards apply to the Site. RL standards considered to apply to adjacent City lands.
- RL+ hydrocarbon soil identified below the tank. No CL+ soil identified.
- All RL+ hydrocarbon soil was removed. Residual impacted soils (odourous) remain along the excavation perimeter for geotechnical safety reasons (support for lane/sidewalk). This material will be removed during bulk excavation shoring as discussed.
- No RL+ hydrocarbon soil was identified along the PLs = no soil contaminant migration to City lands.

Regards,

Steve Boyce, B.A. (Environment & Development)

Active Earth Engineering Ltd
160 - 2250 Boundary Road
Burnaby, BC V5M 3Z3
t 778.888.0473
f 778.737.3488
steve.boyce@activeearth.ca
www.activeearth.ca

CITY OF VANCOUVER

UNDERGROUND STORAGE TANK REMOVAL/DECOMMISSIONING REPORT

This report must be completed and submitted to the City of Vancouver (Environmental Contamination Team) after completion of underground storage tank (UST) removal projects.

1. **Site Information:**
   Owner's Name: WALL FINANCIAL CORPORATION. (title held by 0888189 BC Ltd.)
   Site Address: 1380 Richards Street

2. **Excavation Plan:**
   ✓ A scaled (about 1:200) plan including (at minimum): north arrow, nearby buildings, tank location, extents of excavation, soil sample location, and soil sample analytical results summary.

3. **Site Photos (electronic only) Attached:**
   ✓ The photos must include the tank-hold excavation and the removed tank.

4. **Tank Information:**
   Was oil removed from tank? Y ☑ OILY WATER
   Was all associated (e.g., feed lines, venting) piping removed? Y ☑ N ☐

Tank Summary Table:

		Perforation(s)		Other visible physical damage (e.g. pipe damage)		Product in tank	Date tank removed from service (YYYY/MM/DD)
Permit #	Capacity (L)	Yes	No	Yes	No		
FI 412002	1900	YES		NO		TRACE HEATING OIL	UNKNOWN. REMOVED FROM GROUND JAN 5, 2015

5. **Tank and Piping Disposal/Recycling:**
   Name/address of tank and piping disposal/recycling receiver: TBD - Hauled to South West Contracting scrap metal storage yard (temporary)
   Tank disposal/recycling receipts attached: Y ☐

6. **Liquid Waste Disposal:**
   Liquid/sludge disposal (e.g., type/volume/class): 950L oily water
   Receiver name/address: Sumas Remediation
   Disposal date (YYYY/MM/DD): 2015/01/05

Liquid Waste Disposal Receipt/Manifest attached: Y ☐ N/A ☐ TO BE PROVIDED ASAP

7. Soil Disposal (if applicable):

Soil volume (m^3) disposed: 1100

Soil disposal carrier: Various - contracted by Southwest Contracting Ltd.

Soil receiver information:

Receiver/company name: RL Ecowaste Industries Ltd.

Receiver's address: 15111 Williams Rd, Richmond BC

Soil relocation agreement required: Y ☐ N ☑

Disposal date: YY/MM/DD 14/12/23 to 15/01/10

Soil disposal receipt/manifest attached: Y ☑ N ☐

8. Field Observations

Field-screening (e.g., soil vapour, visual observations, staining) findings summary:

See Report Section 4

Was product or contamination suspected of migrating into preferential pathways (e.g., perimeter drains), or beneath buildings? Y ☐ N ☑

Comments:

Groundwater Observations:

Was water present in the excavation? Y ☑ N ☐ (minor)

Was there petroleum hydrocarbon sheen on excavation water? Y ☑ N ☐

(Comments): trace sheen initially, No sheen following source soil removal

9. Confirmatory Soil Sampling

Total Number of discrete *in-situ* soil samples (minimum five: one from each sidewall and the base) analyzed: 19

Sampler's name and company: STEVE BOYCE, ACTIVE EARTH ENGINEERING LTD.

Sample chain of custody and laboratory certificate of analysis attached? Y ☑

CALA analytical laboratory name: ALS ENVIRONMENTAL / ALS LABORATORIES

Laboratory address: See Report Appendix D

Analysis/PCOCs (e.g., LEPH/HEPH for heating oil): LEPH/HEPH, PAH BTEX/VPH

10. Ministry of Environment Forms:

Was notice of independent remediation (NIR) completed? Y ☒ N/A ☐ (PENDING)

Was notice of offsite migration (NOM) required and submitted. Y ☐ N/A ☒

Comments: SEE Attached Report for details

11. Conclusion Summary Table

Address	Contractor/ Consultant	Tank Details (L, condition)	Liquid Waste Disposal Details	Soil Receiver and m^3 Disposed	Confirmatory Samples Meet Standards (Y/N, PCOCs)	Estimated Volume Residual Contamination (m^3, N/A)	Offsite Migration (Y/N)	MoE Forms Submitted (i.e., NIR, NOM, N/A)
1300 Richards Street	ACTIVE EARTH ENGINEERING	1900L / poor	950L oily water	Ecowaste 6700 m^3 RL+	YES - LEPH, HEPH, PAH	N/A (100m^3 odorous soil less than CL standards)	N	NIR

12. Name and License of Individual/Firm Who Completed this Report:

Name (company and individual): ACTIVE EARTH ENGINEERING LTD, STEVE BOYCE

Business license number: 468766

Date of tank removal (MM/DD/YYYY): 01/09/2015

13. Conclusion Statement:

Please select the appropriate checkmark that accurately reflects site conditions.
"I confirm all information contained in this report is true and accurate. Based on this information, residual soils are less than ☑, / (or) exceed ☐, the applicable (select one: residential ☐ / commercial ☑ / industrial ☐) standards. Contamination is ☐ / (or) is not ☑, suspected or confirmed to have migrated offsite."

STEVE BOYCE
Printed Name

Signature (with stamp)

January 16, 2015
Date

Active Earth
Engineering Ltd

January 16, 2015 AE Project No. 816

Southwest Contracting Ltd.
9426-192nd St.
Surrey, BC
V4N 3R9

ATTENTION: Jason Rook

REFERENCE: **Former Heating Oil Tank *Decommissioning* & *Remedial* Excavation**
1300 Richards Street (498 Drake Street), Vancouver, BC
Tank Removal Permit No. FI 412002

1.0 INTRODUCTION

Active Earth Engineering Ltd. (Active Earth) was retained by Southwest Contracting Ltd. (Southwest) on behalf of the Wall Financial Corporation to document the decommissioning of a former heating oil underground storage tank (UST), and to oversee an associated remedial soil excavation, at 1300 Richards Street, Vancouver, BC (the "Site"). The Site is also known as 498 Drake Street.

Wall Financial Corporation is undertaking the Site redevelopment for mixed commercial and residential use. The former heating oil tank was uncovered during demolition of the previous Site structures. The Site location and current on-Site conditions are shown on the attached Figure.

2.0 BACKGROUND

We understand that the former heating UST was uncovered near the northwest corner of the Site during demolition work in late December 2014. Active Earth was then retained to assess soil quality in the vicinity of the UST, and across the Site, for excavation and disposal planning purposes. This preliminary investigation work involved the advancement of nine test pits (TP1 to TP9) and soil sample collection and analysis.

The test-pit locations are shown on the attached Figure. The preliminary soil investigation results are presented on the attached Tables. Soil hydrocarbon impacts were identified in the vicinity of the UST (discussed below). Following these preliminary findings, Active Earth was

retained to direct and document the UST decommissioning and associated remedial soil investigation documented herein.

The Potential Contaminants of Concern (PCOCs) typically associated with heating oil are presented in the following table, along with the confirmed Contaminants of Concern that were identified at the Site:

Summary of Potential and Confirmed Contaminants of Concern

Issue	Potential Contaminants of Concern	Confirmed Contaminants of Concern
On-Site Former Heating Oil Tank	LEPH, HEPH, PAH, BTEX/VPH	LEPH, Benzo(a)pyrene

LEPH/HEPH – Light/Heavy Extractable Petroleum Hydrocarbons
BTEX – Benzene, Toluene, Ethylbenzene, Xylenes
VPH – Volatile Petroleum Hydrocarbons
PAH – Polycyclic Aromatic Hydrocarbons

3.0 REGULATORY ASSESSMENT AND REMEDIATION CRITERIA

In British Columbia, environmental matters pertaining to contaminated sites generally fall under the jurisdiction of the BC Ministry of Environment (BC MOE), pursuant to the *Environmental Management Act* (SBC 2003) [including 2004 Bill 13 (B.C. Reg. 110/2010) amendments (effective May 1, 2010)].

The two key regulations under the *Environmental Management Act* relating to the assessment and remediation of contaminated sites are:

- *Contaminated Sites Regulation* (CSR), BC Reg. 375/96, including amendments (effective May 31, 2011); and,
- *Hazardous Waste Regulation* (HWR, BC Reg. 63/88, O.C. 268/88 including amendments up to BC Reg. 261/2006, updated to September 21, 2006).

Based on the current Site zoning (Comprehensive Development District 571) and future use at grade (Commercial), the CSR Commercial Land Use (CL) standards were considered to apply, as listed in Schedules 4, 5, and 10 of the CSR. We note that below 3m depth, the CSR stipulates that Commercial Land Use standards apply, irrespective of use at grade.

Off-Site, within the streets, standards are dictated by the City of Vancouver (City). For soil, the City requires that the top 3m meets RL standards, with CL standards applied below this depth.

For information and soil disposal purposes, results have also been compared to the Residential Land Use (RL) standards and the Soil Relocation Agreement (SRA) standards as set out in Schedule 7.

Generic numerical standards are listed in Schedules 4 and 10, while matrix-based numerical standards are listed in Schedule 5. For the matrix-based numerical standards, the following site-specific factors were applied:

- Human Health Protection – Intake of contaminated soils.
- Environmental Protection – Toxicity to soil invertebrates and plants.

In addition, matrix-based numerical standards for soil are dependent on groundwater use. The matrix-based soil standards for groundwater flow to surface water used by Marine Aquatic Life

(AW_M) were considered to apply. The matrix-based soil standards for groundwater used for Drinking Water (DW) were not considered to apply, based on our former hydrogeologic assessments at nearby sites.

The BC Hazardous Waste Regulation (HWR) provides standards to determine if material qualifies as Hazardous Waste based on toxicity equivalency (TEQ) and leachability. TEQ standards are provided for oil and grease, dioxins and furans, PAHs and Tetrachloroethylene. Leachability refers to the concentration of particular contaminants in dissolved form following the subjugation of soil to a strong acid solution during a standardized Toxicity Characteristic Leachate Procedure (TCLP) test.

4.0 SCOPE OF WORK AND RESULTS

The UST decommissioning and remedial excavation was completed under the direction of Active Earth, using machinery and operators supplied by Southwest. A representative from Active Earth was on-Site throughout, in order to observe and document the work, track soil quantities, and collect the necessary confirmatory soil samples.

A Notification of Independent Remediation (Initiation and Completion) is currently being completed and will be submitted to BC MOE in the coming days.

Field methodologies for all activities followed Active Earth's standard practice and protocols. These are presented briefly below.

4.1 UST Decommissioning

The UST measured 1.1m in diameter by 2.4m in length (approximately 1900L capacity), was constructed of single-wall steel, and was observed to be moderately corroded with holes noted in the base. The UST contained water, trace residual heating oil, and oily sludge. The decommissioning proceeded as follows:

- A hole was cut into the top of the tank to allow for inspection and cleaning;
- The tank was evacuated and cleaned using a vacuum truck operated by Advantage Environmental Waste Specialists of Fort Langley, BC;
- Groundwater/rainwater that had collected in the tank nest was removed by the same vacuum truck;
- The vacuum truck contents (950 litres total) were disposed at the Sumas Environmental Byrne Road facility; and,
- The tank was crushed and prepared for appropriate off-Site disposal (metal recycling).

A Tank Removal Permit (No. FI 412002) was obtained on January 7, 2015. A copy of the permit is provided in Appendix A.

The oily water/sludge disposal documentation is provided in Appendix B. Photographs are provided in Appendix C.

4.2 *Remedial Excavation*

During the preliminary soil investigation work (prior to the UST removal), hydrocarbon-like odours were identified in the vicinity of the UST at TP1 and TP2 (from 1.5m to approximately 3.0m depth). Concentrations of Light Extractible Petroleum Hydrocarbons (LEPH) and Benzo(a)pyrene exceeded the RL standards immediately below the UST, at TP1 (1.5 to 2.3m depth). We note these results were within the CL standards applicable to the Site. Concentrations of all other PCOCs were within the RL and CL standards from all other preliminary investigation locations. Based on these results, a remedial excavation was warranted to remove the identified contaminated and odourous soil.

While no hydrocarbon contamination or odours were identified in the non-contaminated overburden soil (from surface grade to approximately 1.5m depth), this soil contained construction and/or demolition debris and was determined to be unacceptable to the available non-permitted fill receiver sites.

The remedial excavation was completed at the former heating oil UST between January 7 and 9, 2015. The excavation was irregular in shape, measuring approximately 15m by 25m by an average of approximately 3m in depth (approximately 1,100m^2). All of the soil removed from the UST excavation area was transported to the Ecowaste Landfill at 15111 Williams Road, Richmond, BC, and disposed of as Industrial Quality (i.e. exceeding RL standards).

In total, **1,992** tonnes of soil were transported to the Ecowaste Landfill and disposal as Industrial Quality. Soil disposal documentation is provided in Appendix B. Photographs are provided in Appendix C.

4.3 *Geology and Hydrogeology*

Review of the surficial geology map of the Site indicates the Site is underlain by Glacial Drift, including lodgment and minor flow till.

The soil encountered in the UST remedial excavation area generally consisted of:

- Sand, silt and gravel fill with trace construction/demolition debris from surface to approximately 2.9m depth; overlying,
- Dense, compact till, consisting mainly of silts, with some sand and trace gravel.

The worst-case hydrocarbon impacts were identified within the fill unit, immediately above the native till.

Minor groundwater seepage was observed within the excavation, emanating from the fill unit immediately above the native till. Trace hydrocarbon sheen was observed on the groundwater during preliminary excavation work. Following completion of the remedial excavation, no sheen was observed on the groundwater seepage. No groundwater was discharged from the Site.

4.4 *Remedial Excavation Closure*

Following remediation, closure soil samples were collected directly from the sidewalls and base of the excavation. Closure samples collected along the north and east property lines were

collected directly from the sidewalls of boreholes advanced using a hydro-vacuum rig since the excavation slopes were required to maintain stability.

All soil samples were immediately placed into laboratory supplied sample jars. The sample jars were completely filled with soil to minimize loss of volatile constituents. To minimize the potential for cross contamination, Active Earth's field representative wore fresh nitrile sampling *gloves prior to* collecting each soil sample. The sample jars were placed in a cooler, on ice, and delivered under chain of custody protocol to ALS Environmental in Burnaby, BC. The sample closure density was in general accordance with BC MOE Technical Guidance Document 1 (TG1).

Results from all closure samples were below the RL and CL standards for LEPH/HEPH and PAH. Closure samples were not analyzed for BTEX or VPH as these constituents were not identified in the preliminary samples collected in the immediately vicinity of the UST. All previously-identified hydrocarbon soil contamination associated with the UST has been removed. No hydrocarbon soil contamination (i.e. no hydrocarbon concentrations above the RL standards) was identified at the Site boundary, and therefore no soil contamination appears to have migrated off-Site, onto City lands.

The excavation closure soil sample locations and results are shown on the attached Figure and Tables. Laboratory Certificates are included in Appendix D.

We note that some residual odourous soil was temporarily left in place on-Site, along the north and east Site boundaries, for geotechnical stability/safety reasons (support for the adjacent laneway and sidewalk). This material will be removed during bulk excavation shoring, and will be transported to the Ecowaste Landfill and disposal as Industrial Quality.

Excavation closure samples along the west wall were limited by the presence of a former concrete foundation. This foundation extended approximately to the base of the remedial excavation and therefore closure samples could not be collected. Minor soil with residual hydrocarbon impacts may be present below the foundation. If present, it will be removed during bulk excavation and transported to the Ecowaste Landfill.

5.0 SUMMARY AND CONCLUSIONS

A former heating oil UST was identified on-Site during demolition work. The UST was evacuated, removed, and crushed for appropriate off-Site disposal. Preliminary soil investigation work identified LEPH and Benzo(a)pyrene concentrations above the RL standards, but within the CL standards (applicable to the Site), in soil immediately below the UST.

A remedial excavation was conducted to remove all hydrocarbon-contaminated and odourous soil, for appropriate disposal to a permitted facility. Additional fill soil containing construction/demolition debris in the vicinity of the UST was also transported for appropriate disposal to a permitted facility. The disposal volume is summarized below:

Disposal Summary

Media	Volume	Tonnage	Disposal Class	Disposal Location
Soil	1,100 m3	1,992	Industrial Quality	Ecowaste Landfill
UST Contents (Oily Water and Sludge)	950 Litres	0.95	n/a	Sumas Remediation (Byrne Road)

Excavation base and wall closure samples were collected in general accordance with TG1. All closure sample results were within the RL and CL standards. The results indicate that soil contamination does not extent off-Site onto the adjacent City lands.

Some residual odourous soil was temporarily left in place on-Site, along the north and east Site boundaries, for geotechnical stability/safety reasons (support for the adjacent laneway and sidewalk). This material will be removed during bulk excavation shoring, and will be transported to the Ecowaste Landfill and disposal as Industrial Quality.

6.0 CLOSURE

This report has been prepared by Active Earth Engineering Ltd. for Southwest Contracting Ltd. on behalf of the Wall Financial Corporation based on information obtained through recent investigation and remediation work completed under the direction of Active Earth, and other information sources. This report may be relied upon by Southwest Contracting Ltd., the Wall Financial Corporation, and the City of Vancouver.

Active Earth has relied on data, studies, plans, specifications and documents prepared by others, and accepts no responsibility for information contained in them. The environmental investigations were limited to those areas and contaminants specifically addressed in this report.

This report is believed to provide a reasonable representation of general environmental condition at the Site in the vicinity of the former heating oil UST. The conclusions made in this report reflect Active Earth's best judgment in light of the information available at the time of reporting. Should additional information become available or Site conditions change, the conclusions and recommendations of this report may be subject to change.

Any use which the client or a third party, other than those specifically listed above, makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such parties. Active Earth accepts no responsibility for damages, if any, suffered by third parties as a result of business decisions made or actions based on this report.

We trust that this provides the information you currently require. If you have any questions or comments, please feel free to contact the undersigned.

Yours truly,
ACTIVE EARTH ENGINEERING LTD.

Reviewed by:

Steve Boyce, B.A. (Environment)
Project Scientist

Jeff Taylor, P.Eng., CSAP
Senior Engineer

Attachments:

Tables

Table 1: Soil Hydrocarbon Analytical Results

Figures

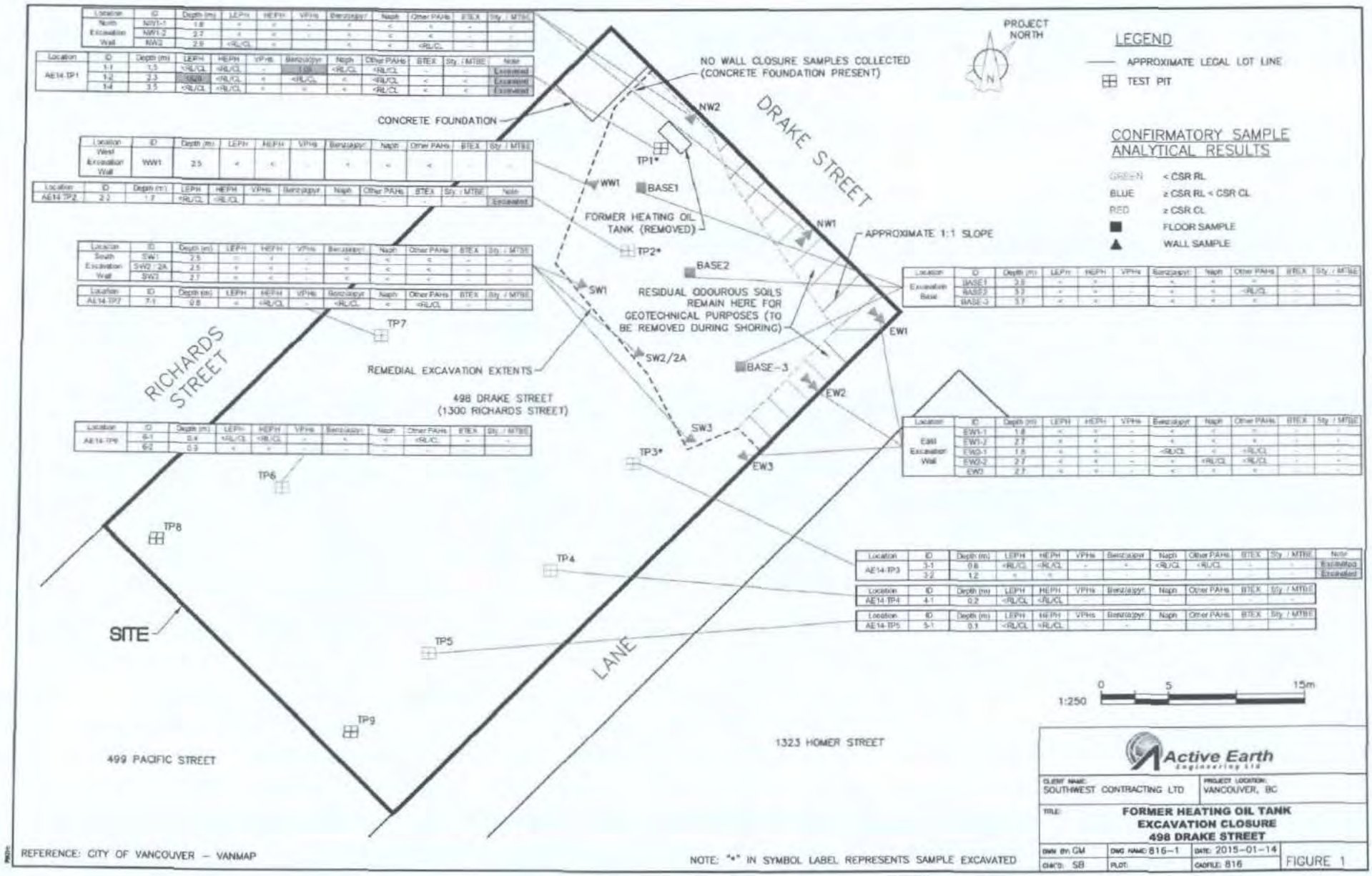
Figure: Former Heating Oil Tank - Excavation Closure

Appendices

Appendix A: Tank Removal Permit
Appendix B: Soil and Waste Disposal Documentation
Appendix C: Photographs
Appendix D: Laboratory Certificates

Active Earth Engineering Ltd

FIGURES


PROJECT NORTH
LEGEND
APPROXIMATE LEGAL LOT LINE
TEST PIT
CONFIRMATORY SAMPLE ANALYTICAL RESULTS
GREEN < CSR RL
BLUE ≥ CSR RL < CSR CL
RED ≥ CSR CL
FLOOR SAMPLE
WALL SAMPLE
NO WALL CLOSURE SAMPLES COLLECTED (CONCRETE FOUNDATION PRESENT)
CONCRETE FOUNDATION
DRAKE STREET
RICHARDS STREET
LANE
NW2
NW1
WW1
BASE1
BASE2
BASE-3
SW1
SW2/2A
SW3
EW1
EW2
EW3
TP1*
TP2*
TP3*
TP4
TP5
TP6
TP7
TP8
TP9
FORMER HEATING OIL TANK (REMOVED)
APPROXIMATE 1:1 SLOPE
RESIDUAL ODOUROUS SOILS REMAIN HERE FOR GEOTECHNICAL PURPOSES (TO BE REMOVED DURING SHORING)
REMEDIAL EXCAVATION EXTENTS
498 DRAKE STREET (1300 RICHARDS STREET)
SITE
499 PACIFIC STREET
1323 HOMER STREET
1:250
0 5 15m
REFERENCE: CITY OF VANCOUVER – VANMAP
NOTE: "*" IN SYMBOL LABEL REPRESENTS SAMPLE EXCAVATED
Active Earth Engineering Ltd
CLIENT NAME: SOUTHWEST CONTRACTING LTD
PROJECT LOCATION: VANCOUVER, BC
TITLE: FORMER HEATING OIL TANK EXCAVATION CLOSURE 498 DRAKE STREET
DWN BY: GM
DWG NAME: 816-1
DATE: 2015-01-14
CHK'D: SB
PLOT:
CADFILE: 816
FIGURE 1

TABLES

Analytical Table Footnotes: Analytical Results for Soil

All concentrations in ug/g, except pH.

All terms defined within the body of Active Earth's report.

"<" Result is less than the laboratory detection limit indicated.

"-" Parameter not analyzed or no standard or guideline applies.

* RPDs are not normally calculated where one or more concentrations are less than five times MDL.

(1) BC Contaminated Sites Regulation (CSR BC Reg. 375/96 includes amendments up to BC Reg. 4/2014) Generic Numerical Soil Standards (Schedules 4 and 10) and Matrix Numerical Soil Standards (Schedule 5), considering the site specific factors of toxicity to soil invertebrates and plants, groundwater flow to marine aquatic life, and groundwater used for drinking water, for Residential (RL) and Commercial (CL) Land Use.

(2) BC Contaminated Sites Regulation (CSR BC Reg. 375/96 includes amendments up to BC Reg. 4/2014) Standards Triggering Contaminated Soil Relocation Agreements (Schedule 7) for Soil Relocation to Non-Agricultural Lands (Column II). If soils exceed these standards, a Soil Relocation Agreement is required to dispose of soils off-Site, without authorization.

(3) The standards referenced are for light extractable petroleum hydrocarbons (LEPH) and heavy extractable petroleum hydrocarbons (HEPH), which are corrected for polyaromatic hydrocarbons (PAHs). EPH (c 10 - c 19) and EPH (c19 - c32) are uncorrected for PAH.

BOLD, BLUE SHADING	Concentration > CSR RL Standard.
BOLD, RED SHADING	Concentration > CSR CL Standard.
Underline, Grey Shading	Concentration >CSR SRA Standard.

Table 1: Analytical Results for Hydrocarbons in Soil

				Site Area	Site-Wide Soil Assessment (Fill / Native)											
				Sample Location	AE14-TP1			AE14-TP2	AE14-TP3		AE14-TP4	AE14-TP5	AE14-TP6		AE14-TP7
				Sample ID	1-1	1-2	1-4	2-2	3-1	3-2	4-1	5-1	6-1	6-2	7-1
				Depth (m)	1.5	2.3	3.5	1.7	0.6	1.2	0.2	0.1	0.4	0.9	0.8
				Fill / Native Soil	Fill	Fill	Native	Fill	Fill	Native	Fill	Fill	Fill	Native	Fill
				Vapour Reading (ppm)	10	220	65	35	10	5	10	5	5	0	20
				Excavated / Remains	Excavated	Excavated	Excavated	Excavated	Excavated	Excavated	Remains	Remains	Remains	Remains	Remains
				Date Sampled	22-Dec-14	22-Dec-14	22-Dec-14	22-Dec-14	22-Dec-14	22-Dec-14	22-Dec-14	22-Dec-14	22-Dec-14	22-Dec-14	22-Dec-14
	CSR Standards [1]														
	RL [1]	CL [1]	SRA [2]												
Extractable Petroleum Hydrocarbons (ug/g)															
LEPH	1000	2000	2000	57	1820	55	238	22	<20	20	22	20	<20	<20	
HEPH	1000	5000	5000	195	466	32	110	50	<20	49	75	59	<20	26	
EPH10-19	*1000*	*2000*	*1000*							-	-	-	-	-	
EPH19-32	1000	5000	1000							-	-	-	-	-	
Volatile Petroleum Hydrocarbons (ug/g)															
VHs6-10	-	-	-	-	<10	<10	-	-	-	-	-	-	-	-	
VPHs	200	200	200	-	<10	<10	-	-	-	-	-	-	-	-	
Polycyclic Aromatic Hydrocarbons (ug/g)															
Acenaphthene	-	-	-	0.11	<0.1	<0.01	-	<0.01	-	-	-	<0.01	-	<0.01	
Acenaphthylene	-	-	-	0.23	<0.1	<0.01	-	0.01	-	-	-	<0.01	-	0.01	
Anthracene	-	-	-	0.4	<0.2	<0.02	-	<0.02	-	-	-	<0.02	-	0.02	
Benz(a)anthracene	*1*	*10*	*1*	0.95	0.07	<0.02	-	0.02	-	-	-	<0.02	-	0.06	
Benzo(a)pyrene	1	10	1	1.05	0.07	<0.05	-	<0.05	-	-	-	<0.05	-	0.07	
Benzo(b)fluoranthene	1	10	1	0.81	0.06	<0.02	-	0.05	-	-	-	0.02	-	0.05	
Benzo(g,h,i)perylene	-	-	-	0.72	0.05	<0.05	-	<0.05	-	-	-	<0.05	-	0.05	
Benzo(k)fluoranthene	1	10	1	0.44	0.03	<0.02	-	<0.02	-	-	-	<0.02	-	0.03	
Chrysene	-	-	-	0.95	0.08	<0.05	-	<0.05	-	-	-	<0.05	-	0.06	
Dibenz(a,h)anthracene	1	10	1	0.26	<0.02	<0.02	-	<0.02	-	-	-	<0.02	-	<0.02	
Fluoranthene	-	-	-	1.96	0.21	<0.05	-	0.07	-	-	-	<0.05	-	0.12	
Fluorene	-	-	-	0.11	0.5	0.02	-	<0.02	-	-	-	<0.02	-	<0.02	
Indeno(1,2,3-c,d)pyrene	1	10	1	0.73	0.04	<0.02	-	0.03	-	-	-	<0.02	-	0.04	
2-Methylnaphthalene	-	-	-	0.21	6	0.1	-	0.01	-	-	-	<0.01	-	<0.01	
Naphthalene	5	50	5	0.14	<0.1	<0.01	-	0.01	-	-	-	<0.01	-	<0.01	
Phenanthrene	5	50	5	1.27	1.7	0.03	-	0.04	-	-	-	0.03	-	0.07	
Pyrene	10	100	10	1.68	0.3	<0.02	-	0.06	-	-	-	0.03	-	0.12	
Non-Halogenated Volatiles (ug/g)															
Benzene	0.04	0.04	0.04	-	<0.02	<0.02	-	-	-	-	-	-	-	-	
Toluene	1.5	2.5	1.5	-	<0.05	<0.05	-	-	-	-	-	-	-	-	
Ethylbenzene	1	7	1	-	<0.05	<0.05	-	-	-	-	-	-	-	-	
Total Xylenes	5	20	5	-	<0.1	<0.1	-	-	-	-	-	-	-	-	
Styrene	5	50	50	-	<0.05	<0.05	-	-	-	-	-	-	-	-	
MTBE	320	700	-	-	<0.1	<0.1	-	-	-	-	-	-	-	-	

Notes:

Associated Lab Files: 14V931443, L1565899, L1565710, L1565577

BOLD, BLUE SHADING	Concentration greater than CSR Residential Land Use (RL) Standard.
BOLD, RED SHADING	Concentration greater than CSR Commercial Land Use (CL) Standard.
Underline, Grey Shading	Concentration greater than CSR Soil Relocation Agreement (SRA) Standard.

Table 1: Analytical Results for Hydrocarbons in Soil

	Site Area	Heating Oil Tank Remedial Excavation																	
	Sample Location	West Wall	North Wall			South Wall					East Wall					Base		
	Sample ID	WW1	NW1-1	NW1-2	NW2	SW1	SW2	SW2A	RPD	SW3	EW1-1	EW1-2	EW2-1	EW2-2	EW3	BASE1	BASE2	BASE-3
	Depth (m)	2.5	1.8	2.7	2.9	2.5	2.5	2.5	%	2.7	1.8	2.7	1.8	2.7	2.7	3.8	3.2	3.7
	Fill / Native Soil	Native	Native	Native	Native	Native	Native			Native	Native	Native	Native	Native	Native	Native	Native	Native
	Vapour Reading (ppm)	50	20	20	95	40	5			90	110	40	95	15	20	25	15	5
	Excavated / Remains	Remains	Remains	Remains	Remains	Remains	Remains	Remains		Remains	Remains	Remains	Remains	Remains	Remains	Remains	Remains	Remains
	Date Sampled	07-JAN-15	09-JAN-	09-JAN-	09-JAN-	07-JAN-	07-JAN-15			09-JAN-15	09-JAN-	09-JAN-	09-JAN-	09-JAN-	09-JAN-	07-JAN-	07-JAN-	09-JAN-
	CSR Standards [1]																	
	RL [1]	CL [1]	SRA [2]																
Extractable Petroleum Hydrocarbons (ug/g)																			
LEPH	1000	2000	2000	<200	<200	<200	360	<200	<200	<200	*	<200	<200	<200	<200	<200	<200	<200	<200	<200
HEPH	1000	5000	5000	<200	<200	<200	<200	<200	<200	<200	*	<200	<200	<200	<200	<200	<200	<200	<200	<200
EPH10-19	1000	2000	1000	<200	<200	<200	360	<200	<200	<200	*	<200	<200	<200	<200	<200	<200	<200	<200	<200
EPH19-32	1000	5000	1000	<200	<200	<200	<200	<200	<200	<200	*	<200	<200	<200	<200	<200	<200	<200	<200	<200
Volatile Petroleum Hydrocarbons (ug/g)																			
VHs6-10	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
VPHs	200	200	200	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons (ug/g)																			
Acenaphthene	-	-	-	<0.050	<0.050	<0.050	<0.20	<0.050	<0.050	<0.050	*	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	-	-	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	*	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Anthracene	-	-	-	<0.050	<0.050	<0.050	<0.070	<0.050	<0.050	<0.050	*	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benz(a)anthracene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	*	<0.050	<0.050	<0.050	0.066	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(a)pyrene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	*	<0.050	<0.050	<0.050	0.080	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(b)fluoranthene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	*	<0.050	<0.050	<0.050	0.111	0.086	<0.050	<0.050	<0.050	<0.050
Benzo(g,h,i)perylene	-	-	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	*	<0.050	<0.050	<0.050	0.057	0.058	<0.050	<0.050	<0.050	<0.050
Benzo(k)fluoranthene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	*	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Chrysene	-	-	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	*	<0.050	<0.050	<0.050	0.089	<0.070	<0.050	<0.050	<0.050	<0.050
Dibenz(a,h)anthracene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	*	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoranthene	-	-	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	*	<0.050	<0.050	<0.050	0.174	0.128	<0.050	<0.050	<0.050	<0.050
Fluorene	-	-	-	<0.050	<0.050	<0.050	0.243	<0.050	<0.050	<0.050	*	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Indeno(1,2,3-c,d)pyrene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	*	<0.050	<0.050	<0.050	0.065	0.075	<0.050	<0.050	<0.050	<0.050
2-Methylnaphthalene	-	-	-	<0.050	<0.050	<0.050	2.13	<0.050	<0.050	<0.050	*	<0.050	<0.050	<0.050	0.073	0.118	<0.050	<0.050	0.666	<0.050
Naphthalene	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	*	<0.050	<0.050	<0.050	<0.050	0.060	<0.050	<0.050	<0.050	<0.050
Phenanthrene	5	50	5	<0.050	<0.050	<0.050	0.671	<0.050	<0.050	<0.050	*	<0.050	<0.050	<0.050	0.123	0.153	<0.050	<0.050	0.076	<0.050
Pyrene	10	100	10	<0.050	<0.050	<0.050	0.087	<0.050	<0.050	<0.050	*	<0.050	<0.050	<0.050	0.179	0.104	<0.050	<0.050	<0.050	<0.050
Non-Halogenated Volatiles (ug/g)																			
Benzene	0.04	0.04	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	1.5	2.5	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	1	7	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Xylenes	5	20	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	5	50	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MTBE	320	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

Associated Lab Files: 14V931443, L1565599, L1565710, L1565577

BOLD, BLUE SHADING	Concentration greater than CSR Residential Land Use (RL) Standard.
BOLD, RED SHADING	Concentration greater than CSR Commercial Land Use (CL) Standard.
Underline, Grey Shading	Concentration greater than CSR Soil Relocation Agreement (SRA) Standard.

Active Earth Engineering Ltd

APPENDIX A
Tank Removal Permit

453 WEST 12TH
VANCOUVER, B.C. V5Y 1V4
TEL : 604-873-7595 FAX : 604-873-7100

CITY OF VANCOUVER

DATE ISSUED	PERMIT TYPE		PERMIT NUMBER
JANUARY 07, 2015	FIRE PREVENTION DIVISION PERMIT	P	FI 412002

LEGAL DESCRIPTION				ADDRESS
LOT	BLOCK	PLAN	DIST	1300 RICHARDS ST

ADDITIONAL ADDRESS INFORMATION | SPECIFICS

APPLICATION DATE	PURPOSE	PROJECT VALUE	ASSESSED VALUE	PLANS	METRIC	PLACE NAME
JAN 07, 2015	REMOVAL				NO	

TEMPORARY PERMIT DATES | TEMPORARY USE DATES | SUBTYPE

APPLICANT	CONTACT 2	CONTACT 3
CONTRACTOR ACTIVE EARTH ENGINEERING LTD SHANNON KNEALE 4510 SADDLEHORN CRES LANGELY BC V2Z 1J6	*SITE CONTACT* STEVE BOYCE VANCOUVER BC	
TEL 604-856-5119 FAX	BUS LICENSE 468766 CERTIFICATE	TEL 778-888-0473 FAX	BUS LICENSE CERTIFICATE	TEL FAX	BUS LICENSE CERTIFICATE

PURSUANT TO THE FIRE BY-LAW, THE FOLLOWING WORK IS HEREBY AUTHORIZED:

REMOVAL OF ONE TANK ON SITE. CAPACITY 2400L, SETBACKS 2M AND BOTTOM OF TANK 2.2M

PERMIT CONDITIONS AND NOTES:

001 THE WORK UNDER THIS PERMIT IS AUTHORIZED PURSUANT TO THE FIRE BY-LAW.
020 Clearance is required from the Engineering Department, Streets Division, for work affecting .....
030 For removal: the tanks, together with connected piping and dispensing equipment, shall have all combustible or flammable liquids removed. The tanks and piping must be removed from the ground and purged of vapours. The pipe ends must be permanently sealed by capping or plugging.
055 New tank installation must comply with Part 4 of the Vancouver Fire Bylaw.
910 Construction must be carried out in compliance with the provisions of Noise Control By-law No. 6555
994 1. This permit shall expire if:
(a) Work authorized by the permit has not commenced within 90 days from the date of issuance; or
(b) Work has been substantially discontinued for a period of 90 days.
2. The premises shall be kept in safe manner with guards, shoring, etc. as required by the Occupational Health and Safety Regulation and city by-laws
3. Environmental Final Closure Report and clearance required
4. Backfill with clean soil required
5. Underground storage tank removal shall be done in accordance with good engineering practice
6. Contractor must be on site for the inspection by the Vancouver Fire and Rescue Services

APPROVALS REQD BEFORE PERMIT IS COMPLETED INCLUDE :
ENV CONTAMINATION
FI01 FIRE INSPECTION JON EVANS 4- 604-873-0621

ADDITIONAL NOTES:

915 To book an inspection call 3-1-1 from within Vancouver or 604-873-7000 from outside Vancouver. The 3-1-1 Centre is open 7 days a week from 7AM to 10PM, 365 days a year. Also, our 24 hour Building Inspections booking request message line is 604-873-7058. For information on how to use it, please contact the 3-1-1 Centre.

AS OWNER OR OWNERS' AGENT, I HAVE VERIFIED THAT THE INFORMATION CONTAINED WITHIN THIS DOCUMENT AND ASSOCIATED PLANS IS CORRECT, AND DESCRIBES A USE, A BUILDING OR A WORK WHICH COMPLIES WITH ALL RELEVANT BY-LAWS AND STATUTES. I ACKNOWLEDGE THAT RESPONSIBILITY FOR BY-LAW COMPLIANCE RESTS WITH THE OWNER AND THE OWNER'S EMPLOYEES, AGENTS AND CONTRACTORS. I WILL INDEMNIFY AND SAVE HARMLESS THE CITY OF VANCOUVER, ITS OFFICIALS, EMPLOYEES AND AGENTS AGAINST ALL CLAIMS, LIABILITIES AND EXPENSES OF EVERY KIND, IN RESPECT OF ANYTHING DONE OR NOT DONE PURSUANT TO THIS APPLICATION OR FACT SHEET OR ENSUING PERMIT, INCLUDING NEGLIGENCE AND/OR THE FAILURE TO OBSERVE ALL BY-LAWS, ACTS OR REGULATIONS.

FEE	AMOUNT	FEE	AMOUNT
657 TANK - OTHER	300.00		

SIGNATURE	
DATE	
ISSUED BY	R PRASAD
FOR THE	FIRE CHIEF

INVOICE : 773091 TOTAL $300.00

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APPLICANT COPY

453 WEST 12TH
VANCOUVER, B.C. V5Y 1V4
TEL : 604-873-7595 FAX : 604-873-7100

CITY OF VANCOUVER

DATE ISSUED	PERMIT TYPE		PERMIT NUMBER
JANUARY 07, 2015	FIRE PREVENTION DIVISION PERMIT	P	FI 412002

LEGAL DESCRIPTION				ADDRESS
LOT	BLOCK	PLAN	DIST	1300 RICHARDS ST
ADDITIONAL ADDRESS INFORMATION				SPECIFICS

APPLICATION DATE	PURPOSE	PROJECT VALUE	ASSESSED VALUE	PLANS	METRIC	PLACE NAME
JAN 07, 2015	REMOVAL				NO	

TEMPORARY PERMIT DATES	TEMPORARY USE DATES	SUBTYPE

APPLICANT	CONTACT 2	CONTACT 3
CONTRACTOR ACTIVE EARTH ENGINEERING LTD SHANNON KNEALE 4510 SADDLEHORN CRES LANGELY BC V2Z 1J6	*SITE CONTACT* STEVE BOYCE VANCOUVER BC	

TEL 604-856-5119	BUS.LICENSE	TEL 778-888-0473	BUS.LICENSE	TEL	BUS.LICENSE
FAX	CERTIFICATE 468766	FAX	CERTIFICATE	FAX	CERTIFICATE

PURSUANT TO THE FIRE BY-LAW, THE FOLLOWING WORK IS HEREBY AUTHORIZED:

REMOVAL OF ONE TANK ON SITE. CAPACITY 2400L, SETBACKS 2M AND BOTTOM OF TANK 2.2M

PERMIT CONDITIONS AND NOTES:

001 THE WORK UNDER THIS PERMIT IS AUTHORIZED PURSUANT TO THE FIRE BY-LAW.
020 Clearance is required from the Engineering Department, Streets Division, for work affecting .....
030 For removal: the tanks, together with connected piping and dispensing equipment, shall have all combustible or flammable liquids removed. The tanks and piping must be removed from the ground and purged of vapours. The pipe ends must be permanently sealed by capping or plugging.
055 New tank installation must comply with Part 4 of the Vancouver Fire Bylaw.
910 Construction must be carried out in compliance with the provisions of Noise Control By-law No. 6555
994 1. This permit shall expire if:
(a) Work authorized by the permit has not commenced within 90 days from the date of issuance; or
(b) Work has been substantially discontinued for a period of 90 days.
2. The premises shall be kept in safe manner with guards, shoring, etc. as required by the Occupational Health and Safety Regulation and city by-laws
3. Environmental Final Closure Report and clearance required
4. Backfill with clean soil required
5. Underground storage tank removal shall be done in accordance with good engineering practice
6. Contractor must be on site for the inspection by the Vancouver Fire and Rescue Services

APPROVALS REQD BEFORE PERMIT IS COMPLETED INCLUDE :
ENV CONTAMINATION
FI01 FIRE INSPECTION JON EVANS 4- 604-873-0621

ADDITIONAL NOTES:

915 To book an inspection call 3-1-1 from within Vancouver or 604-873-7000 from outside Vancouver. The 3-1-1 Centre is open 7 days a week from 7AM to 10PM, 365 days a year. Also, our 24 hour Building Inspections booking request message line is 604-873-7058. For information on how to use it, please contact the 3-1-1 Centre.

1. TO ARRANGE FOR REQUIRED INSPECTIONS, CALL THE 3-1-1 CENTRE OR 604-873-7000.
2. THE PERMIT HOLDER SHALL BE RESPONSIBLE FOR **ARRANGING ACCESS** TO THE PREMISES FOR THE INSPECTOR.
3. FOR INFORMATION ON LIMITATION OF TIMES OF WORK IN WHICH NOISE IS CREATED, SEE THE NOISE CONTROL BY-LAW NO.6555 OR CALL THE 3-1-1 CENTRE OR 604-873-7000.

FEE	AMOUNT	FEE	AMOUNT		
				SIGNED BY	ACTIVE EARTH ENGINEERING LTD
				DATE	SEE PERMIT
				ISSUED BY	R PRASAD
INVOICE :		TOTAL		FOR THE	FIRE CHIEF

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Active Earth Engineering Ltd

APPENDIX B

Soil and Waste Disposal Documentation

RL Ecowaste Industries Ltd.
Listing of Tickets
For Dec 23,14
All Tickets
Both Posted & Unposted
Customer ID=4693 Sumas Remediation Services Inc.

Ticket #	Date	Tm In	License	Vehicle Desc	Yds	GVW(kg)	Tare kg	Net Wgt
Customer: 4693 Sumas Remediation Services Inc.								
Material: OW1001 Overweight >1000kg - $200.00								
1318858	Dec 23	10:25	DL5478	Affinity/Pup	28	44940	43100	1840
1318947	Dec 23	13:13	HH0162	South Delta/Tri Pup	28	48780	47100	1680
SubSubTotal:					56			3520
Material: S140905 4515 Lougheed Hwy Bby								
1318754	Dec 23	07:55	HP6719	Beesla Truck/Pup	28	42120	18110	24010
1318760	Dec 23	08:08	CD8635	Beesla Trucking/Pup	28	41140	17348	23792
1318763	Dec 23	08:13	EK3090	Beesla Truck/Pup	28	38590	16876	21714
1318766	Dec 23	08:17	DL5478	Affinity/Pup	28	42400	17856	24544
1318771	Dec 23	08:23	HS5332	Beesla Truck/Tri Pup	28	47350	18876	28474
1318776	Dec 23	08:28	EF8897	Beesla Truck/Pup	28	40740	17484	23256
1318780	Dec 23	08:32	CW0336	Beesla Trucking/Pup	28	40870	17840	23030
1318783	Dec 23	08:36	CW0335	Beesla Truck/Pup	28	40000	16844	23156
1318837	Dec 23	09:53	CD8635	Beesla Trucking/Pup	28	42260	17348	24912
1318845	Dec 23	10:04	EK3090	Beesla Truck/Pup	28	42170	16876	25294
1318857	Dec 23	10:24	DL5478	Affinity/Pup	28	44930	17856	27074
1318861	Dec 23	10:30	HS5332	Beesla Truck/Tri Pup	28	45340	18876	26464
1318881	Dec 23	10:55	EF8897	Beesla Truck/Pup	28	41770	17484	24286
1318884	Dec 23	10:58	CW0335	Beesla Truck/Pup	28	39600	16844	22756
1318885	Dec 23	10:59	CW0336	Beesla Trucking/Pup	28	41840	17426	24414
SubSubTotal:					420			367176
Material: S141110 39 Smithe St Vcr								
1318761	Dec 23	08:10	HH0162	South Delta/Tri Pup	28	41110	18680	22430
1318764	Dec 23	08:14	HH0174	South Delta/Tri Pup	28	39590	18000	21590
1318765	Dec 23	08:16	HH0154	South Delta/Tri Pup	28	41200	18392	22808
1318772	Dec 23	08:24	HH0163	South Delta/Tri Pup	28	38110	18524	19586
1318774	Dec 23	08:27	HH0165	South Delta/Tri Pup	28	38760	18876	19884
1318777	Dec 23	08:29	DE3832	South Delta Trans/Pup	28	37040	18322	18718
1318782	Dec 23	08:34	HH0161	South Delta/Tri Pup	28	38680	18092	20588
1318790	Dec 23	08:41	EA6025	JD Truck/Pup	28	35510	17352	18158
1318830	Dec 23	09:43	HH0162	South Delta/Tri Pup	28	41670	18680	22990
1318838	Dec 23	09:54	HH0174	South Delta/Tri Pup	28	41670	18000	23670
1318853	Dec 23	10:16	HH0163	South Delta/Tri Pup	28	42130	18524	23606
1318855	Dec 23	10:20	HH0165	South Delta/Tri Pup	28	42850	18876	23974
1318866	Dec 23	10:35	DE3832	South Delta Trans/Pup	28	39650	18322	21328
1318869	Dec 23	10:39	HH0154	South Delta/Tri Pup	28	45880	18392	27488
1318872	Dec 23	10:42	HH0161	South Delta/Tri Pup	28	44260	18092	26168
1318888	Dec 23	11:02	EA6025	JD Truck/Pup	28	39340	17352	21988
1318907	Dec 23	11:31	HH0162	South Delta/Tri Pup	28	45710	18680	27030
1318915	Dec 23	11:40	HH0174	South Delta/Tri Pup	28	43380	18000	25380
1318920	Dec 23	12:05	HH0163	South Delta/Tri Pup	28	46620	18524	28096
1318922	Dec 23	12:09	HH0165	South Delta/Tri Pup	28	47750	18876	28874
1318928	Dec 23	12:24	DE3832	South Delta Trans/Pup	28	42490	18322	24168
1318932	Dec 23	12:28	HH0161	South Delta/Tri Pup	28	45740	18092	27648
1318934	Dec 23	12:31	HH0154	South Delta/Tri Pup	28	46050	18392	27658
1318942	Dec 23	12:56	EA6025	JD Truck/Pup	28	40940	17352	23588
1318946	Dec 23	13:12	HH0162	South Delta/Tri Pup	28	48780	18680	30100
1318952	Dec 23	13:25	HH0174	South Delta/Tri Pup	28	38860	18000	20860
1318966	Dec 23	13:59	HH0163	South Delta/Tri Pup	28	40820	18524	22296
1318967	Dec 23	14:00	HH0165	South Delta/Tri Pup	28	40960	18876	22084
1318996	Dec 23	14:54	EA6025	JD Truck/Pup	28	39310	17352	21958
SubSubTotal:					812			684714
Material: S141208 1300 Richards St Vcr								
1318778	Dec 23	08:30	8919GW	M Grewal Truck/Pup	28	40730	17280	23450
1318784	Dec 23	08:37	4241GS	Kler Truck/Pup	28	43610	17988	25622

RL Ecowaste Industries Ltd.
Listing of Tickets
For Dec 23,14
All Tickets
Both Posted & Unposted
Customer ID=4693 Sumas Remediation Services Inc.

Ticket #	Date	Tm In	License	Vehicle Desc	Yds	GVW(kg)	Tare kg	Net Wgt
1318791	Dec 23	08:42	DB7010	KS Chahal Truck/Pup	28	42830	17676	25154
1318792	Dec 23	08:43	AM1291	Mangat Truck/Pup	28	44670	18162	26508
1318796	Dec 23	08:48	EH0001	Gill Bros Truck/Pup	28	43290	17666	25624
1318798	Dec 23	08:51	6366JN	Harjit & Sons Truck/Pup	28	42560	17890	24670
1318800	Dec 23	08:52	5769CX	Boparai Truck/Pup	28	43940	17320	26620
1318807	Dec 23	09:00	EF8763	Pargat Powar Truck/Pup	28	42990	18088	24902
1318811	Dec 23	09:06	3567FE	H & K Truck/Pup	28	44320	17738	26582
1318812	Dec 23	09:07	1908HW	Gill Bros Truck/Pup	28	44260	17710	26550
SubSubTotal:					280			255682
Material: S141213 1265 Howe St Vcr								
1318984	Dec 23	14:39	5769CX	Boparai Truck/Pup	28	40640	17320	23320
1318985	Dec 23	14:42	EH0001	Gill Bros Truck/Pup	28	40900	17666	23234
1318986	Dec 23	14:44	AM1291	Mangat Truck/Pup	28	42780	18162	24618
1318987	Dec 23	14:45	6366JN	Harjit & Sons Truck/Pup	28	40930	17890	23040
1318988	Dec 23	14:46	8919GW	M Grewal Truck/Pup	28	41390	17280	24110
1318989	Dec 23	14:47	4241GS	Kler Truck/Pup	28	41090	17988	23102
1318990	Dec 23	14:48	EF8763	Pargat Powar Truck/Pup	28	41220	18088	23132
1318991	Dec 23	14:49	3567FE	H & K Truck/Pup	28	40930	17738	23192
1318992	Dec 23	14:50	1908HW	Gill Bros Truck/Pup	28	40500	17710	22790
1318993	Dec 23	14:51	DB7010	KS Chahal Truck/Pup	28	41360	17676	23684
SubSubTotal:					280			234222
Material: T141110 39 Smithe St Vcr								
1318971	Dec 23	14:09	DE3832	South Delta Trans/Pup	28	38430	18322	20108
1318973	Dec 23	14:11	HH0161	South Delta/Tri Pup	28	42330	18092	24238
1318975	Dec 23	14:14	HH0154	South Delta/Tri Pup	28	43660	18392	25268
SubSubTotal:					84			69614
SubTotal:					1932			1614928
TOTAL:					1932			1614928

RL Ecowaste Industries Ltd.
Listing of Tickets
For Dec 30,14
All Tickets
Both Posted & Unposted
Customer ID=4693 Sumas Remediation Services Inc.

Ticket #	Date	Tm In	License	Vehicle Desc	Yds	GVW(kg)	Tare kg	Net Wgt
Customer: 4693 Sumas Remediation Services Inc.								
Material: T141110 39 Smithe St Vcr								
1330438	Dec 30	08:36	2674LH	Sewa Singh Dhanda/Pup	28	37280	17280	20000
1330441	Dec 30	08:40	EX5296	Gak Contr/Pup	28	34590	16480	18110
1330442	Dec 30	08:41	CD8635	Beesla Trucking/Pup	28	38370	17860	20510
1330448	Dec 30	08:50	EK3090	Beesla Trucking - Pup	28	37990	17480	20510
1330455	Dec 30	09:00	EF8897	Beesla Trucking - Pup	28	38230	17650	20580
1330457	Dec 30	09:03	HS5332	ZBeesla Trucing/Tri Pup	28	42400	20100	22300
1330459	Dec 30	09:05	CK4095	S & S Sand/Pup #606	28	37470	16980	20490
1330485	Dec 30	10:20	EK3090	Beesla Trucking - Pup	28	40590	16696	23894
1330489	Dec 30	10:23	DJ7028	G & H Gosal/Pup	28	35760	17360	18400
1330493	Dec 30	10:27	CL9845	Sihota/Pup	28	37150	17150	20000
1330497	Dec 30	10:31	EF8897	Beesla Trucking - Pup	28	37980	17626	20354
1330500	Dec 30	10:34	CD8635	Beesla Trucking/Pup	28	37820	17830	19990
1330505	Dec 30	10:40	2674LH	Sewa Singh Dhanda/Pup	28	37220	17240	19980
1330512	Dec 30	10:49	JD3334	BS Sandhu/Pup	28	38230	17440	20790
1330516	Dec 30	10:54	HS5332	ZBeesla Trucing/Tri Pup	28	43590	20100	23490
1330520	Dec 30	11:00	CR9268	BSH Trucking/Pup	28	37740	17240	20500
1330526	Dec 30	11:09	HK7600	Gulshan Trucking/Pup	28	36230	17000	19230
1330634	Dec 30	14:33	2674LH	SS Dhanda/Pup	28	40520	17200	23320
SubSubTotal:					504			372448
Material: T141206 2477 Carolina St Vcr								
1330418	Dec 30	08:02	JA0778	Clear Vision Trucking	16	22480	11340	11140
1330419	Dec 30	08:04	7685JF	H Chemma Trucking	16	21700	13200	8500
1330421	Dec 30	08:08	HA7136	J. Chahal & Sons/Pup	28	35170	17870	17300
1330424	Dec 30	08:14	HL3659	J. Chahal & Sons/Pup	28	37030	17670	19360
1330426	Dec 30	08:16	HR0160	J. Chahal & Sons/Pup	28	33110	17770	15340
1330428	Dec 30	08:19	EB4344	J Chahal & Sons/Pup	28	33790	17220	16570
1330554	Dec 30	11:48	JA0778	Clear Vision Trucking	16	21800	11340	10460
1330557	Dec 30	11:50	7685JF	H Chemma Trucking	16	25460	13200	12260
1330602	Dec 30	13:34	JA0778	Clear Vision	16	23130	11260	11870
1330603	Dec 30	13:36	7685JF	H Chemma Trucking	16	23800	12882	10918
1330614	Dec 30	13:51	JA0778	Clear Vision	16	23550	11230	12320
1330631	Dec 30	14:26	7685JF	H Chemma Trucking	16	22400	13200	9200
1330635	Dec 30	14:34	JA0778	Clear Vision	16	20800	11310	9490
1330646	Dec 30	14:59	JA0778	Clear Vision	16	22410	11260	11150
1330647	Dec 30	15:03	7685JF	H Chemma Trucking	16	25380	12882	12498
SubSubTotal:					288			188376
Material: T141208 1300 Richards St Vcr								
1330432	Dec 30	08:28	1908HW	Gill Bros Truck/Pup	28	40460	18010	22450
1330435	Dec 30	08:32	6366JN	Grewal Trucking/Pup	28	41860	17980	23880
1330439	Dec 30	08:38	DB7010	KS Chahal Truck/Pup	28	41350	18480	22870
1330449	Dec 30	08:51	4241GS	Kler Trucking/Pup	28	41110	18210	22900
1330451	Dec 30	08:55	8919GW	Grewal Truck/Pup	28	41370	17420	23950
1330456	Dec 30	09:01	5769CX	Boparai Trucking/Pup	28	42800	17770	25030
1330458	Dec 30	09:04	EF8763	Pargat Powar Truck/Pup	28	42530	18260	24270
1330504	Dec 30	10:39	1908HW	Gill Bros Truck/Pup	28	41210	17826	23384
1330506	Dec 30	10:41	6366JN	Grewal Trucking/Pup	28	41920	17932	23988
1330509	Dec 30	10:44	3567FE	H & K Trucking/Pup	28	41920	17760	24160
1330513	Dec 30	10:50	DB7010	KS Chahal Truck/Pup	28	42250	17866	24384
1330518	Dec 30	10:58	4241GS	Kler Trucking/Pup	28	41580	18048	23532
1330519	Dec 30	10:59	8919GW	Grewal Truck/Pup	28	41860	17292	24568
1330521	Dec 30	11:01	5769CX	Boparai Trucking/Pup	28	43450	17392	26058
1330524	Dec 30	11:06	EF8763	Pargat Powar Truck/Pup	28	42590	18246	24344
1330565	Dec 30	12:45	EF8763	Pargat Powar Truck/Pup	28	43680	18088	25592

RL Ecowaste Industries Ltd.
Listing of Tickets
For Dec 30,14
All Tickets
Both Posted & Unposted
Customer ID=4693 Sumas Remediation Services Inc.

Ticket #	Date	Tm In	License	Vehicle Desc	Yds	GVW(kg)	Tare kg	Net Wgt
1330573	Dec 30	12:54	1908HW	Gill Bros Truck/Pup	28	41620	17920	23700
1330575	Dec 30	12:56	6366JN	Harjit & Sons Truck/Pup	28	41150	17850	23300
1330580	Dec 30	13:02	DB7010	KS Chahal Truck/Pup	28	43420	18380	25040
1330581	Dec 30	13:03	4241GS	Kler Truck/Pup	28	41850	18090	23760
1330582	Dec 30	13:05	8919GW	M Grewal Truck/Pup	28	42200	17320	24880
1330586	Dec 30	13:09	3567FE	H & K Truck/Pup	28	41880	17700	24180
1330587	Dec 30	13:11	5769CX	Boparai Truck/Pup	28	42440	17370	25070
SubSubTotal:					644			555290
Material: T141211 4623 Byrne Rd Bby								
1330416	Dec 30	07:56	FA2800	JS Nijjar/Pup	28	43610	19260	24350
1330420	Dec 30	08:05	HA5623	JS Nijjar Truck/Pup	28	43700	18770	24930
1330434	Dec 30	08:30	CR2171	Pahl Truck/Pup #32	28	43090	18090	25000
1330436	Dec 30	08:33	BR0273	Pahl Truck/Pup #28	28	41920	17940	23980
1330443	Dec 30	08:43	DD8337	Richport Truck/Pup	28	42790	18516	24274
1330446	Dec 30	08:48	1614JS	Pahl Truck/Pup #30	28	43260	17810	25450
1330447	Dec 30	08:49	DP0150	Pahl Truck/Pup #25	28	40300	17432	22868
1330454	Dec 30	08:59	BR0607	Pahl Truck/Pup #29	28	43220	17624	25596
1330469	Dec 30	09:14	FA2800	JS Nijjar/Pup	28	43510	17644	25866
1330475	Dec 30	09:25	HA5623	JS Nijjar Truck/Pup	28	43460	18182	25278
1330486	Dec 30	10:20	1614JS	Pahl Truck/Pup #30	28	41330	17740	23590
1330487	Dec 30	10:21	FA2800	JS Nijjar/Pup	28	43420	17644	25776
1330490	Dec 30	10:24	DD8337	Richport Truck/Pup	28	40340	18230	22110
1330496	Dec 30	10:30	DP0150	Pahl Truck/Pup #25	28	41280	17320	23960
1330498	Dec 30	10:31	BR0607	Pahl Truck/Pup #29	28	41930	17570	24360
1330517	Dec 30	10:57	HA5623	JS Nijjar Truck/Pup	28	41920	18182	23738
1330530	Dec 30	11:12	CR2171	Pahl Truck/Pup #32	28	43480	18418	25062
1330531	Dec 30	11:15	BR0273	Pahl Truck/Pup #28	28	42820	17940	24880
1330542	Dec 30	11:28	1614JS	Pahl Truck/Pup #30	28	44640	17810	26830
1330545	Dec 30	11:30	DD8337	Richport Truck/Pup	28	43480	18516	24964
1330547	Dec 30	11:35	DP0150	Pahl Truck/Pup #25	28	41940	17432	24508
1330549	Dec 30	11:39	BR0607	Pahl Truck/Pup #29	28	41530	17624	23906
1330550	Dec 30	11:42	FA2800	JS Nijjar/Pup	28	43440	17644	25796
1330566	Dec 30	12:46	DP0150	Pahl Truck/Pup #25	28	41740	17230	24510
1330567	Dec 30	12:46	CR2171	Pahl Truck/Pup #32	28	40740	17960	22780
1330568	Dec 30	12:47	BR0607	Pahl Truck/Pup #29	28	42620	17510	25110
1330569	Dec 30	12:49	BR0273	ENGINE| Pahl Truck/Pup #2	28	41570	17710	23860
1330570	Dec 30	12:50	FA2800	JS Nijjar/Pup	28	42340	17330	25010
1330572	Dec 30	12:53	BR0273	ENGINE| Pahl Truck/Pup #2	28	39490	17800	21690
1330588	Dec 30	13:12	1614JS	Pahl Truck/Pup #30	28	42970	17650	25320
1330589	Dec 30	13:13	DD8337	Richport Truck/Pup	28	41760	18140	23620
1330606	Dec 30	13:41	HA5623	JS Nijjar Truck/Pup	28	43160	18100	25060
1330607	Dec 30	13:42	CR2171	Pahl Truck/Pup #32	28	40770	17868	22902
1330608	Dec 30	13:43	CR2171	Pahl Truck/Pup #32	28	39080	18040	21040
1330612	Dec 30	13:48	BR0273	ENGINE| Pahl Truck/Pup #2	28	42080	17092	24988
1330618	Dec 30	14:02	FA2800	JS Nijjar/Pup	28	41870	17330	24540
1330619	Dec 30	14:05	1614JS	Pahl Truck/Pup #30	28	41140	17516	23624
1330624	Dec 30	14:13	DD8337	Richport Truck/Pup	28	42420	17950	24470
1330625	Dec 30	14:14	DP0150	Pahl Truck/Pup #25	28	40920	17070	23850
1330626	Dec 30	14:15	HA5623	JS Nijjar Truck/Pup	28	43480	18840	24640
1330627	Dec 30	14:18	BR0607	Pahl Truck/Pup #29	28	41400	17506	23894
1330642	Dec 30	14:51	BR0273	ENGINE| Pahl Truck/Pup #2	28	39490	17800	21690
SubSubTotal:					1176			1019670
SubTotal:					2612			2135784
TOTAL:					2612			2135784

RL Ecowaste Industries Ltd.
Listing of Tickets
For Jan 08,15
All Tickets
Both Posted & Unposted
Customer ID=4693 Sumas Remediation Services Inc.

Ticket #	Date	Tm In	License	Vehicle Desc	Yds	GVW(kg)	Tare kg	Net Wgt
Customer: 4693 Sumas Remediation Services Inc.								
Material: S140802 Parcel 12 The Pier N Vcr								
1331737	Jan 08	09:10	5251AY	Chahal Trucking-Pup	28	42170	17628	24542
1331801	Jan 08	11:13	5251AY	Chahal Trucking-Pup	28	41210	17628	23582
1331887	Jan 08	13:36	5251AY	Chahal Trucking-Pup	28	41340	17628	23712
SubSubTotal:					84			71836
Material: S141208 1300 Richards St Vcr								
1331724	Jan 08	08:55	4858GS	Harjit & Sons/Pup	28	42000	17584	24416
1331726	Jan 08	08:57	BN7099	Capital West/Pup	28	42740	17540	25200
1331731	Jan 08	09:05	4241GS	Kler Truck/Pup	28	43080	17988	25092
1331733	Jan 08	09:07	AM1291	Mangat Truck/Pup	28	43200	18162	25038
1331735	Jan 08	09:09	6366JN	Harjit & Sons Truck/Pup	28	41820	17890	23930
1331738	Jan 08	09:17	3470LL	Expert Ex. Truck/Pup	28	41540	18100	23440
1331741	Jan 08	09:22	1621JS	D Sandhu Trucking/Pup	28	41530	17510	24020
1331747	Jan 08	09:36	ED0532	RS Natt Trucking/Pup	28	42210	18200	24010
1331790	Jan 08	10:52	4858GS	Harjit & Sons/Pup	28	40360	17584	22776
1331792	Jan 08	10:55	BN7099	Capital West/Pup	28	40550	17540	23010
1331797	Jan 08	11:02	4241GS	Kler Truck/Pup	28	40670	17988	22682
1331798	Jan 08	11:04	AM1291	Mangat Truck/Pup	28	41600	18162	23438
1331799	Jan 08	11:05	6366JN	Harjit & Sons Truck/Pup	28	40980	17890	23090
1331805	Jan 08	11:19	3470LL	Expert Ex. Truck/Pup	28	41920	17994	23926
1331809	Jan 08	11:24	1621JS	D Sandhu Trucking/Pup	28	41680	17808	23872
1331814	Jan 08	11:27	ED0532	RS Natt Trucking/Pup	28	41380	17794	23586
1331873	Jan 08	13:18	4858GS	Harjit & Sons/Pup	28	41620	17584	24036
1331876	Jan 08	13:22	BN7099	Capital West/Pup	28	41790	17540	24250
1331881	Jan 08	13:27	4241GS	Kler Truck/Pup	28	42070	17988	24082
1331882	Jan 08	13:28	AM1291	Mangat Truck/Pup	28	43230	18162	25068
1331883	Jan 08	13:29	6366JN	Harjit & Sons Truck/Pup	28	41420	17890	23530
1331888	Jan 08	13:44	3470LL	Expert Ex. Truck/Pup	28	41110	17994	23116
1331889	Jan 08	13:47	1621JS	D Sandhu Trucking/Pup	28	41710	17808	23902
1331890	Jan 08	13:48	ED0532	RS Natt Trucking/Pup	28	41090	17794	23296
SubSubTotal:					672			572806
Material: T150101 2001 W 10th Ave Vcr								
1331701	Jan 08	08:10	DJ6021	DJ Smith Bros/Pup	28	41560	17360	24200
1331703	Jan 08	08:15	AB3433	S Jhutty/Pup	28	40280	17130	23150
1331706	Jan 08	08:22	CB4566	HS Ranu/Pup	28	38220	17402	20818
1331709	Jan 08	08:29	9100JH	G Sekhon/Pup	28	42240	17990	24250
1331713	Jan 08	08:35	HL3393	Parmajit S Deo/Pup	28	36910	17030	19880
1331714	Jan 08	08:36	AB3425	JS Cheema/Pup	28	39530	17600	21930
1331715	Jan 08	08:38	ES7890	Laddi Truck/Pup	28	39480	18290	21190
1331718	Jan 08	08:43	AB3430	R Gill Trucking/Pup	28	38960	17136	21824
1331720	Jan 08	08:45	HF0775	R.S. Khungay/Pup	28	38870	17860	21010
1331721	Jan 08	08:46	BM4154	Triple J Truck/Pup	28	40010	18130	21880
1331754	Jan 08	09:44	DJ6021	DJ Smith Bros/Pup	28	40980	17608	23372
1331757	Jan 08	09:49	AB3433	S Jhutty/Pup	28	41050	16560	24490
1331762	Jan 08	09:54	CB4566	HS Ranu/Pup	28	40790	17402	23388
1331764	Jan 08	09:56	9100JH	G Sekhon/Pup	28	41660	17842	23818
1331765	Jan 08	09:58	HL3393	Parmajit S Deo/Pup	28	40340	17030	23310
1331776	Jan 08	10:19	AB3425	JS Cheema/Pup	28	41650	17394	24256
1331777	Jan 08	10:20	ES7890	Laddi Truck/Pup	28	40750	18020	22730
1331778	Jan 08	10:26	AB3430	R Gill Trucking/Pup	28	41660	17136	24524
1331779	Jan 08	10:27	HF0775	R.S. Khungay/Pup	28	40410	17860	22550
1331781	Jan 08	10:31	BM4154	Triple J Truck/Pup	28	42230	17942	24288
1331813	Jan 08	11:26	DJ6021	DJ Smith Bros/Pup	28	40920	17608	23312
1331815	Jan 08	11:29	AB3433	S Jhutty/Pup	28	41070	16560	24510

RL Ecowaste Industries Ltd.
Listing of Tickets
For Jan 10,15
All Tickets
Both Posted & Unposted
Customer ID=4693 Sumas Remediation Services Inc.

Ticket #	Date	Tm In	License	Vehicle Desc	Yds	GVW(kg)	Tare kg	Net Wgt
Customer: 4693 Sumas Remediation Services Inc.								
Material: S141208 1300 Richards St Vcr								
1332235	Jan 10	10:38	BN7099	Capital West/Pup	28	41270	17540	23730
1332236	Jan 10	10:40	JA4057	GBS/Pup	28	40890	18180	22710
1332241	Jan 10	10:50	6738JB	NS Gill Truck/Pup	28	41660	17132	24528
1332242	Jan 10	10:52	HF6111	JS Sandhu/Pup	28	41600	16850	24750
1332243	Jan 10	10:54	DP5791	SSD Contract/Pup	28	43010	17212	25798
1332245	Jan 10	10:57	DD2458	RD Trucking/Pup	28	42750	18080	24670
1332246	Jan 10	11:00	HL8345	M & S Trucking/Pup	28	44250	19330	24920
1332248	Jan 10	11:07	HM9537	TS Mahal Truck/Pup	28	42080	17700	24380
1332253	Jan 10	11:14	BH2074	J Johal Truck/Pup	28	43000	17720	25280
1332254	Jan 10	11:15	BA8236	Rai Enterprises - Pup	28	43550	18280	25270
1332255	Jan 10	11:20	4217GS	Aulak Trucking/Pup	28	41220	16840	24380
1332267	Jan 10	12:21	BN7099	Capital West/Pup	28	40980	17540	23440
1332269	Jan 10	12:25	JA4057	GBS/Pup	28	40990	18180	22810
1332273	Jan 10	12:31	6738JB	NS Gill Truck/Pup	28	41100	17132	23968
1332275	Jan 10	12:34	HF6111	JS Sandhu/Pup	28	41160	16604	24556
1332276	Jan 10	12:37	DP5791	SSD Contract/Pup	28	41510	17212	24298
1332280	Jan 10	12:45	DD2458	RD Trucking/Pup	28	44160	17790	26370
1332281	Jan 10	12:47	HL8345	M & S Trucking/Pup	28	42140	19330	22810
1332284	Jan 10	12:56	HM9537	TS Mahal Truck/Pup	28	40550	17108	23442
1332287	Jan 10	12:59	BH2074	J Johal Truck/Pup	28	41790	17338	24452
1332288	Jan 10	13:03	BA8236	Rai Enterprises - Pup	28	43330	18056	25274
1332289	Jan 10	13:12	4217GS	Aulak Trucking/Pup	28	41660	16152	25508
1332304	Jan 10	14:12	BN7099	Capital West/Pup	28	42110	17540	24570
1332306	Jan 10	14:21	JA4057	GBS/Pup	28	39710	18180	21530
1332308	Jan 10	14:28	6738JB	NS Gill Truck/Pup	28	41760	17132	24628
SubSubTotal:					700			608072
SubTotal:					700			608072
TOTAL:					700			608072

Active Earth Engineering Ltd

APPENDIX C
Photographs

Photo 1 – Looking west. Uncovering of the former heating oil UST prior to tank decommissioning.

Photo 2 – Looking north. Shows the remedial excavation in the vicinity of the former UST. Backfill sand/gravel has been placed to support the adjacent Drake Street sidewalk.

Photo 3 – Looking northeast. Shows the completed remedial excavation toward the lane and Drake Street Sidewalks. Residual soil at Site boundary to be removed during excavation trimming. Collection of closure samples shown via hydro-vacuum truck along Site boundary.

Photo 4 – Remedial excavation looking east (toward the lane).

Active Earth Engineering Ltd

APPENDIX D
Laboratory Certificates

ACTIVE EARTH ENGINEERING LTD.
ATTN: Steve Boyce
160-2250 Boundary Road
Burnaby BC V5M 3Z3

Date Received: 12-JAN-15
Report Date: 13-JAN-15 12:42 (MT)
Version: FINAL

Client Phone: --

Certificate of Analysis

Lab Work Order #: L1565899
Project P.O. #: NOT SUBMITTED
Job Reference: 816
C of C Numbers:
Legal Site Desc:

Brent Mack, B.Sc.
Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1565899-1
	Description	Soil
	Sampled Date	09-JAN-15
	Sampled Time	
	Client ID	NW2
Grouping	**Analyte**	
SOIL		
Physical Tests	Moisture (%)	21.5
Hydrocarbons	EPH10-19 (mg/kg)	360
	EPH19-32 (mg/kg)	<200
	LEPH (mg/kg)	360
	HEPH (mg/kg)	<200
Polycyclic Aromatic Hydrocarbons	Acenaphthene (mg/kg)	<0.20 DLM
	Acenaphthylene (mg/kg)	<0.050
	Anthracene (mg/kg)	<0.070 DLM
	Benz(a)anthracene (mg/kg)	<0.050
	Benzo(a)pyrene (mg/kg)	<0.050
	Benzo(b)fluoranthene (mg/kg)	<0.050
	Benzo(g,h,i)perylene (mg/kg)	<0.050
	Benzo(k)fluoranthene (mg/kg)	<0.050
	Chrysene (mg/kg)	<0.050
	Dibenz(a,h)anthracene (mg/kg)	<0.050
	Fluoranthene (mg/kg)	<0.050
	Fluorene (mg/kg)	0.243
	Indeno(1,2,3-c,d)pyrene (mg/kg)	<0.050
	2-Methylnaphthalene (mg/kg)	2.13
	Naphthalene (mg/kg)	<0.050
	Phenanthrene (mg/kg)	0.671
	Pyrene (mg/kg)	0.087
	Surrogate: Acenaphthene d10 (%)	82.5
	Surrogate: Chrysene d12 (%)	89.0
	Surrogate: Naphthalene d8 (%)	75.0
	Surrogate: Phenanthrene d10 (%)	89.0

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Method Blank	Benzo(g,h,i)perylene	MB-LOR	L1565899-1

Qualifiers for Individual Parameters Listed:

Qualifier	Description
DLM	Detection Limit Adjusted due to sample matrix effects.
MB-LOR	Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits below 5x blank level.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
EPH-TUMB-FID-VA	Soil	EPH in Solids by Tumbler and GCFID	BC MOE EPH GCFID

Analysis is in accordance with BC MOE Lab Manual method "Extractable Petroleum Hydrocarbons in Solids by GC/FID", v2.1, July 1999. Soil samples are extracted with a 1:1 mixture of hexane and acetone using a rotary extraction technique modified from EPA 3570 prior to gas chromatography with flame ionization detection (GC-FID). EPH results include Polycyclic Aromatic Hydrocarbons (PAH) and are therefore not equivalent to Light and Heavy Extractable Petroleum Hydrocarbons (LEPH/HEPH).

LEPH/HEPH-CALC-VA	Soil	LEPHs and HEPHs	BC MOE LABORATORY MANUAL (2005)

Light and Heavy Extractable Petroleum Hydrocarbons in Solids. These results are determined according to the British Columbia Ministry of Environment, Lands, and Parks Analytical Method for Contaminated Sites "Calculation of Light and Heavy Extractable Petroleum Hydrocarbons in Solids or Water". According to this method, LEPH and HEPH are calculated
by subtracting selected Polycyclic Aromatic Hydrocarbon results from Extractable Petroleum Hydrocarbon results. To calculate LEPH, the individual results for Naphthalene and Phenanthrene are subtracted from EPH(C10-19). To calculate HEPH, the individual results for Benz(a)anthracene, *Benzo(b)fluoranthene*, *Benzo(k)fluoranthene*, *Benzo(a)pyrene*, *Dibenz(a,h)anthracene*, Indeno(1,2,3-c,d)pyrene, and Pyrene
are subtracted from EPH(C19-32). Analysis of Extractable Petroleum Hydrocarbons adheres to all prescribed elements of the BCMELP method "Extractable Petroleum Hydrocarbons in Solids by GC/FID" (Version 2.1, July 20, 1999).

MOISTURE-VA	Soil	Moisture content	ASTM D2974-00 Method A

This analysis is carried out gravimetrically by drying the sample at 105 C for a minimum of six hours.

PAH-TMB-D/A-MS-VA	Soil	PAH - Rotary Extraction (DCM/Acetone)	EPA 3570/8270

Polycyclic Aromatic Hydrocarbons in Sediment/Soil
This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846, Methods 3570 & 8270, published by the United States Environmental Protection Agency (EPA). The procedure uses a mechanical shaking technique to extract a subsample of the sediment/soil with a 1:1 mixture of DCM and acetone. The extract is then solvent exchanged to toluene. The final extract is analysed by capillary column gas chromatography with mass spectrometric detection (GC/MS). Surrogate recoveries may not be reported in cases where interferences from the sample matrix prevent accurate quantitation. Because the two isomers cannot be readily chromatographically separated, benzo(j)fluoranthene is reported as part of the benzo(b)fluoranthene parameter.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

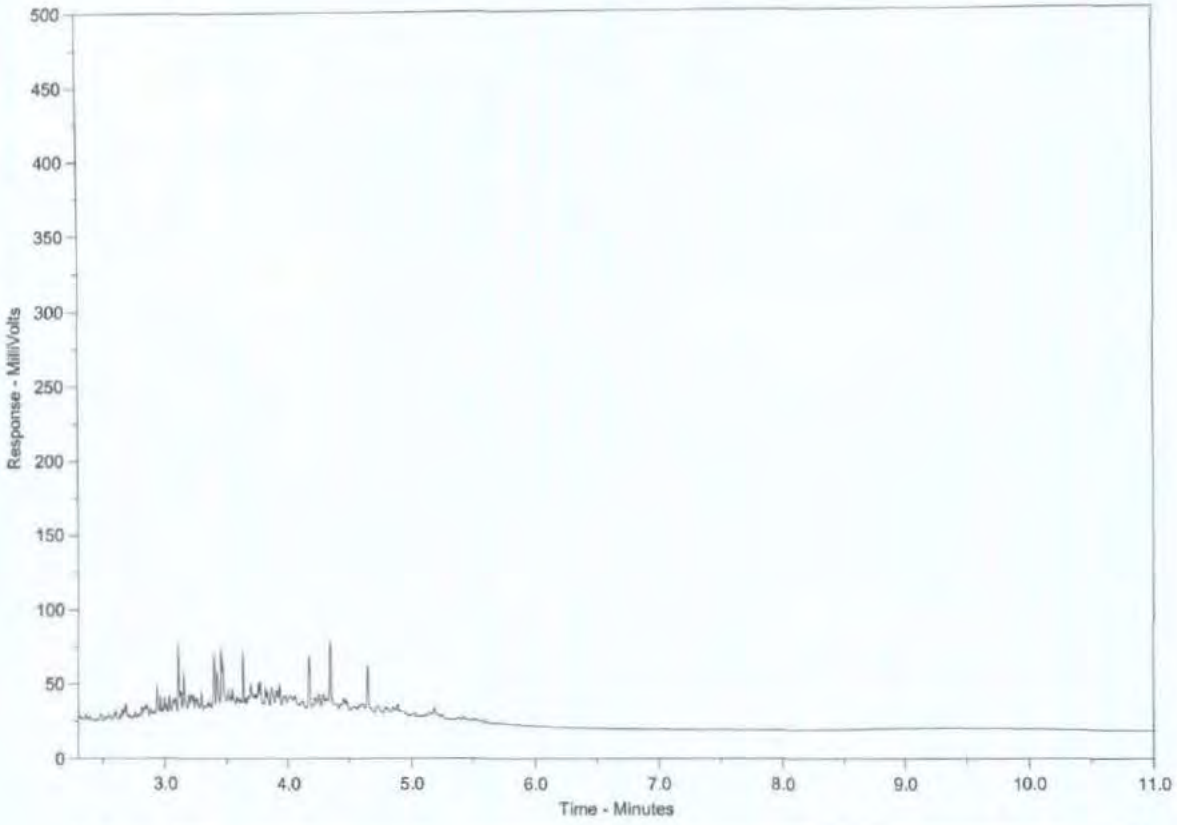
GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.
mg/kg - milligrams per kilogram based on dry weight of sample.
mg/kg wwt - milligrams per kilogram based on wet weight of sample.
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.
mg/L - milligrams per litre.
< - Less than.
D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Hydrocarbon Distribution Report

ALS Sample ID: L1565899-1
Client Sample ID: AE14-NW2



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline →	← Motor Oils / Lube Oils / Grease →	
← Diesel / Jet Fuels →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

ALS Environmental

Chain of Custody / Analytical Request Form
Canada Toll Free: 1 800 668 9878
www.alsglobal.com

COC # _____

Page 1 of 1

Report To		Report Format / Distribution	Service Requested (Rush for routine analysis subject to availability)
Company:	Active Earth Engineering Ltd.	☒ Standard ☐ Other	◉ Regular (Standard Turnaround Times - Business Days)
Contact:		☒ PDF ☒ Excel ☐ Digital ☐ Fax	○ Priority (2-4 Business Days) - 50% Surcharge - Contact ALS to Confirm TAT
Address:	160-2250 Boundary Road	Email 1: Steve.Boyce@activeEarth.ca	○ Emergency (1-2 Bus. Days) - 100% Surcharge - Contact ALS to Confirm TAT
	Burnaby, BC, V5M 3Z3	Email 2:	○ Same Day or Weekend Emergency - Contact ALS to Confirm TAT End of day if possible
Phone:	Fax:	Email 3:	**Analysis Request**
Invoice To	Same as Report ? ☑ Yes ☐ No	Client / Project Information	Please indicate below Filtered, Preserved or both (F, P, F/P)
Hardcopy of Invoice with Report?	☐ Yes ☑ No	Job #: 816	
Company:	Active Earth Engineering Ltd.	PO / AFE:	
Contact:	Carol Kneale	LSD:	
Address:	4510 Saddlehorn Crescent, Langley, BC, V2Z 1J6		
Phone:	Fax:	Quote #:	
Lab Work Order # (lab use only)	[redacted]	ALS Contact:	Sampler: Nguyen

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	LEPH/HEPH/PAH	Number of Containers
[redacted]	AE14 - NW2	09-01-15		Soil	X	2

L1565899-COFC

RUSH

Priority processing

Special Instructions / Regulations with water or land use (CCME-Freshwater Aquatic Life/BC CSR - Commercial/AB Tier 1 - Natural, etc) / Hazardous Details

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.
By the use of this form the user acknowledges and agrees with the Terms and Conditions as provided on a separate Excel tab.
Also provided on another Excel tab are the ALS location addresses, phone numbers and sample container / preservation / holding time table for common analyses.

SHIPMENT RELEASE (client use)			SHIPMENT RECEPTION (lab use only)				SHIPMENT VERIFICATION (lab use only)			
Released by:	Date (dd-mmm-yy)	Time (hh-mm)	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF
BN	11-01-15	8:35	[illegible]	Jan 2	9:00	9.9 °C				

GENF 20.00 Front

ACTIVE EARTH ENGINEERING LTD.
ATTN: Steve Boyce
160-2250 Boundary Road
Burnaby BC V5M 3Z3

Date Received: 09-JAN-15
Report Date: 12-JAN-15 13:22 (MT)
Version: FINAL

Client Phone: --

Certificate of Analysis

Lab Work Order #: L1565710

Project P.O. #: NOT SUBMITTED
Job Reference: 816
C of C Numbers: 10-382981
Legal Site Desc:

Brent Mack, B.Sc.
Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	Sample ID: L1565710-1 Description: SOIL Sampled Date: 09-JAN-15 Sampled Time: 12:00 Client ID: EW1-1	L1565710-2 SOIL 09-JAN-15 12:00 EW1-2	L1565710-3 SOIL 09-JAN-15 12:00 EW2-1	L1565710-4 SOIL 09-JAN-15 12:00 EW2-2	L1565710-5 SOIL 09-JAN-15 12:00 EW3
SOIL						
Physical Tests	Moisture (%)	32.7	13.2	20.2	31.8	10.7
Hydrocarbons	EPH10-19 (mg/kg)	<200	<200	<200	<200	<200
	EPH19-32 (mg/kg)	<200	<200	<200	<200	<200
	LEPH (mg/kg)	<200	<200	<200	<200	<200
	HEPH (mg/kg)	<200	<200	<200	<200	<200
Polycyclic Aromatic Hydrocarbons	Acenaphthene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Acenaphthylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Anthracene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Benz(a)anthracene (mg/kg)	<0.050	<0.050	0.066	<0.050	<0.050
	Benzo(a)pyrene (mg/kg)	<0.050	<0.050	0.080	<0.050	<0.050
	Benzo(b)fluoranthene (mg/kg)	<0.050	<0.050	0.111	0.086	<0.050
	Benzo(g,h,i)perylene (mg/kg)	<0.050	<0.050	0.057	0.058	<0.050
	Benzo(k)fluoranthene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Chrysene (mg/kg)	<0.050	<0.050	0.089	<0.070 DLM	<0.050
	Dibenz(a,h)anthracene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Fluoranthene (mg/kg)	<0.050	<0.050	0.174	0.128	<0.050
	Fluorene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Indeno(1,2,3-c,d)pyrene (mg/kg)	<0.050	<0.050	0.065	0.075	<0.050
	2-Methylnaphthalene (mg/kg)	<0.050	<0.050	0.073	0.118	<0.050
	Naphthalene (mg/kg)	<0.050	<0.050	<0.050	0.060	<0.050
	Phenanthrene (mg/kg)	<0.050	<0.050	0.123	0.153	<0.050
	Pyrene (mg/kg)	<0.050	<0.050	0.179	0.104	<0.050
	Surrogate: Acenaphthene d10 (%)	80.1	85.2	79.4	91.5	82.2
	Surrogate: Chrysene d12 (%)	102.4	105.5	102.5	111.5	103.9
	Surrogate: Naphthalene d8 (%)	80.7	86.0	73.0	85.2	83.7
	Surrogate: Phenanthrene d10 (%)	94.3	96.6	96.2	105.4	90.8

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	L1565710-6	L1565710-7	L1565710-8	L1565710-9	
Description	SOIL	SOIL	SOIL	SOIL	
Sampled Date	09-JAN-15	09-JAN-15	09-JAN-15	09-JAN-15	
Sampled Time	12:00	12:00	12:00	12:00	
Client ID	SW3	NW1-1	NW1-2	BASE-3	
Grouping	**Analyte**				
SOIL					
Physical Tests	Moisture (%)	17.4	24.2	14.3	8.44
Hydrocarbons	EPH10-19 (mg/kg)	<200	<200	<200	<200
	EPH19-32 (mg/kg)	<200	<200	<200	<200
	LEPH (mg/kg)	<200	<200	<200	<200
	HEPH (mg/kg)	<200	<200	<200	<200
Polycyclic Aromatic Hydrocarbons	Acenaphthene (mg/kg)	<0.050	<0.050	<0.050	<0.050
	Acenaphthylene (mg/kg)	<0.050	<0.050	<0.050	<0.050
	Anthracene (mg/kg)	<0.050	<0.050	<0.050	<0.050
	Benz(a)anthracene (mg/kg)	<0.050	<0.050	<0.050	<0.050
	Benzo(a)pyrene (mg/kg)	<0.050	<0.050	<0.050	<0.050
	Benzo(b)fluoranthene (mg/kg)	<0.050	<0.050	<0.050	<0.050
	Benzo(g,h,i)perylene (mg/kg)	<0.050	<0.050	<0.050	<0.050
	Benzo(k)fluoranthene (mg/kg)	<0.050	<0.050	<0.050	<0.050
	Chrysene (mg/kg)	<0.050	<0.050	<0.050	<0.050
	Dibenz(a,h)anthracene (mg/kg)	<0.050	<0.050	<0.050	<0.050
	Fluoranthene (mg/kg)	<0.050	<0.050	<0.050	<0.050
	Fluorene (mg/kg)	<0.050	<0.050	<0.050	<0.050
	Indeno(1,2,3-c,d)pyrene (mg/kg)	<0.050	<0.050	<0.050	<0.050
	2-Methylnaphthalene (mg/kg)	<0.050	<0.050	<0.050	<0.050
	Naphthalene (mg/kg)	<0.050	<0.050	<0.050	<0.050
	Phenanthrene (mg/kg)	<0.050	<0.050	<0.050	<0.050
	Pyrene (mg/kg)	<0.050	<0.050	<0.050	<0.050
	Surrogate: Acenaphthene d10 (%)	81.3	80.6	80.8	84.6
	Surrogate: Chrysene d12 (%)	103.5	104.7	104.1	105.3
	Surrogate: Naphthalene d8 (%)	83.1	76.7	81.2	86.3
	Surrogate: Phenanthrene d10 (%)	90.7	98.8	90.0	92.1

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

Reference Information

Qualifiers for Individual Parameters Listed:

Qualifier	Description
DLM	Detection Limit Adjusted due to sample matrix effects.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
EPH-TUMB-FID-VA	Soil	EPH in Solids by Tumbler and GCFID	BC MOE EPH GCFID

Analysis is in accordance with BC MOE Lab Manual method "Extractable Petroleum Hydrocarbons in Solids by GC/FID", v2.1, July 1999. Soil samples are extracted with a 1:1 mixture of hexane and acetone using a rotary extraction technique modified from EPA 3570 prior to gas chromatography with flame ionization detection (GC-FID). EPH results include Polycyclic Aromatic Hydrocarbons (PAH) and are therefore not equivalent to Light and Heavy Extractable Petroleum Hydrocarbons (LEPH/HEPH).

LEPH/HEPH-CALC-VA	Soil	LEPHs and HEPHs	BC MOE LABORATORY MANUAL (2005)

Light and Heavy Extractable Petroleum Hydrocarbons in Solids. These results are determined according to the British Columbia Ministry of Environment, Lands, and Parks Analytical Method for Contaminated Sites "Calculation of Light and Heavy Extractable Petroleum Hydrocarbons in Solids or Water". According to this method, LEPH and HEPH are calculated by subtracting selected Polycyclic Aromatic Hydrocarbon results from Extractable Petroleum Hydrocarbon results. To calculate LEPH, the individual results for Naphthalene and Phenanthrene are subtracted from EPH(C10-19). To calculate HEPH, the individual results for Benz(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene, and Pyrene are subtracted from EPH(C19-32). Analysis of Extractable Petroleum Hydrocarbons adheres to all prescribed elements of the BCMELP method "Extractable Petroleum Hydrocarbons in Solids by GC/FID" (Version 2.1, July 20, 1999).

MOISTURE-VA	Soil	Moisture content	ASTM D2974-00 Method A

This analysis is carried out gravimetrically by drying the sample at 105 C for a minimum of six hours.

PAH-TMB-H/A-MS-VA	Soil	PAH - Rotary Extraction (Hexane/Acetone)	EPA 3570/8270

This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846, Methods 3570 & 8270, published by the United States Environmental Protection Agency (EPA). The procedure uses a mechanical shaking technique to extract a subsample of the sediment/soil with a 1:1 mixture of hexane and acetone. The extract is then solvent exchanged to toluene. The final extract is analysed by capillary column gas chromatography with mass spectrometric detection (GC/MS). Surrogate recoveries may not be reported in cases where interferences from the sample matrix prevent accurate quantitation. Because the two isomers cannot be readily chromatographically separated, benzo(j)fluoranthene is reported as part of the benzo(b)fluoranthene parameter.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

10-382981

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.
mg/kg - milligrams per kilogram based on dry weight of sample.
mg/kg wwt - milligrams per kilogram based on wet weight of sample.
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.
mg/L - milligrams per litre.
< - Less than.
D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

COMMUNITY SERVICES GROUP
City of Vancouver

HAZARDOUS MATERIALS REPORT FORM

DEMOLITION PERMIT #: BU444739

BUILDING PERMIT #:

DATE ISSUED: 08/07/09 (Dd/mm/yy)

LEGAL DESCRIPTION: LOT ~~A~~ BLK 114 DL 541 PLAN BCP 32313

ADDRESS: 1338 ~~1308~~ SEYMOUR

BUILDING TYPE: SINGLE FAMILY ☐ MULTIPLE FAMILY ☐ COMMERCIAL ■
INSTITUTIONAL ☐ INDUSTRIAL ☐

DATE OF DEMOLITION/DECONSTRUCTION: May 09

APPLICANT

NAME: Assertive (As below)

ADDRESS:

TEL: FAX: BUSINESS LICENSE #:

DEMOLITION CONTRACTOR

NAME: ASSERTIVE EXCAVATING & DEMOLITION LTD. (MIKE)

ADDRESS: # 264 - 19567 FRASER HWY

TEL: 778-552-1237 FAX: 604.888.3222. BUSINESS LICENSE #:

HAZARDOUS MATERIALS

	PRESENT	NOT PRESENT	REMOVED	TYPE AND LOCATION
ASBESTOS	☑	☐	☐	DWJC
DRYWALL	☑	☐	☐	
UNDERGROUND STORAGE TANKS	☐	☐	☐	
PCBs	☑	☐	☐	light ballasts
ABANDONED CHEMICALS	☐	☐	☐	
OTHERS (*see other side for examples*)	☐	☐	☐	

CONDITIONS

1. **All hazardous materials identified above shall be handled and disposed of in accordance with all relevant rules and regulations. (*See other side for contacts*)**
2. **Documentation including receipts, inspection reports, sampling reports, waste manifests, etc., from the disposal of hazardous materials must be kept for a 6-month period for inspection purposes.**
3. **Hazardous Materials Survey required by Work Safe BC MUST be submitted with this form.**

CERTIFICATION

To be completed by a qualified or knowledgeable person.

I, Mike Holloway, certify that I understand and will comply with the conditions listed above, have read and understand the information on the back of this report and that the information presented in this report is true to the best of my knowledge.

Signature

April 21/09
Date

Owner
Position

CITY OF VANCOUVER

PLANNING AND DEVELOPMENT SERVICES

PLEASE REFER TO:
Ms. N. Montgomery
at 604.873.7528

February 23, 2016

Richards Buell Sutton LLP
Barristers and Solicitors
700 - 401 W. Georgia Street
Vancouver, BC V6B 5A1

Attention: Carol Chan

Dear Madam:

RE: 530 Drake Street
Lots 1 & 2, Block 114, District Lot 541, Plan 210

On February 3, 2016, your request for an environmental search was received by this department. Receipt No. MF-2016-00609 for the fee of $206.00 is enclosed.

The Environmental Contamination Team has found no reference to this property.

We do not warrant that we have complete or accurate information, or that no contamination is present on this property.

Please refer to other City Departments (including City Archives) for any information they might hold. Further, in that matters of environment and contamination are subject to Provincial and Federal authority, we refer you also to those authorities for such information, if any, as they might possess.

Neither the City of Vancouver, nor the party signing below warrants or guarantees the accuracy or completeness of the above information. The information is provided on the following conditions:

(a) that neither the City nor the party signing below shall be liable for any damage or expense should, for any reason including negligence on the part of the City or the party signing below, the information be inaccurate, incomplete or misleading; and

(b) that should any or all of the information be inaccurate, incomplete or misleading, for any reason including negligence on the part of the City or the party signing below, the City shall, as against any person or corporation who may rely on the contents of this letter, be able to assert and enforce its full legal rights as if this letter had not been signed and as if any and all persons and corporations who may rely on the contents of this letter had not relied on the contents of this letter.

/2

I trust this is the information you require.

Yours truly,

C. Wong, Manager
By-law Compliance and Administration

NM/gm

Encl.

Mortensen, Glenn

From: Environmental Contamination
Sent: Tuesday, February 23, 2016 3:08 PM
To: Mortensen, Glenn
Cc: Turner, Rose
Subject: RE: Enviro. Search Request: 530 Drake Street

Hi Glenn,

I've completed my review for this one. Use the standard clause:

We have searched our files and found no reference to this property.

Let me know if you have any questions. Cheers

Nicole Montgomery, B.Sc.
Environmental Protection Officer | ENVIRONMENTAL SERVICES | REAL ESTATE AND FACILITIES MANAGEMENT | CITY OF VANCOUVER
Mail: 453 West 12th Avenue, Vancouver BC V5Y 1V4 | Office: 515 West 10th Avenue, Suite 301, Vancouver
t: 604.873.7528 | e: nicole.montgomery@vancouver.ca

From: Mortensen, Glenn
Sent: Wednesday, February 03, 2016 12:23 PM
To: Environmental Contamination
Cc: Turner, Rose
Subject: Enviro. Search Request: 530 Drake Street
Importance: High

Hi,

We have received a request for Environmental Search for the above property. Please respond back to myself and Rose when completed.
Thanks.

Glenn Mortensen
File Research
Planning & Development Services
City of Vancouver
604.871.6418
glenn.mortensen@vancouver.ca

BU 418324

GEOPACIFIC CONSULTANTS LTD.
102 - 6968 RUSSELL AVENUE, BURNABY, B.C. V5J 4R9
PHONE (604) 439-0922 / FAX (604) 439-9189

Concert Real Estate Corporation 8 December 2000

Attention: Arif Rahemtulla Our File: 3550

9th. Floor, 1190 Hornby Street
VANCOUVER, B.C.
V6Z 2K5

1295 RICHARDS
BU418324.

Re: Proposed Highrise Development
at the north corner of Richards and Drake Streets, Vancouver

Geotechnical Report

1.0 INTRODUCTION

We understand that Concert proposes to construct a highrise development on a site at the north corner of Richards and Drake Streets in Vancouver. We further understand that this development will consist essentially of a 25-storey tower with two levels of underground parking basement.

This report describes our investigation of the ground conditions beneath the site and discusses the results as they pertain to the proposed development.

2.0 SITE DESCRIPTION and PROPOSED DEVELOPMENT

2.1 SITE DESCRIPTION

As noted, the site for this proposed development is located at the north corner of Richards and Drake Streets in Vancouver. The site currently consists of two parking Lots separated by a fenced unused Lot.

The site is approximately 250 feet from southwest to northeast and approximately 120 feet wide. It is bounded by Richards Street to the southeast, Drake Street to the southwest, a City Lane to the northwest and a parking Lot to the northeast.

We have no topographic details at this stage but visually the site is quite flat at an approximate elevation of about 50 feet with a slight slope downwards from north to south.

The site location is shown on our Drawing 3550-1.

2.2 PROPOSED DEVELOPMENT

As noted, this development will consist essentially of a 25-storey highrise tower with two levels of underground parking basement.

Thus, we expect the excavation for the basement will be up to about 20 feet deep to an approximate elevation of about 20 feet.

We understand that the basement will not extend to all the property lines and that parts of the tower may extend outside the basement walls.

3.0 GROUND CONDITIONS

The ground conditions beneath this site were investigated on 29 November 2000 when four testholes were drilled to depths between 20 and 40 feet below local ground levels.

The approximate locations of these testholes are shown on our Drawing 3550-1 and the detailed testhole logs are shown on Figures 3550. 1 to 4 inclusive.

All testholes encountered essentially very similar ground conditions and were completed within comparatively very competent glacial till.

3.1 GROUND CONDITIONS

As noted, all testholes encountered essentially very similar ground conditions. At the testhole locations, the site is underlain by between 5 and 6 feet of either stiff silt or compact sand, then dense glacial till-like silt, sand and gravel mixtures with boulders to the full depths investigated.

"Free" groundwater was only noted in testhole AH-3 (at the west corner) although some of the soils encountered were moist.

The groundwater level was not identified during these investigations. It should be noted that the long-term, ambient groundwater level is frequently not established during the short drilling period. We suspect that the groundwater level is about 10 feet below grades but that groundwater may also be "perched" in the surficial sands. The glacial till is very dense and groundwater flows will generally be comparatively small except in the more sandy zones.

4.0 DISCUSSION and RECOMMENDATIONS

4.1 GENERAL COMMENTS

As noted, this site is underlain by comparatively thin silt or sand which overlies dense glacial till to the full depths investigated. The long-term, ambient groundwater level was not determined but it is suspected that the groundwater level is about 10 feet below grades with minor amounts of groundwater perched in the surficial sand layer.

Thus, we envisage that this development will be supported by normal strip and pad spread footings constructed within the dense glacial till.

Since the tower footprint extends outside the basement the stress from the footings will surcharge the basement wall.

4.2 EXCAVATION and SHORING

We expect that excavation should be relatively straightforward; although large boulders may require blasting.

As noted, only comparatively minor groundwater inflow into the excavation is expected which should be able to be controlled by conventional ditching to pumped sumps.

At this stage we have no details of the location of the basement with respect to the property lines but we would expect that some sides of the excavation will require support and we envisage that the anchored-shotcrete method will be used since it is the most economical method used locally and has proven reliable.

It should be noted that some ground movement must be expected around any comparatively deep excavation as a normal reaction to unloading the ground. We suggest that a pre-construction existing-condition survey of adjacent buildings be carried out

4.3 BUILDING FOUNDATIONS and BEARING CAPACITIES

As indicated, we envisage that this development will be supported by normal strip and pad spread footings founded within the dense glacial till. Parts of the tower which extend outside the basement should also be founded on the dense glacial till and some over-excavation may be required through the surficial silt or sand layers.

Footings founded within the undisturbed dense glacial till at least 10 feet below existing grades can be designed for maximum allowable static bearing capacities of 12,000 psf for pads and 10,000 psf for strip footings. Footings founded shallower than 10 feet below existing grades but lower than the surficial silt and sand can be designed for maximum allowable static bearing capacities of 8,000 psf for pads and 6,000 psf for strip footings.

However, irrespective of actual bearing pressures, we recommend that the minimum width of strip footings should be 18 inches and the minimum width of pad footings should be 2 feet.

All footing subgrades should be inspected by the Geotechnical Engineer of Record (GER) to confirm the recommended bearing capacities throughout the site.

It is the contractor's responsibility to preserve the natural bearing qualities of the ground and it may be necessary to protect the footing subgrades with a thin layer of concrete after inspection by the GER. It is our experience that this is particularly necessary for the larger footings and especially the core footing, particularly in inclement weather conditions.

The foundation factor, F, can be assumed to be 1.0. The maximum static bearing pressures can be increased by 100% (doubled) for short-term, transient loadings such as are generated by winds and earthquakes.

4.4 SLAB-ON-GRADE

We envisage that the lowest floor will be a slab-on-grade and we recommend that the slab-on-grade should be underlain directly by a polyethylene vapour barrier which is, in turn, underlain by a minimum of 6 inches

of a coarse free draining granular material to interrupt capillary rise.

The underslab drainage layer should have hydraulic connection to the perimeter drain system.

Any fill required to raise grade beneath the slab (other than the drainage layer) should be "engineered fill".

In the context of this report, "engineered fill" to support slabs-on-grade should be any well-graded granular material with less than 5% passing the No.200 sieve that is systematically compacted in layers no thicker than 12 inches to achieve a density of at least 97% of its "Standard Proctor" maximum dry density at water contents within 2% of its "optimum" moisture content for compaction as determined by ASTM D698.

4.5 EARTH PRESSURES ON BASEMENT WALLS

Earth pressures on basement walls depend on a number of factors including wall stiffness, backfill material and compaction requirements, groundwater levels, surcharges and method of construction.

We envisage that the basement walls will be constructed within a shored excavation and subsequently backfilled with free-draining granular materials to control groundwater around the basement.

In these circumstances, we recommend that basement walls should be designed for a uniform compaction pressure of 400 psf to a depth of 13 feet increasing at a rate of 30 psf per foot of depth thereafter. We are of the opinion that this compaction pressure includes a suitable allowance for dynamic earth pressures such as might be generated during earthquakes.

It should be noted however, that the recommended earth pressure is our best estimate of the actual earth pressure and it should be suitably factored to allow for soil variability.

It should also be noted that this earth pressure makes no allowance for groundwater pressures and we recommend that basement walls be constructed with a fully-efficient back-of-wall drain.

It should be particularly noted that this earth pressure does not include the surcharge pressure from that part of the tower which extends outside the basement. The additional surcharge from the tower will be calculated when the foundation layout is finalized. It should be noted that the additional building surcharge can be significant and, ideally, the tower footings should extend to about the same depth as the basement wall foundations.

4.6 SITE AND FOUNDATION DRAINAGE SYSTEMS

As noted, the long-term, ambient groundwater level was not established during this investigation of the ground conditions beneath this site. We suspect that there may be "perched" groundwater in the surficial sand layer above the glacial till and possibly in sandy zones in the till. "Free" groundwater was only encountered in testhole AH-3, probably in sandy zones in the glacial till. Also as noted, our recommended earth pressure makes no allowance for groundwater pressures acting on the basement walls. Therefore, as recommended, basement walls should be designed with a back of wall drain and perimeter drain system to ensure that water pressures do not act on the walls and so that groundwater can flow from under the slab-on-grade to the perimeter drain system.

We suggest that the perimeter drain system should be preliminarily designed for a groundwater inflow of 0.02 gals/minute/foot of perimeter of any below-grade areas. Thus if the below-grade area perimeter is 740 feet long, the perimeter drain system would be designed for about 15 gals/min.

It should be noted that there may be other sources of water other than groundwater (surface water run-off inflow into the backfill for example).

The actual groundwater flow into any below-ground areas should be confirmed at the end of the excavation stage.

5.0 "FIELD REVIEWS"

We would expect to carry out "field reviews" of the geotechnical aspects of the project during construction in accordance with the City of Vancouver's Letters of Assurance scheme. These aspects include excavation, shoring, footing subgrades, slab-on-grade subgrades, backfill, compaction of any engineered fill and reinstatement of City property, particularly detensioning anchors and shotcrete removal.

It should be noted that these reviews do not relieve the contractors of their contractual obligations to construct the works in accordance with the design and specifications.

This report is prepared solely for use by our client's Design Team for this project as described to the general standards of similar work for similar projects in this area and no other warranty of any kind is expressed or implied. GeoPacific Consultants Ltd. accepts no responsibility for any other use of this report.

We are pleased to assist you with this project and we trust this information is helpful and sufficient for your purposes at this time. However, please do not hesitate to call the undersigned if you should require any clarification or additional details.

For:
GeoPacific Consultants Ltd.

Ed Harrington, P.Eng.
Principal

SEAL VERIFIED

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA E. I. HARRINGTON

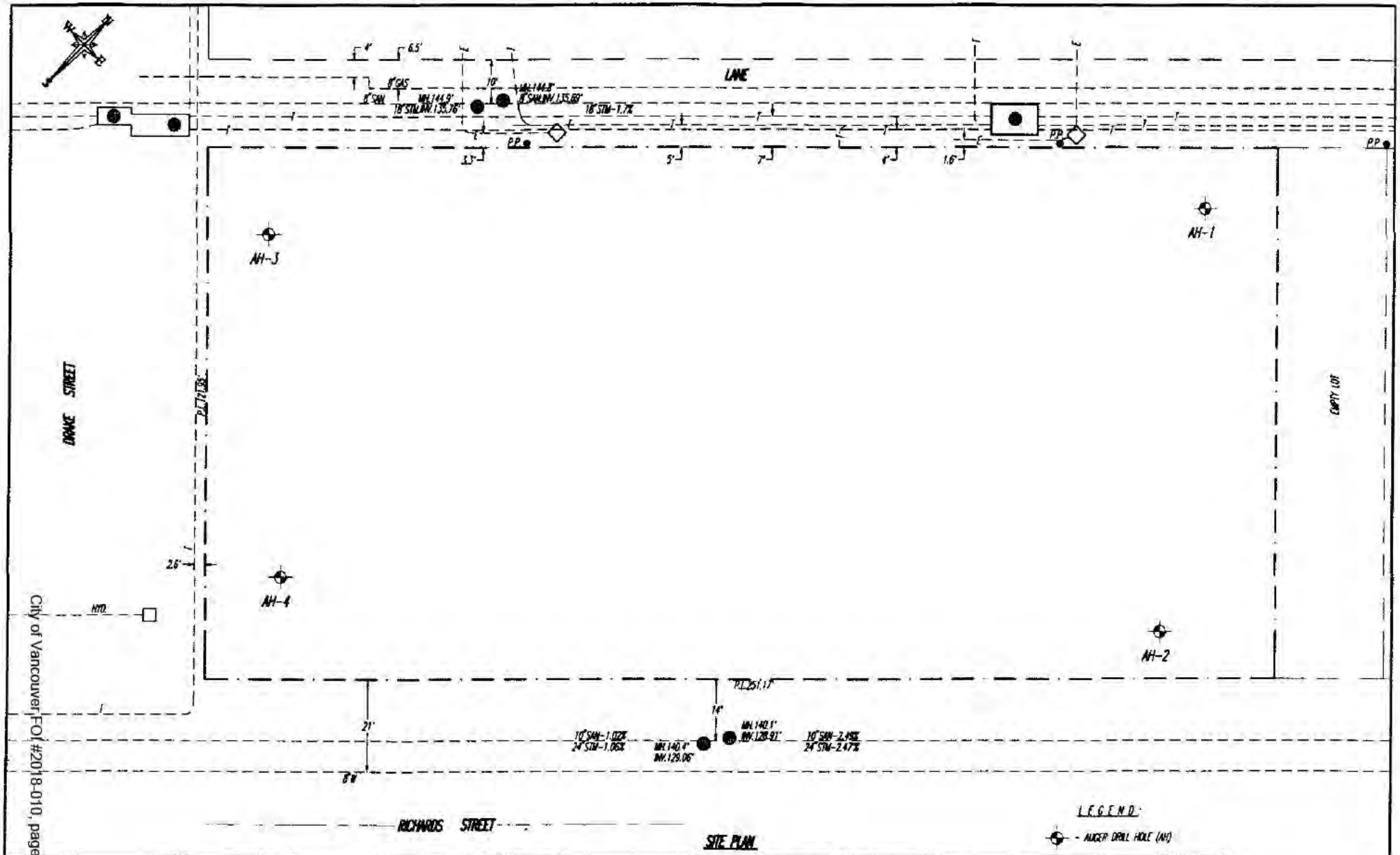
THE CERTIFIED PROFESSIONAL STAMP APPLIED HEREON SHALL ONLY CREDIBLY SIGNIFY THAT THESE DOCUMENTS FORM PART OF THE CERTIFIED PROFESSIONAL PROJECT AND SHALL NOT CONSTITUTE AN APPROVAL OF DESIGN SERVICES RENDERED BY OTHERS

SEAL VERIFIED

SEAL VERIFIED

our reference; diskette_105; our file: 3550; geotechnical report

UNIVERSITY OF BRITISH COLUMBIA MUNICIPALITIES certified professional program Kenneth T.K. Chow



SITE PLAN

GeoPacific Consultants Ltd. GEOTECHNICAL ENGINEERS	DATE DECEMBER 4, 2000	PROPOSED HIGHRISE DEVELOPMENT RICHARDS STREET & DRAKE STREET, VANCOUVER, B.C. TEST HOLE LOCATION PLAN	FILE NO 3550	REVISIONS:
	DRN BY KAZ. APP'D E.J.H.		DWG NO 3550-1	A
	SCALE AS SHOWN			B
				C

GeoPacific Consultants Ltd.	Proposed Highrise Development @ Richards & Drake Streets, Vancouver for Concert Real Estate Corporation

FILE: 3550 **TEST HOLE LOG** **TEST HOLE: AH-1**

Lgd/Drn: BJH/ BJH DATE: 29 November 2000 DATUM: GROUND SURFACE ELEVATION: 0 EQUIPMENT: Uniwide Auger

10 20 30 40 50 60 70	FEET	INFERRED PROFILE	TEST	TYPE	OTHER TESTS
	1	Thin asphalt, over very dark brown, then light brown till-like mixtures of silt, fine sand and gravel with boulders, dense			
	2				
	3				
	4				
	5	.... becomes grey			
	6				
	7				
	8				
	9				
	10				
	11				
	12				
	13				
	14				
	15				
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30	... becomes predominantly sandy till from about 30 feet.			
	31				
	32				
	33				
	34				
	35				
	36				
	37				
	38				
	39				
	40	40			

END OF TEST HOLE AT 40

NOTES:

No "free" groundwater encountered but soils slightly moist.

Disturbed	A Auger	D Drive	U Shelby	PAGE 1 OF 1
Undisturbed	B Block	G Grab	W Wash	
No Recovery	C Core	P Pitcher	O Other, see text	FIGURE NUMBER: 3550.1

GeoPacific Consultants Ltd.	Proposed Highrise Development @ Richards & Drake Streets, Vancouver for Concert Real Estate Corporation

FILE: 3550 **TEST HOLE LOG** **TEST HOLE: AH-2**

Lgd/Drn: EJH/ BJH DATE: 29 November 2000 DATUM: GROUND SURFACE ELEVATION: 0 EQUIPMENT: Uniwide Auger

10 20 30 40 50 60 70	FEET	INFERRED PROFILE	TEST	TYPE	OTHER TESTS
	1	Thin asphalt over dark brown to black silty sand & gravel over 9 ins. of sand.			
		1.5			
	2	SILT, stiff orange brown and brown mottled.			
	3				
	4				
	5				
	6				
		6			
	7	Till-like fine sand, silt and gravel mixtures with boulders, dense, brown at the top, ...			
	8				
	9	... becomes grey with depth.			
	10				
	11				
	12				
	13				
	14				
	15				
	16				
	17				
	18				
	19				
	20				
		20			

END OF TEST HOLE AT 20

NOTES:

This testhole drilled in the vicinity of the northeast corner.

Boulder encountered at 11 feet; testhole moved 6 feet east.

No "free" groundwater encountered but soils were moist.

Disturbed	A Auger	D Drive	U Shelby		PAGE 1 OF 1
Undisturbed	B Block	G Grab	W Wash		
No Recovery	C Core	P Pitcher	O Other, see text		FIGURE NUMBER: 3550.2

GeoPacific Consultants Ltd.	Proposed Highrise Development @ Richards & Drake Streets, Vancouver for Concert Real Estate Corporation

FILE: 3550 **TEST HOLE LOG** **TEST HOLE: AH-3**

Lgd/Drn: EJH/ EJH DATE: 29 November 2000 DATUM: GROUND SURFACE ELEVATION: 0 EQUIPMENT: Uniwide Auger

10 20 30 40 50 60 70	FEET	INFERRED PROFILE	TEST	TYPE	OTHER TESTS
	1	Thin asphalt over dark brown fine to medium sand, compact.			
	2				
		2.5			
	3	SILT, light-brown mottled, stiff.			
	4				
	5				
		5.5			
	6	Till-like mixtures of silt, fine sand and gravel with boulders, brown, dense, ...			
	7				
	8				
	9				
	10				
	11				
	12	... becomes grey ..			
	13				
	14				
	15				
	16				
	17				
	18				
	19				
	20	.... wet at 20 feet, sandy, ..			
	21				
	22				
	23				
	24				
	25				
	26				
	27	... wet at 27 feet, sandy, ...			
	28				
	29				
	30				
		30			

END OF TEST HOLE AT 30

NOTES:

This testhole drilled in the vicinity of the notheast corner of the site.

Some "free" groundwater encountered at 20 and 27 feet.

Disturbed	A Auger	D Drive	U Shelby	PAGE 1 OF 1
Undisturbed	B Block	G Grab	W Wash	
No Recovery	C Core	P Pitcher	O Other, see text	FIGURE NUMBER: 3550.3

GeoPacific Consultants Ltd.	Proposed Highrise Development @ Richards & Drake Streets, Vancouver for Concert Real Estate Corporation

FILE: 3550 **TEST HOLE LOG** **TEST HOLE: AH-4**

Lgd/Drn: EJH/ EJH DATE: 29 November 2000 DATUM: GROUND SURFACE ELEVATION: 0 EQUIPMENT: Uniwide Auger

10 20 30 40 50 60 70	FEET	INFERRED PROFILE	TEST	TYPE	OTHER TESTS
	1	Thin asphalt over mixed silt and sand, dark brown loose to compact.			
	2	2			
	3	SAND, medium grained, dark orange-brown, compact.			
	4				
	5	5			
	6	Till-like mixtures of silt, fine sand and gravel, some boulders, brown, dense ...			
	7				
	8				
	9				
	10				
	11				
	12				
	13				
	14				
	15	... becomes grey at about 15 feet.			
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25	25			

END OF TEST HOLE AT 25

NOTES:

This testhole drilled in the vicinity of the southeast corner of the site.

No "free" groundwater recognized, but deeper soils were moist.

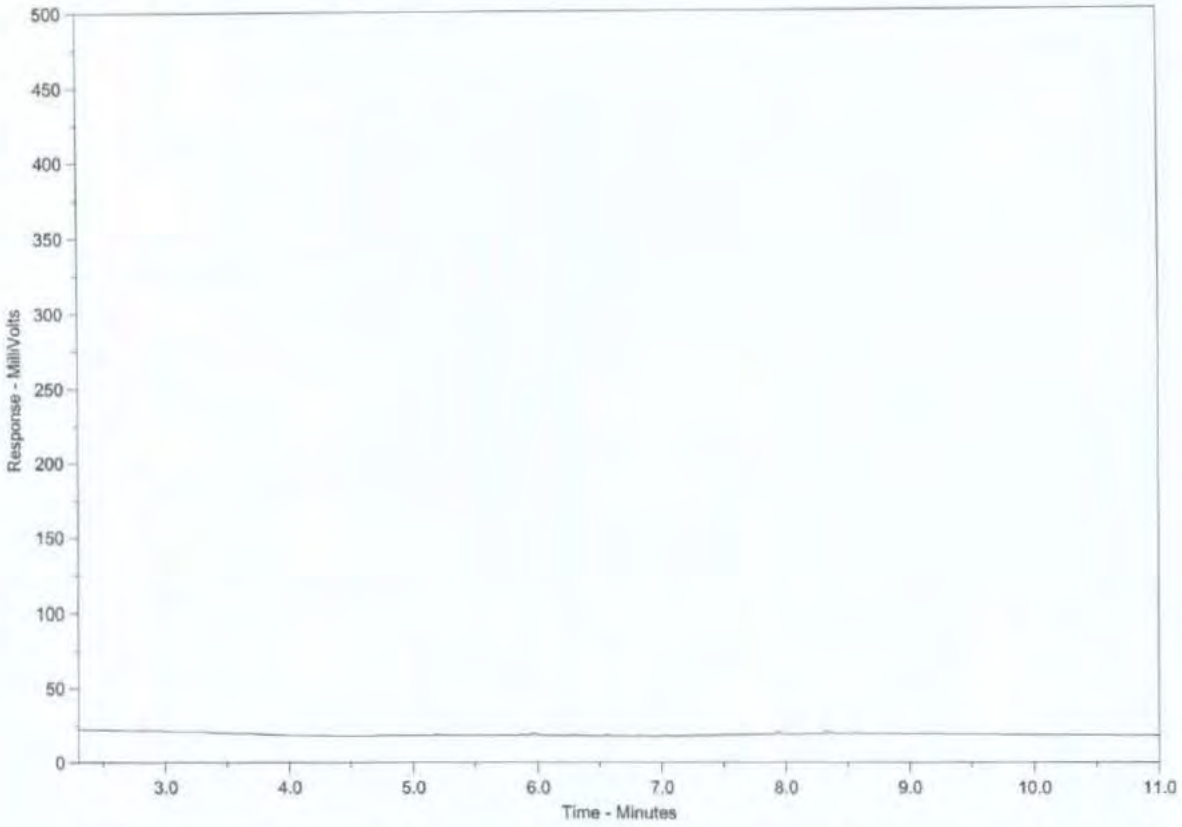
Boulder encounter at 9 feet, moved testhole.

Disturbed	A Auger	D Drive	U Shelby		PAGE 1 OF 1
Undisturbed	B Block	G Grab	W Wash		
No Recovery	C Core	P Pitcher	O Other, see text		FIGURE NUMBER: 3550.4

Closure Form + Detailed Closure Rpt.
2/2 1300 Richards (498 Drake)

Hydrocarbon Distribution Report

ALS Sample ID: L1565710-1
Client Sample ID: EW1-1



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline →	← Motor Oils / Lube Oils / Grease →	
← Diesel / Jet Fuels →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

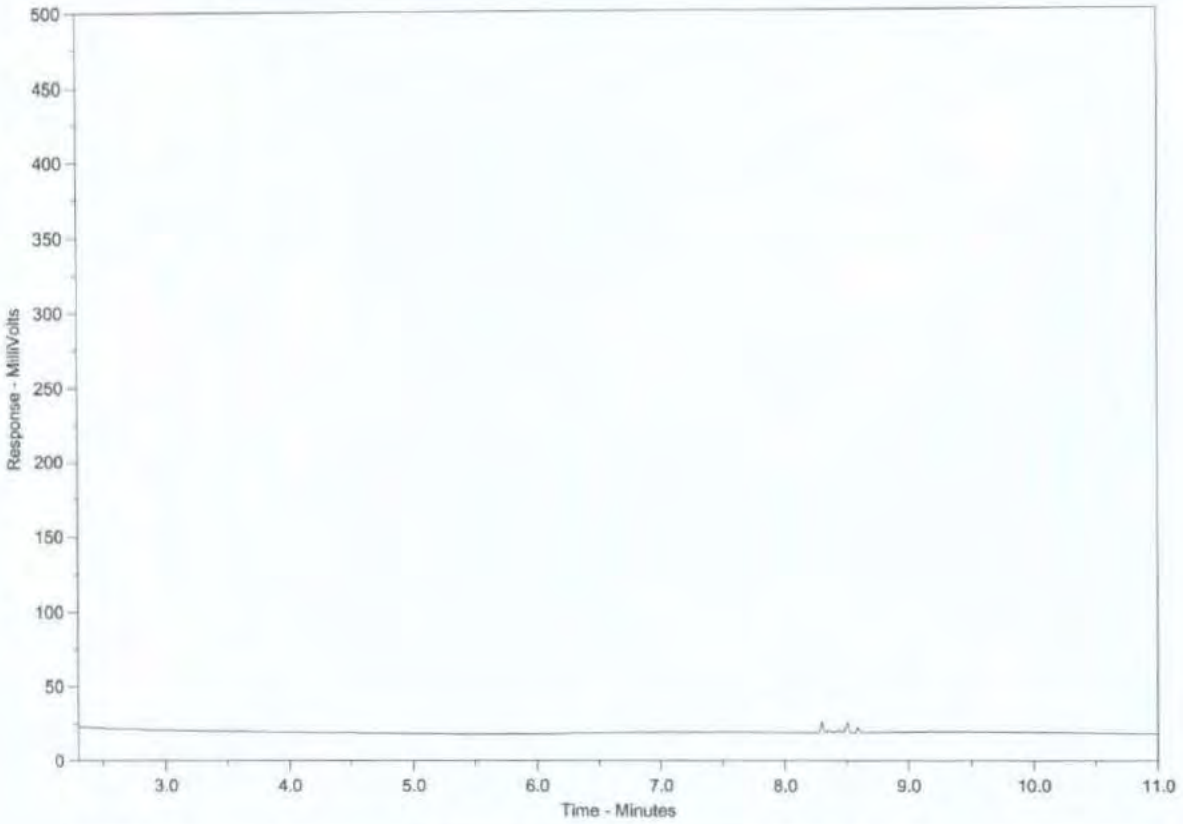
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report

ALS Sample ID: L1565710-2
Client Sample ID: EW1-2



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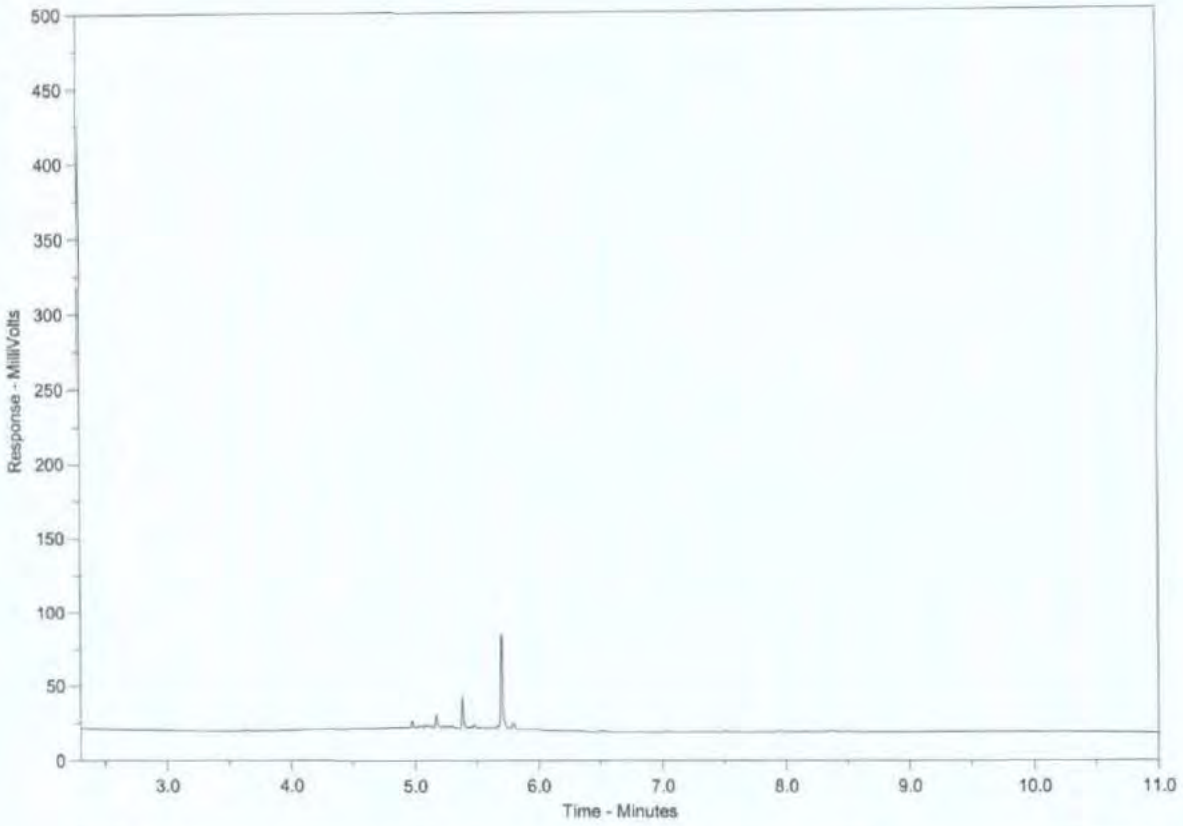
Hydrocarbon Distribution Report

ALS Sample ID: L1565710-3
Client Sample ID: EW2-1



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline →	← Motor Oils / Lube Oils / Grease →	
← Diesel / Jet Fuels →		

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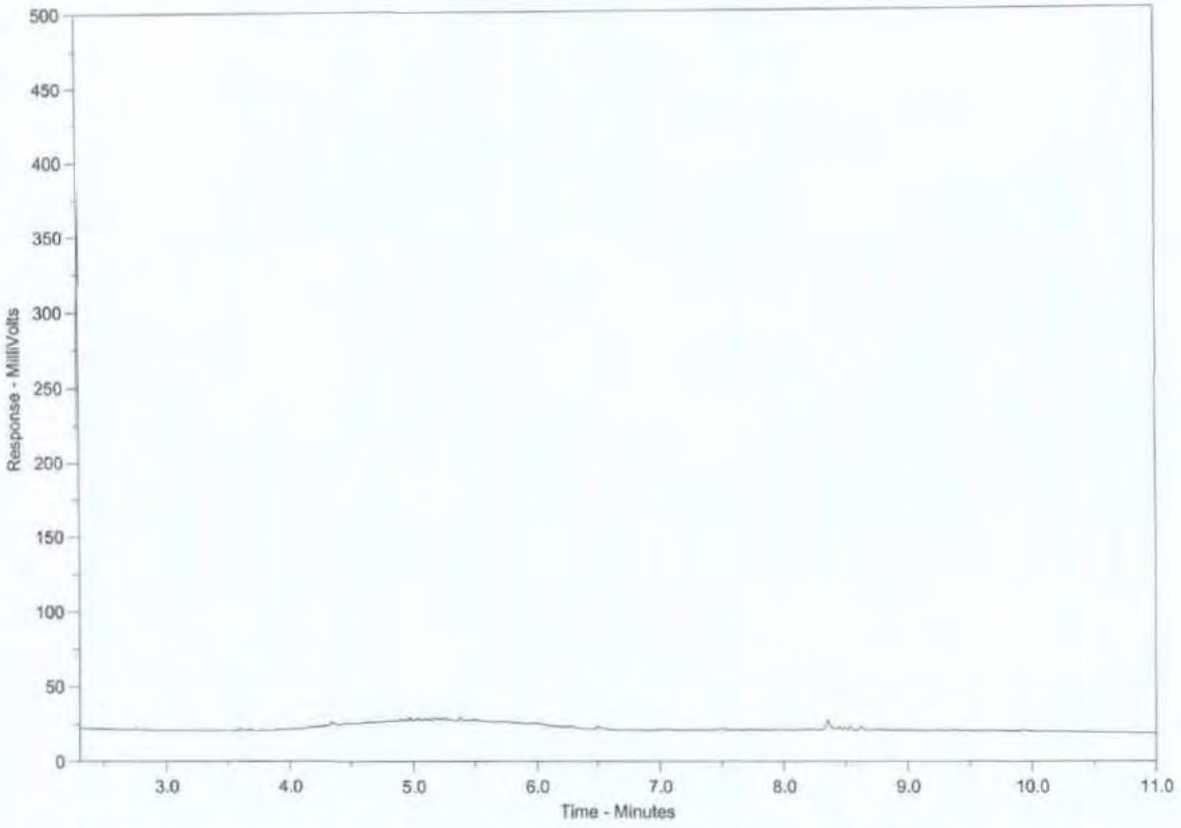
Hydrocarbon Distribution Report

ALS Sample ID: L1565710-4
Client Sample ID: EW2-2



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
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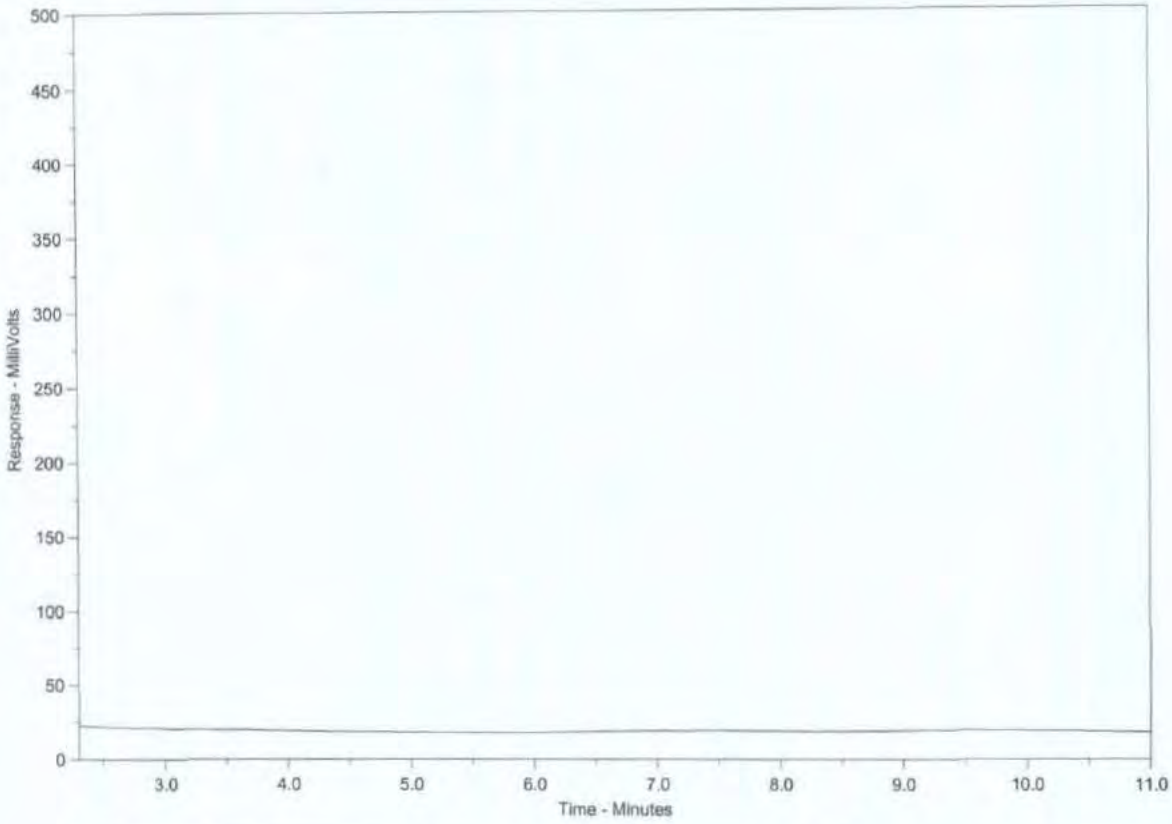
Hydrocarbon Distribution Report

ALS Sample ID: L1565710-5
Client Sample ID: EW3



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline →	← Motor Oils / Lube Oils / Grease →	
← Diesel / Jet Fuels →		

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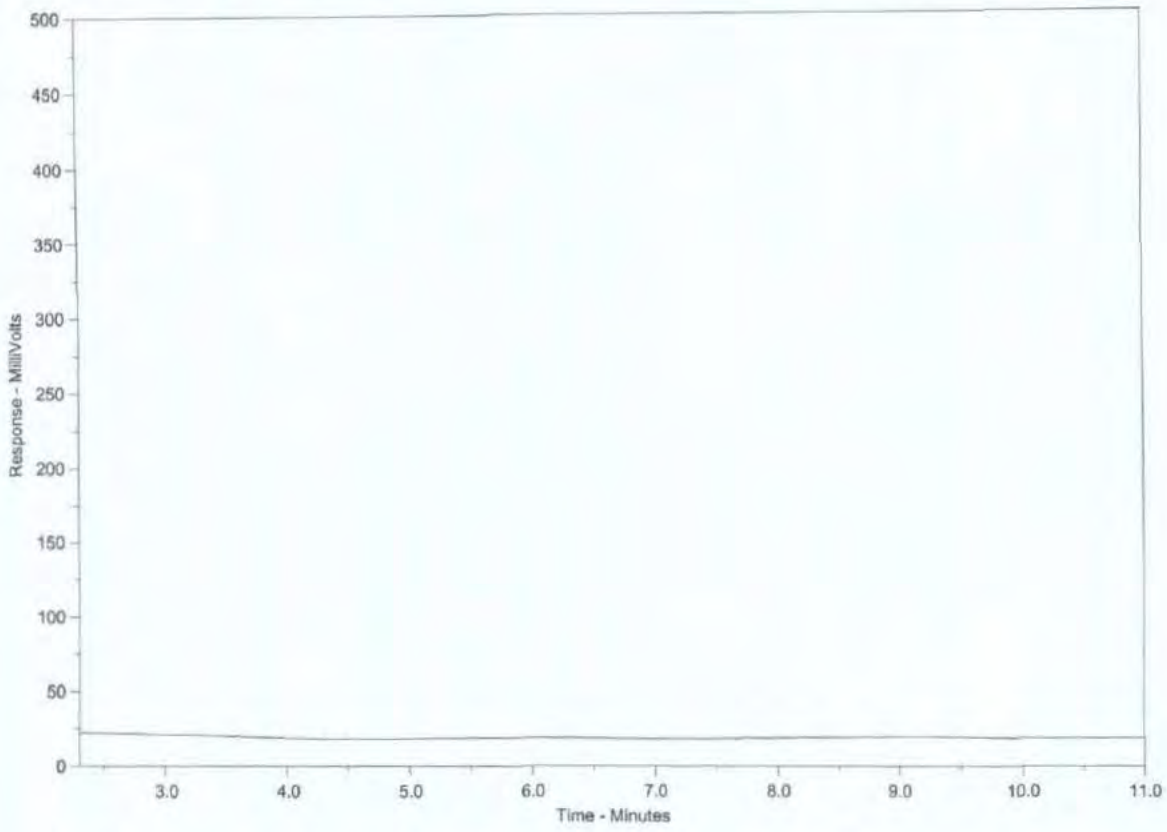
Hydrocarbon Distribution Report

ALS Sample ID: L1565710-6
Client Sample ID: SW3



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline →	← Motor Oils / Lube Oils / Grease →	
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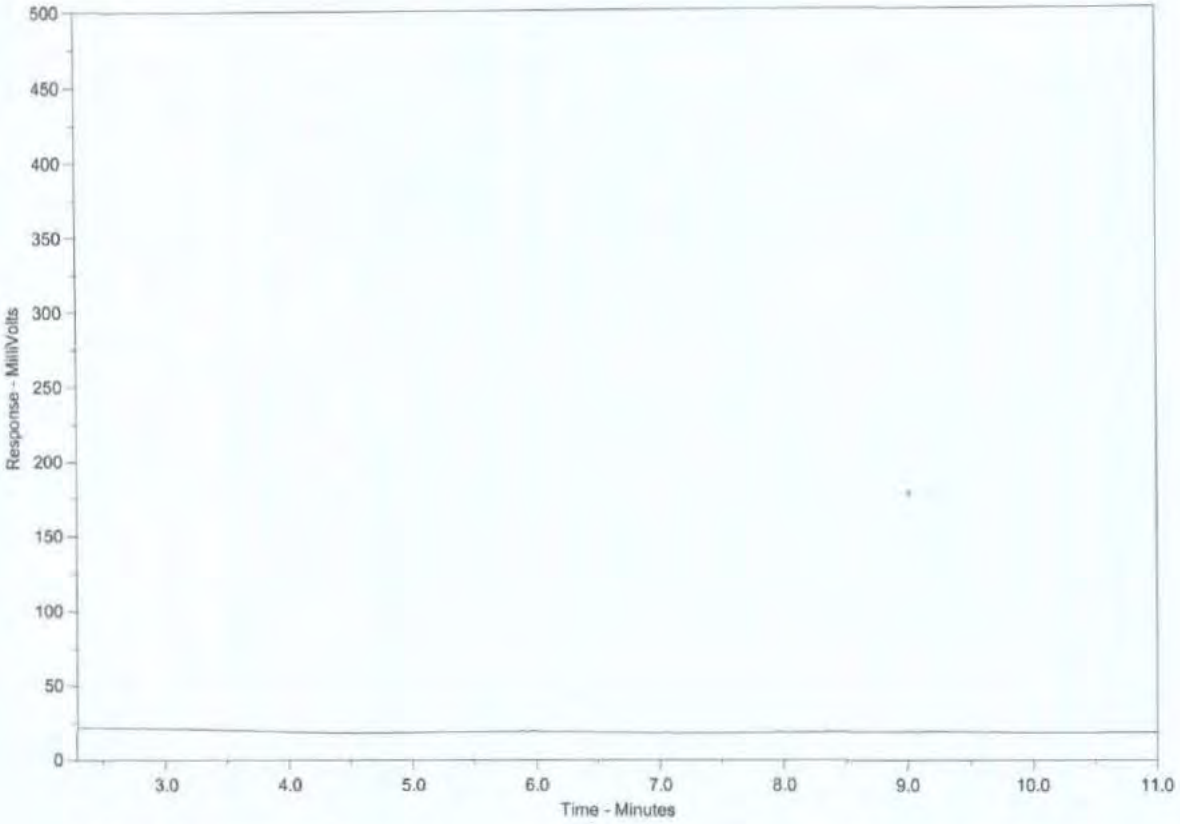
Hydrocarbon Distribution Report

ALS Sample ID: L1565710-7
Client Sample ID: NW1-1



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← Gasoline →	← Motor Oils / Lube Oils / Grease →	
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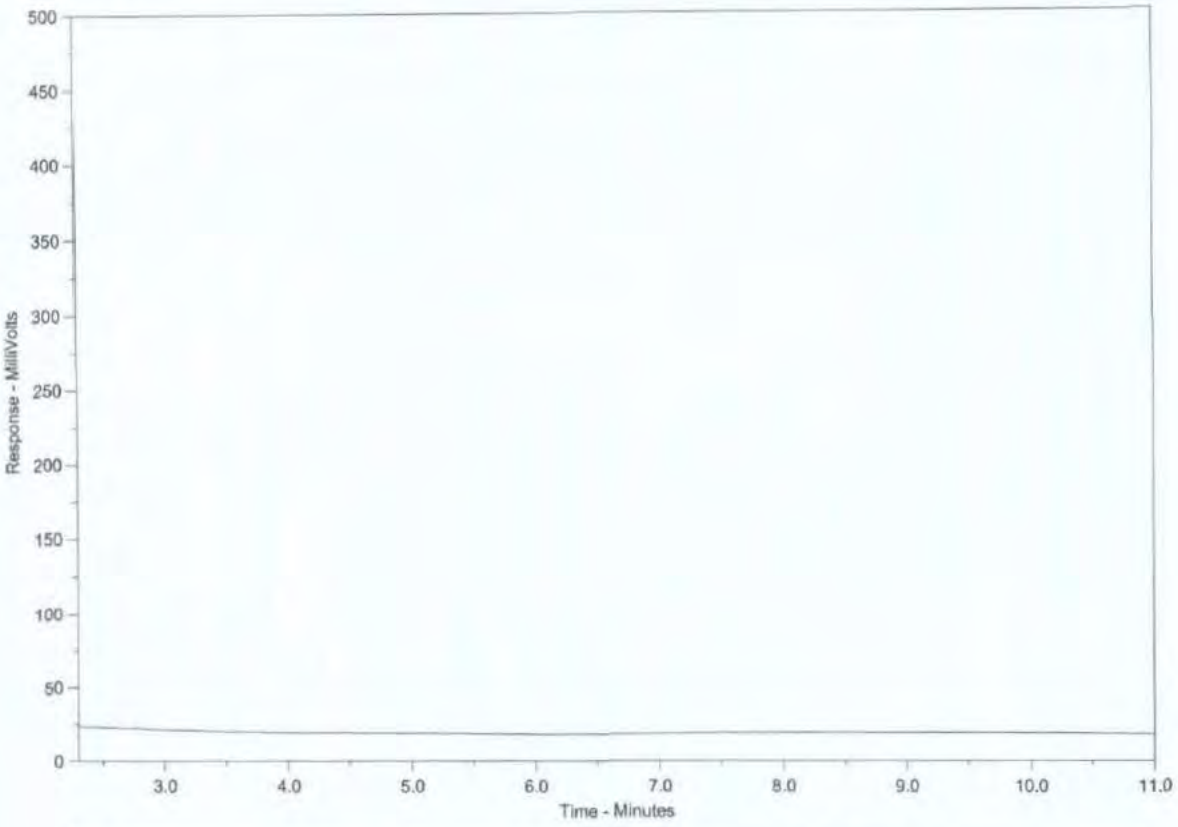
Hydrocarbon Distribution Report

ALS Sample ID: L1565710-8
Client Sample ID: NW1-2



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline →	← Motor Oils / Lube Oils / Grease →	
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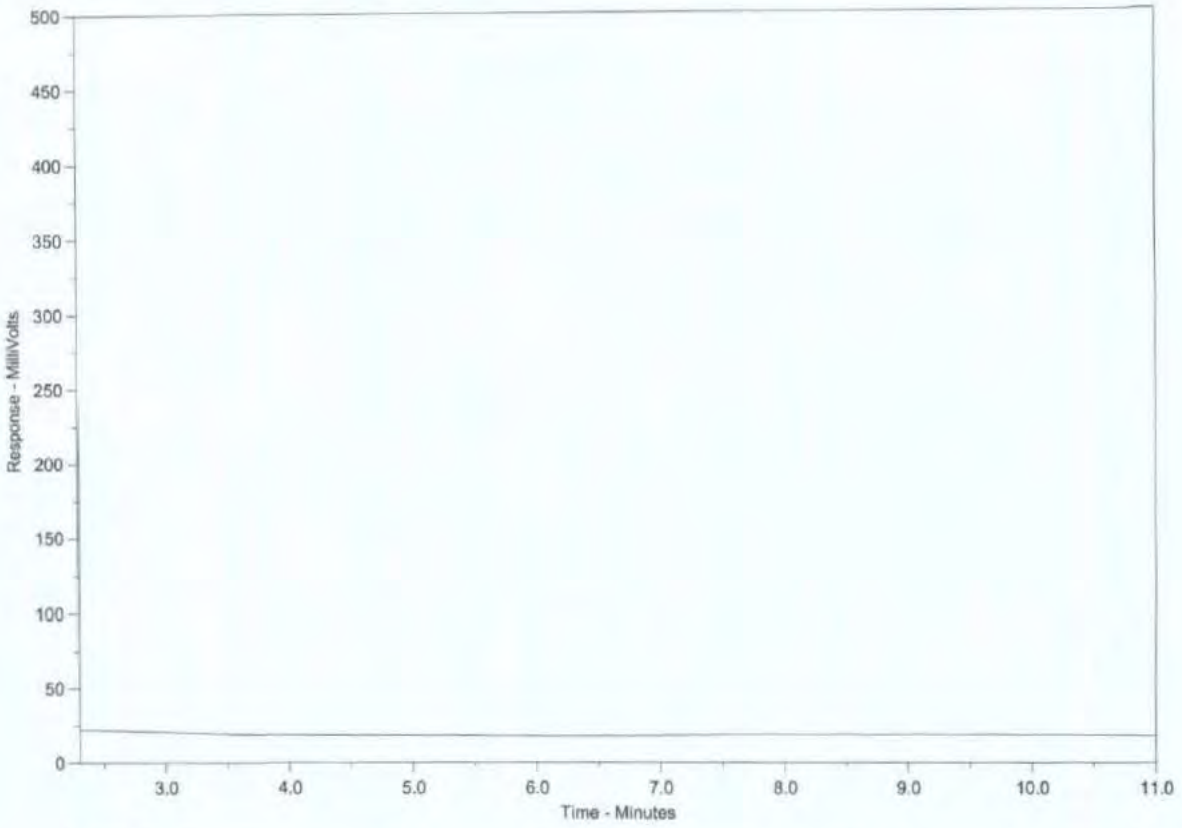
Hydrocarbon Distribution Report

ALS Sample ID: L1565710-9
Client Sample ID: BASE-3



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline →	← Motor Oils / Lube Oils / Grease →	
← Diesel / Jet Fuels →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Priority processing

10- 382981

ALS EI

RUSH

Chain of Custody / Analytical Request Form
Canada Toll Free: 1 800 668 9878
www.alsglobal.com

Page 1 of 1

Report To	**Report Format / Distribution**	**Service Request** (Rush subject to availability - Contact ALS to confirm TAT)
Company: ACTIVE EARTH ENGINEERING	Standard: ✓ Other (specify):	Regular (Standard Turnaround Times - Business Days)
Contact: STEVE BOYCE	Select: PDF ✓ Excel ✓ Digital Fax	X Priority(2-4 Business Days)-50% surcharge - Contact ALS to confirm TAT 3 DAY
Address: 4570 Saddleback Cres Langley BC	Email 1: STEVE.BOYCE@ACTIVEEARTH.CA	Emergency (1-2 Business Days)-100% Surcharge - Contact ALS to confirm TAT
	Email 2:	Same Day or Weekend Emergency - Contact ALS to confirm TAT
Phone: 7788880477 Fax:		**Analysis Request**
Invoice To Same as Report ? (circle) Yes or No (If No, provide details)	**Client / Project Information**	(Indicate Filtered or Preserved, F/P)
Copy of Invoice with Report? (circle) Yes or No	Job #: 516	
Company:	PO / AFE:	
Contact: CAROL INGEALE	LSD:	
Address:		
Phone: Fax:	Quote #:	
Lab Work Order # (lab use only) L1565710	ALS Contact: BRENT MACE	Sampler: BOYCE

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	LEDH/HEDH/PAH	HOLD	Number of Containers
	EW1-1	09-JAN-15	12:00	SOIL	X		2
	EW1-2	↓	↓	↓	X		↓
	EW2-1				X		
	EW2-2				X		
	EW3				X		
	SW3				X		
	NW1-1				X		
	NW1-2				X		
	BASE-3				X		

L1565710-COFC

Special Instructions / Regulation with water or land use (CCME- Freshwater Aquatic Life/BC CSR-Commercial/AB Tier 1-Natural/ETC) / Hazardous Details

3 DAY TAT - 50% SURCHARGE

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

By the use of this form the user acknowledges and agrees with the *Terms and Conditions* as specified on the back page of the white - report copy.

SHIPMENT RELEASE (client use)			SHIPMENT RECEPTION (lab use only)				SHIPMENT VERIFICATION (lab use only)			
Released by:	Date:	Time:	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF
	Jan 9/15	15:00	YC	Jan 9	15:00	1.0 °C				

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION | WHITE - LABORATORY COPY | YELLOW - CLIENT COPY | GENF 18.01 Front

ACTIVE EARTH ENGINEERING LTD.
ATTN: Steve Boyce
160-2250 Boundary Road
Burnaby BC V5M 3Z3

Date Received: 09-JAN-15
Report Date: 14-JAN-15 12:49 (MT)
Version: FINAL REV. 2

Client Phone: --

Certificate of Analysis

Lab Work Order #: L1565577
Project P.O. #: NOT SUBMITTED
Job Reference: 816
C of C Numbers:
Legal Site Desc:

Comments:

14-JAN-2015 This report replaces the previous version and contains updated Client Sample IDs, as requested.

Brent Mack, B.Sc.
Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	Sample ID: L1565577-1 Description: SOIL Sampled Date: 07-JAN-15 Sampled Time: 15:00 Client ID: WW1 (2.5M)	L1565577-2 SOIL 07-JAN-15 15:00 SW1 (2.5M)	L1565577-3 SOIL 07-JAN-15 15:00 SW2 (2.5M)	L1565577-4 SOIL 07-JAN-15 15:00 SW2A	L1565577-5 SOIL 07-JAN-15 15:00 BASE1 (3.8M)
SOIL						
Physical Tests	Moisture (%)	22.2	16.1	11.2	10.0	11.4
Hydrocarbons	EPH10-19 (mg/kg)	<200	<200	<200	<200	<200
	EPH19-32 (mg/kg)	<200	<200	<200	<200	<200
	LEPH (mg/kg)	<200	<200	<200	<200	<200
	HEPH (mg/kg)	<200	<200	<200	<200	<200
Polycyclic Aromatic Hydrocarbons	Acenaphthene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Acenaphthylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Anthracene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Benz(a)anthracene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(a)pyrene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(b)fluoranthene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(g,h,i)perylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(k)fluoranthene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Chrysene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Dibenz(a,h)anthracene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Fluoranthene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Fluorene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Indeno(1,2,3-c,d)pyrene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	2-Methylnaphthalene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Naphthalene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Phenanthrene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Pyrene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Surrogate: Acenaphthene d10 (%)	84.9	85.3	80.1	88.1	78.6
	Surrogate: Chrysene d12 (%)	105.9	102.6	99.3	108.6	99.0
	Surrogate: Naphthalene d8 (%)	86.5	86.6	81.0	90.9	80.0
	Surrogate: Phenanthrene d10 (%)	94.5	92.9	88.7	97.4	89.7

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1565577-6
	Description	SOIL
	Sampled Date	07-JAN-15
	Sampled Time	15:00
	Client ID	BASE2 (3.2M)
Grouping	**Analyte**	
SOIL		
Physical Tests	Moisture (%)	11.1
Hydrocarbons	EPH10-19 (mg/kg)	<200
	EPH19-32 (mg/kg)	<200
	LEPH (mg/kg)	<200
	HEPH (mg/kg)	<200
Polycyclic Aromatic Hydrocarbons	Acenaphthene (mg/kg)	<0.050
	Acenaphthylene (mg/kg)	<0.050
	Anthracene (mg/kg)	<0.050
	Benz(a)anthracene (mg/kg)	<0.050
	Benzo(a)pyrene (mg/kg)	<0.050
	Benzo(b)fluoranthene (mg/kg)	<0.050
	Benzo(g,h,i)perylene (mg/kg)	<0.050
	Benzo(k)fluoranthene (mg/kg)	<0.050
	Chrysene (mg/kg)	<0.050
	Dibenz(a,h)anthracene (mg/kg)	<0.050
	Fluoranthene (mg/kg)	<0.050
	Fluorene (mg/kg)	<0.050
	Indeno(1,2,3-c,d)pyrene (mg/kg)	<0.050
	2-Methylnaphthalene (mg/kg)	0.666
	Naphthalene (mg/kg)	<0.050
	Phenanthrene (mg/kg)	0.076
	Pyrene (mg/kg)	<0.050
	Surrogate: Acenaphthene d10 (%)	90.0
	Surrogate: Chrysene d12 (%)	108.6
	Surrogate: Naphthalene d8 (%)	89.0
	Surrogate: Phenanthrene d10 (%)	103.2

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
EPH-TUMB-FID-VA	Soil	EPH in Solids by Tumbler and GCFID	BC MOE EPH GCFID

Analysis is in accordance with BC MOE Lab Manual method "Extractable Petroleum Hydrocarbons in Solids by GC/FID", v2.1, July 1999. Soil samples are extracted with a 1:1 mixture of hexane and acetone using a rotary extraction technique modified from EPA 3570 prior to gas chromatography with flame ionization detection (GC-FID). EPH results include Polycyclic Aromatic Hydrocarbons (PAH) and are therefore not equivalent to Light and Heavy Extractable Petroleum Hydrocarbons (LEPH/HEPH).

LEPH/HEPH-CALC-VA	Soil	LEPHs and HEPHs	BC MOE LABORATORY MANUAL (2005)

Light and Heavy Extractable Petroleum Hydrocarbons in Solids. These results are determined according to the British Columbia Ministry of Environment, Lands, and Parks Analytical Method for Contaminated Sites "Calculation of Light and Heavy Extractable Petroleum Hydrocarbons in Solids or Water". According to this method, LEPH and HEPH are calculated
by subtracting selected Polycyclic Aromatic Hydrocarbon results from Extractable Petroleum Hydrocarbon results. To calculate LEPH, the individual results for Naphthalene and Phenanthrene are subtracted from EPH(C10-19). To calculate HEPH, the individual results for Benz(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene, and Pyrene
are subtracted from EPH(C19-32). Analysis of Extractable Petroleum Hydrocarbons adheres to all prescribed elements of the BCMELP method "Extractable Petroleum Hydrocarbons in Solids by GC/FID" (Version 2.1, July 20, 1999).

MOISTURE-VA	Soil	Moisture content	ASTM D2974-00 Method A

This analysis is carried out gravimetrically by drying the sample at 105 C for a minimum of six hours.

PAH-TMB-H/A-MS-VA	Soil	PAH - Rotary Extraction (Hexane/Acetone)	EPA 3570/8270

This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846, Methods 3570 & 8270, published by the United States Environmental Protection Agency (EPA). The procedure uses a mechanical shaking technique to extract a subsample of the sediment/soil with a 1:1 mixture of hexane and acetone. The extract is then solvent exchanged to toluene. The final extract is analysed by capillary column gas chromatography with mass spectrometric detection (GC/MS). Surrogate recoveries may not be reported in cases where interferences from the sample matrix prevent accurate quantitation. Because the two isomers cannot be readily chromatographically separated, benzo(j)fluoranthene is reported as part of the benzo(b)fluoranthene parameter.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

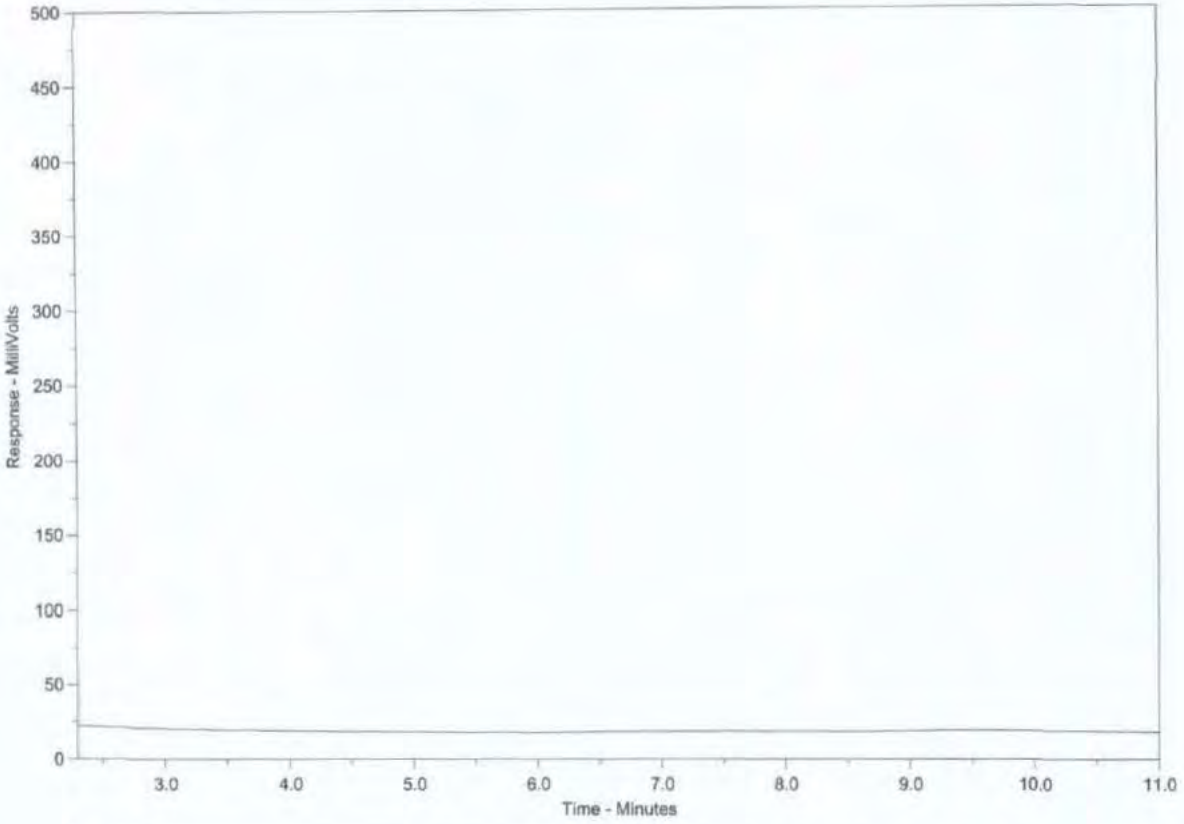
GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.
mg/kg - milligrams per kilogram based on dry weight of sample.
mg/kg wwt - milligrams per kilogram based on wet weight of sample.
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.
mg/L - milligrams per litre.
< - Less than.
D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Hydrocarbon Distribution Report

ALS Sample ID: L1565577-1
Client Sample ID: NW1 (2.5M)



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline →	← Motor Oils / Lube Oils / Grease →	
← Diesel / Jet Fuels →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

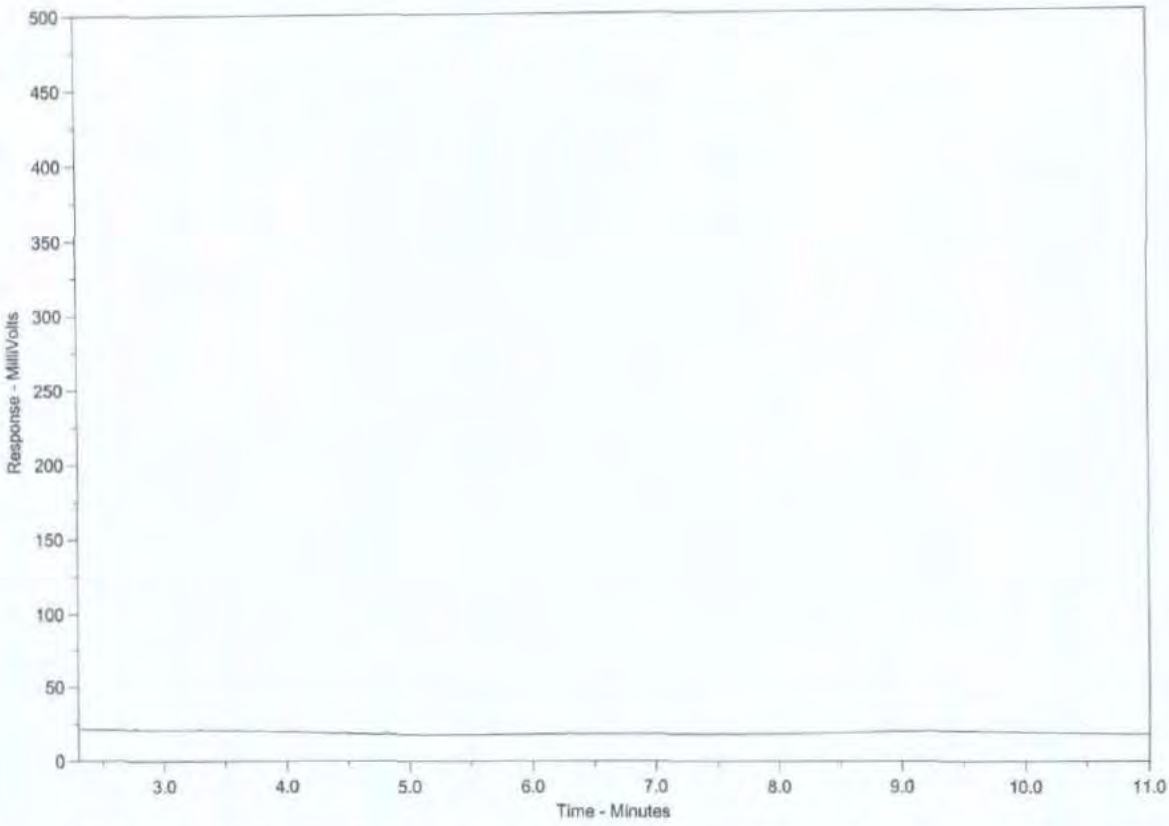
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report

ALS Sample ID: L1565577-2
Client Sample ID: WW1 (2.5M)



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline →	← Motor Oils / Lube Oils / Grease →	
← Diesel / Jet Fuels →		

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Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

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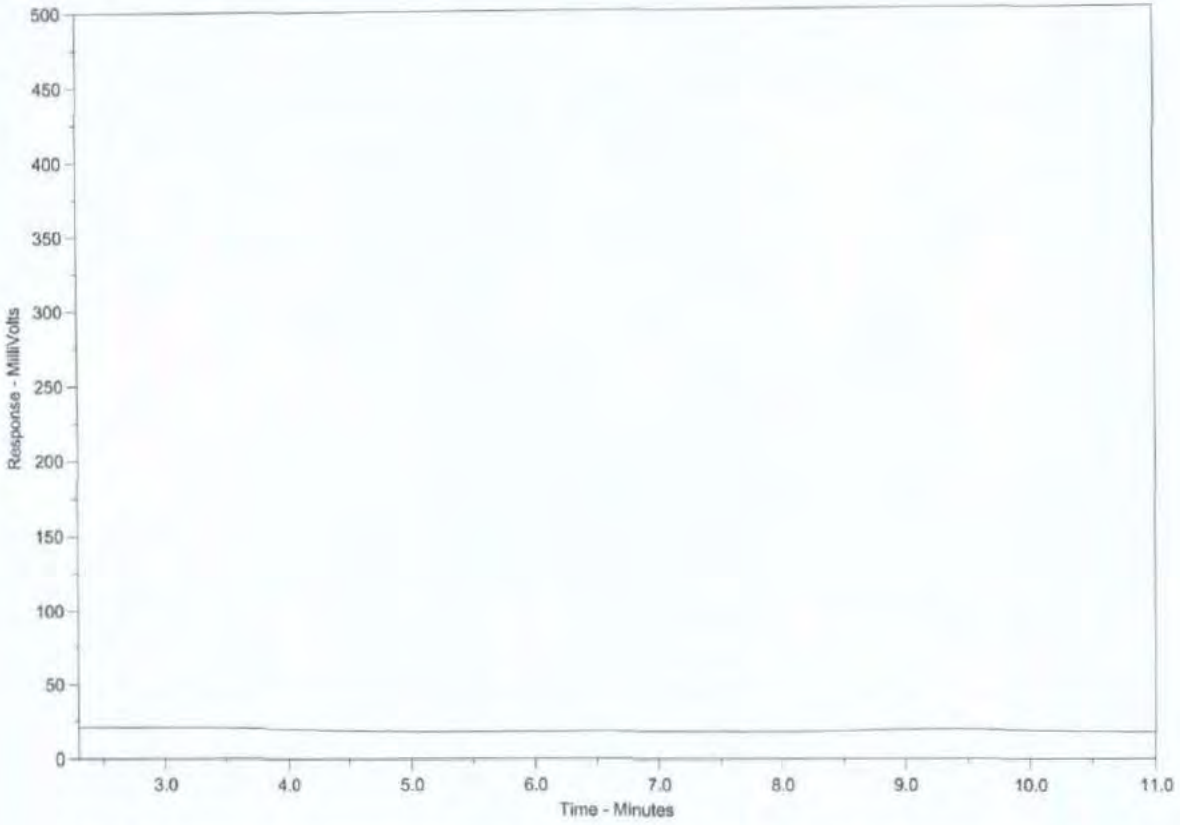
Hydrocarbon Distribution Report

ALS Sample ID: L1565577-3
Client Sample ID: WW2 (2.5M)



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline →	← Motor Oils / Lube Oils / Grease →	
← Diesel / Jet Fuels →		

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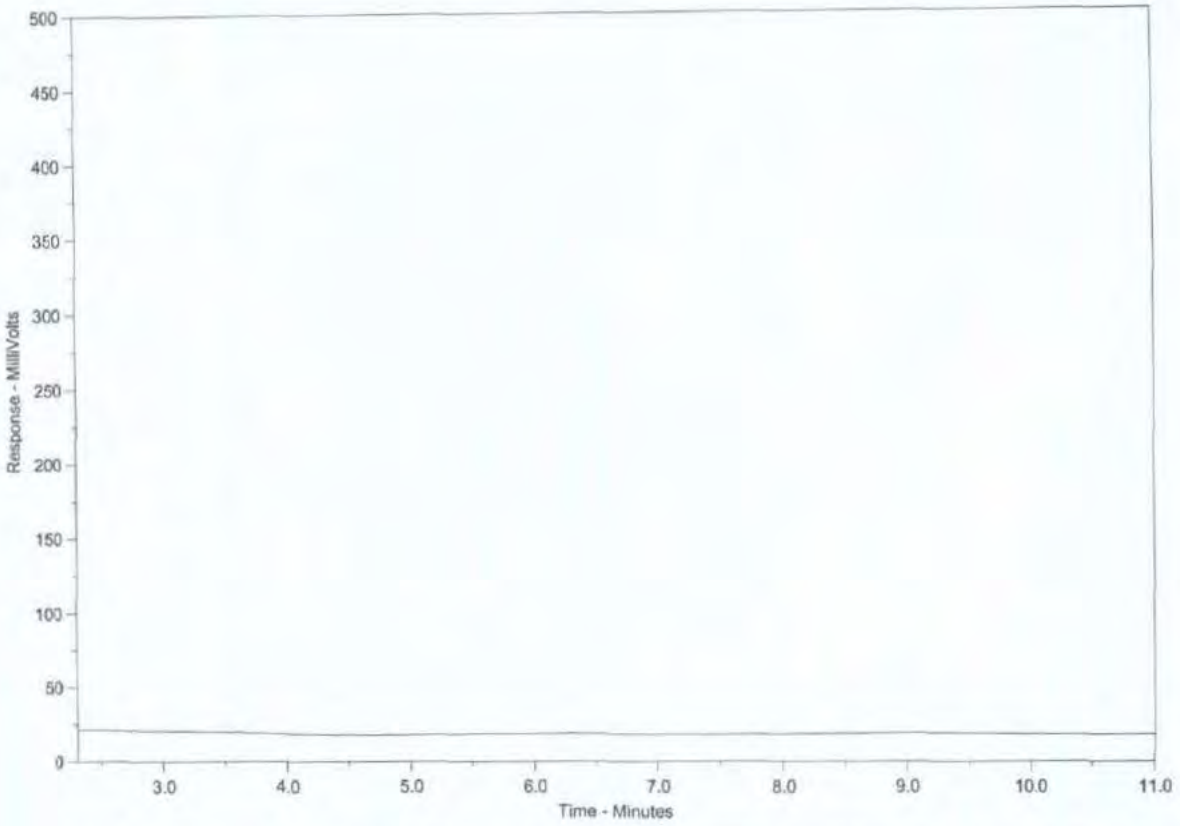
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report

ALS Sample ID: L1565577-4
Client Sample ID: WW2A



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline →	← Motor Oils / Lube Oils / Grease →	
← Diesel / Jet Fuels →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current *library of reference products is available* on www.alsglobal.com or upon request.

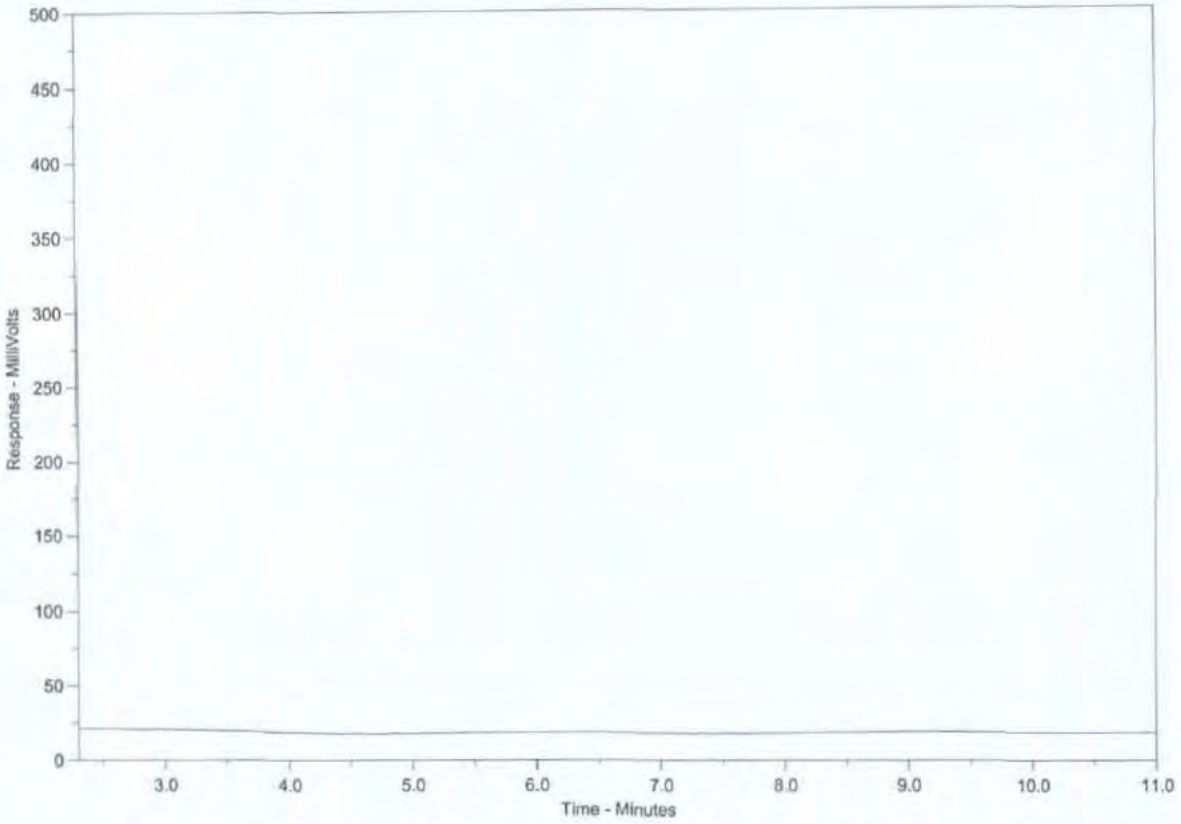
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report

ALS Sample ID: L1565577-5
Client Sample ID: BASE1 (3.8M)



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline →	← Motor Oils / Lube Oils / Grease →	
← Diesel / Jet Fuels →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

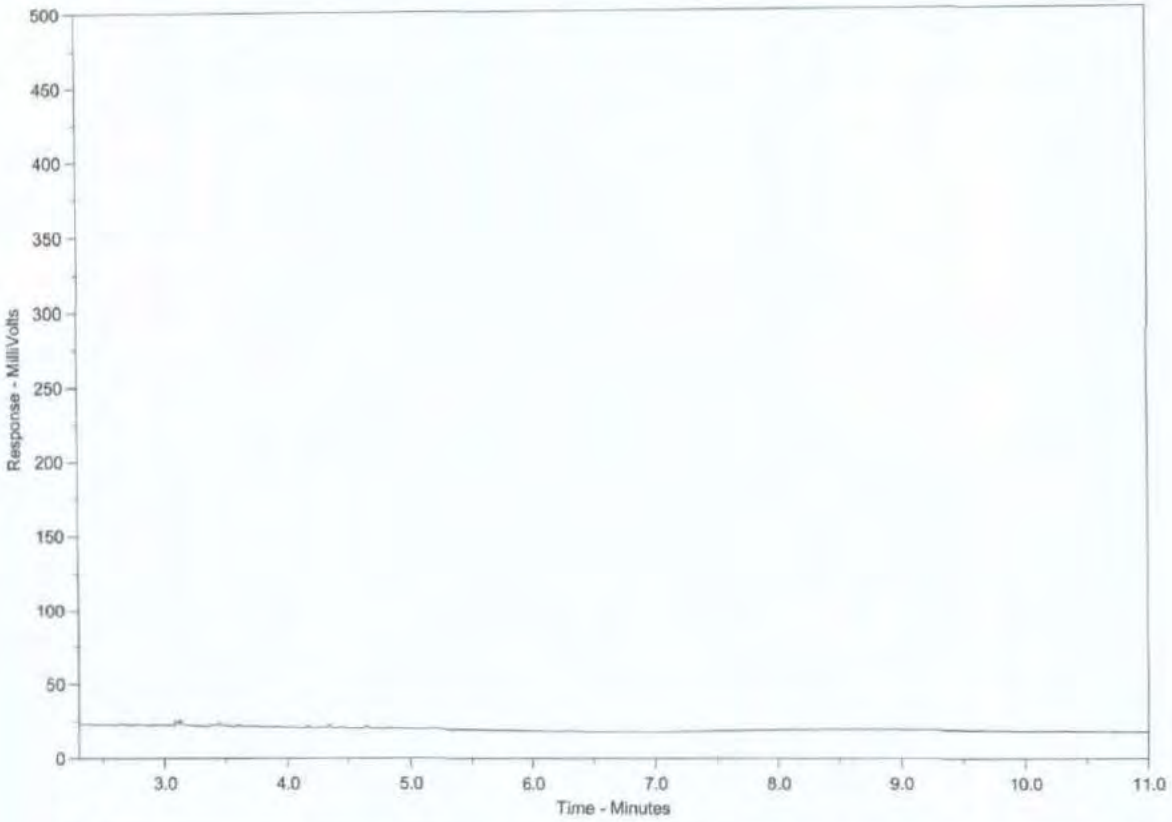
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report

ALS Sample ID: L1565577-6
Client Sample ID: BASE2 (3.2M)



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline →	← Motor Oils / Lube Oils / Grease →	
← Diesel / Jet Fuels →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

ALS Environmental

Chain of Custody / Analytical Request Form
Canada Toll Free: 1 800 668 9878
www.alsglobal.com

COC # _____

Page 1 of 1

Report To		Report Format / Distribution	Service Requested (Rush for routine analysis subject to availability)
Company:	Active Earth Engineering Ltd.	☒ Standard ☐ Other	◉ Regular (Standard Turnaround Times - Business Days)
Contact:	STEVE BOYCE	☒ PDF ☒ Excel ☐ Digital ☐ Fax	☒ Priority (2-4 Business Days) - 50% Surcharge - Contact ALS to Confirm TAT
Address:	160-2250 Boundary Road	Email 1: STEVE.BOYCE@ACTIVEEARTH.CA	○ Emergency (1-2 Bus. Days) - 100% Surcharge - Contact ALS to Confirm TAT
	Burnaby, BC, V5M 3Z3	Email 2:	○ Same Day or Weekend Emergency - Contact ALS to Confirm TAT
Phone:	7788566473 Fax:	Email 3:	**Analysis Request**
Invoice To	Same as Report ? ☑ Yes ☐ No	Client / Project Information	Please indicate below Filtered, Preserved or both (F, P, F/P)
Hardcopy of Invoice with Report?	☐ Yes ☑ No	Job #: 816	
Company:	Active Earth Engineering Ltd.	PO / AFE:	
Contact:	Carol Kneale	LSD:	
Address:	4510 Saddlehorn Crescent, Langley, BC, V2Z 1J6		
Phone:	Fax:	Quote #:	
Lab Work Order # (lab use only)	L1565577	ALS Contact: BRENT MACK	Sampler: S.BOYCE

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	LEPH/HEPH/PAH	Number of Containers
	NW1 (2.5M)	07-JAN-15	15:00	SOIL	X	2
	NW1 (2.5M)				X	
	NW2 (2.5M)				X	
	NW2A				X	
	BASE1 (3.8M)				X	
	BASE2 (3.2M)				X	

RUSH

Priority processing

L1565577-COFC

Special Instructions / Regulations with water or land use (CCME-Freshwater Aquatic Life/BC CSR - Commercial/AB Tier 1 - Natural, etc) / Hazardous Details

3 DAY TAT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.
By the use of this form the user acknowledges and agrees with the Terms and Conditions as provided on a separate Excel tab.
Also provided on another Excel tab are the ALS location addresses, phone numbers and sample container / preservation / holding time table for common analyses.

SHIPMENT RELEASE (client use)			SHIPMENT RECEPTION (lab use only)				SHIPMENT VERIFICATION (lab use only)			
Released by:	Date (dd-mmm-yy)	Time (hh-mm)	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF
	09/JAN/15	08:30		9JAN15	11:20	1.7 °C				

GENF 20.00 Front

AGAT Laboratories

Unit 120, 8600 Glenlyon Parkway
Burnaby, British Columbia
CANADA V5J 0B6
TEL (778)452-4000
FAX (778)452-4074
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 14V931443

PROJECT: 816

CLIENT NAME: ACTIVE EARTH ENGINEERING

SAMPLING SITE:

ATTENTION TO: STEVE BOYCE

SAMPLED BY:

British Columbia Metals Schedule 4 and 5

DATE RECEIVED: 2014-12-23

DATE REPORTED: 2014-12-30

Parameter	Unit	G / S	RDL	SAMPLE DESCRIPTION: 1-1 SAMPLE TYPE: Soil DATE SAMPLED: 12/22/2014 6221897	1-3 Soil 12/22/2014 6221901	2-2 Soil 12/22/2014 6221904	2-3 Soil 12/22/2014 6221906	3-1 Soil 12/22/2014 6221908	3-2 Soil 12/22/2014 6221909	4-1 Soil 12/22/2014 6221910	5-1 Soil 12/22/2014 6221912
pH 1:2	pH units		0.1	6.5	6.8	7.4	6.2	6.4	5.7	7.0	6.0
Antimony	µg/g	20	0.1	0.7	0.6	0.4	0.3	0.3	0.2	0.3	0.2
Arsenic	µg/g	15	0.1	3.3	5.0	3.5	6.2	3.9	4.5	2.7	3.4
Barium	µg/g	400	0.5	92.3	125	117	165	216	215	58.0	60.8
Beryllium	µg/g	4	0.1	0.2	0.2	0.2	0.4	0.2	0.5	0.1	0.2
Boron (Hot Water Soluble)	µg/g		0.1	0.8	2.1	1.7	0.3	2.1	0.2	1.0	1.2
Cadmium	µg/g		0.01	0.11	0.20	0.13	0.08	0.12	0.07	0.13	0.12
Chromium	µg/g	60	1	12	14	17	36	13	24	11	14
Cobalt	µg/g	50	0.1	4.6	6.0	6.1	12.8	3.6	16.6	3.5	3.7
Copper	µg/g		0.2	33.9	49.9	25.9	45.8	25.8	42.3	12.4	11.0
Lead	µg/g		0.1	79.9	170	49.6	7.8	43.7	9.0	14.6	16.7
Mercury	µg/g		0.01	0.16	0.13	0.10	0.04	0.09	0.03	0.04	0.06
Molybdenum	µg/g	10	0.2	0.4	0.7	0.6	0.4	0.6	0.6	0.7	0.5
Nickel	µg/g	100	0.5	8.1	11.7	12.1	24.3	10.8	20.8	8.5	9.7
Selenium	µg/g	3	0.1	0.2	0.2	0.2	<0.1	0.1	<0.1	0.2	0.5
Silver	µg/g	20	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Thallium	µg/g		0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.2	<0.1	<0.1
Tin	µg/g	50	0.2	21.2	37.6	21.9	0.5	13.8	0.6	1.3	1.2
Uranium	µg/g	16	0.2	0.8	0.4	0.5	0.6	0.4	0.6	0.4	0.4
Vanadium	µg/g	200	1	36	41	45	81	34	82	30	34
Zinc	µg/g		1	80	131	64	69	71	68	113	75

Certified By:

AGAT Laboratories

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CLIENT NAME: ACTIVE EARTH ENGINEERING
4510 SADDLE HORN CRESCENT
LANGLEY, BC V2Z1J6
(778) 888-0473

ATTENTION TO: STEVE BOYCE

PROJECT: 816

AGAT WORK ORDER: 14V931443

SOIL ANALYSIS REVIEWED BY: Andrew Garrard, B.Sc., General Manager

TRACE ORGANICS REVIEWED BY: Andrew Garrard, B.Sc., General Manager

DATE REPORTED: Dec 30, 2014

PAGES (INCLUDING COVER): 13

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (778) 452-4000

*NOTES
VERSION 1: Sample receipt temperature 5°C.

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

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Certificate of Analysis

AGAT WORK ORDER: 14V931443

PROJECT: 816

CLIENT NAME: ACTIVE EARTH ENGINEERING

SAMPLING SITE:

ATTENTION TO: STEVE BOYCE

SAMPLED BY:

British Columbia Metals Schedule 4 and 5

DATE RECEIVED: 2014-12-23

DATE REPORTED: 2014-12-30

		SAMPLE DESCRIPTION:		6-1	6-2	7-1	7-3
		SAMPLE TYPE:		Soil	Soil	Soil	Soil
		DATE SAMPLED:		12/22/2014	12/22/2014	12/22/2014	12/22/2014
Parameter	Unit	G / S	RDL	6221914	6221915	6221916	6221918
pH 1:2	pH units		0.1	6.5	5.8	7.2	5.7
Antimony	µg/g	20	0.1	0.7	<0.1	0.5	0.3
Arsenic	µg/g	15	0.1	3.6	1.9	3.2	7.3
Barium	µg/g	400	0.5	54.7	24.9	56.9	112
Beryllium	µg/g	4	0.1	0.2	0.1	0.2	0.4
Boron (Hot Water Soluble)	µg/g		0.1	0.5	0.2	0.5	<0.1
Cadmium	µg/g		0.01	0.12	0.03	0.12	0.05
Chromium	µg/g	60	1	13	9	21	33
Cobalt	µg/g	50	0.1	4.1	3.7	6.6	14.3
Copper	µg/g		0.2	12.1	4.4	19.1	46.0
Lead	µg/g		0.1	21.6	1.7	9.8	6.8
Mercury	µg/g		0.01	0.32	0.02	0.04	0.03
Molybdenum	µg/g	10	0.2	0.5	0.3	0.7	0.5
Nickel	µg/g	100	0.5	10.8	9.0	19.6	26.9
Selenium	µg/g	3	0.1	0.1	0.2	0.2	<0.1
Silver	µg/g	20	0.5	<0.5	<0.5	<0.5	<0.5
Thallium	µg/g		0.1	<0.1	<0.1	<0.1	0.1
Tin	µg/g	50	0.2	2.9	<0.2	1.2	0.5
Uranium	µg/g	16	0.2	0.4	0.2	0.5	0.6
Vanadium	µg/g	200	1	33	25	48	78
Zinc	µg/g		1	57	25	50	64

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to BC CSR (RL-G) (Van)
6221897-6221918 Results are based on the dry weight of the sample

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 14V931443

PROJECT: 816

CLIENT NAME: ACTIVE EARTH ENGINEERING

SAMPLING SITE:

ATTENTION TO: STEVE BOYCE

SAMPLED BY:

Active Earth LEPH / HEPH Soil

DATE RECEIVED: 2014-12-23

DATE REPORTED: 2014-12-30

		SAMPLE DESCRIPTION:		1-1		1-2		1-4	3-1	6-1	7-1
		SAMPLE TYPE:		Soil		Soil		Soil	Soil	Soil	Soil
		DATE SAMPLED:		12/22/2014		12/22/2014		12/22/2014	12/22/2014	12/22/2014	12/22/2014
Parameter	Unit	G / S	RDL	6221897	RDL	6221900	RDL	6221902	6221908	6221914	6221916
Acenaphthene	µg/g		0.01	0.11	0.1	<0.1	0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	µg/g		0.01	0.23	0.1	<0.1	0.01	<0.01	0.01	<0.01	0.01
Anthracene	µg/g		0.02	0.40	0.2	<0.2	0.02	<0.02	<0.02	<0.02	0.02
Benzo(a)anthracene	µg/g	1	0.02	0.95	0.02	0.07	0.02	<0.02	0.02	<0.02	0.06
Benzo(a)pyrene	µg/g		0.05	1.05	0.05	0.07	0.05	<0.05	<0.05	<0.05	0.07
Benzo(b)fluoranthene	µg/g	1	0.02	0.81	0.02	0.06	0.02	<0.02	0.05	0.02	0.05
Benzo(g,h,i)perylene	µg/g		0.05	0.72	0.05	0.05	0.05	<0.05	<0.05	<0.05	0.05
Benzo(k)fluoranthene	µg/g	1	0.02	0.44	0.02	0.03	0.02	<0.02	<0.02	<0.02	0.03
Chrysene	µg/g		0.05	0.95	0.05	0.08	0.05	<0.05	<0.05	<0.05	0.06
Dibenzo(a,h)anthracene	µg/g	1	0.02	0.26	0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	µg/g		0.05	1.96	0.05	0.21	0.05	<0.05	0.07	<0.05	0.12
Fluorene	µg/g		0.02	0.11	0.2	0.5	0.02	0.02	<0.02	<0.02	<0.02
Indeno(1,2,3-c,d)pyrene	µg/g	1	0.02	0.73	0.02	0.04	0.02	<0.02	0.03	<0.02	0.04
2-Methylnaphthalene	µg/g		0.01	0.21	0.1	6.0	0.01	0.10	0.01	<0.01	<0.01
Naphthalene	µg/g		0.01	0.14	0.1	<0.1	0.01	<0.01	0.01	<0.01	<0.01
Phenanthrene	µg/g	5	0.02	1.27	0.2	1.7	0.02	0.03	0.04	0.03	0.07
Pyrene	µg/g	10	0.02	1.68	0.02	0.30	0.02	<0.02	0.06	0.03	0.12
LEPH C10-C19	µg/g	1000	20	57	20	1820	20	55	22	20	<20
HEPH C19-C32	µg/g	1000	20	195	20	466	20	32	50	59	26
Surrogate	**Unit**	**Acceptable Limits**									
Nitrobenzene - d5	%	50-130		90		NA		91	82	91	82
2-Fluorobiphenyl	%	50-130		87		90		90	82	87	82
P-Terphenyl - d14	%	60-130		95		96		97	88	94	86

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 14V931443

PROJECT: 816

CLIENT NAME: ACTIVE EARTH ENGINEERING

ATTENTION TO: STEVE BOYCE

SAMPLING SITE:

SAMPLED BY:

Active Earth LEPH / HEPH Soil

DATE RECEIVED: 2014-12-23

DATE REPORTED: 2014-12-30

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to BC CSR (RL-G) (Van)

6221897 Results are based on dry weight of sample.
LEPH & HEPH results have been corrected for PAH contributions.

6221900 Results are based on dry weight of sample.
LEPH & HEPH results have been corrected for PAH contributions.
Nitrobenzene-d5 surrogate is not available due to sample matrix interference. PAH detection limits increased. Sample extract was diluted

6221902-6221916 Results are based on dry weight of sample.
LEPH & HEPH results have been corrected for PAH contributions.

Certified By: Andrew Conrad

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Certificate of Analysis

AGAT WORK ORDER: 14V931443

PROJECT: 816

CLIENT NAME: ACTIVE EARTH ENGINEERING

ATTENTION TO: STEVE BOYCE

SAMPLING SITE:

SAMPLED BY:

BTEX / VPH (C6-C10) Soil

DATE RECEIVED: 2014-12-23

DATE REPORTED: 2014-12-30

		SAMPLE DESCRIPTION:		1-2	1-4
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		12/22/2014	12/22/2014
Parameter	Unit	G / S	RDL	6221900	6221902
Methyl tert-butyl ether (MTBE)	µg/g	320	0.1	<0.1	<0.1
Benzene	µg/g	0.04	0.02	<0.02	<0.02
Toluene	µg/g	2.5	0.05	<0.05	<0.05
Ethylbenzene	µg/g	7	0.05	<0.05	<0.05
m&p-Xylene	µg/g	20	0.05	<0.05	<0.05
o-Xylene	µg/g	20	0.05	<0.05	<0.05
Styrene	µg/g	5	0.05	<0.05	<0.05
VPH	µg/g	200	10	<10	<10
VH	µg/g		10	<10	<10
Total Xylenes	ug/g		0.1	<0.1	<0.1
Surrogate	**Unit**	**Acceptable Limits**			
Bromofluorobenzene	%	70-130		101	87
Dibromofluoromethane	%	70-130		128	101
Toluene - d8	%	70-130		99	99

Comments: *RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to BC CSR (RL-G) (Van)*

6221900-6221902 Results are based on dry weight of sample.
VPH results have been corrected for BTEX contributions.

Certified By: Andrew Conrad

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AGAT WORK ORDER: 14V931443

PROJECT: 816

CLIENT NAME: ACTIVE EARTH ENGINEERING

ATTENTION TO: STEVE BOYCE

SAMPLING SITE:

SAMPLED BY:

EPH Soil

DATE RECEIVED: 2014-12-23

DATE REPORTED: 2014-12-30

		SAMPLE DESCRIPTION:		2-2	3-2	4-1	5-1	6-2
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		12/22/2014	12/22/2014	12/22/2014	12/22/2014	12/22/2014
Parameter	Unit	G / S	RDL	6221904	6221909	6221910	6221912	6221915
EPH C10-C19	µg/g		20	238	<20	20	22	<20
EPH C19-C32	µg/g		20	110	<20	49	75	<20

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to BC CSR (RL-G) (Van)

6221904-6221915 Results are based on dry weight of sample.
EPH results are not corrected for potential PAH contributions.

Certified By: Andrea Leonard

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Quality Assurance

CLIENT NAME: ACTIVE EARTH ENGINEERING

PROJECT: 816

SAMPLING SITE:

AGAT WORK ORDER: 14V931443

ATTENTION TO: STEVE BOYCE

SAMPLED BY:

Soil Analysis

RPT Date: Dec 30, 2014			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
British Columbia Metals Schedule 4 and 5															
pH 1:2	6221906		6.1	6.1	0.3%	< 0.1	99%	90%	110%	100%	95%	105%			
Antimony	6221906		0.3	0.3	0.0%	< 0.1	104%	70%	130%	97%	85%	115%			
Arsenic	6221906		6.2	6.0	3.1%	< 0.1	112%	70%	130%	101%	90%	110%			
Barium	6221906		165	157	4.8%	< 0.5	75%	70%	130%	100%	90%	110%			
Beryllium	6221906		0.4	0.4	0.0%	< 0.1	102%	70%	130%	99%	90%	110%			
Boron (Hot Water Soluble)	6221906		0.3	0.3	0.0%	< 0.1	96%	70%	130%	92%	90%	110%			
Cadmium	6221906		0.08	0.07	7.7%	< 0.01	80%	70%	130%	108%	90%	110%			
Chromium	6221906		36	36	1.5%	< 1	105%	70%	130%	101%	90%	110%			
Cobalt	6221906		12.8	12.5	2.4%	< 0.1	103%	70%	130%	104%	90%	110%			
Copper	6221906		45.8	45.1	1.5%	< 0.2	97%	70%	130%	96%	90%	110%			
Lead	6221906		7.8	7.7	1.8%	< 0.1	98%	70%	130%	108%	90%	110%			
Mercury	6221906		0.04	0.03	NA	< 0.01	88%	70%	130%	104%	90%	110%			
Molybdenum	6221906		0.4	0.4	0.0%	< 0.2	103%	70%	130%	95%	90%	110%			
Nickel	6221906		24.3	23.9	1.7%	< 0.5	100%	70%	130%	93%	90%	110%			
Selenium	6221906		<0.1	0.1	NA	< 0.1				100%	85%	115%			
Silver	6221906		<0.5	<0.5	0.0%	< 0.5	93%	70%	130%	103%	90%	110%			
Thallium	6221906		0.1	0.1	0.0%	< 0.1	107%	70%	130%	98%	90%	110%			
Tin	6221906		0.5	0.5	0.0%	< 0.2				99%	90%	110%			
Uranium	6221906		0.6	0.6	0.0%	< 0.2	110%	70%	130%	108%	90%	110%			
Vanadium	6221906		81	80	1.3%	< 1	115%	70%	130%	100%	90%	110%			
Zinc	6221906		69	68	0.3%	< 1	98%	70%	130%	96%	90%	110%			

Comments: RPDs are calculated using raw analytical data and not the rounded duplicate values reported.

Certified By: Andrew Conrad

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Quality Assurance

CLIENT NAME: ACTIVE EARTH ENGINEERING

AGAT WORK ORDER: 14V931443

PROJECT: 816

ATTENTION TO: STEVE BOYCE

SAMPLING SITE:

SAMPLED BY:

Trace Organics Analysis

RPT Date: Dec 30, 2014

PARAMETER	Batch	Sample Id	DUPLICATE Dup #1	Dup #2	RPD	Method Blank	REFERENCE MATERIAL Measured Value	Acceptable Limits Lower	Upper	METHOD BLANK SPIKE Recovery	Acceptable Limits Lower	Upper	MATRIX SPIKE Recovery	Acceptable Limits Lower	Upper
Active Earth LEPH / HEPH Soil															
Acenaphthene	63545	6221916	<0.01	<0.01	0.0%	< 0.01	101%	80%	120%				92%	50%	130%
Acenaphthylene	63545	6221916	0.01	0.01	0.0%	< 0.01	101%	80%	120%				84%	50%	130%
Anthracene	63545	6221916	0.02	0.02	0.0%	< 0.02	101%	80%	120%				85%	60%	130%
Benzo(a)anthracene	63545	6221916	0.06	0.04	40.0%	< 0.02	101%	80%	120%				83%	60%	130%
Benzo(a)pyrene	63545	6221916	0.07	0.05	33.0%	< 0.05	101%	80%	120%				83%	60%	130%
Benzo(b)fluoranthene	63545	6221916	0.05	0.04	22.0%	< 0.02	107%	80%	120%				84%	60%	130%
Benzo(g,h,i)perylene	63545	6221916	0.05	0.05	0.0%	< 0.05	101%	80%	120%				74%	60%	130%
Benzo(k)fluoranthene	63545	6221916	0.03	0.02	40.0%	< 0.02	96%	80%	120%				76%	60%	130%
Chrysene	63545	6221916	0.06	0.05	18.0%	< 0.05	101%	80%	120%				87%	60%	130%
Dibenzo(a,h)anthracene	63545	6221916	<0.02	<0.02	0.0%	< 0.02	102%	80%	130%				64%	60%	130%
Fluoranthene	63545	6221916	0.12	0.09	29.0%	< 0.05	101%	80%	120%				83%	60%	130%
Fluorene	63545	6221916	<0.02	<0.02	0.0%	< 0.02	102%	80%	120%				88%	50%	130%
Indeno(1,2,3-c,d)pyrene	63545	6221916	0.04	0.04	0.0%	< 0.02	102%	80%	120%				72%	60%	130%
2-Methylnaphthalene	63545	6221916	<0.01	<0.01	0.0%	< 0.01	101%	80%	120%				84%	50%	130%
Naphthalene	63545	6221916	<0.01	0.01	0.0%	< 0.01	101%	80%	120%				87%	50%	130%
Phenanthrene	63545	6221916	0.07	0.06	15.0%	< 0.02	101%	80%	120%				81%	60%	130%
Pyrene	63545	6221916	0.12	0.09	29.0%	< 0.02	101%	80%	120%				89%	60%	130%
Nitrobenzene - d5	63545	6221916	82	86	5.0%		98%	80%	120%				89%	50%	130%
2-Fluorobiphenyl	63545	6221916	82	86	5.0%		100%	80%	120%				89%	50%	130%
P-Terphenyl - d14	63545	6221916	86	85	1.0%		100%	80%	120%				85%	60%	130%

Comments: RPDs are calculated using raw analytical data and not the rounded duplicate values reported.

BTEX / VPH (C6-C10) Soil															
Methyl tert-butyl ether (MTBE)	63541	6220528	<0.1	<0.1	0.0%	< 0.1	97%	80%	120%				90%	70%	130%
Benzene	63541	6220528	<0.02	<0.02	0.0%	< 0.02	107%	80%	120%				99%	70%	130%
Toluene	63541	6220528	<0.05	<0.05	0.0%	< 0.05	102%	80%	120%				94%	70%	130%
Ethylbenzene	63541	6220528	<0.05	<0.05	0.0%	< 0.05	102%	80%	120%				95%	70%	130%
m&p-Xylene	63541	6220528	<0.05	<0.05	0.0%	< 0.05	88%	80%	120%				95%	70%	130%
o-Xylene	63541	6220528	<0.05	<0.05	0.0%	< 0.05	90%	80%	120%				96%	70%	130%
Styrene	63541	6220528	<0.05	<0.05	0.0%	< 0.05	99%	80%	120%				95%	70%	130%
VPH	63541	6220528	<10	<10	0.0%	< 10									
VH	63541	6220528	<10	<10	0.0%	< 10									
Bromofluorobenzene	63541	6220528	88	88	0.0%		102%	70%	130%				102%	70%	130%
Dibromofluoromethane	63541	6220528	98	101	3.0%		108%	70%	130%				94%	70%	130%
Toluene - d8	63541	6220528	98	97	1.0%		99%	70%	130%				88%	70%	130%

Comments: RPDs are calculated using raw analytical data and not the rounded duplicate values reported.

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Quality Assurance

CLIENT NAME: ACTIVE EARTH ENGINEERING

PROJECT: 816

SAMPLING SITE:

AGAT WORK ORDER: 14V931443

ATTENTION TO: STEVE BOYCE

SAMPLED BY:

Trace Organics Analysis (Continued)

RPT Date: Dec 30, 2014			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

Certified By:

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Method Summary

CLIENT NAME: ACTIVE EARTH ENGINEERING

AGAT WORK ORDER: 14V931443

PROJECT: 816

ATTENTION TO: STEVE BOYCE

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
pH 1:2	INOR-181-6031	BC MOE Lab Manual B (pH, Electrometric, Soil)	PH METER
Antimony	MET-181-6102, LAB-181-4008	BC MOE Lab Manual C (SALM) and EPA 6020A	ICP-MS
Arsenic	MET-181-6102, LAB-181-4008	BC MOE Lab Manual C (SALM) and EPA 6020A	ICP-MS
Barium	MET-181-6102, LAB-181-4008	BC MOE Lab Manual C (SALM) and EPA 6020A	ICP-MS
Beryllium	MET-181-6102, LAB-181-4008	BC MOE Lab Manual C (SALM) and EPA 6020A	ICP-MS
Boron (Hot Water Soluble)	MET-181-6105, LAB-181-4011	BC MOE Lab Manual C (Boron, HWS) and EPA 6010C	ICP/OES
Cadmium	MET-181-6102, LAB-181-4008	BC MOE Lab Manual C (SALM) and EPA 6020A	ICP-MS
Chromium	MET-181-6102, LAB-181-4008	BC MOE Lab Manual C (SALM) and EPA 6020A	ICP-MS
Cobalt	MET-181-6102, LAB-181-4008	BC MOE Lab Manual C (SALM) and EPA 6020A	ICP-MS
Copper	MET-181-6102, LAB-181-4008	BC MOE Lab Manual C (SALM) and EPA 6020A	ICP-MS
Lead	MET-181-6102, LAB-181-4008	BC MOE Lab Manual C (SALM) and EPA 6020A	ICP-MS
Mercury	MET-181-6102, LAB-181-4008	BC MOE Lab Manual C (SALM) and EPA 6020A	ICP-MS
Molybdenum	MET-181-6102, LAB-181-4008	BC MOE Lab Manual C (SALM) and EPA 6020A	ICP-MS
Nickel	MET-181-6102, LAB-181-4008	BC MOE Lab Manual C (SALM) and EPA 6020A	ICP-MS
Selenium	MET-181-6102, LAB-181-4008	BC MOE Lab Manual C (SALM) and EPA 6020A	ICP-MS
Silver	MET-181-6102, LAB-181-4008	BC MOE Lab Manual C (SALM) and EPA 6020A	ICP-MS
Thallium	MET-181-6102, LAB-181-4008	BC MOE Lab Manual C (SALM) and EPA 6020A	ICP-MS
Tin	MET-181-6102, LAB-181-4008	BC MOE Lab Manual C (SALM) and EPA 6020A	ICP-MS
Uranium	MET-181-6102, LAB-181-4008	BC MOE Lab Manual C (SALM) and EPA 6020A	ICP-MS
Vanadium	MET-181-6102, LAB-181-4008	BC MOE Lab Manual C (SALM) and EPA 6020A	ICP-MS
Zinc	MET-181-6102, LAB-181-4008	BC MOE Lab Manual C (SALM) and EPA 6020A	ICP-MS

AGAT Laboratories

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TEL (778)452-4000
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http://www.agatlabs.com

Method Summary

CLIENT NAME: ACTIVE EARTH ENGINEERING

AGAT WORK ORDER: 14V931443

PROJECT: 816

ATTENTION TO: STEVE BOYCE

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Acenaphthene	ORG-180-5102	Modified from BC MOE Lab Manual Section D (PAH)	GC/MS
Acenaphthylene	ORG-180-5102	Modified from BC MOE Lab Manual Section D (PAH)	GC/MS
Anthracene	ORG-180-5102	Modified from BC MOE Lab Manual Section D (PAH)	GC/MS
Benzo(a)anthracene	ORG-180-5102	Modified from BC MOE Lab Manual Section D (PAH)	GC/MS
Benzo(a)pyrene	ORG-180-5102	Modified from BC MOE Lab Manual Section D (PAH)	GC/MS
Benzo(b)fluoranthene	ORG-180-5102	Modified from BC MOE Lab Manual Section D (PAH)	GC/MS
Benzo(g,h,i)perylene	ORG-180-5102	Modified from BC MOE Lab Manual Section D (PAH)	GC/MS
Benzo(k)fluoranthene	ORG-180-5102	Modified from BC MOE Lab Manual Section D (PAH)	GC/MS
Chrysene	ORG-180-5102	Modified from BC MOE Lab Manual Section D (PAH)	GC/MS
Dibenzo(a,h)anthracene	ORG-180-5102	Modified from BC MOE Lab Manual Section D (PAH)	GC/MS
Fluoranthene	ORG-180-5102	Modified from BC MOE Lab Manual Section D (PAH)	GC/MS
Fluorene	ORG-180-5102	Modified from BC MOE Lab Manual Section D (PAH)	GC/MS
Indeno(1,2,3-c,d)pyrene	ORG-180-5102	Modified from BC MOE Lab Manual Section D (PAH)	GC/MS
2-Methylnaphthalene	ORG-180-5102	Modified from BC MOE Lab Manual Section D (PAH)	GC/MS
Naphthalene	ORG-180-5102	Modified from BC MOE Lab Manual Section D (PAH)	GC/MS
Phenanthrene	ORG-180-5102	Modified from BC MOE Lab Manual Section D (PAH)	GC/MS
Pyrene	ORG-180-5102	Modified from BC MOE Lab Manual Section D (PAH)	GC/MS
Nitrobenzene - d5	ORG-180-5102	modified from BC MOE Lab Manual Section D (PAH)	GC/MS
2-Fluorobiphenyl	ORG-180-5102	modified from BC MOE Lab Manual Section D (PAH)	GC/MS
P-Terphenyl - d14	ORG-180-5102	modified from BC MOE Lab Manual Section D (PAH)	GC/MS
LEPH C10-C19	ORG-180-5101	Modified from BCMOE Lab Manual Section D (EPH)	GC/FID
HEPH C19-C32	ORG-180-5101	Modified from BCMOE Lab Manual Section D (EPH)	GC/FID
Methyl tert-butyl ether (MTBE)	ORG-180-5100	Modified from BC MOE Lab Manual Sec D (BTEX, VPH)	GC/MS/FID
Benzene	ORG-180-5100	Modified from BC MOE Lab Manual Sec D (BTEX, VPH)	GC/MS/FID
Toluene	ORG-180-5100	Modified from BC MOE Lab Manual Sec D (BTEX, VPH)	GC/MS/FID
Ethylbenzene	ORG-180-5100	Modified from BC MOE Lab Manual Sec D (BTEX, VPH)	GC/MS/FID
m&p-Xylene	ORG-180-5100	Modified from BC MOE Lab Manual Sec D (BTEX, VPH)	GC/MS/FID

AGAT Laboratories

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Method Summary

CLIENT NAME: ACTIVE EARTH ENGINEERING

AGAT WORK ORDER: 14V931443

PROJECT: 816

ATTENTION TO: STEVE BOYCE

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
o-Xylene	ORG-180-5100	Modified from BC MOE Lab Manual Sec D (BTEX, VPH)	GC/MS/FID
Styrene	ORG-180-5100	Modified from BC MOE Lab Manual Sec D (BTEX, VPH)	GC/MS/FID
VPH	ORG-180-5100	Modified from BC MOE Lab Manual Sec D (BTEX, VPH)	GC/MS/FID
VH	ORG-180-5100	Modified from BC MOE Lab Manual Sec D (BTEX, VPH)	GC/MS/FID
Bromofluorobenzene	ORG-180-5100	Modified from BC MOE Lab Manual Sec D (BTEX, VPH)	GC/MS
Dibromofluoromethane	ORG-180-5100	Modified from BC MOE Lab Manual Sec D (BTEX, VPH)	GC/MS
Toluene - d8	ORG-180-5100	Modified from BC MOE Lab Manual Sec D (BTEX, VPH)	GC/MS
EPH C10-C19	ORG-180-5101	Modified from BCMOE Lab Manual Section D (EPH)	GC/FID
EPH C19-C32	ORG-180-5101	Modified from BCMOE Lab Manual Section D (EPH)	GC/FID

DEC 23 PM12:34

AGAT Laboratories

120 - 8600 Glenlyon Parkway
Burnaby, BC
V5J 0B6
webearth.agatlabs.com
P: 778.452.4000 • F: 778.452.4074

Chain of Custody Record

Laboratory Use Only

Arrival Temperature: 5°C

AGAT Job Number: 14V931883

Notes: AEE PRICING (Reg. list)

Report Information

Company: ACTIVE EARTH ENGINEERING

Contact: STEVE BOYLE

Address: 4510 Saddlehorn Cresc. Langley BC

Phone: 7788880473 Fax:

LSD:

Client Project #: 816

Report Information

1. Name:
   Email: STEVE.BOYLE @ ACTIVEEARTH...
2. Name:
   Email:

Report Format

- ☐ Single Sample per page
- ☒ Multiple Samples per page
- ☒ Excel Format Included

Turnaround Time Required (TAT)

Regular TAT ☒ 5 to 7 working days

Rush TAT ☐ Day 2 - 100% ☐ Day 3 - 50% ☐ Day 4 - 25% OR SOONER

Date Required: JAN 2/14 END of Day

PLEASE CONTACT LABORATORY IF RUSH REQUIRED SAMPLE SUBMISSION CUT OFF FOR EFFECTIVE DATE BY 3 PM

Invoice To Same as above Yes ☒ No ☐

Company:

Contact: CAROL KJEALE

Address:

Phone: Fax:

PO/AFE#:

Requirements *(Please Check)*

- ☒ BC CSR Soil
  - ☐ AL
  - ☐ IL
  - ☐ PL
  - ☐ CL
  - ☒ RL
- ☐ BC CSR - Water
  - ☐ DW
  - ☐ AW
  - ☐ IW
  - ☐ LW

Schedule 11 *(Please Specify)*

CCME *(Please Specify)*

Other *(Please Specify)*

LABORATORY USE (LAB ID #)	SAMPLE IDENTIFICATION	SAMPLE MATRIX	DATE/TIME SAMPLED	COMMENTS - SITE SAMPLE INFO. SAMPLE CONTAINMENT	LEPH/HEPH/PAH	EPH	CSR METALS	BTEX/VPH	NUMBER OF CONTAINERS	PRESERVED (Y/N)	HAZARDOUS (Y/N)	Hold for: ☐ 60 DAYS
6221897	1-1	SOIL	Dec 22/14 14:30		X		X		2	N	N?	N
900	1-2	↓	↓	METH PRES. VIAL INCLUDED	X			X	3	Y		
901	1-3						X		2	N		
902	1-4			METH PRES. VIAL INCLUDED	X			X	3	Y		
903	2-1								2	N		
904	2-2			METH PRES. VIAL INCLUDED	~~X~~	X	X		3	Y		
906	2-3						X		2	N		
08	3-1				X		X		2	N		
09	3-2					X	X		2	N		
10	4-1					X	X		2	N		
11	4-2								2	N	↓	↓

Samples Relinquished By (Print Name and Sign)	Date/Time	Samples Received By (Print Name and Sign)	Date/Time
STEVE BOYLE [signature]	Dec 23/14 11:00	[signature]	

Page 1 of 2

Nº: 009673

DEC 23 PM12:34

AGAT Laboratories

120 - 8600 Glenlyon Parkway
Burnaby, BC
V5J 0B6
webearth.agatlabs.com
P: 778.452.4000 · F: 778.452.4074

Laboratory Use Only
Arrival Temperature: 5°C
AGAT Job Number: 14V931443
Notes: Same

Chain of Custody Record

Report Information

Company: Active Earth Engineering
Contact:
Address: 160, 2250 Boundary Road
Burnaby, BC
Phone: Fax: 778.737.3488
LSD:
Client Project #:
(Same)

Report Information

1. Name: Same
Email:
2. Name:
Email:

Report Format

☐ Single Sample per page
☒ Multiple Samples per page
☒ Excel Format Included

Turnaround Time Required (TAT)

Regular TAT — 5 to 7 working days ☐
Rush TAT — Less than 24 hours ☐; 24 to 48 hours ☐; 48 to 72 hours ☐
Date Required:

Invoice To — Same Yes ☐ / No ☒

Company: Active Earth Engineering
Contact: Carol Kneale
Address: 4510 Saddlehorn Crescent
Langley, BC
Phone: 604.856.5119 Fax:
PO/AFE#:

Requirements *(Check one)* — Same

☐ BC CSR - Soil: ☐ Agricultural ☐ Industrial ☐ Urban/Park ☐ Commercial
☐ BC CSR - Water: ☐ Drinking Water ☐ *Aquatic Life* ☐ Irrigation ☐ Livestock
☐ CCME: ☐ Agricultural ☐ Residential/Park ☐ Commercial ☐ Industrial ☐ Drinking Water ☐ FWAL

LABORATORY USE (LAB ID #)	SAMPLE IDENTIFICATION	SAMPLE MATRIX	DATE/TIME SAMPLED	COMMENTS - SITE SAMPLE INFO. SAMPLE CONTAINMENT	LEPH/HEPH/PAH	EPH	CSR METALS	BTEX/VPH	NUMBER OF CONTAINERS	PRESERVED (Y/N)	HOLD FOR 1 YEAR	CONTAMINATED/HAZARDOUS (Y/N)
6221912	5-1	Soil		Dec 22/14 14:30		X	X		2	N	N	?
13	5-2	↓		↓					2	↓	↓	↓
14	6-1	↓		↓	X		X		2	↓	↓	↓
15	6-2	↓		↓		X	X		2	↓	↓	↓
16	7-1	↓		↓	X		X		2	↓	↓	↓
17	7-2	↓		↓					2	↓	↓	↓
18	7-3	↓		↓			X		2	↓	↓	↓

Samples Relinquished By (Print Name and Sign):	Date/Time	Samples Received By (Print Name and Sign):	Date/Time
[signature]	Dec 23/14 11:00	[signature]	
Samples Relinquished By (Print Name and Sign):	Date/Time	Samples Received By (Print Name and Sign):	Date/Time
Samples Relinquished By (Print Name and Sign):	Date/Time	Samples Received By (Print Name and Sign):	Date/Time

Pink Copy - Client
Yellow Copy - AGAT
White Copy - AGAT

Page 2 of 2

Nº: 000367

AGAT Laboratories

SAMPLE INTEGRITY RECEIPT FORM - BURNABY

Work Order # 14J93143

RECEIVING BASICS:
Received From: Messenger Services Waybill #: A-1-048920

SAMPLE QUANTITIES:
Coolers: 1 Containers: 39

TIME SENSITIVE ISSUES:
Earliest Date Sampled: Dec 22, 2014. ALREADY EXCEEDED? Yes (No)

NON-CONFORMANCES:
3 temperatures of samples* and average of each cooler: (record differing temperatures on the CoC next to sample ID's) *use jars when available

(1) 5 + 5 + 6 = 5 °C (2) ___ + ___ + ___ = ___ °C (3) ___ + ___ + ___ = ___ °C (4) ___ + ___ + ___ = ___ °C

Was ice or ice pack present: (Yes) No

Integrity Issues:

Account Project Manager: _____ have they been notified of the above issues: Yes No

Whom spoken to: _____ Date and Time: _____

ADDITIONAL NOTES:

BU461941

Schedule 1
Site Profile

(Version 4.0)

I. Contact Identification

A. Name of Site Owner

Last: Wall First: Bruno Middle Initial(s): ____ and/or, if applicable

Company: 1300 Richards Street Development Limited Partnership

Owner's Civic Address: 3502-1088 Burrard Street

City: Vancouver Province/State: BC

Country: Canada Postal Code/ZIP: V6Z 2R9

B. Person Completing Site Profile

Last: ____ First: ____ Middle Initial(s): ____ and/or, if applicable

Company: Pottinger Gaherty Environmental Consultants Ltd. (PGL)

C. Person to Contact Regarding the Site Profile

Last: Gagné First: Keith Middle Initial(s): ____

Company: Pottinger Gaherty Environmental Consultants Ltd.

Mailing Address: Suite 1200, 1185 West Georgia Street

City: Vancouver Province/State: BC

Country: Canada Postal Code/ZIP: V6E 4E6

Telephone: (604) 895-7618 Fax: (604) 682-3497

II. Site Identification

Please attach a site location map

All Property

Coordinates (using the North American Datum 1983 convention) for the centre of the site:

Latitude:	Degrees: 49	Minutes: 16	Seconds: 28.9
Longitude:	Degrees: 123	Minutes: 7	Seconds: 33.1

Please attach a map of appropriate scale showing the boundaries of the site.

Legally Titled, Registered Property

Site Street Address (if applicable): 1300 Richards Street

City/Province: Vancouver, BC Postal Code V6B 3G6

Schedule 1
Site Profile

(Version 4.0)

PID numbers and associated legal descriptions. ***Attach additional sheet if necessary.***	
PID	**Legal Description**
011-207-931	Lot A, Block 115, District Lot 541, Plan 5210

Total Number of Titled Parcels represented by this Site Profile:	1

IF Untitled CrownLand

1) PIN numbers and associated Land Description. ***Attach additional sheet if necessary.***

PIN	**Land Description**

Total number of untitled crown land parcels represented by this site profile is: _____

(and, if available)

Crown land file numbers. ***Attach additional sheet if necessary.***

III. Commercial and Industrial Purposes or Activities

Please indicate below, in the format of the example provided, which of the industrial and commercial purposes and activities from Schedule 2 have occurred or are occurring on this site.

EXAMPLE

Schedule 2 Reference	**Description**
E1	Appliance, equipment or engine repair, reconditioning, cleaning or salvage
F10	Solvent manufacturing or wholesale bulk storage

Please Print Legibly. Attach additional sheet if necessary.

Schedule 2 Reference	**Description**

Schedule 1
Site Profile

(Version 4.0)

	No Schedule 2 Use. No Site Profile Required – see below. Environmental Management Act, Contaminated Sites Regulation [includes amendments up to B.C. Reg. 97/2011, May 31, 2011] 2 (1) A person is exempt from the duty to provide a site profile under section 40 (1), (2), (3), (6) and (7) of the Act with respect to industrial or commercial purposes and industrial or commercial activities which are not described in Schedule 2.

IV. Areas of Potential Concern			
Is there currently or to the best of your knowledge has there previously been on the site any (please mark the appropriate column opposite the question):		**Yes**	**No**
A.	Petroleum, solvent or other polluting substance spills to the environment greater than 100 litres?		
B.	Residue left after removal of piled materials such as chemicals, coal, ore, smelter slag, air quality control system baghouse dust?		
C.	Discarded barrels, drums or tanks?		
D.	Contamination resulting from migration of substances from other properties?		

V. Fill Materials			
Is there currently or to the best of your knowledge has there previously been on the site any deposit of (please mark the appropriate column opposite the question):		**Yes**	**No**
A..	Fill dirt, soil, gravel, sand or like materials from a contaminated site or from a source used for any of the activities listed under Schedule 2?		
B.	Discarded or waste granular materials such as sand blasting grit, asphalt paving or roofing material, spent foundry casting sands, mine ore, waste rock, or float?		
C.	Dredged sediments, or sediments and debris materials originating from locations adjacent to foreshore industrial activities, or municipal sanitary or stormwater discharges?		

VI. Waste Disposal			
Is there currently or to the best of your knowledge has there previously been on the site any landfilling, deposit, spillage or dumping of the following materials(please mark the appropriate column opposite the question):		**Yes**	**No**
A.	Materials such as household garbage, mixed municipal refuse, or demolition debris?		
B.	Waste or byproducts such as tank bottoms, residues, sludge, or flocculation precipitates from industrial processes or wastewater treatment?		
C.	Waste products from smelting or mining activities, such as smelter slag, mine tailings, or cull materials from coal processing?		

Schedule 1
Site Profile

(Version 4.0)

D.	Waste products from natural gas and oil well drilling activities, such as drilling fluids and muds?		
E.	Waste products from photographic developing or finishing laboratories; asphalt tar manufacturing; boilers, incinerators or other thermal facilities (e.g., ash); appliance, small equipment or engine repair or salvage; dry cleaning operations (e.g., solvents); or from the cleaning or repair of parts of boats, ships, barges, automobiles or trucks, including sandblasting grit or paint scrapings?		
VII.	**Tanks or Containers Used or Stored, Other Than Tanks Used for Residential Heating Fuel**		
Are there currently or to the best of your knowledge have there previously been on the site any (please mark the appropriate column opposite the question):		**Yes**	**No**
A.	Underground fuel or chemical storage tanks other than storage tanks for compressed gases?		
B.	Above ground fuel or chemical storage tanks other than storage tanks for compressed gases?		
VIII.	**Hazardous Wastes or Hazardous Substances**		
Are there currently or to the best of your knowledge have there previously been on the site any (please mark the appropriate column opposite the question):		**Yes**	**No**
A.	PCB-containing electrical transformers or capacitors either at grade, attached above ground to poles, located within buildings, or stored?		
B.	Waste asbestos or asbestos-containing materials such as pipe wrapping, blown-in insulation or panelling buried?		
C.	Paints, solvents, mineral spirits or waste pest control products or pest control product containers stored in volumes greater than 205 litres?		
IX.	**Legal or Regulatory Actions or Constraints**		
To the best of your knowledge are there any of the following pertaining to the site (please mark the appropriate column opposite the question):		**Yes**	**No**
A.	Government orders or other notifications pertaining to environmental conditions or quality of soil, water, groundwater or other environmental media?		
B.	Liens to recover costs, restrictive covenants on land use, or other charges or encumbrances, stemming from contaminants or wastes remaining onsite or from other environmental conditions?		
C.	Government notifications relating to past or recurring environmental violations at the site or any facility located on the site?		
X.	**Additional Comments and Explanations**		
(Note 1: Please list any past or present government orders, permits, approvals, certificates and notifications pertaining to the environmental condition, use or quality of soil, surface water, groundwater or biota at the site. Note 2: if completed by a consultant, receiver or trustee, please indicate the type and degree of access to information used to complete this site profile. Attach extra pages if necessary):			

Schedule 1
Site Profile

(Version 4.0)

XI. Signatures

The person completing the site profile states that the above information is true based on the person's current knowledge as of the date completed.

Signature of person completing site profile	Date completed: (YY-MM-DD)
	12-10-25

XII. Official Use

Local Authority

Reason for Submission *(Please check one or more of the following)*

☐ Soil Removal ☐ Subdivision Application ☐ Zoning Application

☐ Development Permit ☐ Variance Permit ☐ Demolition Permit

Date received:	Local Government contact:	Date submitted to Site Registrar:	Date forwarded to Director of Waste Management
	Name _____ Agency _____ Address Telephone Fax		

Director of Waste Management

Reason for Submission *(Please check one or more of the following)*

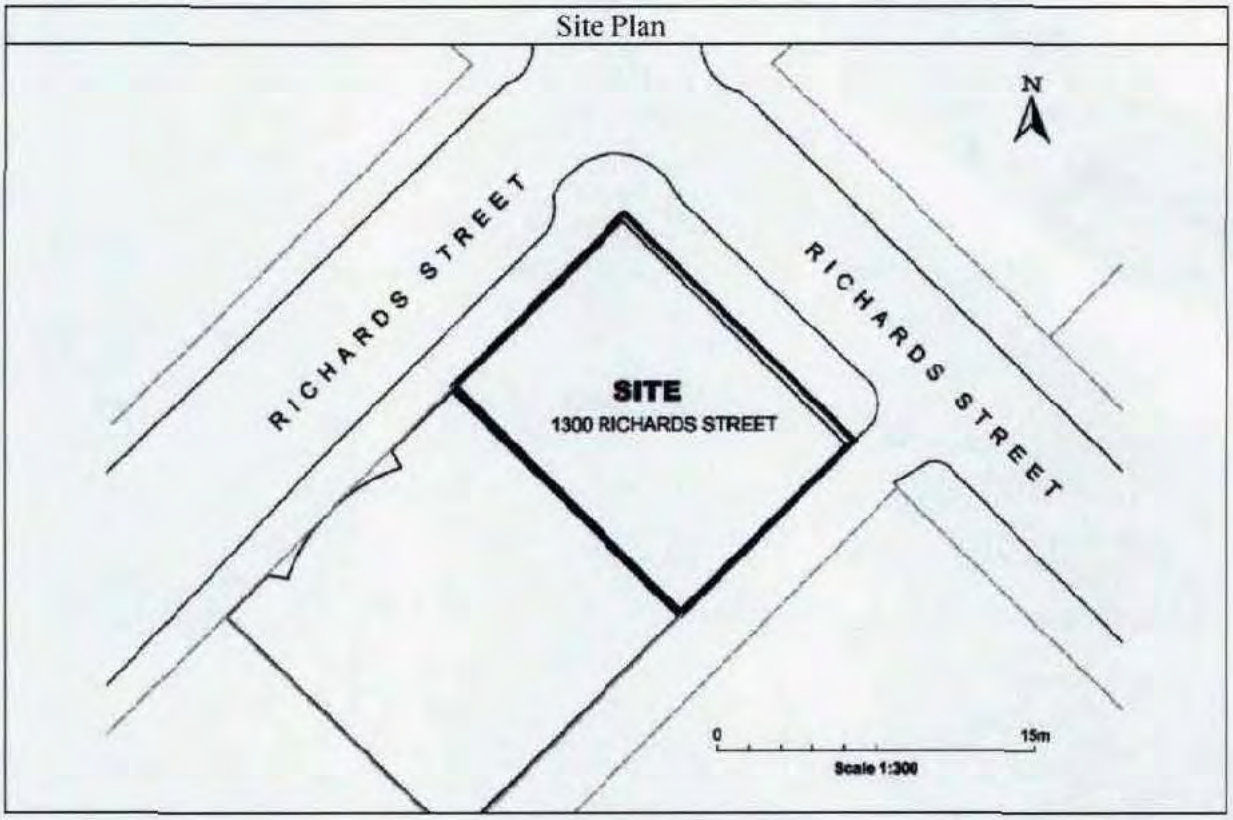
☐ Under Order ☐ Site Decommissioning ☐ Foreclosure

Date received:	Assessed by:	Investigation required?	Decision date:
	Name _____ Region _____ Telephone _____ Fax _____ If site profile entered, SITE ID # _____	☐ Yes ☐ No	

Site Registrar

Date received:	Entered into site registry by:	SITE ID#	Entry date:

Site Plan



Location Map