AIRBORNE CREOSOTE MONITORING
EASTERN HEALTH
BUILDING 532
PLEASANTVILLE, NL

Prepared for:

EASTERN HEALTH
INFRASTRUCTURE SUPPORT DEPARTMENT
C/O ST. CLARE'S MERCY HOSPITAL
154 LEMARCHANT ROAD
ST. JOHN'S NL
A1C 5B8

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Pinchin File: 02-03-00330

27 AUSTIN STREET ST. JOHN'S NL TEL: (709) 754-4490 FAX: (709) 754-1359
DARTMOUTH, NS • ST. JOHN, NB • LABRADOR CITY, NL • CORNER BROOK, NL

ISO 9001:2008 Registered Quality System (Dartmouth, NS)

EXECUTIVE SUMMARY

Pinchin LeBlanc Environmental Limited was retained by Eastern Health to conduct airborne creosote monitoring at Building 532 located at 80 Charter Avenue, Pleasantville in St. John's, Newfoundland Labrador. Pinchin performed the air sampling on January 24 2013.

The assessment was conducted as a result of air quality concerns reported by some of the occupants located in the Main Office space of the Recovery Centre.

Air monitoring for creosote was conducted by sampling for:

- Coal Tar Pitch Volatiles;
- Cresols;
- Phenols; and
- Polynuclear Aromatic Hydrocarbons, which included a suite of seventeen compounds.

One Station sample and two (2) personal samples were collected in the following locations of Building 532:

- Methadone Clinic, Personal Samples;
- Rowan Centre, Personal Samples; and
- Cancer Care Section, Station Sample.

Samples collected in the Methadone Clinic and in the Rowan Centre were collected as personal samples over an 8-hour period during the dayshift. The sample collected in the Cancer Care Section was collected as a stationary sample collected over an eight hour period.

Personal sample results for Coal Tar Pitch Volatiles, Creosols, Phenol, and Polynuclear Aromatic Hydrocarbons (17 compound scan) collected on personnel in the Methadone Clinic and the Rowan Centre located in Building 532 were below the corresponding exposure limits for each analyte on the sampling day.

The station sample results for Polynuclear Aromatic Hydrocarbons collected in the Cancer Care Section (Location 12) were below the corresponding exposure limits for each analyte on the sampling day. A measurable level of naphthalene was detected (sample #: 330-23) at a concentration of 0.0052 mg/m^3 (0.0010 ppm). The level was detected on the vapour fraction of the sample. This level is well below the ACGIH TLV-TWA of 52 mg/m^3 (10 ppm) for naphthalene.

The exposure limits for the substances sampled for are:

- Coal Tar Pitch Volatiles: 0.2 mg/m^3;
- Cresols: 20 mg/m^3;
- Phenols: 5 ppm;

- Naphthalene: 52 mg/m^3 (10 ppm);
- Benzo[a]pyrene: 0.2 mg/m^3; and
- Chrysene: 0.2 mg/m^3.

Creosote has a very distinct odour and the human nose is able to detect it at very low concentrations. Creosote is composed of hundreds of compounds and the odour is primarily due to the presence of one substance among the many that make up creosote – naphthalene. The odour threshold for naphthalene has been reported at less than 0.0003 ppm in one report by the Creosote Council and in the ACGIH Documentation for Naphthalene the odour threshold is reported at 0.084 ppm. Due to the low odour threshold for naphthalene humans will detect the odour way before it exceeds acceptable exposure limits.

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LIST OF ACRONYMS

AAEV- Adjusted Average Exposure Value

ACGIH - American Conference of Governmental Industrial Hygienists

CEPA - Canadian Environmental Protection Act

CTPV – Coal Tar Pitch Volatile

IRSST- Institut de Recherché Robert-Sauve en Santé et en Securite du Travail

Mg/m^3 - Milligrams of a substance per cubic metre of air

NIOSH - National Institute of Occupational Safety and Health

OSHA - Occupational Safety and Health Administration

PAH - Polynuclear Aromatic Hydrocarbons

PEL – Permissible Exposure Level

PEV – Permissible Exposure Values

PPM – Parts of vapour or gas per million parts of air by volume

TLV – Threshold Limit Value

TLV-TWA - Threshold Limit Value - Time-Weighted Average

TLV-STEL - Threshold Limit Value – Short -Term Exposure Limit

TLV-C - Threshold Limit Value – Ceiling

1.0 INTRODUCTION AND SCOPE

1.1 Statement of Understanding

Pinchin LeBlanc Environmental Limited (Pinchin) was retained by Eastern Health to conduct airborne creosote monitoring at Building 532 located at 80 Charter Avenue, Pleasantville in St. John's, Newfoundland Labrador. Pinchin performed the air sampling on January 24, 2013. Personal exposure air sampling in two (2) locations and stationary air sampling in one (1) location was conducted during this sampling event.

The assessment was conducted as a result of air quality concerns reported by some of the occupants located in the Main Office space of the Recovery Centre. It was reported by Eastern Health that a number of employees who work in the Recovery Centre have experienced rashes and burning and itching of the skin.

Air monitoring for creosote was conducted by sampling for:

- Coal Tar Pitch Volatiles (CTPV);
- Cresols;
- Phenols; and
- Polynuclear Aromatic Hydrocarbons (PAHs), which included a suite of seventeen (17) compounds.

Air monitoring for creosote was previously conducted at Building 532 in December 2012. The results of the sampling were reported under a separate cover: entitled "Airborne Creosote Monitoring, Eastern Health, Building 532, Pleasantville, NL" project #: 02-03-00330 dated January 24, 2013. Two (2) previous rounds of sampling for CTPV were also conducted at Building 532. The results of the sampling were reported under separate covers: entitled "Creosote and Indoor Air Quality Monitoring, Eastern Health Community Services Building 532, St. John's, NL" project #: 02-03-00033 dated March 12, 2009 and "Creosote Air Quality Monitoring, Eastern Health Community Services Building 532, St. John's, NL" project #: 02-03-00062 dated December 18, 2009. Viable airborne mould and total volatile organic compounds sampling was also conducted on the first floor of the Recovery Centre in November 2012. The results of the mould and total volatile organic compounds sampling were reported under separate cover: entitled "Airborne Viable Mould & Total Volatile Organic Compound Sampling, Building 532, Pleasantville, St. John's, NL" project #: 02-03-00327 dated December 6, 2012.

1.2 Scope of Work

This assessment involved the following activities:

- Collection and analysis of the following station samples:

  - One (1) polynuclear aromatic hydrocarbons (PAH) sample (17 compound scan).
- Collection and analysis of the following personal exposure samples, including quality assurance samples:
  - Three (3) coal tar pitch volatiles (CTPV) air samples;
  - Three (3) cresols air samples;
  - Three (3) phenol air samples; and
  - Three (3) polynuclear aromatic hydrocarbons (PAH) samples (17 compound scan).
- Preparation of this report.

The objectives of the monitoring program were as follows:

- To determine airborne levels for PAHs at a specified stationary location;
- To determine personal exposure levels for CTPV, cresols, phenol, and PAHs in the Rowan Centre and the Methadone Clinic;
- To determine compliance with regulated airborne substance exposure limits; and
- To determine if the results of the monitoring require that action be taken in order to safeguard the health and well-being of employees.

This work was performed under, and is subject to the terms, conditions and limitations as outlined in our Terms of Engagement document Eastern Health EOI #2010-3018, as executed April 8, 2011.

1.3 Assessment Methodology

This air sampling event consisted of a combination of both station and personal sampling. Personal samples are collected in the breathing zone of the worker and give the best estimate of worker exposure. Station samples are collected in a fixed location and give the best estimate of a general exposure in an area.

Personal exposure sampling was conducted in the Methadone Clinic and the Rowan Centre located in Building 532. Three (3) Eastern Health employees in the Methadone Clinic wore personal air sampling equipment to determine CTPV, cresols, phenol, and PAH exposure levels in the clinic. One (1) Eastern Health employee wore personal air sampling equipment for all parameters being tested to determine exposure levels for occupants in the Rowan Centre.

One (1) station air sample for airborne PAHs was collected in the former waiting room of the Cancer Care Section located in Building 532. Sampling in this area was completed during the December 2012 sampling event, however the sample was voided when the consultant returned to retrieve the sample at the end of the sampling period, and noted that the sample media (i.e. cassette and sampling tube) was dislodged from the air sample pump hose and had fallen to the floor. The

air sample collected during this sampling round was to determine airborne levels of PAHs in this specific location.

Floor plans detailing the locations of the samples are located in Appendix I. The sampling protocol was developed with input from Dawn Higgins an Industrial Hygienist with the Government of Newfoundland and Labrador Occupational Health and Safety Division.

Personal sampling was conducted in the following locations on the specified personnel during their normal working period:

- Methadone Clinic
  - Security Guard – cresols and phenol sample;
  - Program Manager – PAH sample; and
  - Secretary – CTPV sample.
- Rowan Centre
  - Maintenance / Infrastructure Support Worker – CTPV, cresols, phenol, and PAH samples.

Samples in the Methadone Clinic and Rowan Centre were collected over an approximately seven and a half (7.5) hour period during the day shift to represent a typical work shift of the employees in these locations.

The results and conclusions of this monitoring relate to the conditions present on the testing days. As conditions may change the reported findings may not represent conditions at other times.

1.4 Test Methods

1.4.1 Coal Tar Pitch Volatiles (CTPV)

The consultant used Gilian BDXII low flow air sampling pumps and 37 mm glass fibre filter cassettes to collect the CTPV air samples. The sample collection and analysis followed the OSHA (Occupational Safety and Health Administration) 58 analytical method. The sampling pumps were calibrated prior to use to a flow rate of 2.0 litres per minute. The cassettes were wrapped in foil as to shield the filters from direct sunlight during sampling as per the analytical method. After the sampling was completed the filters from the cassettes were transferred to clear glass vials with Teflon lined caps. The glass vials were wrapped in foil to shield the filter from direct sunlight during the transport to the laboratory as per the analytical method. The flow rates of all pumps were verified at the end of each sampling period.

1.4.2 Cresols and Phenol

The consultant used low flow SKC 44XR Universal and Gilian GilAir 5 air sampling pumps and a sorbent tube (XAD-7) to collect the Cresols and Phenol air samples. The sampling pumps were calibrated prior to use to a flow rate of 0.05 liters per minute. After the sampling was completed the sorbent tubes were capped and shipped to the laboratory. The sample collection and analysis followed the National Institute for Occupational Safety and Health (NIOSH) 2546 analytical method. The flow rates of all pumps were verified at the end of each sampling period. Cresols and phenol were collected on the same sampling tube.

1.4.3 Polynuclear Aromatic Hydrocarbons (PAHs) Scan

The consultant used Gilian BDXII and Gilian GilAir 5 low flow air sampling pumps and 37 mm filter cassettes (polytetrafluoroethylene filter, 2 µm) and sorbent tubes (XAD-2) to collect the PAH air samples. The sampling pumps were calibrated prior to use to a flow rate of 2.0 litres per minute. The sample collection and analysis followed the NIOSH 5506 analytical method. The cassettes and sorbent tubes were wrapped in foil as to shield the filters from direct sunlight during sampling as per the analytical method. After the sampling was completed the filters from the cassettes were transferred to clear glass vials with Teflon lined caps, and the sorbent tubes were capped. The samples were protected from light with foil and kept cool during shipment to the laboratory as per the analytical method. The flow rates of all pumps were verified at the end of each sampling period. The PAHs Scan involved an analysis of 17 compounds:

- Acenaphthene;
- Acenaphthylene;
- Anthracene;
- Benzo(a)anthracene;
- Benzo(a)pyrene;
- Benzo(b)fluoranthene;
- Benzo(e)pyrene;
- Benzo(ghi)perylene;
- Benzo(k)fluoranthene;
- Chrysene;
- Dibenzo(a,h)anthracene;
- Fluoranthene;
- Fluorine;
- Indeno(1,2,3cd)pyrene;

- Naphthalene;
- Phenanthrene; and,
- Pyrene.

All sampling was performed in compliance with current professional practice.

1.5 Sample Analysis

The air samples were submitted for analysis to Bureau Veritas North America Inc., a Health, Safety, and Environmental laboratory located in Michigan, United States.

2.0 ASSESSMENT AND FINDINGS

2.1 Facility Description

Building 532 consists of an older section built in 1941 and a newer section built in 2005/2006. The Recovery Centre, Methadone Clinic, Cancer Care Section, and the Rowan Centre are all located in Building 532. The Recovery Centre and Cancer Care section are located in the older portion of the building and the Rowan Centre and Methadone Clinic are located in separate newer areas of the building.

The building itself is a two storey structure built on a poured concrete foundation. The exterior envelope walls are clad with wood siding. The roof is peaked asphalt shingled. Interior building finishes include drywall walls, a combination of tiled, vinyl sheet, and carpeted floors. The ceilings consist of either fixed drywall ceilings or suspended ceiling systems consisting of 2' x 4' lay-in acoustic tiles.

It was reported by Eastern Health that the crawlspace located in the older section of the building where the Recovery Centre and the Cancer Care Section are located has an application of creosote. The creosote is located on the majority of the structural wooden floor joists and the underside of the wooden floor boards comprising the ceiling of this crawlspace. The Methadone Clinic and the Rowan Centre are located in the newer section of the building that have a separate building foundation that for the most part is slab on grade with only a small section that has a crawlspace. It was reported that there is no creosote application to the wood in the crawlspace of the newer section of the building. The building is heated with a furnace and a mechanical ventilation air exchange system services the building. There is a ventilation system for the older part of the building and a separate ventilation system for the newer part of the building.

2.2 Results of Inspections

2.2.1 Observations

During the assessment, the following was reported to and/or noted by the consultant:

Methadone Clinic

- The security guard's office (Location 16) is located adjacent to the main entrance to the Methadone Clinic. The security guard responsibilities on the sampling day included opening the main door for clients entering the clinic and completing routine inspections throughout the clinic. On numerous occasions (approximately 60-70 times as indicated by the security guard) the main door was open to allow clients into the clinic; however this is representative of the guard's typically daily activities. The guard remained in the clinic during the entire sample period.
- The secretary's primary work station is located in the clinic's reception area (Location 15). On the day of sampling, the secretary occupied the primary work station with several visits to other areas (e.g. offices, kitchen (Location 09), washroom) within the clinic over the course of the day. The secretary remained in the clinic during the entire sample period.
- The program manager presently occupies an office (Location 14) within the Methadone Clinic. On the day of sampling, the program manager spent the majority of the day in the office with several short visits to other areas within the clinic. The program manager left the building for lunch from 12:30 pm – 1:45 pm, during which the sampling equipment and media was placed in the office and continued to run. Upon return to the clinic, the sampling equipment and media was returned to the program manager. The consultant confirmed that the equipment and media was positioned properly following reinstatement.
- While onsite the consultant noted that the door leading from the Recovery Centre Main Office to the Methadone Clinic remained sealed (as previously reported) using clear polyethylene sheeting and duct tape.
- No odour was detected in the Methadone Clinic on the day of sampling.

Rowan Centre

- On the day of sampling, the Maintenance / Infrastructure Support worker remained in the Rowan Centre (Location 13) for the entire sampling period, with the exception of a 10 minute period (4:15 pm – 4:25 pm) when the worker accompanied the consultant to the Cancer Care Section to retrieve the station sample. While in the Rowan Centre the worker spent the day in various locations throughout the centre, which would represent the typical routine of employees in the centre (as indicated to the consultant).
- The consultant noted that the door leading from the hallway (adjacent to washrooms) to the Rowan Centre also remained sealed (as previously reported) using clear polyethylene sheeting and duct tape.

- An "oily" odour was detected in the hallway outside of Location 08 on the day of the sampling.

2.3 Results of Air Monitoring

2.3.1 Background

Creosote is the name used for a variety of products, including, wood creosote, coal tar creosote, coal tar, coal tar pitch, and coal tar pitch volatiles. These products are mixtures of many chemicals created by high-temperature treatment of beech and other woods, coal, or from the resin of the creosote bush[1]. Wood creosote is a colourless to yellowish greasy liquid with a smoky odour and burned taste. Coal tar creosote is a thick, oily liquid that is typically amber to black in colour. Coal tar and coal tar pitch are usually thick, black, or dark-brown liquids or semisolids with a smoky odour. Coal tar creosote is a widely used wood preservative[1].

Creosote has a very distinct odour and the human nose is able to detect it at very low concentrations. It is composed of hundreds of compounds, the largest group (up to 90%) being the PAHs. Although compromised of various PAHs, creosote is composed primarily of the following PAHs, naphthalene, phenanthrene, acenaphthene, fluorene, anthracene, and pyridine. The odour is primarily due to the presence of one substance among the many that make up creosote – naphthalene. One report by the Creosote Council has the odour threshold for naphthalene at less than 0.0003 ppm[2]. The American Conference of Governmental Industrial Hygienists (ACGIH) Documentation for Naphthalene has reported the odour threshold at 0.084 ppm[3]. An odour threshold is defined as the lowest concentration of a substance in air or water that can be detected by the human sense of smell.

Creosote is used in Canada as a wood preservative for railway ties, bridge timbers, pilings, and large sized lumber.[4] In March 2000, the Canadian Environmental Protection Act (CEPA) added creosote treated wood to the toxic substances list due to its main ingredient, coal tar.[5] The volatile portion of coal tar creosote can evaporate into the air causing a variety of side effects to

[1] Agency for Toxic Substances & Disease Registry (2011). Toxic Substances Portal - Creosote [Online]. Available: http://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=65&tid=18 [2013, January 14].
[2] Creosote Council. Creosote Odor, The Nose, and Human Health [Online]. Available: http://creosotecouncil.org/pdf/CreosoteOdor.pdf [2012, December 4].
[3] American Conference of Governmental Industrial Hygienists Documentation for Naphthalene (2001).
[4] Government of Canada, Environment Canada, and Health Canada (1993). Canadian Environmental Protection Act Priority Substances List Assessment Report Creosote-impregnated Waste Materials [Online]. Available: http://hc-sc.gc.ca/ewh-semt/pubs/contaminants/psl1-lsp1/creosote/index-eng.php [2011, April 11].
[5] EcoSuperior Environmental Programs (2008). Railway Ties – A Danger To Our Health and Environment [Online], Available: http://www.ecosuperior.org/article/railway-ties--a-danger-to-our-health-and-environment-202.asp [2011, April 11].

humans and environmental health, depending on the airborne concentration and length of exposure.

Cresols are a widely occurring natural and manufactured group of chemicals. In their pure form, they are colourless solids and may be in a liquid state if part of a mixture. Cresols smell like medicine. There are three forms of cresols that differ slightly in their chemical structure. The forms are *ortho*-cresol (*o*-cresol), *meta*-cresol (*m*-cresol), and *para*-cresol (*p*-cresol). These forms occur separately or as a mixture. Cresols can be found in many foods and in wood and tobacco smoke, crude oil, coal tar, and in chemical mixtures used as wood preservatives[6].

Phenols are a group of aromatic chemicals. Phenol is both a manufactured chemicals and a natural substance. It is a colorless-to-white solid when pure. When commercially produced it is a liquid. Phenol has a distinct odour that is both sweet and tarry. You can taste and smell phenol at levels lower than those that are associated with harmful effects. Phenol is used mainly in the production of phenolic resins and in the manufacture of nylon and other synthetic fibers[7]. The major component of wood creosote is phenol[8].

Air monitoring for creosote was conducted by sampling for CTPV, Cresols, Phenols, and PAHs, which included a suite of seventeen (17) compounds.

2.3.2 Exposure Limits

The results of air sampling were evaluated against the applicable occupational exposure limits outlined in the Occupational Health and Safety Regulations under the Occupational Health and Safety Act (O.C. 2012-005), Consolidated Newfoundland and Labrador Regulation 5/12. The Regulation has adopted for use, the ACGIH. In the act, under the heading Hazardous Substances, in section 42 (7) sub section (c) it states that

> *"An employer shall ensure that (c) exposure of a worker to hazardous substances is as minimal as is reasonably practicable, and where a threshold limit value has been established by the ACGIH, exposure shall not exceed the threshold limit value".*

The ACGIH is an organization devoted to the administrative and technical aspects of occupational and environmental health. The organization has contributed substantially to the development and improvement of worker health protection. One way it has achieved this is by

[6] Agency for Toxic Substances & Disease Registry (2011). Cresols [Online]. Available: http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=196 [2013, January 7].
[7] Agency for Toxic Substances & Disease Registry (2011). Phenol [Online]. Available: http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=27 [2013, January 14].
[8] Agency for Toxic Substances & Disease Registry (2002). Toxicological Profile for Wood Creosote, Coal Tar Creosote, Coal Tar, Coal Tar Pitch, and Coal Tar Pitch Volatiles [Online]. Available: http://www.atsdr.cdc.gov/ToxProfiles/tp85.pdf [2013, January 14].

the establishment of industry accepted maximum allowable levels for exposure to airborne chemicals. These levels are published yearly in a booklet entitled *TLVs® and BEIs® Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices*.

Threshold Limit Values (TLVs) have been established by the ACGIH as guidelines to assist in the control of exposure to various chemicals and physical hazards found in industry. There are three (3) categories of TLVs defined by the ACGIH, which include:

- TLV-TWA (Threshold Limit Value - Time-Weighted Average);
- TLV-STEL (Threshold Limit Value - Short-Term Exposure Limit); and
- TLV-C (Threshold Limit Value - Ceiling).

The ACGIH defines the Threshold Limit Value – Time-Weighted Average (TLV-TWA) as the "TWA concentration for a conventional 8-hour workday and a 40-hour workweek, to which it is believed that nearly all workers may be repeatedly exposed, day after day, for a working lifetime without adverse effect"[9]. The TLV-TWA assumes that after the 40-hour week there is a time of non-exposure for the body to recover from the exposure that it had.

The TLV-TWA value for CTPV is **0.2 mg/m³.** The TLV-TWA for cresols (all isomers) **is 20 mg/m^3** based on the inhalable and vapour fraction. For this monitoring program only the vapour portion of cresols were measured as there are only analytical methods for the vapour fraction. Phenol has a TLV-TWA value of **5 ppm**.

Of the seventeen (17) PAHs compounds analyzed for only naphthalene has a TLV. The TLV-TWA value for naphthalene is **52 mg/m^3 (10 ppm)** and the TLV-STEL is **79 mg/m^3 (15 ppm)**. Of the other PAHs sampled for, two (2) have an Occupational Safety and Health Administration (OSHA) permissible exposure limit (PEL), benzo[a]pyrene and chrysene. The PEL for both compounds is **0.2 mg/m^3** as coal tar pitch volatile.

Four (4) of the PAHs sampled for that do not have an exposure limit have been classified into groups by the ACGIH as either A2 or A3 carcinogens. An A2 carcinogen is considered a suspected human carcinogen and an A3 carcinogen is considered a confirmed animal carcinogen with unknown relevance to humans. The A2 classification is primarily used when there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals with relevance to humans[9].

The four (4) PAHs include Benzo(a)anthracene classified as an A2 carcinogen, Benzo[a]pyrene classified as an A2 carcinogen, Benzo[b]fluoranthene classified as an A2 carcinogen, and

[9] American Conference of Governmental Industrial Hygienist: 2012 TLV® and BEIs® Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices. ACGIH, Cincinnati, OH (2012).

Chrysene classified as an A3 carcinogen. According to the ACGIH exposure to carcinogens must be kept to a minimum and for A2 and A3 carcinogens without a TLV®, worker exposure by all routes should be carefully controlled[9].

It was reported to the consultant that employees in the Cancer Care Section, Methadone Clinic, and Rowan Centre work an 8-hour shift per day (5 day week, Monday to Friday).

2.3.3 Summary of Data

2.3.3.1 Coal Tar Pitch Volatiles (CTPV)

Two (2) personal samples for airborne CTPVs (personnel in Rowan Centre and Methadone Clinic) were collected in Building 532. All samples collected recovered concentrations less than the analytical detection limit. The concentrations of CTPVs measured were <0.045 mg/m^3 for the personal sample collected in the Methadone Clinic and <0.043 mg/m^3 for the personal sample collected in the Rowan Centre. Sample results were below the ACGIH TLV-TWA of 0.2 mg/m^3.

For the sample locations and individual results please refer to the floor plans in Appendix I, the table of results located in Appendix II-A, and the analytical report located in Appendix III-A.

2.3.3.2 Cresols and Phenol

Two (2) personal samples for airborne cresols and phenols (personnel in Rowan Centre and Methadone Clinic) were collected in Building 532. All samples collected recovered concentrations less than the analytical detection limit. The concentrations of Cresols (all isomers) measured were <0.097 mg/m^3 for the personal sample collected in the Methadone Clinic and <0.084 mg/m^3 for the personal sample collected in the Rowan Centre. The concentrations of Phenols measured were <0.063 ppm for the sample collected in the Methadone Clinic and <0.055 ppm for the sample collected in the Rowan Centre. Sample results for all of the samples collected were below the ACGIH TLV-TWA of 20 mg/m^3 for cresols and below the ACGIH TLV-TWA of 5 ppm for phenol.

For the sample locations and individual results please refer to the floor plans in Appendix I, the table of results located in Appendix II-B, and the analytical report located in Appendix III-B.

2.3.3.3 Polynuclear Aromatic Hydrocarbon (PAH) Scan

Two (2) personal samples for airborne PAHs (personnel in Rowan Centre and Methadone Clinic) were collected in Building 532. One (1) station sample was collected in the Cancer Care Section former Waiting Room (Location 12) in Building 532. Analysis conducted on these samples included a suite of seventeen (17) compounds. All personal samples collected recovered concentrations less than the analytical detection limit. The concentrations of PAHs measured

were <0.0033 mg/m^3 for all parameters analysed for the personal sample collected in the Methadone Clinic. The concentrations of PAHs measured were <0.0032 mg/m^3 for all parameters analysed for the personal sample collected in the Rowan Centre. For the stationary sample collected in the Cancer Care Section, Former Waiting Room (Location 12) all of the PAHs with the exception of one (1) parameter recovered concentrations less than the analytical detection limit (i.e. <0.0031 mg/m^3). A measurable level of naphthalene was detected (sample #: 330-23), at a concentration of 0.0052 mg/m^3 (0.0010 ppm). The level was detected on the vapour fraction of the sample. This level is well below the ACGIH-TLV-TWA of 52 mg/m^3 (10 ppm) for naphthalene.

Sample results for all of the PAHs samples collected were below the applicable exposure limits (ACGIH TLV-TWA and OSHA PEL) for all samples collected. For the sample locations and individual results please refer to the floor plans in Appendix I, the table of results located in Appendix II-C, and the analytical report located in Appendix III-C. In the analytical report, the PAHs for each sample are detailed as three (3) separate results. The total PAH result is reported on the "A" fraction of each sample. The filter and tube results are reported separately on the "B" and "C" fractions of each sample, respectively.

3.0 CONCLUSIONS

Personal sample results for CTPVs, Creosols, Phenol, and PAHs (17 compound scan) collected on personnel in the Methadone Clinic and the Rowan Centre located in Building 532 were below the corresponding exposure limits for each analyte on the sampling day.

The station sample results for Polynuclear Aromatic Hydrocarbons collected in the Cancer Care Section (Location 12) were below the corresponding exposure limits for each analyte on the sampling day. A measurable level of naphthalene was detected (sample #: 330-23) at a concentration of 0.0052 mg/m^3 (0.0010 ppm). The level was detected on the vapour fraction of the sample. This level is well below the ACGIH TLV-TWA of 52 mg/m^3 (10 ppm) for naphthalene.

Creosote has a very distinct odour and the human nose is able to detect it at very low concentrations. Creosote is composed of hundreds of compounds and the odour is primarily due to the presence of one substance among the many that make up creosote – naphthalene. The odour threshold for naphthalene has been reported at less than 0.0003 ppm in one report by the Creosote Council and in the ACGIH Documentation for Naphthalene the odour threshold is reported at 0.084 ppm. Due to the low odour threshold for naphthalene humans will detect the odour well before it exceeds acceptable exposure limits.

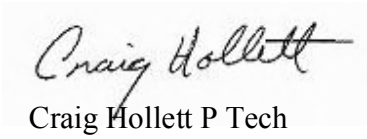
4.0 CLOSURE

Should you have any questions or require additional information, please contact either of the undersigned at our office (709-754-4490).

Yours truly,

PINCHIN LEBLANC ENVIRONMENTAL LIMITED

Prepared by,



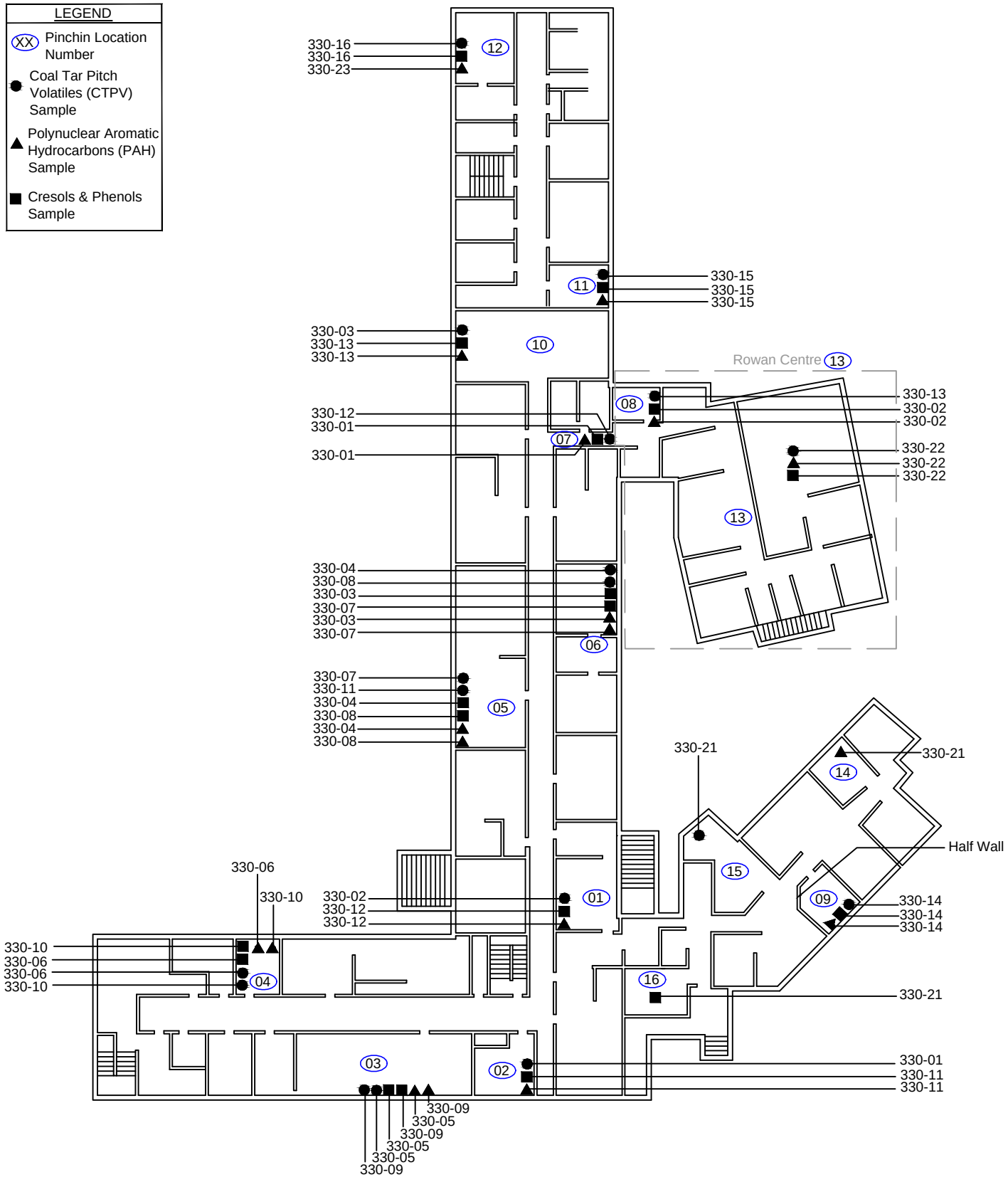
Craig Hollett P Tech
Industrial Hygiene Specialist
chollett@pinchinleblanc.com

Reviewed by,

Beth Higgins, M.Sc.(A), CIH, ROH
Occupational Hygienist
bhiggins@pinchinleblanc.com

APPENDIX I

FLOOR PLAN – SAMPLING LOCATIONS



PINCHIN LEBLANC ENVIRONMENTAL

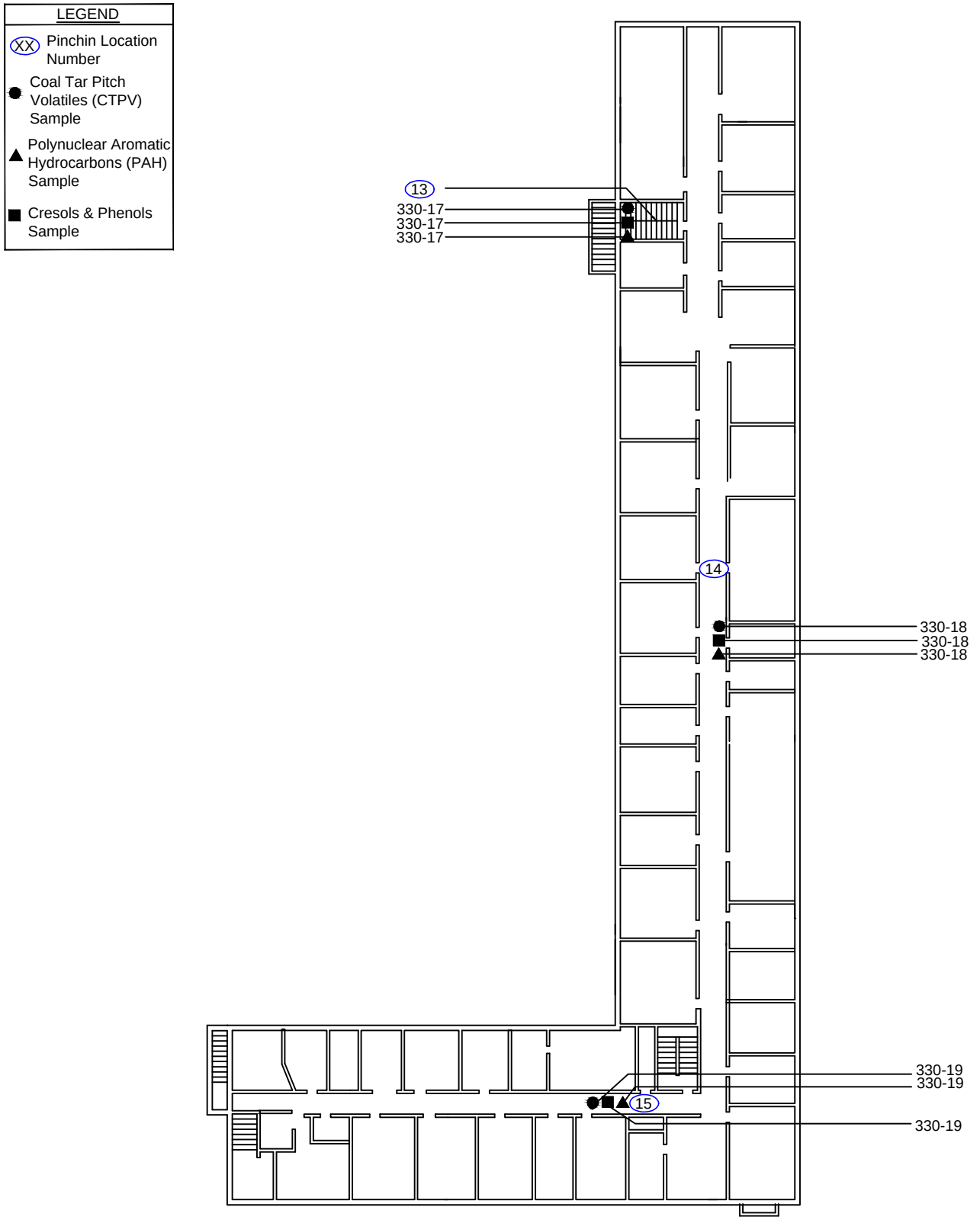
EASTERN HEALTH

CREOSOTE AIR SAMPLING

BUILDING 532, 80 CHARTER AVENUE, PLEASANTVILLE, ST. JOHN'S, NEWFOUNDLAND AND LABRADOR

LEVEL 1

DATE:	PROJECT #	SCALE:	DRAWN BY:	CHECKED BY:	FIGURE NO.
JANUARY 2013	02 - 03 - 00330	N.T.S.	A. ANISCIKLI	L. RICE	1



PINCHIN LEBLANC ENVIRONMENTAL

EASTERN HEALTH

CREOSOTE AIR SAMPLING

BUILDING 532, 80 CHARTER AVENUE, PLEASANTVILLE, ST. JOHN'S, NEWFOUNDLAND AND LABRADOR

LEVEL 2

DATE:	PROJECT #	SCALE:	DRAWN BY:	CHECKED BY:	FIGURE NO.
JANUARY 2013	02 - 03 - 00330	N.T.S.	A. ANISCIKLI	L. RICE	2

APPENDIX II-A

TABLE OF RESULTS FOR COAL TAR PITCH VOLATILES

COAL TAR PITCH VOLATILE RESULTS (CTPV)
PERSONAL SAMPLING
BUILDING 532, PLEASANTVILLE, NL

SAMPLE REFERENCE	SAMPLING DATE / TIME	PERSONNEL / LOCATION	RESULTS (mg/m^3)	ACGIH TLV-TWA (mg/m^3)
330-21	Jan. 24, 2013 (09:00 – 16:26)	Secretary (Location 15) Methadone Clinic	<0.045	0.2
330-22	Jan. 24, 2013 (09:05 – 16:49)	Maintenance / Infrastructure Support Worker Rowan Center (Location 13)	<0.043	0.2

Notes:

- Sample locations are depicted in the building floor plans provided in Appendix I.
- mg/m^3 = milligrams of contaminant per cubic meter of air.
- ACGIH TLV-TWA Value = American Conference of Governmental Industrial Hygienist 8-hour threshold limit value.

Coal Tar Pitch Volatile Compounds air samples were collected using calibrated Gillian BDXII abatement air sampler pumps with 37 mm glass fiber filter cassettes. Sampling pumps were calibrated using the TSI Model 4146 Primary flow calibrator. Samples were analyzed by OSHA 58 method. Bureau Veritas of Novi, Michigan performed the analysis.

APPENDIX II-B

TABLE OF RESULTS FOR CRESOLS AND PHENOL

CRESOLS AND PHENOL RESULTS
PERSONAL SAMPLING
BUILDING 532, PLEASANTVILLE, NL

PERSONNEL / SAMPLING LOCATION	COMPOUNDS / RESULTS			
	o-cresol	**m-cresol**	**p-cresol**	**Phenol**
January 24, 2013				
Sample 330-21 Security Guard (Location 16) Methadone Clinic (08:51 – 15:44)	<0.097	<0.097	<0.097	<0.063
Sample 330-22 Maintenance / Infrastructure Support Worker Rowan Centre (Location 13) (09:05 – 16:49)	<0.084	<0.084	<0.084	<0.055
ACGIH TLV-TWA	**20 mg/m^3 (IFV)**	**20 mg/m^3 (IFV)**	**20 mg/m^3 (IFV)**	**5 ppm**

Notes:

- Sample locations are depicted in the building floor plans provided in Appendix I.
- mg/m^3 = milligrams of contaminant per cubic meter of air.
- ppm = parts per million of air sampled.
- ACGIH TLV-TWA Value = American Conference of Governmental Industrial Hygienist 8-hour threshold limit value.
- IFV = Inhalable fraction and vapour.

Cresols & Phenol air samples were collected using calibrated GilAir-5and SKC abatement air sampler pumps with XAD-7 solid sorbent tubes. Sampling pumps were calibrated using the TSI Model 4146 Primary flow calibrator. Samples were analyzed by NIOSH 2546 method for cresols (all isomers) and phenol. Bureau Veritas of Novi, Michigan performed the analysis.

APPENDIX II-C

TABLE OF RESULTS FOR POLYNUCLEAR AROMATIC HYDROCARBONS

POLYNUCLEAR AROMATIC HYDROCARBONS (PAH) RESULTS
PERSONAL SAMPLING
BUILDING 532, PLEASANTVILLE, NL

SAMPLING LOCATIONS	COMPOUNDS / RESULTS																
	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(e)pyrene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
January 24, 2013																	
Sample 330-21 Program Manager (Location 14) Methadone Clinic (08:57 – 16:26)	< 0.0033	< 0.0033	< 0.0033	< 0.0033	< 0.0033	< 0.0033	< 0.0033	< 0.0033	< 0.0033	< 0.0033	< 0.0033	< 0.0033	< 0.0033	< 0.0033	< 0.0033	< 0.0033	< 0.0033
Sample 330-22 Maintenance / Infrastructure Support Worker - Rowan Centre (Location 13) (09:05 – 16:49)	< 0.0032	< 0.0032	< 0.0032	< 0.0032	< 0.0032	< 0.0032	< 0.0032	< 0.0032	< 0.0032	< 0.0032	< 0.0032	< 0.0032	< 0.0032	< 0.0032	< 0.0032	< 0.0032	< 0.0032
EXPOSURE LIMIT	**NE**	**NE**	**NE**	**NE**	**OSHA 0.2 mg/m^3**	**NE**	**NE**	**NE**	**NE**	**OSHA 0.2 mg/m^3**	**NE**	**NE**	**NE**	**NE**	**ACGIH 52 mg/m^3**	**NE**	**NE**

Notes:

- Sample locations are depicted in the building floor plans provided in Appendix I.
- mg/m^3 = milligrams of contaminant per cubic meter of air.
- ACGIH TLV-TWA Value = American Conference of Governmental Industrial Hygienist 8-hour threshold limit value.
- OSHA PEL Value = Occupational Safety & Health Administration Permissible Exposure Limit, as Coal Tar Pitch Volatile.
- NE = exposure limit not established.
- Results are from the total PAH result (includes both the filter and tube results), see analytical results for separate filter and tube results.

Polynuclear aromatic hydrocarbons (PAHs) air samples were collected using calibrated BDX II and GilAir-5 abatement air sampler pumps with PTFE filters and XAD-2 solid sorbent tubes. Sampling pumps were calibrated using the TSI Model 4146 Primary flow calibrator. Samples were analyzed by NIOSH 5506 method for PAHs. Bureau Veritas of Novi, Michigan performed the analysis.

POLYNUCLEAR AROMATIC HYDROCARBONS (PAH) RESULTS
8 HOUR STATION SAMPLING
BUILDING 532, PLEASANTVILLE, NL

SAMPLING LOCATIONS	COMPOUNDS / RESULTS																
	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(e)pyrene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
January 24, 2013																	
Sample 330-23 Location 12: Former Waiting Room Cancer Care Section Floor 1 (08:22 – 16:22)	< 0.0031	< 0.0031	< 0.0031	< 0.0031	< 0.0031	< 0.0031	< 0.0031	< 0.0031	< 0.0031	< 0.0031	< 0.0031	< 0.0031	< 0.0031	< 0.0031	0.0052	< 0.0031	< 0.0031
EXPOSURE LIMIT	**NE**	**NE**	**NE**	**NE**	**OSHA 0.2 mg/m^3**	**NE**	**NE**	**NE**	**NE**	**OSHA 0.2 mg/m^3**	**NE**	**NE**	**NE**	**NE**	**ACGIH 52 mg/m^3**	**NE**	**NE**

Notes:

- Sample location is depicted in the building floor plans provided in Appendix I.
- mg/m^3 = milligrams of contaminant per cubic meter of air.
- ACGIH TLV-TWA Value = American Conference of Governmental Industrial Hygienist 8-hour threshold limit value.
- OSHA PEL Value = Occupational Safety & Health Administration Permissible Exposure Limit, as Coal Tar Pitch Volatile.
- NE = exposure limit not established.
- Results are from the total PAH result (includes both the filter and tube results), see analytical results for separate filter and tube results.

Polynuclear aromatic hydrocarbons (PAHs) air sample was collected using calibrated BDX II abatement air sampler pump with a PTFE filter and XAD-2 solid sorbent tube. The sampling pump was calibrated using the TSI Model 4146 Primary flow calibrator. The samples were analyzed by NIOSH 5506 method for PAHs. Bureau Veritas of Novi, Michigan performed the analysis.

APPENDIX III-A

ANALYTICAL RESULTS – COAL TAR PITCH VOLATILES

February 05, 2013

Beth Higgins
PINCHIN LE BLANC ENVIRONMENTAL, LTD.
27 Austin Street
2nd Floor
St. Johns, NL A1B 4C3

Bureau Veritas Work Order No. 13011079

Reference: 02-03-00330

Dear Beth Higgins:

Bureau Veritas North America, Inc. received 3 samples on January 29, 2013 for the analyses presented in the following report.

Enclosed is a copy of the Chain-of-Custody record, acknowledging receipt of these samples. Please note that any unused portion of the samples will be discarded 30 days after the date of this report, unless you have requested otherwise.

This material is confidential and is intended solely for the person to whom it is addressed. If this is received in error, please contact the number provided below.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact a Client Services Representative at (800) 806-5887.

Sincerely,

Wendy Lesniak

Client Services Representative
Electronic signature authorized through password protection

Bureau Veritas North America, Inc.
Health, Safety, and Environmental Services
22345 Roethel Drive
Novi, MI 48375
Main: (248) 344.1770
Fax: (248) 344.2655
www.us.bureauveritas.com

CASE NARRATIVE

Date: *05-Feb-13*

CLIENT: PINCHIN LE BLANC ENVIRONMENTAL, LTD.

Project: 02-03-00330

Work Order No 13011079

The results of this report relate only to the samples listed in the body of this report.

Unless otherwise noted below, the following statements apply: 1) all samples were received in acceptable condition, 2) all quality control results associated with this sample set were within acceptable limits and/or do not adversely affect the reported results, and 3) the industrial hygiene results have not been blank corrected.

Analytical Comments for Method OSHA 58, sample -003A: Actual value of the coal tar pitch volatiles blank was 0 ug; the results have not been blank corrected.

ANALYTICAL RESULTS

Date: *05-Feb-13*

Client: **PINCHIN LE BLANC ENVIRONMENTAL, LTD.**

Project: **02-03-00330** **Work Order No: 13011079**

Client ID: SAMPLE 330-21, CASSETTE 15522 **Date Sampled:** 1/24/2013

Lab ID: 001A **DateReceived:** 1/29/2013

Matrix: GF Filter **Air Vol.(L):** 892

Analyte	Concentration (µg)	Concentration (mg/m^3)	Reporting Limit (µg)	Test Method	Date Analyzed / Analyst
Coal Tar Pitch Volatiles	<40	<0.045	40	OSHA 58	02/05/2013 MMM

Client ID: SAMPLE 330-22, CASSETTE 15524 **Date Sampled:** 1/24/2013

Lab ID: 002A **DateReceived:** 1/29/2013

Matrix: GF Filter **Air Vol.(L):** 923

Analyte	Concentration (µg)	Concentration (mg/m^3)	Reporting Limit (µg)	Test Method	Date Analyzed / Analyst
Coal Tar Pitch Volatiles	<40	<0.043	40	OSHA 58	02/05/2013 MMM

Client ID: SAMPLE 330-23, CASSETTE 15517 BLANK **Date Sampled:** 1/24/2013

Lab ID: 003A **DateReceived:** 1/29/2013

Matrix: GF Filter **Air Vol.(L):** NA

Analyte	Concentration (µg)	Concentration (mg/m^3)	Reporting Limit (µg)	Test Method	Date Analyzed / Analyst
Coal Tar Pitch Volatiles	<40	--	40	OSHA 58	02/05/2013 MMM

General Notes:
<: Less than the indicated reporting limit (RL).
--: Information not available or not applicable.

APPENDIX III-B

ANALYTICAL RESULTS – CRESOLS AND PHENOL

February 05, 2013

Beth Higgins
PINCHIN LE BLANC ENVIRONMENTAL, LTD.
27 Austin Street
2nd Floor
St. Johns, NL A1B 4C3

Bureau Veritas Work Order No. 13011136

Reference: 02-03-00330

Dear Beth Higgins:

Bureau Veritas North America, Inc. received 3 samples on January 29, 2013 for the analyses presented in the following report.

Enclosed is a copy of the Chain-of-Custody record, acknowledging receipt of these samples. Please note that any unused portion of the samples will be discarded 30 days after the date of this report, unless you have requested otherwise.

This material is confidential and is intended solely for the person to whom it is addressed. If this is received in error, please contact the number provided below.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact a Client Services Representative at (800) 806-5887.

Sincerely,

Wendy Lesniak

Client Services Representative
Electronic signature authorized through password protection

Bureau Veritas North America, Inc.
Health, Safety, and Environmental Services
22345 Roethel Drive
Novi, MI 48375
Main: (248) 344.1770
Fax: (248) 344.2655
www.us.bureauveritas.com

CASE NARRATIVE

Date: *05-Feb-13*

CLIENT: PINCHIN LE BLANC ENVIRONMENTAL, LTD.

Project: 02-03-00330

Work Order No 13011136

The results of this report relate only to the samples listed in the body of this report.

Unless otherwise noted below, the following statements apply: 1) all samples were received in acceptable condition, 2) all quality control results associated with this sample set were within acceptable limits and/or do not adversely affect the reported results, and 3) the industrial hygiene results have not been blank corrected.

ANALYTICAL RESULTS

Date: *05-Feb-13*

Client: PINCHIN LE BLANC ENVIRONMENTAL, LTD.

Project: 02-03-00330 **Work Order No:** 13011136

Sample Identification: SAMPLE 330-21

Lab Number: 001A **Date Sampled:** 1/24/2013

Sample Type: XAD-7 Tube **Date Received:** 1/29/2013

Analyst: CSJ **Air Volume (L):** 20.7

Analyte	Analytical Results (µg)	Analytical Results (mg/m^3)	Analytical Results (ppm)	Reporting Limit (µg)	Test Method	Date Analyzed
m-Cresol	<2	<0.097	<0.022	2	NIOSH 2546	02/01/2013
o-Cresol	<2	<0.097	<0.022	2	NIOSH 2546	02/01/2013
p-Cresol	<2	<0.097	<0.022	2	NIOSH 2546	02/01/2013
Phenol	<5	<0.24	<0.063	5	NIOSH 2546	02/01/2013

Sample Identification: SAMPLE 330-22

Lab Number: 002A **Date Sampled:** 1/24/2013

Sample Type: XAD-7 Tube **Date Received:** 1/29/2013

Analyst: CSJ **Air Volume (L):** 23.7

Analyte	Analytical Results (µg)	Analytical Results (mg/m^3)	Analytical Results (ppm)	Reporting Limit (µg)	Test Method	Date Analyzed
m-Cresol	<2	<0.084	<0.019	2	NIOSH 2546	02/01/2013
o-Cresol	<2	<0.084	<0.019	2	NIOSH 2546	02/01/2013
p-Cresol	<2	<0.084	<0.019	2	NIOSH 2546	02/01/2013
Phenol	<5	<0.21	<0.055	5	NIOSH 2546	02/01/2013

ANALYTICAL RESULTS

Date: *05-Feb-13*

Client: PINCHIN LE BLANC ENVIRONMENTAL, LTD.

Project: 02-03-00330 **Work Order No:** 13011136

Sample Identification: SAMPLE 330-23 BLANK

Lab Number: 003A **Date Sampled:** 1/24/2013

Sample Type: XAD-7 Tube **Date Received:** 1/29/2013

Analyst: CSJ **Air Volume (L):** NA

Analyte	Analytical Results (µg)	Analytical Results (mg/m^3)	Analytical Results (ppm)	Reporting Limit (µg)	Test Method	Date Analyzed
m-Cresol	<2	--	--	2	NIOSH 2546	02/01/2013
o-Cresol	<2	--	--	2	NIOSH 2546	02/01/2013
p-Cresol	<2	--	--	2	NIOSH 2546	02/01/2013
Phenol	<5	--	--	5	NIOSH 2546	02/01/2013

General Notes:
<: Less than the indicated reporting limit (RL).
--: Information not available or not applicable.
Back sections (if applicable) were checked and showed no significant breakthrough unless otherwise noted.

APPENDIX III-C

ANALYTICAL RESULTS – POLYNUCLEAR AROMATIC HYDROCARBONS

February 01, 2013

Beth Higgins
PINCHIN LE BLANC ENVIRONMENTAL, LTD.
27 Austin Street
2nd Floor
St. Johns, NL A1B 4C3

Bureau Veritas Work Order No. 13011135

Reference: 02-03-00330

Dear Beth Higgins:

Bureau Veritas North America, Inc. received 4 samples on January 29, 2013 for the analyses presented in the following report.

Enclosed is a copy of the Chain-of-Custody record, acknowledging receipt of these samples. Please note that any unused portion of the samples will be discarded 30 days after the date of this report, unless you have requested otherwise.

This material is confidential and is intended solely for the person to whom it is addressed. If this is received in error, please contact the number provided below.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact a Client Services Representative at (800) 806-5887.

Sincerely,

Wendy Lesniak

Client Services Representative
Electronic signature authorized through password protection

Bureau Veritas North America, Inc.
Health, Safety, and Environmental Services
22345 Roethel Drive
Novi, MI 48375
Main: (248) 344.1770
Fax: (248) 344.2655
www.us.bureauveritas.com

CASE NARRATIVE

Date: *01-Feb-13*

CLIENT:	PINCHIN LE BLANC ENVIRONMENTAL, LTD.
Project:	02-03-00330
Work Order No	13011135

The results of this report relate only to the samples listed in the body of this report.

Unless otherwise noted below, the following statements apply: 1) all samples were received in acceptable condition, 2) all quality control results associated with this sample set were within acceptable limits and/or do not adversely affect the reported results, and 3) the industrial hygiene results have not been blank corrected.

Analytical Comments for PAHs by NIOSH 5506: The total PAH result is reported on the "A" fraction of each sample. The filter and tube results are reported separately on the "B" and "C" fractions of each sample, respectively.

ANALYTICAL RESULTS

Date: *01-Feb-13*

Client: **PINCHIN LE BLANC ENVIRONMENTAL, LTD.**

Project: **02-03-00330** **Work Order No: 13011135**

Client ID: SAMPLE 330-21, CASSETTE 13120 **Date Sampled:** 1/24/2013

Lab ID: 001A **DateReceived:** 1/29/2013

Matrix: PTFE Filt XAD-2 Combo **Air Vol.(L):** 916

Analyte	Concentration (µg)	Concentration (mg/m^3)	Reporting Limit (µg)	Test Method	Date Analyzed / Analyst
Acenaphthene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Acenaphthylene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Anthracene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)anthracene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)pyrene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(b)fluoranthene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(e)pyrene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(g,h,i)perylene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(k)fluoranthene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Chrysene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Dibenzo(a,h)anthracene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluoranthene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluorene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Indeno(1,2,3-cd)pyrene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Naphthalene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Phenanthrene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Pyrene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT

General Notes:
<: Less than the indicated reporting limit (RL).
--: Information not available or not applicable.

ANALYTICAL RESULTS

Date: *01-Feb-13*

Client: **PINCHIN LE BLANC ENVIRONMENTAL, LTD.**

Project: **02-03-00330** **Work Order No: 13011135**

Client ID: SAMPLE 330-21, CASSETTE 13120 **Date Sampled:** 1/24/2013

Lab ID: 001B **DateReceived:** 1/29/2013

Matrix: PTFE Filter **Air Vol.(L):** 916

Analyte	Concentration (µg)	Concentration (mg/m^3)	Reporting Limit (µg)	Test Method	Date Analyzed / Analyst
Acenaphthene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Acenaphthylene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Anthracene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)anthracene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)pyrene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(b)fluoranthene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(e)pyrene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(g,h,i)perylene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(k)fluoranthene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Chrysene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Dibenzo(a,h)anthracene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluoranthene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluorene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Indeno(1,2,3-cd)pyrene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Naphthalene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Phenanthrene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Pyrene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT

General Notes:
<: Less than the indicated reporting limit (RL).
--: Information not available or not applicable.

ANALYTICAL RESULTS

Date: *01-Feb-13*

Client: **PINCHIN LE BLANC ENVIRONMENTAL, LTD.**

Project: **02-03-00330** **Work Order No: 13011135**

Client ID: SAMPLE 330-21, CASSETTE 13120 **Date Sampled:** 1/24/2013

Lab ID: 001C **DateReceived:** 1/29/2013

Matrix: XAD-2 Tube **Air Vol.(L):** 916

Analyte	Concentration (µg)	Concentration (mg/m^3)	Reporting Limit (µg)	Test Method	Date Analyzed / Analyst
Acenaphthene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Acenaphthylene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Anthracene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)anthracene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)pyrene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(b)fluoranthene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(e)pyrene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(g,h,i)perylene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(k)fluoranthene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Chrysene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Dibenzo(a,h)anthracene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluoranthene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluorene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Indeno(1,2,3-cd)pyrene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Naphthalene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Phenanthrene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT
Pyrene	<3	<0.0033	3	NIOSH 5506 Mod	02/01/2013 CWT

General Notes:
<: Less than the indicated reporting limit (RL).
--: Information not available or not applicable.

ANALYTICAL RESULTS

Date: *01-Feb-13*

Client: **PINCHIN LE BLANC ENVIRONMENTAL, LTD.**

Project: **02-03-00330** **Work Order No: 13011135**

Client ID: SAMPLE 330-22, CASSETTE 13115 **Date Sampled:** 1/24/2013

Lab ID: 002A **DateReceived:** 1/29/2013

Matrix: PTFE Filt XAD-2 Combo **Air Vol.(L):** 933

Analyte	Concentration (µg)	Concentration (mg/m^3)	Reporting Limit (µg)	Test Method	Date Analyzed / Analyst
Acenaphthene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Acenaphthylene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Anthracene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)anthracene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)pyrene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(b)fluoranthene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(e)pyrene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(g,h,i)perylene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(k)fluoranthene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Chrysene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Dibenzo(a,h)anthracene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluoranthene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluorene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Indeno(1,2,3-cd)pyrene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Naphthalene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Phenanthrene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Pyrene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT

General Notes:
<: Less than the indicated reporting limit (RL).
--: Information not available or not applicable.

ANALYTICAL RESULTS

Date: *01-Feb-13*

Client: **PINCHIN LE BLANC ENVIRONMENTAL, LTD.**

Project: **02-03-00330** **Work Order No: 13011135**

Client ID: SAMPLE 330-22, CASSETTE 13115 **Date Sampled:** 1/24/2013

Lab ID: 002B **DateReceived:** 1/29/2013

Matrix: PTFE Filter **Air Vol.(L):** 933

Analyte	Concentration (µg)	Concentration (mg/m^3)	Reporting Limit (µg)	Test Method	Date Analyzed / Analyst
Acenaphthene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Acenaphthylene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Anthracene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)anthracene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)pyrene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(b)fluoranthene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(e)pyrene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(g,h,i)perylene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(k)fluoranthene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Chrysene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Dibenzo(a,h)anthracene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluoranthene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluorene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Indeno(1,2,3-cd)pyrene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Naphthalene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Phenanthrene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Pyrene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT

General Notes:
<: Less than the indicated reporting limit (RL).
--: Information not available or not applicable.

ANALYTICAL RESULTS

Date: *01-Feb-13*

Client: **PINCHIN LE BLANC ENVIRONMENTAL, LTD.**

Project: **02-03-00330** **Work Order No: 13011135**

Client ID: SAMPLE 330-22, CASSETTE 13115 **Date Sampled:** 1/24/2013

Lab ID: 002C **DateReceived:** 1/29/2013

Matrix: XAD-2 Tube **Air Vol.(L):** 933

Analyte	Concentration (µg)	Concentration (mg/m^3)	Reporting Limit (µg)	Test Method	Date Analyzed / Analyst
Acenaphthene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Acenaphthylene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Anthracene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)anthracene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)pyrene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(b)fluoranthene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(e)pyrene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(g,h,i)perylene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(k)fluoranthene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Chrysene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Dibenzo(a,h)anthracene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluoranthene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluorene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Indeno(1,2,3-cd)pyrene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Naphthalene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Phenanthrene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT
Pyrene	<3	<0.0032	3	NIOSH 5506 Mod	02/01/2013 CWT

General Notes:
<: Less than the indicated reporting limit (RL).
--: Information not available or not applicable.

ANALYTICAL RESULTS

Date: *01-Feb-13*

Client: **PINCHIN LE BLANC ENVIRONMENTAL, LTD.**

Project: **02-03-00330** **Work Order No: 13011135**

Client ID: SAMPLE 330-23, CASSETTE 13116 **Date Sampled:** 1/24/2013

Lab ID: 003A **DateReceived:** 1/29/2013

Matrix: PTFE Filt XAD-2 Combo **Air Vol.(L):** 979

Analyte	Concentration (µg)	Concentration (mg/m^3)	Reporting Limit (µg)	Test Method	Date Analyzed / Analyst
Acenaphthene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Acenaphthylene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Anthracene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)anthracene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)pyrene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(b)fluoranthene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(e)pyrene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(g,h,i)perylene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(k)fluoranthene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Chrysene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Dibenzo(a,h)anthracene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluoranthene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluorene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Indeno(1,2,3-cd)pyrene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Naphthalene	5.1	0.0052	3	NIOSH 5506 Mod	02/01/2013 CWT
Phenanthrene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Pyrene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT

General Notes:
<: Less than the indicated reporting limit (RL).
--: Information not available or not applicable.

ANALYTICAL RESULTS

Date: *01-Feb-13*

Client: **PINCHIN LE BLANC ENVIRONMENTAL, LTD.**

Project: **02-03-00330** **Work Order No: 13011135**

Client ID: SAMPLE 330-23, CASSETTE 13116 **Date Sampled:** 1/24/2013

Lab ID: 003B **DateReceived:** 1/29/2013

Matrix: PTFE Filter **Air Vol.(L):** 979

Analyte	Concentration (µg)	Concentration (mg/m^3)	Reporting Limit (µg)	Test Method	Date Analyzed / Analyst
Acenaphthene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Acenaphthylene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Anthracene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)anthracene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)pyrene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(b)fluoranthene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(e)pyrene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(g,h,i)perylene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(k)fluoranthene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Chrysene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Dibenzo(a,h)anthracene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluoranthene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluorene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Indeno(1,2,3-cd)pyrene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Naphthalene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Phenanthrene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Pyrene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT

General Notes:
<: Less than the indicated reporting limit (RL).
--: Information not available or not applicable.

ANALYTICAL RESULTS

Date: *01-Feb-13*

Client: **PINCHIN LE BLANC ENVIRONMENTAL, LTD.**

Project: **02-03-00330** **Work Order No: 13011135**

Client ID: SAMPLE 330-23, CASSETTE 13116 **Date Sampled:** 1/24/2013

Lab ID: 003C **DateReceived:** 1/29/2013

Matrix: XAD-2 Tube **Air Vol.(L):** 979

Analyte	Concentration (µg)	Concentration (mg/m^3)	Reporting Limit (µg)	Test Method	Date Analyzed / Analyst
Acenaphthene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Acenaphthylene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Anthracene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)anthracene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)pyrene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(b)fluoranthene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(e)pyrene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(g,h,i)perylene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(k)fluoranthene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Chrysene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Dibenzo(a,h)anthracene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluoranthene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluorene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Indeno(1,2,3-cd)pyrene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Naphthalene	5.1	0.0052	3	NIOSH 5506 Mod	02/01/2013 CWT
Phenanthrene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT
Pyrene	<3	<0.0031	3	NIOSH 5506 Mod	02/01/2013 CWT

General Notes:
<: Less than the indicated reporting limit (RL).
--: Information not available or not applicable.

ANALYTICAL RESULTS

Date: *01-Feb-13*

Client: **PINCHIN LE BLANC ENVIRONMENTAL, LTD.**

Project: **02-03-00330** **Work Order No: 13011135**

Client ID: SAMPLE 330-24, CASSETTE 13121 BLANK **Date Sampled:** 1/24/2013

Lab ID: 004A **DateReceived:** 1/29/2013

Matrix: PTFE Filt XAD-2 Combo **Air Vol.(L):** NA

Analyte	Concentration (µg)	Concentration (mg/m^3)	Reporting Limit (µg)	Test Method	Date Analyzed / Analyst
Acenaphthene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Acenaphthylene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Anthracene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)anthracene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)pyrene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(b)fluoranthene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(e)pyrene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(g,h,i)perylene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(k)fluoranthene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Chrysene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Dibenzo(a,h)anthracene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluoranthene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluorene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Indeno(1,2,3-cd)pyrene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Naphthalene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Phenanthrene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Pyrene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT

General Notes:
<: Less than the indicated reporting limit (RL).
--: Information not available or not applicable.

ANALYTICAL RESULTS

Date: *01-Feb-13*

Client: **PINCHIN LE BLANC ENVIRONMENTAL, LTD.**

Project: **02-03-00330** **Work Order No: 13011135**

Client ID: SAMPLE 330-24, CASSETTE 13121 BLANK **Date Sampled:** 1/24/2013

Lab ID: 004B **DateReceived:** 1/29/2013

Matrix: PTFE Filter **Air Vol.(L):** NA

Analyte	Concentration (µg)	Concentration (mg/m^3)	Reporting Limit (µg)	Test Method	Date Analyzed / Analyst
Acenaphthene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Acenaphthylene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Anthracene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)anthracene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)pyrene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(b)fluoranthene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(e)pyrene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(g,h,i)perylene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(k)fluoranthene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Chrysene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Dibenzo(a,h)anthracene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluoranthene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluorene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Indeno(1,2,3-cd)pyrene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Naphthalene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Phenanthrene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Pyrene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT

General Notes:
<: Less than the indicated reporting limit (RL).
--: Information not available or not applicable.

ANALYTICAL RESULTS

Date: *01-Feb-13*

Client: **PINCHIN LE BLANC ENVIRONMENTAL, LTD.**

Project: **02-03-00330** **Work Order No: 13011135**

Client ID: SAMPLE 330-24, CASSETTE 13121 BLANK **Date Sampled:** 1/24/2013

Lab ID: 004C **DateReceived:** 1/29/2013

Matrix: XAD-2 Tube **Air Vol.(L):** NA

Analyte	Concentration (µg)	Concentration (mg/m^3)	Reporting Limit (µg)	Test Method	Date Analyzed / Analyst
Acenaphthene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Acenaphthylene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Anthracene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)anthracene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(a)pyrene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(b)fluoranthene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(e)pyrene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(g,h,i)perylene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Benzo(k)fluoranthene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Chrysene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Dibenzo(a,h)anthracene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluoranthene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Fluorene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Indeno(1,2,3-cd)pyrene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Naphthalene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Phenanthrene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT
Pyrene	<3	--	3	NIOSH 5506 Mod	02/01/2013 CWT

General Notes:
<: Less than the indicated reporting limit (RL).
--: Information not available or not applicable.