Government of Yukon
Energy Mines and Recourses
ASSESSMENT AND ABANDONED MINES

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FORMER METAFINA CHEMICALS
SITE ASSESSMENT

EBA FILE: W23101161

March 2009

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EXECUTIVE SUMMARY

EBA Engineering Consultants Ltd. (EBA) was contracted by Yukon Government, Assessment and Abandoned Mines Branch, to conduct a site assessment of the former Metafina Chemicals site in Faro, Yukon.

The approximate boundaries of the study area were identified by the Assessment and Abandoned Mines Branch as the property boundary of Lot 221, 64718 CLSR in the Town of Faro, Yukon (see Figure 1).

An information review was completed which included information from the Metafina Review Committee, newspaper articles, photographs of the site and previous site work by EBA in 1996. This information was used to confirm potential contaminants of concern and areas of potential contamination prior to the initial site visit.

Two site visits were conducted during the summer and fall of 2008. The initial visit was used to verify site conditions, identify potential areas of contaminant concern and collect soil and groundwater samples to verify concentrations of contaminant in the identified areas of concern. The second site visit was to complete a more intensive sampling program aimed at determining if contaminants were present on any part of the site.

The analytical results show that from the 26 samples analysed only one soil sample (HA03 at 0.1 m) contains concentrations of heavy extractable petroleum hydrocarbons that marginally exceed the Contaminated Sites Regulation park land use standard. A sample collected from the same test hole 0.7 m deeper showed concentrations well below the standard.

While the concentration of heavy extractable petroleum hydrocarbons only marginally exceeds the regulatory park land use standard, and only at one sampling location, EBA recommends that this area of soil contamination could be remediated such that no contaminant issues remain. Remediation could be accomplished by loosening the surface soils, which have been compacted by vehicular traffic, and applying a nitrogen based fertilizer and possibly compost to enhance bioremediation. Soil testing should be conducted to confirm that the contamination has been successfully remediated.

No groundwater issues have been identified at the site during this round of sampling. The carbon disulphide detected in 1996 was detectable but at concentrations well below regulatory standards. This is consistent with the current literature which suggests that carbon disulphide will break down under naturally occurring conditions.





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1.0 INTRODUCTION

EBA Engineering Consultants Ltd. (EBA) was contracted by Yukon Government, (YG) Assessment and Abandoned Mines Branch, for a site assessment of the former Metafina Chemicals site in Faro, Yukon. This report provides the details and analytical results of the site assessment which was completed for the property.

1.1 BACKGROUND

Contamination at the former Metafina Chemicals site is thought to have originated from spillage and possibly ongoing leaks of chemicals from storage tanks remaining on the site after the chemical manufacturer ceased operations in about 1990 (*Final Report*, Metafina Review Committee, undated). The site contamination and residual chemicals were discovered during the dismantling of the site in February 1996. C.E.D.A. Reactor Ltd. was called in to direct the remediation efforts and disposal of residual chemicals. At that time about 27, 000 L of liquids were removed from various tanks and disposed off-site. The spill response and clean-up efforts reportedly focused on soil contaminated with sodium isopropyl xanthate and a breakdown product carbon disulphide. EBA was not able to find any report on the details of the remediation of contaminated soils, the volume of soil removed or the results of any confirmation sampling that may have been completed.

In the fall of 1996 EBA was contracted by YG to conduct groundwater contamination assessment work at the site. The objective was to determine if there had been any groundwater impacts from chemical spills or releases at the site. The EBA report *Ground Water Assessment, Faro, YT,* September 1996 indicated that six groundwater monitoring wells had been installed and five of the wells contained sufficient water to be sampled. The report indicated that xylenes were detected (below drinking water standards) in all five wells. Extractable petroleum hydrocarbons were found in three of the five wells and carbon disulphide was detected in two of the wells. At the time there were no drinking water standards identified for carbon disulphide. Comparison of the results to current *Contaminated Sites Regulation (CSR) (Environment Act)* drinking water standards indicate that one well in the center of the spill site (MW96-07) would have exceeded the current standards. Evaluation of the hydrocarbon concentrations found in the groundwater samples suggests that they would not have exceeded CSR aquatic life standards.

1.2 OBJECTIVES

The primary objective of this project was to reassess the concentrations and, to the extent possible, the vertical and lateral extent of residual contamination, which was thought to remain on the property following the site work conducted in 1996. A secondary objective was to evaluate potential remediation options depending on the contamination remaining at the site.



1.3 SCOPE OF WORK

EBA's scope of work for this project was based upon discussions prior to project initiation and information provided by YG.

The scope of work included the following:

- A search and review of relevant available information, including previous reports.
- Site reconnaissance to obtain current information on the state of existing groundwater monitoring wells, site conditions and physical property features as used in the previous work to identify the area of contamination evident at that time.
- Consultation with senior technical staff to identify potential contaminants of concern based on existing analytical results and breakdown products from the decomposition of carbon disulfide and sodium isopropyl xanthate.
- Fieldwork to obtain current data on soil and groundwater conditions in select areas as identified during the preliminary site work.
- Production of this report presenting the information obtained, the conclusions drawn and outlining any potential remediation options.

2.0 METHODS

The following discussion of work methods has been divided into subsections based on the sequence of tasks completed and the areas of potential contamination identified from the preliminary work, the collection and review of available information, and the site reconnaissance conducted as part of this project.

2.1 REVIEW OF AVAILABLE INFORMATION

The EBA file from the 1996 groundwater assessment work was reviewed. The file contained copies of the report titled *Final Report*, Metafina Review Committee and the EBA (1996) report, which are discussed in the Background section of this document. In addition to the reports the file contained correspondence, newspaper articles and photographs of the site. This information was used to confirm potential contaminants of concern and areas of potential contamination prior to the initial site visit.

The EBA file also contained information on sodium isopropyl xanthate and carbon disulfide. The *Final Report* contained a fact sheet (unnamed source) suggesting that sodium isopropyl xanthate would readily decompose yielding carbon disulphide and sodium hydroxide. Acute toxicity to salmonid fish was listed as 11000 µg/L. The chronic effects were not listed; instead the document indicated insufficient information was available. Carbon disulphide was listed as volatile and toxic. The half life for a saturated solution was listed as 11 minutes. Acute effects were listed, however, the chronic effects indicated insufficient information was available. The information contained in the fact sheets was verified through an on-line search at: http://www.inchem.org/.



2.2 SITE RECONNAISANCE

The boundaries of the study area were identified by the Assessment and Abandoned Mines Branch as the property boundary of the former Metafina Chemicals site located on Lot 221, 64718 CLSR in the Town of Faro, Yukon as shown in Figure 1. The available survey indicates the property occupies 0.464 ha., which includes a portion of the property that is occupied by the Faro Animal Shelter.

The initial site reconnaissance was conducted on June 9 and 10, 2008. At that time the site was completely fenced and the gate locked. Revegetation was occurring over the majority of the site (see Photographs 1 and 2) with two notable exceptions. One area being in the vicinity of monitoring wells MW96-03 and MW96-07, as shown in Photograph 4, which was the location of the 1996 spill remediation. The second area was directly south of monitoring well MW96-07, which was an area with sparse and apparently stressed vegetation.

All six monitoring wells that had been installed in 1996 were located and appeared to be intact. Piping that appeared to be a vent pipe was also noted near the northwest corner of the concrete pad. It was later confirmed that an underground storage tank was located in this area.

2.3 SOIL INVESTIGATION

2.3.1 June 2008

The initial soil sampling program on June 9th and 10th 2008 targeted an area with apparently stressed vegetation and the former spill remediation location. The underground storage tank area was not sampled since the expected depth of the base of the tank installation was beyond the sampling depth that could reliably be reached with the equipment available.

Soil sampling locations, shown in Figure 1, were selected by first identifying the visible boundaries of the area of concern and then establishing a sampling pattern that would contact roughly the center of this area and step out in a 5 m by 10 m grid pattern. Since contamination was expected to have originated at the surface, soil samples were collected from the near surface soils and at depth as determined by field screening.

Soil samples were screened in the field for volatile organic vapours using a Photoioization Detector (PID), which measures the ionisable components of organic vapours, and provides a semi qualitative indication of organic vapours present in the soil. Since the contaminants of concern at the site included hydrocarbons, xylenes and possibly carbon disulphide it was expected that the PID would give an indication if these substances were present in the soil. Soil vapour concentrations were measured at discrete locations by placing the tip of a soil vapour probe, attached to the PID, directly into the soil. PID readings were allowed to stabilize for approximately 60 sec. and then readings were record for the sampling location prior to sample collection. Vapour concentrations were measured in parts per million (ppm) and recorded in the field log. Vapour screening results were used



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as a tool to help detect potentially contaminates soils and select samples for laboratory analysed. PID results are provided in a table on Figure 1.

Sample collection was accomplished using two techniques. Near surface samples were collected by using a clamshell post hole excavator to remove 100 mm to 200 mm of soil, using a clean trowel to remove slough from the hole and then collecting a clean sample by placing soil directly into sterile 125 mL glass jars with TeflonTM lined lids that were supplied by the analytical laboratory. Samples at depths greater than 400 mm were collected using the clamshell excavator to remove soil to within 100 mm of the desired sampling depth. An AMS soil auger with a 50 mm common auger bit was then used to remove approximately 100 mm of soil to obtain a clean sampling surface. The soil auger was then used to auger an additional 200 mm to retrieve an undisturbed soil sample from the desired depth. This soil was removed from the auger barrel into a clean plastic bag and then transferred into the sterile 125 mL glass jars supplied by the analytical laboratory.

Nitrile gloves were worn when handling soil and were changed regularly to prevent cross-contamination.

Five soil sample locations were identified where a total of nine discrete soil samples, and one bulk soil sample were collected for laboratory analysis. Sample locations are shown in Figure 2.

Discrete soil samples were packed tightly into the jars to help prevent loss of volatile organic compounds into the jar headspace and stored in a cooler with freezer packs. The bulk sample was placed into a clean plastic bag and then placed in a cooler for shipment. All collected samples were labelled and documented on a "Sample Information Sheet" and delivered to Bodycote Testing Group in Surrey BC.

Samples were selected for laboratory analysis of light and heavy extractable petroleum hydrocarbons (LEPH, HEPH), volatile petroleum hydrocarbons (VPH), Mono-Aromatic Hydrocarbons, Polycyclic Aromatic Hydrocarbons (PAHs) and volatile organic compounds (VOC) which included carbon disulphide. A bulk sample was also submitted for toxicity testing in the event that analytical results indicated significant residual contamination. Since analytical results indicated no significant contaminant concerns the toxicity testing was not completed.

Further information regarding laboratory testing methodology is provided in the Bodycote report (Appendix A).

2.3.2 October 2008

The second soil sampling program on October 6th and 7th 2008 targeted the area around the underground storage tank and the remainder of the site not previously sampled. The selection of sample locations was based on analytical results from the June sampling event that indicated all contaminants analysed were below CSR commercial land use standards and were typically below laboratory detection limits. As a result the scope of the project



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was shifted, following discussions with the Assessment and Abandoned Mines Branch, to focus on determining if contaminants were present on any part of the site.

Based on the June site visit the underground storage tank was identified as a potential contaminant source and sampling targeted soils adjacent to the tank to a depth comparable to the bottom of the tank. To determine if there were any contaminant concerns on the remainder of the site a sample grid was established to provide sampling points over the entire site. A 10 m by 15 m grid was used and individual sample locations were adjusted if analytical information was already available for a particular grid point. The sampling plan was submitted to the Assessment and Abandoned Mines Branch for approval prior to initiating the field work.

A rubber tired backhoe was used to excavate test holes beside the underground storage tank and at the selected grid sampling locations. A PID was used to evaluate organic vapour concentrations in the soil, however not detectable concentrations were found. Sample collection was completed by using a clean trowel to remove slough and provide a clean sampling surface in the excavation. Samples were then collected by placing soil directly into sterile 125 mL glass jars with TeflonTM lined lids that were supplied by the analytical laboratory.

Samples were typically collected from depths of 0.1 m, 0.5 m, and 1 m below ground surface. Nitrile gloves were worn when handling soil and were changed regularly to prevent cross-contamination.

Testpitting adjacent to the underground storage tank did not detect evidence of potential contamination. Anecdotal evidence provided at the time of testpitting indicated that the tank had been previously pumped out and cleaned (pers. comm. Mark Vainio, Faro). One sample was collected from the base of the tank at approximately 2 m depth and submitted for laboratory analysis.

A total of 11 testpit locations were selected based on the sampling grid pattern used at the site. The soil sampling program collected 35 discrete soil samples of which analysis was requested for 17 samples. The remaining samples were held pending the review of analytical results. Sample locations are shown on Figure 2.

Discrete soil samples were packed tightly into the jars to help prevent loss of volatile organic compounds into the jar headspace and stored in a cooler with freezer packs. All collected samples were labelled and documented on a "Sample Information Sheet" and delivered to Bodycote Testing Group in Surrey BC.

Samples were selected for laboratory analysis of light and heavy extractable petroleum hydrocarbons (LEPH, HEPH), volatile petroleum hydrocarbons (VPH), Mono-Aromatic Hydrocarbons, Polycyclic Aromatic Hydrocarbons (PAHs) and volatile organic compounds (VOC), which included carbon disulphide.

Further information regarding laboratory testing methodology is provided in the Bodycote report (Appendix A).



2.4 GROUNDWATER INVESTIGATION

2.4.1 June 2008

All six groundwater monitoring wells (see Figure 1) were located on June 9th and the depth to groundwater was measured using a Heron H.01L Oil/Water Interface probe. Wells with detectable levels of groundwater were purged using clean bailers and left to recharge.

Only two of the six groundwater monitoring wells contained sufficient water for sampling. The four remaining wells had staining on sampling devices in the wells indicating the presence of groundwater in the well on a seasonal basis.

Groundwater samples were collected from MW96-04 and MW96-06 on June 10th. The groundwater recharge in MW96-04 was insufficient to fill all sample bottles and as a result not all laboratory analysis could be completed. Sampling was conducted using dedicated bailers for each well and transferring water from the bailer directly into the laboratory supplied sample bottles. A multimeter brought to the site did not appear to function properly. Attempts to recalibrate were not successful and as a result no field parameters were recorded for the two wells.

Groundwater samples were submitted for laboratory analysis of light and heavy extractable petroleum hydrocarbons (LEPHw, HEPHw), volatile petroleum hydrocarbons (VPHw), Mono-Aromatic Hydrocarbons, and Polycyclic Aromatic Hydrocarbons (PAHs).

Further information regarding laboratory testing methodology is provided in the Bodycote report (Appendix A).

2.4.2 October 2008

All six groundwater monitoring wells were located on October 9th and the depth to groundwater was measured using a Heron H.01L Oil/Water Interface probe. Wells with detectable levels of groundwater were purged, using individual bailers assigned to each well, and then left to recharge.

Only three of the six groundwater monitoring wells contained sufficient water for sampling. Groundwater samples were collected from MW96-02, MW96-03, and MW96-04 on October 8th. Groundwater monitoring well MW96-06 did not contain sufficient water to sample. The remaining wells were dry.

Field measurements of pH, conductivity, and temperature were recorded for the three wells sampled.

Groundwater samples were submitted for laboratory analysis of light and heavy extractable petroleum hydrocarbons (LEPHw, HEPHw), volatile petroleum hydrocarbons (VPHw), Mono-Aromatic Hydrocarbons, and Polycyclic Aromatic Hydrocarbons (PAHs) and volatile organic compounds.



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Further information regarding laboratory testing methodology is provided in the Bodycote report (Appendix A).

2.5 LABORATORY ANALYTICAL PROGRAM

Laboratory analysis was based on the range of contaminants found during previous site assessment work and the known or suspected contaminants associated with the site.

The selected soil analyses included:

- light and heavy extractable petroleum hydrocarbons (LEPH, HEPH),
- volatile petroleum hydrocarbons (VPH),
- Mono-Aromatic Hydrocarbons,
- Polycyclic Aromatic Hydrocarbons (PAHs),
- volatile organic compounds (VOC), and
- a bulk sample was also submitted for toxicity testing and later cancelled.

The selected water analyses included:

- light and heavy extractable petroleum hydrocarbons (LEPH, HEPH),
- volatile petroleum hydrocarbons (VPH),
- Mono-Aromatic Hydrocarbons,
- Polycyclic Aromatic Hydrocarbons (PAHs), and
- volatile organic compounds (VOC),

Bodycote Testing Group was selected to conduct the laboratory analyses. Analytical methodologies and a Quality Control Report are provided with each Analytical Report. Laboratories accreditations are available on the company's web site at: http://www.bodycotetesting.com

During the initial site visit and sampling program all samples collected for chemical analysis were analysed. Given that the analytical results for all soil samples showed the majority of parameters to be near to or below the laboratory lower detection limit the toxicity testing was not completed. During the second site visit in October 2008, soil sample selection for laboratory analysis was based on sample location and depth. Approximately half the soil samples were analysed and the remaining samples were held by the laboratory pending results from the selected samples. If these analyses had indicated contaminant concerns, then adjacent samples would have been analysed. Since all results were at or near the laboratory lower detection limit for all parameters including those for the groundwater samples, no additional analysis was requested.



2.6 APPLICATION OF CONTAMINATED SITES REGULATION

The Contaminated Sites Regulation (CSR) (Environment Act) provides standards for the assessment and remediation of contaminated sites in Yukon. Schedule 1 and 2 of the CSR provide generic and matrix numerical standards for soils that are based on site-specific land and water uses. Schedule 3 provides generic numerical standards for water based on specific water uses.

It was EBA's understanding, at the time of report writing, that future use of the site may include recreational land use. Therefore, park land use standards were selected as the most applicable land use at the site.

For comparison of groundwater results the most restrictive of either drinking water standards or aquatic life standards were applied.

3.0 RESULTS AND DISCUSSION

3.1 REVIEW OF AVAILABLE INFORMATION

File information reviewed by EBA indicated that the two chemicals of concern at the site were sodium isopropyl xanthate and the carbon disulphide. These contaminants had been identified in the initial review of the file for purposes of developing the project proposal. However, these chemicals present acute contaminant concerns and were not expected to persist at the site. What was evident from review of the report titled *Metafina Review Committee Final Report* was that there was conflicting or inconsistent information regarding the source and discovery of contamination on the site. The documents did contain information that suggested there had been historical spills on the site. There was no information found that would confirm the quantities spilled or confirm that restoration was successfully completed. There were also inconsistencies regarding the spill on February 18, 1996. Some documents indicated that a spill was discovered; others indicated that the spill was the result of workers cutting into a pipe connected to one of the tanks.

Based on the review of available information, EBA designed the soil sampling program to target areas of known or suspected contamination as well as providing coverage of the property in general.

3.2 SITE RECONNAISSANCE

At the time of the initial site reconnaissance on June 9, 2008 the site was completely fenced and locked. There was little evidence of activity on the site and revegetation was occurring over the majority of the site as shown in Photographs 1 and 2. The area where restoration activities had occurred in 1996 was still easily identified as evident in Photograph 4.

A second area which showed apparently stressed vegetation was also an area that had been subject to heavy traffic. The soil was compacted and there was little evidence of organic material in the soil at this location. The lack of vegetation consistent with the remainder of



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the site caused this area to be identified as a potentially contaminated area and soil samples were collected.

All six monitoring wells that had been installed in 1996 were located and appeared to be in good condition. There was no evidence of tampering and all well caps were in place.

Piping that appeared to be a vent pipe was noted near the northwest corner of the concrete pad. It was later confirmed that an underground storage tank was located in this area. This area was selected for soil sampling based on the evidence of an underground storage tank. At the time of the initial site visit and later during the testpitting program there was no evidence found of spillage or leakage from this tank.

3.3 SOIL RESULTS

Soil sample results have been summarized in Tables 1 and 2. The laboratory analytical reports are provided in Appendix A. Since many parameters were below detection limits for all samples collected only those of significance are presented in the tables. The complete list of analysis and results is provided in the laboratory analytical report.

The analytical results show that one soil sample (HA03 at 0.1 m) contains concentrations of heavy extractable petroleum hydrocarbons of 1100 mg/kg, which marginally exceeds the park land use standard of 1000 mg/kg. This was a near surface sample collected at 0.1 m below ground surface. The sample collected at 0.8 m contains 39 mg/kg which is well below the selected standard.

While the concentration reported is only marginally over the standard it would be prudent to remediate this soil so that no contaminant concerns remain at the site. Furthermore, the nature of the contaminant is such that bioremediation should provide an effective means of reducing concentrations. The suggested approach would be to scarify the ground surface to approximately 300 mm, as it was compacted at the time of sampling, and apply a nitrogen based fertilizer. Compost may also be added to improve the organic content of the soil and enhance bio-remediation. Soil testing should be conducted, at least three months following treatment, to confirm that the contamination has been successfully remediated.

During sampling it was noted that soil in this area appears to have been compacted, presumably by vehicular traffic. Loosening the soil will improve aeration and infiltration of moisture, which are both needed for bioremediation. The soil could be loosened by scarification using mechanical means such as a toothed bucket on a backhoe or a small loader. The site could be further enhanced with the application of compost if this is readily available.

The analytical results show that for the parameters tested all remaining soil samples contain concentrations of contaminants that are below regulatory standards.



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3.4 GROUNDWATER AND SURFACE RESULTS

Water sampling results have been summarized in Table 3. The laboratory analytical reports are provided in Appendix A. Since many parameters were below detection limits for all samples collected only those of significance are presented in the tables. The complete list of analysis and results is provided in the laboratory analytical report.

The analytical results show that for the parameters tested all water samples contain concentrations of contaminants that are below regulatory standards.

4.0 CONCLUSIONS AND RECOMMENDATION

The following conclusions and recommendation are based on the results of this site assessment and the information that was available at the time of writing.

EBA concludes that soil contamination in excess of Contaminated Sites Regulation park land standards was found in one sample (HA03 at 0.1 m). EBA suggests that it would be prudent to remediate this area. EBA recommends that a nitrogen based fertilizer be applied and the surface soils loosed to improve aeration and the infiltration of moisture. The application of compose would also be beneficial in providing organic material to the soil. Soil testing should be conducted, after at least three months, to confirm that the contamination had been successfully remediated.

The groundwater analytical results indicate that all parameters tested are below applicable regulatory standards. No other groundwater issues have been identified at the site during this round of sampling.

The highest concentration of carbon disulphide detected in groundwater 1996 was in monitoring well MW96-07. This well was dry on both sampling occasions but the adjacent well, MW96-03 approximately 4 m to the northeast, was sampled in October 2008 and had no detectable concentration of carbon disulphide. Monitoring well MW96-03 was located in the center of the area where spill remediation activities had taken place and, therefore, was expected to provide a reliable indication of residual contaminants.

Since there were no indications of carbon disulphide or other contaminant concentrations in excess of regulatory standards, other than the one sample previously discussed, EBA has no recommendations for further site assessment.



5.0 LIMITATIONS OF REPORT

This report and its contents are intended for the sole use of Yukon Government, Assessment and Abandoned Mines Branch and their agents. EBA does not accept any responsibility for the accuracy of any of the data, the analysis or the recommendations contained or referenced in the report when the report is used or relied upon by any Party other than Yukon Government, or for any Project other than the proposed remediation at the subject site. Any such unauthorized use of this report is at the sole risk of the user. Use of this report is subject to the terms and conditions stated in EBA's Geo-Environmental Report - General Conditions included in this report.

6.0 CLOSURE

EBA trusts this report meets your requirements at this time. If you have questions or require additional information please contact the undersigned.

Respectfully Submitted, EBA Engineering Consultants Ltd.

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EBA Engineering Consultants Ltd., *Ground Water Assessment, Faro, YT,* Contract report prepared for Government of Yukon, September 1996.

International Programme on Chemical Safety, on-line search at http://www.inchem.org/ Metafina Review Committee, *Final Report*, undated



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GEO-ENVIRONMENTAL REPORT - GENERAL CONDITIONS

This report incorporates and is subject to these "General Conditions".

1.0 **USE OF REPORT AND OWNERSHIP**

This report pertains to a specific site, a specific development, and a specific scope of work. It is not applicable to any other sites, nor should it be relied upon for types of development other than those to which it refers. Any variation from the site or proposed development would necessitate a supplementary investigation and assessment.

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Electronic files submitted by EBA have been prepared and submitted using specific software and hardware systems. EBA makes no representation about the compatibility of these files with the Client's current or future software and hardware systems.

3.0 **NOTIFICATION OF AUTHORITIES**

In certain instances, the discovery of hazardous substances or conditions and materials may require that regulatory agencies and other persons be informed and the client agrees that notification to such bodies or persons as required may be done by EBA in its reasonably exercised discretion.



TABLES



| Parameter | | | | Sa | mple Number | | | | | CSF |
|-----------------------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------------|
| | HA01-0.2 | HA01-0.8 | HA02-0.2 | HA02-1.0 | HA03-0.1 | HA03-0.8 | HA04-0.2 | HA04-0.5 | HA05-0.2 | |
| Depth (m) | 0.2 | 0.8 | 0.2 | 1 | 0.1 | 0.8 | 0.2 | 0.5 | 0.2 | |
| PID (ppm) | 96 | 116 | 70 | 9.6 | 552 | 13.8 | 0.0 | 2.1 | 10.4 | na |
| Benzene | < 0.02 | < 0.02 | < 0.02 | < 0.02 | < 0.02 | < 0.02 | < 0.02 | < 0.02 | < 0.02 | 10 |
| Toluene | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | 1.5 |
| Ethylbenzene | < 0.05 | < 0.05 | 0.01 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | 1 1 |
| Total Xylenes (m,p,o) | < 0.05 | 0.02 | 0.07 | 0.05 | 0.12 | 0.07 | < 0.05 | < 0.05 | < 0.05 | 5 ¹ |
| Styrene | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | 5 |
| Methyl t-Butyl Ether | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | na |
| VPH | <50 | <50 | 60 | <50 | 120 | <50 | <50 | <50 | <50 | 200 |
| LEPH | 24 | 102 | 290 | 76 | 713 | <20 | 25 | <20 | <20 | 100 |
| HEPH | 489 | 195 | 303 | 339 | <mark>1110</mark> | 39 | 846 | <20 | 98 | 100 |
| Naphthalene | < 0.01 | 0.03 | 0.02 | 0.01 | 0.13 | < 0.01 | 0.01 | < 0.01 | < 0.01 | 5 |
| Acenaphthylene | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | na |
| Acenaphthene | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | na |
| Fluorene | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | na |
| Phenanthrene | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | 5 |
| Anthracene | < 0.005 | < 0.005 | 0.007 | < 0.005 | 0.007 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | na |
| Fluoranthene | < 0.04 | < 0.04 | < 0.04 | < 0.04 | 0.04 | < 0.04 | < 0.04 | < 0.04 | < 0.04 | na |
| Pyrene | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | 10 |
| Benzo(a)anthracene | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | 1 |
| Chrysene | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | na |
| Benzo(b)fluoranthene | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | 1 |
| Benzo(k)fluoranthene | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | 1 |
| Benzo(a)pyrene | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | 1 1 |
| deno(1,2,3-c,d)pyrene | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | 1 |
| ibenzo(a,h)anthracene | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | 1 |
| Benzo(g,h,i)perylene | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | na |
| Carbon Disulfide | 0.03 | | 0.37 | | 0.15 | | | | | 7.5 |
| 1,1,2-Trichloroethane | < 0.01 | | 0.02 | | < 0.01 | | | | | 5 |

All values in ug/g unless otherwise stated.

CSR Contaminated Sites Regulations park land use standards

1110 Exceeds CSR park land standard

na - No standard available

¹ Toxicity to soil invertebrates and plants

² Groundwater flow to surface water used by aquatic life

| TABLE 2: SUMMARY | ABLE 2: SUMMARY OF SOIL ANALYSIS FOR SAMPLES COLLECTED OCTOBER 2008 | | | | | | | | | | |
|------------------|---|-----------|-----------|------------|----------|----------|-----------|------|--|--|--|
| Parameter Name | | | Sar | nple Numbe | r | | | | | | |
| | TP08-1-2 | TP08-2-2 | TP08-3-2 | TP08-4-2 | TP08-5-1 | TP08-5-3 | TP08-6-2 | CSR | | | |
| Depth (m) | 0.1 | 0.5 | 0.5 | 0.5 | 0.1 | 1 | 0.6 | | | | |
| VPH | <50 | <50 | <50 | <50 | <50 | <50 | <50 | 200 | | | |
| LEPH | <20 | <20 | <20 | <20 | <20 | <20 | <20 | 1000 | | | |
| HEPH | 35 | <20 | <20 | <20 | <20 | <20 | <20 | 1000 | | | |
| Carbon Disulfide | < 0.01 | < 0.01 | < 0.01 | | < 0.01 | | | 7.5 | | | |
| | | | Sar | mple Numbe | r | | | | | | |
| | TP08-7-2 | TP08-8-1 | TP08-8-2 | TP08-8-3 | TP08-9-1 | TP08-9-2 | TP08-10-1 | | | | |
| Depth (m) | 0.5 | 0.1 | 0.5 | 0.8 | 0.1 | 0.5 | 0.1 | | | | |
| VPH | < 50 | < 50 | | <50 | <50 | | < 50 | 200 | | | |
| LEPH | 66 | <20 | | 21 | <20 | | <20 | 1000 | | | |
| HEPH | 29 | 42 | | 59 | 35 | | 74 | 1000 | | | |
| Carbon Disulfide | | < 0.01 | | | < 0.01 | | | 7.5 | | | |
| | | | Sar | nple Numbe | r | | | | | | |
| | TP08-11-1 | TP08-11-3 | TP08-11-4 | UST-1 | | | | | | | |
| Depth (m) | 0.1 | 0.9 | 0.9 | 1.9-2.0 | | | | | | | |
| VPH | <50 | <50 | < 50 | <50 | | | | 200 | | | |
| LEPH | <20 | <20 | <20 | <20 | | | | 1000 | | | |
| HEPH | <20 | <20 | <20 | <20 | | | | 1000 | | | |
| Carbon Disulfide | 0.02 | | | | | | | 7.5 | | | |

All values in ug/g unless otherwise stated.

CSR Contaminated Sites Regulations park land use standards

| TABLE 3: SUMMARY OF GROUNDWATER ANALYTICAL RESULTS | | | | | | | | | | | |
|--|---------|---------|---------|-----------------|---------|-------|--|--|--|--|--|
| Parameter | MW96-04 | MW96-06 | MW96-02 | MW96-03 | MW96-04 | CSR | | | | | |
| Sample Date | June 10 | 0, 2008 | | October 8, 2008 | | | | | | | |
| LEPHw | <100 | <100 | <100 | 200 | <100 | 500 | | | | | |
| HEPHw | <100 | <100 | <100 | 200 | <100 | na | | | | | |
| Naphthalene | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 10 | | | | | |
| Quinoline | <3.4 | < 3.4 | <3.4 | < 3.4 | < 3.4 | 34 | | | | | |
| Acenaphthylene | < 0.1 | < 0.1 | < 0.1 | 0.4 | < 0.1 | na | | | | | |
| Acenaphthene | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 60 | | | | | |
| Fluorene | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 120 | | | | | |
| Phenanthrene | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 3 | | | | | |
| Anthracene | < 0.01 | < 0.01 | < 0.1 | < 0.1 | < 0.1 | 1 | | | | | |
| Acridine | < 0.1 | < 0.1 | < 0.05 | < 0.05 | < 0.05 | 0.5 | | | | | |
| Fluoranthene | 0.03 | < 0.02 | < 0.1 | < 0.1 | < 0.1 | 2 | | | | | |
| Pyrene | 0.03 | < 0.02 | < 0.02 | < 0.02 | < 0.02 | 0.2 | | | | | |
| Benzo(a)anthracene | < 0.02 | < 0.02 | < 0.01 | < 0.01 | < 0.01 | 1 | | | | | |
| Chrysene | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 1 | | | | | |
| Benzo(b)fluoranthene | < 0.1 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | na | | | | | |
| Benzo(k)fluoranthene | < 0.1 | < 0.1 | < 0.02 | < 0.02 | < 0.02 | na | | | | | |
| Benzo(a)pyrene | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | 0.1 | | | | | |
| Indeno(1,2,3-c,d)pyrene | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | na | | | | | |
| Dibenzo(a,h)anthracene | < 0.1 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | na | | | | | |
| Benzo(g,h,i)perylene | 0.3 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | na | | | | | |
| Benzene | | <1 | <1 | <1 | <1 | 4000 | | | | | |
| Ethylbenzene | | <1 | <1 | <1 | <1 | 2000 | | | | | |
| Methyl t-Butyl Ether | | <1 | <1 | <1 | <1 | na | | | | | |
| Styrene | | <1 | <1 | <1 | <1 | 720 | | | | | |
| Toluene | | <1 | <1 | <1 | <1 | 390 | | | | | |
| Total Xylenes (m,p,o) | | <1 | <1 | <1 | <1 | 300* | | | | | |
| VPHw | | < 50 | <50 | <50 | <50 | 1500 | | | | | |
| VHw6-10 | | < 50 | < 50 | <50 | <50 | 15000 | | | | | |
| Carbon Disulfide | | | | <1 | | 21* | | | | | |

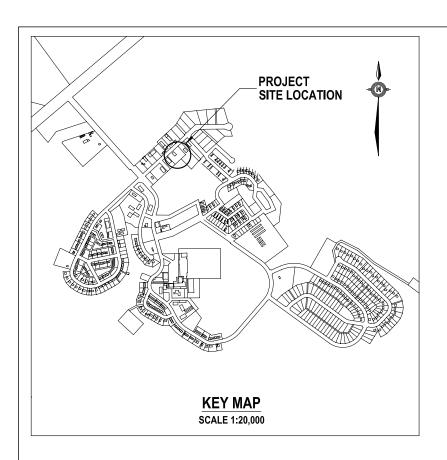
All values in ug/L unless otherwise stated. CSR Contaminated Sites Regulation Aquatic Life water use

na - No standard available Some parameters are not listed if all results were below detection

^{*} Drinking Water Standard

FIGURES





| SAMPLE # | DEPTH (m) | PID (ppm) | COMMENTS |
|-------------|--------------|--------------|-------------------|
| HA08-1 | 0.2 0.8 | 96 116 | |
| HA08-2 | 0.2 1.0 | 70 9.6 | WOOD DEBRIS |
| HA08-3 | 0.1 0.8 | 552 13.8 | BULK SAMPLE |
| HA08-4 | 0.2 0.5 | 0.0 2.1 | COBBLES - REFUSAL |
| HA08-5 | 0.2 | 10.4 | PROLIFIC ROOTS |

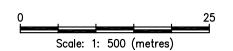


<u>LEGEND</u>

- ♦ MONITORING WELL LOCATIONS (SHOWN WHITE) SEPTEMBER 1996
- ⊞ HAND AUGER LOCATIONS (SHOWN WHITE) JUNE 2008

NOTES

1. IMAGE OBTAINED FROM GOOGLE EARTH (PRO VERSION)



Assessment and Abandoned Mines Branch

Contamination Assessment Former Metafina Chemical Site Faro, YT

KEY PLAN AND SITE PLAN, EXISTING MONITORING WELLS AND HAND AUGER LOCATIONS

Figure 1

EBA Engineering Consultants Ltd.

| | W2 |
|----------|-----|
| | VVZ |
| \sim | OFF |
| <i>-</i> | WH |

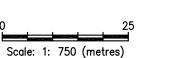
| CT NO. 01161 | DWN JSB | CKD MG/DJW | REV 1 |
|------------------|------------|---------------|----------|
| | DATE | | |
| E | February | 18, 2009 | |



TESTPIT LOCATIONS (SHOWN WHITE)

NOTES

1. IMAGE OBTAINED FROM GOOGLE EARTH (PRO VERSION)



Assessment and Abandoned Mines Branch

EBA Engineering Consultants Ltd.

| Contai | mination <i>i</i> | Assessment |
|--------|-------------------|---------------|
| Former | Metafina (| Chemical Site |
| | Faro. ` | YT |

SITE PLAN SHOWING **TESTPIT LOCATIONS**

PROJECT NO. DWN CKD REV W23101161 JSB MG/DJW OFFICE WHSE February 18, 2009

| Figure 2 | 2 |
|----------|---|
|----------|---|

PHOTOGRAPHS





Photograph 1: Site looking east across concrete foundation. Monitoring well MW96-07 visible in center right and MW96-03 in center left of photograph. June 10, 2008



Photograph 2: Site looking southeast from McQuesten Road along southern property boundary. Dismantled tanks are visible in the background. June 10, 2008





Photograph 3: Area of stressed vegetation looking north toward Monitoring Well MW96-07 with the concrete pad visible in upper left of the photograph. June 10, 2008



Photograph 4: Area of 1996 spill remediation with remnants of a tarp used to cover the area still visible. Monitoring well MW96-03 is shown in left foreground. June 10, 2008





APPENDIX A BODYCOTE ANALYTICAL REPORT



Norwest Labs - A New Bodycot



Control Number

tal Sample Information Sheet

of this form is required in order to proceed with analysis

| В | illing Ad | dress: | | | | Copy | of R | epo | ort ' | To: | St DOC | lycole i | | | | nvoic | | protocol |
|---------------|-------------------|--|-------------|----------------|---|------------------|-----------|----------------|----------|-------------|----------------|----------------|----------------------|--|---------------|------------------|----------|-----------|
| C | ompany: | RBA ENOWERING | | | | | pany: | | | | | | | Mail Invoice to this | | | | |
| A | ddress: | Unit 6 151 Iva | uspralpor | QA/QC Report [| | Addr | | | | | | | | THE STREET, ST | | approv | - | |
| | | BBARNgineerny Unit 6 151 Ina Whitcherse 47 4 | 1A 2U3 | | | | | | | | | | | • | | | | |
| ١,, | | | | Report Results | s: | | | | | | | | | | | Re | port F | Results: |
| | tention: none: | P. Wilson | | Fax [| _ | Atten | | | | | | | | | | | Fax | |
| Fa | | (867) 668-2071 x | 223 | Mail [| \dashv | Phon | e: | | | | | | | | | | Mail | |
| Ce | | (867) 668-4349 | | Courier [| - | Fax: | į | | | | | | | | | Co | urier | |
| 1000 | mail: | dwilson@eba. | CO | e-mail [| | Cell: e-ma | ii. [| | | | | | | | | e- | -mail | |
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Report Transmission Cover Page

Bill To: EBA Engineering Consulting Lt Project: Lot ID: 625610

Report To: EBA Engineering Consulting Lt W23101161 Approval Status: Approved

Calcite Business Centre Name: Metafina Invoice Frequency: by Lot Location: Unit 6, 151 Industrial Road

COD Status: Whitehorse, YT, Canada LSD: Control Number: Y1A 2V3 P.O.:

Date Received: Jun 18, 2008 Attn: Donald Wilson Acct code: Date Reported: Jul 5, 2008 Sampled By: D. Wilson Report Number: 1128535

Company: EBA

Contact Company Address

PDF

Donald Wilson EBA Engineering Consulting Lt Calcite Business Centre, Unit 6, 151 Industrial Road

Whitehorse, YT Y1A 2V3

Phone: (867) 668-2071 (867) 668-4349 Fax:

Format Email: dwilson@eba.ca Copies Delivery

Post

PAGES IN THIS TRANSMISSION

Notes To Clients:

1

• BTEX analysis cancelled due to insufficient sample volume.

• >130 - The surrogate recovery is higher than the rang 23-130% on sample #3,5 due to other sample material interfering with this surrogate.

Reports associated with this Lot

Email - Single Report

Id/Format/Report Date Id/Format/Report Date Id/Format/Report Date

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Sample Custody

Bill To: EBA Engineering Consulting Lt Project: Lot ID: 625610 Report To: EBA Engineering Consulting Lt ID: W23101161 Control Number: Calcite Business Centre Name: Metafina Date Received: Jun 18, 2008 Unit 6, 151 Industrial Road Location: Date Reported: Jul 5, 2008 Whitehorse, YT, Canada LSD: Report Number: 1128535 Y1A 2V3 P.O.: Attn: Donald Wilson Acct code: Sampled By: D. Wilson Company: EBA Sample Disposal Date: August 04, 2008 All samples will be stored until this date unless other instructions are received. Please indicate other requirements below and return this form to the address or fax number on the bottom of this page. Extend Sample Storage Until (MM/DD/YY) The following charges apply to extended sample storage: Storage for 1 to 5 samples per month \$ 10.00 \$ 15.00 Storage for 6 to 20 samples per month Storage for 21 to 50 samples per month \$ 30.00 Storage for 51 to 200 samples per month \$ 60.00 Storage for more than 200 samples per month \$110.00 Return Sample, collect, to the address below via: Greyhound Loomis **Purolator** Other (specify) Name Company Address Phone

Fax

Signature



W23101161

Metafina

Bill To: EBA Engineering Consulting Lt Project

Report To: EBA Engineering Consulting Lt

Calcite Business Centre

Unit 6, 151 Industrial Road Whitehorse, YT, Canada Y1A 2V3

Attn: Donald Wilson

Sampled By: D. Wilson Company: EBA

roject: Lot ID: **625610**

Control Number:

Date Received: Jun 18, 2008 Date Reported: Jul 5, 2008

Report Number: 1128535

 Reference Number
 625610-1
 625610-2
 625610-3

 Sample Date
 Jun 10, 2008
 Jun 10, 2008
 Jun 10, 2008

Sample Location

Name:

LSD:

P.O.:

Location:

Acct code:

Sample Description W23101161 #1-0.2 W23101161 #1-0.8 W23101161 #2-0.2

Matrix Soil Soil Soil Nominal Detection Units Results Results Analyte Results Limit Mono-Aromatic Hydrocarbons - Soil Benzene Dry Weight < 0.02 < 0.02 < 0.02 0.02 ug/g 0.05 Toluene < 0.05 < 0.05 < 0.05 Dry Weight ug/g Ethylbenzene Dry Weight ug/g < 0.05 < 0.05 < 0.05 0.05 < 0.05 0.05 Total Xylenes (m,p,o) Dry Weight < 0.05 < 0.05 ug/g Styrene Dry Weight < 0.05 < 0.05 < 0.05 0.05 ug/g Methyl t-Butyl Ether Dry Weight < 0.05 < 0.05 < 0.05 0.05 ug/g Volatile Petroleum Hydrocarbons - Soil VHs6-10 Dry Weight ug/g <50 <50 60 50 VPHs (VHs6-10 minus Dry Weight <50 <50 60 50 ug/g BTEX) **Extractable Petroleum Hydrocarbons - Soil** 24 102 290 20 **LEPHs** Dry Weight ug/g **HEPHs** Dry Weight ug/g 489 195 303 20 Polycyclic Aromatic Hydrocarbons - Soil < 0.01 0.03 0.02 0.01 Naphthalene Dry Weight mg/kg Acenaphthylene Dry Weight < 0.05 < 0.05 0.05 mg/kg < 0.05 Acenaphthene Dry Weight < 0.05 < 0.05 < 0.05 0.05 mg/kg Fluorene Dry Weight mg/kg < 0.05 < 0.05 < 0.05 0.05 Phenanthrene Dry Weight mg/kg < 0.05 < 0.05 < 0.05 0.05 Anthracene Dry Weight < 0.005 < 0.005 0.007 0.005 mg/kg Fluoranthene Dry Weight < 0.04 < 0.04 < 0.04 0.04 mg/kg Pyrene Dry Weight < 0.05 < 0.05 < 0.05 0.05 mg/kg Benzo(a)anthracene Dry Weight < 0.05 < 0.05 < 0.05 0.05 mg/kg Dry Weight < 0.05 Chrysene mg/kg < 0.05 < 0.05 0.05 Benzo(b)fluoranthene Dry Weight < 0.05 < 0.05 < 0.05 0.05 mg/kg Dry Weight Benzo(k)fluoranthene mg/kg < 0.05 < 0.05 < 0.05 0.05 Dry Weight < 0.05 Benzo(a)pyrene mg/kg < 0.05 < 0.05 0.05 Indeno(1,2,3-c,d)pyrene Dry Weight mg/kg < 0.05 < 0.05 < 0.05 0.05 Dibenzo(a,h)anthracene Dry Weight mg/kg < 0.05 < 0.05 < 0.05 0.05 Dry Weight < 0.05 < 0.05 < 0.05 0.05 Benzo(g,h,i)perylene mg/kg PAH - Soil - Surrogate Recovery Nitrobenzene-d5 PAH - Surrogate % 119 121 >130 23-130 2-Fluorobiphenyl PAH - Surrogate % 106 96 101 30-130 p-Terphenyl-d14 PAH - Surrogate % 123 125 18-137 115



Bill To: EBA Engineering Consulting Lt Project:

Lot ID: 625610 Report To: EBA Engineering Consulting Lt W23101161

Control Number: Calcite Business Centre Name: Metafina

Date Received: Jun 18, 2008 Unit 6, 151 Industrial Road Location: Date Reported: Jul 5, 2008 LSD: Whitehorse, YT, Canada Report Number: 1128535 Y1A 2V3 P.O.:

Attn: Donald Wilson Acct code:

Sampled By: D. Wilson Company: EBA

> 625610-1 625610-3 625610-5 **Reference Number** Sample Date Jun 10, 2008 Jun 10, 2008 Jun 10, 2008

Sample Location

Sample Description W23101161 #1-0.2 W23101161 #2-0.2 W23101161 #3-0.1

| | | Matrix | Soil | Soil | Soil | |
|----------------------------|---------------|--------|---------|---------|--|----------------------------|
| Analyte | | Units | Results | Results | Results <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0. | Nominal Detection Limit |
| VOC Screen - Soil | | | | | | Limit |
| Benzene | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| Bromodichloromethane | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| Bromoform | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| Bromomethane | Dry Weight | mg/kg | <0.1 | <0.1 | <0.1 | 0.10 |
| Carbon Disulfide | Dry Weight | mg/kg | 0.03 | 0.37 | 0.15 | 0.01 |
| Carbon Tetrachloride | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| Chlorobenzene | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| Chloroethane | Dry Weight | mg/kg | <0.1 | <0.1 | <0.1 | 0.10 |
| 2-Chloroethyl Vinyl Ether | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| Chloroform | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| Chloromethane | Dry Weight | mg/kg | <0.1 | <0.1 | <0.1 | 0.10 |
| Dibromochloromethane | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| 1,2-Dichlorobenzene | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| 1,3-Dichlorobenzene | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| 1,4-Dichlorobenzene | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| 1,1-Dichloroethane | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| 1,2-Dichloroethane | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| 1,1-Dichloroethene | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| 1,2-Dichloroethene(cis) | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| 1,2-Dichloroethene(trans) | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| 1,2-Dichloropropane | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| 1,3-Dichloropropene(cis) | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| 1,3-Dichloropropene(trans) | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| Ethylbenzene | Dry Weight | mg/kg | <0.01 | 0.01 | <0.01 | 0.01 |
| Methylene Chloride | Dry Weight | mg/kg | <0.1 | <0.1 | <0.1 | 0.10 |
| Styrene | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| 1,1,2,2-Tetrachloroethane | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| Tetrachloroethene | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| Toluene | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| 1,1,1-Trichloroethane | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| 1,1,2-Trichloroethane | Dry Weight | mg/kg | <0.01 | 0.02 | <0.01 | 0.01 |
| Trichloroethene | Dry Weight | mg/kg | <0.01 | <0.01 | 0.01 | 0.01 |
| Trichlorofluoromethane | Dry Weight | mg/kg | <0.01 | <0.01 | 0.08 | 0.01 |
| Vinyl Chloride | Dry Weight | mg/kg | <0.1 | <0.1 | <0.1 | 0.10 |
| Total Xylenes (m,p,o) | Dry Weight | mg/kg | 0.02 | 0.07 | 0.05 | 0.01 |
| VOC - Soil - Surrogate Rec | overy | | | | | |
| Dibromofluoromethane | EPA Surrogate | % | 87 | 88 | 88 | 80-120 |
| Toluene-d8 | EPA Surrogate | % | 95 | 102 | 102 | 81-117 |



Bill To: EBA Engineering Consulting Lt Project:

Report To: EBA Engineering Consulting Lt

Calcite Business Centre

Unit 6, 151 Industrial Road Whitehorse, YT, Canada Y1A 2V3

Attn: Donald Wilson

Sampled By: D. Wilson Company: EBA

Name: Location: LSD:

P.O.: Acct code:

W23101161

Metafina

Control Number:

Date Received: Jun 18, 2008

Lot ID: 625610

Date Reported: Jul 5, 2008 Report Number: 1128535

Reference Number Sample Date

625610-1 Jun 10, 2008 625610-3

625610-5

Sample Location

W23101161 #1-0.2 **Sample Description**

Matrix

Jun 10, 2008 W23101161 #2-0.2 Jun 10, 2008

W23101161 #3-0.1

Soil Soil Soil

Nominal Detection Units Results Results Results **Analyte** VOC - Soil - Surrogate Recovery - Continued Bromofluorobenzene **EPA Surrogate** % 106 106 106 74-121



W23101161

Metafina

Bill To: EBA Engineering Consulting Lt Project:

Report To: EBA Engineering Consulting Lt

Calcite Business Centre

Unit 6, 151 Industrial Road Whitehorse, YT, Canada Y1A 2V3

Attn: Donald Wilson

Sampled By: D. Wilson Company: EBA

roject: Lot ID: **625610**

Control Number:

Date Received: Jun 18, 2008 Date Reported: Jul 5, 2008 Report Number: 1128535

 Reference Number
 625610-4
 625610-5
 625610-6

 Sample Date
 Jun 10, 2008
 Jun 10, 2008
 Jun 10, 2008

Sample Location

Name:

LSD:

P.O.:

Location:

Acct code:

Sample Description W23101161 #2-1.0 W23101161 #3-0.1 W23101161 #3-0.8

| | | Matrix | Soil | Soil | Soil | |
|---------------------------------|-------------------|--------|---------|---------|---------|----------------------------|
| Analyte | | Units | Results | Results | Results | Nominal Detection Limit |
| Mono-Aromatic Hydrocar | bons - Soil | | | | | Limit |
| Benzene | Dry Weight | ug/g | <0.02 | <0.02 | < 0.02 | 0.02 |
| Toluene | Dry Weight | ug/g | <0.05 | <0.05 | < 0.05 | 0.05 |
| Ethylbenzene | Dry Weight | ug/g | <0.05 | <0.05 | < 0.05 | 0.05 |
| Total Xylenes (m,p,o) | Dry Weight | ug/g | <0.05 | 0.12 | 0.07 | 0.05 |
| Styrene | Dry Weight | ug/g | <0.05 | <0.05 | < 0.05 | 0.05 |
| Methyl t-Butyl Ether | Dry Weight | ug/g | <0.05 | <0.05 | < 0.05 | 0.05 |
| Volatile Petroleum Hydro | carbons - Soil | | | | | |
| VHs6-10 | Dry Weight | ug/g | <50 | 120 | <50 | 50 |
| VPHs (VHs6-10 minus BTEX) | Dry Weight | ug/g | <50 | 120 | <50 | 50 |
| Extractable Petroleum Hy | drocarbons - Soil | | | | | |
| LEPHs | Dry Weight | ug/g | 76 | 713 | <20 | 20 |
| HEPHs | Dry Weight | ug/g | 339 | 1110 | 39 | 20 |
| Polycyclic Aromatic Hydr | ocarbons - Soil | | | | | |
| Naphthalene | Dry Weight | mg/kg | 0.01 | 0.13 | <0.01 | 0.01 |
| Acenaphthylene | Dry Weight | mg/kg | <0.05 | <0.05 | < 0.05 | 0.05 |
| Acenaphthene | Dry Weight | mg/kg | < 0.05 | <0.05 | < 0.05 | 0.05 |
| Fluorene | Dry Weight | mg/kg | < 0.05 | <0.05 | < 0.05 | 0.05 |
| Phenanthrene | Dry Weight | mg/kg | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Anthracene | Dry Weight | mg/kg | < 0.005 | 0.007 | < 0.005 | 0.005 |
| Fluoranthene | Dry Weight | mg/kg | <0.04 | 0.04 | < 0.04 | 0.04 |
| Pyrene | Dry Weight | mg/kg | <0.05 | <0.05 | < 0.05 | 0.05 |
| Benzo(a)anthracene | Dry Weight | mg/kg | <0.05 | <0.05 | < 0.05 | 0.05 |
| Chrysene | Dry Weight | mg/kg | < 0.05 | <0.05 | < 0.05 | 0.05 |
| Benzo(b)fluoranthene | Dry Weight | mg/kg | <0.05 | <0.05 | < 0.05 | 0.05 |
| Benzo(k)fluoranthene | Dry Weight | mg/kg | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(a)pyrene | Dry Weight | mg/kg | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Indeno(1,2,3-c,d)pyrene | Dry Weight | mg/kg | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Dibenzo(a,h)anthracene | Dry Weight | mg/kg | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(g,h,i)perylene | Dry Weight | mg/kg | <0.05 | < 0.05 | < 0.05 | 0.05 |
| PAH - Soil - Surrogate Re | covery | | | | | |
| Nitrobenzene-d5 | PAH - Surrogate | % | 89 | >130 | 88 | 23-130 |
| 2-Fluorobiphenyl | PAH - Surrogate | % | 94 | 69 | 94 | 30-130 |
| p-Terphenyl-d14 | PAH - Surrogate | % | 76 | 49 | 111 | 18-137 |



W23101161

Metafina

Bill To: EBA Engineering Consulting Lt Project:

Report To: EBA Engineering Consulting Lt

Calcite Business Centre Unit 6, 151 Industrial Road Whitehorse, YT, Canada

Location: LSD: Y1A 2V3 P.O.: Attn: Donald Wilson Acct code:

Sampled By: D. Wilson Company: EBA

Lot ID: 625610

Control Number:

Date Received: Jun 18, 2008 Date Reported: Jul 5, 2008 Report Number: 1128535

625610-8 625610-9 625610-10 **Reference Number** Sample Date Jun 10, 2008 Jun 10, 2008 Jun 10, 2008

Sample Location

Name:

Sample Description W23101161 #4-0.2 W23101161 #4-0.5 W23101161 #5-0.2

| | | Matrix | Soil | Soil | Soil | |
|------------------------------|-------------------|--------|---------|---------|---------|----------------------------|
| Analyte | | Units | Results | Results | Results | Nominal Detection Limit |
| Mono-Aromatic Hydrocar | bons - Soil | | | | | |
| Benzene | Dry Weight | ug/g | <0.02 | <0.02 | <0.02 | 0.02 |
| Toluene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Ethylbenzene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Total Xylenes (m,p,o) | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Styrene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Methyl t-Butyl Ether | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Volatile Petroleum Hydro | carbons - Soil | | | | | |
| VHs6-10 | Dry Weight | ug/g | <50 | <50 | <50 | 50 |
| VPHs (VHs6-10 minus BTEX) | Dry Weight | ug/g | <50 | <50 | <50 | 50 |
| Extractable Petroleum Hy | drocarbons - Soil | | | | | |
| LEPHs | Dry Weight | ug/g | 25 | <20 | <20 | 20 |
| HEPHs | Dry Weight | ug/g | 846 | <20 | 98 | 20 |
| Polycyclic Aromatic Hydr | rocarbons - Soil | | | | | |
| Naphthalene | Dry Weight | mg/kg | 0.01 | <0.01 | <0.01 | 0.01 |
| Acenaphthylene | Dry Weight | mg/kg | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Acenaphthene | Dry Weight | mg/kg | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Fluorene | Dry Weight | mg/kg | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Phenanthrene | Dry Weight | mg/kg | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Anthracene | Dry Weight | mg/kg | < 0.005 | < 0.005 | < 0.005 | 0.005 |
| Fluoranthene | Dry Weight | mg/kg | < 0.04 | < 0.04 | < 0.04 | 0.04 |
| Pyrene | Dry Weight | mg/kg | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(a)anthracene | Dry Weight | mg/kg | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Chrysene | Dry Weight | mg/kg | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(b)fluoranthene | Dry Weight | mg/kg | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(k)fluoranthene | Dry Weight | mg/kg | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(a)pyrene | Dry Weight | mg/kg | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Indeno(1,2,3-c,d)pyrene | Dry Weight | mg/kg | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Dibenzo(a,h)anthracene | Dry Weight | mg/kg | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(g,h,i)perylene | Dry Weight | mg/kg | <0.05 | < 0.05 | < 0.05 | 0.05 |
| PAH - Soil - Surrogate Re | | 0 0 | | | | |
| Nitrobenzene-d5 | PAH - Surrogate | % | 108 | 106 | 109 | 23-130 |
| 2-Fluorobiphenyl | PAH - Surrogate | % | 100 | 97 | 99 | 30-130 |
| p-Terphenyl-d14 | PAH - Surrogate | % | 115 | 116 | 117 | 18-137 |
| | - | | | | | |



Bill To: EBA Engineering Consulting Lt Project:

Report To: EBA Engineering Consulting Lt

Calcite Business Centre Unit 6, 151 Industrial Road

Whitehorse, YT, Canada Y1A 2V3

Attn: Donald Wilson

Sampled By: D. Wilson Company: EBA

LSD:

P.O.:

Acct code:

W23101161

Metafina

Name: Location:

Control Number:

Lot ID: 625610

Date Received: Jun 18, 2008 Date Reported: Jul 5, 2008 Report Number: 1128535

Reference Number Sample Date

625610-11 Jun 10, 2008

625610-12 Jun 10, 2008

Sample Location

Sample Description W23101161 MW04

W23101161 MW06

| Water | Wat |
|-------|-----|
| | |

| Matrix | Water | Water | | |
|--------|---|---|---|---|
| Units | Results | Results | Results | Nominal Detection Limit |
| | | | | |
| ug/L | <100 | <100 | | 100 |
| ug/L | <100 | <100 | | 100 |
| | | | | |
| ug/L | <0.1 | <0.1 | | 0.1 |
| ug/L | <3.4 | <3.4 | | 3.4 |
| ug/L | <0.1 | <0.1 | | 0.1 |
| ug/L | <0.1 | <0.1 | | 0.1 |
| ug/L | <0.1 | <0.1 | | 0.1 |
| ug/L | <0.1 | <0.1 | | 0.1 |
| ug/L | <0.01 | <0.01 | | 0.01 |
| ug/L | <0.1 | <0.1 | | 0.1 |
| ug/L | 0.03 | <0.02 | | 0.02 |
| ug/L | 0.03 | <0.02 | | 0.02 |
| ug/L | <0.02 | <0.02 | | 0.02 |
| ug/L | <0.1 | <0.1 | | 0.1 |
| ug/L | <0.1 | <0.1 | | 0.1 |
| ug/L | <0.1 | <0.1 | | 0.1 |
| ug/L | <0.01 | <0.01 | | 0.01 |
| ug/L | <0.1 | <0.1 | | 0.1 |
| ug/L | <0.1 | <0.1 | | 0.1 |
| ug/L | 0.3 | <0.1 | | 0.1 |
| | | | | |
| % | 96 | 94 | | 23-130 |
| % | 83 | 84 | | 30-130 |
| % | 83 | 102 | | 18-137 |
| | ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L | Units Results ug/L <100 | Units Results Results ug/L <100 | Units Results Results ug/L <100 |



Bill To: EBA Engineering Consulting Lt Project:

Report To: EBA Engineering Consulting Lt

Calcite Business Centre

Unit 6, 151 Industrial Road Whitehorse, YT, Canada Y1A 2V3

Attn: Donald Wilson

Sampled By: D. Wilson Company: EBA

Name:

LSD:

P.O.:

Location:

Acct code:

W23101161

Metafina

Control Number:

Date Received: Jun 18, 2008

Lot ID: 625610

Date Reported: Jul 5, 2008 Report Number: 1128535

Reference Number Sample Date 625610-12

Sample Location

Jun 10, 2008

Sample Description W23101161 MW06

| | Matrix | Water | | | |
|---|--------|---------|---------|---------|----------------------------|
| Analyte | Units | Results | Results | Results | Nominal Detection Limit |
| Mono-Aromatic Hydrocarbons - Water | | | | | |
| Benzene | ug/L | <1 | | | 1 |
| Ethylbenzene | ug/L | <1 | | | 1 |
| Methyl t-Butyl Ether | ug/L | <1 | | | 1 |
| Styrene | ug/L | <1 | | | 1 |
| Toluene | ug/L | <1 | | | 1 |
| Total Xylenes (m,p,o) | ug/L | <1 | | | 1 |
| Volatile Petroleum Hydrocarbons - Water | | | | | |
| VPHw (VHw6-10 minus | ug/L | <50 | | | 50 |
| BTEX) | | | | | |
| VHw6-10 | ug/L | <50 | | | 50 |

Approved by:

Laurie Brown, MSc Client Services Manager



Bill To: EBA Engineering Consulting Lt Project: Lot ID: **625610**

Report To: EBA Engineering Consulting Lt ID: W23101161 Control Number:

Calcite Business CentreName:MetafinaDate Received:Jun 18, 2008Unit 6, 151 Industrial RoadLocation:Date Reported:Jul 5, 2008Whitehorse, YT, CanadaLSD:Report Number:1128535Y1A 2V3P.O.:

Attn: Donald Wilson Acct code:

Sampled By: D. Wilson Company: EBA

| Blanks | Units | Measured | Mean | Lower Limit | Upper Limit | Passed QC |
|-------------------------|-----------|----------|------|--------------------|-------------|-----------|
| Benzene | ug/g | <0.02 | 0.00 | -0.03 | 0.03 | yes |
| Toluene | ug/g | <0.05 | 0.00 | -0.03 | 0.03 | yes |
| Ethylbenzene | ug/g | <0.05 | 0.00 | -0.03 | 0.03 | yes |
| Total Xylenes (m,p,o) | ug/g | <0.05 | 0.00 | -0.03 | 0.03 | yes |
| Styrene | ug/g | <0.05 | 0.00 | -0.03 | 0.03 | yes |
| Methyl t-Butyl Ether | ug/g | <0.05 | 0.00 | -0.03 | 0.03 | yes |
| Material Hand Mather J. | Name Land | | | | | |

Material Used: Method Blank - VPH
Date Acquired: June 19, 2008
Acquired By: Tejal Patel

| Calibration Check | Units | Measured | Target | % Recovery | Criteria (%) | Passed QC |
|-----------------------|-------|----------|--------|------------|----------------|-----------|
| Benzene | ng | 54.7 | 50.00 | 109.40 | 85.00 - 115.00 | yes |
| Toluene | ng | 56.2 | 50.00 | 112.40 | 85.00 - 115.00 | yes |
| Ethylbenzene | ng | 56.4 | 50.00 | 112.80 | 85.00 - 115.00 | yes |
| Total Xylenes (m,p,o) | ng | 169.0 | 150.00 | 112.67 | 85.00 - 115.00 | yes |
| Styrene | ng | 54.2 | 50.00 | 108.40 | 85.00 - 115.00 | yes |
| Methyl t-Butyl Ether | ng | 55.7 | 50.00 | 111.40 | 85.00 - 115.00 | yes |

Material Used: Calibration Check - BTEX

Date Acquired: June 19, 2008 Acquired By: Tejal Patel

| Replicates | Units | Replicate1 | Replicate2 | % RSD Criteria | Absolute Criteria | Passed QC |
|-----------------------|-------|------------|------------|----------------|--------------------------|-----------|
| Benzene | ug/g | 105 | 98.1 | 22.50 | 0.04 | yes |
| Toluene | ug/g | 109 | 104 | 22.50 | 0.04 | yes |
| Ethylbenzene | ug/g | 113 | 108 | 22.50 | 0.04 | yes |
| Total Xylenes (m,p,o) | ug/g | 222 | 217 | 22.50 | 0.04 | yes |
| Methyl t-Butyl Ether | ug/g | 102 | 96.2 | 22.50 | 0.04 | ves |

Material Used: Duplicate - Run 2 - BTEX

Date Acquired: June 19, 2008 Acquired By: Tejal Patel

| Matrix Spike | Units | Measured | Actual | % Recovery | Criteria (%) | Passed QC |
|-----------------------|-------|----------|--------|------------|----------------|-----------|
| Benzene | ug/g | 105 | 100 | 105.00 | 85.00 - 115.00 | yes |
| Toluene | ug/g | 109 | 100 | 109.00 | 85.00 - 115.00 | yes |
| Ethylbenzene | ug/g | 113 | 100 | 113.00 | 85.00 - 115.00 | yes |
| Total Xylenes (m,p,o) | ug/g | 222 | 200 | 111.00 | 85.00 - 115.00 | yes |
| Styrene | ug/g | 109 | 100 | 109.00 | 85.00 - 115.00 | yes |
| Methyl t-Butyl Ether | ug/g | 102 | 100 | 102.00 | 85.00 - 115.00 | yes |

Material Used: Matrix Spike - BTEX
Date Acquired: June 19, 2008
Acquired By: Tejal Patel

Mono-Aromatic Hydrocarbons - Water



Bill To: EBA Engineering Consulting Lt Project:

Lot ID: 625610 W23101161 Report To: EBA Engineering Consulting Lt

Control Number:

Calcite Business Centre Name: Metafina Date Received: Jun 18, 2008 Unit 6, 151 Industrial Road Location: Date Reported: Jul 5, 2008 LSD: Whitehorse, YT, Canada Report Number: 1128535 Y1A 2V3 P.O.:

Attn: Donald Wilson Acct code:

Sampled By: D. Wilson Company: EBA

| Mono-Aromatic Hydrocarbons - Wate | | | | | |
|-----------------------------------|-------|--|--|--|--|
| Blanks | Units | | | | |
| Benzene | ug/L | | | | |

| Blanks | Units | Measured | Mean | Lower Limit | Upper Limit | Passed QC |
|-----------------------|-------|----------|------|-------------|-------------|-----------|
| Benzene | ug/L | <1 | 0 | -2 | 2 | yes |
| Ethylbenzene | ug/L | <1 | 0 | -2 | 2 | yes |
| Methyl t-Butyl Ether | ug/L | <1 | 0 | -2 | 2 | yes |
| Styrene | ug/L | <1 | 0 | -2 | 2 | yes |
| Toluene | ug/L | <1 | 0 | -2 | 2 | yes |
| Total Xylenes (m,p,o) | ug/L | <1 | 0 | -2 | 2 | yes |

Material Used: Method Blank - VPH Date Acquired: June 24, 2008 Acquired By: Tejal Patel

| Calibration Check | Units | Measured | Target | % Recovery | Criteria (%) | Passed QC |
|-----------------------|-------|----------|--------|------------|--------------|-----------|
| Benzene | ng | 55.0 | 50 | 110 | 85 - 115 | yes |
| Ethylbenzene | ng | 56.0 | 50 | 112 | 85 - 115 | yes |
| Methyl t-Butyl Ether | ng | 56.0 | 50 | 112 | 85 - 115 | yes |
| Styrene | ng | 54.0 | 50 | 108 | 85 - 115 | yes |
| Toluene | ng | 56.0 | 50 | 112 | 85 - 115 | yes |
| Total Xylenes (m,p,o) | ng | 169.0 | 150 | 113 | 85 - 115 | yes |

Material Used: Calibration Check - BTEX

Date Acquired: June 24, 2008 Tejal Patel Acquired By:

Volatile Petroleum Hydrocarbons - Soil

Blanks Units **Lower Limit** Upper Limit Passed QC Measured Mean VHs6-10 ug/g <50 -2 2 yes

Material Used: Method Blank - VPH Date Acquired: June 19, 2008 Acquired By: Tejal Patel

Volatile Petroleum Hydrocarbons - Water

Blanks Mean **Units Lower Limit** Upper Limit Passed QC Measured ug/L VHw6-10 <50 -15 15 ves

Material Used: Method Blank - VPH June 24, 2008 Date Acquired: Acquired By: Tejal Patel

Extractable Petroleum Hydrocarbons -

Soil

| Blanks | Units | Measured | Mean | Lower Limit | Upper Limit | Passed QC |
|-----------|-------|----------|------|-------------|-------------|-----------|
| EPHs10-19 | ug/g | <20 | 0 | -15 | 15 | yes |
| EPHs19-32 | ug/g | <20 | 0 | -15 | 15 | yes |

78 - 122

yes



Quality Control

Bill To: EBA Engineering Consulting Lt

Lot ID: 625610 W23101161 Report To: EBA Engineering Consulting Lt

Control Number:

Calcite Business Centre Name: Metafina Date Received: Jun 18, 2008 Unit 6, 151 Industrial Road Location: Date Reported: Jul 5, 2008 Whitehorse, YT, Canada LSD: Report Number: 1128535 Y1A 2V3 P.O.:

Attn: Donald Wilson Acct code:

Sampled By: D. Wilson Company: EBA

Extractable Petroleum Hydrocarbons -

Soil - Continued

Material Used:

Blanks Units Measured Mean **Lower Limit** Upper Limit Passed QC

Material Used: Method Blank - XHC June 19, 2008 Date Acquired: Acquired By: Analyn Siapno

Calibration Check Units Measured Criteria (%) Passed QC **Target** % Recovery EPHs10-19 ug/mL 123.7 140 88 78 - 122 yes

660

88

EPHs19-32 583.3 ug/mL Calibration Check - XHC

Date Acquired: June 19, 2008 Acquired By: Analyn Siapno

Extractable Petroleum Hydrocarbons -

Water

Blanks Units Measured Mean **Lower Limit** Upper Limit Passed QC EPHw10-19 ug/L <100 0 -150 150 yes EPHw19-32 ug/L <100 0 -150 150 yes

Material Used: Method Blank - XHC Date Acquired: June 19, 2008 Acquired By: Analyn Siapno

Calibration Check Units Measured **Target** % Recovery Criteria (%) Passed QC EPHw10-19 ug/mL 123700.0 140000 88 78 - 122 yes 660000 EPHw19-32 ug/mL 583300.0 88 78 - 122 yes

Material Used: Calibration Check - XHC

Date Acquired: June 19, 2008 Acquired By: Analyn Siapno

Polycyclic Aromatic Hydrocarbons - Soil

| Blanks | Units | Measured | Mean | Lower Limit | Upper Limit | Passed QC |
|----------------------|-------|----------|-------|-------------|-------------|-----------|
| Naphthalene | mg/kg | <0.01 | 0.00 | -0.01 | 0.01 | yes |
| Acenaphthylene | mg/kg | <0.05 | 0.00 | -0.05 | 0.05 | yes |
| Acenaphthene | mg/kg | <0.05 | 0.00 | -0.05 | 0.05 | yes |
| Fluorene | mg/kg | <0.05 | 0.00 | -0.05 | 0.05 | yes |
| Phenanthrene | mg/kg | <0.05 | 0.00 | -0.05 | 0.05 | yes |
| Anthracene | mg/kg | <0.005 | 0.000 | -0.005 | 0.005 | yes |
| Fluoranthene | mg/kg | <0.04 | 0.00 | -0.04 | 0.04 | yes |
| Pyrene | mg/kg | <0.05 | 0.00 | -0.05 | 0.05 | yes |
| Benzo(a)anthracene | mg/kg | <0.05 | 0.00 | -0.05 | 0.05 | yes |
| Chrysene | mg/kg | <0.05 | 0.00 | -0.05 | 0.05 | yes |
| Benzo(b)fluoranthene | mg/kg | <0.05 | 0.00 | -0.05 | 0.05 | yes |
| Benzo(k)fluoranthene | mg/kg | <0.05 | 0.00 | -0.05 | 0.05 | yes |
| Benzo(a)pyrene | mg/kg | <0.05 | 0.00 | -0.05 | 0.05 | yes |



Bill To: EBA Engineering Consulting Lt Project:

Report To: EBA Engineering Consulting Lt

W23101161 Calcite Business Centre Name: Metafina

Unit 6, 151 Industrial Road Location: LSD: Whitehorse, YT, Canada Y1A 2V3 P.O.:

Attn: Donald Wilson Acct code:

Sampled By: D. Wilson Company: EBA

Lot ID: 625610

Control Number:

Date Received: Jun 18, 2008 Date Reported: Jul 5, 2008 Report Number: 1128535

Polycyclic Aromatic Hydrocarbons - Soil -Continued

| Blanks | Units | Measured | Mean | Lower Limit | Upper Limit | Passed QC |
|-----------------------------|-------|----------|------|-------------|-------------|-----------|
| Indeno(1,2,3-c,d)pyrene | mg/kg | <0.05 | 0.00 | -0.05 | 0.05 | yes |
| Dibenzo(a,h)anthracene | mg/kg | <0.05 | 0.00 | -0.05 | 0.05 | yes |
| Benzo(g,h,i)perylene | mg/kg | <0.05 | 0.00 | -0.05 | 0.05 | yes |
| Material Head: Method Blank | C// | | | | | |

Material Used: Method Blank - SV Date Acquired: June 19, 2008 Acquired By: Inna Kazakov

| Calibration Check | Units | Measured | Target | % Recovery | Criteria (%) | Passed QC |
|-------------------------|-------|----------|---------|------------|------------------|-----------|
| Naphthalene | ug/mL | 477.0 | 500.00 | 95.40 | 70.00 - 130.00 | yes |
| Acenaphthylene | ng/mL | 479.0 | 500.00 | 95.80 | 70.00 - 130.00 | yes |
| Acenaphthene | ng/mL | 474.0 | 500.00 | 94.80 | 70.00 - 130.00 | yes |
| Fluorene | ng/mL | 477.0 | 500.00 | 95.40 | 70.00 - 130.00 | yes |
| Phenanthrene | ng/mL | 483.0 | 500.00 | 96.60 | 70.00 - 130.00 | yes |
| Anthracene | ng/mL | 487.0 | 500.000 | 97.400 | 70.000 - 130.000 | yes |
| Fluoranthene | ng/mL | 476.0 | 500.00 | 95.20 | 70.00 - 130.00 | yes |
| Pyrene | ng/mL | 475.0 | 500.00 | 95.00 | 70.00 - 130.00 | yes |
| Benzo(a)anthracene | ng/mL | 480.0 | 500.00 | 96.00 | 70.00 - 130.00 | yes |
| Chrysene | ng/mL | 481.0 | 500.00 | 96.20 | 70.00 - 130.00 | yes |
| Benzo(b)fluoranthene | ng/mL | 475.0 | 500.00 | 95.00 | 70.00 - 130.00 | yes |
| Benzo(k)fluoranthene | ng/mL | 477.0 | 500.00 | 95.40 | 70.00 - 130.00 | yes |
| Benzo(a)pyrene | ng/mL | 455.0 | 500.00 | 91.00 | 70.00 - 130.00 | yes |
| Indeno(1,2,3-c,d)pyrene | ng/mL | 471.0 | 500.00 | 94.20 | 70.00 - 130.00 | yes |
| Dibenzo(a,h)anthracene | ng/mL | 502.0 | 500.00 | 100.40 | 70.00 - 130.00 | yes |
| Benzo(g,h,i)perylene | ng/mL | 476.0 | 500.00 | 95.20 | 70.00 - 130.00 | yes |

Material Used: Standard - PAHs Date Acquired: June 19, 2008 Acquired By: Inna Kazakov

PAH - Soil - Surrogate Recovery

| Blanks | Units | Measured | Mean | Lower Limit | Upper Limit | Passed QC |
|------------------|-------|----------|------|-------------|--------------------|-----------|
| Nitrobenzene-d5 | % | 109 | 76 | -4 | 157 | yes |
| 2-Fluorobiphenyl | % | 102 | 80 | 5 | 155 | yes |
| p-Terphenyl-d14 | % | 128 | 78 | -12 | 167 | yes |

Material Used: Method Blank - SV Date Acquired: June 19, 2008 Acquired By: Inna Kazakov

Polycyclic Aromatic Hydrocarbons -

Water

| Blanks | Units | Measured | Mean | Lower Limit | Upper Limit | Passed QC |
|-------------|-------|----------|------|-------------|-------------|-----------|
| Naphthalene | ug/L | <0.1 | 0.0 | -0.1 | 0.1 | yes |



Bill To: EBA Engineering Consulting Lt Project:

Lot ID: 625610 Report To: EBA Engineering Consulting Lt W23101161

Control Number:

Calcite Business Centre Name: Metafina Date Received: Jun 18, 2008 Unit 6, 151 Industrial Road Location: Date Reported: Jul 5, 2008 LSD: Whitehorse, YT, Canada Report Number: 1128535 Y1A 2V3 P.O.:

Attn: Donald Wilson Acct code:

Sampled By: D. Wilson Company: EBA

Polycyclic Aromatic Hydrocarbons -Water - Continued

| Blanks | Units | Measured | Mean | Lower Limit | Upper Limit | Passed QC |
|-------------------------|-------|----------|------|-------------|-------------|-----------|
| Quinoline | ug/L | <3.4 | 0.0 | -0.1 | 0.1 | yes |
| Acenaphthylene | ug/L | <0.1 | 0.0 | -0.1 | 0.1 | yes |
| Acenaphthene | ug/L | <0.1 | 0.0 | -0.1 | 0.1 | yes |
| Fluorene | ug/L | <0.1 | 0.0 | -0.1 | 0.1 | yes |
| Phenanthrene | ug/L | <0.1 | 0.0 | -0.1 | 0.1 | yes |
| Anthracene | ug/L | <0.01 | 0.00 | -0.10 | 0.10 | yes |
| Acridine | ug/L | <0.1 | 0.0 | -0.1 | 0.1 | yes |
| Fluoranthene | ug/L | <0.02 | 0.00 | -0.10 | 0.10 | yes |
| Pyrene | ug/L | <0.02 | 0.00 | -0.10 | 0.10 | yes |
| Benzo(a)anthracene | ug/L | <0.02 | 0.00 | -0.05 | 0.05 | yes |
| Chrysene | ug/L | <0.1 | 0.0 | -0.1 | 0.1 | yes |
| Benzo(b)fluoranthene | ug/L | <0.1 | 0.0 | -0.1 | 0.1 | yes |
| Benzo(k)fluoranthene | ug/L | <0.1 | 0.0 | -0.1 | 0.1 | yes |
| Benzo(a)pyrene | ug/L | <0.01 | 0.00 | -0.01 | 0.01 | yes |
| Indeno(1,2,3-c,d)pyrene | ug/L | <0.1 | 0.0 | -0.1 | 0.1 | yes |
| Dibenzo(a,h)anthracene | ug/L | <0.1 | 0.0 | -0.1 | 0.1 | yes |
| Benzo(g,h,i)perylene | ug/L | <0.1 | 0.0 | -0.1 | 0.1 | yes |

Material Used: Method Blank - SV June 20, 2008 Date Acquired: Acquired By: Inna Kazakov

| Calibration Check | Units | Measured | Target | % Recovery | Criteria (%) | Passed QC |
|-------------------------|-------|----------|--------|------------|----------------|-----------|
| Naphthalene | ng/mL | 491.0 | 500.0 | 98.2 | 80.0 - 120.0 | yes |
| Quinoline | ng/mL | 549.0 | 685.0 | 80.1 | 80.0 - 120.0 | yes |
| Acenaphthylene | ng/mL | 490.0 | 500.0 | 98.0 | 80.0 - 120.0 | yes |
| Acenaphthene | ng/mL | 487.0 | 500.0 | 97.4 | 80.0 - 120.0 | yes |
| Fluorene | ng/mL | 489.0 | 500.0 | 97.8 | 80.0 - 120.0 | yes |
| Phenanthrene | ng/mL | 495.0 | 500.0 | 99.0 | 80.0 - 120.0 | yes |
| Anthracene | ng/mL | 498.0 | 500.00 | 99.60 | 79.99 - 120.01 | yes |
| Acridine | ng/mL | 514.0 | 500.0 | 102.8 | 80.0 - 120.0 | yes |
| Fluoranthene | ng/mL | 488.0 | 500.00 | 97.60 | 79.99 - 120.01 | yes |
| Pyrene | ng/mL | 486.0 | 500.00 | 97.20 | 79.99 - 120.01 | yes |
| Benzo(a)anthracene | ng/mL | 492.0 | 500.00 | 98.40 | 79.99 - 120.01 | yes |
| Chrysene | ng/mL | 495.0 | 500.0 | 99.0 | 80.0 - 120.0 | yes |
| Benzo(b)fluoranthene | ng/mL | 486.0 | 500.0 | 97.2 | 80.0 - 120.0 | yes |
| Benzo(k)fluoranthene | ng/mL | 512.0 | 500.0 | 102.4 | 80.0 - 120.0 | yes |
| Benzo(a)pyrene | ng/mL | 470.0 | 500.00 | 94.00 | 79.99 - 120.01 | yes |
| Indeno(1,2,3-c,d)pyrene | ng/mL | 512.0 | 500.0 | 102.4 | 80.0 - 120.0 | yes |
| Dibenzo(a,h)anthracene | ng/mL | 515.0 | 500.0 | 103.0 | 80.0 - 120.0 | yes |
| Benzo(g,h,i)perylene | ng/mL | 517.0 | 500.0 | 103.4 | 80.0 - 120.0 | yes |



Bill To: EBA Engineering Consulting Lt Project: Lot ID: **625610**

Report To: EBA Engineering Consulting Lt ID: W23101161 Control Number:

Calcite Business CentreName:MetafinaDate Received:Jun 18, 2008Unit 6, 151 Industrial RoadLocation:Date Reported:Jul 5, 2008Whitehorse, YT, CanadaLSD:Report Number:1128535Y1A 2V3P.O.:

Attn: Donald Wilson Acct code:

Sampled By: D. Wilson Company: EBA

Polycyclic Aromatic Hydrocarbons - Water - Continued

| Calibration Check Units Measured Target | % Recovery | Criteria (%) Passed QC |
|---|------------|------------------------|
|---|------------|------------------------|

Material Used: Standard - PAHs
Date Acquired: June 20, 2008
Acquired By: Inna Kazakov

| Replicates | Units | Replicate1 | Replicate2 | % RSD Criteria | Absolute Criteria | Passed QC |
|-------------------------|-------|------------|------------|----------------|-------------------|-----------|
| Naphthalene | ug/L | 0.5 | 0.5 | 45.0 | 0.2 | yes |
| Acenaphthylene | ug/L | 0.4 | 0.4 | 45.0 | 0.2 | yes |
| Acenaphthene | ug/L | 0.5 | 0.5 | 45.0 | 0.2 | yes |
| Fluorene | ug/L | 0.4 | 0.4 | 45.0 | 0.2 | yes |
| Phenanthrene | ug/L | 0.4 | 0.4 | 45.0 | 0.2 | yes |
| Anthracene | ug/L | 0.39 | 0.40 | 45.00 | 0.20 | yes |
| Acridine | ug/L | 0.4 | 0.4 | 45.0 | 0.2 | yes |
| Fluoranthene | ug/L | 0.42 | 0.43 | 45.00 | 0.20 | yes |
| Pyrene | ug/L | 0.43 | 0.42 | 45.00 | 0.20 | yes |
| Benzo(a)anthracene | ug/L | 0.49 | 0.48 | 45.00 | 0.10 | yes |
| Chrysene | ug/L | 0.4 | 0.4 | 45.0 | 0.2 | yes |
| Benzo(b)fluoranthene | ug/L | 0.5 | 0.5 | 45.0 | 0.2 | yes |
| Benzo(k)fluoranthene | ug/L | 0.4 | 0.4 | 45.0 | 0.2 | yes |
| Benzo(a)pyrene | ug/L | 0.44 | 0.43 | 45.00 | 0.02 | yes |
| Indeno(1,2,3-c,d)pyrene | ug/L | 0.6 | 0.5 | 45.0 | 0.2 | yes |
| Dibenzo(a,h)anthracene | ug/L | 0.5 | 0.5 | 45.0 | 0.2 | yes |
| Benzo(g,h,i)perylene | ug/L | 0.4 | 0.4 | 45.0 | 0.2 | yes |

Material Used: Duplicate - Run 2 - SV

Date Acquired: June 20, 2008 Acquired By: Inna Kazakov

| Matrix Spike | Units | Measured | Actual | % Recovery | Criteria (%) | Passed QC |
|-------------------------|-------|----------|--------|------------|----------------|-----------|
| Naphthalene | ug/L | 87.6 | 100 | 87.6 | 40.0 - 160.0 | yes |
| Acenaphthylene | ug/L | 86.6 | 100 | 86.6 | 40.0 - 160.0 | yes |
| Acenaphthene | ug/L | 90.3 | 100 | 90.3 | 40.0 - 160.0 | yes |
| Fluorene | ug/L | 90.7 | 100 | 90.7 | 40.0 - 160.0 | yes |
| Phenanthrene | ug/L | 94.8 | 100 | 94.8 | 40.0 - 160.0 | yes |
| Anthracene | ug/L | 92.8 | 100 | 92.80 | 40.00 - 160.00 | yes |
| Acridine | ug/L | 95.7 | 100 | 95.7 | 40.0 - 160.0 | yes |
| Fluoranthene | ug/L | 93.2 | 100 | 93.20 | 40.00 - 160.00 | yes |
| Pyrene | ug/L | 91.8 | 100 | 91.80 | 40.00 - 160.00 | yes |
| Benzo(a)anthracene | ug/L | 92.2 | 100 | 92.20 | 40.00 - 160.00 | yes |
| Chrysene | ug/L | 99.2 | 100 | 99.2 | 40.0 - 160.0 | yes |
| Benzo(b)fluoranthene | ug/L | 88.4 | 100 | 88.4 | 40.0 - 160.0 | yes |
| Benzo(k)fluoranthene | ug/L | 90.0 | 100 | 90.0 | 40.0 - 160.0 | yes |
| Benzo(a)pyrene | ug/L | 80.3 | 100 | 80.30 | 40.00 - 160.00 | yes |
| Indeno(1,2,3-c,d)pyrene | ug/L | 91.9 | 100 | 91.9 | 40.0 - 160.0 | yes |

Lot ID: 625610



Quality Control

Bill To: EBA Engineering Consulting Lt Project:

Report To: EBA Engineering Consulting Lt ID: W23101161

Control Number:

Calcite Business Centre Name: Metafina Date Received: Jun 18, 2008 Unit 6, 151 Industrial Road Location: Date Reported: Jul 5, 2008 LSD: Whitehorse, YT, Canada Report Number: 1128535 Y1A 2V3 P.O.:

Attn: Donald Wilson Acct code:

Sampled By: D. Wilson Company: EBA

Polycyclic Aromatic Hydrocarbons -Water - Continued

| Matrix Spike | Units | Measured | Actual | % Recovery | Criteria (%) | Passed QC |
|------------------------|-------|----------|--------|------------|--------------|-----------|
| Dibenzo(a,h)anthracene | ug/L | 88.4 | 100 | 88.4 | 40.0 - 160.0 | yes |
| Benzo(g,h,i)perylene | ug/L | 100 | 100 | 100.0 | 40.0 - 160.0 | yes |

Material Used: Matrix Spike - SV June 20, 2008 Date Acquired: Acquired By: Inna Kazakov

PAH - Water - Surrogate Recovery

| Blanks | Units | Measured | Mean | Lower Limit | Upper Limit | Passed QC |
|------------------|-------|----------|------|-------------|-------------|-----------|
| Nitrobenzene-d5 | % | 72 | 76 | 23 | 130 | yes |
| 2-Fluorobiphenyl | % | 97 | 80 | 30 | 130 | yes |
| p-Terphenyl-d14 | % | 101 | 78 | 18 | 137 | yes |

Material Used: Method Blank - SV Date Acquired: June 20, 2008 Acquired By: Inna Kazakov

VOC Screen - Soil

| Blanks | Units | Measured | Mean | Lower Limit | Upper Limit | Passed QC |
|----------------------------|-------|----------|------|-------------|-------------|-----------|
| Benzene | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| Bromodichloromethane | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| Bromoform | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| Bromomethane | mg/kg | <0.1 | 0.00 | -0.15 | 0.15 | yes |
| Carbon Disulfide | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| Carbon Tetrachloride | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| Chlorobenzene | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| Chloroethane | mg/kg | <0.1 | 0.00 | -0.15 | 0.15 | yes |
| 2-Chloroethyl Vinyl Ether | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| Chloroform | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| Chloromethane | mg/kg | <0.1 | 0.00 | -0.15 | 0.15 | yes |
| Dibromochloromethane | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| 1,2-Dichlorobenzene | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| 1,3-Dichlorobenzene | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| 1,4-Dichlorobenzene | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| 1,1-Dichloroethane | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| 1,2-Dichloroethane | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| 1,1-Dichloroethene | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| 1,2-Dichloroethene(cis) | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| 1,2-Dichloroethene(trans) | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| 1,2-Dichloropropane | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| 1,3-Dichloropropene(cis) | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| 1,3-Dichloropropene(trans) | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| Ethylbenzene | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |

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Upper Limit Passed QC



Quality Control

Bill To: EBA Engineering Consulting Lt Project:

Lot ID: 625610 Report To: EBA Engineering Consulting Lt ID: W23101161

Control Number:

Calcite Business Centre Name: Metafina Date Received: Jun 18, 2008 Unit 6, 151 Industrial Road Location: Date Reported: Jul 5, 2008 LSD: Whitehorse, YT, Canada Report Number: 1128535 Y1A 2V3 P.O.:

Attn: Donald Wilson Acct code:

Sampled By: D. Wilson Company: EBA

| VOC Screen - Soil - Con | itinued | |
|-------------------------|---------|----------|
| Blanks | Units | Measured |
| Methylene Chloride | ma/ka | <0.1 |

| Methylene Chloride | mg/kg | <0.1 | 0.00 | -0.15 | 0.15 | yes |
|---------------------------|-------|-------|------|-------|------|-----|
| Styrene | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| 1,1,2,2-Tetrachloroethane | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| Tetrachloroethene | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| Toluene | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| 1,1,1-Trichloroethane | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| 1,1,2-Trichloroethane | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| Trichloroethene | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| Trichlorofluoromethane | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | yes |
| Vinyl Chloride | mg/kg | <0.1 | 0.00 | -0.15 | 0.15 | yes |
| Total Xylenes (m,p,o) | mg/kg | <0.01 | 0.00 | -0.02 | 0.02 | ves |

Mean

Lower Limit

Material Used: Method Blank - VO Date Acquired: June 24, 2008 Acquired By: Chandra Negi

| Calibration Check | Units | Measured | Target | % Recovery | Criteria (%) | Passed QC |
|----------------------------|-------|----------|--------|------------|----------------|-----------|
| Benzene | ng | | 50.00 | | 77.50 - 122.50 | yes |
| Bromodichloromethane | ng | | 50.00 | | 77.50 - 122.50 | yes |
| Bromoform | ng | | 50.00 | | 77.50 - 122.50 | yes |
| Bromomethane | ng | | 50.00 | | 77.50 - 122.50 | yes |
| Carbon Disulfide | ng | 53.8 | 52.00 | 103.37 | 77.50 - 122.50 | yes |
| Carbon Tetrachloride | ng | | 50.00 | | 77.50 - 122.50 | yes |
| Chlorobenzene | ng | | 50.00 | | 77.50 - 122.50 | yes |
| Chloroethane | ng | | 50.00 | | 77.50 - 122.50 | yes |
| 2-Chloroethyl Vinyl Ether | ng | | 100.00 | | 77.50 - 122.50 | yes |
| Chloroform | ng | 50.3 | 50.00 | 100.56 | 77.50 - 122.50 | yes |
| Chloromethane | ng | | 50.00 | | 77.50 - 122.50 | yes |
| Dibromochloromethane | ng | | 50.00 | | 77.50 - 122.50 | yes |
| 1,2-Dichlorobenzene | ng | | 50.00 | | 77.50 - 122.50 | yes |
| 1,3-Dichlorobenzene | ng | | 50.00 | | 77.50 - 122.50 | yes |
| 1,4-Dichlorobenzene | ng | | 50.00 | | 77.50 - 122.50 | yes |
| 1,1-Dichloroethane | ng | | 50.00 | | 77.50 - 122.50 | yes |
| 1,2-Dichloroethane | ng | | 50.00 | | 77.50 - 122.50 | yes |
| 1,1-Dichloroethene | ng | 49.4 | 50.00 | 98.78 | 77.50 - 122.50 | yes |
| 1,2-Dichloroethene(cis) | ng | | 50.00 | | 77.50 - 122.50 | yes |
| 1,2-Dichloroethene(trans) | ng | | 50.00 | | 77.50 - 122.50 | yes |
| 1,2-Dichloropropane | ng | | 50.00 | | 77.50 - 122.50 | yes |
| 1,3-Dichloropropene(cis) | ng | | 100.00 | | 77.50 - 122.50 | yes |
| 1,3-Dichloropropene(trans) | ng | | 100.00 | | 77.50 - 122.50 | yes |
| Ethylbenzene | ng | 53.5 | 50.00 | 106.92 | 77.50 - 122.50 | yes |
| Methylene Chloride | ng | | 50.00 | | 77.50 - 122.50 | yes |
| Styrene | ng | | 200.00 | | 77.50 - 122.50 | yes |
| 1,1,2,2-Tetrachloroethane | ng | | 50.00 | | 77.50 - 122.50 | yes |



Bill To: EBA Engineering Consulting Lt Project: Lot ID: **625610**

Report To: EBA Engineering Consulting Lt ID: W23101161 Control Number:

Calcite Business Centre Name: Metafina Date Received: Jun 18, 2008
Unit 6, 151 Industrial Road Location: Date Reported: Jul 5, 2008
Whitehorse, YT, Canada LSD: Report Number: 1128535
Y1A 2V3 P.O.:

Attn: Donald Wilson Acct code:

Sampled By: D. Wilson Company: EBA

VOC Screen - Soil - Continued

| VOC Screen - Son - Contin | | | | | | _ |
|----------------------------|-------|------------|------------|----------------|-------------------|-----------|
| Calibration Check | Units | Measured | Target | % Recovery | Criteria (%) | Passed QC |
| Tetrachloroethene | ng | | 50.00 | | 77.50 - 122.50 | yes |
| Toluene | ng | 56.9 | 50.00 | 113.85 | 77.50 - 122.50 | yes |
| 1,1,1-Trichloroethane | ng | | 50.00 | | 77.50 - 122.50 | yes |
| 1,1,2-Trichloroethane | ng | | 50.00 | | 77.50 - 122.50 | yes |
| Trichloroethene | ng | | 50.00 | | 77.50 - 122.50 | yes |
| Trichlorofluoromethane | ng | | 50.00 | | 77.50 - 122.50 | yes |
| Vinyl Chloride | ng | 54.1 | 50.00 | 108.28 | 77.50 - 122.50 | yes |
| Total Xylenes (m,p,o) | ng | | 150.00 | | 77.50 - 122.50 | yes |
| Material Used: Standard - | VOCs | | | | | |
| Date Acquired: June 24, 2 | 800 | | | | | |
| Acquired By: Chandra N | legi | | | | | |
| Replicates | Units | Replicate1 | Replicate2 | % RSD Criteria | Absolute Criteria | Passed QC |
| Benzene | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| Bromodichloromethane | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| Bromoform | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| Bromomethane | mg/kg | <0.1 | <0.1 | 30.00 | 0.20 | yes |
| Carbon Disulfide | mg/kg | 0.03 | 0.03 | 30.00 | 0.02 | yes |
| Carbon Tetrachloride | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| Chlorobenzene | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| Chloroethane | mg/kg | <0.1 | <0.1 | 30.00 | 0.20 | yes |
| 2-Chloroethyl Vinyl Ether | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| Chloroform | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| Chloromethane | mg/kg | <0.1 | <0.1 | 30.00 | 0.20 | yes |
| Dibromochloromethane | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| 1,2-Dichlorobenzene | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| 1,3-Dichlorobenzene | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| 1,4-Dichlorobenzene | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| 1,1-Dichloroethane | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| 1,2-Dichloroethane | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| 1,1-Dichloroethene | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| 1,2-Dichloroethene(cis) | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| 1,2-Dichloroethene(trans) | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| 1,2-Dichloropropane | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| 1,3-Dichloropropene(cis) | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| 1,3-Dichloropropene(trans) | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| Ethylbenzene | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| Methylene Chloride | mg/kg | <0.1 | <0.1 | 30.00 | 0.20 | yes |
| Styrene | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| 1,1,2,2-Tetrachloroethane | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| Tetrachloroethene | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| Toluene | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| 1,1,1-Trichloroethane | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |



Bill To: EBA Engineering Consulting Lt Project: Lot ID: 625610

Report To: EBA Engineering Consulting Lt ID: W23101161 Control Number:

Calcite Business Centre Name: Metafina Date Received: Jun 18, 2008 Unit 6, 151 Industrial Road Location: Date Reported: Jul 5, 2008 LSD: Whitehorse, YT, Canada Report Number: 1128535 Y1A 2V3 P.O.:

Attn: Donald Wilson Acct code:

Sampled By: D. Wilson Company: EBA

VOC Screen - Soil - Continued

| Replicates | Units | Replicate1 | Replicate2 | % RSD Criteria | Absolute Criteria | Passed QC |
|------------------------|-------|------------|------------|----------------|-------------------|-----------|
| 1,1,2-Trichloroethane | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| Trichloroethene | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| Trichlorofluoromethane | mg/kg | <0.01 | <0.01 | 30.00 | 0.02 | yes |
| Vinyl Chloride | mg/kg | <0.1 | <0.1 | 30.00 | 0.20 | yes |
| Total Xylenes (m,p,o) | mg/kg | 0.02 | 0.02 | 30.00 | 0.02 | yes |

Duplicate - Run 2 - VO Material Used:

Date Acquired: June 24, 2008 Acquired By: Chandra Negi

VOC - Soil - Surrogate Recovery

| Blanks | Units | Measured | Mean | Lower Limit | Upper Limit | Passed QC |
|----------------------|-------|----------|------|-------------|-------------|-----------|
| Dibromofluoromethane | % | 86 | 100 | 85 | 115 | yes |
| Toluene-d8 | % | 99 | 100 | 85 | 115 | yes |
| Bromofluorobenzene | % | 110 | 100 | 85 | 115 | ves |

Method Blank - VO Material Used: Date Acquired: June 24, 2008 Acquired By: Chandra Negi



Methodology and Notes

Metafina

Bill To: EBA Engineering Consulting Lt Project:

Name:

LSD:

P.O.:

Location:

Acct code:

Report To: EBA Engineering Consulting Lt

Calcite Business Centre

Unit 6, 151 Industrial Road Whitehorse, YT, Canada Y1A 2V3

Attn: Donald Wilson

Sampled By: D. Wilson Company: EBA

Project: Lot ID: **625610**ID: W23101161

Control Number:

Date Received: Jun 18, 2008 Date Reported: Jul 5, 2008 Report Number: 1128535

| Method of Analysis | | | | |
|-----------------------|-----------|--|--------------------------|-------------|
| Method Name | Reference | Method | Date Analysis Started | Location |
| BTEX-VPH - Soil | BCELM | Volatile Hydrocarbons in Solids by GC/FID, VH Solids | 19-Jun-08 | BTG Calgary |
| BTEX-VPH - Water (MS) | BCELM | Volatile Hydrocarbons in Water by GC/FID, VH Water | 24-Jun-08 | BTG Calgary |
| EPH - Soil | BCELM | Extractable Petroleum Hydrocarbons (EPH) in Solids by GC/FID, EPH Solids | 19-Jun-08 | BTG Calgary |
| EPH - Water | BCELM | Extractable Petroleum Hydrocarbons (EPH) in Water by GC/FID, EPH Water | 19-Jun-08 | BTG Calgary |
| PAH - Soil | US EPA | Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry, 8270 | 19-Jun-08 | BTG Calgary |
| PAH - Water | US EPA | Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry, 8270 | 20-Jun-08 | BTG Calgary |
| VOC - Soil | US EPA | * US EPA method, 8260B/5030B | 24-Jun-08 | BTG Calgary |

^{*} Bodycote method(s) based on reference method

References

BCELM B.C. Environmental Laboratory Manual

US EPA US Environmental Protection Agency Test Methods

Comments:

- BTEX analysis cancelled due to insufficient sample volume.
- >130 The surrogate recovery is higher than the rang 23-130% on sample #3,5 due to other sample material interfering with this surrogate.

Please direct any inquiries regarding this report to our Client Services group.

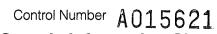
Results relate only to samples as submitted.

The test report shall not be reproduced except in full, without the written approval of the laboratory.

Bodycote TESTING GROUP

Sample Information Sheet

| , | | | | | See | reverse for | | | | | | | | |
|----------------------------|--|------------|--|--|--|---------------------------|-------------------------|-------------------|---|--------------------------|---------------|--------------------------|---|--|
| | illing Address: | | - | | | ort To: | | | - | Сор | y of Ir | nvoice | : 🔲 | |
| | ompany: EBA Engineering Consult Calcite Business Center Unit 6, 151 Industrial Roa | QA/ | QC Report | Addres | inyEU is: †tl- Na | N Engin -4376 naimo | BC BC | ngl Oar 19 | ta Dr. TEA7 | add | | ice to this approva | | |
| Pr Fa | Whitehorse, YT Y1A 2V3 tention: つい いにかり none: ax: (867) 668-2071 ell: (867) 668-4349 mail: よいしょう もちょく | 3 | Fax Mail Courier e-mail e-Service | Attention Phone: | Attention: DON WILTON & MIKE GALLO FA Phone: OON: (BG7)-668-2071 MIKE (GS) 755-2255 Ma Fax: Don: (BG) 668-4347 MIKE: (250) 755-2635 Courie | | | | | | | Fa: Se Ma Courie e-ma | er 🗌 | |
| | ormation to be included on eport and invoice | | | se contact th rush dates a ubmitting sar | nd times | | Sa | mple | | (Please Like Ga | allo | •MCC | ~~~~ | |
| | oject ID: W23101161 oject Name: MetaFing | 11 | pon filling out this surcharges will be | | | | l au woi | thoriz k indi | e Bodyco cated on t | te to proce his form: | ed with | the | pro | |
| Pr | oject Location: Favo | . 11 | USH All an | alysis <i>i</i> | As indic | ated | | | <u>x </u> | <u>R</u> | Initial: Sami | ple | ٥(| |
| PC | 0#: oj. Acct. Code: | | Date Required: | | | | | aybill mpa | | | Date | | | |
| Αç | greement ID: | | Bodycote Authori | zation: | | | | тра | <u>.</u> | | Time | | | |
| Sp | pecial Instructions / Comments | | | Condition | FOR LAB USE ONLY Condition of containers / coolers upon arrival at lab | | | | Check here if Bodycote is required to report results directly to a regulatory body (Please include contact information) | | | | | |
| | and the second s | | e e e e e e e e e e e e e e e e e e e | | | | | | | if you're | | | | |
| | ease indicate which regulations you are requir | | YIIKAN C | DAA O | V: ASIV | | Number of Containers | - RAID | VCC2 | 3 A A | | | | |
| Ple | Sample Identification | Location | Depth | Date/Time | | Sampling Method | 4_ | <u>U</u> | | Enter t | | | <u> </u> | |
| 1 | TP08-1-1 | | IN CM M | Sampled 10/04/08 | CQ! | Wetriou | † | | | X | Sample | 75 DEIOV | | |
| 2 | | - | _ | 10/04/08 | 30.0 | | \dagger | X | X | | | | | |
| 3 | TP08-1-3 | | | 10/04/08 | | | 1 | <u> </u> | * | X | | | | |
| 4 | TP08-2-1 | - | | 10/04/08 | | | 1 | | | 12 | cán | | | |
| 5 | TP08-2-2 | | _ | 10/04/08 | | | † . | X | | | | | | |
| 6 | TP08-2-3 | | | 10/06/08 | | : | 1 | | | X | | | | |
| 7 | TP08-2-1 | | - | 10/06/03 | | | i | | | 4 | \$ 34 | 2.25 | | |
| 8 | TPO8-3-2 | | - | 10/06/03 | | | 1 | X | x | | 28.8364 | | | |
| 9 | TPOB-3-3 | | - | 10/06/03 | | - | 1 | | | 4 | | | | |
| 10 | | | - | 10/03/08 | | | 1 | | | 4 | | | | |
| 11 | TP08-4-2 | | - | doglos | | | 1 | × | | (6.55) (6.51) | | | | |
| 12 | | | - | 10/08/08 | | | 1 | | | 4 | | | | |
| 13 | TP08-4-4 | | - | 10/07/03 | , | | 1 | | | 4 | | | | |
| 14 | TP08-5-1 | | - | woole | | | 1 | X | × | | | | | |
| 12 13 14 15 NO | 1 ' | | - | 10/09/08 | \downarrow | | <u> </u> | | | 4 | | | 12.00 | |
| N | OTE: All hazardous samples must | be labeled | d according to | WHMIS | guideli | ines. | | | | Page . | 1 . | of <u>4</u> | · | |



Bodycote TESTING GROUP

Sample Information Sheet

| ····· | | | | | | NOTE: | | | | | | | | | vitn anaiysis pling protocol |
|-------|------------------------------|--|------------|-----------------------------|---------|---------------------------|------------|--------------------------|-------------------------|--------|---|------------|------------|-----------------------|---------------------------------|
| | Iling Addre | ss: | | | | | | ort To: | | | | | opy of | Invoice | >: 🔲 |
| | ompany: ddress: | EBA Engineering Consultation Calcite Business Center Unit 6, 151 Industrial Roa Whitehorse, YT Y1A 2V3 | .d | /QC Report | | Compa Addres | ss:牛丫 | BAENSIA 4376 Vaimo | Bd | ocen | iDn. | O · a | | oice to the or approv | al |
| At | tention: | Don Wilson | , | Fax 2 | : | Attentio | on: Dor | عاساوري | 0 5 | h | lke G | ALLO | | | rt Results: |
| Fa | | (867) 668-2071 | | Mail 🔀 | | | | ષ્ટ્રી) (૯૪ ૯૪) (૯૪ | | | | | | | |
| C€ | | (867) 668-4349 | | e-mail 🔀 | ₹ | Cell: | 1 | | | | | | | | ail 🗵 |
| e-i | mail: c | d wilson e eba.ce | 1 | e-Service | Ш | e-mail: | durits | oneeb | Q.C | 9 | and M | ngallo | eebac | e-Servic | ;e |
| | ormation t port and Ir | o be included on | | Rush P | | | | | | | | | se Print) | | |
| 110 | port and ii | INOICE | | | | sh dates a mitting sal | | S | 11 | | any E | | Signatu | | ¥100 |
| Pro | oject ID: Wa | 3101161 | u | Jpon filling out t | | | | | LE | | | cote to pr | oceed wit | h the | <u> </u> |
| | | Madagana Metafin | Q | surcharges wil | ll be a | ittached t | o this a | nalysis | | | | 108 108 | | ME | 1 |
| Pro | oject Locatio | on: Faro | 11 | | analy | | As indic | cated | | | ed by: | JOS | Sar | nple | |
| | gal Location | : | | equired on: | | or | | J | L., | | | | _ !Ter | np. | °C |
| PC | | | | Date Required | : | | | | Wa | aybill | # | | Da | te | |
| | oj. Acct. Coc reement ID: | | 11 | Signature: Bodycote Auth | orizo | tion: | | | Cc | mpa | iny | | Tim | ne | |
| | | | . | Sodycole Autr | 10/128 | | I D I I O | | | 1. 01. | 1 - 1 | '/ D: | | | |
| эp | eciai instru | ctions / Comments | | | | FOR LA | on of con | | <u> </u> | to | report r | esults d | | a regulate | |
| | | | | | | coolers (| upon arriv | /al at lab | <u></u> | | | | · | ormation) POTABL | |
| | | | | | | | | | <u> </u> | | | | | UMPTIO | |
| | | | | | | | | | | | 1.5 | | | 10 | |
| | | | | | | | | | er of ners | 2 | d | ء ا | | | |
| Pla | ase indicate wh | nich regulations you are requir | ed to meet | YOKON C | 5R . 1 | DANKL | ann | | Number of Containers | Ŕ | Joen Jan Jan Jan Jan Jan Jan Jan Jan Jan Ja | | i pi | | 62.2 |
| 1 10 | · | entification | Location | Depth | | Date/Time | Matrix | Sampling | 4 1 | U | 70 | 2 | er tests a | bove | |
| 1 | | | | IN CM | | Sampled | | Method | | ., | (| ✓ releva | int samp | les belo | w) |
| 2 | TP08-5 | | | | K | 20103 | Son | | 1 | X | | | | | |
| 3 | 7008-E | -1 | | | | | | | | 3 | | X | | | #1.03F |
| | 7PDB-6 | | **.*** : | - | \perp | | | | 1 | 4 | | | | | |
| 4 | 7P08-6- | 3 | | - | | 1 | | | 1 | | | X | | 86.33 | |
| 5 | TP 08-7- | | | - | | | | | 1 | 3 | | X | | | |
| 6 | 700B-7- | | | - | | | | | , | X | | | | 531 | |
| 7 | 11 0.7 | | | - | | | | | 1 | | | X | | | |
| 8 | TPOB-E | 3-1 | | - | | | | | 1 | X | X | | | | 255 |
| 9 | TPOR-8 | 3-2 | | - | | - | | | 1 | | X | | | | |
| 10 | TP 08-8 | -3 | | - | | | | | 1 | X | | | | | |
| 11 | TP08-9 | • | | - | | | | | 1 | × | X | | | | |
| 12 | 70 DB-9 | 1-2 | | - | | | | | 1 | | ΧL | | | | |
| 13 | TP OB-C | 7-3 | | - | | | | | 1 | | | بد | | | |
| 14 | TPOB-1 | | | - | | | | | 1 | × | | | | | |
| 15 | TI 08-1 | 0-2 | | - | | V | 1 | - | J | | | X | | | |
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Control Number A015622

Sample Information Sheet

| | See reverse for your nearest Bodycote location and proper sampling protocol | | | | | | | | | | | | | | |
|--|---|---|---------------|--|--------------------------------------|------------------------------------|---|-------------------------|-------------------------|--|------------------------|---------------------|--|--|--|
| Bill | ing Addr | ess: | | | | | ort To: | | : | | y of In | voice | | | |
| | npany: dress: | EBA Engineering Consu Calcite Business Center Unit 6, 151 Industrial Ro | ad QA | A/QC Report | Compa Addres | ss:#1- | 1Engin 437El nam | 30ten | Or . | add | ail Invoid ress for | | | | |
| Pho | | Whitehorse, YT Y1A 2V | 73 | Report Resu Fax X Mail |] Attention] Phone: | on: M | ike Ga | 110 | 2256 Mail 🔽 | | | | | | |
| Fax Cel | | (867) 668-2071 (867) 668-4349 | | Courier e-mail |] Fax:] Cell: | Cell: | | | | | | Courier e-mail 🔀 | | | |
| e-m | nail: | dwilsone etc. Co | 1 | e-Service | e-mail: | e-mail: Mgyllore coc. Cq | | | | | | e-Service | | | |
| | rmation ort and | to be included on Invoice | | Rush Please contact the laboratory to confirm rush dates and times before submitting samples. Sample Custody (Please Print) Sampled by: Company Signature | | | | | | | | | | | |
| | | 123101161 | | Upon filling out th | | | | l author | | ote to proce | | | | | |
| | | : Metatina | | surcharges will | be attached t | o this ar | nalysis | Date: | Octo | 5/10 | Initial: | 10 | | | |
| | | tion: Faro | 11 | | , | As indic | cated | | ved by: | <u> </u> | Samp | ole | °C | | |
| _ | al Locatio | on: | | required on: | or | | | \\\ | | | Temp | | | | |
| PO ₇ | | l - | | Date Required: Wayb | | | | | III # | | Date | | | | |
| • | . Acct. Co | | | Signature: Comp | | | | | any | | Time | | | | |
| Agreement ID: Special Instructions / Comments | | | | Bodycote Author | Repartment Patrician Science Control | | 400000000000000000000000000000000000000 | | | | | | | | |
| Spe | ecial Insti | ructions / Comments | | | | AB USI on of cont upon arriv | tainers / | to (F | report re Please inc | e if Bodyo esults direct clude cont e if you're | ctly to a act infor | regulato mation) | | | |
| | | | | | - | | | | | HÚMAN (| | | | | |
| | | | | | | | | Number of Containers | 2 0 8 9 | 9 | | | | | |
| Ples | se indicate | which regulations you are requ | ired to meet: | YUKON C | SR PARK | CLANCE | | Number Containe | 1 263 | 9 | 98.4 | 610 | | | |
| 100 | | Identification | Location | | Date/Time M Sampled | i - | - | 4 _ 🕮 | 1 - 10=1 | Enter t | ests ab | | v) | | |
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| | -8097 | 11-3 | | - | plodos | 1 1 | | | 25 SAMPLE C | | 0.70 | | | | |
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Bodycote TESTING GROUP

Sample Information Sheet
NOTE: Proper completion of this form is required in order to proceed with analysis

| Rill | ing Address: | | | Copy | | | your ne | alest bou | Col | py of Ir | | |
|-----------|--|---------------------------|--|--|--|--------------------|--------------------------------------|-------------------|----------------------------|------------|---|---|
| | mpany: EBA Engineering Consu | lting Ltd. | | Company: EBA ENCINCENTS LTD Mail Invoice to this Address: #1-4376 Baban Dr. address for approval | | | | | | | | |
| | dress: Calcite Business Center | QA/0 | QC Report | Addres | is:#1-1 | 43768 | aba | n Dr. | ad | | approva | ! <u> </u> |
| | Unit 6, 151 Industrial Ro Whitehorse, YT Y1A 2V | | Daniel Describe | _ | Nav | namo | s rec | - UPM | CA7 | | Penor | Results: |
| Atte | ention: DN WCSON | . J | Report Results Fax | Attention | on: Mi | Ke Ga | llo | | | | - | · 🗵 |
| | one: | | Mail 🔀 | Phone: | (25g |) 755 | - Jo | | | | Mai | |
| Fax | (0.00 CCO 10.10 | | Courier | 11 | (250) | 756 | Courier | | | | | |
| Cel | | | e-mail | e-mail: Mgallo e eba . Ca e-Service [| | | | | | | | |
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| | ormation to be included on | - | Rush Pleas | | | | San | nple Cust | ody (Pleas | e Print) | | |
| нер | oort and Invoice | | | rush dates a ubmitting sa | | , | li . | npany (| 'n « | Signature | arres | 1 m. |
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| | ject ID:W23101161 | | pon filling out this surcharges will be | | | | 11 | | on this form: | | ana . | 2 |
| Proj | ject Name: Metafina | | _ | | | | Date | e: O OT | 800 | Initial: | MY | |
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| Leg PO | gal Location: | Date Required: | | | | Way | /bill # | | rem Date | | | |
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Report Transmission Cover Page

Bill To: EBA Engineering Consulting Lt Project:

W23101161 Report To: EBA Engineering Consulting Lt Approval Status: Approved

Calcite Business Centre Name: MetaFina Invoice Frequency: by Lot Unit 6, 151 Industrial Road Location: Faro

COD Status: Whitehorse, YT, Canada LSD:

Control Number: A015620/1/ Y1A 2V3 P.O.: Date Received: Oct 9, 2008 Attn: Donald Wilson Acct code: Date Reported: Oct 20, 2008

Sampled By: Mike Gallo Report Number: 1159514 Company: EBA

Contact Company Address

Donald Wilson EBA Engineering Consulting Lt Calcite Business Centre, Unit 6, 151 Industrial Road

Whitehorse, YT Y1A 2V3

Phone: (867) 668-2071 (867) 668-4349 Fax:

Lot ID: 648055

Delivery **Format** dwilson@eba.ca Copies

Post

Email - Single Report **PDF** 1

PAGES IN THIS TRANSMISSION

Notes To Clients:

• Please also e-mail and fax a copy of results to Mike Gallo at (250)756-2686 and mgallo@eba.ca

Reports associated with this Lot

Id/Format/Report Date Id/Format/Report Date Id/Format/Report Date

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www.bodycotetesting.com www.bodycote.com #104, 19575-55 A Ave. · Surrey · BC · V3S 8P8 · Canada · Tel: +1 (604) 514-3322 · Fax: +1 (604) 514-3323 Terms and Conditions: www.bodycotetesting.com/terms&conditions



Sample Custody

Bill To: EBA Engineering Consulting Lt Project:

Report To: EBA Engineering Consulting Lt ID: W23101161

Control Number: A015620(1)

Calcite Business Centre Name: MetaFina Date Received: Oct 9, 2008
Unit 6, 151 Industrial Road Location: Faro Date Reported: Oct 20, 2008
Whitehorse, YT, Canada LSD: Report Number: Y1A 2V3 P.O.:

Attn: Donald Wilson Acct code:

Sampled By: Mike Gallo Company: EBA

Sample Disposal Date: November 19, 2008

All samples will be stored until this date unless other instructions are received. Please indicate other requirements below and return this form to the address or fax number on the bottom of this page.

| Extend Sample Storage Until | (MM/DD/YY) | |
|--|------------|--|
| The following charges apply to extended sample sto | orage: | |
| Storage for 1 to 5 samples per month | \$ 10.00 | |
| Storage for 6 to 20 samples per month | \$ 15.00 | |
| Storage for 21 to 50 samples per month | \$ 30.00 | |
| Storage for 51 to 200 samples per month | \$ 60.00 | |
| Storage for more than 200 samples per month | \$ 110.00 | |
| Return Sample, collect, to the address below via: | | |
| Greyhound | | |
| Loomis | | |
| Purolator | | |
| Other (specify) | | |
| | Name | |
| | Company | |
| | Address | |
| | | |
| | Phone | |
| | Fax | |
| | Signature | |

Lot ID: 648055

Control Number: A015620/1/

Date Received: Oct 9, 2008

Date Reported: Oct 20, 2008

Report Number: 1159514



Analytical Report

Bill To: EBA Engineering Consulting Lt Project:

Report To: EBA Engineering Consulting Lt

W23101161 Calcite Business Centre Name: MetaFina Unit 6, 151 Industrial Road Location: Faro LSD: Whitehorse, YT, Canada Y1A 2V3 P.O.:

Attn: Donald Wilson Acct code:

Sampled By: Mike Gallo Company: EBA

> **Reference Number** 648055-2 648055-8 648055-5 Sample Date Oct 06, 2008 Oct 06, 2008 Oct 06, 2008

Sample Location

| | | Sample Description | TP08-1-2 | TP08-2-2 | TP08-3-2 | |
|------------------------------|-------------------|--------------------|----------|----------|----------|----------------------------|
| | | Matrix | Soil | Soil | Soil | |
| Analyte | | Units | Results | Results | Results | Nominal Detection Limit |
| Mono-Aromatic Hydrocar | bons - Soil | | | | | Littit |
| Benzene | Dry Weight | ug/g | <0.02 | <0.02 | < 0.02 | 0.02 |
| Toluene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Ethylbenzene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Total Xylenes (m,p,o) | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Styrene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Methyl t-Butyl Ether | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Volatile Petroleum Hydro | carbons - Soil | | | | | |
| VHs6-10 | Dry Weight | ug/g | <50 | <50 | <50 | 50 |
| VPHs (VHs6-10 minus BTEX) | Dry Weight | ug/g | <50 | <50 | <50 | 50 |
| Extractable Petroleum Hy | drocarbons - Soil | | | | | |
| LEPHs | Dry Weight | ug/g | <20 | <20 | <20 | 20 |
| HEPHs | Dry Weight | ug/g | 35 | <20 | <20 | 20 |
| Polycyclic Aromatic Hydr | ocarbons - Soil | | | | | |
| Acenaphthene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Acenaphthylene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Anthracene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(a)anthracene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(a)pyrene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(b)fluoranthene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(g,h,i)perylene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(k)fluoranthene | Dry Weight | ug/g | <0.05 | < 0.05 | <0.05 | 0.05 |
| Chrysene | Dry Weight | ug/g | <0.05 | < 0.05 | <0.05 | 0.05 |
| Dibenzo(a,h)anthracene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Fluoranthene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Fluorene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Indeno(1,2,3-c,d)pyrene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Naphthalene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Phenanthrene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Pyrene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| PAH - Soil - Surrogate Re | covery | | | | | |
| 2-Fluorobiphenyl | PAH - Surrogate | % | 92 | 91 | 90 | 40-130 |
| Nitrobenzene-d5 | PAH - Surrogate | % | 98 | 95 | 100 | 40-130 |
| p-Terphenyl-d14 | PAH - Surrogate | % | 103 | 97 | 100 | 40-130 |
| VOC Screen - Soil | | | | | | |
| Carbon Disulfide | Dry Weight | mg/kg | <0.01 | <0.01 | <0.01 | 0.01 |
| VOC - Soil - Surrogate Re | covery | | | | | |
| Dibromofluoromethane | EPA Surrogate | % | 99 | 105 | 101 | 80-120 |



Bill To: EBA Engineering Consulting Lt Project:

Lot ID: 648055 Report To: EBA Engineering Consulting Lt ID: W23101161 Control Number: A015620/1/

Calcite Business Centre Name: MetaFina Date Received: Oct 9, 2008 Unit 6, 151 Industrial Road Location: Faro Date Reported: Oct 20, 2008 LSD: Whitehorse, YT, Canada Report Number: 1159514

Y1A 2V3 P.O.: Attn: Donald Wilson Acct code:

Sampled By: Mike Gallo Company: EBA

| | | Reference Number | 648055-2 | 648055-5 | 648055-8 | |
|--------------------------|----------------------|--------------------|--------------|--------------|--------------|----------------------------|
| | | Sample Date | Oct 06, 2008 | Oct 06, 2008 | Oct 06, 2008 | |
| | | Sample Location | | | | |
| | | Sample Description | TP08-1-2 | TP08-2-2 | TP08-3-2 | |
| | | Matrix | Soil | Soil | Soil | |
| Analyte | | Units | Results | Results | Results | Nominal Detection Limit |
| VOC - Soil - Surrogate R | ecovery - Continued | | | | | |
| Toluene-d8 | EPA Surrogate | % | 96 | 87 | 89 | 81-117 |
| Bromofluorobenzene | EPA Surrogate | % | 97 | 101 | 98 | 74-121 |



Bill To: EBA Engineering Consulting Lt Project:

Lot ID: 648055 Report To: EBA Engineering Consulting Lt ID: W23101161 Control Number: A015620/1/

Calcite Business Centre Name: MetaFina Date Received: Oct 9, 2008 Unit 6, 151 Industrial Road Location: Faro Date Reported: Oct 20, 2008 LSD: Whitehorse, YT, Canada Report Number: 1159514 Y1A 2V3 P.O.:

Attn: Donald Wilson Acct code:

Sampled By: Mike Gallo Company: EBA

| | | Reference Number Sample Date Sample Location | 648055-11 Oct 07, 2008 | 648055-14 Oct 07, 2008 | 648055-16 Oct 07, 2008 | |
|------------------------------|-------------------|--|---------------------------|---------------------------|---------------------------|----------------------------|
| | | Sample Description | TP08-4-2 | TP08-5-1 | TP08-5-3 | |
| | | Matrix | Soil | Soil | Soil | |
| Analyte | | Units | Results | Results | Results | Nominal Detection Limit |
| Mono-Aromatic Hydrocar | bons - Soil | | | | | Limit |
| Benzene | Dry Weight | ug/g | <0.02 | <0.02 | < 0.02 | 0.02 |
| Toluene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Ethylbenzene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Total Xylenes (m,p,o) | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Styrene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Methyl t-Butyl Ether | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Volatile Petroleum Hydro | carbons - Soil | | | | | |
| VHs6-10 | Dry Weight | ug/g | <50 | <50 | <50 | 50 |
| VPHs (VHs6-10 minus BTEX) | Dry Weight | ug/g | <50 | <50 | <50 | 50 |
| Extractable Petroleum Hy | drocarbons - Soil | | | | | |
| LEPHs | Dry Weight | ug/g | <20 | <20 | <20 | 20 |
| HEPHs | Dry Weight | ug/g | <20 | <20 | <20 | 20 |
| Polycyclic Aromatic Hydr | ocarbons - Soil | | | | | |
| Acenaphthene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Acenaphthylene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Anthracene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(a)anthracene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(a)pyrene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(b)fluoranthene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(g,h,i)perylene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(k)fluoranthene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Chrysene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Dibenzo(a,h)anthracene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Fluoranthene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Fluorene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Indeno(1,2,3-c,d)pyrene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Naphthalene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Phenanthrene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Pyrene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| PAH - Soil - Surrogate Re | covery | | | | | |
| 2-Fluorobiphenyl | PAH - Surrogate | % | 89 | 97 | 94 | 40-130 |
| Nitrobenzene-d5 | PAH - Surrogate | % | 96 | 105 | 98 | 40-130 |
| p-Terphenyl-d14 | PAH - Surrogate | % | 100 | 107 | 102 | 40-130 |

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Y1A 2V3

Analytical Report

Bill To: EBA Engineering Consulting Lt Project:

Lot ID: 648055 Report To: EBA Engineering Consulting Lt ID: W23101161 Control Number: A015620/1/

P.O.:

Calcite Business Centre Name: MetaFina Date Received: Oct 9, 2008 Unit 6, 151 Industrial Road Location: Faro Date Reported: Oct 20, 2008 LSD: Whitehorse, YT, Canada Report Number: 1159514

Attn: Donald Wilson Acct code:

Sampled By: Mike Gallo Company: EBA

| Reference Number | 648055-14 | 648055-23 | 648055-24 |
|------------------|--------------|--------------|--------------|
| Sample Date | Oct 07, 2008 | Oct 07, 2008 | Oct 07, 2008 |
| Sample Location | | | |

Sample Description TP08-5-1 TP08-8-1 TP08-8-2

| | | Sample Description Matrix | TP08-5-1 Soil | TP08-8-1 Soil | TP08-8-2 Soil | |
|-----------------------------|---------------|------------------------------|------------------|------------------|------------------|----------------------------|
| Analyte | | Units | Results | Results | Results | Nominal Detection Limit |
| VOC Screen - Soil | | | | | | Liiiit |
| Benzene | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| Bromodichloromethane | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| Bromoform | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| Bromomethane | Dry Weight | mg/kg | | | <0.1 | 0.10 |
| Carbon Disulfide | Dry Weight | mg/kg | <0.01 | <0.01 | | 0.01 |
| Carbon Tetrachloride | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| Chlorobenzene | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| Chloroethane | Dry Weight | mg/kg | | | <0.1 | 0.10 |
| 2-Chloroethyl Vinyl Ether | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| Chloroform | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| Chloromethane | Dry Weight | mg/kg | | | <0.1 | 0.10 |
| Dibromochloromethane | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| 1,2-Dichlorobenzene | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| 1,3-Dichlorobenzene | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| 1,4-Dichlorobenzene | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| 1,1-Dichloroethane | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| 1,2-Dichloroethane | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| 1,1-Dichloroethene | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| 1,2-Dichloroethene(cis) | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| 1,2-Dichloroethene(trans) | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| 1,2-Dichloropropane | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| 1,3-Dichloropropene(cis) | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| 1,3-Dichloropropene(trans) | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| Ethylbenzene | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| Methylene Chloride | Dry Weight | mg/kg | | | <0.1 | 0.10 |
| Styrene | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| 1,1,2,2-Tetrachloroethane | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| Tetrachloroethene | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| Toluene | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| 1,1,1-Trichloroethane | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| 1,1,2-Trichloroethane | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| Trichloroethene | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| Trichlorofluoromethane | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| Vinyl Chloride | Dry Weight | mg/kg | | | <0.1 | 0.10 |
| Total Xylenes (m,p,o) | Dry Weight | mg/kg | | | <0.01 | 0.01 |
| VOC - Soil - Surrogate Reco | | | | | | |
| Dibromofluoromethane | EPA Surrogate | % | 109 | 101 | 108 | 80-120 |
| Toluene-d8 | EPA Surrogate | % | 88 | 88 | 87 | 81-117 |

Lot ID: 648055



Analytical Report

Bill To: EBA Engineering Consulting Lt Project:

Report To: EBA Engineering Consulting Lt ID: W23101161

Control Number: A015620/1/ Calcite Business Centre Name: MetaFina Date Received: Oct 9, 2008 Unit 6, 151 Industrial Road Location: Faro Date Reported: Oct 20, 2008 LSD: Whitehorse, YT, Canada Report Number: 1159514

Y1A 2V3 P.O.: Attn: Donald Wilson Acct code:

Sampled By: Mike Gallo Company: EBA

| | | Reference Number | 648055-14 | 648055-23 | 648055-24 | |
|--------------------------|----------------------|--------------------|--------------|--------------|--------------|----------------------------|
| | | Sample Date | Oct 07, 2008 | Oct 07, 2008 | Oct 07, 2008 | |
| | | Sample Location | | | | |
| | | Sample Description | TP08-5-1 | TP08-8-1 | TP08-8-2 | |
| | | Matrix | Soil | Soil | Soil | |
| Analyte | | Units | Results | Results | Results | Nominal Detection Limit |
| VOC - Soil - Surrogate F | Recovery - Continued | | | | | |
| Bromofluorobenzene | EPA Surrogate | % | 99 | 98 | 96 | 74-121 |



Bill To: EBA Engineering Consulting Lt Project:

Lot ID: 648055 Report To: EBA Engineering Consulting Lt ID: W23101161 Control Number: A015620/1/

Calcite Business Centre Name: MetaFina Date Received: Oct 9, 2008 Unit 6, 151 Industrial Road Location: Faro Date Reported: Oct 20, 2008 LSD: Whitehorse, YT, Canada Report Number: 1159514 Y1A 2V3 P.O.:

Attn: Donald Wilson Acct code:

Sampled By: Mike Gallo Company: EBA

| | | Reference Number | 648055-18 | 648055-21 | 648055-23 | |
|------------------------------|-------------------|--------------------|--------------|--------------|--------------|----------------------------|
| | | Sample Date | Oct 07, 2008 | Oct 07, 2008 | Oct 07, 2008 | |
| | | Sample Location | | | | |
| | | Sample Description | TP08-6-2 | TP08-7-2 | TP08-8-1 | |
| | | Matrix | Soil | Soil | Soil | |
| Analyte | | Units | Results | Results | Results | Nominal Detection Limit |
| Mono-Aromatic Hydrocar | bons - Soil | | | | | |
| Benzene | Dry Weight | ug/g | <0.02 | < 0.02 | < 0.02 | 0.02 |
| Toluene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Ethylbenzene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Total Xylenes (m,p,o) | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Styrene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Methyl t-Butyl Ether | Dry Weight | ug/g | < 0.05 | <0.05 | < 0.05 | 0.05 |
| Volatile Petroleum Hydro | carbons - Soil | | | | | |
| VHs6-10 | Dry Weight | ug/g | <50 | <50 | <50 | 50 |
| VPHs (VHs6-10 minus BTEX) | Dry Weight | ug/g | <50 | <50 | <50 | 50 |
| Extractable Petroleum Hy | drocarbons - Soil | | | | | |
| LEPHs | Dry Weight | ug/g | <20 | 66 | <20 | 20 |
| HEPHs | Dry Weight | ug/g | <20 | 29 | 42 | 20 |
| Polycyclic Aromatic Hydr | ocarbons - Soil | | | | | |
| Acenaphthene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Acenaphthylene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Anthracene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(a)anthracene | Dry Weight | ug/g | < 0.05 | <0.05 | < 0.05 | 0.05 |
| Benzo(a)pyrene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(b)fluoranthene | Dry Weight | ug/g | < 0.05 | <0.05 | < 0.05 | 0.05 |
| Benzo(g,h,i)perylene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(k)fluoranthene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Chrysene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Dibenzo(a,h)anthracene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Fluoranthene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Fluorene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Indeno(1,2,3-c,d)pyrene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Naphthalene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Phenanthrene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Pyrene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| PAH - Soil - Surrogate Re | covery | | | | | |
| 2-Fluorobiphenyl | PAH - Surrogate | % | 100 | 86 | 94 | 40-130 |
| Nitrobenzene-d5 | PAH - Surrogate | % | 101 | 88 | 101 | 40-130 |
| p-Terphenyl-d14 | PAH - Surrogate | % | 114 | 99 | 108 | 40-130 |

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Bill To: EBA Engineering Consulting Lt Project:

Lot ID: 648055 Report To: EBA Engineering Consulting Lt ID: W23101161 Control Number: A015620/1/

Calcite Business Centre Name: MetaFina Date Received: Oct 9, 2008 Unit 6, 151 Industrial Road Location: Faro Date Reported: Oct 20, 2008 LSD: Whitehorse, YT, Canada Report Number: 1159514

Y1A 2V3 P.O.: Attn: Donald Wilson Acct code:

Sampled By: Mike Gallo Company: EBA

| | | Reference Number Sample Date Sample Location | 648055-25 Oct 07, 2008 | 648055-26 Oct 07, 2008 | 648055-29 Oct 07, 2008 | |
|------------------------------|-------------------|--|---------------------------|---------------------------|---------------------------|----------------------------|
| | | Sample Description | TP08-8-3 | TP08-9-1 | TP08-10-1 | |
| | | . Matrix | Soil | Soil | Soil | |
| Analyte | | Units | Results | Results | Results | Nominal Detection Limit |
| Mono-Aromatic Hydrocar | bons - Soil | | | | | Little |
| Benzene | Dry Weight | ug/g | <0.02 | <0.02 | < 0.02 | 0.02 |
| Toluene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Ethylbenzene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Total Xylenes (m,p,o) | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Styrene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Methyl t-Butyl Ether | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Volatile Petroleum Hydro | carbons - Soil | | | | | |
| VHs6-10 | Dry Weight | ug/g | <50 | <50 | <50 | 50 |
| VPHs (VHs6-10 minus BTEX) | Dry Weight | ug/g | <50 | <50 | <50 | 50 |
| Extractable Petroleum Hy | drocarbons - Soil | | | | | |
| LEPHs | Dry Weight | ug/g | 21 | <20 | <20 | 20 |
| HEPHs | Dry Weight | ug/g | 59 | 35 | 74 | 20 |
| Polycyclic Aromatic Hydr | ocarbons - Soil | | | | | |
| Acenaphthene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Acenaphthylene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Anthracene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(a)anthracene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(a)pyrene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(b)fluoranthene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(g,h,i)perylene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(k)fluoranthene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Chrysene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Dibenzo(a,h)anthracene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Fluoranthene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Fluorene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Indeno(1,2,3-c,d)pyrene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Naphthalene | Dry Weight | ug/g | <0.05 | < 0.05 | < 0.05 | 0.05 |
| Phenanthrene | Dry Weight | ug/g | <0.05 | <0.05 | < 0.05 | 0.05 |
| Pyrene | Dry Weight | ug/g | <0.05 | <0.05 | < 0.05 | 0.05 |
| PAH - Soil - Surrogate Re | covery | | | | | |
| 2-Fluorobiphenyl | PAH - Surrogate | % | 94 | 94 | 91 | 40-130 |
| Nitrobenzene-d5 | PAH - Surrogate | % | 102 | 101 | 103 | 40-130 |
| p-Terphenyl-d14 | PAH - Surrogate | % | 108 | 107 | 103 | 40-130 |
| | | | | | | |

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Lot ID: 648055



Analytical Report

Bill To: EBA Engineering Consulting Lt Project:

Report To: EBA Engineering Consulting Lt ID: W23101161

Control Number: A015620/1/ Calcite Business Centre Name: MetaFina Date Received: Oct 9, 2008 Unit 6, 151 Industrial Road Location: Faro Date Reported: Oct 20, 2008 LSD: Whitehorse, YT, Canada Report Number: 1159514 Y1A 2V3 P.O.:

Attn: Donald Wilson Acct code:

Sampled By: Mike Gallo Company: EBA

| | | Reference Number Sample Date Sample Location Sample Description | 648055-26 Oct 07, 2008 TP08-9-1 | 648055-27 Oct 07, 2008 TP08-9-2 | 648055-32 Oct 07, 2008 TP08-11-1 | |
|----------------------------|--------------------------|--|---------------------------------------|---------------------------------------|--|----------------------------|
| | | Matrix | Soil | Soil | Soil | |
| Analyte | | Units | Results | Results | Results | Nominal Detection Limit |
| VOC Screen - Soil | | | | | | Lime |
| Benzene | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| Bromodichloromethane | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| Bromoform | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| Bromomethane | Dry Weight | mg/kg | | <0.1 | <0.1 | 0.10 |
| Carbon Disulfide | Dry Weight | mg/kg | <0.01 | | 0.02 | 0.01 |
| Carbon Tetrachloride | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| Chlorobenzene | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| Chloroethane | Dry Weight | mg/kg | | <0.1 | <0.1 | 0.10 |
| 2-Chloroethyl Vinyl Ether | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| Chloroform | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| Chloromethane | Dry Weight | mg/kg | | <0.1 | <0.1 | 0.10 |
| Dibromochloromethane | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| 1,2-Dichlorobenzene | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| 1,3-Dichlorobenzene | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| 1,4-Dichlorobenzene | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| 1,1-Dichloroethane | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| 1,2-Dichloroethane | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| 1,1-Dichloroethene | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| 1,2-Dichloroethene(cis) | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| 1,2-Dichloroethene(trans) | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| 1,2-Dichloropropane | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| 1,3-Dichloropropene(cis) | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| 1,3-Dichloropropene(trans) | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| Ethylbenzene | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| Methylene Chloride | Dry Weight | mg/kg | | <0.1 | <0.1 | 0.10 |
| Styrene | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.10 |
| 1,1,2,2-Tetrachloroethane | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| Tetrachloroethene | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| Toluene | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| 1,1,1-Trichloroethane | Dry Weight | | | <0.01 | <0.01 | 0.01 |
| 1,1,2-Trichloroethane | Dry Weight | mg/kg mg/kg | | <0.01 | <0.01 | 0.01 |
| Trichloroethene | | | | <0.01 | <0.01 | 0.01 |
| Trichlorofluoromethane | Dry Weight Dry Weight | mg/kg mg/kg | | <0.01 | <0.01 | 0.01 |
| Vinyl Chloride | | | | <0.1 | <0.1 | 0.01 |
| • | Dry Weight | mg/kg | | | | |
| Total Xylenes (m,p,o) | Dry Weight | mg/kg | | <0.01 | <0.01 | 0.01 |
| VOC - Soil - Surrogate Rec | - | 0/ | 440 | 440 | 440 | 00.400 |
| Dibromofluoromethane | EPA Surrogate | % | 112 | 110 | 113 | 80-120 81-117 |
| Toluene-d8 | EPA Surrogate | % % | 88 88 | 88 | 90 | |



Bill To: EBA Engineering Consulting Lt Project:

Lot ID: 648055 Report To: EBA Engineering Consulting Lt W23101161 Control Number: A015620/1/

Calcite Business Centre Name: MetaFina Date Received: Oct 9, 2008 Unit 6, 151 Industrial Road Location: Faro Date Reported: Oct 20, 2008 LSD: Whitehorse, YT, Canada Report Number: 1159514

Y1A 2V3 P.O.:

Acct code:

Attn: Donald Wilson Sampled By: Mike Gallo Company: EBA

648055-26 648055-27 **Reference Number** 648055-32 Sample Date Oct 07, 2008 Oct 07, 2008 Oct 07, 2008 Sample Location TP08-9-1 TP08-9-2 TP08-11-1 **Sample Description** Matrix Soil Soil Soil Nominal Detection Units Results Results Results **Analyte**

VOC - Soil - Surrogate Recovery - Continued Bromofluorobenzene **EPA Surrogate** % 97 102 104 74-121



Bill To: EBA Engineering Consulting Lt Project:

Lot ID: 648055 Report To: EBA Engineering Consulting Lt ID: W23101161 Control Number: A015620/1/

Calcite Business Centre Name: MetaFina Date Received: Oct 9, 2008 Unit 6, 151 Industrial Road Location: Faro Date Reported: Oct 20, 2008 LSD: Whitehorse, YT, Canada Report Number: 1159514 Y1A 2V3 P.O.:

Attn: Donald Wilson Acct code:

Sampled By: Mike Gallo Company: EBA

| | | Reference Number Sample Date Sample Location | 648055-32 Oct 07, 2008 | 648055-34 Oct 07, 2008 | 648055-35 Oct 07, 2008 | |
|------------------------------|-------------------|--|---------------------------|---------------------------|---------------------------|----------------------------|
| | | Sample Description | TP08-11-1 | TP08-11-3 | TP08-11-4 | |
| | | Matrix | Soil | Soil | Soil | |
| Analyte | | Units | Results | Results | Results | Nominal Detection Limit |
| Mono-Aromatic Hydrocar | bons - Soil | | | | | Limit |
| Benzene | Dry Weight | ug/g | <0.02 | <0.02 | <0.02 | 0.02 |
| Toluene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Ethylbenzene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Total Xylenes (m,p,o) | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Styrene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Methyl t-Butyl Ether | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Volatile Petroleum Hydro | carbons - Soil | | | | | |
| VHs6-10 | Dry Weight | ug/g | <50 | <50 | <50 | 50 |
| VPHs (VHs6-10 minus BTEX) | Dry Weight | ug/g | <50 | <50 | <50 | 50 |
| Extractable Petroleum Hy | drocarbons - Soil | | | | | |
| LEPHs | Dry Weight | ug/g | <20 | <20 | <20 | 20 |
| HEPHs | Dry Weight | ug/g | <20 | <20 | <20 | 20 |
| Polycyclic Aromatic Hydr | ocarbons - Soil | | | | | |
| Acenaphthene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Acenaphthylene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Anthracene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(a)anthracene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(a)pyrene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(b)fluoranthene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(g,h,i)perylene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Benzo(k)fluoranthene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Chrysene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Dibenzo(a,h)anthracene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Fluoranthene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Fluorene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Indeno(1,2,3-c,d)pyrene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Naphthalene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Phenanthrene | Dry Weight | ug/g | < 0.05 | <0.05 | < 0.05 | 0.05 |
| Pyrene | Dry Weight | ug/g | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| PAH - Soil - Surrogate Re | covery | | | | | |
| 2-Fluorobiphenyl | PAH - Surrogate | % | 91 | 89 | 93 | 40-130 |
| Nitrobenzene-d5 | PAH - Surrogate | % | 98 | 92 | 101 | 40-130 |
| p-Terphenyl-d14 | PAH - Surrogate | % | 92 | 94 | 94 | 40-130 |

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Bill To: EBA Engineering Consulting Lt Project:

Report To: EBA Engineering Consulting Lt

Calcite Business Centre Unit 6, 151 Industrial Road LSD:

Whitehorse, YT, Canada Y1A 2V3

Sampled By: Mike Gallo

Attn: Donald Wilson

Company: EBA

P.O.:

Acct code:

W23101161 Name: MetaFina Faro

Location:

Lot ID: 648055

Control Number: A015620/1/ Date Received: Oct 9, 2008 Date Reported: Oct 20, 2008 Report Number: 1159514

Reference Number Sample Date

648055-36 Oct 06, 2008

Sample Location

Sample Description UST-1 Matrix

Soil

| | | Matrix | Soil | | | |
|------------------------------|-------------------|--------|---------|---------|---------|----------------------------|
| Analyte | | Units | Results | Results | Results | Nominal Detection Limit |
| Mono-Aromatic Hydrocar | bons - Soil | | | | | |
| Benzene | Dry Weight | ug/g | <0.02 | | | 0.02 |
| Toluene | Dry Weight | ug/g | < 0.05 | | | 0.05 |
| Ethylbenzene | Dry Weight | ug/g | < 0.05 | | | 0.05 |
| Total Xylenes (m,p,o) | Dry Weight | ug/g | < 0.05 | | | 0.05 |
| Styrene | Dry Weight | ug/g | < 0.05 | | | 0.05 |
| Methyl t-Butyl Ether | Dry Weight | ug/g | < 0.05 | | | 0.05 |
| Volatile Petroleum Hydro | carbons - Soil | | | | | |
| VHs6-10 | Dry Weight | ug/g | <50 | | | 50 |
| VPHs (VHs6-10 minus BTEX) | Dry Weight | ug/g | <50 | | | 50 |
| Extractable Petroleum Hy | drocarbons - Soil | | | | | |
| LEPHs | Dry Weight | ug/g | <20 | | | 20 |
| HEPHs | Dry Weight | ug/g | <20 | | | 20 |
| Polycyclic Aromatic Hydr | ocarbons - Soil | | | | | |
| Acenaphthene | Dry Weight | ug/g | < 0.05 | | | 0.05 |
| Acenaphthylene | Dry Weight | ug/g | < 0.05 | | | 0.05 |
| Anthracene | Dry Weight | ug/g | < 0.05 | | | 0.05 |
| Benzo(a)anthracene | Dry Weight | ug/g | < 0.05 | | | 0.05 |
| Benzo(a)pyrene | Dry Weight | ug/g | < 0.05 | | | 0.05 |
| Benzo(b)fluoranthene | Dry Weight | ug/g | < 0.05 | | | 0.05 |
| Benzo(g,h,i)perylene | Dry Weight | ug/g | < 0.05 | | | 0.05 |
| Benzo(k)fluoranthene | Dry Weight | ug/g | < 0.05 | | | 0.05 |
| Chrysene | Dry Weight | ug/g | < 0.05 | | | 0.05 |
| Dibenzo(a,h)anthracene | Dry Weight | ug/g | < 0.05 | | | 0.05 |
| Fluoranthene | Dry Weight | ug/g | < 0.05 | | | 0.05 |
| Fluorene | Dry Weight | ug/g | < 0.05 | | | 0.05 |
| Indeno(1,2,3-c,d)pyrene | Dry Weight | ug/g | < 0.05 | | | 0.05 |
| Naphthalene | Dry Weight | ug/g | < 0.05 | | | 0.05 |
| Phenanthrene | Dry Weight | ug/g | < 0.05 | | | 0.05 |
| Pyrene | Dry Weight | ug/g | < 0.05 | | | 0.05 |
| PAH - Soil - Surrogate Re | covery | | | | | |
| 2-Fluorobiphenyl | PAH - Surrogate | % | 105 | | | 40-130 |
| Nitrobenzene-d5 | PAH - Surrogate | % | 111 | | | 40-130 |
| p-Terphenyl-d14 | PAH - Surrogate | % | 107 | | | 40-130 |



Bill To: EBA Engineering Consulting Lt Project:

Lot ID: 648055 Report To: EBA Engineering Consulting Lt ID: W23101161 Control Number: A015620/1/

Calcite Business Centre Name: MetaFina Date Received: Oct 9, 2008 Unit 6, 151 Industrial Road Location: Faro Date Reported: Oct 20, 2008 LSD: Whitehorse, YT, Canada Report Number: 1159514 Y1A 2V3 P.O.:

Attn: Donald Wilson Acct code:

Sampled By: Mike Gallo Company: EBA

| | | Reference Number | 648055-37 | 648055-38 | 648055-39 | |
|---------------------------|----------------------|--------------------|--------------|--------------|--------------|-------------------|
| | | Sample Date | Oct 08, 2008 | Oct 08, 2008 | Oct 08, 2008 | |
| | | Sample Location | | | | |
| | | Sample Description | MW2 | MW3 | MW4 | |
| | | Matrix | Water | Water | Water | Nominal Detection |
| Analyte | | Units | Results | Results | Results | Limit |
| Mono-Aromatic Hydro | carbons - Water | | | | | |
| Benzene | | ug/L | <1 | <1 | <1 | 1 |
| Ethylbenzene | | ug/L | <1 | <1 | <1 | 1 |
| Methyl t-Butyl Ether | | ug/L | <1 | <1 | <1 | 1 |
| Styrene | | ug/L | <1 | <1 | <1 | 1 |
| Toluene | | ug/L | <1 | <1 | <1 | 1 |
| Total Xylenes (m,p,o) | | ug/L | <1 | <1 | <1 | 1 |
| Volatile Petroleum Hyd | Irocarbons - Water | | | | | |
| VPHw (VHw6-10 minus BTEX) | 3 | ug/L | <50 | <50 | <50 | 50 |
| VHw6-10 | | ug/L | <50 | <50 | <50 | 50 |
| Extractable Petroleum | Hydrocarbons - Water | | | | | |
| LEPHw | | ug/L | <100 | 200 | <100 | 100 |
| HEPHw | | ug/L | <100 | 200 | <100 | 100 |
| Polycyclic Aromatic Hy | ydrocarbons - Water | | | | | |
| Acenaphthene | | ug/L | <0.1 | <0.1 | <0.1 | 0.1 |
| Acenaphthylene | | ug/L | <0.1 | 0.4 | <0.1 | 0.1 |
| Acridine | | ug/L | < 0.05 | < 0.05 | < 0.05 | 0.05 |
| Anthracene | | ug/L | <0.1 | <0.1 | <0.1 | 0.1 |
| Benzo(a)anthracene | | ug/L | <0.01 | <0.01 | <0.01 | 0.01 |
| Benzo(a)pyrene | | ug/L | <0.01 | <0.01 | <0.01 | 0.01 |
| Benzo(b)fluoranthene | | ug/L | <0.01 | <0.01 | <0.01 | 0.01 |
| Benzo(g,h,i)perylene | | ug/L | <0.1 | <0.1 | <0.1 | 0.1 |
| Benzo(k)fluoranthene | | ug/L | < 0.02 | <0.02 | < 0.02 | 0.02 |
| Chrysene | | ug/L | <0.1 | <0.1 | <0.1 | 0.1 |
| Dibenzo(a,h)anthracen | е | ug/L | <0.01 | <0.01 | < 0.01 | 0.01 |
| Fluoranthene | | ug/L | <0.1 | <0.1 | <0.1 | 0.1 |
| Fluorene | | ug/L | <0.1 | <0.1 | <0.1 | 0.1 |
| Indeno(1,2,3-c,d)pyrene | е | ug/L | <0.1 | <0.1 | <0.1 | 0.1 |
| Naphthalene | | ug/L | <0.1 | <0.1 | <0.1 | 0.1 |
| Phenanthrene | | ug/L | <0.1 | <0.1 | <0.1 | 0.1 |
| Pyrene | | ug/L | < 0.02 | <0.02 | < 0.02 | 0.02 |
| Quinoline | | ug/L | <3.4 | <3.4 | <3.4 | 3.4 |
| PAH - Water - Surrogat | te Recovery | | | | | |
| 2-Fluorobiphenyl | PAH - Surrogate | % | 96 | 68 | 90 | 30-130 |
| Nitrobenzene-d5 | PAH - Surrogate | % | 106 | 100 | 102 | 23-130 |
| p-Terphenyl-d14 | PAH - Surrogate | % | 99 | 78 | 93 | 18-137 |



Bill To: EBA Engineering Consulting Lt Project:

Report To: EBA Engineering Consulting Lt

Calcite Business Centre Name: Unit 6, 151 Industrial Road Location: LSD: Whitehorse, YT, Canada Y1A 2V3 P.O.:

Attn: Donald Wilson

Sampled By: Mike Gallo Company: EBA

Lot ID: 648055 W23101161

Control Number: A015620/1/ Date Received: Oct 9, 2008 Date Reported: Oct 20, 2008 Report Number: 1159514

Reference Number Sample Date

Acct code:

648055-38 Oct 08, 2008

Sample Location

Sample Description MW3

MetaFina

Faro

| | Matrix Water | | | | |
|----------------------------|---------------------|---------|---------|---------|-------------------|
| Analyte | Units | Results | Results | Results | Nominal Detection |
| VOC Screen - Water | | | | | |
| Acetone | ug/L | <25 | | | 25 |
| Acetonitrile | ug/L | <25 | | | 25 |
| Acrylonitrile | ug/L | <25 | | | 25 |
| Allyl Chloride | ug/L | <25 | | | 25 |
| Benzene | ug/L | <1 | | | 1 |
| Bromobenzene | ug/L | <1 | | | 1 |
| Bromochloromethane | ug/L | <1 | | | 1 |
| Bromodichloromethane | ug/L | <1 | | | 1 |
| Bromoform | ug/L | <1 | | | 1 |
| Bromomethane | ug/L | <10 | | | 10 |
| 2-Butanone (MEK) | ug/L | <25 | | | 25 |
| n-Butylbenzene | ug/L | <1 | | | 1 |
| sec-Butylbenzene | ug/L | <1 | | | 1 |
| tert-Butylbenzene | ug/L | <1 | | | 1 |
| Carbon Disulfide | ug/L | <1 | | | 1 |
| Carbon Tetrachloride | ug/L | <1 | | | 1 |
| Chlorobenzene | ug/L | <1 | | | 1 |
| Chloroethane | ug/L | <10 | | | 10 |
| 2-Chloroethyl Vinyl Ether | ug/L | <1 | | | 1 |
| Chloroform | ug/L | <1 | | | 1 |
| Chloromethane | ug/L | <10 | | | 10 |
| 2-Chlorotoluene | ug/L | <1 | | | 1 |
| 4-Chlorotoluene | ug/L | <1 | | | 1 |
| Dibromochloromethane | ug/L | <1 | | | 1 |
| 1,2-Dibromo-3- | ug/L | <1 | | | 1 |
| Chloropropane | | | | | |
| 1,2-Dibromoethane | ug/L | <1 | | | 1 |
| Dibromomethane | ug/L | <1 | | | 1 |
| 1,4-Dichloro-2-Butene(cis) | ug/L | <25 | | | 25 |
| 1,4-Dichloro-2- | ug/L | <25 | | | 25 |
| Butene(trans) | | 4 | | | 4 |
| 1,2-Dichlorobenzene | ug/L | <1 | | | 1 |
| 1,3-Dichlorobenzene | ug/L | <1 | | | 1 |
| 1,4-Dichlorobenzene | ug/L | <1 | | | 1 |
| 1,1-Dichloroethane | ug/L | <1 | | | 1 |
| 1,2-Dichloroethane | ug/L | <1 | | | 1 |
| 1,1-Dichloroethene | ug/L | <1 | | | 1 |
| 1,2-Dichloroethene(cis) | ug/L | <1 | | | 1 |
| 1,2-Dichloroethene(trans) | ug/L | <1 | | | 1 |



Bill To: EBA Engineering Consulting Lt Project:

Report To: EBA Engineering Consulting Lt

Calcite Business Centre

Unit 6, 151 Industrial Road Whitehorse, YT, Canada Y1A 2V3

Attn: Donald Wilson

Sampled By: Mike Gallo Company: EBA

Name:

LSD:

P.O.:

Location:

Acct code:

MetaFina

W23101161 Faro

Lot ID: 648055

Control Number: A015620/1/ Date Received: Oct 9, 2008 Date Reported: Oct 20, 2008 Report Number: 1159514

Reference Number Sample Date

648055-38 Oct 08, 2008

Sample Location

Sample Description

MW3

Matrix

Water

| | Matrix | Water | | | |
|--------------------------------|--------|---------|---------|---------|----------------------------|
| Analyte | Units | Results | Results | Results | Nominal Detection Limit |
| VOC Screen - Water - Continued | | | | | |
| Dichlorodifluoromethane | ug/L | <10 | | | 10 |
| 1,2-Dichloropropane | ug/L | <1 | | | 1 |
| 1,3-Dichloropropane | ug/L | <1 | | | 1 |
| 2,2-Dichloropropane | ug/L | <10 | | | 10 |
| 1,1-Dichloropropene | ug/L | <1 | | | 1 |
| 1,3-Dichloropropene(cis) | ug/L | <1 | | | 1 |
| 1,3-Dichloropropene(trans) | ug/L | <1 | | | 1 |
| Ethylbenzene | ug/L | <1 | | | 1 |
| Ethyl Methacrylate | ug/L | <25 | | | 25 |
| Hexachlorobutadiene | ug/L | <1 | | | 1 |
| Hexachloroethane | ug/L | <1 | | | 1 |
| 2-Hexanone | ug/L | <25 | | | 25 |
| lodomethane | ug/L | <1 | | | 1 |
| p-Isopropyltoluene | ug/L | <1 | | | 1 |
| Methacrylonitrile | ug/L | <25 | | | 25 |
| Methylene Chloride | ug/L | <5 | | | 5 |
| Methyl Methacrylate | ug/L | <25 | | | 25 |
| 4-Methyl-2-Pentanone (MIBK) | ug/L | <25 | | | 25 |
| Methyl t-Butyl Ether | ug/L | <1 | | | 1 |
| Naphthalene | ug/L | <5 | | | 5 |
| Pentachloroethane | ug/L | <1 | | | 1 |
| Propionitrile | ug/L | <25 | | | 25 |
| iso-Propylbenzene | ug/L | <1 | | | 1 |
| n-Propylbenzene | ug/L | <1 | | | 1 |
| Styrene | ug/L | <1 | | | 1 |
| 1,1,1,2-Tetrachloroethane | ug/L | <1 | | | 1 |
| 1,1,2,2-Tetrachloroethane | ug/L | <1 | | | 1 |
| Tetrachloroethene | ug/L | <1 | | | 1 |
| Toluene | ug/L | <1 | | | 1 |
| 1,2,3-Trichlorobenzene | ug/L | <1 | | | 1 |
| 1,2,4-Trichlorobenzene | ug/L | <1 | | | 1 |
| 1,1,1-Trichloroethane | ug/L | <1 | | | 1 |
| 1,1,2-Trichloroethane | ug/L | <1 | | | 1 |
| Trichloroethene | ug/L | <1 | | | 1 |
| Trichlorofluoromethane | ug/L | <1 | | | 1 |
| 1,2,3-Trichloropropane | ug/L | <1 | | | 1 |
| 1,2,4-Trimethylbenzene | ug/L | <1 | | | 1 |



Bill To: EBA Engineering Consulting Lt Project:

Report To: EBA Engineering Consulting Lt

Calcite Business Centre Unit 6, 151 Industrial Road

Whitehorse, YT, Canada Y1A 2V3

Attn: Donald Wilson

Sampled By: Mike Gallo Company: EBA

LSD:

P.O.:

Acct code:

W23101161 Name: Location:

MetaFina Faro

Lot ID: 648055 Control Number: A015620/1/

Date Received: Oct 9, 2008 Date Reported: Oct 20, 2008 Report Number: 1159514

Reference Number Sample Date

648055-38 Oct 08, 2008

Sample Location

Sample Description Matrix

MW3

Water

| Analyte | | Units | Results | Results | Results | Nominal Detection Limit |
|--------------------------|---------------|-------|---------|---------|---------|----------------------------|
| VOC Screen - Water - Cor | ntinued | | | | | |
| 1,3,5-Trimethylbenzene | | ug/L | <1 | | | 1 |
| Vinyl Chloride | | ug/L | <2 | | | 2 |
| Total Xylenes (m,p,o) | | ug/L | <1 | | | 1 |
| VOC - Water - Surrogate | Recovery | | | | | |
| Dibromofluoromethane | EPA Surrogate | % | 91 | | | 86-118 |
| Toluene-d8 | EPA Surrogate | % | 99 | | | 85-115 |
| Bromofluorobenzene | EPA Surrogate | % | <86 | | | 86-115 |

Approved by:

Andrew Garrard, BSc **Operations Manager**

ardun Carrarl



Methodology and Notes

Bill To: EBA Engineering Consulting Lt Project:

Report To: EBA Engineering Consulting Lt

Calcite Business Centre Unit 6, 151 Industrial Road

Location: Whitehorse, YT, Canada LSD: Y1A 2V3 P.O.:

Attn: Donald Wilson

Sampled By: Mike Gallo Company: EBA

Acct code:

W23101161 Name:

MetaFina Faro

Lot ID: 648055

Control Number: A015620/1/ Date Received: Oct 9, 2008 Date Reported: Oct 20, 2008 Report Number: 1159514

| Method of Analysis | | |
|-----------------------|-----------|---|
| Method Name | Reference | Method Date Analysis Location Started |
| BTEX-VPH - Soil | BCELM | Volatile Hydrocarbons in Solids by 10-Oct-08 BTG Surrey GC/FID, VH Solids |
| BTEX-VPH - Water (MS) | BCELM | Volatile Hydrocarbons in Water by 11-Oct-08 BTG Surrey GC/FID, VH Water |
| EPH - Soil | BCELM | * Extractable Petroleum Hydrocarbons 10-Oct-08 BTG Surrey (EPH) in Solids by GC/FID, EPH Solids |
| EPH - Water | BCELM | * Extractable Petroleum Hydrocarbons 11-Oct-08 BTG Surrey (EPH) in Water by GC/FID, EPH Water |
| PAH - Soil (Surrey) | BCELM | Polycyclic Aromatic Hydrocarbons 10-Oct-08 BTG Surrey (PAHs) In Solids by GC/MS/SIM, PAH Solids |
| PAH - Soil (Surrey) | US EPA | * Semivolatile Organic Compounds by 10-Oct-08 BTG Surrey Gas Chromatography/Mass Spectrometry, 8270 |
| PAH - Water (Surrey) | BCELM | Polycyclic Aromatic Hydrocarbons in 11-Oct-08 BTG Surrey Water by GC/MS - PBM, PAH Water |
| VOC - Soil | US EPA | * US EPA method, 8260B/5030B 14-Oct-08 BTG Calgary |
| VOC - Water | US EPA | * US EPA method, 8260B/5030B 15-Oct-08 BTG Calgary |

^{*} Bodycote method(s) based on reference method

References

BCELM B.C. Environmental Laboratory Manual

US EPA US Environmental Protection Agency Test Methods

Comments:

Please direct any inquiries regarding this report to our Client Services group. Results relate only to samples as submitted.

The test report shall not be reproduced except in full, without the written approval of the laboratory.



Hydrocarbon Chromatogram

Bill To: EBA Engineering - Edmonton Report To: EBA Engineering - Edmonton

> Calcite Business Centre Unit 6, 151 Industrial Road Whitehorse, YT, Canada

Y1A 2V3 Attn: Donald Wilson Sampled by: Mike Gallo

Company: EBA

Project ID: W23101161 Name: MetaFina Location: Faro

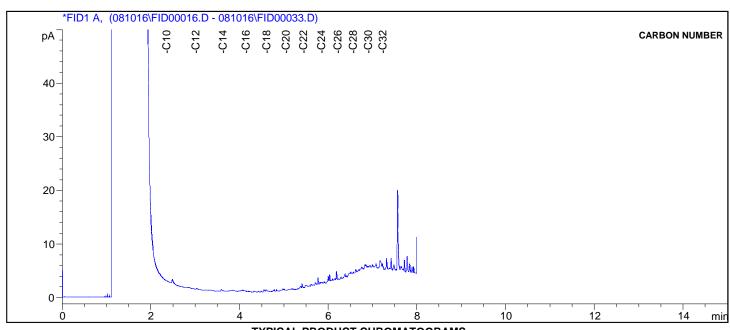
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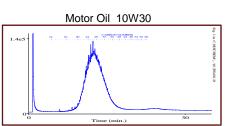
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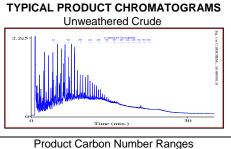
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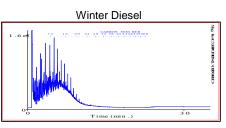
NWL Number: 648055-2 Sample Description: TP08-1-2

Sample Date: Oct 6, 2008









Gasoline C4-C12 Varsol C8-C12

Kerosene Diesel

C7-C16 C8-C22

Lubricating Oils Crude Oils

C20-C40 C3-C60+



Bill To: EBA Engineering - Edmonton Report To: EBA Engineering - Edmonton

Calcite Business Centre Unit 6, 151 Industrial Road

Whitehorse, YT, Canada Y1A 2V3

Attn: Donald Wilson Sampled by: Mike Gallo Company: EBA

Project ID: W23101161 Name: MetaFina Location: Faro

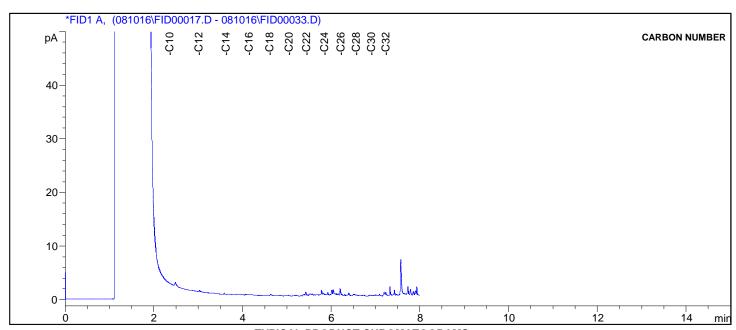
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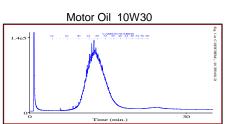
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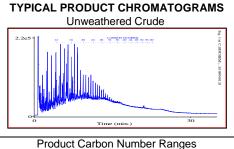
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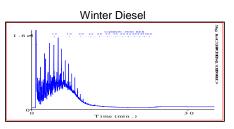
NWL Number: 648055-5 Sample Description: TP08-2-2

Sample Date: Oct 6, 2008









Gasoline C4-C12 Varsol C8-C12

Kerosene Diesel

C7-C16 C8-C22

Lubricating Oils Crude Oils



Bill To: EBA Engineering - Edmonton Report To: EBA Engineering - Edmonton

Calcite Business Centre Unit 6, 151 Industrial Road

Whitehorse, YT, Canada Y1A 2V3 Attn: Donald Wilson

Sampled by: Mike Gallo Company: EBA

Project ID: W23101161 Name: MetaFina Location: Faro

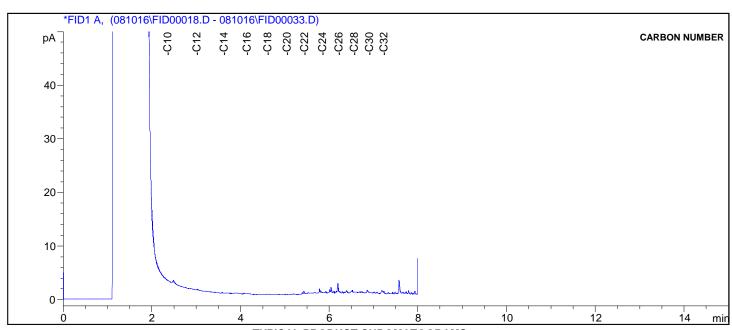
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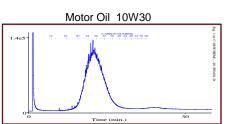
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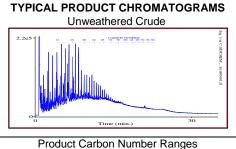
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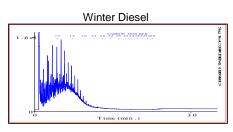


Sample Date: Oct 6, 2008









Gasoline C4-C12 Varsol C8-C12

Kerosene Diesel

C7-C16 C8-C22

Lubricating Oils Crude Oils



Bill To: EBA Engineering - Edmonton Report To: EBA Engineering - Edmonton

Calcite Business Centre Unit 6, 151 Industrial Road Whitehorse, YT, Canada

Y1A 2V3 Attn: Donald Wilson Sampled by: Mike Gallo

Company: EBA

Project ID: W23101161 Name: MetaFina Location: Faro

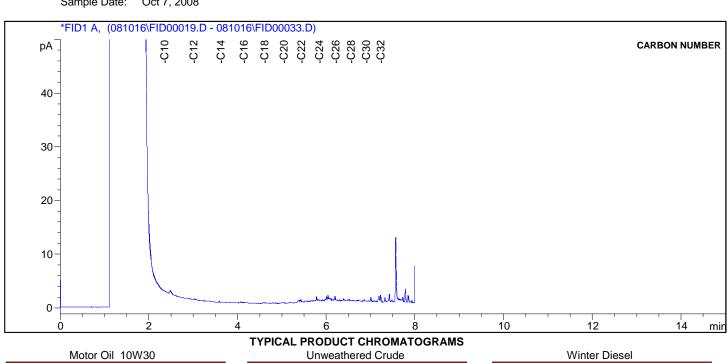
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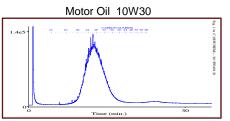
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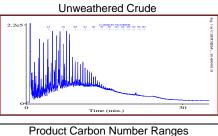
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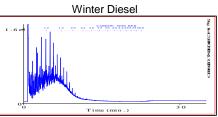
NWL Number: 648055-11 Sample Description: TP08-4-2

Sample Date: Oct 7, 2008









Gasoline C4-C12 Varsol C8-C12

Kerosene Diesel

C7-C16 C8-C22

Lubricating Oils Crude Oils



Bill To: EBA Engineering - Edmonton Report To: EBA Engineering - Edmonton

> Calcite Business Centre Unit 6, 151 Industrial Road Whitehorse, YT, Canada

Y1A 2V3

Attn: Donald Wilson Sampled by: Mike Gallo Company: EBA

Project ID: W23101161 Name: MetaFina Location: Faro

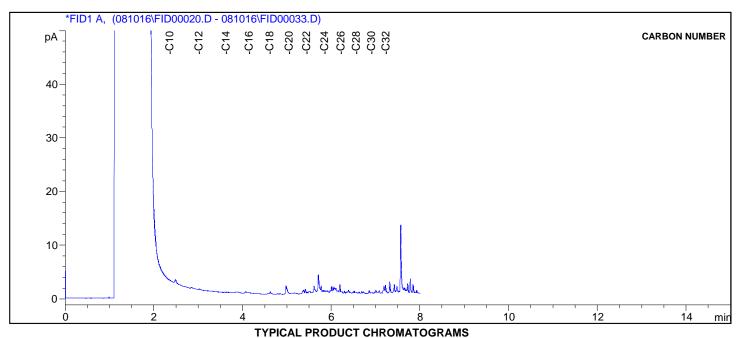
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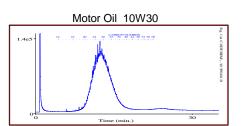
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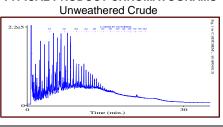
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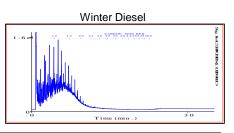












Product Carbon Number Ranges

Gasoline C4-C12 Varsol C8-C12 Kerosene Diesel

C7-C16 C8-C22

Lubricating Oils Crude Oils



Bill To: EBA Engineering - Edmonton Report To: EBA Engineering - Edmonton

> Calcite Business Centre Unit 6, 151 Industrial Road Whitehorse, YT, Canada

Y1A 2V3 Attn: Donald Wilson Sampled by: Mike Gallo Company: EBA

Project ID: W23101161 Name: MetaFina Location: Faro

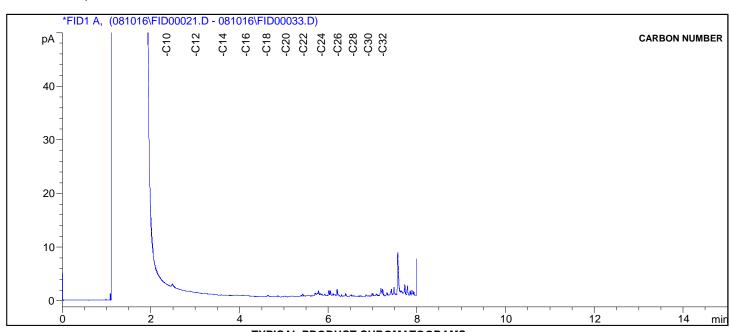
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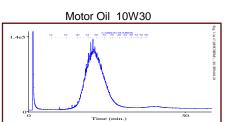
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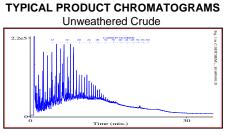
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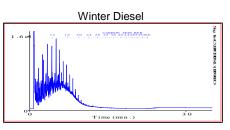
Sample Date: Oct 7, 2008







Product Carbon Number Ranges



Gasoline C4-C12 Varsol C8-C12

Kerosene Diesel

C7-C16 C8-C22

Lubricating Oils Crude Oils



Bill To: EBA Engineering - Edmonton Report To: EBA Engineering - Edmonton

> Calcite Business Centre Unit 6, 151 Industrial Road Whitehorse, YT, Canada

Y1A 2V3 Attn: Donald Wilson Sampled by: Mike Gallo Company: EBA

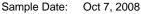
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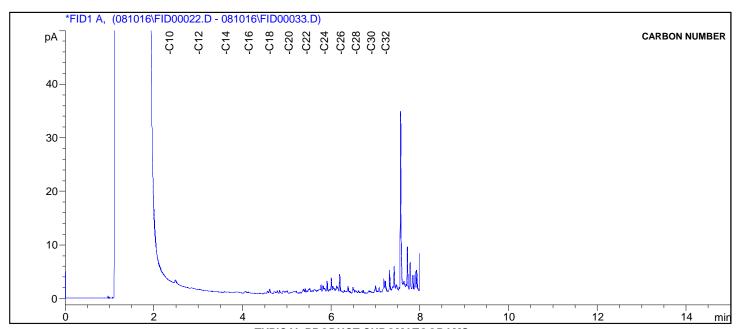
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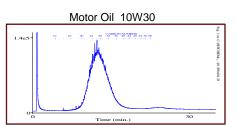
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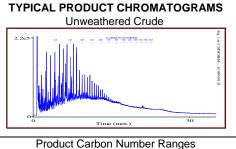
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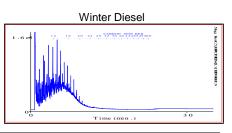












| Gasoline | C4-C12 |
|----------|--------|
| Varsol | C8-C12 |

Kerosene Diesel

C7-C16 C8-C22

Lubricating Oils Crude Oils



Bill To: EBA Engineering - Edmonton Report To: EBA Engineering - Edmonton

Calcite Business Centre Unit 6, 151 Industrial Road Whitehorse, YT, Canada

Y1A 2V3

Attn: Donald Wilson Sampled by: Mike Gallo Company: EBA

Project ID: W23101161 Name: MetaFina Location: Faro

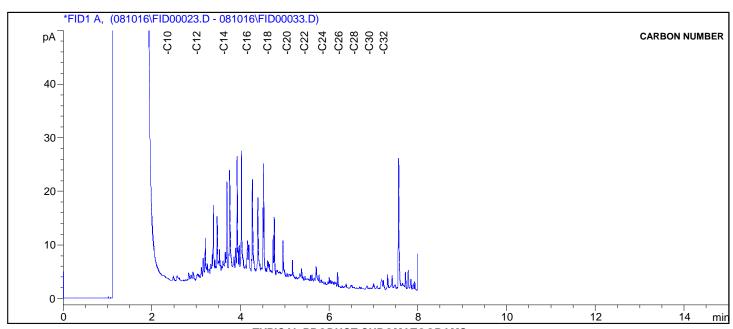
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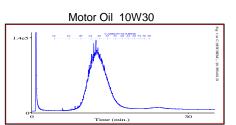
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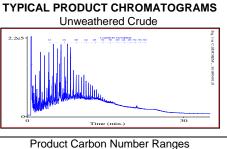
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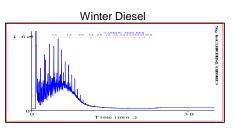


Sample Date: Oct 7, 2008









| Gasoline | C4-C12 |
|----------|--------|
| Varsol | C8-C12 |

Kerosene Diesel

C7-C16 C8-C22 Lubricating Oils Crude Oils



Bill To: EBA Engineering - Edmonton Report To: EBA Engineering - Edmonton

Calcite Business Centre Unit 6, 151 Industrial Road Whitehorse, YT, Canada

Y1A 2V3
Attn: Donald Wilson
Sampled by: Mike Gallo

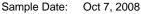
Company: EBA

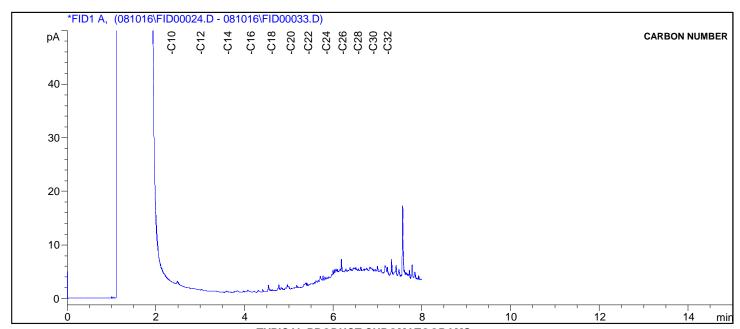
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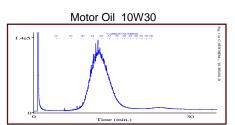
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Date Received: Oct 9, 2008

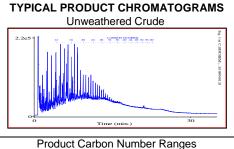
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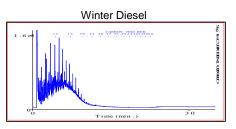












| Gasoline | C4-C12 |
|----------|--------|
| Varsol | C8-C12 |

Kerosene Diesel C7-C16 C8-C22 Lubricating Oils Crude Oils C20-C40 C3-C60+

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Bill To: EBA Engineering - Edmonton Report To: EBA Engineering - Edmonton

Calcite Business Centre Unit 6, 151 Industrial Road Whitehorse, YT, Canada

Y1A 2V3 Attn: Donald Wilson Sampled by: Mike Gallo

EBA

Company:

Project ID: W23101161 Name: MetaFina Location: Faro

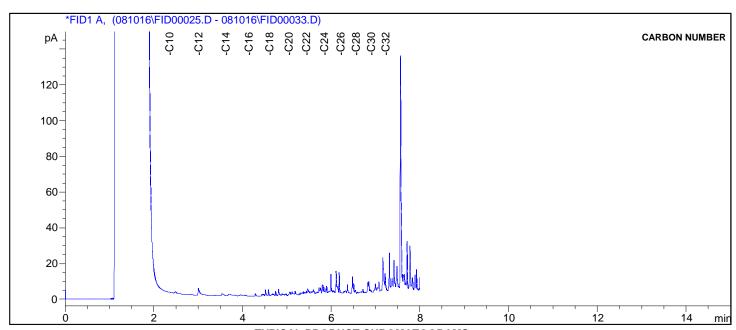
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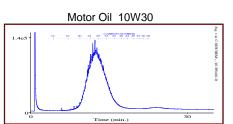
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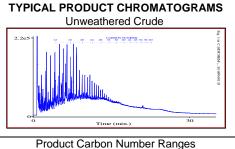
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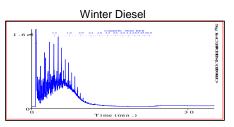
NWL Number: 648055-25 Sample Description: TP08-8-3

Sample Date: Oct 7, 2008









Gasoline C4-C12 Varsol C8-C12

Kerosene Diesel

C7-C16 C8-C22

Lubricating Oils Crude Oils



Bill To: EBA Engineering - Edmonton Report To: EBA Engineering - Edmonton

> Calcite Business Centre Unit 6, 151 Industrial Road Whitehorse, YT, Canada

Y1A 2V3 Attn: Donald Wilson Sampled by: Mike Gallo Company: EBA

Project ID: W23101161 Name: MetaFina Location: Faro

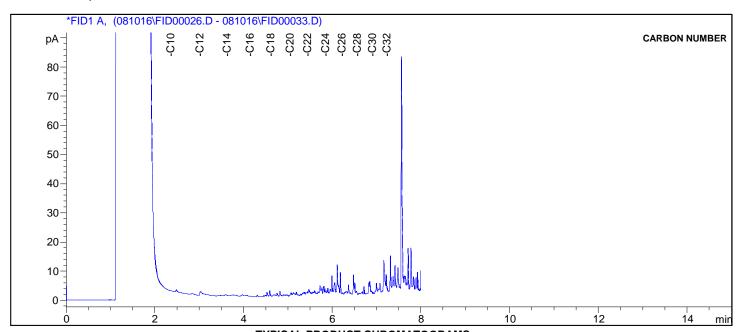
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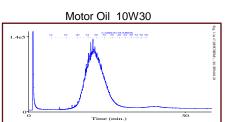
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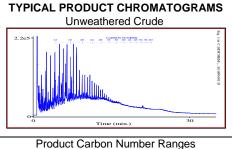
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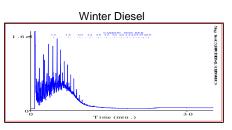


Sample Date: Oct 7, 2008









Gasoline C4-C12 Varsol C8-C12

Kerosene Diesel

C7-C16 C8-C22

Lubricating Oils Crude Oils



Bill To: EBA Engineering - Edmonton Report To: EBA Engineering - Edmonton

Calcite Business Centre Unit 6, 151 Industrial Road Whitehorse, YT, Canada

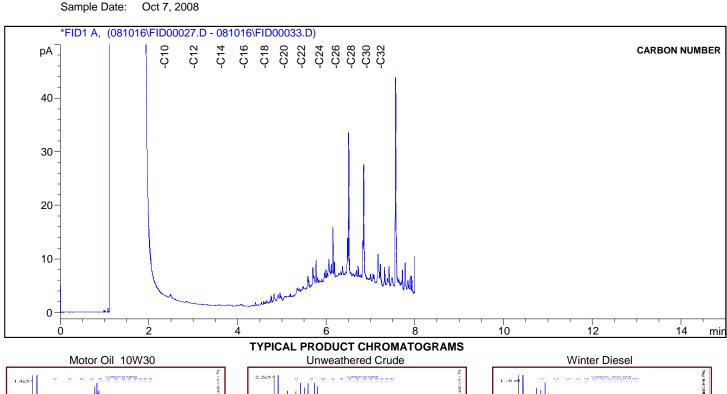
Y1A 2V3
Attn: Donald Wilson
Sampled by: Mike Gallo
Company: EBA

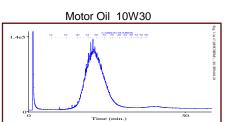
Project ID: W23101161
Name: MetaFina
Location: Faro

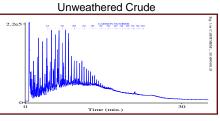
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Date Received: Oct 9, 2008

Date Reported: Report Number:

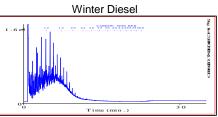








Product Carbon Number Ranges



Gasoline C4-C12 Varsol C8-C12

Kerosene Diesel C7-C16 C8-C22 Lubricating Oils Crude Oils



Bill To: EBA Engineering - Edmonton Report To: EBA Engineering - Edmonton

Calcite Business Centre Unit 6, 151 Industrial Road Whitehorse, YT, Canada

Y1A 2V3

Attn: Donald Wilson Sampled by: Mike Gallo Company: EBA

Project ID: W23101161 Name: MetaFina Location: Faro

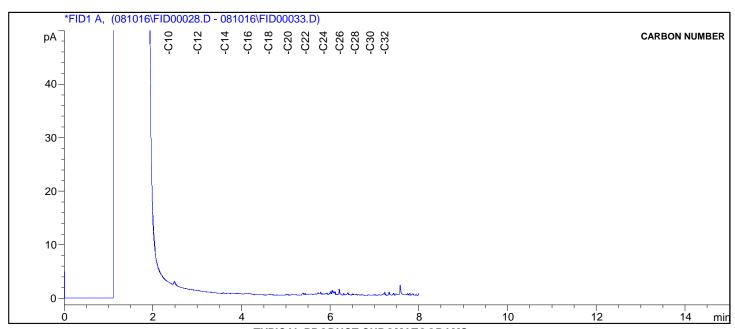
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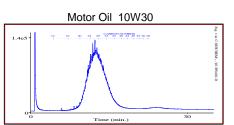
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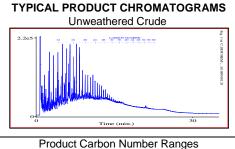
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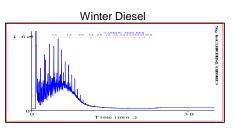


Sample Date: Oct 7, 2008









Gasoline C4-C12 Varsol C8-C12

Kerosene Diesel

C7-C16 C8-C22

Lubricating Oils Crude Oils



Bill To: EBA Engineering - Edmonton Report To: EBA Engineering - Edmonton

Calcite Business Centre Unit 6, 151 Industrial Road Whitehorse, YT, Canada

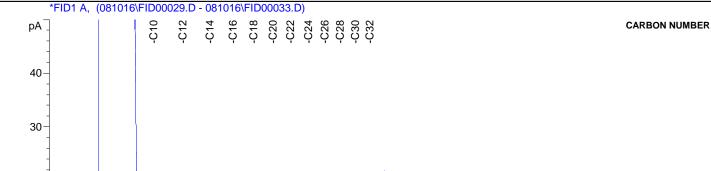
Whitehorse, YT, Canada Y1A 2V3

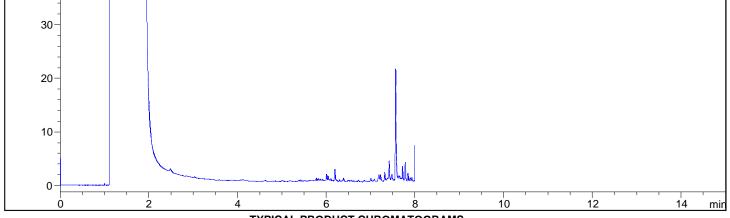
Attn: Donald Wilson Sampled by: Mike Gallo Company: EBA Project ID: W23101161 Name: MetaFina Location: Faro

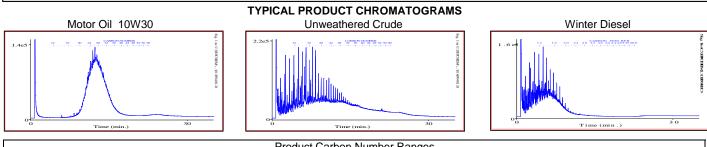
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Date Received: Oct 9, 2008

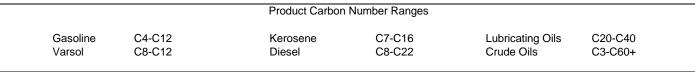
Date Reported: Report Number:













Bill To: EBA Engineering - Edmonton Report To: EBA Engineering - Edmonton

> Calcite Business Centre Unit 6, 151 Industrial Road Whitehorse, YT, Canada

Y1A 2V3

Attn: Donald Wilson Sampled by: Mike Gallo Company: EBA

Project ID: W23101161 Name: MetaFina Location: Faro

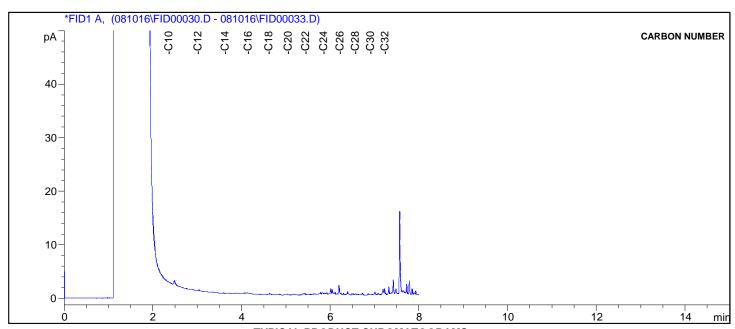
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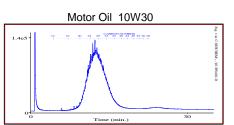
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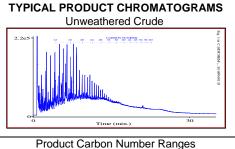
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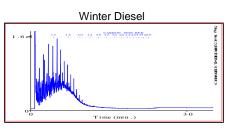


Sample Date: Oct 7, 2008









Gasoline C4-C12 Varsol C8-C12

Kerosene Diesel

C7-C16 C8-C22

Lubricating Oils Crude Oils



Bill To: EBA Engineering - Edmonton Report To: EBA Engineering - Edmonton

> Calcite Business Centre Unit 6, 151 Industrial Road Whitehorse, YT, Canada

Y1A 2V3

Attn: Donald Wilson Sampled by: Mike Gallo Company: EBA

Project ID: W23101161 Name: MetaFina Location: Faro

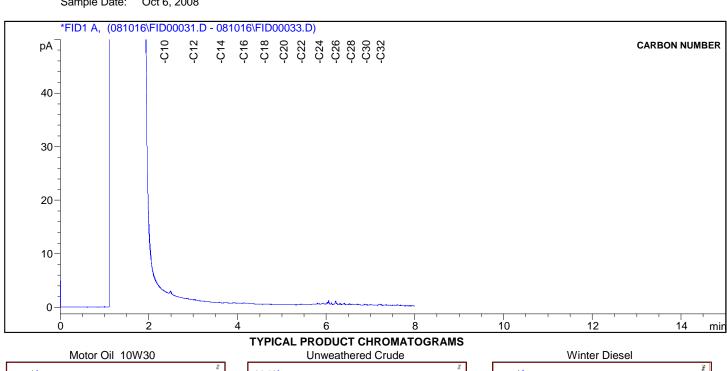
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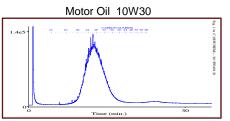
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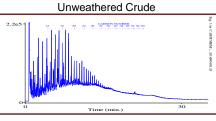
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NWL Number: 648055-36 Sample Description: UST-1

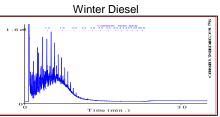
Sample Date: Oct 6, 2008







Product Carbon Number Ranges



Gasoline C4-C12 Varsol C8-C12

Kerosene Diesel

C7-C16 C8-C22

Lubricating Oils Crude Oils



Bill To: EBA Engineering - Edmonton Report To: EBA Engineering - Edmonton

> Calcite Business Centre Unit 6, 151 Industrial Road Whitehorse, YT, Canada

Y1A 2V3

Attn: Donald Wilson Sampled by: Mike Gallo Company: EBA

Project ID: W23101161 Name: MetaFina Location: Faro

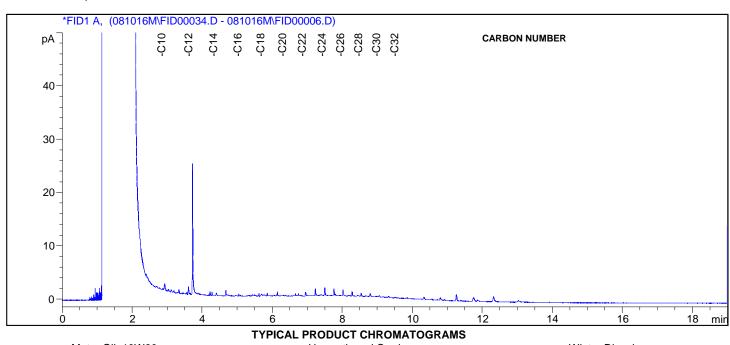
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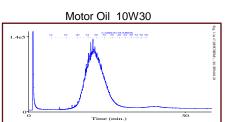
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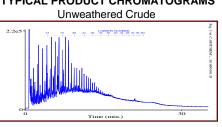
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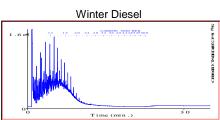


Sample Date: Oct 8, 2008









Product Carbon Number Ranges

Gasoline C4-C12 Varsol C8-C12 Kerosene Diesel

C7-C16 C8-C22

Lubricating Oils Crude Oils



Bill To: EBA Engineering - Edmonton Report To: EBA Engineering - Edmonton

> Calcite Business Centre Unit 6, 151 Industrial Road Whitehorse, YT, Canada

Y1A 2V3

Attn: Donald Wilson Sampled by: Mike Gallo Company: EBA

Project ID: W23101161 Name: MetaFina Location: Faro

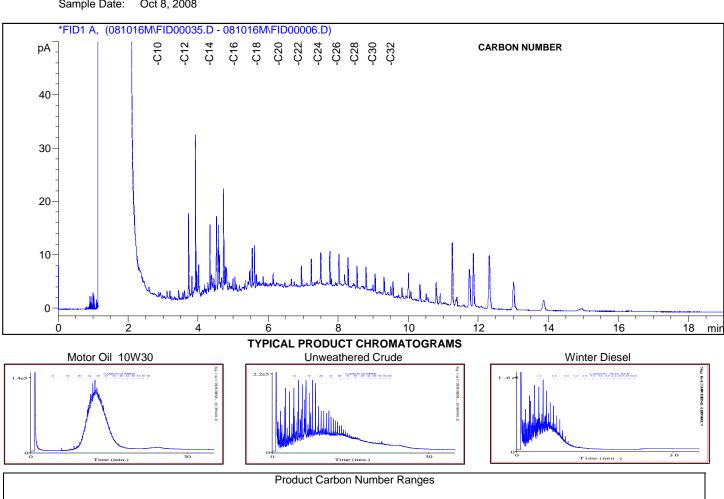
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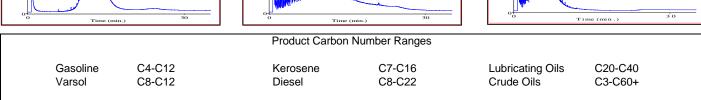
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Date Reported: Report Number:



Sample Date: Oct 8, 2008







Bill To: EBA Engineering - Edmonton Report To: EBA Engineering - Edmonton

> Calcite Business Centre Unit 6, 151 Industrial Road Whitehorse, YT, Canada

Y1A 2V3 Attn: Donald Wilson Sampled by: Mike Gallo

Company: EBA

Project ID: W23101161 Name: MetaFina Location: Faro

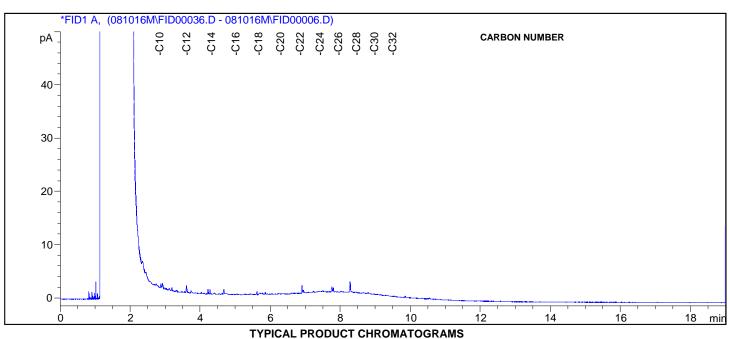
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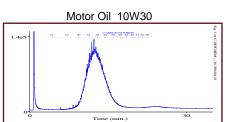
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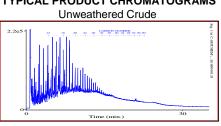
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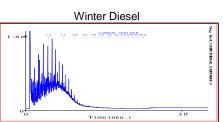


Sample Date: Oct 8, 2008









Product Carbon Number Ranges Gasoline C4-C12

C8-C12

Kerosene Diesel

C7-C16 C8-C22

Lubricating Oils Crude Oils

C20-C40 C3-C60+

Varsol