

AJT MINING PROPERTIES, INC.

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July 20, 2018

Sent via electronic mail only

Ms. Danielle Duncan
Alaska Department of Environmental Conservation
Division of Spill Prevention and Response
410 Willoughby Ave., Ste. 316
Post Office Box 111800
Juneau, AK 99811-11800

Dear Ms. Duncan:

I am writing in response to your letter of June 4, 2018. Thank you for the follow up regarding the Mexican Mine site on Douglas Island. I apologize for the delayed response to ADEC's last inspection. We had planned to carry it out when Alaska Canopy Adventures (ACA) would normally do seasonal maintenance of its zipline nearby. However, as you may have heard, ACA closed its zipline at Treadwell. As it turns out, NORTECH had already mobilized to the site prior to our receiving your June letter.

Attached is a report from NORTECH on the activities accomplished in May, which I believe addresses your June request. In addition, NORTECH describes the follow up actions taken with respect to the drum cache your letter references. That site was resolved with ADEC in 2016, and NORTECH has attached the relevant reports and closure letter for your reference.

Finally, you mentioned plans to conduct a site visit of the Mexican Mine site. As I noted in an earlier email, I will be in Juneau on July 25 (arriving about 3 pm) and all day on the 26th. If there is a time that would work for you to visit then, I'd appreciate accompanying you. Otherwise, please coordinate site visit plans with Alec Mesdag, at 907-463-6303. If you have any questions on AJT Mining Properties' response to your letter, please call me at 509-495-2941.

Sincerely,



Bruce Howard

Cc: Alec Mesdag, AELP
Jason Ginter, NORTECH



**SUSTAINABLE ENVIRONMENT, ENERGY,
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July 23, 2018

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RE: Alaska Department of Environmental Conservation June 4, 2018 Letter Response; Mexican Mine, ADEC Contaminated Sites Hazard ID #405.

Dear Bruce:

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NORTECH has prepared this letter on behalf of AJT Mining Properties in response to the Alaska Department of Environmental Conservation (ADEC) letter dated June 4, 2018, regarding the Mexican Mine, ADEC Contaminated Sites Hazard ID #405. The letter outlined recent site chronology, beginning with the site visit by ADEC on July 5, 2016 (though the reference to the follow up letter of July 8 mistakenly references 2015 rather than 2016).

www.nortechengr.com

As it happens, prior to ADEC's most recent letter, **NORTECH** personnel mobilized to the Site on May 18, 2018, to inspect the upper and lower caps and to conduct maintenance to these areas as necessary.

The upper cap surface was observed to be covered in vegetation, primarily alder trees 12 to 15 feet in height. No indications of surface erosion were observed on the cap surface. The catch basin was inspected and accumulated sediment was removed. Straw wattles were placed on the down-gradient side surrounding the catch basin to further reduce the potential for sediment transport during peak runoff events into the ephemeral drainage ditch.

The lower cap surface was also inspected and no indications of surface erosion were observed. No metal debris was observed on the lower cap surface, although various iron relics are present throughout the area surrounding the 40,000 square foot capped surface. Vegetation, again, primarily alder trees, was observed growing along the perimeter margins of the lower cap. However, the central portion of the cap is largely devoid of vegetation other than some grasses and low growing herbaceous forbs. This is consistent with the use of the central portion of the lower cap area as a vehicle turn around and staging area since construction in 2006.

NORTECH personnel installed straw wattle within the shallow drainage swale located at the base of the slope along the west margin of the lower cap. This is the area where the ephemeral drainage discharges water from the slope above (to the west), and also the location of the most prominent rust-colored staining observed at the lower capped area. It should be emphasized that the orange staining materials are not tailings, but an oxidized iron precipitate.

The drainage swale serves as a temporary impoundment for surface water runoff originating from the slope to the west. It also directs the water around, and not over the cap, thus preventing erosion of the cap surface. Three straw wattles were installed in the drainage swale in horseshoe shaped manner perpendicular to the direction of drainage in addition to the straw wattles installed at the culvert piping discharge draining the upper tailings area. The wattles were installed as an energy dissipation control measures and to contain potential sediments that might be transported down slope with the surface water runoff through the ephemeral drainage.

During the May inspection, **NORTECH** personnel also attempted to manually excavate several test holes through the lower cap to assess the depth of the current cap. However, the cap surface is tightly compacted and could not be penetrated more than a few inches with hand tools at any location assessed due to rock refusal.

The upper and lower tailings caps were constructed in 2006 to prevent the erosion of the tailings and to provide a physical barrier between the public and the tailings. The caps were constructed by blading and grading of the tailings surfaces flat, removal of both metal and woody debris, and then placing a nine-inch base course of shot rock over the tailings. This material was then compacted. A six inch course of two-inch minus rock and sandy fill was then added over the shot rock, graded and further compacted to form the 15" cap.

A culvert was installed beneath the upper cap to divert surface water runoff from the surrounding slopes from eroding the cap surface. The culvert discharges to a catch basin (which was added subsequent to the initial cap construction) on the northeastern side of the upper cap area. Surface water runoff discharges downslope from the upper cap area via an ephemeral drainage channel to the east and downslope towards the lower cap.

The lower cap was constructed with a shallow topographic drainage swale along the western margin of the cap. This drainage swale directs surface water runoff around the cap to the southeast and prevents surface water from flowing over and eroding the lower cap surface.

The cap construction was largely in response to increased vehicular use of this area by Alaska Canopy Adventures (ACA, the zipline operators), whom utilized the lower cap area for a vehicle turn around and staging area while transporting customers to their zipline operations. Each spring, ACA imported additional fill material (D1) to the lower cap area prior to their operating season. This material was spread over the cap surface to smooth out any shallow bumps and imperfections of the cap surface resulting from their vehicular use on the cap surface during the previous season of operation.

Multiple lines of evidence indicate that the integrity of this cap remains intact. First, the rusty coloration noted on portions of the lower cap is an indication that surface water runoff has occurred and has precipitated this iron staining to the surface rock layer. However, surface water runoff has not eroded the cap surface. Since 2006, the cap has been visually inspected at a minimum of twice per year. No signs of erosion (such as gullies or furrows) have ever been noted in the cap surface. Also, the cap surface has been compacted to such a degree that it could not be penetrated with hand tools which further indicates the integrity of the existing cap.

The primary purpose of this cap was to provide a physical barrier between the underlying tailings and the public and to prevent erosion and potential sediment transport of the underlying tailings. At present, the cap is effectively accomplishing both of these objectives. As the Alaska



July 23, 2018

Canopy Adventures has ceased operation of their zipline in the Treadwell area this season (2018), there will be no further vehicular traffic on the lower cap.

NORTECH recommends that the existing lower cap surface should be maintained as it currently exists and should not be disturbed. We conclude that mechanical excavation to assess the depth of the cap is not warranted and that this activity would be deleterious to the existing cap integrity and could potentially result in erosion to the existing lower cap surface.

Addressing Drum Cache Inquiry

In regards to the ADEC inquiry regarding the Drum Cache area identified along the Treadwell Trail, Please find attached a copy of **NORTECH's** "Site Assessment Report, Oil Drum Cache Along Treadwell Trail" dated September 2016. This report was submitted to ADEC, which reviewed the report and case file, and issued a determination of Case Closed, with No Further Action Required under 18 AAC 75.315. A copy of the ADEC Case Closure letter dated December 20, 2016 is also attached to this document.

The stockpiled soil related to the Drum Cache remedial excavation was transported to Bicknell Landfarm, in Juneau, Alaska. The ADEC transport approval letter and receipt documents related to this soil disposal are also included as an appendix in the attached report.

To address the ADEC inquiry regarding the "cleanup activities related to a mining waste pile uphill from the Alaska Canopy Adventures office," AJT Mining Properties took the initiative to remove numerous rusted, empty, 55-gallon drums from the general area during 2016. This drum removal effort led to the discovery of drums containing asphalt tack, which is described in the attached report. This effort also uncovered partially-crushed drums uphill of the zipline shack that contained a small amount of lime. The three drums contained less than 20 gallons total of calcified lime. This material was packed into 5 gallon buckets and disposed of at the CBJ HHW facility.

I hope that this letter provides the information to satisfy your inquiries. Please do not hesitate to contact **NORTECH** should you have any additional questions regarding this matter.

Respectfully Submitted,

Ronald Pratt
Senior Environmental Scientist
NORTECH

Reviewed By:
Jason Ginter, PMP
Principal, Juneau Technical Manager

Attachments:

- 1) **NORTECH** Site Assessment Report, Oil Drum Cache Along Treadwell Trail Sept 2016
- 2) ADEC Case Closure letter, Dec 2016

**SITE ASSESSMENT REPORT
OIL DRUM CACHE ALONG TREADWELL TRAIL
DOUGLAS, ALASKA**

SEPTEMBER 2016



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ACRONYMS AND ABBREVIATIONS

AAC:	Alaska Administrative Code
ADEC:	Alaska Department of Environmental Conservation
ARES:	Alaska Resources and Environmental Services, LLC
bgs:	Below Ground Surface
BTEX:	Benzene, Toluene, Ethylbenzene, Xylenes
CAP:	Corrective Action Plan
COC:	Contaminants of Concern
DRO:	Diesel Range Organics
GRO:	Gasoline Range Organics
mg/Kg:	Milligrams per Kilogram
mg/L:	Milligrams per Liter
PAH:	Polycyclic Aromatic Hydrocarbons
PID:	Photoionization Detector
ppb:	Parts Per Billion
ppm:	Parts Per Million
RRO:	Residual Range Organics
RCRA:	Resource Conservation and Recovery Act
Sq ft:	Square Feet
VOC:	Volatile Organic Compounds
Yd ³ :	Cubic yards



1.0 EXECUTIVE SUMMARY

NORTECH was retained to conduct contaminated soils removal activities related to a drum cache located along the Treadwell Trail, near the former Mexican Mine in Douglas, Alaska (the Site). This Site Activities Report summarizes the field effort and details the findings of the June 2016 site activities.

AJT Mining contacted **NORTECH** in regards to a cache of 26 fifty-five gallon drums discovered during prior site activities in the vicinity. AJT Mining approved **NORTECH** to conduct a Site Evaluation, sample and characterize the drum contents, and remove the drums from the site. The drums were found to have contained a thick tar-like substance, and were in poor condition, with several corrosion holes noted. This initial assessment confirmed that petroleum contaminated soil was present in the soil beneath the drums. Surface soils within the drum area were scraped with a mini-excavator, with soil samples from area taken to characterize contaminated soils. Sample results show soils exceeded ADEC cleanup criteria for Residual Range Organics (RRO) and required removal. The State of Alaska Department of Environmental Conservation (ADEC) was notified and approved of the Site cleanup plan.

On June 1, 2016, **NORTECH** commenced remediation field activities at the site located along the Treadwell Trail, approximately one mile from the trailhead at the terminus of St Ann's Avenue. **NORTECH** and Arete Construction personnel mobilized to the property for the excavation and disposal of the contaminated soils. Original estimates of the contaminated area were 45 feet long by 20 feet wide. Site activities started by creating an access road from Treadwell Trail to the Site. Excavation started on the north end and proceeded south. Excavation was guided by the visual discoloration of soils and post excavation sampling. A total of five dump truck loads transporting 63 cubic yards (yd³) of contaminated soils were hauled for disposal at the Bicknell, Inc. Landfarm.

NORTECH collected a total of 16 post excavation soils samples for analysis by SGS in Anchorage, Alaska. Laboratory results indicate that Residual Range Organics (RRO) impacted soils still remain at the site. Laboratory results also show Diesel Range Organics (DRO) are present above ADEC cleanup criteria, but a review of the chromatograms show that the RRO concentrations are impacting DRO quantitation. The remainder of post-excavation samples show RRO concentrations below ADEC cleanup criteria. All available information indicates that the contaminants present at the site are not mobile, and that the practical and beneficial limits of the excavation have been reached.

2.0 BACKGROUND

The drum cache area was located near the Treadwell Trail (between the trail and Gastineau Channel) and across from what has been described in a previous Letter Report as the *Ruins Drum Cache*. The Site is approximately one mile from the Treadwell Ditch trail head at the south-eastern terminus St. Ann's Avenue in Douglas, Alaska. Prior use of the Site includes various activities associated with the Treadwell Gold Mine and the Alaska Mill and Mining Company.



2.1 Site Location and Description

This cache is located just past Culvert 6, ten paces from Treadwell Trail on the downhill, water side of the trail. **NORTECH** personnel initially noticed a single upright drum while standing on the trail. The single drum turned out to be part of a group of 26 drums. Several drums were visibly leaking a dark, tar-like, viscous, petroleum product onto the forest floor. In addition, several drums were found empty and in poor condition, with the black tar-like product found beneath them.

The Site consists of trees, forest duff, and underbrush (Devil's club). Gastineau Channel lies to the northeast of the area, Treadwell Trail road to the south, and a depression/swale to the east.

2.2 Site Climate

Juneau has a maritime climate (Koppen Cfb) marked by relatively long and cold winters and mild summers. The area receives an average of 230 days and 62.17 inches of precipitation annually. High and low temperatures are ameliorated by the proximity to the Pacific Ocean. The average annual temperature is 43 degrees Fahrenheit.

2.3 Site Geology

The native soils in this area consist of forest duff over mixed former mine tailings over mixed glacial and shoreline deposits of sandy gravels and silt. Surficial geology in this area is comprised of Holocene glacial and fluvial deposits overlying the bedrock. The surface soils under the cache footprint is a moss covered fill material consisting of silty sands, shot rock, and other mine waste material used as fill.

2.4 Site Groundwater and Surface Water

The cache was located near the shoreline of Gastineau Channel, though several feet above the high water mark. The area is built up from mine waste, shot rock and fill and would not represent typical soil conditions found in the Douglas area. Groundwater was not encountered during the excavation work. Groundwater at this location is unlikely to be a source of drinking water due to saltwater intrusion, and high iron content.

3.0 SITE HISTORY

The Treadwell Mine was in operation from 1883 to 1922, at one time having four mines, five mills, and associated structures. In 1917, all of the mines except Ready Bullion were flooded. Treadwell Mining remaining in operation until its closure in 1922. The area is currently owned by AJT Mining, with portions leased to Alaska Canopy Adventures.

3.1 Prior Site Activities

On February 8, 2016, **NORTECH** staff professional Dumitru Radu mobilized to the site to conduct a site evaluation and commence drum sampling. The drums had been staged on their side on narrow gauge steel rails. The drums were partially covered with moss and dirt, many in poor condition due to rust. Some had visible signs of leaks while others had leaked contents onto the ground. Representative samples were taken from each drum and field screened using Hazardous Characterization (HazCat) analysis. Two composite samples were generated for laboratory analysis of Volatile Organic Compounds, Polychlorinated Biphenols, and RCRA metals.



After the drum contents were characterized, the contents were transferred to DOT shippable 55 gallon steel drums, bulking like materials. To the extent possible, water was separated from the top layer of oil. A total of 11 bulk drums were transferred onto the bed of a pickup truck with the use of a mini-excavator and sling and transported to a warehouse.

The drum area was scraped of visibly stained soils and stockpiled on site. Excavation depth ranged from one foot to 1.5 feet depth before reaching the large diameter shot rock. Greater depth could not be reached as the smaller sized excavator was not effective removing the larger shot rock. The area scraped measures 45 ft. long by 20 ft. wide. **NORTECH** collected a total of five post excavation samples (four samples and one duplicate) to characterize remaining soils. Soils were analyzed for Diesel Range Organics (DRO), Gasoline Range Organics (GRO), and Residual Range Organics (RRO).

Laboratory Results and Discussion

Characterization soil sample results indicate contamination still remains. Diesel Range Organics (DRO) results range from 133 mg/kg to 29,000 mg/kg. Residual Range Organics ranged from 183 mg/kg to 56,500 mg/kg. ADEC cleanup levels for DRO and RRO are 230 mg/kg and 8,300 mg/kg respectively. Gasoline Range Organics are below the laboratory limits of quantitation, four of which have “J” flagging indicating the results are an estimate.

Table 1

February 2016 Characterization Soil Sampling Laboratory Analytical Results

Sample ID	ADEC	CZ-0	CZ-1	CZ-2	CZ-3	CZ-4
Sample Collection Date		2/12/16	2/12/16	2/12/16	2/12/16	2/12/16
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Petroleum Fractions						
DRO	230	133	17300	29400	11100	242
RRO	8300	183	42000	56500	31000	267
GRO	260	3.11 U	2.79 J	1.31 J	2.58 J	2.86 J

Bold	Analyte detected in concentration above the ADEC Cleanup level
Shade	Analyte detected in concentration below the ADEC Cleanup level
# U	Analyte not detected at the listed limit of quantitation (LOQ)
# J	Analyte is an estimation below the limit of quantitation (LOQ)
CZ-0	Duplicate pair to CZ-4

4.0 SCOPE OF WORK

NORTECH has been contracted to conduct site activities related to the discovery of 26 drums located along the Treadwell Trail, in close proximity to Gastineau Channel. Activities included the excavation and disposal of contaminated soils caused by the leaking drums, post excavation sampling and analysis of soils, and backfilling and grading the area.



4.1 Methodology

Environmental field work was completed in general accordance with the *ADEC May 2016 Field Sampling Guidance* (FSG).

4.2 Contaminants of Concern and Pertinent Cleanup Levels

The contaminants of concern for this site are based on the analytical results from the contents of the drums and the soil sample results collected during drum removal. Diesel Range Organics, Residual Range Organics, and Volatile Organic Compounds have been chosen as these analytes where in exceedance of ADEC cleanup criteria or had detectable results that may be of concern.

The ADEC Method Two cleanup levels for soil are typically used as cleanup goals for sites managed through the ADEC Contaminated Sites Program. ADEC has developed the Method Two cleanup levels to be protective of human health and the environment under the wide range of conditions found in Alaska. Method Two soil cleanup levels for migration to groundwater in an Over 40 Inch Zone are being used to evaluate soil conditions at this Site.

4.3 Field Screening Equipment, Laboratory Sample Collection, and Methods

NORTECH utilizes the headspace method of field screening in accordance with the sampling frequency established in the *ADEC May 2016 Draft Field Sampling Guidance* (FSG). Field screening samples are collected using clean or disposable sampling tools in a sufficient quantity to partially fill (30-50%) a clean zip lock bag (a minimum of 8 ounces of soil). If necessary, the samples are heated to a minimum temperature of 40° F. The sample bags are then sealed, agitated, labeled, and set aside to develop headspace vapors for a minimum of ten minutes prior to screening with a photoionization detector (PID). A PID analyzes vapors for volatile organic compounds (VOCs). After headspace development, the bags are again agitated, and the PID probe is inserted into a small opening in the bag to draw headspace vapors from the center of the space above the soil. **NORTECH** records the highest PID reading from each sample in the project field logbook.

All samples were collected using certified clean containers provided by the laboratory. The laboratory containers complied with the FSG and the laboratory's standard operating procedures. Samples were collected using disposable sampling devices, such as gloves, and reusable devices such as spoons or trowels. Disposable sampling tools were not re-used and reusable sampling tools were decontaminated prior to being used again to prevent cross contamination of samples.

Sample containers were filled and adequately sealed, with rims cleaned before being tightened. Containers were labeled with unique identifications on laboratory-supplied labels, placed in a laboratory-supplied cooler and immediately cooled to 0-6°C. This temperature was maintained through delivery to the laboratory until samples were analyzed. All applicable laboratory chain of custody requirements was followed. Soil and water samples were sent to SGS Laboratories in Anchorage for analysis of VOCs.

In addition to laboratory samples, the following quality assurance and quality control (QA/QC) samples were collected:



Field Duplicates: One Field Duplicate sample was collected for every 10 primary samples. Duplicate soil samples were collected as close as possible to the same point in space and time. Duplicate water samples were collected at the same water depth within the well. All field duplicates were blind samples and given unique sample numbers.

Trip Blanks: Laboratory supplied Trip Blank(s) accompanied the sample containers to and from the laboratory and remained unopened. One Trip Blank was submitted per 20 volatile samples with a minimum of one Trip Blank per work order.

5.0 FIELD ACTIVITIES

On June 1, 2016 **NORTECH** staff Dumitru Radu and Michael Miller met with Arete Construction personnel and mobilized to the Site to conduct contaminated soils removal and post excavation sampling. Weather conditions for the day were overcast, with periods of rain, and a high temperature of 55° F. Upon arriving at the Site, Arete cleared vegetation and constructed a road access for loading of the dump truck. Excavation commenced at the north end of the site. Operations were guided by visibly black, tarry soils. Excavation continued north, following the blackened soils to the edge where the ground drops off into drainage swales. Soils were dark in color but did not appear to be impacted by the oily waste. Samples were collected for field screening with the use of a photo-ionization detector and the headspace monitoring technique. **NORTECH** also utilized the hot water sheen test, but soils that were obviously impacted did not produce a sheen, therefore this method was not utilized any further. Excavation limits reached the swale/beach edge that drops at a steep angle to the shoreline. A group of trees with exposed roots protruding beyond the drop off were left in place. These trees posed a severe erosion concern if removed.

Excavation continued south and west. The northwestern edge of the excavation extends to the opposite drainage swale. Post excavation samples were collected and field screened. Soils on this edge did not resemble the tarry appearance indicative of impacted soils but were dark in color and angular, as expected from the mine waste shot rock found throughout the area. PID readings for soils collected ranged from zero or one part per million (ppm). Visual inspection of the soils indicated that limits may have been reached. Excavation continued south towards Treadwell Trail, away from the Channel. A depth of three to four feet was reached in the area where the bulk of the drums were staged. As the excavation continued south, depths reached as little as one foot. PID readings for all samples collected ranged from zero to one ppm.

6.0 SAMPLE RESULTS AND DISCUSSION

A total of 16 samples (14 samples and two duplicates) were collected for post excavation assessment. **NORTECH** submitted the samples to SGS North America in Anchorage under appropriate chain of custody procedures for the analysis of DRO, RRO, and VOCs. The sampling was done in accordance with the ADEC *March 2016 Field Sampling Guidance (FSG)*.



A summary of the petroleum fraction laboratory results is presented in Tables 2 and 3 below. Results are compared to the ADEC Method 2 cleanup criteria. Table 2 samples are specifically bottom samples and Table 3 are sidewall samples. CZ-5 and CZ-21 are bottom samples that are above the ADEC cleanup criteria for RRO. CZ-5 is located at the edge of the excavation among the roots of the trees that were left and CZ-20 is located close to the northwest edge that reaches the drainage swale. Of the sidewall samples, CZ-11, CZ-14, and CZ-20 have RRO results above ADEC cleanup criteria. These samples are likewise located at these areas and are consistent with the bottom sample results. Laboratory results indicate that many post excavation samples are above the ADEC limits for DRO, however, when looking at the chromatograms, the DRO signature is not present and the RRO signature is causing the high DRO quantitation. The chromatograms are available at the end of the laboratory report.

Volatile organic compound analysis was performed on all samples. Many of the detectable compounds were below the laboratory limits of quantitation (LOQ), with the exception of benzene at CZ-21. Benzene results for this sample are 0.144 mg/kg, above the ADEC cleanup criteria of 0.025 mg/kg. This sample also has the highest RRO result and is located along the northwest edge of the excavation. Detectable analytes are also consistent with those that were present in the oil samples submitted for disposal analysis in February 2016.

Table 2
2016 Soil Sampling Laboratory Analytical Results - Bottom Samples

Sample ID	ADEC	CZ-5	CZ-10	CZ-16	CZ-19	CZ-21	CZ-23	CZ-27	CZ-40*
Sample Collection Date		6/1/16	6/1/16	6/1/16	6/1/16	6/1/16	6/1/16	6/1/16	6/1/16
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Petroleum Fractions									
DRO	230	5390	196	1930	1260	7540	511	818	554
RRO	8300	12800	356	4320	3930	27700	2330	499	1880

Table 3
2016 Soil Sampling Laboratory Analytical Results - Sidewall Samples

Sample ID	ADEC	CZ-11	CZ-14	CZ-18	CZ-20	CZ-28	CZ-29	CZ-30	CZ-41**
Sample Collection Date		6/1/16	6/1/16	6/1/16	6/1/16	6/1/16	6/1/16	6/1/16	6/1/16
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Petroleum Fractions									
DRO	230	5940	7370	295	7390	409	162	1560	1450
RRO	8300	23800	24300	792	21300	929	232	581	587

Bold	Analyte detected in concentration above the ADEC Cleanup Level
Shade	Analyte detected in concentration below the ADEC Cleanup Level
CZ-40*	Duplicate of CZ-23
CZ-41**	Duplicate of CZ-30



6.1 Quality Control Summary

Data quality objectives for the site are generally in agreement with the FSG. The goal of the project was to produce data of adequate quality for comparison to 18 AAC 75 cleanup levels. The primary tool used to assess the quality of the data was the ADEC LDRC. A LDRC was completed for each individual laboratory work order and is included in Appendix D. CZ-23 and CZ-40 are duplicate pairs for bottom soil samples and CZ-30 and CZ-41 are duplicate sidewall samples. The duplicate pair of CZ-23 and CZ-40 have a Relative Percent Difference (RPD) of 8.08% and 21.38% for DRO and RRO respectively. ADEC recommendations are for soil samples to be within 50%. RPD for the CZ-30 and CZ-41 pair are 7.31% and 1.03% for DRO and RRO respectively.

As reported in the laboratory report case narrative, numerous samples have failed surrogate recoveries due to sample dilution. In addition, the laboratory control sample and duplicate (MS/MSD) exceed QC criteria for the percent recovery of hexachlorobutadiene. However, the RPD is 0.88% indicating good reproducibility. All other recoveries were acceptable.

6.2 Conceptual Site Model

NORTECH has completed a Conceptual Site Model (CSM) in accordance with ADEC requirements, included as Appendix E. This indicates the mechanism of the release, the impacted and potentially impacted media, and the pathways that contamination may be able to reach receptors at the site (now or in the future). At the work plan level, the CSM is intended to outline the potential pathways without regard to corrective action and/or engineering controls

The CSM reflects the release of oil to the surface soil (0 to 2 feet below grade) in the area of the former drum cache location. The contamination migrated to the subsurface (>2 feet below the surface) of shot rock and fill, spreading more laterally than vertically.

The exposure pathways that are complete are the direct contact via incidental ingestion of soil, ingestion of groundwater and surface water, and inhalation of outdoor and indoor air. The site is an undeveloped former industrial area, and is anticipated to remain the same in the future. Current and future potential receptors include Site visitors, and construction workers, including personnel completing these activities.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the collected data during the May 2016 sampling event, the following conclusions and recommendations have been developed for the site:

- Arete Construction excavated and removed 63 yd³ of contaminated soils from the site and transported to Bicknell, Inc. Landfarm for disposal.
- Post excavation samples indicate that contaminants still remain at the site.
 - Locations that have RRO concentrations exceeding ADEC cleanup criteria are along the northern end where the excavation reaches the drainage swale slope or where trees were left due to safety and erosion concerns, as well as potentially falling into Gastineau Channel.
 - Chromatograms indicate RRO concentrations interfere with DRO quantification, causing numerous DRO exceedances, as well as the chromatograms not having a DRO signature.
 - Contaminates appear to be asphaltic tar in nature
- Arete backfilled and graded the excavated area such that rain/surface water flows to the excavation limits or into the drainage swales.



NORTECH asserts that all practical remediation measures have been taken at the Site and that cleanup should be considered complete for the following rationale:

- The thick tar like substance, similar to asphalt tack, that was stored in the removed drums was viscous, not mobile, and does not appear to have migrated
- The volatile component of the material is long gone, as demonstrated by the general lack of volatile components present
 - Normal field screening protocol using both head space assessment with a PID and hot water sheen test displayed negative readings, even in visually tarred material
- The ADEC cleanup criteria is based on migration to groundwater, groundwater in this area is not likely to ever be a source of drinking water due to
 - Saltwater intrusion
 - High naturally occurring iron content
- Excavation limits are located within 10 feet of a steep drop-off to the shore line, removing the trees to access remaining material would cause both safety and erosion concerns
- The tar-like nature of the drum contents was visually obvious, none of this material is noted on the shoreline below the subject area

Though the area is near a popular trail, surface contact exposure has been removed. Considering that these drums have only recently been discovered, current and future use does not indicate that the general public may become exposed to the remaining contaminants. On behalf of AJT Mining, **NORTECH** is requesting that this site be considered Cleanup Complete.

8.0 LIMITATIONS AND NOTIFICATION

NORTECH provides a level of service that is performed within the standard of care and competence of the environmental engineering profession. However, it must be recognized that limitations exist within any site investigation. This report provides results based on a restricted work scope and from the analysis and observation of a limited number of samples. Therefore, while these limitations are considered reasonable and adequate for the purposes of this report, actual site conditions may differ. Specifically, the unknown nature of exact subsurface physical conditions, sampling locations, the analytical procedures' inherent limitations, as well as financial and time constraints are limiting factors.

9.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

The following Environmental Professionals have overseen and performed the QA/QC activities of the Site work.

Sincerely,
NORTECH

Dumitru Radu
Environmental Scientist

Reviewed By:
Jason Ginter, PMP
Principal, Juneau Technical Manager

Appendix A: Figures



SUSTAINABLE ENVIRONMENT, ENERGY, HEALTH & SAFETY
 2400 College Road, Fairbanks, AK. 99709, 907-452-5688
 3105 Lakeshore Dr. Ste.A106, Anchorage, AK. 99517 907-222-2445
 5438 Shaune Dr. Ste.B, Juneau, AK. 99801 907-586-6813

Vicinity Map
 AJT Mining Corporation Drum Investigation
 Treadwell Trail
 Douglas Island, Alaska

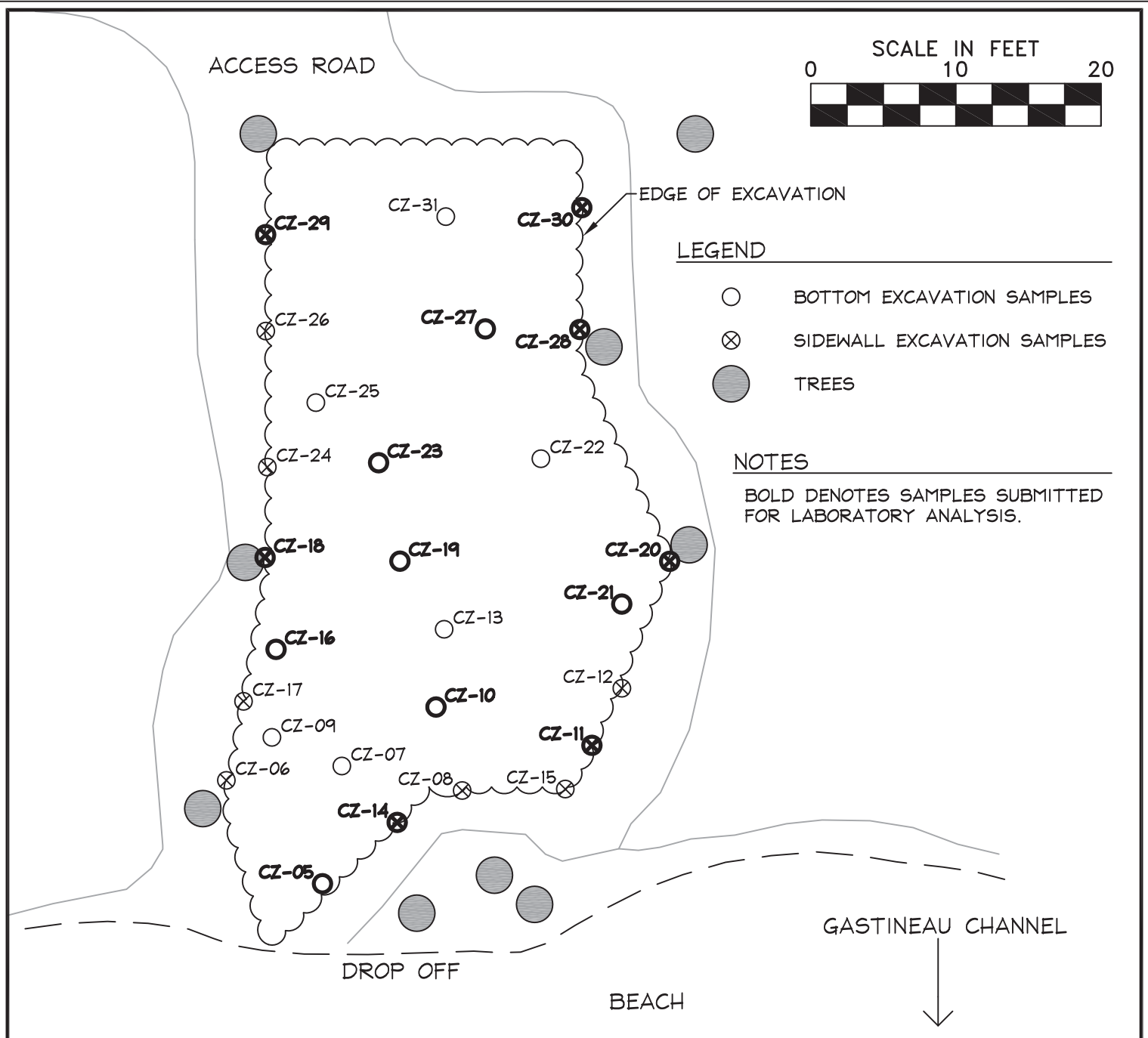
SCALE: 1" = 100'	FIGURE:
DESIGN: JG	2
DRAWN: RJP/CMR	
PROJECT NO: 16-1018	
DWG: 161018a(02)	
DATE: 6/28/2016	



SUSTAINABLE ENVIRONMENT, ENERGY, HEALTH & SAFETY
 2400 College Road, Fairbanks, AK. 99709, 907-452-5688
 3105 Lakeshore Dr. Ste.A106, Anchorage, AK. 99517 907-222-2445
 5438 Shaune Dr. Ste.B, Juneau, AK. 99801 907-586-6813

Site Diagram
 AJT Mining Corporation Drum Investigation
 Treadwell Trail
 Douglas Island, Alaska

SCALE: 1" = 100'	FIGURE: 3
DESIGN: JG	
DRAWN: RJP/CMR	
PROJECT NO: 16-1018	
DWG: 161018a(03)	
DATE: 6/28/2016	



2016 Soil Sampling Laboratory Analytical Results

Sample ID	ADEC	CZ-5	CZ-10	CZ-16	CZ-19	CZ-23	CZ-27	CZ-11	CZ-14	CZ-18	CZ-20	CZ-21	CZ-28	CZ-29	CZ-30	CZ-40*	CZ-41**
Sample Collection Date		6/1/16	6/1/16	6/1/16	6/1/16	6/1/16	6/1/16	6/1/16	6/1/16	6/1/16	6/1/16	6/1/16	6/1/16	6/1/16	6/1/16	6/1/16	6/1/16
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg

Petroleum Fractions

DRO	230	5390	196	1930	1260	511	818	5940	7370	295	7390	7540	409	162	1560	554	1450
RRO	8300	12800	356	4320	3930	2330	499	23800	24300	792	21300	27700	929	232	581	1880	587

Bold	Analyte detected in concentration above the ADEC Cleanup Level
Shade	Analyte detected in concentration below the ADEC Cleanup Level
CZ-40*	Duplicate of CZ-19
CZ-41**	Duplicate of CZ-30



SUSTAINABLE ENVIRONMENT, ENERGY, HEALTH & SAFETY
 2400 College Road, Fairbanks, AK. 99709, 907-452-5688
 3105 Lakeshore Dr. Ste.A106, Anchorage, AK. 99517 907-222-2445
 5438 Shaune Dr. Ste.B, Juneau, AK. 99801 907-586-6813

Excavation and Sample Locations
 AJT Mining Corporation Drum Investigation
 Treadwell Trail
 Douglas Island, Alaska

SCALE: 1" = 10'	FIGURE: 4
DESIGN: JG	
DRAWN: RJP/CMR	
PROJECT NO: 16-1018	
DWG: 161018a(04)	
DATE: 6/28/2016	

Appendix B: Photo Pages



Photo 1: View looking generally south at Arete clearing an access road for trucks to reach the site.



Photo 2: Excavation to remove contaminated soils. Note more darkly stained soil indicative of contamination from leaking drums.



Photo 3: Stockpiling the soil before removal from the site.



Photo 4: Some buried lumber was discovered among the contaminated soil. It also was coated heavily in the petroleum waste.



Photo 5: Excavation on north end of site. Note black staining of soils and shot rock.



Photo 6: The entire north east bank was completely removed to a depth of approximately 2.5 – 3 ft.



Photo 7: View of northwest cut. Note excavator cut away to the edge.



Photo 8: One of five dump truck loads of soils removed and transported to Bicknell landfarm.

Appendix C: Laboratory Reports

Laboratory Report of Analysis

To: Nortech
5438 Shaune Drive #B
Juneau, AK 99801
(907)586-6813

Report Number: **1162856**

Client Project: **AJT Mining 16-1018**

Dear Dumitru Radu,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of ten years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of fourteen (14) days from the date of this report unless other archiving requirements were included in the quote.

If there are any questions about the report or services performed during this project, please call Victoria at (907) 562-2343. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America Inc.


SGS North America Inc.
Environmental Services - Alaska Division
Project Manager

Victoria Pennick
2016.06.24
09:16:59 -08'00'

Victoria Pennick
Project Manager
Victoria.Pennick@sgs.com

Date

Print Date: 06/24/2016 8:13:18AM

Case Narrative

SGS Client: **Nortech**
SGS Project: **1162856**
Project Name/Site: **AJT Mining 16-1018**
Project Contact: **Dumitru Radu**

Refer to sample receipt form for information on sample condition.

CZ-05 (1162856001) PS

AK102/103 - Surrogate recoveries for 5a-androstane (0%) and n-triacontane (0%) do not meet QC criteria due to sample dilution (4X).

CZ-16 (1162856003) PS

AK102 - Surrogate recovery for 5a-androstane (0%) does not meet QC criteria due to sample dilution (4X).
AK103 - Surrogate recovery n-triacontane (0%) does not meet QC criteria due to sample dilution (16X).

CZ-19 (1162856004) PS

AK103 - Surrogate recovery for n-triacontane (201%) does not meet QC criteria due to matrix interference and dilution (4X).

CZ-23 (1162856005) PS

AK103 - Surrogate recovery for n-triacontane (164%) does not meet QC criteria due to matrix interference and dilution (4X).

CZ-11 (1162856007) PS

AK102 - Surrogate recovery for 5a-androstane (0%) does not meet QC criteria due to sample dilution (4X).
AK103 - Surrogate recovery n-triacontane (0%) does not meet QC criteria due to sample dilution (16X).

CZ-14 (1162856008) PS

AK102 - Surrogate recovery for 5a-androstane (0%) does not meet QC criteria due to sample dilution (4X).
AK103 - Surrogate recovery n-triacontane (0%) does not meet QC criteria due to sample dilution (16X).

CZ-18 (1162856009) PS

AK103 - Surrogate recovery for n-triacontane (152%) does not meet QC criteria due to hydrocarbon interference.

CZ-20 (1162856010) PS

AK102 - Surrogate recovery for 5a-androstane (0%) does not meet QC criteria due to sample dilution (4X).
AK103 - Surrogate recovery n-triacontane (0%) does not meet QC criteria due to sample dilution (8X).

CZ-21 (1162856011) PS

AK102 - Surrogate recovery for 5a-androstane (0%) does not meet QC criteria due to sample dilution (4X).
AK103 - Surrogate recovery n-triacontane (0%) does not meet QC criteria due to sample dilution (8X).

CZ-30 (1162856014) PS

AK102/103 - Surrogate recoveries for 5a-androstane (0%) and n-triacontane (0%) do not meet QC criteria due to sample dilution (4X).

CZ-41 (1162856016) PS

AK102/103 - Surrogate recoveries for 5a-androstane (0%) and n-triacontane (0%) do not meet QC criteria due to sample dilution (4X).

1162856010MS (1329488) MS

8260B - MS recovery for hexachlorobutadiene (137%) does not meet QC criteria. See LCS for accuracy requirements.

1162856010MSD (1329489) MSD

8260B - MSD recovery for hexachlorobutadiene (136%) does not meet QC criteria. See LCS for accuracy requirements.

Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the context or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & UST-005 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020A, 7470A, 7471B, 8021B, 8082A, 8260B, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

The following descriptors or qualifiers may be found in your report:

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
D	The analyte concentration is the result of a dilution.
DF	Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
F	Indicates value that is greater than or equal to the DL
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
JL	The analyte was positively identified, but the quantitation is a low estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
M	A matrix effect was present.
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
Q	QC parameter out of acceptance range.
R	Rejected
RPD	Relative Percent Difference
U	Indicates the analyte was analyzed for but not detected.

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content. All DRO/RRO analyses are integrated per SOP.

Sample Summary

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
CZ-05	1162856001	06/01/2016	06/03/2016	Soil/Solid (dry weight)
CZ-10	1162856002	06/01/2016	06/03/2016	Soil/Solid (dry weight)
CZ-16	1162856003	06/01/2016	06/03/2016	Soil/Solid (dry weight)
CZ-19	1162856004	06/01/2016	06/03/2016	Soil/Solid (dry weight)
CZ-23	1162856005	06/01/2016	06/03/2016	Soil/Solid (dry weight)
CZ-27	1162856006	06/01/2016	06/03/2016	Soil/Solid (dry weight)
CZ-11	1162856007	06/01/2016	06/03/2016	Soil/Solid (dry weight)
CZ-14	1162856008	06/01/2016	06/03/2016	Soil/Solid (dry weight)
CZ-18	1162856009	06/01/2016	06/03/2016	Soil/Solid (dry weight)
CZ-20	1162856010	06/01/2016	06/03/2016	Soil/Solid (dry weight)
CZ-21	1162856011	06/01/2016	06/03/2016	Soil/Solid (dry weight)
CZ-28	1162856012	06/01/2016	06/03/2016	Soil/Solid (dry weight)
CZ-29	1162856013	06/01/2016	06/03/2016	Soil/Solid (dry weight)
CZ-30	1162856014	06/01/2016	06/03/2016	Soil/Solid (dry weight)
CZ-40	1162856015	06/01/2016	06/03/2016	Soil/Solid (dry weight)
CZ-41	1162856016	06/01/2016	06/03/2016	Soil/Solid (dry weight)
Trip Blank	1162856017	06/01/2016	06/03/2016	Soil/Solid (dry weight)

Method

AK102

AK103

SM21 2540G

SW8260B

Method Description

Diesel/Residual Range Organics

Diesel/Residual Range Organics

Percent Solids SM2540G

VOC 8260 (S) Field Extracted

Detectable Results Summary

Client Sample ID: **CZ-05**
 Lab Sample ID: 1162856001
Semivolatile Organic Fuels

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diesel Range Organics	5390	mg/Kg
Residual Range Organics	12800	mg/Kg

Client Sample ID: **CZ-10**
 Lab Sample ID: 1162856002
Semivolatile Organic Fuels

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diesel Range Organics	196	mg/Kg
Residual Range Organics	356	mg/Kg

Volatile GC/MS

1,2,4-Trimethylbenzene	56.4J	ug/Kg
Naphthalene	47.9J	ug/Kg
o-Xylene	40.9J	ug/Kg
P & M -Xylene	67.2J	ug/Kg
Toluene	38.6J	ug/Kg
Xylenes (total)	108J	ug/Kg

Client Sample ID: **CZ-16**
 Lab Sample ID: 1162856003
Semivolatile Organic Fuels

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diesel Range Organics	1930	mg/Kg
Residual Range Organics	4320	mg/Kg

Volatile GC/MS

4-Isopropyltoluene	29.2J	ug/Kg
Toluene	25.9J	ug/Kg

Client Sample ID: **CZ-19**
 Lab Sample ID: 1162856004
Semivolatile Organic Fuels

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diesel Range Organics	1260	mg/Kg
Residual Range Organics	3930	mg/Kg

Client Sample ID: **CZ-23**
 Lab Sample ID: 1162856005
Semivolatile Organic Fuels

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diesel Range Organics	511	mg/Kg
Residual Range Organics	2330	mg/Kg

Volatile GC/MS

Toluene	40.4J	ug/Kg
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Client Sample ID: **CZ-27**
 Lab Sample ID: 1162856006
Semivolatile Organic Fuels

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diesel Range Organics	818	mg/Kg
Residual Range Organics	499	mg/Kg

Volatile GC/MS

1,2,4-Trimethylbenzene	56.6J	ug/Kg
Naphthalene	103J	ug/Kg
o-Xylene	26.0J	ug/Kg
P & M -Xylene	59.7J	ug/Kg
Toluene	55.9J	ug/Kg
Xylenes (total)	85.7J	ug/Kg

Client Sample ID: **CZ-11**
 Lab Sample ID: 1162856007
Semivolatile Organic Fuels

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diesel Range Organics	5940	mg/Kg
Residual Range Organics	23800	mg/Kg

Detectable Results Summary

Client Sample ID: **CZ-14**
 Lab Sample ID: 1162856008
Semivolatile Organic Fuels

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diesel Range Organics	7370	mg/Kg
Residual Range Organics	24300	mg/Kg

Volatile GC/MS

4-Isopropyltoluene	72.9	ug/Kg
Naphthalene	41.4J	ug/Kg
Toluene	26.1J	ug/Kg

Client Sample ID: **CZ-18**
 Lab Sample ID: 1162856009
Semivolatile Organic Fuels

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diesel Range Organics	295	mg/Kg
Residual Range Organics	792	mg/Kg

Volatile GC/MS

Methylene chloride	74.3J	ug/Kg
--------------------	-------	-------

Client Sample ID: **CZ-20**
 Lab Sample ID: 1162856010
Semivolatile Organic Fuels

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diesel Range Organics	7390	mg/Kg
Residual Range Organics	21300	mg/Kg

Client Sample ID: **CZ-21**
 Lab Sample ID: 1162856011
Semivolatile Organic Fuels

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diesel Range Organics	7540	mg/Kg
Residual Range Organics	27700	mg/Kg

Volatile GC/MS

1,2,4-Trimethylbenzene	49.9J	ug/Kg
4-Isopropyltoluene	25.7J	ug/Kg
Benzene	144	ug/Kg
Ethylbenzene	28.2J	ug/Kg
Naphthalene	81.3J	ug/Kg
o-Xylene	63.6J	ug/Kg
P & M -Xylene	120J	ug/Kg
Toluene	270	ug/Kg
Xylenes (total)	183J	ug/Kg

Client Sample ID: **CZ-28**
 Lab Sample ID: 1162856012
Semivolatile Organic Fuels

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diesel Range Organics	409	mg/Kg
Residual Range Organics	929	mg/Kg

Volatile GC/MS

1,2,4-Trimethylbenzene	67.7J	ug/Kg
Naphthalene	86.7J	ug/Kg
o-Xylene	63.3J	ug/Kg
P & M -Xylene	106J	ug/Kg
Toluene	64.2J	ug/Kg
Xylenes (total)	169J	ug/Kg

Detectable Results Summary

Client Sample ID: **CZ-29**
 Lab Sample ID: 1162856013
Semivolatile Organic Fuels

Volatile GC/MS

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diesel Range Organics	162	mg/Kg
Residual Range Organics	232	mg/Kg
1,2,4-Trimethylbenzene	46.7J	ug/Kg
Naphthalene	77.2J	ug/Kg
o-Xylene	28.3J	ug/Kg
P & M -Xylene	58.1J	ug/Kg
Toluene	43.9J	ug/Kg
Xylenes (total)	86.4J	ug/Kg

Client Sample ID: **CZ-30**
 Lab Sample ID: 1162856014
Semivolatile Organic Fuels

Volatile GC/MS

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diesel Range Organics	1560	mg/Kg
Residual Range Organics	581	mg/Kg
1,2,4-Trimethylbenzene	88.0J	ug/Kg
Ethylbenzene	21.7J	ug/Kg
Naphthalene	144	ug/Kg
o-Xylene	43.3J	ug/Kg
P & M -Xylene	117J	ug/Kg
Toluene	52.8J	ug/Kg
Xylenes (total)	160J	ug/Kg

Client Sample ID: **CZ-40**
 Lab Sample ID: 1162856015
Semivolatile Organic Fuels

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diesel Range Organics	554	mg/Kg
Residual Range Organics	1880	mg/Kg

Client Sample ID: **CZ-41**
 Lab Sample ID: 1162856016
Semivolatile Organic Fuels

Volatile GC/MS

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diesel Range Organics	1450	mg/Kg
Residual Range Organics	587	mg/Kg
1,2,4-Trimethylbenzene	101J	ug/Kg
1,3,5-Trimethylbenzene	23.7J	ug/Kg
Ethylbenzene	26.6J	ug/Kg
Naphthalene	190	ug/Kg
n-Butylbenzene	25.1J	ug/Kg
n-Propylbenzene	23.7J	ug/Kg
o-Xylene	51.0J	ug/Kg
P & M -Xylene	134J	ug/Kg
Toluene	76.1	ug/Kg
Xylenes (total)	185J	ug/Kg



Results of CZ-05

Client Sample ID: CZ-05
Client Project ID: AJT Mining 16-1018
Lab Sample ID: 1162856001
Lab Project ID: 1162856

Collection Date: 06/01/16 09:20
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):92.7
Location:

Results by Semivolatile Organic Fuels

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Diesel Range Organics and Surrogates (5a Androstane).

Batch Information

Analytical Batch: XFC12429
Analytical Method: AK102
Analyst: AEE
Analytical Date/Time: 06/10/16 18:14
Container ID: 1162856001-A

Prep Batch: XXX35471
Prep Method: SW3550C
Prep Date/Time: 06/08/16 17:11
Prep Initial Wt./Vol.: 30.346 g
Prep Extract Vol: 5 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Residual Range Organics and Surrogates (n-Triacontane-d62).

Batch Information

Analytical Batch: XFC12429
Analytical Method: AK103
Analyst: AEE
Analytical Date/Time: 06/10/16 18:14
Container ID: 1162856001-A

Prep Batch: XXX35471
Prep Method: SW3550C
Prep Date/Time: 06/08/16 17:11
Prep Initial Wt./Vol.: 30.346 g
Prep Extract Vol: 5 mL

Results of CZ-05

Client Sample ID: **CZ-05**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856001
 Lab Project ID: 1162856

Collection Date: 06/01/16 09:20
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):92.7
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
1,1,1-Trichloroethane	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
1,1,2,2-Tetrachloroethane	7.15 U	14.3	4.45	ug/Kg	1		06/10/16 22:10
1,1,2-Trichloroethane	5.70 U	11.4	3.53	ug/Kg	1		06/10/16 22:10
1,1-Dichloroethane	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
1,1-Dichloroethene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
1,1-Dichloropropene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
1,2,3-Trichlorobenzene	28.5 U	57.0	17.1	ug/Kg	1		06/10/16 22:10
1,2,3-Trichloropropane	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
1,2,4-Trichlorobenzene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
1,2,4-Trimethylbenzene	28.5 U	57.0	17.1	ug/Kg	1		06/10/16 22:10
1,2-Dibromo-3-chloropropane	57.0 U	114	35.3	ug/Kg	1		06/10/16 22:10
1,2-Dibromoethane	5.70 U	11.4	3.53	ug/Kg	1		06/10/16 22:10
1,2-Dichlorobenzene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
1,2-Dichloroethane	5.70 U	11.4	3.53	ug/Kg	1		06/10/16 22:10
1,2-Dichloropropane	5.70 U	11.4	3.53	ug/Kg	1		06/10/16 22:10
1,3,5-Trimethylbenzene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
1,3-Dichlorobenzene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
1,3-Dichloropropane	5.70 U	11.4	3.53	ug/Kg	1		06/10/16 22:10
1,4-Dichlorobenzene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
2,2-Dichloropropane	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
2-Butanone (MEK)	143 U	285	88.9	ug/Kg	1		06/10/16 22:10
2-Chlorotoluene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
2-Hexanone	143 U	285	88.9	ug/Kg	1		06/10/16 22:10
4-Chlorotoluene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
4-Isopropyltoluene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
4-Methyl-2-pentanone (MIBK)	143 U	285	88.9	ug/Kg	1		06/10/16 22:10
Benzene	7.15 U	14.3	4.45	ug/Kg	1		06/10/16 22:10
Bromobenzene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
Bromochloromethane	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
Bromodichloromethane	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
Bromoform	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
Bromomethane	114 U	228	70.7	ug/Kg	1		06/10/16 22:10
Carbon disulfide	57.0 U	114	35.3	ug/Kg	1		06/10/16 22:10
Carbon tetrachloride	7.15 U	14.3	4.45	ug/Kg	1		06/10/16 22:10
Chlorobenzene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
Chloroethane	114 U	228	70.7	ug/Kg	1		06/10/16 22:10

Results of CZ-05

Client Sample ID: **CZ-05**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856001
 Lab Project ID: 1162856

Collection Date: 06/01/16 09:20
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):92.7
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
Chloromethane	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
cis-1,2-Dichloroethene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
cis-1,3-Dichloropropene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
Dibromochloromethane	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
Dibromomethane	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
Dichlorodifluoromethane	28.5 U	57.0	17.1	ug/Kg	1		06/10/16 22:10
Ethylbenzene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
Freon-113	57.0 U	114	35.3	ug/Kg	1		06/10/16 22:10
Hexachlorobutadiene	28.5 U	57.0	17.1	ug/Kg	1		06/10/16 22:10
Isopropylbenzene (Cumene)	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
Methylene chloride	57.0 U	114	35.3	ug/Kg	1		06/10/16 22:10
Methyl-t-butyl ether	57.0 U	114	35.3	ug/Kg	1		06/10/16 22:10
Naphthalene	28.5 U	57.0	17.1	ug/Kg	1		06/10/16 22:10
n-Butylbenzene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
n-Propylbenzene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
o-Xylene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
P & M -Xylene	28.5 U	57.0	17.1	ug/Kg	1		06/10/16 22:10
sec-Butylbenzene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
Styrene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
tert-Butylbenzene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
Tetrachloroethene	7.15 U	14.3	4.45	ug/Kg	1		06/10/16 22:10
Toluene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
trans-1,2-Dichloroethene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
trans-1,3-Dichloropropene	14.3 U	28.5	8.89	ug/Kg	1		06/10/16 22:10
Trichloroethene	7.15 U	14.3	4.45	ug/Kg	1		06/10/16 22:10
Trichlorofluoromethane	28.5 U	57.0	17.1	ug/Kg	1		06/10/16 22:10
Vinyl acetate	57.0 U	114	35.3	ug/Kg	1		06/10/16 22:10
Vinyl chloride	5.70 U	11.4	3.53	ug/Kg	1		06/10/16 22:10
Xylenes (total)	42.8 U	85.5	26.0	ug/Kg	1		06/10/16 22:10
Surrogates							
1,2-Dichloroethane-D4 (surr)	106	71-136		%	1		06/10/16 22:10
4-Bromofluorobenzene (surr)	109	55-151		%	1		06/10/16 22:10
Toluene-d8 (surr)	105	85-116		%	1		06/10/16 22:10

Results of CZ-05

Client Sample ID: **CZ-05**
Client Project ID: **AJT Mining 16-1018**
Lab Sample ID: 1162856001
Lab Project ID: 1162856

Collection Date: 06/01/16 09:20
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):92.7
Location:

Results by Volatile GC/MS

Batch Information

Analytical Batch: VMS15858
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 06/10/16 22:10
Container ID: 1162856001-B

Prep Batch: VXX28928
Prep Method: SW5035A
Prep Date/Time: 06/01/16 09:20
Prep Initial Wt./Vol.: 54.912 g
Prep Extract Vol: 29.0162 mL



Results of CZ-10

Client Sample ID: CZ-10
Client Project ID: AJT Mining 16-1018
Lab Sample ID: 1162856002
Lab Project ID: 1162856

Collection Date: 06/01/16 09:45
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):73.1
Location:

Results by Semivolatile Organic Fuels

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Diesel Range Organics and Surrogates (5a Androstane).

Batch Information

Analytical Batch: XFC12429
Analytical Method: AK102
Analyst: AEE
Analytical Date/Time: 06/10/16 16:52
Container ID: 1162856002-A
Prep Batch: XXX35471
Prep Method: SW3550C
Prep Date/Time: 06/08/16 17:11
Prep Initial Wt./Vol.: 30.024 g
Prep Extract Vol: 1 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Residual Range Organics and Surrogates (n-Triacontane-d62).

Batch Information

Analytical Batch: XFC12429
Analytical Method: AK103
Analyst: AEE
Analytical Date/Time: 06/10/16 16:52
Container ID: 1162856002-A
Prep Batch: XXX35471
Prep Method: SW3550C
Prep Date/Time: 06/08/16 17:11
Prep Initial Wt./Vol.: 30.024 g
Prep Extract Vol: 1 mL



Results of CZ-10

Client Sample ID: **CZ-10**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856002
 Lab Project ID: 1162856

Collection Date: 06/01/16 09:45
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):73.1
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
1,1,1-Trichloroethane	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
1,1,2,2-Tetrachloroethane	19.3 U	38.6	12.0	ug/Kg	1		06/10/16 22:25
1,1,2-Trichloroethane	15.4 U	30.9	9.58	ug/Kg	1		06/10/16 22:25
1,1-Dichloroethane	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
1,1-Dichloroethene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
1,1-Dichloropropene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
1,2,3-Trichlorobenzene	77.0 U	154	46.3	ug/Kg	1		06/10/16 22:25
1,2,3-Trichloropropane	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
1,2,4-Trichlorobenzene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
1,2,4-Trimethylbenzene	56.4 J	154	46.3	ug/Kg	1		06/10/16 22:25
1,2-Dibromo-3-chloropropane	155 U	309	95.8	ug/Kg	1		06/10/16 22:25
1,2-Dibromoethane	15.4 U	30.9	9.58	ug/Kg	1		06/10/16 22:25
1,2-Dichlorobenzene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
1,2-Dichloroethane	15.4 U	30.9	9.58	ug/Kg	1		06/10/16 22:25
1,2-Dichloropropane	15.4 U	30.9	9.58	ug/Kg	1		06/10/16 22:25
1,3,5-Trimethylbenzene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
1,3-Dichlorobenzene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
1,3-Dichloropropane	15.4 U	30.9	9.58	ug/Kg	1		06/10/16 22:25
1,4-Dichlorobenzene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
2,2-Dichloropropane	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
2-Butanone (MEK)	386 U	772	241	ug/Kg	1		06/10/16 22:25
2-Chlorotoluene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
2-Hexanone	386 U	772	241	ug/Kg	1		06/10/16 22:25
4-Chlorotoluene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
4-Isopropyltoluene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
4-Methyl-2-pentanone (MIBK)	386 U	772	241	ug/Kg	1		06/10/16 22:25
Benzene	19.3 U	38.6	12.0	ug/Kg	1		06/10/16 22:25
Bromobenzene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
Bromochloromethane	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
Bromodichloromethane	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
Bromoform	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
Bromomethane	309 U	618	192	ug/Kg	1		06/10/16 22:25
Carbon disulfide	155 U	309	95.8	ug/Kg	1		06/10/16 22:25
Carbon tetrachloride	19.3 U	38.6	12.0	ug/Kg	1		06/10/16 22:25
Chlorobenzene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
Chloroethane	309 U	618	192	ug/Kg	1		06/10/16 22:25

Print Date: 06/24/2016 8:13:24AM

J flagging is activated

Results of CZ-10

Client Sample ID: **CZ-10**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856002
 Lab Project ID: 1162856

Collection Date: 06/01/16 09:45
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):73.1
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
Chloromethane	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
cis-1,2-Dichloroethene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
cis-1,3-Dichloropropene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
Dibromochloromethane	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
Dibromomethane	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
Dichlorodifluoromethane	77.0 U	154	46.3	ug/Kg	1		06/10/16 22:25
Ethylbenzene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
Freon-113	155 U	309	95.8	ug/Kg	1		06/10/16 22:25
Hexachlorobutadiene	77.0 U	154	46.3	ug/Kg	1		06/10/16 22:25
Isopropylbenzene (Cumene)	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
Methylene chloride	155 U	309	95.8	ug/Kg	1		06/10/16 22:25
Methyl-t-butyl ether	155 U	309	95.8	ug/Kg	1		06/10/16 22:25
Naphthalene	47.9 J	154	46.3	ug/Kg	1		06/10/16 22:25
n-Butylbenzene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
n-Propylbenzene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
o-Xylene	40.9 J	77.2	24.1	ug/Kg	1		06/10/16 22:25
P & M -Xylene	67.2 J	154	46.3	ug/Kg	1		06/10/16 22:25
sec-Butylbenzene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
Styrene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
tert-Butylbenzene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
Tetrachloroethene	19.3 U	38.6	12.0	ug/Kg	1		06/10/16 22:25
Toluene	38.6 J	77.2	24.1	ug/Kg	1		06/10/16 22:25
trans-1,2-Dichloroethene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
trans-1,3-Dichloropropene	38.6 U	77.2	24.1	ug/Kg	1		06/10/16 22:25
Trichloroethene	19.3 U	38.6	12.0	ug/Kg	1		06/10/16 22:25
Trichlorofluoromethane	77.0 U	154	46.3	ug/Kg	1		06/10/16 22:25
Vinyl acetate	155 U	309	95.8	ug/Kg	1		06/10/16 22:25
Vinyl chloride	15.4 U	30.9	9.58	ug/Kg	1		06/10/16 22:25
Xylenes (total)	108 J	232	70.4	ug/Kg	1		06/10/16 22:25
Surrogates							
1,2-Dichloroethane-D4 (surr)	107	71-136		%	1		06/10/16 22:25
4-Bromofluorobenzene (surr)	93.8	55-151		%	1		06/10/16 22:25
Toluene-d8 (surr)	109	85-116		%	1		06/10/16 22:25

Results of CZ-10

Client Sample ID: **CZ-10**
Client Project ID: **AJT Mining 16-1018**
Lab Sample ID: 1162856002
Lab Project ID: 1162856

Collection Date: 06/01/16 09:45
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):73.1
Location:

Results by Volatile GC/MS

Batch Information

Analytical Batch: VMS15858
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 06/10/16 22:25
Container ID: 1162856002-B

Prep Batch: VXX28928
Prep Method: SW5035A
Prep Date/Time: 06/01/16 09:45
Prep Initial Wt./Vol.: 29.085 g
Prep Extract Vol: 32.8293 mL

Results of CZ-16

Client Sample ID: **CZ-16**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856003
 Lab Project ID: 1162856

Collection Date: 06/01/16 10:00
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):76.8
 Location:

Results by Semivolatile Organic Fuels

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	1930		104	32.2	mg/Kg	4		06/10/16 18:24
Surrogates								
5a Androstane (surr)	0	*	50-150		%	4		06/10/16 18:24

Batch Information

Analytical Batch: XFC12429
 Analytical Method: AK102
 Analyst: AEE
 Analytical Date/Time: 06/10/16 18:24
 Container ID: 1162856003-A

Prep Batch: XXX35471
 Prep Method: SW3550C
 Prep Date/Time: 06/08/16 17:11
 Prep Initial Wt./Vol.: 30.099 g
 Prep Extract Vol: 1 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	4320		416	129	mg/Kg	16		06/14/16 23:42
Surrogates								
n-Triacontane-d62 (surr)	0	*	50-150		%	16		06/14/16 23:42

Batch Information

Analytical Batch: XFC12440
 Analytical Method: AK103
 Analyst: S.G
 Analytical Date/Time: 06/14/16 23:42
 Container ID: 1162856003-A

Prep Batch: XXX35471
 Prep Method: SW3550C
 Prep Date/Time: 06/08/16 17:11
 Prep Initial Wt./Vol.: 30.099 g
 Prep Extract Vol: 1 mL

Results of CZ-16

Client Sample ID: **CZ-16**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856003
 Lab Project ID: 1162856

Collection Date: 06/01/16 10:00
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):76.8
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
1,1,1-Trichloroethane	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
1,1,2,2-Tetrachloroethane	16.2 U	32.4	10.1	ug/Kg	1		06/10/16 22:41
1,1,2-Trichloroethane	12.9 U	25.9	8.03	ug/Kg	1		06/10/16 22:41
1,1-Dichloroethane	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
1,1-Dichloroethene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
1,1-Dichloropropene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
1,2,3-Trichlorobenzene	65.0 U	130	38.9	ug/Kg	1		06/10/16 22:41
1,2,3-Trichloropropane	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
1,2,4-Trichlorobenzene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
1,2,4-Trimethylbenzene	65.0 U	130	38.9	ug/Kg	1		06/10/16 22:41
1,2-Dibromo-3-chloropropane	130 U	259	80.3	ug/Kg	1		06/10/16 22:41
1,2-Dibromoethane	12.9 U	25.9	8.03	ug/Kg	1		06/10/16 22:41
1,2-Dichlorobenzene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
1,2-Dichloroethane	12.9 U	25.9	8.03	ug/Kg	1		06/10/16 22:41
1,2-Dichloropropane	12.9 U	25.9	8.03	ug/Kg	1		06/10/16 22:41
1,3,5-Trimethylbenzene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
1,3-Dichlorobenzene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
1,3-Dichloropropane	12.9 U	25.9	8.03	ug/Kg	1		06/10/16 22:41
1,4-Dichlorobenzene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
2,2-Dichloropropane	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
2-Butanone (MEK)	324 U	648	202	ug/Kg	1		06/10/16 22:41
2-Chlorotoluene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
2-Hexanone	324 U	648	202	ug/Kg	1		06/10/16 22:41
4-Chlorotoluene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
4-Isopropyltoluene	29.2 J	64.8	20.2	ug/Kg	1		06/10/16 22:41
4-Methyl-2-pentanone (MIBK)	324 U	648	202	ug/Kg	1		06/10/16 22:41
Benzene	16.2 U	32.4	10.1	ug/Kg	1		06/10/16 22:41
Bromobenzene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
Bromochloromethane	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
Bromodichloromethane	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
Bromoform	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
Bromomethane	259 U	518	161	ug/Kg	1		06/10/16 22:41
Carbon disulfide	130 U	259	80.3	ug/Kg	1		06/10/16 22:41
Carbon tetrachloride	16.2 U	32.4	10.1	ug/Kg	1		06/10/16 22:41
Chlorobenzene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
Chloroethane	259 U	518	161	ug/Kg	1		06/10/16 22:41

Results of CZ-16

Client Sample ID: **CZ-16**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856003
 Lab Project ID: 1162856

Collection Date: 06/01/16 10:00
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):76.8
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
Chloromethane	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
cis-1,2-Dichloroethene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
cis-1,3-Dichloropropene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
Dibromochloromethane	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
Dibromomethane	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
Dichlorodifluoromethane	65.0 U	130	38.9	ug/Kg	1		06/10/16 22:41
Ethylbenzene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
Freon-113	130 U	259	80.3	ug/Kg	1		06/10/16 22:41
Hexachlorobutadiene	65.0 U	130	38.9	ug/Kg	1		06/10/16 22:41
Isopropylbenzene (Cumene)	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
Methylene chloride	130 U	259	80.3	ug/Kg	1		06/10/16 22:41
Methyl-t-butyl ether	130 U	259	80.3	ug/Kg	1		06/10/16 22:41
Naphthalene	65.0 U	130	38.9	ug/Kg	1		06/10/16 22:41
n-Butylbenzene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
n-Propylbenzene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
o-Xylene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
P & M -Xylene	65.0 U	130	38.9	ug/Kg	1		06/10/16 22:41
sec-Butylbenzene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
Styrene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
tert-Butylbenzene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
Tetrachloroethene	16.2 U	32.4	10.1	ug/Kg	1		06/10/16 22:41
Toluene	25.9 J	64.8	20.2	ug/Kg	1		06/10/16 22:41
trans-1,2-Dichloroethene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
trans-1,3-Dichloropropene	32.4 U	64.8	20.2	ug/Kg	1		06/10/16 22:41
Trichloroethene	16.2 U	32.4	10.1	ug/Kg	1		06/10/16 22:41
Trichlorofluoromethane	65.0 U	130	38.9	ug/Kg	1		06/10/16 22:41
Vinyl acetate	130 U	259	80.3	ug/Kg	1		06/10/16 22:41
Vinyl chloride	12.9 U	25.9	8.03	ug/Kg	1		06/10/16 22:41
Xylenes (total)	97.0 U	194	59.1	ug/Kg	1		06/10/16 22:41
Surrogates							
1,2-Dichloroethane-D4 (surr)	107	71-136		%	1		06/10/16 22:41
4-Bromofluorobenzene (surr)	80	55-151		%	1		06/10/16 22:41
Toluene-d8 (surr)	104	85-116		%	1		06/10/16 22:41

Results of CZ-16

Client Sample ID: **CZ-16**
Client Project ID: **AJT Mining 16-1018**
Lab Sample ID: 1162856003
Lab Project ID: 1162856

Collection Date: 06/01/16 10:00
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):76.8
Location:

Results by Volatile GC/MS

Batch Information

Analytical Batch: VMS15858
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 06/10/16 22:41
Container ID: 1162856003-B

Prep Batch: VXX28928
Prep Method: SW5035A
Prep Date/Time: 06/01/16 10:00
Prep Initial Wt./Vol.: 32.808 g
Prep Extract Vol: 32.6276 mL

Results of CZ-19

Client Sample ID: **CZ-19**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856004
 Lab Project ID: 1162856

Collection Date: 06/01/16 10:10
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):60.4
 Location:

Results by Semivolatile Organic Fuels

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	1260		132	41.0	mg/Kg	4		06/10/16 18:45
Surrogates								
5a Androstane (surr)	125		50-150		%	4		06/10/16 18:45

Batch Information

Analytical Batch: XFC12429
 Analytical Method: AK102
 Analyst: AEE
 Analytical Date/Time: 06/10/16 18:45
 Container ID: 1162856004-A

Prep Batch: XXX35471
 Prep Method: SW3550C
 Prep Date/Time: 06/08/16 17:11
 Prep Initial Wt./Vol.: 30.065 g
 Prep Extract Vol: 1 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	3930		132	41.0	mg/Kg	4		06/10/16 18:45
Surrogates								
n-Triacontane-d62 (surr)	201	*	50-150		%	4		06/10/16 18:45

Batch Information

Analytical Batch: XFC12429
 Analytical Method: AK103
 Analyst: AEE
 Analytical Date/Time: 06/10/16 18:45
 Container ID: 1162856004-A

Prep Batch: XXX35471
 Prep Method: SW3550C
 Prep Date/Time: 06/08/16 17:11
 Prep Initial Wt./Vol.: 30.065 g
 Prep Extract Vol: 1 mL

Results of CZ-19

Client Sample ID: **CZ-19**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856004
 Lab Project ID: 1162856

Collection Date: 06/01/16 10:10
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):60.4
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
1,1,1-Trichloroethane	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
1,1,2,2-Tetrachloroethane	23.8 U	47.6	14.9	ug/Kg	1		06/10/16 22:57
1,1,2-Trichloroethane	19.1 U	38.1	11.8	ug/Kg	1		06/10/16 22:57
1,1-Dichloroethane	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
1,1-Dichloroethene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
1,1-Dichloropropene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
1,2,3-Trichlorobenzene	95.5 U	191	57.2	ug/Kg	1		06/10/16 22:57
1,2,3-Trichloropropane	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
1,2,4-Trichlorobenzene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
1,2,4-Trimethylbenzene	95.5 U	191	57.2	ug/Kg	1		06/10/16 22:57
1,2-Dibromo-3-chloropropane	191 U	381	118	ug/Kg	1		06/10/16 22:57
1,2-Dibromoethane	19.1 U	38.1	11.8	ug/Kg	1		06/10/16 22:57
1,2-Dichlorobenzene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
1,2-Dichloroethane	19.1 U	38.1	11.8	ug/Kg	1		06/10/16 22:57
1,2-Dichloropropane	19.1 U	38.1	11.8	ug/Kg	1		06/10/16 22:57
1,3,5-Trimethylbenzene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
1,3-Dichlorobenzene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
1,3-Dichloropropane	19.1 U	38.1	11.8	ug/Kg	1		06/10/16 22:57
1,4-Dichlorobenzene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
2,2-Dichloropropane	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
2-Butanone (MEK)	477 U	953	297	ug/Kg	1		06/10/16 22:57
2-Chlorotoluene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
2-Hexanone	477 U	953	297	ug/Kg	1		06/10/16 22:57
4-Chlorotoluene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
4-Isopropyltoluene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
4-Methyl-2-pentanone (MIBK)	477 U	953	297	ug/Kg	1		06/10/16 22:57
Benzene	23.8 U	47.6	14.9	ug/Kg	1		06/10/16 22:57
Bromobenzene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
Bromochloromethane	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
Bromodichloromethane	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
Bromoform	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
Bromomethane	381 U	762	236	ug/Kg	1		06/10/16 22:57
Carbon disulfide	191 U	381	118	ug/Kg	1		06/10/16 22:57
Carbon tetrachloride	23.8 U	47.6	14.9	ug/Kg	1		06/10/16 22:57
Chlorobenzene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
Chloroethane	381 U	762	236	ug/Kg	1		06/10/16 22:57

Results of CZ-19

Client Sample ID: **CZ-19**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856004
 Lab Project ID: 1162856

Collection Date: 06/01/16 10:10
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):60.4
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
Chloromethane	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
cis-1,2-Dichloroethene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
cis-1,3-Dichloropropene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
Dibromochloromethane	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
Dibromomethane	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
Dichlorodifluoromethane	95.5 U	191	57.2	ug/Kg	1		06/10/16 22:57
Ethylbenzene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
Freon-113	191 U	381	118	ug/Kg	1		06/10/16 22:57
Hexachlorobutadiene	95.5 U	191	57.2	ug/Kg	1		06/10/16 22:57
Isopropylbenzene (Cumene)	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
Methylene chloride	191 U	381	118	ug/Kg	1		06/10/16 22:57
Methyl-t-butyl ether	191 U	381	118	ug/Kg	1		06/10/16 22:57
Naphthalene	95.5 U	191	57.2	ug/Kg	1		06/10/16 22:57
n-Butylbenzene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
n-Propylbenzene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
o-Xylene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
P & M -Xylene	95.5 U	191	57.2	ug/Kg	1		06/10/16 22:57
sec-Butylbenzene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
Styrene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
tert-Butylbenzene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
Tetrachloroethene	23.8 U	47.6	14.9	ug/Kg	1		06/10/16 22:57
Toluene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
trans-1,2-Dichloroethene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
trans-1,3-Dichloropropene	47.6 U	95.3	29.7	ug/Kg	1		06/10/16 22:57
Trichloroethene	23.8 U	47.6	14.9	ug/Kg	1		06/10/16 22:57
Trichlorofluoromethane	95.5 U	191	57.2	ug/Kg	1		06/10/16 22:57
Vinyl acetate	191 U	381	118	ug/Kg	1		06/10/16 22:57
Vinyl chloride	19.1 U	38.1	11.8	ug/Kg	1		06/10/16 22:57
Xylenes (total)	143 U	286	86.9	ug/Kg	1		06/10/16 22:57
Surrogates							
1,2-Dichloroethane-D4 (surr)	103	71-136		%	1		06/10/16 22:57
4-Bromofluorobenzene (surr)	74.4	55-151		%	1		06/10/16 22:57
Toluene-d8 (surr)	106	85-116		%	1		06/10/16 22:57

Results of CZ-19

Client Sample ID: **CZ-19**
Client Project ID: **AJT Mining 16-1018**
Lab Sample ID: 1162856004
Lab Project ID: 1162856

Collection Date: 06/01/16 10:10
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):60.4
Location:

Results by Volatile GC/MS

Batch Information

Analytical Batch: VMS15858
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 06/10/16 22:57
Container ID: 1162856004-B

Prep Batch: VXX28928
Prep Method: SW5035A
Prep Date/Time: 06/01/16 10:10
Prep Initial Wt./Vol.: 33.089 g
Prep Extract Vol: 38.0963 mL

Results of CZ-23

Client Sample ID: **CZ-23**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856005
 Lab Project ID: 1162856

Collection Date: 06/01/16 10:30
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):63.3
 Location:

Results by Semivolatile Organic Fuels

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	511		126	39.0	mg/Kg	4		06/10/16 18:55
Surrogates								
5a Androstane (surr)	106		50-150		%	4		06/10/16 18:55

Batch Information

Analytical Batch: XFC12429
 Analytical Method: AK102
 Analyst: AEE
 Analytical Date/Time: 06/10/16 18:55
 Container ID: 1162856005-A

Prep Batch: XXX35471
 Prep Method: SW3550C
 Prep Date/Time: 06/08/16 17:11
 Prep Initial Wt./Vol.: 30.127 g
 Prep Extract Vol: 1 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	2330		126	39.0	mg/Kg	4		06/10/16 18:55
Surrogates								
n-Triacontane-d62 (surr)	164	*	50-150		%	4		06/10/16 18:55

Batch Information

Analytical Batch: XFC12429
 Analytical Method: AK103
 Analyst: AEE
 Analytical Date/Time: 06/10/16 18:55
 Container ID: 1162856005-A

Prep Batch: XXX35471
 Prep Method: SW3550C
 Prep Date/Time: 06/08/16 17:11
 Prep Initial Wt./Vol.: 30.127 g
 Prep Extract Vol: 1 mL



Results of CZ-23

Client Sample ID: **CZ-23**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856005
 Lab Project ID: 1162856

Collection Date: 06/01/16 10:30
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):63.3
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
1,1,1-Trichloroethane	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
1,1,2,2-Tetrachloroethane	20.2 U	40.4	12.6	ug/Kg	1		06/07/16 16:02
1,1,2-Trichloroethane	16.2 U	32.4	10.0	ug/Kg	1		06/07/16 16:02
1,1-Dichloroethane	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
1,1-Dichloroethene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
1,1-Dichloropropene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
1,2,3-Trichlorobenzene	81.0 U	162	48.5	ug/Kg	1		06/07/16 16:02
1,2,3-Trichloropropane	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
1,2,4-Trichlorobenzene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
1,2,4-Trimethylbenzene	81.0 U	162	48.5	ug/Kg	1		06/07/16 16:02
1,2-Dibromo-3-chloropropane	162 U	324	100	ug/Kg	1		06/07/16 16:02
1,2-Dibromoethane	16.2 U	32.4	10.0	ug/Kg	1		06/07/16 16:02
1,2-Dichlorobenzene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
1,2-Dichloroethane	16.2 U	32.4	10.0	ug/Kg	1		06/07/16 16:02
1,2-Dichloropropane	16.2 U	32.4	10.0	ug/Kg	1		06/07/16 16:02
1,3,5-Trimethylbenzene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
1,3-Dichlorobenzene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
1,3-Dichloropropane	16.2 U	32.4	10.0	ug/Kg	1		06/07/16 16:02
1,4-Dichlorobenzene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
2,2-Dichloropropane	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
2-Butanone (MEK)	405 U	809	252	ug/Kg	1		06/07/16 16:02
2-Chlorotoluene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
2-Hexanone	405 U	809	252	ug/Kg	1		06/07/16 16:02
4-Chlorotoluene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
4-Isopropyltoluene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
4-Methyl-2-pentanone (MIBK)	405 U	809	252	ug/Kg	1		06/07/16 16:02
Benzene	20.2 U	40.4	12.6	ug/Kg	1		06/07/16 16:02
Bromobenzene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
Bromochloromethane	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
Bromodichloromethane	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
Bromoform	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
Bromomethane	324 U	647	201	ug/Kg	1		06/07/16 16:02
Carbon disulfide	162 U	324	100	ug/Kg	1		06/07/16 16:02
Carbon tetrachloride	20.2 U	40.4	12.6	ug/Kg	1		06/07/16 16:02
Chlorobenzene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
Chloroethane	324 U	647	201	ug/Kg	1		06/07/16 16:02

Print Date: 06/24/2016 8:13:24AM

J flagging is activated

Results of CZ-23

Client Sample ID: **CZ-23**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856005
 Lab Project ID: 1162856

Collection Date: 06/01/16 10:30
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):63.3
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
Chloromethane	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
cis-1,2-Dichloroethene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
cis-1,3-Dichloropropene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
Dibromochloromethane	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
Dibromomethane	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
Dichlorodifluoromethane	81.0 U	162	48.5	ug/Kg	1		06/07/16 16:02
Ethylbenzene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
Freon-113	162 U	324	100	ug/Kg	1		06/07/16 16:02
Hexachlorobutadiene	81.0 U	162	48.5	ug/Kg	1		06/07/16 16:02
Isopropylbenzene (Cumene)	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
Methylene chloride	162 U	324	100	ug/Kg	1		06/07/16 16:02
Methyl-t-butyl ether	162 U	324	100	ug/Kg	1		06/07/16 16:02
Naphthalene	81.0 U	162	48.5	ug/Kg	1		06/07/16 16:02
n-Butylbenzene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
n-Propylbenzene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
o-Xylene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
P & M -Xylene	81.0 U	162	48.5	ug/Kg	1		06/07/16 16:02
sec-Butylbenzene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
Styrene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
tert-Butylbenzene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
Tetrachloroethene	20.2 U	40.4	12.6	ug/Kg	1		06/07/16 16:02
Toluene	40.4 J	80.9	25.2	ug/Kg	1		06/07/16 16:02
trans-1,2-Dichloroethene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
trans-1,3-Dichloropropene	40.5 U	80.9	25.2	ug/Kg	1		06/07/16 16:02
Trichloroethene	20.2 U	40.4	12.6	ug/Kg	1		06/07/16 16:02
Trichlorofluoromethane	81.0 U	162	48.5	ug/Kg	1		06/07/16 16:02
Vinyl acetate	162 U	324	100	ug/Kg	1		06/07/16 16:02
Vinyl chloride	16.2 U	32.4	10.0	ug/Kg	1		06/07/16 16:02
Xylenes (total)	122 U	243	73.8	ug/Kg	1		06/07/16 16:02
Surrogates							
1,2-Dichloroethane-D4 (surr)	114	71-136		%	1		06/07/16 16:02
4-Bromofluorobenzene (surr)	100	55-151		%	1		06/07/16 16:02
Toluene-d8 (surr)	110	85-116		%	1		06/07/16 16:02

Results of CZ-23

Client Sample ID: **CZ-23**
Client Project ID: **AJT Mining 16-1018**
Lab Sample ID: 1162856005
Lab Project ID: 1162856

Collection Date: 06/01/16 10:30
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):63.3
Location:

Results by Volatile GC/MS

Batch Information

Analytical Batch: VMS15842
Analytical Method: SW8260B
Analyst: S.P
Analytical Date/Time: 06/07/16 16:02
Container ID: 1162856005-B

Prep Batch: VXX28902
Prep Method: SW5035A
Prep Date/Time: 06/01/16 10:30
Prep Initial Wt./Vol.: 37.993 g
Prep Extract Vol: 38.9307 mL

Results of CZ-27

Client Sample ID: **CZ-27**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856006
 Lab Project ID: 1162856

Collection Date: 06/01/16 14:30
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):73.4
 Location:

Results by Semivolatile Organic Fuels

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Diesel Range Organics	818	27.1	8.40	mg/Kg	1		06/10/16 17:02
Surrogates							
5a Androstane (surr)	133	50-150		%	1		06/10/16 17:02

Batch Information

Analytical Batch: XFC12429
 Analytical Method: AK102
 Analyst: AEE
 Analytical Date/Time: 06/10/16 17:02
 Container ID: 1162856006-A

Prep Batch: XXX35471
 Prep Method: SW3550C
 Prep Date/Time: 06/08/16 17:11
 Prep Initial Wt./Vol.: 30.155 g
 Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Residual Range Organics	499	27.1	8.40	mg/Kg	1		06/10/16 17:02
Surrogates							
n-Triacontane-d62 (surr)	110	50-150		%	1		06/10/16 17:02

Batch Information

Analytical Batch: XFC12429
 Analytical Method: AK103
 Analyst: AEE
 Analytical Date/Time: 06/10/16 17:02
 Container ID: 1162856006-A

Prep Batch: XXX35471
 Prep Method: SW3550C
 Prep Date/Time: 06/08/16 17:11
 Prep Initial Wt./Vol.: 30.155 g
 Prep Extract Vol: 1 mL



Results of CZ-27

Client Sample ID: CZ-27
 Client Project ID: AJT Mining 16-1018
 Lab Sample ID: 1162856006
 Lab Project ID: 1162856

Collection Date: 06/01/16 14:30
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):73.4
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
1,1,1-Trichloroethane	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
1,1,2,2-Tetrachloroethane	19.1 U	38.3	11.9	ug/Kg	1		06/07/16 16:18
1,1,2-Trichloroethane	15.3 U	30.6	9.49	ug/Kg	1		06/07/16 16:18
1,1-Dichloroethane	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
1,1-Dichloroethene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
1,1-Dichloropropene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
1,2,3-Trichlorobenzene	76.5 U	153	45.9	ug/Kg	1		06/07/16 16:18
1,2,3-Trichloropropane	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
1,2,4-Trichlorobenzene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
1,2,4-Trimethylbenzene	56.6 J	153	45.9	ug/Kg	1		06/07/16 16:18
1,2-Dibromo-3-chloropropane	153 U	306	94.9	ug/Kg	1		06/07/16 16:18
1,2-Dibromoethane	15.3 U	30.6	9.49	ug/Kg	1		06/07/16 16:18
1,2-Dichlorobenzene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
1,2-Dichloroethane	15.3 U	30.6	9.49	ug/Kg	1		06/07/16 16:18
1,2-Dichloropropane	15.3 U	30.6	9.49	ug/Kg	1		06/07/16 16:18
1,3,5-Trimethylbenzene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
1,3-Dichlorobenzene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
1,3-Dichloropropane	15.3 U	30.6	9.49	ug/Kg	1		06/07/16 16:18
1,4-Dichlorobenzene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
2,2-Dichloropropane	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
2-Butanone (MEK)	383 U	765	239	ug/Kg	1		06/07/16 16:18
2-Chlorotoluene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
2-Hexanone	383 U	765	239	ug/Kg	1		06/07/16 16:18
4-Chlorotoluene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
4-Isopropyltoluene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
4-Methyl-2-pentanone (MIBK)	383 U	765	239	ug/Kg	1		06/07/16 16:18
Benzene	19.1 U	38.3	11.9	ug/Kg	1		06/07/16 16:18
Bromobenzene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
Bromochloromethane	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
Bromodichloromethane	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
Bromoform	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
Bromomethane	306 U	612	190	ug/Kg	1		06/07/16 16:18
Carbon disulfide	153 U	306	94.9	ug/Kg	1		06/07/16 16:18
Carbon tetrachloride	19.1 U	38.3	11.9	ug/Kg	1		06/07/16 16:18
Chlorobenzene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
Chloroethane	306 U	612	190	ug/Kg	1		06/07/16 16:18

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Results of CZ-27

Client Sample ID: **CZ-27**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856006
 Lab Project ID: 1162856

Collection Date: 06/01/16 14:30
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):73.4
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
Chloromethane	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
cis-1,2-Dichloroethene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
cis-1,3-Dichloropropene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
Dibromochloromethane	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
Dibromomethane	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
Dichlorodifluoromethane	76.5 U	153	45.9	ug/Kg	1		06/07/16 16:18
Ethylbenzene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
Freon-113	153 U	306	94.9	ug/Kg	1		06/07/16 16:18
Hexachlorobutadiene	76.5 U	153	45.9	ug/Kg	1		06/07/16 16:18
Isopropylbenzene (Cumene)	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
Methylene chloride	153 U	306	94.9	ug/Kg	1		06/07/16 16:18
Methyl-t-butyl ether	153 U	306	94.9	ug/Kg	1		06/07/16 16:18
Naphthalene	103 J	153	45.9	ug/Kg	1		06/07/16 16:18
n-Butylbenzene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
n-Propylbenzene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
o-Xylene	26.0 J	76.5	23.9	ug/Kg	1		06/07/16 16:18
P & M -Xylene	59.7 J	153	45.9	ug/Kg	1		06/07/16 16:18
sec-Butylbenzene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
Styrene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
tert-Butylbenzene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
Tetrachloroethene	19.1 U	38.3	11.9	ug/Kg	1		06/07/16 16:18
Toluene	55.9 J	76.5	23.9	ug/Kg	1		06/07/16 16:18
trans-1,2-Dichloroethene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
trans-1,3-Dichloropropene	38.3 U	76.5	23.9	ug/Kg	1		06/07/16 16:18
Trichloroethene	19.1 U	38.3	11.9	ug/Kg	1		06/07/16 16:18
Trichlorofluoromethane	76.5 U	153	45.9	ug/Kg	1		06/07/16 16:18
Vinyl acetate	153 U	306	94.9	ug/Kg	1		06/07/16 16:18
Vinyl chloride	15.3 U	30.6	9.49	ug/Kg	1		06/07/16 16:18
Xylenes (total)	85.7 J	230	69.8	ug/Kg	1		06/07/16 16:18
Surrogates							
1,2-Dichloroethane-D4 (surr)	114	71-136		%	1		06/07/16 16:18
4-Bromofluorobenzene (surr)	106	55-151		%	1		06/07/16 16:18
Toluene-d8 (surr)	112	85-116		%	1		06/07/16 16:18

Results of CZ-27

Client Sample ID: **CZ-27**
Client Project ID: **AJT Mining 16-1018**
Lab Sample ID: 1162856006
Lab Project ID: 1162856

Collection Date: 06/01/16 14:30
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):73.4
Location:

Results by Volatile GC/MS

Batch Information

Analytical Batch: VMS15842
Analytical Method: SW8260B
Analyst: S.P
Analytical Date/Time: 06/07/16 16:18
Container ID: 1162856006-B

Prep Batch: VXX28902
Prep Method: SW5035A
Prep Date/Time: 06/01/16 14:30
Prep Initial Wt./Vol.: 29.112 g
Prep Extract Vol: 32.7306 mL

Results of CZ-11

Client Sample ID: **CZ-11**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856007
 Lab Project ID: 1162856

Collection Date: 06/01/16 09:50
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):89.1
 Location:

Results by Semivolatile Organic Fuels

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	5940		444	138	mg/Kg	4		06/10/16 19:16
Surrogates								
5a Androstane (surr)	0	*	50-150		%	4		06/10/16 19:16

Batch Information

Analytical Batch: XFC12429
 Analytical Method: AK102
 Analyst: AEE
 Analytical Date/Time: 06/10/16 19:16
 Container ID: 1162856007-A

Prep Batch: XXX35471
 Prep Method: SW3550C
 Prep Date/Time: 06/08/16 17:11
 Prep Initial Wt./Vol.: 30.308 g
 Prep Extract Vol: 5 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	23800		1780	551	mg/Kg	16		06/14/16 23:52
Surrogates								
n-Triacontane-d62 (surr)	0	*	50-150		%	16		06/14/16 23:52

Batch Information

Analytical Batch: XFC12440
 Analytical Method: AK103
 Analyst: S.G
 Analytical Date/Time: 06/14/16 23:52
 Container ID: 1162856007-A

Prep Batch: XXX35471
 Prep Method: SW3550C
 Prep Date/Time: 06/08/16 17:11
 Prep Initial Wt./Vol.: 30.308 g
 Prep Extract Vol: 5 mL



Results of CZ-11

Client Sample ID: CZ-11
Client Project ID: AJT Mining 16-1018
Lab Sample ID: 1162856007
Lab Project ID: 1162856

Collection Date: 06/01/16 09:50
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):89.1
Location:

Results by Volatile GC/MS

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Lists various chemical compounds and their detection results.

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Results of CZ-11

Client Sample ID: **CZ-11**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856007
 Lab Project ID: 1162856

Collection Date: 06/01/16 09:50
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):89.1
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	18.2 U	36.4	11.3	ug/Kg	1		06/07/16 16:34
Chloromethane	18.2 U	36.4	11.3	ug/Kg	1		06/07/16 16:34
cis-1,2-Dichloroethene	18.2 U	36.4	11.3	ug/Kg	1		06/07/16 16:34
cis-1,3-Dichloropropene	18.2 U	36.4	11.3	ug/Kg	1		06/07/16 16:34
Dibromochloromethane	18.2 U	36.4	11.3	ug/Kg	1		06/07/16 16:34
Dibromomethane	18.2 U	36.4	11.3	ug/Kg	1		06/07/16 16:34
Dichlorodifluoromethane	36.4 U	72.7	21.8	ug/Kg	1		06/07/16 16:34
Ethylbenzene	18.2 U	36.4	11.3	ug/Kg	1		06/07/16 16:34
Freon-113	72.5 U	145	45.1	ug/Kg	1		06/07/16 16:34
Hexachlorobutadiene	36.4 U	72.7	21.8	ug/Kg	1		06/07/16 16:34
Isopropylbenzene (Cumene)	18.2 U	36.4	11.3	ug/Kg	1		06/07/16 16:34
Methylene chloride	72.5 U	145	45.1	ug/Kg	1		06/07/16 16:34
Methyl-t-butyl ether	72.5 U	145	45.1	ug/Kg	1		06/07/16 16:34
Naphthalene	36.4 U	72.7	21.8	ug/Kg	1		06/07/16 16:34
n-Butylbenzene	18.2 U	36.4	11.3	ug/Kg	1		06/07/16 16:34
n-Propylbenzene	18.2 U	36.4	11.3	ug/Kg	1		06/07/16 16:34
o-Xylene	18.2 U	36.4	11.3	ug/Kg	1		06/07/16 16:34
P & M -Xylene	36.4 U	72.7	21.8	ug/Kg	1		06/07/16 16:34
sec-Butylbenzene	18.2 U	36.4	11.3	ug/Kg	1		06/07/16 16:34
Styrene	18.2 U	36.4	11.3	ug/Kg	1		06/07/16 16:34
tert-Butylbenzene	18.2 U	36.4	11.3	ug/Kg	1		06/07/16 16:34
Tetrachloroethene	9.10 U	18.2	5.67	ug/Kg	1		06/07/16 16:34
Toluene	18.2 U	36.4	11.3	ug/Kg	1		06/07/16 16:34
trans-1,2-Dichloroethene	18.2 U	36.4	11.3	ug/Kg	1		06/07/16 16:34
trans-1,3-Dichloropropene	18.2 U	36.4	11.3	ug/Kg	1		06/07/16 16:34
Trichloroethene	9.10 U	18.2	5.67	ug/Kg	1		06/07/16 16:34
Trichlorofluoromethane	36.4 U	72.7	21.8	ug/Kg	1		06/07/16 16:34
Vinyl acetate	72.5 U	145	45.1	ug/Kg	1		06/07/16 16:34
Vinyl chloride	7.25 U	14.5	4.51	ug/Kg	1		06/07/16 16:34
Xylenes (total)	54.5 U	109	33.2	ug/Kg	1		06/07/16 16:34
Surrogates							
1,2-Dichloroethane-D4 (surr)	113	71-136		%	1		06/07/16 16:34
4-Bromofluorobenzene (surr)	106	55-151		%	1		06/07/16 16:34
Toluene-d8 (surr)	113	85-116		%	1		06/07/16 16:34

Results of CZ-11

Client Sample ID: **CZ-11**
Client Project ID: **AJT Mining 16-1018**
Lab Sample ID: 1162856007
Lab Project ID: 1162856

Collection Date: 06/01/16 09:50
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):89.1
Location:

Results by Volatile GC/MS

Batch Information

Analytical Batch: VMS15842
Analytical Method: SW8260B
Analyst: S.P
Analytical Date/Time: 06/07/16 16:34
Container ID: 1162856007-B

Prep Batch: VXX28902
Prep Method: SW5035A
Prep Date/Time: 06/01/16 09:50
Prep Initial Wt./Vol.: 46.342 g
Prep Extract Vol: 30.0336 mL

Results of CZ-14

Client Sample ID: **CZ-14**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856008
 Lab Project ID: 1162856

Collection Date: 06/01/16 09:55
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):68.3
 Location:

Results by Semivolatile Organic Fuels

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	7370		577	179	mg/Kg	4		06/10/16 19:26
Surrogates								
5a Androstane (surr)	0	*	50-150		%	4		06/10/16 19:26

Batch Information

Analytical Batch: XFC12429
 Analytical Method: AK102
 Analyst: AEE
 Analytical Date/Time: 06/10/16 19:26
 Container ID: 1162856008-A

Prep Batch: XXX35471
 Prep Method: SW3550C
 Prep Date/Time: 06/08/16 17:11
 Prep Initial Wt./Vol.: 30.435 g
 Prep Extract Vol: 5 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	24300		2310	715	mg/Kg	16		06/15/16 00:02
Surrogates								
n-Triacontane-d62 (surr)	0	*	50-150		%	16		06/15/16 00:02

Batch Information

Analytical Batch: XFC12440
 Analytical Method: AK103
 Analyst: S.G
 Analytical Date/Time: 06/15/16 00:02
 Container ID: 1162856008-A

Prep Batch: XXX35471
 Prep Method: SW3550C
 Prep Date/Time: 06/08/16 17:11
 Prep Initial Wt./Vol.: 30.435 g
 Prep Extract Vol: 5 mL



Results of CZ-14

Client Sample ID: CZ-14
Client Project ID: AJT Mining 16-1018
Lab Sample ID: 1162856008
Lab Project ID: 1162856

Collection Date: 06/01/16 09:55
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):68.3
Location:

Results by Volatile GC/MS

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Lists various chemical compounds and their detection results.

Print Date: 06/24/2016 8:13:24AM

J flagging is activated

Results of CZ-14

Client Sample ID: **CZ-14**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856008
 Lab Project ID: 1162856

Collection Date: 06/01/16 09:55
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):68.3
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	33.5 U	66.9	20.9	ug/Kg	1		06/07/16 16:49
Chloromethane	33.5 U	66.9	20.9	ug/Kg	1		06/07/16 16:49
cis-1,2-Dichloroethene	33.5 U	66.9	20.9	ug/Kg	1		06/07/16 16:49
cis-1,3-Dichloropropene	33.5 U	66.9	20.9	ug/Kg	1		06/07/16 16:49
Dibromochloromethane	33.5 U	66.9	20.9	ug/Kg	1		06/07/16 16:49
Dibromomethane	33.5 U	66.9	20.9	ug/Kg	1		06/07/16 16:49
Dichlorodifluoromethane	67.0 U	134	40.1	ug/Kg	1		06/07/16 16:49
Ethylbenzene	33.5 U	66.9	20.9	ug/Kg	1		06/07/16 16:49
Freon-113	134 U	267	82.9	ug/Kg	1		06/07/16 16:49
Hexachlorobutadiene	67.0 U	134	40.1	ug/Kg	1		06/07/16 16:49
Isopropylbenzene (Cumene)	33.5 U	66.9	20.9	ug/Kg	1		06/07/16 16:49
Methylene chloride	134 U	267	82.9	ug/Kg	1		06/07/16 16:49
Methyl-t-butyl ether	134 U	267	82.9	ug/Kg	1		06/07/16 16:49
Naphthalene	41.4 J	134	40.1	ug/Kg	1		06/07/16 16:49
n-Butylbenzene	33.5 U	66.9	20.9	ug/Kg	1		06/07/16 16:49
n-Propylbenzene	33.5 U	66.9	20.9	ug/Kg	1		06/07/16 16:49
o-Xylene	33.5 U	66.9	20.9	ug/Kg	1		06/07/16 16:49
P & M -Xylene	67.0 U	134	40.1	ug/Kg	1		06/07/16 16:49
sec-Butylbenzene	33.5 U	66.9	20.9	ug/Kg	1		06/07/16 16:49
Styrene	33.5 U	66.9	20.9	ug/Kg	1		06/07/16 16:49
tert-Butylbenzene	33.5 U	66.9	20.9	ug/Kg	1		06/07/16 16:49
Tetrachloroethene	16.7 U	33.4	10.4	ug/Kg	1		06/07/16 16:49
Toluene	26.1 J	66.9	20.9	ug/Kg	1		06/07/16 16:49
trans-1,2-Dichloroethene	33.5 U	66.9	20.9	ug/Kg	1		06/07/16 16:49
trans-1,3-Dichloropropene	33.5 U	66.9	20.9	ug/Kg	1		06/07/16 16:49
Trichloroethene	16.7 U	33.4	10.4	ug/Kg	1		06/07/16 16:49
Trichlorofluoromethane	67.0 U	134	40.1	ug/Kg	1		06/07/16 16:49
Vinyl acetate	134 U	267	82.9	ug/Kg	1		06/07/16 16:49
Vinyl chloride	13.4 U	26.7	8.29	ug/Kg	1		06/07/16 16:49
Xylenes (total)	101 U	201	61.0	ug/Kg	1		06/07/16 16:49
Surrogates							
1,2-Dichloroethane-D4 (surr)	114	71-136		%	1		06/07/16 16:49
4-Bromofluorobenzene (surr)	108	55-151		%	1		06/07/16 16:49
Toluene-d8 (surr)	114	85-116		%	1		06/07/16 16:49

Results of CZ-14

Client Sample ID: **CZ-14**
Client Project ID: **AJT Mining 16-1018**
Lab Sample ID: 1162856008
Lab Project ID: 1162856

Collection Date: 06/01/16 09:55
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):68.3
Location:

Results by Volatile GC/MS

Batch Information

Analytical Batch: VMS15842
Analytical Method: SW8260B
Analyst: S.P
Analytical Date/Time: 06/07/16 16:49
Container ID: 1162856008-B

Prep Batch: VXX28902
Prep Method: SW5035A
Prep Date/Time: 06/01/16 09:55
Prep Initial Wt./Vol.: 41.876 g
Prep Extract Vol: 38.2603 mL



Results of CZ-18

Client Sample ID: CZ-18
Client Project ID: AJT Mining 16-1018
Lab Sample ID: 1162856009
Lab Project ID: 1162856

Collection Date: 06/01/16 10:09
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):75.8
Location:

Results by Semivolatile Organic Fuels

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Diesel Range Organics and Surrogates (5a Androstane).

Batch Information

Analytical Batch: XFC12429
Analytical Method: AK102
Analyst: AEE
Analytical Date/Time: 06/10/16 17:12
Container ID: 1162856009-A
Prep Batch: XXX35471
Prep Method: SW3550C
Prep Date/Time: 06/08/16 17:11
Prep Initial Wt./Vol.: 30.115 g
Prep Extract Vol: 1 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Residual Range Organics and Surrogates (n-Triacontane-d62).

Batch Information

Analytical Batch: XFC12429
Analytical Method: AK103
Analyst: AEE
Analytical Date/Time: 06/10/16 17:12
Container ID: 1162856009-A
Prep Batch: XXX35471
Prep Method: SW3550C
Prep Date/Time: 06/08/16 17:11
Prep Initial Wt./Vol.: 30.115 g
Prep Extract Vol: 1 mL



Results of CZ-18

Client Sample ID: CZ-18
Client Project ID: AJT Mining 16-1018
Lab Sample ID: 1162856009
Lab Project ID: 1162856

Collection Date: 06/01/16 10:09
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):75.8
Location:

Results by Volatile GC/MS

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Lists various chemical compounds and their detection results.

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Results of CZ-18

Client Sample ID: **CZ-18**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856009
 Lab Project ID: 1162856

Collection Date: 06/01/16 10:09
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):75.8
 Location:

Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	28.6	U	57.1	17.8	ug/Kg	1		06/07/16 17:05
Chloromethane	28.6	U	57.1	17.8	ug/Kg	1		06/07/16 17:05
cis-1,2-Dichloroethene	28.6	U	57.1	17.8	ug/Kg	1		06/07/16 17:05
cis-1,3-Dichloropropene	28.6	U	57.1	17.8	ug/Kg	1		06/07/16 17:05
Dibromochloromethane	28.6	U	57.1	17.8	ug/Kg	1		06/07/16 17:05
Dibromomethane	28.6	U	57.1	17.8	ug/Kg	1		06/07/16 17:05
Dichlorodifluoromethane	57.0	U	114	34.3	ug/Kg	1		06/07/16 17:05
Ethylbenzene	28.6	U	57.1	17.8	ug/Kg	1		06/07/16 17:05
Freon-113	114	U	228	70.8	ug/Kg	1		06/07/16 17:05
Hexachlorobutadiene	57.0	U	114	34.3	ug/Kg	1		06/07/16 17:05
Isopropylbenzene (Cumene)	28.6	U	57.1	17.8	ug/Kg	1		06/07/16 17:05
Methylene chloride	74.3	J	228	70.8	ug/Kg	1		06/07/16 17:05
Methyl-t-butyl ether	114	U	228	70.8	ug/Kg	1		06/07/16 17:05
Naphthalene	57.0	U	114	34.3	ug/Kg	1		06/07/16 17:05
n-Butylbenzene	28.6	U	57.1	17.8	ug/Kg	1		06/07/16 17:05
n-Propylbenzene	28.6	U	57.1	17.8	ug/Kg	1		06/07/16 17:05
o-Xylene	28.6	U	57.1	17.8	ug/Kg	1		06/07/16 17:05
P & M -Xylene	57.0	U	114	34.3	ug/Kg	1		06/07/16 17:05
sec-Butylbenzene	28.6	U	57.1	17.8	ug/Kg	1		06/07/16 17:05
Styrene	28.6	U	57.1	17.8	ug/Kg	1		06/07/16 17:05
tert-Butylbenzene	28.6	U	57.1	17.8	ug/Kg	1		06/07/16 17:05
Tetrachloroethene	14.3	U	28.6	8.91	ug/Kg	1		06/07/16 17:05
Toluene	28.6	U	57.1	17.8	ug/Kg	1		06/07/16 17:05
trans-1,2-Dichloroethene	28.6	U	57.1	17.8	ug/Kg	1		06/07/16 17:05
trans-1,3-Dichloropropene	28.6	U	57.1	17.8	ug/Kg	1		06/07/16 17:05
Trichloroethene	14.3	U	28.6	8.91	ug/Kg	1		06/07/16 17:05
Trichlorofluoromethane	57.0	U	114	34.3	ug/Kg	1		06/07/16 17:05
Vinyl acetate	114	U	228	70.8	ug/Kg	1		06/07/16 17:05
Vinyl chloride	11.4	U	22.8	7.08	ug/Kg	1		06/07/16 17:05
Xylenes (total)	85.5	U	171	52.1	ug/Kg	1		06/07/16 17:05
Surrogates								
1,2-Dichloroethane-D4 (surr)	115		71-136		%	1		06/07/16 17:05
4-Bromofluorobenzene (surr)	96.5		55-151		%	1		06/07/16 17:05
Toluene-d8 (surr)	113		85-116		%	1		06/07/16 17:05

Results of CZ-18

Client Sample ID: **CZ-18**
Client Project ID: **AJT Mining 16-1018**
Lab Sample ID: 1162856009
Lab Project ID: 1162856

Collection Date: 06/01/16 10:09
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):75.8
Location:

Results by Volatile GC/MS

Batch Information

Analytical Batch: VMS15842
Analytical Method: SW8260B
Analyst: S.P
Analytical Date/Time: 06/07/16 17:05
Container ID: 1162856009-B

Prep Batch: VXX28902
Prep Method: SW5035A
Prep Date/Time: 06/01/16 10:09
Prep Initial Wt./Vol.: 40.1 g
Prep Extract Vol: 34.7127 mL



Results of CZ-20

Client Sample ID: CZ-20
Client Project ID: AJT Mining 16-1018
Lab Sample ID: 1162856010
Lab Project ID: 1162856

Collection Date: 06/01/16 10:12
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):83.3
Location:

Results by Semivolatile Organic Fuels

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Diesel Range Organics and Surrogates (5a Androstane).

Batch Information

Analytical Batch: XFC12429
Analytical Method: AK102
Analyst: AEE
Analytical Date/Time: 06/10/16 19:46
Container ID: 1162856010-A
Prep Batch: XXX35471
Prep Method: SW3550C
Prep Date/Time: 06/08/16 17:11
Prep Initial Wt./Vol.: 30.071 g
Prep Extract Vol: 7 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Residual Range Organics and Surrogates (n-Triacontane-d62).

Batch Information

Analytical Batch: XFC12440
Analytical Method: AK103
Analyst: S.G
Analytical Date/Time: 06/15/16 00:13
Container ID: 1162856010-A
Prep Batch: XXX35471
Prep Method: SW3550C
Prep Date/Time: 06/08/16 17:11
Prep Initial Wt./Vol.: 30.071 g
Prep Extract Vol: 7 mL



Results of CZ-20

Client Sample ID: **CZ-20**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856010
 Lab Project ID: 1162856

Collection Date: 06/01/16 10:12
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):83.3
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
1,1,1-Trichloroethane	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
1,1,2,2-Tetrachloroethane	9.95 U	19.9	6.21	ug/Kg	1		06/10/16 23:13
1,1,2-Trichloroethane	7.95 U	15.9	4.93	ug/Kg	1		06/10/16 23:13
1,1-Dichloroethane	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
1,1-Dichloroethene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
1,1-Dichloropropene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
1,2,3-Trichlorobenzene	39.8 U	79.6	23.9	ug/Kg	1		06/10/16 23:13
1,2,3-Trichloropropane	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
1,2,4-Trichlorobenzene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
1,2,4-Trimethylbenzene	39.8 U	79.6	23.9	ug/Kg	1		06/10/16 23:13
1,2-Dibromo-3-chloropropane	79.5 U	159	49.3	ug/Kg	1		06/10/16 23:13
1,2-Dibromoethane	7.95 U	15.9	4.93	ug/Kg	1		06/10/16 23:13
1,2-Dichlorobenzene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
1,2-Dichloroethane	7.95 U	15.9	4.93	ug/Kg	1		06/10/16 23:13
1,2-Dichloropropane	7.95 U	15.9	4.93	ug/Kg	1		06/10/16 23:13
1,3,5-Trimethylbenzene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
1,3-Dichlorobenzene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
1,3-Dichloropropane	7.95 U	15.9	4.93	ug/Kg	1		06/10/16 23:13
1,4-Dichlorobenzene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
2,2-Dichloropropane	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
2-Butanone (MEK)	199 U	398	124	ug/Kg	1		06/10/16 23:13
2-Chlorotoluene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
2-Hexanone	199 U	398	124	ug/Kg	1		06/10/16 23:13
4-Chlorotoluene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
4-Isopropyltoluene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
4-Methyl-2-pentanone (MIBK)	199 U	398	124	ug/Kg	1		06/10/16 23:13
Benzene	9.95 U	19.9	6.21	ug/Kg	1		06/10/16 23:13
Bromobenzene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
Bromochloromethane	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
Bromodichloromethane	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
Bromoform	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
Bromomethane	159 U	318	98.7	ug/Kg	1		06/10/16 23:13
Carbon disulfide	79.5 U	159	49.3	ug/Kg	1		06/10/16 23:13
Carbon tetrachloride	9.95 U	19.9	6.21	ug/Kg	1		06/10/16 23:13
Chlorobenzene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
Chloroethane	159 U	318	98.7	ug/Kg	1		06/10/16 23:13

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J flagging is activated

Results of CZ-20

Client Sample ID: **CZ-20**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856010
 Lab Project ID: 1162856

Collection Date: 06/01/16 10:12
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):83.3
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
Chloromethane	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
cis-1,2-Dichloroethene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
cis-1,3-Dichloropropene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
Dibromochloromethane	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
Dibromomethane	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
Dichlorodifluoromethane	39.8 U	79.6	23.9	ug/Kg	1		06/10/16 23:13
Ethylbenzene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
Freon-113	79.5 U	159	49.3	ug/Kg	1		06/10/16 23:13
Hexachlorobutadiene	39.8 U	79.6	23.9	ug/Kg	1		06/10/16 23:13
Isopropylbenzene (Cumene)	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
Methylene chloride	79.5 U	159	49.3	ug/Kg	1		06/10/16 23:13
Methyl-t-butyl ether	79.5 U	159	49.3	ug/Kg	1		06/10/16 23:13
Naphthalene	39.8 U	79.6	23.9	ug/Kg	1		06/10/16 23:13
n-Butylbenzene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
n-Propylbenzene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
o-Xylene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
P & M -Xylene	39.8 U	79.6	23.9	ug/Kg	1		06/10/16 23:13
sec-Butylbenzene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
Styrene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
tert-Butylbenzene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
Tetrachloroethene	9.95 U	19.9	6.21	ug/Kg	1		06/10/16 23:13
Toluene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
trans-1,2-Dichloroethene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
trans-1,3-Dichloropropene	19.9 U	39.8	12.4	ug/Kg	1		06/10/16 23:13
Trichloroethene	9.95 U	19.9	6.21	ug/Kg	1		06/10/16 23:13
Trichlorofluoromethane	39.8 U	79.6	23.9	ug/Kg	1		06/10/16 23:13
Vinyl acetate	79.5 U	159	49.3	ug/Kg	1		06/10/16 23:13
Vinyl chloride	7.95 U	15.9	4.93	ug/Kg	1		06/10/16 23:13
Xylenes (total)	59.5 U	119	36.3	ug/Kg	1		06/10/16 23:13
Surrogates							
1,2-Dichloroethane-D4 (surr)	105	71-136		%	1		06/10/16 23:13
4-Bromofluorobenzene (surr)	96.3	55-151		%	1		06/10/16 23:13
Toluene-d8 (surr)	106	85-116		%	1		06/10/16 23:13

Results of CZ-20

Client Sample ID: **CZ-20**
Client Project ID: **AJT Mining 16-1018**
Lab Sample ID: 1162856010
Lab Project ID: 1162856

Collection Date: 06/01/16 10:12
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):83.3
Location:

Results by Volatile GC/MS

Batch Information

Analytical Batch: VMS15858
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 06/10/16 23:13
Container ID: 1162856010-B

Prep Batch: VXX28928
Prep Method: SW5035A
Prep Date/Time: 06/01/16 10:12
Prep Initial Wt./Vol.: 50.32 g
Prep Extract Vol: 33.3784 mL



Results of CZ-21

Client Sample ID: **CZ-21**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856011
 Lab Project ID: 1162856

Collection Date: 06/01/16 10:25
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):68.9
 Location:

Results by Semivolatile Organic Fuels

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	7540		809	251	mg/Kg	4		06/10/16 19:57
Surrogates								
5a Androstane (surr)	0	*	50-150		%	4		06/10/16 19:57

Batch Information

Analytical Batch: XFC12429
 Analytical Method: AK102
 Analyst: AEE
 Analytical Date/Time: 06/10/16 19:57
 Container ID: 1162856011-A

Prep Batch: XXX35471
 Prep Method: SW3550C
 Prep Date/Time: 06/08/16 17:11
 Prep Initial Wt./Vol.: 30.127 g
 Prep Extract Vol: 7 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	27700		1620	501	mg/Kg	8		06/15/16 00:23
Surrogates								
n-Triacontane-d62 (surr)	0	*	50-150		%	8		06/15/16 00:23

Batch Information

Analytical Batch: XFC12440
 Analytical Method: AK103
 Analyst: S.G
 Analytical Date/Time: 06/15/16 00:23
 Container ID: 1162856011-A

Prep Batch: XXX35471
 Prep Method: SW3550C
 Prep Date/Time: 06/08/16 17:11
 Prep Initial Wt./Vol.: 30.127 g
 Prep Extract Vol: 7 mL

Results of CZ-21

Client Sample ID: **CZ-21**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856011
 Lab Project ID: 1162856

Collection Date: 06/01/16 10:25
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):68.9
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
1,1,1-Trichloroethane	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
1,1,2,2-Tetrachloroethane	20.1 U	40.2	12.6	ug/Kg	1		06/10/16 23:29
1,1,2-Trichloroethane	16.1 U	32.2	9.98	ug/Kg	1		06/10/16 23:29
1,1-Dichloroethane	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
1,1-Dichloroethene	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
1,1-Dichloropropene	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
1,2,3-Trichlorobenzene	80.5 U	161	48.3	ug/Kg	1		06/10/16 23:29
1,2,3-Trichloropropane	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
1,2,4-Trichlorobenzene	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
1,2,4-Trimethylbenzene	49.9 J	161	48.3	ug/Kg	1		06/10/16 23:29
1,2-Dibromo-3-chloropropane	161 U	322	99.8	ug/Kg	1		06/10/16 23:29
1,2-Dibromoethane	16.1 U	32.2	9.98	ug/Kg	1		06/10/16 23:29
1,2-Dichlorobenzene	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
1,2-Dichloroethane	16.1 U	32.2	9.98	ug/Kg	1		06/10/16 23:29
1,2-Dichloropropane	16.1 U	32.2	9.98	ug/Kg	1		06/10/16 23:29
1,3,5-Trimethylbenzene	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
1,3-Dichlorobenzene	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
1,3-Dichloropropane	16.1 U	32.2	9.98	ug/Kg	1		06/10/16 23:29
1,4-Dichlorobenzene	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
2,2-Dichloropropane	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
2-Butanone (MEK)	403 U	805	251	ug/Kg	1		06/10/16 23:29
2-Chlorotoluene	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
2-Hexanone	403 U	805	251	ug/Kg	1		06/10/16 23:29
4-Chlorotoluene	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
4-Isopropyltoluene	25.7 J	80.5	25.1	ug/Kg	1		06/10/16 23:29
4-Methyl-2-pentanone (MIBK)	403 U	805	251	ug/Kg	1		06/10/16 23:29
Benzene	144	40.2	12.6	ug/Kg	1		06/10/16 23:29
Bromobenzene	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
Bromochloromethane	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
Bromodichloromethane	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
Bromoform	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
Bromomethane	322 U	644	200	ug/Kg	1		06/10/16 23:29
Carbon disulfide	161 U	322	99.8	ug/Kg	1		06/10/16 23:29
Carbon tetrachloride	20.1 U	40.2	12.6	ug/Kg	1		06/10/16 23:29
Chlorobenzene	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
Chloroethane	322 U	644	200	ug/Kg	1		06/10/16 23:29

Print Date: 06/24/2016 8:13:24AM

J flagging is activated

Results of CZ-21

Client Sample ID: **CZ-21**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856011
 Lab Project ID: 1162856

Collection Date: 06/01/16 10:25
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):68.9
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
Chloromethane	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
cis-1,2-Dichloroethene	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
cis-1,3-Dichloropropene	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
Dibromochloromethane	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
Dibromomethane	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
Dichlorodifluoromethane	80.5 U	161	48.3	ug/Kg	1		06/10/16 23:29
Ethylbenzene	28.2 J	80.5	25.1	ug/Kg	1		06/10/16 23:29
Freon-113	161 U	322	99.8	ug/Kg	1		06/10/16 23:29
Hexachlorobutadiene	80.5 U	161	48.3	ug/Kg	1		06/10/16 23:29
Isopropylbenzene (Cumene)	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
Methylene chloride	161 U	322	99.8	ug/Kg	1		06/10/16 23:29
Methyl-t-butyl ether	161 U	322	99.8	ug/Kg	1		06/10/16 23:29
Naphthalene	81.3 J	161	48.3	ug/Kg	1		06/10/16 23:29
n-Butylbenzene	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
n-Propylbenzene	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
o-Xylene	63.6 J	80.5	25.1	ug/Kg	1		06/10/16 23:29
P & M -Xylene	120 J	161	48.3	ug/Kg	1		06/10/16 23:29
sec-Butylbenzene	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
Styrene	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
tert-Butylbenzene	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
Tetrachloroethene	20.1 U	40.2	12.6	ug/Kg	1		06/10/16 23:29
Toluene	270	80.5	25.1	ug/Kg	1		06/10/16 23:29
trans-1,2-Dichloroethene	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
trans-1,3-Dichloropropene	40.3 U	80.5	25.1	ug/Kg	1		06/10/16 23:29
Trichloroethene	20.1 U	40.2	12.6	ug/Kg	1		06/10/16 23:29
Trichlorofluoromethane	80.5 U	161	48.3	ug/Kg	1		06/10/16 23:29
Vinyl acetate	161 U	322	99.8	ug/Kg	1		06/10/16 23:29
Vinyl chloride	16.1 U	32.2	9.98	ug/Kg	1		06/10/16 23:29
Xylenes (total)	183 J	241	73.4	ug/Kg	1		06/10/16 23:29
Surrogates							
1,2-Dichloroethane-D4 (surr)	103	71-136		%	1		06/10/16 23:29
4-Bromofluorobenzene (surr)	76.3	55-151		%	1		06/10/16 23:29
Toluene-d8 (surr)	106	85-116		%	1		06/10/16 23:29

Results of CZ-21

Client Sample ID: **CZ-21**
Client Project ID: **AJT Mining 16-1018**
Lab Sample ID: 1162856011
Lab Project ID: 1162856

Collection Date: 06/01/16 10:25
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):68.9
Location:

Results by Volatile GC/MS

Batch Information

Analytical Batch: VMS15858
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 06/10/16 23:29
Container ID: 1162856011-B

Prep Batch: VXX28928
Prep Method: SW5035A
Prep Date/Time: 06/01/16 10:25
Prep Initial Wt./Vol.: 31.297 g
Prep Extract Vol: 34.7197 mL

Results of CZ-28

Client Sample ID: **CZ-28**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856012
 Lab Project ID: 1162856

Collection Date: 06/01/16 14:35
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):66.7
 Location:

Results by Semivolatile Organic Fuels

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	409		119	36.9	mg/Kg	4		06/10/16 21:49
Surrogates								
5a Androstane (surr)	115		50-150		%	4		06/10/16 21:49

Batch Information

Analytical Batch: XFC12429
 Analytical Method: AK102
 Analyst: AEE
 Analytical Date/Time: 06/10/16 21:49
 Container ID: 1162856012-A

Prep Batch: XXX35471
 Prep Method: SW3550C
 Prep Date/Time: 06/08/16 17:11
 Prep Initial Wt./Vol.: 30.231 g
 Prep Extract Vol: 1 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	929		119	36.9	mg/Kg	4		06/10/16 21:49
Surrogates								
n-Triacontane-d62 (surr)	104		50-150		%	4		06/10/16 21:49

Batch Information

Analytical Batch: XFC12429
 Analytical Method: AK103
 Analyst: AEE
 Analytical Date/Time: 06/10/16 21:49
 Container ID: 1162856012-A

Prep Batch: XXX35471
 Prep Method: SW3550C
 Prep Date/Time: 06/08/16 17:11
 Prep Initial Wt./Vol.: 30.231 g
 Prep Extract Vol: 1 mL

Results of CZ-28

Client Sample ID: **CZ-28**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856012
 Lab Project ID: 1162856

Collection Date: 06/01/16 14:35
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):66.7
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
1,1,1-Trichloroethane	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
1,1,2,2-Tetrachloroethane	21.7 U	43.4	13.5	ug/Kg	1		06/10/16 23:45
1,1,2-Trichloroethane	17.4 U	34.7	10.8	ug/Kg	1		06/10/16 23:45
1,1-Dichloroethane	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
1,1-Dichloroethene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
1,1-Dichloropropene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
1,2,3-Trichlorobenzene	86.5 U	173	52.0	ug/Kg	1		06/10/16 23:45
1,2,3-Trichloropropane	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
1,2,4-Trichlorobenzene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
1,2,4-Trimethylbenzene	67.7 J	173	52.0	ug/Kg	1		06/10/16 23:45
1,2-Dibromo-3-chloropropane	174 U	347	108	ug/Kg	1		06/10/16 23:45
1,2-Dibromoethane	17.4 U	34.7	10.8	ug/Kg	1		06/10/16 23:45
1,2-Dichlorobenzene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
1,2-Dichloroethane	17.4 U	34.7	10.8	ug/Kg	1		06/10/16 23:45
1,2-Dichloropropane	17.4 U	34.7	10.8	ug/Kg	1		06/10/16 23:45
1,3,5-Trimethylbenzene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
1,3-Dichlorobenzene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
1,3-Dichloropropane	17.4 U	34.7	10.8	ug/Kg	1		06/10/16 23:45
1,4-Dichlorobenzene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
2,2-Dichloropropane	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
2-Butanone (MEK)	434 U	867	271	ug/Kg	1		06/10/16 23:45
2-Chlorotoluene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
2-Hexanone	434 U	867	271	ug/Kg	1		06/10/16 23:45
4-Chlorotoluene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
4-Isopropyltoluene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
4-Methyl-2-pentanone (MIBK)	434 U	867	271	ug/Kg	1		06/10/16 23:45
Benzene	21.7 U	43.4	13.5	ug/Kg	1		06/10/16 23:45
Bromobenzene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
Bromochloromethane	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
Bromodichloromethane	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
Bromoform	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
Bromomethane	347 U	694	215	ug/Kg	1		06/10/16 23:45
Carbon disulfide	174 U	347	108	ug/Kg	1		06/10/16 23:45
Carbon tetrachloride	21.7 U	43.4	13.5	ug/Kg	1		06/10/16 23:45
Chlorobenzene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
Chloroethane	347 U	694	215	ug/Kg	1		06/10/16 23:45



Results of CZ-28

Client Sample ID: **CZ-28**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856012
 Lab Project ID: 1162856

Collection Date: 06/01/16 14:35
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):66.7
 Location:

Results by Volatile GC/MS

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Chloroform	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
Chloromethane	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
cis-1,2-Dichloroethene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
cis-1,3-Dichloropropene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
Dibromochloromethane	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
Dibromomethane	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
Dichlorodifluoromethane	86.5 U	173	52.0	ug/Kg	1		06/10/16 23:45
Ethylbenzene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
Freon-113	174 U	347	108	ug/Kg	1		06/10/16 23:45
Hexachlorobutadiene	86.5 U	173	52.0	ug/Kg	1		06/10/16 23:45
Isopropylbenzene (Cumene)	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
Methylene chloride	174 U	347	108	ug/Kg	1		06/10/16 23:45
Methyl-t-butyl ether	174 U	347	108	ug/Kg	1		06/10/16 23:45
Naphthalene	86.7 J	173	52.0	ug/Kg	1		06/10/16 23:45
n-Butylbenzene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
n-Propylbenzene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
o-Xylene	63.3 J	86.7	27.1	ug/Kg	1		06/10/16 23:45
P & M -Xylene	106 J	173	52.0	ug/Kg	1		06/10/16 23:45
sec-Butylbenzene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
Styrene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
tert-Butylbenzene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
Tetrachloroethene	21.7 U	43.4	13.5	ug/Kg	1		06/10/16 23:45
Toluene	64.2 J	86.7	27.1	ug/Kg	1		06/10/16 23:45
trans-1,2-Dichloroethene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
trans-1,3-Dichloropropene	43.4 U	86.7	27.1	ug/Kg	1		06/10/16 23:45
Trichloroethene	21.7 U	43.4	13.5	ug/Kg	1		06/10/16 23:45
Trichlorofluoromethane	86.5 U	173	52.0	ug/Kg	1		06/10/16 23:45
Vinyl acetate	174 U	347	108	ug/Kg	1		06/10/16 23:45
Vinyl chloride	17.4 U	34.7	10.8	ug/Kg	1		06/10/16 23:45
Xylenes (total)	169 J	260	79.1	ug/Kg	1		06/10/16 23:45
Surrogates							
1,2-Dichloroethane-D4 (surr)	105	71-136		%	1		06/10/16 23:45
4-Bromofluorobenzene (surr)	89.8	55-151		%	1		06/10/16 23:45
Toluene-d8 (surr)	106	85-116		%	1		06/10/16 23:45

Print Date: 06/24/2016 8:13:24AM

J flagging is activated

Results of CZ-28

Client Sample ID: **CZ-28**
Client Project ID: **AJT Mining 16-1018**
Lab Sample ID: 1162856012
Lab Project ID: 1162856

Collection Date: 06/01/16 14:35
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):66.7
Location:

Results by Volatile GC/MS

Batch Information

Analytical Batch: VMS15858
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 06/10/16 23:45
Container ID: 1162856012-B

Prep Batch: VXX28928
Prep Method: SW5035A
Prep Date/Time: 06/01/16 14:35
Prep Initial Wt./Vol.: 30.332 g
Prep Extract Vol: 35.0993 mL



Results of CZ-29

Client Sample ID: CZ-29
Client Project ID: AJT Mining 16-1018
Lab Sample ID: 1162856013
Lab Project ID: 1162856

Collection Date: 06/01/16 14:37
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):73.3
Location:

Results by Semivolatile Organic Fuels

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Diesel Range Organics and Surrogates (5a Androstane).

Batch Information

Analytical Batch: XFC12429
Analytical Method: AK102
Analyst: AEE
Analytical Date/Time: 06/10/16 17:22
Container ID: 1162856013-A
Prep Batch: XXX35471
Prep Method: SW3550C
Prep Date/Time: 06/08/16 17:11
Prep Initial Wt./Vol.: 30.262 g
Prep Extract Vol: 1 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Residual Range Organics and Surrogates (n-Triacontane-d62).

Batch Information

Analytical Batch: XFC12429
Analytical Method: AK103
Analyst: AEE
Analytical Date/Time: 06/10/16 17:22
Container ID: 1162856013-A
Prep Batch: XXX35471
Prep Method: SW3550C
Prep Date/Time: 06/08/16 17:11
Prep Initial Wt./Vol.: 30.262 g
Prep Extract Vol: 1 mL

Results of CZ-29

Client Sample ID: **CZ-29**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856013
 Lab Project ID: 1162856

Collection Date: 06/01/16 14:37
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):73.3
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
1,1,1-Trichloroethane	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
1,1,2,2-Tetrachloroethane	17.7 U	35.4	11.0	ug/Kg	1		06/11/16 00:01
1,1,2-Trichloroethane	14.2 U	28.3	8.78	ug/Kg	1		06/11/16 00:01
1,1-Dichloroethane	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
1,1-Dichloroethene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
1,1-Dichloropropene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
1,2,3-Trichlorobenzene	71.0 U	142	42.5	ug/Kg	1		06/11/16 00:01
1,2,3-Trichloropropane	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
1,2,4-Trichlorobenzene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
1,2,4-Trimethylbenzene	46.7 J	142	42.5	ug/Kg	1		06/11/16 00:01
1,2-Dibromo-3-chloropropane	142 U	283	87.8	ug/Kg	1		06/11/16 00:01
1,2-Dibromoethane	14.2 U	28.3	8.78	ug/Kg	1		06/11/16 00:01
1,2-Dichlorobenzene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
1,2-Dichloroethane	14.2 U	28.3	8.78	ug/Kg	1		06/11/16 00:01
1,2-Dichloropropane	14.2 U	28.3	8.78	ug/Kg	1		06/11/16 00:01
1,3,5-Trimethylbenzene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
1,3-Dichlorobenzene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
1,3-Dichloropropane	14.2 U	28.3	8.78	ug/Kg	1		06/11/16 00:01
1,4-Dichlorobenzene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
2,2-Dichloropropane	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
2-Butanone (MEK)	354 U	708	221	ug/Kg	1		06/11/16 00:01
2-Chlorotoluene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
2-Hexanone	354 U	708	221	ug/Kg	1		06/11/16 00:01
4-Chlorotoluene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
4-Isopropyltoluene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
4-Methyl-2-pentanone (MIBK)	354 U	708	221	ug/Kg	1		06/11/16 00:01
Benzene	17.7 U	35.4	11.0	ug/Kg	1		06/11/16 00:01
Bromobenzene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
Bromochloromethane	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
Bromodichloromethane	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
Bromoform	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
Bromomethane	284 U	567	176	ug/Kg	1		06/11/16 00:01
Carbon disulfide	142 U	283	87.8	ug/Kg	1		06/11/16 00:01
Carbon tetrachloride	17.7 U	35.4	11.0	ug/Kg	1		06/11/16 00:01
Chlorobenzene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
Chloroethane	284 U	567	176	ug/Kg	1		06/11/16 00:01

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J flagging is activated

Results of CZ-29

Client Sample ID: **CZ-29**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856013
 Lab Project ID: 1162856

Collection Date: 06/01/16 14:37
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):73.3
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
Chloromethane	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
cis-1,2-Dichloroethene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
cis-1,3-Dichloropropene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
Dibromochloromethane	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
Dibromomethane	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
Dichlorodifluoromethane	71.0 U	142	42.5	ug/Kg	1		06/11/16 00:01
Ethylbenzene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
Freon-113	142 U	283	87.8	ug/Kg	1		06/11/16 00:01
Hexachlorobutadiene	71.0 U	142	42.5	ug/Kg	1		06/11/16 00:01
Isopropylbenzene (Cumene)	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
Methylene chloride	142 U	283	87.8	ug/Kg	1		06/11/16 00:01
Methyl-t-butyl ether	142 U	283	87.8	ug/Kg	1		06/11/16 00:01
Naphthalene	77.2 J	142	42.5	ug/Kg	1		06/11/16 00:01
n-Butylbenzene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
n-Propylbenzene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
o-Xylene	28.3 J	70.8	22.1	ug/Kg	1		06/11/16 00:01
P & M -Xylene	58.1 J	142	42.5	ug/Kg	1		06/11/16 00:01
sec-Butylbenzene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
Styrene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
tert-Butylbenzene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
Tetrachloroethene	17.7 U	35.4	11.0	ug/Kg	1		06/11/16 00:01
Toluene	43.9 J	70.8	22.1	ug/Kg	1		06/11/16 00:01
trans-1,2-Dichloroethene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
trans-1,3-Dichloropropene	35.4 U	70.8	22.1	ug/Kg	1		06/11/16 00:01
Trichloroethene	17.7 U	35.4	11.0	ug/Kg	1		06/11/16 00:01
Trichlorofluoromethane	71.0 U	142	42.5	ug/Kg	1		06/11/16 00:01
Vinyl acetate	142 U	283	87.8	ug/Kg	1		06/11/16 00:01
Vinyl chloride	14.2 U	28.3	8.78	ug/Kg	1		06/11/16 00:01
Xylenes (total)	86.4 J	212	64.6	ug/Kg	1		06/11/16 00:01
Surrogates							
1,2-Dichloroethane-D4 (surr)	108	71-136		%	1		06/11/16 00:01
4-Bromofluorobenzene (surr)	95.6	55-151		%	1		06/11/16 00:01
Toluene-d8 (surr)	104	85-116		%	1		06/11/16 00:01

Results of CZ-29

Client Sample ID: **CZ-29**
Client Project ID: **AJT Mining 16-1018**
Lab Sample ID: 1162856013
Lab Project ID: 1162856

Collection Date: 06/01/16 14:37
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):73.3
Location:

Results by Volatile GC/MS

Batch Information

Analytical Batch: VMS15858
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 06/11/16 00:01
Container ID: 1162856013-B

Prep Batch: VXX28928
Prep Method: SW5035A
Prep Date/Time: 06/01/16 14:37
Prep Initial Wt./Vol.: 32.433 g
Prep Extract Vol: 33.6672 mL



Results of CZ-30

Client Sample ID: CZ-30
Client Project ID: AJT Mining 16-1018
Lab Sample ID: 1162856014
Lab Project ID: 1162856

Collection Date: 06/01/16 14:45
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):70.9
Location:

Results by Semivolatile Organic Fuels

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Diesel Range Organics and Surrogates (5a Androstane).

Batch Information

Analytical Batch: XFC12429
Analytical Method: AK102
Analyst: AEE
Analytical Date/Time: 06/10/16 20:37
Container ID: 1162856014-A

Prep Batch: XXX35471
Prep Method: SW3550C
Prep Date/Time: 06/08/16 17:11
Prep Initial Wt./Vol.: 30.171 g
Prep Extract Vol: 1 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Residual Range Organics and Surrogates (n-Triacontane-d62).

Batch Information

Analytical Batch: XFC12429
Analytical Method: AK103
Analyst: AEE
Analytical Date/Time: 06/10/16 20:37
Container ID: 1162856014-A

Prep Batch: XXX35471
Prep Method: SW3550C
Prep Date/Time: 06/08/16 17:11
Prep Initial Wt./Vol.: 30.171 g
Prep Extract Vol: 1 mL

Results of CZ-30

Client Sample ID: **CZ-30**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856014
 Lab Project ID: 1162856

Collection Date: 06/01/16 14:45
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):70.9
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
1,1,1-Trichloroethane	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
1,1,2,2-Tetrachloroethane	16.9 U	33.9	10.6	ug/Kg	1		06/11/16 00:17
1,1,2-Trichloroethane	13.6 U	27.1	8.40	ug/Kg	1		06/11/16 00:17
1,1-Dichloroethane	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
1,1-Dichloroethene	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
1,1-Dichloropropene	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
1,2,3-Trichlorobenzene	67.5 U	135	40.6	ug/Kg	1		06/11/16 00:17
1,2,3-Trichloropropane	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
1,2,4-Trichlorobenzene	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
1,2,4-Trimethylbenzene	88.0 J	135	40.6	ug/Kg	1		06/11/16 00:17
1,2-Dibromo-3-chloropropane	136 U	271	84.0	ug/Kg	1		06/11/16 00:17
1,2-Dibromoethane	13.6 U	27.1	8.40	ug/Kg	1		06/11/16 00:17
1,2-Dichlorobenzene	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
1,2-Dichloroethane	13.6 U	27.1	8.40	ug/Kg	1		06/11/16 00:17
1,2-Dichloropropane	13.6 U	27.1	8.40	ug/Kg	1		06/11/16 00:17
1,3,5-Trimethylbenzene	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
1,3-Dichlorobenzene	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
1,3-Dichloropropane	13.6 U	27.1	8.40	ug/Kg	1		06/11/16 00:17
1,4-Dichlorobenzene	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
2,2-Dichloropropane	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
2-Butanone (MEK)	339 U	677	211	ug/Kg	1		06/11/16 00:17
2-Chlorotoluene	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
2-Hexanone	339 U	677	211	ug/Kg	1		06/11/16 00:17
4-Chlorotoluene	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
4-Isopropyltoluene	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
4-Methyl-2-pentanone (MIBK)	339 U	677	211	ug/Kg	1		06/11/16 00:17
Benzene	16.9 U	33.9	10.6	ug/Kg	1		06/11/16 00:17
Bromobenzene	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
Bromochloromethane	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
Bromodichloromethane	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
Bromoform	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
Bromomethane	271 U	542	168	ug/Kg	1		06/11/16 00:17
Carbon disulfide	136 U	271	84.0	ug/Kg	1		06/11/16 00:17
Carbon tetrachloride	16.9 U	33.9	10.6	ug/Kg	1		06/11/16 00:17
Chlorobenzene	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
Chloroethane	271 U	542	168	ug/Kg	1		06/11/16 00:17

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J flagging is activated

Results of CZ-30

Client Sample ID: **CZ-30**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856014
 Lab Project ID: 1162856

Collection Date: 06/01/16 14:45
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):70.9
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
Chloromethane	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
cis-1,2-Dichloroethene	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
cis-1,3-Dichloropropene	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
Dibromochloromethane	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
Dibromomethane	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
Dichlorodifluoromethane	67.5 U	135	40.6	ug/Kg	1		06/11/16 00:17
Ethylbenzene	21.7 J	67.7	21.1	ug/Kg	1		06/11/16 00:17
Freon-113	136 U	271	84.0	ug/Kg	1		06/11/16 00:17
Hexachlorobutadiene	67.5 U	135	40.6	ug/Kg	1		06/11/16 00:17
Isopropylbenzene (Cumene)	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
Methylene chloride	136 U	271	84.0	ug/Kg	1		06/11/16 00:17
Methyl-t-butyl ether	136 U	271	84.0	ug/Kg	1		06/11/16 00:17
Naphthalene	144	135	40.6	ug/Kg	1		06/11/16 00:17
n-Butylbenzene	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
n-Propylbenzene	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
o-Xylene	43.3 J	67.7	21.1	ug/Kg	1		06/11/16 00:17
P & M -Xylene	117 J	135	40.6	ug/Kg	1		06/11/16 00:17
sec-Butylbenzene	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
Styrene	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
tert-Butylbenzene	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
Tetrachloroethene	16.9 U	33.9	10.6	ug/Kg	1		06/11/16 00:17
Toluene	52.8 J	67.7	21.1	ug/Kg	1		06/11/16 00:17
trans-1,2-Dichloroethene	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
trans-1,3-Dichloropropene	33.9 U	67.7	21.1	ug/Kg	1		06/11/16 00:17
Trichloroethene	16.9 U	33.9	10.6	ug/Kg	1		06/11/16 00:17
Trichlorofluoromethane	67.5 U	135	40.6	ug/Kg	1		06/11/16 00:17
Vinyl acetate	136 U	271	84.0	ug/Kg	1		06/11/16 00:17
Vinyl chloride	13.6 U	27.1	8.40	ug/Kg	1		06/11/16 00:17
Xylenes (total)	160 J	203	61.7	ug/Kg	1		06/11/16 00:17
Surrogates							
1,2-Dichloroethane-D4 (surr)	104	71-136		%	1		06/11/16 00:17
4-Bromofluorobenzene (surr)	77.5	55-151		%	1		06/11/16 00:17
Toluene-d8 (surr)	106	85-116		%	1		06/11/16 00:17

Results of CZ-30

Client Sample ID: **CZ-30**
Client Project ID: **AJT Mining 16-1018**
Lab Sample ID: 1162856014
Lab Project ID: 1162856

Collection Date: 06/01/16 14:45
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):70.9
Location:

Results by Volatile GC/MS

Batch Information

Analytical Batch: VMS15858
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 06/11/16 00:17
Container ID: 1162856014-B

Prep Batch: VXX28928
Prep Method: SW5035A
Prep Date/Time: 06/01/16 14:45
Prep Initial Wt./Vol.: 37.341 g
Prep Extract Vol: 35.8584 mL



Results of CZ-40

Client Sample ID: CZ-40
Client Project ID: AJT Mining 16-1018
Lab Sample ID: 1162856015
Lab Project ID: 1162856

Collection Date: 06/01/16 10:20
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):62.1
Location:

Results by Semivolatile Organic Fuels

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Diesel Range Organics and Surrogates (5a Androstane).

Batch Information

Analytical Batch: XFC12429
Analytical Method: AK102
Analyst: AEE
Analytical Date/Time: 06/10/16 20:48
Container ID: 1162856015-A
Prep Batch: XXX35471
Prep Method: SW3550C
Prep Date/Time: 06/08/16 17:11
Prep Initial Wt./Vol.: 30.396 g
Prep Extract Vol: 1 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Residual Range Organics and Surrogates (n-Triacontane-d62).

Batch Information

Analytical Batch: XFC12429
Analytical Method: AK103
Analyst: AEE
Analytical Date/Time: 06/10/16 20:48
Container ID: 1162856015-A
Prep Batch: XXX35471
Prep Method: SW3550C
Prep Date/Time: 06/08/16 17:11
Prep Initial Wt./Vol.: 30.396 g
Prep Extract Vol: 1 mL

Results of CZ-40

Client Sample ID: **CZ-40**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856015
 Lab Project ID: 1162856

Collection Date: 06/01/16 10:20
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):62.1
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
1,1,1-Trichloroethane	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
1,1,2,2-Tetrachloroethane	21.9 U	43.8	13.7	ug/Kg	1		06/11/16 00:32
1,1,2-Trichloroethane	17.5 U	35.0	10.9	ug/Kg	1		06/11/16 00:32
1,1-Dichloroethane	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
1,1-Dichloroethene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
1,1-Dichloropropene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
1,2,3-Trichlorobenzene	87.5 U	175	52.6	ug/Kg	1		06/11/16 00:32
1,2,3-Trichloropropane	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
1,2,4-Trichlorobenzene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
1,2,4-Trimethylbenzene	87.5 U	175	52.6	ug/Kg	1		06/11/16 00:32
1,2-Dibromo-3-chloropropane	175 U	350	109	ug/Kg	1		06/11/16 00:32
1,2-Dibromoethane	17.5 U	35.0	10.9	ug/Kg	1		06/11/16 00:32
1,2-Dichlorobenzene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
1,2-Dichloroethane	17.5 U	35.0	10.9	ug/Kg	1		06/11/16 00:32
1,2-Dichloropropane	17.5 U	35.0	10.9	ug/Kg	1		06/11/16 00:32
1,3,5-Trimethylbenzene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
1,3-Dichlorobenzene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
1,3-Dichloropropane	17.5 U	35.0	10.9	ug/Kg	1		06/11/16 00:32
1,4-Dichlorobenzene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
2,2-Dichloropropane	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
2-Butanone (MEK)	438 U	876	273	ug/Kg	1		06/11/16 00:32
2-Chlorotoluene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
2-Hexanone	438 U	876	273	ug/Kg	1		06/11/16 00:32
4-Chlorotoluene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
4-Isopropyltoluene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
4-Methyl-2-pentanone (MIBK)	438 U	876	273	ug/Kg	1		06/11/16 00:32
Benzene	21.9 U	43.8	13.7	ug/Kg	1		06/11/16 00:32
Bromobenzene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
Bromochloromethane	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
Bromodichloromethane	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
Bromoform	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
Bromomethane	351 U	701	217	ug/Kg	1		06/11/16 00:32
Carbon disulfide	175 U	350	109	ug/Kg	1		06/11/16 00:32
Carbon tetrachloride	21.9 U	43.8	13.7	ug/Kg	1		06/11/16 00:32
Chlorobenzene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
Chloroethane	351 U	701	217	ug/Kg	1		06/11/16 00:32

Print Date: 06/24/2016 8:13:24AM

J flagging is activated

Results of CZ-40

Client Sample ID: **CZ-40**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856015
 Lab Project ID: 1162856

Collection Date: 06/01/16 10:20
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):62.1
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
Chloromethane	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
cis-1,2-Dichloroethene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
cis-1,3-Dichloropropene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
Dibromochloromethane	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
Dibromomethane	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
Dichlorodifluoromethane	87.5 U	175	52.6	ug/Kg	1		06/11/16 00:32
Ethylbenzene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
Freon-113	175 U	350	109	ug/Kg	1		06/11/16 00:32
Hexachlorobutadiene	87.5 U	175	52.6	ug/Kg	1		06/11/16 00:32
Isopropylbenzene (Cumene)	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
Methylene chloride	175 U	350	109	ug/Kg	1		06/11/16 00:32
Methyl-t-butyl ether	175 U	350	109	ug/Kg	1		06/11/16 00:32
Naphthalene	87.5 U	175	52.6	ug/Kg	1		06/11/16 00:32
n-Butylbenzene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
n-Propylbenzene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
o-Xylene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
P & M -Xylene	87.5 U	175	52.6	ug/Kg	1		06/11/16 00:32
sec-Butylbenzene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
Styrene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
tert-Butylbenzene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
Tetrachloroethene	21.9 U	43.8	13.7	ug/Kg	1		06/11/16 00:32
Toluene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
trans-1,2-Dichloroethene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
trans-1,3-Dichloropropene	43.8 U	87.6	27.3	ug/Kg	1		06/11/16 00:32
Trichloroethene	21.9 U	43.8	13.7	ug/Kg	1		06/11/16 00:32
Trichlorofluoromethane	87.5 U	175	52.6	ug/Kg	1		06/11/16 00:32
Vinyl acetate	175 U	350	109	ug/Kg	1		06/11/16 00:32
Vinyl chloride	17.5 U	35.0	10.9	ug/Kg	1		06/11/16 00:32
Xylenes (total)	132 U	263	79.9	ug/Kg	1		06/11/16 00:32
Surrogates							
1,2-Dichloroethane-D4 (surr)	107	71-136		%	1		06/11/16 00:32
4-Bromofluorobenzene (surr)	75.8	55-151		%	1		06/11/16 00:32
Toluene-d8 (surr)	106	85-116		%	1		06/11/16 00:32

Results of CZ-40

Client Sample ID: **CZ-40**
Client Project ID: **AJT Mining 16-1018**
Lab Sample ID: 1162856015
Lab Project ID: 1162856

Collection Date: 06/01/16 10:20
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):62.1
Location:

Results by Volatile GC/MS

Batch Information

Analytical Batch: VMS15858
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 06/11/16 00:32
Container ID: 1162856015-B

Prep Batch: VXX28928
Prep Method: SW5035A
Prep Date/Time: 06/01/16 10:20
Prep Initial Wt./Vol.: 35.262 g
Prep Extract Vol: 38.3673 mL



Results of CZ-41

Client Sample ID: CZ-41
Client Project ID: AJT Mining 16-1018
Lab Sample ID: 1162856016
Lab Project ID: 1162856

Collection Date: 06/01/16 14:50
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):70.4
Location:

Results by Semivolatile Organic Fuels

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Diesel Range Organics and Surrogates (5a Androstane).

Batch Information

Analytical Batch: XFC12429
Analytical Method: AK102
Analyst: AEE
Analytical Date/Time: 06/10/16 21:08
Container ID: 1162856016-A

Prep Batch: XXX35471
Prep Method: SW3550C
Prep Date/Time: 06/08/16 17:11
Prep Initial Wt./Vol.: 30.355 g
Prep Extract Vol: 1 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Residual Range Organics and Surrogates (n-Triacontane-d62).

Batch Information

Analytical Batch: XFC12429
Analytical Method: AK103
Analyst: AEE
Analytical Date/Time: 06/10/16 21:08
Container ID: 1162856016-A

Prep Batch: XXX35471
Prep Method: SW3550C
Prep Date/Time: 06/08/16 17:11
Prep Initial Wt./Vol.: 30.355 g
Prep Extract Vol: 1 mL

Results of CZ-41

Client Sample ID: **CZ-41**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856016
 Lab Project ID: 1162856

Collection Date: 06/01/16 14:50
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):70.4
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
1,1,1-Trichloroethane	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
1,1,2,2-Tetrachloroethane	17.9 U	35.9	11.2	ug/Kg	1		06/11/16 00:48
1,1,2-Trichloroethane	14.4 U	28.7	8.90	ug/Kg	1		06/11/16 00:48
1,1-Dichloroethane	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
1,1-Dichloroethene	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
1,1-Dichloropropene	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
1,2,3-Trichlorobenzene	72.0 U	144	43.1	ug/Kg	1		06/11/16 00:48
1,2,3-Trichloropropane	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
1,2,4-Trichlorobenzene	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
1,2,4-Trimethylbenzene	101 J	144	43.1	ug/Kg	1		06/11/16 00:48
1,2-Dibromo-3-chloropropane	144 U	287	89.0	ug/Kg	1		06/11/16 00:48
1,2-Dibromoethane	14.4 U	28.7	8.90	ug/Kg	1		06/11/16 00:48
1,2-Dichlorobenzene	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
1,2-Dichloroethane	14.4 U	28.7	8.90	ug/Kg	1		06/11/16 00:48
1,2-Dichloropropane	14.4 U	28.7	8.90	ug/Kg	1		06/11/16 00:48
1,3,5-Trimethylbenzene	23.7 J	71.8	22.4	ug/Kg	1		06/11/16 00:48
1,3-Dichlorobenzene	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
1,3-Dichloropropane	14.4 U	28.7	8.90	ug/Kg	1		06/11/16 00:48
1,4-Dichlorobenzene	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
2,2-Dichloropropane	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
2-Butanone (MEK)	359 U	718	224	ug/Kg	1		06/11/16 00:48
2-Chlorotoluene	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
2-Hexanone	359 U	718	224	ug/Kg	1		06/11/16 00:48
4-Chlorotoluene	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
4-Isopropyltoluene	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
4-Methyl-2-pentanone (MIBK)	359 U	718	224	ug/Kg	1		06/11/16 00:48
Benzene	17.9 U	35.9	11.2	ug/Kg	1		06/11/16 00:48
Bromobenzene	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
Bromochloromethane	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
Bromodichloromethane	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
Bromoform	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
Bromomethane	287 U	574	178	ug/Kg	1		06/11/16 00:48
Carbon disulfide	144 U	287	89.0	ug/Kg	1		06/11/16 00:48
Carbon tetrachloride	17.9 U	35.9	11.2	ug/Kg	1		06/11/16 00:48
Chlorobenzene	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
Chloroethane	287 U	574	178	ug/Kg	1		06/11/16 00:48

Results of CZ-41

Client Sample ID: **CZ-41**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856016
 Lab Project ID: 1162856

Collection Date: 06/01/16 14:50
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):70.4
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
Chloromethane	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
cis-1,2-Dichloroethene	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
cis-1,3-Dichloropropene	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
Dibromochloromethane	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
Dibromomethane	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
Dichlorodifluoromethane	72.0 U	144	43.1	ug/Kg	1		06/11/16 00:48
Ethylbenzene	26.6 J	71.8	22.4	ug/Kg	1		06/11/16 00:48
Freon-113	144 U	287	89.0	ug/Kg	1		06/11/16 00:48
Hexachlorobutadiene	72.0 U	144	43.1	ug/Kg	1		06/11/16 00:48
Isopropylbenzene (Cumene)	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
Methylene chloride	144 U	287	89.0	ug/Kg	1		06/11/16 00:48
Methyl-t-butyl ether	144 U	287	89.0	ug/Kg	1		06/11/16 00:48
Naphthalene	190	144	43.1	ug/Kg	1		06/11/16 00:48
n-Butylbenzene	25.1 J	71.8	22.4	ug/Kg	1		06/11/16 00:48
n-Propylbenzene	23.7 J	71.8	22.4	ug/Kg	1		06/11/16 00:48
o-Xylene	51.0 J	71.8	22.4	ug/Kg	1		06/11/16 00:48
P & M -Xylene	134 J	144	43.1	ug/Kg	1		06/11/16 00:48
sec-Butylbenzene	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
Styrene	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
tert-Butylbenzene	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
Tetrachloroethene	17.9 U	35.9	11.2	ug/Kg	1		06/11/16 00:48
Toluene	76.1	71.8	22.4	ug/Kg	1		06/11/16 00:48
trans-1,2-Dichloroethene	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
trans-1,3-Dichloropropene	35.9 U	71.8	22.4	ug/Kg	1		06/11/16 00:48
Trichloroethene	17.9 U	35.9	11.2	ug/Kg	1		06/11/16 00:48
Trichlorofluoromethane	72.0 U	144	43.1	ug/Kg	1		06/11/16 00:48
Vinyl acetate	144 U	287	89.0	ug/Kg	1		06/11/16 00:48
Vinyl chloride	14.4 U	28.7	8.90	ug/Kg	1		06/11/16 00:48
Xylenes (total)	185 J	215	65.5	ug/Kg	1		06/11/16 00:48
Surrogates							
1,2-Dichloroethane-D4 (surr)	106	71-136		%	1		06/11/16 00:48
4-Bromofluorobenzene (surr)	97.2	55-151		%	1		06/11/16 00:48
Toluene-d8 (surr)	104	85-116		%	1		06/11/16 00:48

Results of CZ-41

Client Sample ID: **CZ-41**
Client Project ID: **AJT Mining 16-1018**
Lab Sample ID: 1162856016
Lab Project ID: 1162856

Collection Date: 06/01/16 14:50
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):70.4
Location:

Results by Volatile GC/MS

Batch Information

Analytical Batch: VMS15858
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 06/11/16 00:48
Container ID: 1162856016-B

Prep Batch: VXX28928
Prep Method: SW5035A
Prep Date/Time: 06/01/16 14:50
Prep Initial Wt./Vol.: 34.972 g
Prep Extract Vol: 35.3538 mL

Results of Trip Blank

Client Sample ID: **Trip Blank**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856017
 Lab Project ID: 1162856

Collection Date: 06/01/16 09:20
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
1,1,1-Trichloroethane	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
1,1,2,2-Tetrachloroethane	6.30 U	12.6	3.92	ug/Kg	1		06/10/16 21:54
1,1,2-Trichloroethane	5.00 U	10.0	3.11	ug/Kg	1		06/10/16 21:54
1,1-Dichloroethane	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
1,1-Dichloroethene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
1,1-Dichloropropene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
1,2,3-Trichlorobenzene	25.1 U	50.2	15.1	ug/Kg	1		06/10/16 21:54
1,2,3-Trichloropropane	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
1,2,4-Trichlorobenzene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
1,2,4-Trimethylbenzene	25.1 U	50.2	15.1	ug/Kg	1		06/10/16 21:54
1,2-Dibromo-3-chloropropane	50.0 U	100	31.1	ug/Kg	1		06/10/16 21:54
1,2-Dibromoethane	5.00 U	10.0	3.11	ug/Kg	1		06/10/16 21:54
1,2-Dichlorobenzene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
1,2-Dichloroethane	5.00 U	10.0	3.11	ug/Kg	1		06/10/16 21:54
1,2-Dichloropropane	5.00 U	10.0	3.11	ug/Kg	1		06/10/16 21:54
1,3,5-Trimethylbenzene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
1,3-Dichlorobenzene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
1,3-Dichloropropane	5.00 U	10.0	3.11	ug/Kg	1		06/10/16 21:54
1,4-Dichlorobenzene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
2,2-Dichloropropane	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
2-Butanone (MEK)	126 U	251	78.4	ug/Kg	1		06/10/16 21:54
2-Chlorotoluene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
2-Hexanone	126 U	251	78.4	ug/Kg	1		06/10/16 21:54
4-Chlorotoluene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
4-Isopropyltoluene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
4-Methyl-2-pentanone (MIBK)	126 U	251	78.4	ug/Kg	1		06/10/16 21:54
Benzene	6.30 U	12.6	3.92	ug/Kg	1		06/10/16 21:54
Bromobenzene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
Bromochloromethane	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
Bromodichloromethane	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
Bromoform	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
Bromomethane	101 U	201	62.3	ug/Kg	1		06/10/16 21:54
Carbon disulfide	50.0 U	100	31.1	ug/Kg	1		06/10/16 21:54
Carbon tetrachloride	6.30 U	12.6	3.92	ug/Kg	1		06/10/16 21:54
Chlorobenzene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
Chloroethane	101 U	201	62.3	ug/Kg	1		06/10/16 21:54

Print Date: 06/24/2016 8:13:24AM

J flagging is activated



Results of Trip Blank

Client Sample ID: **Trip Blank**
 Client Project ID: **AJT Mining 16-1018**
 Lab Sample ID: 1162856017
 Lab Project ID: 1162856

Collection Date: 06/01/16 09:20
 Received Date: 06/03/16 16:15
 Matrix: Soil/Solid (dry weight)
 Solids (%):
 Location:

Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
Chloromethane	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
cis-1,2-Dichloroethene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
cis-1,3-Dichloropropene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
Dibromochloromethane	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
Dibromomethane	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
Dichlorodifluoromethane	25.1 U	50.2	15.1	ug/Kg	1		06/10/16 21:54
Ethylbenzene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
Freon-113	50.0 U	100	31.1	ug/Kg	1		06/10/16 21:54
Hexachlorobutadiene	25.1 U	50.2	15.1	ug/Kg	1		06/10/16 21:54
Isopropylbenzene (Cumene)	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
Methylene chloride	50.0 U	100	31.1	ug/Kg	1		06/10/16 21:54
Methyl-t-butyl ether	50.0 U	100	31.1	ug/Kg	1		06/10/16 21:54
Naphthalene	25.1 U	50.2	15.1	ug/Kg	1		06/10/16 21:54
n-Butylbenzene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
n-Propylbenzene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
o-Xylene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
P & M -Xylene	25.1 U	50.2	15.1	ug/Kg	1		06/10/16 21:54
sec-Butylbenzene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
Styrene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
tert-Butylbenzene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
Tetrachloroethene	6.30 U	12.6	3.92	ug/Kg	1		06/10/16 21:54
Toluene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
trans-1,2-Dichloroethene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
trans-1,3-Dichloropropene	12.6 U	25.1	7.84	ug/Kg	1		06/10/16 21:54
Trichloroethene	6.30 U	12.6	3.92	ug/Kg	1		06/10/16 21:54
Trichlorofluoromethane	25.1 U	50.2	15.1	ug/Kg	1		06/10/16 21:54
Vinyl acetate	50.0 U	100	31.1	ug/Kg	1		06/10/16 21:54
Vinyl chloride	5.00 U	10.0	3.11	ug/Kg	1		06/10/16 21:54
Xylenes (total)	37.7 U	75.4	22.9	ug/Kg	1		06/10/16 21:54
Surrogates							
1,2-Dichloroethane-D4 (surr)	105	71-136		%	1		06/10/16 21:54
4-Bromofluorobenzene (surr)	115	55-151		%	1		06/10/16 21:54
Toluene-d8 (surr)	108	85-116		%	1		06/10/16 21:54

Print Date: 06/24/2016 8:13:24AM

J flagging is activated

Results of Trip Blank

Client Sample ID: **Trip Blank**
Client Project ID: **AJT Mining 16-1018**
Lab Sample ID: 1162856017
Lab Project ID: 1162856

Collection Date: 06/01/16 09:20
Received Date: 06/03/16 16:15
Matrix: Soil/Solid (dry weight)
Solids (%):
Location:

Results by Volatile GC/MS

Batch Information

Analytical Batch: VMS15858
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 06/10/16 21:54
Container ID: 1162856017-A

Prep Batch: VXX28928
Prep Method: SW5035A
Prep Date/Time: 06/01/16 09:20
Prep Initial Wt./Vol.: 49.765 g
Prep Extract Vol: 25 mL

Method Blank

Blank ID: MB for HBN 1735462 [SPT/9908]

Matrix: Soil/Solid (dry weight)

Blank Lab ID: 1328251

QC for Samples:

1162856001, 1162856002, 1162856003, 1162856004, 1162856005, 1162856006

Results by SM21 2540G

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Solids	100			%

Batch Information

Analytical Batch: SPT9908

Analytical Method: SM21 2540G

Instrument:

Analyst: RJA

Analytical Date/Time: 6/6/2016 4:47:00PM

Print Date: 06/24/2016 8:13:29AM

Duplicate Sample Summary

Original Sample ID: 1162856005

Duplicate Sample ID: 1328252

QC for Samples:

1162856001, 1162856002, 1162856003, 1162856004, 1162856005, 1162856006

Analysis Date: 06/06/2016 16:47

Matrix: Soil/Solid (dry weight)

Results by SM21 2540G

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Solids	63.3	64.7	%	2.10	(< 15)

Batch Information

Analytical Batch: SPT9908

Analytical Method: SM21 2540G

Instrument:

Analyst: RJA

Print Date: 06/24/2016 8:13:30AM

Duplicate Sample Summary

Original Sample ID: 1162858001

Duplicate Sample ID: 1328253

QC for Samples:

1162856006

Analysis Date: 06/06/2016 16:47

Matrix: Soil/Solid (dry weight)

Results by SM21 2540G

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Solids	94.0	93.4	%	0.58	(< 15)

Batch Information

Analytical Batch: SPT9908

Analytical Method: SM21 2540G

Instrument:

Analyst: RJA

Print Date: 06/24/2016 8:13:30AM

Method Blank

Blank ID: MB for HBN 1735554 02 [SFTT/ T9
 Blank 0a8 ID: 13] L54T

Matrix: 2 oil 2olid (dry wpight)

b Q for 2 aCntrpe:

11s] L5s/ / 7, 11s] L5s/ / L, 11s] L5s/ / T, 11s] L5s/ / / , 11s] L5s/ 11, 11s] L5s/ 1] , 11s] L5s/ 13, 11s] L5s/ 14, 11s] L5s/ 15,
 11s] L5s/ 1s

Rpeulte 8y SM21 2540G

<u>araCptpr</u>	<u>Rpeulte</u>	<u>0Ob R00</u>	<u>D0</u>	<u>Unite</u>
Sotal 2olide	1//			%

Batch Information

Analytical Batch: 2 [STT/ T
 Analytical Mpthod: 2M] 1] 54/ G
 InetruCpnt:
 Analyet: RJA
 Analytical DatpRiCp: sFTT/ 1s 5:1/ :// [M

[rint Datp: / sFT 4T/ 1s L:13:33AM

Duplicate Sample Summary

Original Sample ID: 1162850uu6

Duplicate Sample ID: 1A2855u

QC for Sample/ :

1162856uu7, 1162856uu8, 1162856uu0, 1162856u1u, 1162856u11, 1162856u12, 1162856u1A, 1162856u1. ,
1162856u15, 1162856u16

Analysis Date: 2016-07-16 17:1u

Matrix: Soil/Solid (dry weight)

Reference: SM21 2540G

<u>Net</u>	<u>Original</u>	<u>Duplicate</u>	<u>Unit</u>	<u>RPD (%)</u>	<u>RPD CL</u>
<0.6 Solid/	.6	5.0	%	1.0	(B 15)

Batch Information

Analysis Date: 2016-07-16

Analysis Method: SM21 25. uG

Instrument

Analysis Location

Method Blank

Blank ID: MB for HBN 1735497 [VXX/28902]
 Blank Lab ID: 1328461

Matrix: Soil/Solid (dry weight)

QC for Samples:
 1162856005, 1162856006, 1162856007, 1162856008, 1162856009

Results by SW8260B

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
1,1,1,2-Tetrachloroethane	12.5U	25.0	7.80	ug/Kg
1,1,1-Trichloroethane	12.5U	25.0	7.80	ug/Kg
1,1,2,2-Tetrachloroethane	6.25U	12.5	3.90	ug/Kg
1,1,2-Trichloroethane	5.00U	10.0	3.10	ug/Kg
1,1-Dichloroethane	12.5U	25.0	7.80	ug/Kg
1,1-Dichloroethene	12.5U	25.0	7.80	ug/Kg
1,1-Dichloropropene	12.5U	25.0	7.80	ug/Kg
1,2,3-Trichlorobenzene	25.0U	50.0	15.0	ug/Kg
1,2,3-Trichloropropane	12.5U	25.0	7.80	ug/Kg
1,2,4-Trichlorobenzene	12.5U	25.0	7.80	ug/Kg
1,2,4-Trimethylbenzene	25.0U	50.0	15.0	ug/Kg
1,2-Dibromo-3-chloropropane	50.0U	100	31.0	ug/Kg
1,2-Dibromoethane	5.00U	10.0	3.10	ug/Kg
1,2-Dichlorobenzene	12.5U	25.0	7.80	ug/Kg
1,2-Dichloroethane	5.00U	10.0	3.10	ug/Kg
1,2-Dichloropropane	5.00U	10.0	3.10	ug/Kg
1,3,5-Trimethylbenzene	12.5U	25.0	7.80	ug/Kg
1,3-Dichlorobenzene	12.5U	25.0	7.80	ug/Kg
1,3-Dichloropropane	5.00U	10.0	3.10	ug/Kg
1,4-Dichlorobenzene	12.5U	25.0	7.80	ug/Kg
2,2-Dichloropropane	12.5U	25.0	7.80	ug/Kg
2-Butanone (MEK)	125U	250	78.0	ug/Kg
2-Chlorotoluene	12.5U	25.0	7.80	ug/Kg
2-Hexanone	125U	250	78.0	ug/Kg
4-Chlorotoluene	12.5U	25.0	7.80	ug/Kg
4-Isopropyltoluene	12.5U	25.0	7.80	ug/Kg
4-Methyl-2-pentanone (MIBK)	125U	250	78.0	ug/Kg
Benzene	6.25U	12.5	3.90	ug/Kg
Bromobenzene	12.5U	25.0	7.80	ug/Kg
Bromochloromethane	12.5U	25.0	7.80	ug/Kg
Bromodichloromethane	12.5U	25.0	7.80	ug/Kg
Bromoform	12.5U	25.0	7.80	ug/Kg
Bromomethane	100U	200	62.0	ug/Kg
Carbon disulfide	50.0U	100	31.0	ug/Kg
Carbon tetrachloride	6.25U	12.5	3.90	ug/Kg
Chlorobenzene	12.5U	25.0	7.80	ug/Kg
Chloroethane	100U	200	62.0	ug/Kg
Chloroform	12.5U	25.0	7.80	ug/Kg

Print Date: 06/24/2016 8:13:37AM

Method Blank

Blank ID: MB for HBN 1735497 [VXX/28902]
 Blank Lab ID: 1328461

Matrix: Soil/Solid (dry weight)

QC for Samples:
 1162856005, 1162856006, 1162856007, 1162856008, 1162856009

Results by SW8260B

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Chloromethane	12.5U	25.0	7.80	ug/Kg
cis-1,2-Dichloroethene	12.5U	25.0	7.80	ug/Kg
cis-1,3-Dichloropropene	12.5U	25.0	7.80	ug/Kg
Dibromochloromethane	12.5U	25.0	7.80	ug/Kg
Dibromomethane	12.5U	25.0	7.80	ug/Kg
Dichlorodifluoromethane	25.0U	50.0	15.0	ug/Kg
Ethylbenzene	12.5U	25.0	7.80	ug/Kg
Freon-113	50.0U	100	31.0	ug/Kg
Hexachlorobutadiene	25.0U	50.0	15.0	ug/Kg
Isopropylbenzene (Cumene)	12.5U	25.0	7.80	ug/Kg
Methylene chloride	50.0U	100	31.0	ug/Kg
Methyl-t-butyl ether	50.0U	100	31.0	ug/Kg
Naphthalene	25.0U	50.0	15.0	ug/Kg
n-Butylbenzene	12.5U	25.0	7.80	ug/Kg
n-Propylbenzene	12.5U	25.0	7.80	ug/Kg
o-Xylene	12.5U	25.0	7.80	ug/Kg
P & M -Xylene	25.0U	50.0	15.0	ug/Kg
sec-Butylbenzene	12.5U	25.0	7.80	ug/Kg
Styrene	12.5U	25.0	7.80	ug/Kg
tert-Butylbenzene	12.5U	25.0	7.80	ug/Kg
Tetrachloroethene	6.25U	12.5	3.90	ug/Kg
Toluene	12.5U	25.0	7.80	ug/Kg
trans-1,2-Dichloroethene	12.5U	25.0	7.80	ug/Kg
trans-1,3-Dichloropropene	12.5U	25.0	7.80	ug/Kg
Trichloroethene	6.25U	12.5	3.90	ug/Kg
Trichlorofluoromethane	25.0U	50.0	15.0	ug/Kg
Vinyl acetate	50.0U	100	31.0	ug/Kg
Vinyl chloride	5.00U	10.0	3.10	ug/Kg
Xylenes (total)	37.5U	75.0	22.8	ug/Kg
Surrogates				
1,2-Dichloroethane-D4 (surr)	107	71-136		%
4-Bromofluorobenzene (surr)	106	55-151		%
Toluene-d8 (surr)	106	85-116		%

Method Blank

Blank ID: MB for HBN 1735497 [VXX/28902]
Blank Lab ID: 1328461

Matrix: Soil/Solid (dry weight)

QC for Samples:
1162856005, 1162856006, 1162856007, 1162856008, 1162856009

Results by SW8260B

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
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Batch Information

Analytical Batch: VMS15842
Analytical Method: SW8260B
Instrument: Agilent 7890-75MS
Analyst: S.P
Analytical Date/Time: 6/7/2016 10:52:00AM

Prep Batch: VXX28902
Prep Method: SW5035A
Prep Date/Time: 6/7/2016 8:00:00AM
Prep Initial Wt./Vol.: 50 g
Prep Extract Vol: 25 mL

Print Date: 06/24/2016 8:13:37AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1162856 [VXX28902]

Blank Spike Lab ID: 1328462

Date Analyzed: 06/07/2016 11:39

Matrix: Soil/Solid (dry weight)

QC for Samples: 1162856005, 1162856006, 1162856007, 1162856008, 1162856009

Results by SW8260B

Parameter	Blank Spike (ug/Kg)			CL
	Spike	Result	Rec (%)	
1,1,1,2-Tetrachloroethane	750	794	106	(78-125)
1,1,1-Trichloroethane	750	823	110	(73-130)
1,1,2,2-Tetrachloroethane	750	891	119	(70-124)
1,1,2-Trichloroethane	750	860	115	(78-121)
1,1-Dichloroethane	750	729	97	(76-125)
1,1-Dichloroethene	750	753	100	(70-131)
1,1-Dichloropropene	750	797	106	(76-125)
1,2,3-Trichlorobenzene	750	607	81	(66-130)
1,2,3-Trichloropropane	750	876	117	(73-125)
1,2,4-Trichlorobenzene	750	652	87	(67-129)
1,2,4-Trimethylbenzene	750	724	97	(75-123)
1,2-Dibromo-3-chloropropane	750	797	106	(61-132)
1,2-Dibromoethane	750	794	106	(78-122)
1,2-Dichlorobenzene	750	802	107	(78-121)
1,2-Dichloroethane	750	781	104	(73-128)
1,2-Dichloropropane	750	821	109	(76-123)
1,3,5-Trimethylbenzene	750	777	104	(73-124)
1,3-Dichlorobenzene	750	792	106	(77-121)
1,3-Dichloropropane	750	789	105	(77-121)
1,4-Dichlorobenzene	750	805	107	(75-120)
2,2-Dichloropropane	750	777	104	(67-133)
2-Butanone (MEK)	2250	2140	95	(51-148)
2-Chlorotoluene	750	789	105	(75-122)
2-Hexanone	2250	2570	114	(53-145)
4-Chlorotoluene	750	825	110	(72-124)
4-Isopropyltoluene	750	643	86	(73-127)
4-Methyl-2-pentanone (MIBK)	2250	2560	114	(65-135)
Benzene	750	770	103	(77-121)
Bromobenzene	750	848	113	(78-121)
Bromochloromethane	750	754	100	(78-125)
Bromodichloromethane	750	797	106	(75-127)
Bromoform	750	843	112	(67-132)
Bromomethane	750	807	108	(53-143)
Carbon disulfide	1130	982	87	(63-132)

Print Date: 06/24/2016 8:13:39AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1162856 [VXX28902]

Blank Spike Lab ID: 1328462

Date Analyzed: 06/07/2016 11:39

Matrix: Soil/Solid (dry weight)

QC for Samples: 1162856005, 1162856006, 1162856007, 1162856008, 1162856009

Results by SW8260B

Parameter	Blank Spike (ug/Kg)			CL
	Spike	Result	Rec (%)	
Carbon tetrachloride	750	763	102	(70-135)
Chlorobenzene	750	821	109	(79-120)
Chloroethane	750	861	115	(59-139)
Chloroform	750	737	98	(78-123)
Chloromethane	750	745	99	(50-136)
cis-1,2-Dichloroethene	750	730	97	(77-123)
cis-1,3-Dichloropropene	750	770	103	(74-126)
Dibromochloromethane	750	829	111	(74-126)
Dibromomethane	750	802	107	(78-125)
Dichlorodifluoromethane	750	773	103	(29-149)
Ethylbenzene	750	823	110	(76-122)
Freon-113	1130	1190	105	(66-136)
Hexachlorobutadiene	750	665	89	(61-135)
Isopropylbenzene (Cumene)	750	769	103	(68-134)
Methylene chloride	750	698	93	(70-128)
Methyl-t-butyl ether	1130	1080	96	(73-125)
Naphthalene	750	683	91	(62-129)
n-Butylbenzene	750	696	93	(70-128)
n-Propylbenzene	750	771	103	(73-125)
o-Xylene	750	808	108	(77-123)
P & M -Xylene	1500	1640	109	(77-124)
sec-Butylbenzene	750	720	96	(73-126)
Styrene	750	766	102	(76-124)
tert-Butylbenzene	750	725	97	(73-125)
Tetrachloroethene	750	817	109	(73-128)
Toluene	750	830	111	(77-121)
trans-1,2-Dichloroethene	750	721	96	(74-125)
trans-1,3-Dichloropropene	750	803	107	(71-130)
Trichloroethene	750	795	106	(77-123)
Trichlorofluoromethane	750	611	81	(62-140)
Vinyl acetate	750	778	104	(50-151)
Vinyl chloride	750	803	107	(56-135)
Xylenes (total)	2250	2450	109	(78-124)

Print Date: 06/24/2016 8:13:39AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1162856 [VXX28902]
 Blank Spike Lab ID: 1328462
 Date Analyzed: 06/07/2016 11:39

Matrix: Soil/Solid (dry weight)

QC for Samples: 1162856005, 1162856006, 1162856007, 1162856008, 1162856009

Results by SW8260B

Parameter	Blank Spike (%)			CL
	Spike	Result	Rec (%)	
Surrogates				
1,2-Dichloroethane-D4 (surr)	750	106	106	(71-136)
4-Bromofluorobenzene (surr)	750	111	111	(55-151)
Toluene-d8 (surr)	750	112	112	(85-116)

Batch Information

Analytical Batch: **VMS15842**
 Analytical Method: **SW8260B**
 Instrument: **Agilent 7890-75MS**
 Analyst: **S.P**

Prep Batch: **VXX28902**
 Prep Method: **SW5035A**
 Prep Date/Time: **06/07/2016 08:00**
 Spike Init Wt./Vol.: 750 ug/Kg Extract Vol: 25 mL
 Dupe Init Wt./Vol.: Extract Vol:

Print Date: 06/24/2016 8:13:39AM



Matrix Spike Summary

Original Sample ID: 1162858005
 MS Sample ID: 1328463 MS
 MSD Sample ID: 1328464 MSD

Analysis Date: 06/07/2016 14:20
 Analysis Date: 06/07/2016 14:36
 Analysis Date: 06/07/2016 14:52
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1162856005, 1162856006, 1162856007, 1162856008, 1162856009

Results by SW8260B

Parameter	Sample	Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
1,1,1,2-Tetrachloroethane	19.7U	475	504	106	475	501	105	78-125	0.66	(< 20)
1,1,1-Trichloroethane	19.7U	475	511	108	475	539	114	73-130	5.30	(< 20)
1,1,2,2-Tetrachloroethane	9.87U	475	559	118	475	547	115	70-124	2.10	(< 20)
1,1,2-Trichloroethane	7.89U	475	562	118	475	548	116	78-121	2.40	(< 20)
1,1-Dichloroethane	19.7U	475	456	96	475	476	100	76-125	4.20	(< 20)
1,1-Dichloroethene	19.7U	475	506	107	475	533	112	70-131	5.20	(< 20)
1,1-Dichloropropene	19.7U	475	505	107	475	525	111	76-125	3.80	(< 20)
1,2,3-Trichlorobenzene	39.5U	475	438	92	475	457	96	66-130	4.30	(< 20)
1,2,3-Trichloropropane	19.7U	475	561	118	475	553	117	73-125	1.30	(< 20)
1,2,4-Trichlorobenzene	19.7U	475	441	93	475	455	96	67-129	3.20	(< 20)
1,2,4-Trimethylbenzene	39.5U	475	453	96	475	457	96	75-123	0.87	(< 20)
1,2-Dibromo-3-chloropropane	78.9U	475	519	109	475	508	107	61-132	2.10	(< 20)
1,2-Dibromoethane	7.89U	475	506	107	475	488	103	78-122	3.80	(< 20)
1,2-Dichlorobenzene	19.7U	475	510	107	475	518	109	78-121	1.50	(< 20)
1,2-Dichloroethane	7.89U	475	494	104	475	497	105	73-128	0.61	(< 20)
1,2-Dichloropropane	7.89U	475	521	110	475	525	111	76-123	0.85	(< 20)
1,3,5-Trimethylbenzene	19.7U	475	492	104	475	491	104	73-124	0.19	(< 20)
1,3-Dichlorobenzene	19.7U	475	510	108	475	506	107	77-121	0.84	(< 20)
1,3-Dichloropropane	7.89U	475	505	106	475	493	104	77-121	2.40	(< 20)
1,4-Dichlorobenzene	19.7U	475	512	108	475	512	108	75-120	0.00	(< 20)
2,2-Dichloropropane	19.7U	475	482	102	475	516	109	67-133	6.60	(< 20)
2-Butanone (MEK)	197U	1424	1424	100	1424	1402	99	51-148	1.70	(< 20)
2-Chlorotoluene	19.7U	475	499	105	475	498	105	75-122	0.22	(< 20)
2-Hexanone	197U	1424	1661	117	1424	1564	110	53-145	6.40	(< 20)
4-Chlorotoluene	19.7U	475	526	111	475	524	111	72-124	0.39	(< 20)
4-Isopropyltoluene	19.7U	475	409	86	475	412	87	73-127	0.65	(< 20)
4-Methyl-2-pentanone (MIBK)	197U	1424	1564	110	1424	1575	110	65-135	0.43	(< 20)
Benzene	9.87U	475	488	103	475	512	108	77-121	4.90	(< 20)
Bromobenzene	19.7U	475	539	114	475	539	114	78-121	0.12	(< 20)
Bromochloromethane	19.7U	475	472	100	475	472	100	78-125	0.13	(< 20)
Bromodichloromethane	19.7U	475	492	104	475	489	103	75-127	0.45	(< 20)
Bromoform	19.7U	475	523	110	475	502	106	67-132	4.10	(< 20)
Bromomethane	158U	475	413	87	475	483	102	53-143	15.80	(< 20)
Carbon disulfide	78.9U	712	675	95	712	701	99	63-132	3.80	(< 20)
Carbon tetrachloride	9.87U	475	470	99	475	487	103	70-135	3.40	(< 20)
Chlorobenzene	19.7U	475	523	110	475	521	110	79-120	0.30	(< 20)
Chloroethane	158U	475	465	98	475	442	93	59-139	5.00	(< 20)

Print Date: 06/24/2016 8:13:40AM



Matrix Spike Summary

Original Sample ID: 1162858005
 MS Sample ID: 1328463 MS
 MSD Sample ID: 1328464 MSD

Analysis Date: 06/07/2016 14:20
 Analysis Date: 06/07/2016 14:36
 Analysis Date: 06/07/2016 14:52
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1162856005, 1162856006, 1162856007, 1162856008, 1162856009

Results by SW8260B

Parameter	Sample	Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Chloroform	19.7U	475	465	98	475	475	100	78-123	2.10	(< 20)
Chloromethane	19.7U	475	399	84	475	415	87	50-136	3.90	(< 20)
cis-1,2-Dichloroethene	19.7U	475	466	98	475	477	101	77-123	2.30	(< 20)
cis-1,3-Dichloropropene	19.7U	475	482	102	475	484	102	74-126	0.26	(< 20)
Dibromochloromethane	19.7U	475	524	110	475	509	107	74-126	2.90	(< 20)
Dibromomethane	19.7U	475	497	105	475	494	104	78-125	0.77	(< 20)
Dichlorodifluoromethane	39.5U	475	388	82	475	413	87	29-149	6.40	(< 20)
Ethylbenzene	19.7U	475	522	110	475	526	111	76-122	0.94	(< 20)
Freon-113	78.9U	712	806	113	712	854	120	66-136	5.80	(< 20)
Hexachlorobutadiene	39.5U	475	462	97	475	465	98	61-135	0.82	(< 20)
Isopropylbenzene (Cumene)	19.7U	475	493	104	475	480	101	68-134	2.80	(< 20)
Methylene chloride	78.9U	475	450	95	475	461	97	70-128	2.50	(< 20)
Methyl-t-butyl ether	78.9U	712	690	97	712	710	100	73-125	2.80	(< 20)
Naphthalene	39.5U	475	490	103	475	515	108	62-129	4.90	(< 20)
n-Butylbenzene	19.7U	475	433	91	475	439	93	70-128	1.40	(< 20)
n-Propylbenzene	19.7U	475	488	103	475	488	103	73-125	0.03	(< 20)
o-Xylene	19.7U	475	520	110	475	515	108	77-123	1.20	(< 20)
P & M -Xylene	39.5U	949	1043	110	949	1036	109	77-124	0.70	(< 20)
sec-Butylbenzene	19.7U	475	453	96	475	454	96	73-126	0.28	(< 20)
Styrene	19.7U	475	488	103	475	478	101	76-124	2.20	(< 20)
tert-Butylbenzene	19.7U	475	464	98	475	463	98	73-125	0.34	(< 20)
Tetrachloroethene	9.87U	475	533	112	475	537	113	73-128	0.83	(< 20)
Toluene	19.7U	475	529	111	475	536	113	77-121	1.40	(< 20)
trans-1,2-Dichloroethene	19.7U	475	458	97	475	482	102	74-125	4.90	(< 20)
trans-1,3-Dichloropropene	19.7U	475	504	106	475	499	105	71-130	1.00	(< 20)
Trichloroethene	9.87U	475	505	106	475	516	109	77-123	2.20	(< 20)
Trichlorofluoromethane	39.5U	475	460	97	475	466	98	62-140	1.40	(< 20)
Vinyl acetate	78.9U	475	472	100	475	481	102	50-151	1.90	(< 20)
Vinyl chloride	7.89U	475	425	90	475	464	98	56-135	8.60	(< 20)
Xylenes (total)	59.2U	1424	1564	110	1424	1553	109	78-124	0.85	(< 20)
Surrogates										
1,2-Dichloroethane-D4 (surr)		475	480	101	475	481	101	71-136	0.33	
4-Bromofluorobenzene (surr)		1262	1294	103	1262	1294	102	55-151	0.59	
Toluene-d8 (surr)		475	520	110	475	528	111	85-116	1.50	

Print Date: 06/24/2016 8:13:40AM

Matrix Spike Summary

Original Sample ID: 1162858005
 MS Sample ID: 1328463 MS
 MSD Sample ID: 1328464 MSD

Analysis Date:
 Analysis Date: 06/07/2016 14:36
 Analysis Date: 06/07/2016 14:52
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1162856005, 1162856006, 1162856007, 1162856008, 1162856009

Results by SW8260B

Parameter	Sample	Matrix Spike (%)			Spike Duplicate (%)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			

Batch Information

Analytical Batch: VMS15842
 Analytical Method: SW8260B
 Instrument: Agilent 7890-75MS
 Analyst: S.P
 Analytical Date/Time: 6/7/2016 2:36:00PM

Prep Batch: VXX28902
 Prep Method: Vol. Extraction SW8260 Field Extracted L
 Prep Date/Time: 6/7/2016 8:00:00AM
 Prep Initial Wt./Vol.: 85.26g
 Prep Extract Vol: 25.00mL

Print Date: 06/24/2016 8:13:40AM

Method Blank

Blank ID: MB for HBN 1735499 [VXX/294298
Blank 0a] ID: 1324L9b

Matrix: Coil/Colid (dry waight)

6 Q for CaS ntp:

11b295bss1, 11b295bss2, 11b295bss3, 11b295bssL, 11b295bs1s, 11b295bs11, 11b295bs12, 11b295bs13, 11b295bs1L, 11b295bs15, 11b295bs1b, 11b295bs17

Rpeulte] y SW8260B

<u>ParaS ptptr</u>	<u>Rpeulte</u>	<u>006 /Q0</u>	<u>D0</u>	<u>Unite</u>
1,1,1,2-Tptrachloropthanp	12.5U	25.s	7.9s	ug/Kg
1,1,1-Trichloropthanp	12.5U	25.s	7.9s	ug/Kg
1,1,2,2-Tptrachloropthanp	b.25U	12.5	3.4s	ug/Kg
1,1,2-Trichloropthanp	5.ssU	1s.s	3.1s	ug/Kg
1,1-Dichloropthanp	12.5U	25.s	7.9s	ug/Kg
1,1-Dichloropthpnp	12.5U	25.s	7.9s	ug/Kg
1,1-Dichloromrompnp	12.5U	25.s	7.9s	ug/Kg
1,2,3-Trichloro] pnzpn	25.sU	5s.s	15.s	ug/Kg
1,2,3-Trichloromrompnp	12.5U	25.s	7.9s	ug/Kg
1,2,L-Trichloro] pnzpn	12.5U	25.s	7.9s	ug/Kg
1,2,L-TriS pthyl] pnzpn	25.sU	5s.s	15.s	ug/Kg
1,2-Di] roS o-3-chloromrompnp	5s.sU	1ss	31.s	ug/Kg
1,2-Di] roS opthanp	5.ssU	1s.s	3.1s	ug/Kg
1,2-Dichloro] pnzpn	12.5U	25.s	7.9s	ug/Kg
1,2-Dichloropthanp	5.ssU	1s.s	3.1s	ug/Kg
1,2-Dichloromrompnp	5.ssU	1s.s	3.1s	ug/Kg
1,3,5-TriS pthyl] pnzpn	12.5U	25.s	7.9s	ug/Kg
1,3-Dichloro] pnzpn	12.5U	25.s	7.9s	ug/Kg
1,3-Dichloromrompnp	5.ssU	1s.s	3.1s	ug/Kg
1,L-Dichloro] pnzpn	12.5U	25.s	7.9s	ug/Kg
2,2-Dichloromrompnp	12.5U	25.s	7.9s	ug/Kg
2-Butanonp (MEK)	125U	25s	79.s	ug/Kg
2-Qhlorotolupnp	12.5U	25.s	7.9s	ug/Kg
2-Hpxanonp	125U	25s	79.s	ug/Kg
L-Qhlorotolupnp	12.5U	25.s	7.9s	ug/Kg
L-leonronyltolupnp	12.5U	25.s	7.9s	ug/Kg
L-Mphtyl-2-rpntanonp (MIBK)	125U	25s	79.s	ug/Kg
Bpnzpn	b.25U	12.5	3.4s	ug/Kg
BroS o] pnzpn	12.5U	25.s	7.9s	ug/Kg
BroS ochloroS pthanp	12.5U	25.s	7.9s	ug/Kg
BroS odichloroS pthanp	12.5U	25.s	7.9s	ug/Kg
BroS ofoS	12.5U	25.s	7.9s	ug/Kg
BroS oS pthanp	1ssU	2ss	b2.s	ug/Kg
Qar] on dieulfidp	5s.sU	1ss	31.s	ug/Kg
Qar] on tptrachloridp	b.25U	12.5	3.4s	ug/Kg
Qhloro] pnzpn	12.5U	25.s	7.9s	ug/Kg
Qhloropthanp	1ssU	2ss	b2.s	ug/Kg
QhlorofoS	12.5U	25.s	7.9s	ug/Kg

Print Datp: sb/2L/2s1b 9:13:L1AM

Method Blank

Blank ID: MB for HBN 1735499 [VXX/294298]
 Blank 0a] ID: 1324L9b

Matrix: Coil/Colid (dry waight)

6 Q for CaS ntpc:

11b295bss1, 11b295bss2, 11b295bss3, 11b295bssL, 11b295bs1s, 11b295bs11, 11b295bs12, 11b295bs13, 11b295bs1L,
 11b295bs15, 11b295bs1b, 11b295bs17

Rpeulte] y SW8260B

<u>ParaS ptptr</u>	<u>Rpeulte</u>	<u>006 /Q0</u>	<u>D0</u>	<u>Unite</u>
QhloroS pthanp	12.5U	25.s	7.9s	ug/Kg
cie-1,2-Dichloropthpnp	12.5U	25.s	7.9s	ug/Kg
cie-1,3-Dichloromrompnp	12.5U	25.s	7.9s	ug/Kg
Dij] roS ochloroS pthanp	12.5U	25.s	7.9s	ug/Kg
Dij] roS oS pthanp	12.5U	25.s	7.9s	ug/Kg
DichlorodifluoroS pthanp	25.sU	5s.s	15.s	ug/Kg
Ethyl] pnznp	12.5U	25.s	7.9s	ug/Kg
Frpon-113	5s.sU	1ss	31.s	ug/Kg
Hpxachloro] utadipnp	25.sU	5s.s	15.s	ug/Kg
leomromyl] pnznp (QuS pnp)	12.5U	25.s	7.9s	ug/Kg
Mpthylpnp chloridp	5s.sU	1ss	31.s	ug/Kg
Mpthyl-t-] utyl pthpr	5s.sU	1ss	31.s	ug/Kg
Namhthalpnp	25.sU	5s.s	15.s	ug/Kg
n-Butyl] pnznp	12.5U	25.s	7.9s	ug/Kg
n-Promyl] pnznp	12.5U	25.s	7.9s	ug/Kg
o-Xylpnp	12.5U	25.s	7.9s	ug/Kg
P & M -Xylpnp	25.sU	5s.s	15.s	ug/Kg
epc-Butyl] pnznp	12.5U	25.s	7.9s	ug/Kg
Ctyrnp	12.5U	25.s	7.9s	ug/Kg
tprt-Butyl] pnznp	12.5U	25.s	7.9s	ug/Kg
Tptrachloropthpnp	b.25U	12.5	3.4s	ug/Kg
Tolupnp	12.5U	25.s	7.9s	ug/Kg
trane-1,2-Dichloropthpnp	12.5U	25.s	7.9s	ug/Kg
trane-1,3-Dichloromrompnp	12.5U	25.s	7.9s	ug/Kg
Trichloropthpnp	b.25U	12.5	3.4s	ug/Kg
TrichlorofluoroS pthanp	25.sU	5s.s	15.s	ug/Kg
Vinyl acptatp	5s.sU	1ss	31.s	ug/Kg
Vinyl chloridp	5.ssU	1s.s	3.1s	ug/Kg
Xylpnp (total)	37.5U	75.s	22.9	ug/Kg
Surrogates				
1,2-Dichloropthpnp-DL (eurr)	1s7	71-13b		%
L-BroS ofluoro] pnznp (eurr)	45	55-151		%
Tolupnp-d9 (eurr)	1sb	95-11b		%

Method Blank

Blank ID: MB for HBN 1735499 [VXX/294298
Blank 0a] ID: 1324L9b

Matrix: Coil/Colid (dry wpight)

6 Q for CaS ntp:

11b295bss1, 11b295bss2, 11b295bss3, 11b295bssL, 11b295bs1s, 11b295bs11, 11b295bs12, 11b295bs13, 11b295bs1L,
11b295bs15, 11b295bs1b, 11b295bs17

Rpeulte] y SW8260B

ParaS ptr

Rpeulte

006 /Q0

D0

Unite

Batch Information

Analytical Batch: VMC15959
Analytical Mpthod: CW92bsB
InetruS pnt: Agilpnt 794s-75MC
Analyet: NRB
Analytical Datp/TiSp: b/1s/2s1b b:29:ssPM

PrpmBatch: VXX29429
PrpmMpthod: CW5s35A
PrpmDatp/TiSp: b/1s/2s1b 12:3s:ssAM
PrpmInitial Wt./Vol.: 5s g
PrpmExtract Vol: 25 S0

Print Datp: sb/2L/2s1b 9:13:L1AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1162856 [VXX289280

Blank Spike La] ID: 1b29384

Date Analyzed: / 6/7/ 2/ 16 19:/ 2

Matrix: Soil/Solid (dry weight)

QC for Samples: 1162856/ / 1, 1162856/ / 2, 1162856/ / b, 1162856/ / 3, 1162856/ 1/ , 1162856/ 11, 1162856/ 12, 1162856/ 1b, 1162856/ 13, 1162856/ 15, 1162856/ 16, 1162856/ 14

Results] y SW8260B

Parameter	Blank Spike (ug/Kg)			CL
	Spike	Result	Rec (%)	
1,1,1,2-Tetrachloroethane	45/	4b3	98	(48-125)
1,1,1-Trichloroethane	45/	818	1/ 9	(4b-1b/)
1,1,2,2-Tetrachloroethane	45/	81/	1/ 8	(4/ -123)
1,1,2-Trichloroethane	45/	483	1/ 5	(48-121)
1,1-Dichloroethane	45/	4b4	98	(46-125)
1,1-Dichloroethene	45/	8b/	111	(4/ -1b1)
1,1-Dichloropropene	45/	44/	1/ b	(46-125)
1,2,b-Trichloro] enzene	45/	66b	88	(66-1b/)
1,2,b-Trichloropropane	45/	852	113	(4b-125)
1,2,3-Trichloro] enzene	45/	69/	92	(64-129)
1,2,3-Trimethyl] enzene	45/	694	9b	(45-12b)
1,2-Di] romo-b-chloropropane	45/	8/ 5	1/ 4	(61-1b2)
1,2-Di] romoethane	45/	439	1/ /	(48-122)
1,2-Dichloro] enzene	45/	432	99	(48-121)
1,2-Dichloroethane	45/	421	96	(4b-128)
1,2-Dichloropropane	45/	462	1/ 2	(46-12b)
1,b,5-Trimethyl] enzene	45/	432	99	(4b-123)
1,b-Dichloro] enzene	45/	4b4	98	(44-121)
1,b-Dichloropropane	45/	4b2	98	(44-121)
1,3-Dichloro] enzene	45/	438	1/ /	(45-12/)
2,2-Dichloropropane	45/	84b	116	(64-1bb)
2-Butanone (MEK)	225/	183/	82	(51-138)
2-Chlorotoluene	45/	44/	1/ b	(45-122)
2-Hexanone	225/	2b8/	1/ 6	(5b-135)
3-Chlorotoluene	45/	443	1/ b	(42-123)
3-Isopropyltoluene	45/	632	86	(4b-124)
3-Methyl-2-pentanone (MIBK)	225/	2b2/	1/ b	(65-1b5)
Benzene	45/	4b2	98	(44-121)
Bromo] enzene	45/	49/	1/ 5	(48-121)
Bromochloromethane	45/	432	99	(48-125)
Bromodichloromethane	45/	4b9	99	(45-124)
Bromoform	45/	486	1/ 5	(64-1b2)
Bromomethane	45/	411	95	(5b-13b)
Car] on disulfide	11b/	122/	1/ 8	(6b-1b2)

Print Date: / 6/23/2/ 16 8:1b:32AM



Blank Spike Summary

Blank Spike ID: LCS for HBN 1162856 [VXX289280
 Blank Spike La] ID: 1b29384
 Date Analyzed: / 6/7/ 2/ 16 19:/ 2

Matrix: Soil/Solid (dry weight)

QC for Samples: 1162856/ / 1, 1162856/ / 2, 1162856/ / b, 1162856/ / 3, 1162856/ 1/ , 1162856/ 11, 1162856/ 12, 1162856/ 1b, 1162856/ 13, 1162856/ 15, 1162856/ 16, 1162856/ 14

Results] y SW8260B

Parameter	Blank Spike (ug/Kg)			CL
	Spike	Result	Rec (%)	
Car] on tetrachloride	45/	489	1/ 5	(4/ -1b5)
Chloro] enzene	45/	459	1/ 1	(49-12/)
Chloroethane	45/	4b9	99	(59-1b9)
Chloroform	45/	4/ 5	93	(48-12b)
Chloromethane	45/	4b/	94	(5/ -1b6)
cis-1,2-Dichloroethene	45/	45b	1/ /	(44-12b)
cis-1,b-Dichloropropene	45/	45b	1/ /	(43-126)
Di] romochloromethane	45/	461	1/ 1	(43-126)
Di] romomethane	45/	439	1/ /	(48-125)
Dichlorodifluoromethane	45/	814	1/ 9	(29-139)
Ethyl] enzene	45/	436	1/ /	(46-122)
Freon-11b	11b/	126/	112	(66-1b6)
Hexachloro] utadiene	45/	454	1/ 1	(61-1b5)
Isopropyl] enzene (Cumene)	45/	4b3	98	(68-1b3)
Methylene chloride	45/	4b4	98	(4/ -128)
Methyl-t] utyl ether	11b/	1/ 4/	95	(4b-125)
Naphthalene	45/	452	1/ /	(62-129)
n-Butyl] enzene	45/	64b	9/	(4/ -128)
n-Propyl] enzene	45/	4b6	98	(4b-125)
o-Xylene	45/	434	1/ /	(44-12b)
P & M -Xylene	15/ /	15b/	1/ 2	(44-123)
sec-Butyl] enzene	45/	691	92	(4b-126)
Styrene	45/	43/	99	(46-123)
tert-Butyl] enzene	45/	4/ /	9b	(4b-125)
Tetrachloroethene	45/	436	1/ /	(4b-128)
Toluene	45/	4b1	98	(44-121)
trans-1,2-Dichloroethene	45/	4b6	98	(43-125)
trans-1,b-Dichloropropene	45/	48/	1/ 3	(41-1b/)
Trichloroethene	45/	454	1/ 1	(44-12b)
Trichlorofluoromethane	45/	846	114	(62-13/)
Vinyl acetate	45/	443	1/ b	(5/ -151)
Vinyl chloride	45/	44/	1/ b	(56-1b5)
Xylenes (total)	225/	224/	1/ 1	(48-123)

Print Date: / 6/23/2/ 16 8:1b:32AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1162856 [VXX289280
 Blank Spike La] ID: 1b29384
 Date Analyzed: / 6/7/ 2/ 16 19:/ 2

Matrix: Soil/Solid (dry weight)

QC for Samples: 1162856/ / 1, 1162856/ / 2, 1162856/ / b, 1162856/ / 3, 1162856/ 1/ , 1162856/ 11, 1162856/ 12,
 1162856/ 1b, 1162856/ 13, 1162856/ 15, 1162856/ 16, 1162856/ 14

Results] y SW8260B

Parameter	Blank Spike (%)			CL
	Spike	Result	Rec (%)	
Surrogates				
1,2-Dichloroethane-D3 (surr)	45/	94.9	98	(41-1b6)
3-Bromofluoro] enzene (surr)	45/	1/ 3	1/ 3	(55-151)
Toluene-d8 (surr)	45/	1/ b	1/ b	(85-116)

Batch Information

Analytical Batch: **VMS15858**
 Analytical Method: **SW8260B**
 Instrument: **Agilent 7890-75MS**
 Analyst: **NRB**

Prep Batch: **VXX28928**
 Prep Method: **SW5035A**
 Prep Date/Time: **06/10/2016 00:30**
 Spike Init Wt./Vol.: 45/ ug/Kg Extract Vol: 25 mL
 Dupe Init Wt./Vol.: Extract Vol:

Print Date: / 6/23/2/ 16 8:1b:32AM

Matrix Spike Summary

Original Sample ID: 1162856010
 MS Sample ID: 1324A88 MS
 MSD Sample ID: 1324A84 MSD

Analyst Date: 06/10/2016 23:13
 Analyst Date: 06/10/2016 20:18
 Analyst Date: 06/10/2016 20:3A
 Matrix: Soil/Solid (dry weight)

QC for Sample: 1162856001, 1162856002, 1162856003, 116285600A, 1162856010, 1162856011, 1162856012, 1162856013, 116285601A, 1162856015, 1162856016, 1162856019

Retul/bs SW8260B

Parameter	Sample	Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)			CL	RPD (%)	RPD CL
		Spike	Retul/	Rec (%)	Spike	Retul/	Rec (%)			
1,1,1,2-Tetrachloroethane	14.4U	84A	869	49	84A	81A	41	98-125	6.20	(< 20)
1,1,1-Trichloroethane	14.4U	84A	422	103	84A	411	102	93-130	1.10	(< 20)
1,1,2,2-Tetrachloroethane	4.45U	84A	466	108	84A	1001	112	90-12A	3.50	(< 20)
1,1,2-Trichloroethane	9.45U	84A	430	10A	84A	400	101	98-121	3.30	(< 20)
1,1-Dichloroethane	14.4U	84A	89A	48	84A	852	45	96-125	2.50	(< 20)
1,1-Dichloroethene	14.4U	84A	403	101	84A	405	101	90-131	0.20	(< 20)
1,1-Dichloropropene	14.4U	84A	862	46	84A	850	45	96-125	1.30	(< 20)
1,2,3-Trichlorobenzene	34.8U	84A	86A	49	84A	405	101	66-130	A60	(< 20)
1,2,3-Trichloropropane	14.4U	84A	1010	113	84A	10A1	116	93-125	3.10	(< 20)
1,2,4-Trichlorobenzene	14.4U	84A	8A4	45	84A	88A	44	69-124	3.40	(< 20)
1,2,4-Trimechylbenzene	34.8U	84A	833	43	84A	815	41	95-123	2.10	(< 20)
1,2-Dibromo-3-chloropropane	94.5U	84A	405	101	84A	456	109	61-132	5.50	(< 20)
1,2-Dibromoethane	9.45U	84A	844	100	84A	862	46	98-122	A20	(< 20)
1,2-Dichlorobenzene	14.4U	84A	896	48	84A	882	44	98-121	0.58	(< 20)
1,2-Dichloroethane	9.45U	84A	855	46	84A	8A5	45	93-128	1.00	(< 20)
1,2-Dichloropropane	9.45U	84A	84A	100	84A	888	44	96-123	0.9A	(< 20)
1,3,5-Trimechylbenzene	14.4U	84A	8A6	45	84A	863	49	93-12A	2.00	(< 20)
1,3-Dichlorobenzene	14.4U	84A	844	101	84A	88A	44	99-121	1.80	(< 20)
1,3-Dichloropropane	9.45U	84A	886	44	84A	850	45	99-121	A10	(< 20)
1,4-Dichlorobenzene	14.4U	84A	415	102	84A	849	100	95-120	1.40	(< 20)
2,2-Dichloropropane	14.4U	84A	1010	113	84A	488	111	69-133	2.10	(< 20)
2-Butanone (MEK)	144U	2684	2305	86	2684	2521	4A	51-1A8	4.00	(< 20)
2-Chloroethanol	14.4U	84A	841	100	84A	889	44	95-122	0.30	(< 20)
2-Hexanone	144U	2684	24A1	110	2684	3025	113	53-1A5	2.80	(< 20)
4-Chloroethanol	14.4U	84A	404	102	84A	423	103	92-12A	1.60	(< 20)
4-Propylphenol	14.4U	84A	940	88	84A	969	86	93-129	2.40	(< 20)
4-Methylphenol (MIBK)	144U	2684	2424	104	2684	2465	110	65-135	1.20	(< 20)
Benzene	4.45U	84A	864	49	84A	860	46	99-121	1.10	(< 20)
Bromobenzene	14.4U	84A	4A6	106	84A	4A0	105	98-121	0.66	(< 20)
Bromochloroethane	14.4U	84A	893	48	84A	89A	48	98-125	0.1A	(< 20)
Bromodichloroethane	14.4U	84A	888	44	84A	863	49	95-129	2.80	(< 20)
Bromoform	14.4U	84A	428	10A	84A	889	44	69-132	A50	(< 20)
Bromoethane	154U	84A	4A0	105	84A	892	48	53-1A3	9.50	(< 20)
Carbon disulfide	94.5U	13A5	13A5	101	13A5	1321	48	63-132	2.30	(< 20)
Carbon tetrachloride	4.45U	84A	894	48	84A	8AA	4A	90-135	A10	(< 20)
Chlorobenzene	14.4U	84A	881	48	84A	861	46	94-120	2.30	(< 20)
Chloroethane	154U	84A	810	41	84A	905	94	54-134	13.40	(< 20)

Print Date: 06/2A/2016 8:13:33yM

Matrix Spike Summary

Original Sample ID: 1162856010
 MS Sample ID: 1324A88 MS
 MSD Sample ID: 1324A84 MSD

Analyst Date: 06/10/2016 23:13
 Analyst Date: 06/10/2016 20:18
 Analyst Date: 06/10/2016 20:3A
 Matrix: Soil/Solid (dry weight)

QC for Samplet: 1162856001, 1162856002, 1162856003, 116285600A, 1162856010, 1162856011, 1162856012, 1162856013, 116285601A, 1162856015, 1162856016, 1162856019

Retul/bs SW8260B

Parameter	Sample	Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)			CL	RPD (%)	RPD CL
		Spike	Retul/	Rec (%)	Spike	Retul/	Rec (%)			
Chloroform	14.4U	84A	8A0	4A	84A	828	43	98-123	1.50	(< 20)
Chloromethane	14.4U	84A	895	48	84A	821	42	50-136	6.A0	(< 20)
1,2-Dichloroethane	14.4U	84A	868	49	84A	869	49	99-123	0.2A	(< 20)
1,3-Dichloropropene	14.4U	84A	41A	102	84A	889	44	9A-126	2.40	(< 20)
Dibromochloromethane	14.4U	84A	406	101	84A	861	46	9A-126	5.10	(< 20)
Dibromomethane	14.4U	84A	849	100	84A	418	103	98-125	2.30	(< 20)
Dichlorodifluoromethane	34.8U	84A	410	102	84A	862	46	24-1A4	5.A0	(< 20)
Ethylbenzene	14.4U	84A	8A6	45	84A	834	4A	96-122	0.44	(< 20)
Freon-113	94.5U	13A5	13A5	100	13A5	1321	44	66-136	1.10	(< 20)
Hexachlorobutadiene	34.8U	84A	122A	139 *	84A	1212	136 *	61-135	0.88	(< 20)
Isopropylbenzene (Cumene)	14.4U	84A	829	42	84A	80A	40	68-13A	2.90	(< 20)
Methylene chloride	94.5U	84A	842	100	84A	880	48	90-128	1.A0	(< 20)
Methyl-tert-butyl ether	94.5U	13A5	1249	49	13A5	1249	46	93-125	0.53	(< 20)
Naphthalene	34.8U	84A	843	100	84A	491	104	62-124	8.30	(< 20)
n-Butylbenzene	14.4U	84A	890	49	84A	862	46	90-128	1.10	(< 20)
n-Propylbenzene	14.4U	84A	825	42	84A	8A5	4A	93-125	2.A0	(< 20)
o-Xylene	14.4U	84A	86A	49	84A	866	49	99-123	0.03	(< 20)
P & M -Xylene	34.8U	1984	19A1	49	1984	1905	45	99-12A	2.30	(< 20)
tert-Butylbenzene	14.4U	84A	80A	40	84A	813	41	93-126	1.00	(< 20)
Styrene	14.4U	84A	89A	48	84A	85A	45	96-12A	2.50	(< 20)
tert-Butylbenzene	14.4U	84A	814	42	84A	809	40	93-125	1.A0	(< 20)
Tetrachloroethane	4.45U	84A	8AA	4A	84A	802	40	93-128	5.20	(< 20)
Toluene	14.4U	84A	862	46	84A	831	43	99-121	3.60	(< 20)
1,2-Dichloroethane	14.4U	84A	863	49	84A	856	46	9A-125	0.80	(< 20)
1,3-Dichloropropene	14.4U	84A	4A9	106	84A	848	100	91-130	5.A0	(< 20)
Trichloroethane	4.45U	84A	89A	48	84A	863	49	99-123	1.30	(< 20)
Trichlorofluoromethane	34.8U	84A	466	108	84A	880	48	62-1A0	4.30	(< 20)
Vinyl acetate	94.5U	84A	4A9	106	84A	426	103	50-151	2.30	(< 20)
Vinyl chloride	9.45U	84A	84A	100	84A	852	45	56-135	A.40	(< 20)
Xylenes (total)	54.5U	2684	2605	49	2684	2564	46	98-12A	1.50	(< 20)
Surrogates										
1,2-Dichloroethane-DA (total)		84A	840	44	84A	882	44	91-136	0.9A	
p-Bromofluorobenzene (total)		2384	1813	96	2384	1825	96	55-151	0.66	
Toluene-d8 (total)		84A	4A8	106	84A	41A	102	85-116	3.90	

Print Date: 06/24/2016 8:13:33 AM

Matrix Spike Summary

Original Sample ID: 1162856010
 MS Sample ID: 1324A88 MS
 MSD Sample ID: 1324A84 MSD

Analyst Date: 06/10/2016 20:18
 Analyst Date: 06/10/2016 20:3A
 Matrix: Soil/Solid (dry weight)

QC for Samplet: 1162856001, 1162856002, 1162856003, 116285600A, 1162856010, 1162856011, 1162856012, 1162856013, 116285601A, 1162856015, 1162856016, 1162856019

Retul/bs SW8260B

Parameter	Sample	Matrix Spike (%)		Spike Duplicate (%)			CL	RPD (%)	RPD CL
		Spike	Retul/	Rec (%)	Spike	Retul/			

Batch Information

Analyst Batch: VMS15858
 Analyst Method: SW8260B
 Instrument: Ygilan/ 9840-95MS
 Analyst: NRB
 Analyst Date/Time: 6/10/2016 8:18:00PM

Prep Batch: VXX28428
 Prep Method: Vol. Extraction SW8260 Field Extracted L
 Prep Date/Time: 6/10/2016 12:30:00y M
 Prep Initial Wt/Vol.: 50.32g
 Prep Extract Vol: 25.00mL

Method Blank

Blank ID: MB for HBN 1735596 [XXX/35471]
 Blank Lab ID: 1328793

Matrix: Soil/Solid (dry weight)

QC for Samples:

1162856001, 1162856002, 1162856003, 1162856004, 1162856005, 1162856006, 1162856007, 1162856008, 1162856009, 1162856010, 1162856011, 1162856012, 1162856013, 1162856014, 1162856015, 1162856016

Results by AK102

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Diesel Range Organics	10.0U	20.0	6.20	mg/Kg
Surrogates				
5a Androstane (surr)	102	60-120		%

Batch Information

Analytical Batch: XFC12429
 Analytical Method: AK102
 Instrument: Agilent 7890B R
 Analyst: AEE
 Analytical Date/Time: 6/10/2016 4:21:00PM

Prep Batch: XXX35471
 Prep Method: SW3550C
 Prep Date/Time: 6/8/2016 5:11:29PM
 Prep Initial Wt./Vol.: 30 g
 Prep Extract Vol: 1 mL

Print Date: 06/24/2016 8:13:45AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1162856 [XXX35471]
 Blank Spike Lab ID: 1328794
 Date Analyzed: 06/10/2016 16:31

Spike Duplicate ID: LCSD for HBN 1162856 [XXX35471]
 Spike Duplicate Lab ID: 1328795
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1162856001, 1162856002, 1162856003, 1162856004, 1162856005, 1162856006, 1162856007, 1162856008, 1162856009, 1162856010, 1162856011, 1162856012, 1162856013, 1162856014, 1162856015, 1162856016

Results by AK102

Parameter	Blank Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Diesel Range Organics	167	140	84	167	152	91	(75-125)	8.20	(< 20)
Surrogates									
5a Androstane (surr)	3.33	98.3	98	3.33	104	104	(60-120)	5.30	

Batch Information

Analytical Batch: **XFC12429**
 Analytical Method: **AK102**
 Instrument: **Agilent 7890B R**
 Analyst: **AEE**

Prep Batch: **XXX35471**
 Prep Method: **SW3550C**
 Prep Date/Time: **06/08/2016 17:11**
 Spike Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL
 Dupe Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL

Method Blank

Blank ID: MB for HBN 1735596 [XXX/35471]
 Blank Lab ID: 1328793

Matrix: Soil/Solid (dry weight)

QC for Samples:

1162856001, 1162856002, 1162856003, 1162856004, 1162856005, 1162856006, 1162856007, 1162856008, 1162856009, 1162856010, 1162856011, 1162856012, 1162856013, 1162856014, 1162856015, 1162856016

Results by AK103

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Residual Range Organics	10.0U	20.0	6.20	mg/Kg
Surrogates				
nA riacontaneAt62 (surr)	110	60A20		%

Batch Information

Fanalytical Batch: XEC12429
 Fanalytical Method: FK103
 Instrument: Fgilent 7890B R
 Fnalyst: FTT
 Fanalytical Date/- ime: 6/10/2016 4:21:00PM

Prep Batch: XXX35471
 Prep Method: SW3550C
 Prep Date/- ime: 6/8/2016 5:11:29PM
 Prep Initial Wt./Vol.: 30 g
 Prep Textract Vol: 1 mL

Print Date: 06/24/2016 8:13:49FM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1162856 [XXX35471]
 Blank Spike Lab ID: 1328794
 Date Analyzed: 06/10/2016 16:31

Spike Duplicate ID: LCSD for HBN 1162856 [XXX35471]
 Spike Duplicate Lab ID: 1328795
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1162856001, 1162856002, 1162856003, 1162856004, 1162856005, 1162856006, 1162856007, 1162856008, 1162856009, 1162856010, 1162856011, 1162856012, 1162856013, 1162856014, 1162856015, 1162856016

Results by AK102

Parameter	Blank Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Residual Range Organics	167	139	83	167	149	89	(60-120)	7.00	(< 20)
Surrogates									
n-Triacontane-d62 (surr)	3.33	88.4	88	3.33	95	95	(60-120)	7.20	

Batch Information

Analytical Batch: **XFC14947**
 Analytical Method: **AK102**
 Instrument: **Agilent 8R70B E**
 Analyst: **A33**

Prep Batch: **XXX25981**
 Prep Method: **SW2550C**
 Prep Date/Time: **06/07/2016 18:11**
 Spike Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL
 Dupe Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL



SGS Environmental Services Inc. CHAIN OF CUSTODY RECORD

Locations Nationwide
 Alaska Maryland
 New Jersey New York
 North Carolina Ohio
 West Virginia
 www.us.sgs.com

1162856

page 1 of 2

SGS Reference #:

CLIENT: **NORTECH**
 CONTACT: **D. RADU** PHONE NO: 907-980-9936
 PROJECT: **AJT Mining** SITE/PWSID#: 16-1018
 REPORTS TO: **Dumitru Radu** E-MAIL: dradu@nortechengr.com
 INVOICE TO: **Fairbanks** QUOTE P.O. #: 16-1018

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX/ MATRIX CODE
1 A-B	CZ-05	6/1/2016	0920	Soil
2 A-B	CZ-10	6/1/2016	0945	Soil
3 A-B	CZ-16	6/1/2016	1000	Soil
4 A-B	CZ-19	6/1/2016	1010	Soil
5 A-B	CZ-23	6/1/2016	1030	Soil
6 A-B	CZ-27	6/1/2016	1430	Soil
7 A-B	CZ-11	6/1/2016	0950	Soil
8 A-B	CZ-14	6/1/2016	0955	Soil
9 A-B	CZ-18	6/1/2016	1009	Soil
10 A-B	CZ-20	6/1/2016	1012	Soil

Collected/Relinquished By: (1) *[Signature]* Received By: *[Signature]*
 Relinquished By: (2) *[Signature]* Received By: *[Signature]*
 Relinquished By: (3) *[Signature]* Received By: *[Signature]*
 Relinquished By: (4) *[Signature]* Received By: *[Signature]*

#	C O N T A I N E R S	SAMPLE TYPE C = COMP G = GRAB MI = Multi Incremental I Samples	Preserv Used	MeOH			REMARKS/ LOC ID
				DR0 by AK 102	RRO by AK 103	VOC by 8260	
2	GRAB	X	X				
2	GRAB	X	X				
2	GRAB	X	X				
2	GRAB	X	X				
2	GRAB	X	X				
2	GRAB	X	X				
2	GRAB	X	X				
2	GRAB	X	X				
2	GRA	X	X				
2	GRA	X	X				
2	GRA	X	X				

DOD Project? YES NO Special Deliverable Requirements: STANDARD
 Cooler ID
 Requested Turnaround Time and/or Special Instructions: STANDARD
 Samples Received Cold? YES NO
 Cooler TB *0.5, 7/2/2*
 Temperature °C: *0.5, 7/2/2*
 Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT *DF*

200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

http://www.sgs.com/terms_and_conditions.htm



SGS Environmental Services Inc.
CHAIN OF CUSTODY REPORT

Locations Nationwide
 Alaska Maryland
 New Jersey New York
 North Carolina Ohio
 West Virginia

1162856



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page 1 of 2

CLIENT: **NORTECH** SGS Reference #:

CONTACT: **D. RADU** PHONE NO: 907-980-9936

PROJECT: **AJT Mining** SITE/PWSID#: 16-1018

REPORTS TO: **Dumitru Radu** E-MAIL: dradu@nortechengr.com

INVOICE TO: **Fairbanks** QUOTE P.O. #: 16-1018

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX
11 A-B	CZ-21	6/1/2016	1025	Soil
12 A-B	CZ-28	6/1/2016	1435	Soil
13 A-B	CZ-29	6/1/2016	1437	Soil
14 A-B	CZ-30	6/1/2016	1445	Soil
15 A-B	CZ-40	6/1/2016	1020	Soil
16 A-B	CZ-41	6/1/2016	1450	Soil
17 A-B	Trip Blank			

Preserv Sample	#	CONTAINERS	TYPE	DRO by AK 102	RRO by AK 103	VOC by 8260	Meq/L	LOC ID
GRAB	2		GRAB	X	X	X		
GRAB	2		GRAB	X	X	X		
GRAB	2		GRAB	X	X	X		
GRAB	2		GRAB	X	X	X		
GRAB	2		GRAB	X	X	X		
GRAB	2		GRAB	X	X	X		
	2							

Collected/Relinquished By: (1) *[Signature]* Received By: *[Signature]* Time: 1200

Relinquished By: (2) *[Signature]* Received By: Time:

Relinquished By: (3) Received By: Time:

Relinquished By: (4) *[Signature]* Received For Laboratory By: *[Signature]* Time: 16:15

DOD Project? YES NO

Cooler ID: Special Deliverable Requirements: STANDARD

Requested Turnaround Time and/or Special Instructions: STANDARD

Samples Received Cold? YES NO Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Temperature °C: 0.5 # 242 Cooler TB # 242

200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301

5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

http://www.sgs.com/terms_and_conditions.htm



e-SAMPLE RECEIPT FORM

1162856



Review Criteria	Y/N (yes/no)	Exceptions Noted below
Were Custody Seals intact? Note # & location	<input checked="" type="checkbox"/>	<input type="checkbox"/> exemption permitted if sampler hand carries/delivers.
COC accompanied samples?	<input checked="" type="checkbox"/>	2F
<input type="checkbox"/> **exemption permitted if chilled & collected <8hrs ago or chilling not required (i.e., waste, oil)	<input checked="" type="checkbox"/>	
Temperature blank compliant* (i.e., 0-6 °C after CF)?	<input checked="" type="checkbox"/>	Cooler ID: 1 @ 6.5 °C Therm ID: 242
	<input type="checkbox"/>	Cooler ID: @ °C Therm ID:
	<input type="checkbox"/>	Cooler ID: @ °C Therm ID:
	<input type="checkbox"/>	Cooler ID: @ °C Therm ID:
*If >6°C, were samples collected <8 hours ago?	<input checked="" type="checkbox"/>	
If <0°C, were sample containers ice free?	<input type="checkbox"/>	
If samples received <u>without</u> a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "COOLER TEMP" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled".		
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		All samples in cooler
Were samples received within hold time?	<input checked="" type="checkbox"/>	Note: Refer to form F-083 "Sample Guide" for hold times.
Do samples match COC** (i.e., sample IDs, dates/times collected)?	<input checked="" type="checkbox"/>	
**Note: If times differ <1hr, record details & login per COC.		
Were analyses requested unambiguous?	<input checked="" type="checkbox"/>	
Were proper containers (type/mass/volume/preservative***)used?	<input checked="" type="checkbox"/>	<input type="checkbox"/> ***Exemption permitted for metals (e.g,200.8/6020A).
IF APPLICABLE		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	<input checked="" type="checkbox"/>	
Were all VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	<input type="checkbox"/>	
Were all soil VOAs field extracted with MeOH+BFB?	<input checked="" type="checkbox"/>	
Note to Client: Any "no" answer above indicates non-compliance with standard procedures and may impact data quality.		
Additional notes (if applicable):		



Sample Containers and Preservatives

<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>	<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>
1162856001-A	No Preservative Required	OK			
1162856001-B	Methanol field pres. 4 C	OK			
1162856002-A	No Preservative Required	OK			
1162856002-B	Methanol field pres. 4 C	OK			
1162856003-A	No Preservative Required	OK			
1162856003-B	Methanol field pres. 4 C	OK			
1162856004-A	No Preservative Required	OK			
1162856004-B	Methanol field pres. 4 C	OK			
1162856005-A	No Preservative Required	OK			
1162856005-B	Methanol field pres. 4 C	OK			
1162856006-A	No Preservative Required	OK			
1162856006-B	Methanol field pres. 4 C	OK			
1162856007-A	No Preservative Required	OK			
1162856007-B	Methanol field pres. 4 C	OK			
1162856008-A	No Preservative Required	OK			
1162856008-B	Methanol field pres. 4 C	OK			
1162856009-A	No Preservative Required	OK			
1162856009-B	Methanol field pres. 4 C	OK			
1162856010-A	No Preservative Required	OK			
1162856010-B	Methanol field pres. 4 C	OK			
1162856011-A	No Preservative Required	OK			
1162856011-B	Methanol field pres. 4 C	OK			
1162856012-A	No Preservative Required	OK			
1162856012-B	Methanol field pres. 4 C	OK			
1162856013-A	No Preservative Required	OK			
1162856013-B	Methanol field pres. 4 C	OK			
1162856014-A	No Preservative Required	OK			
1162856014-B	Methanol field pres. 4 C	OK			
1162856015-A	No Preservative Required	OK			
1162856015-B	Methanol field pres. 4 C	OK			
1162856016-A	No Preservative Required	OK			
1162856016-B	Methanol field pres. 4 C	OK			
1162856017-A	Methanol field pres. 4 C	OK			

Container Id

Preservative

Container
Condition

Container Id

Preservative

Container
Condition

Container Condition Glossary

Containers for bacteriological, low level mercury and VOA vials are not opened prior to analysis and will be assigned condition code OK unless evidence indicates than an inappropriate container was submitted.

OK - The container was received at an acceptable pH for the analysis requested.

BU - The container was received with headspace greater than 6mm.

DM- The container was received damaged.

FR- The container was received frozen and not usable for Bacteria or BOD analyses.

PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

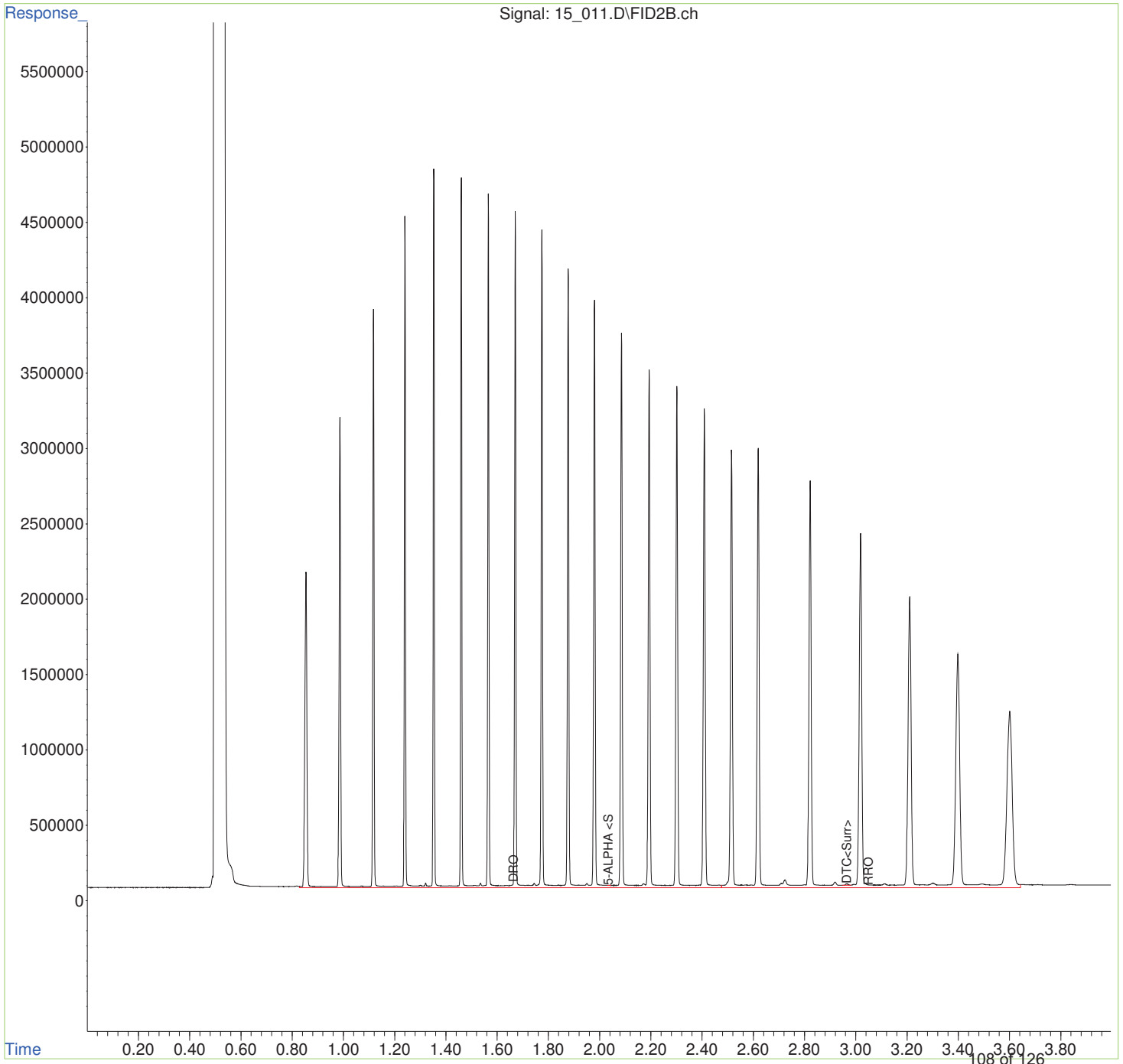
CHROMATOGRAMS

Data Path : Z:\04\SF\DATA\041516.SEC\
 Data File : 15_011.D
 Signal(s) : FID2B.ch
 Acq On : 15 Apr 2016 12:03 pm
 Operator : CJSW
 Sample : NAS
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Alkane Standards

Integration File: autoint1.e
 Quant Time: Apr 18 10:49:40 2016
 Quant Method : Z:\04\SF\METHOD\SFR2016-0407D.M
 Quant Title : DRO/RRO by Method AK 102/103
 QLast Update : Fri Apr 08 09:05:55 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

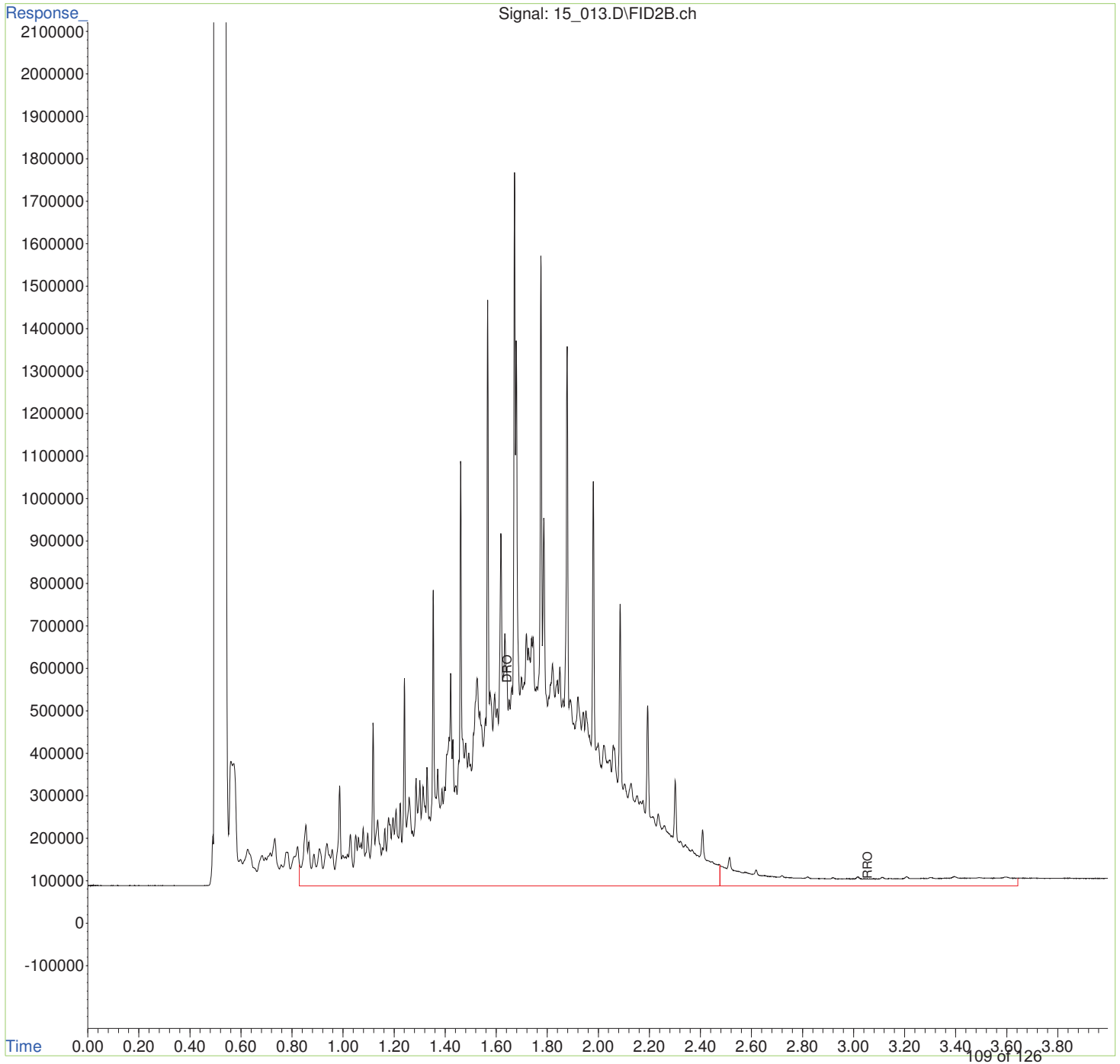


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Data File : 15_013.D
Signal(s) : FID2B.ch
Acq On : 15 Apr 2016 12:13 pm
Operator : CJSW
Sample : CCVB
Misc :
ALS Vial : 3 Sample Multiplier: 1

DRO Standard

Integration File: autoint1.e
Quant Time: Apr 18 10:55:17 2016
Quant Method : Z:\04\SF\METHOD\SFR2016-0407D.M
Quant Title : DRO/RRO by Method AK 102/103
QLast Update : Fri Apr 08 09:05:55 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

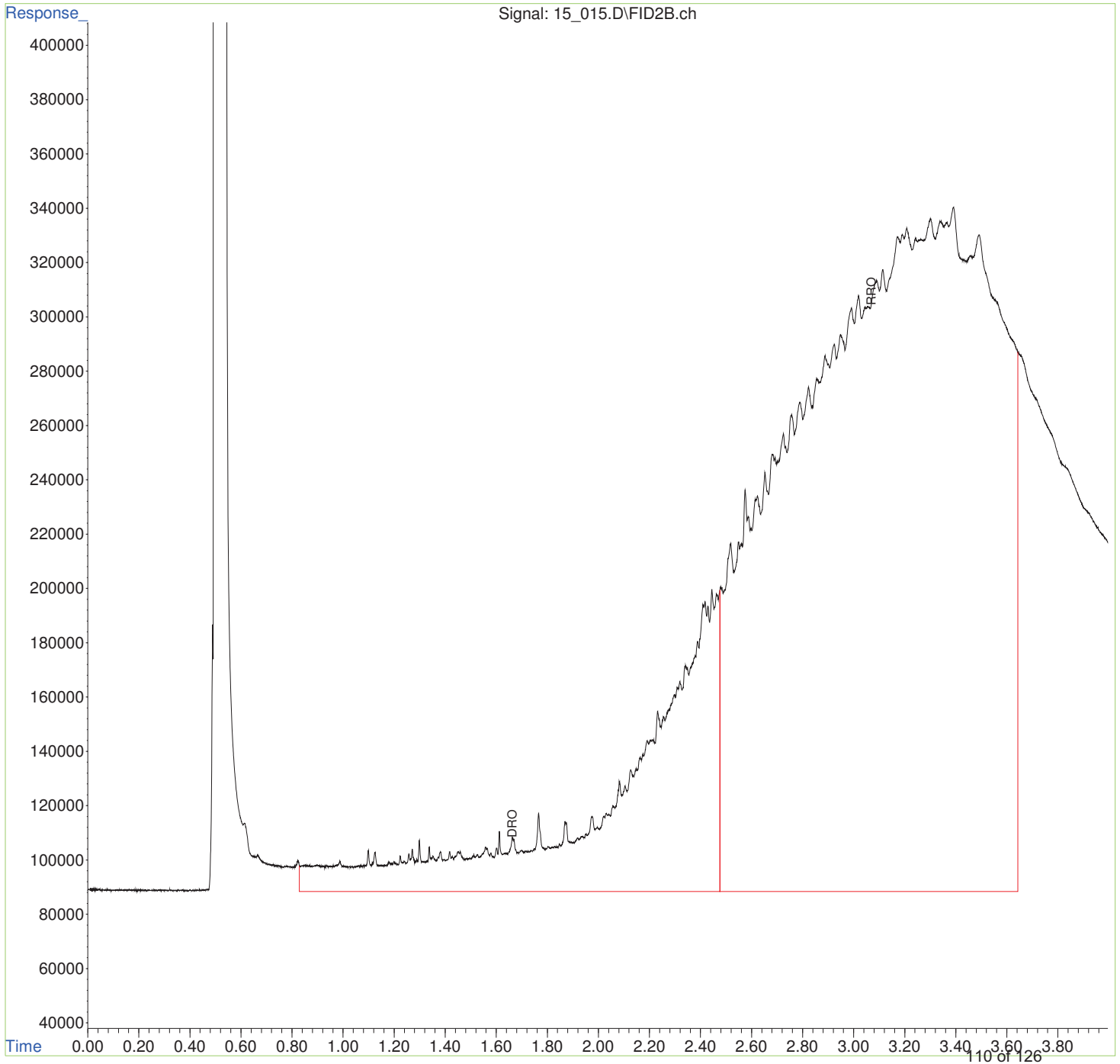


Data Path : Z:\04\SF\DATA\041516.SEC\
Data File : 15_015.D
Signal(s) : FID2B.ch
Acq On : 15 Apr 2016 12:24 pm
Operator : CJSW
Sample : CCVR
Misc :
ALS Vial : 4 Sample Multiplier: 1

RRO standard

Integration File: autoint1.e
Quant Time: Apr 18 10:55:55 2016
Quant Method : Z:\04\SF\METHOD\SFR2016-0407D.M
Quant Title : DRO/RRO by Method AK 102/103
QLast Update : Fri Apr 08 09:05:55 2016
Response via : Initial Calibration
Integrator: ChemStation

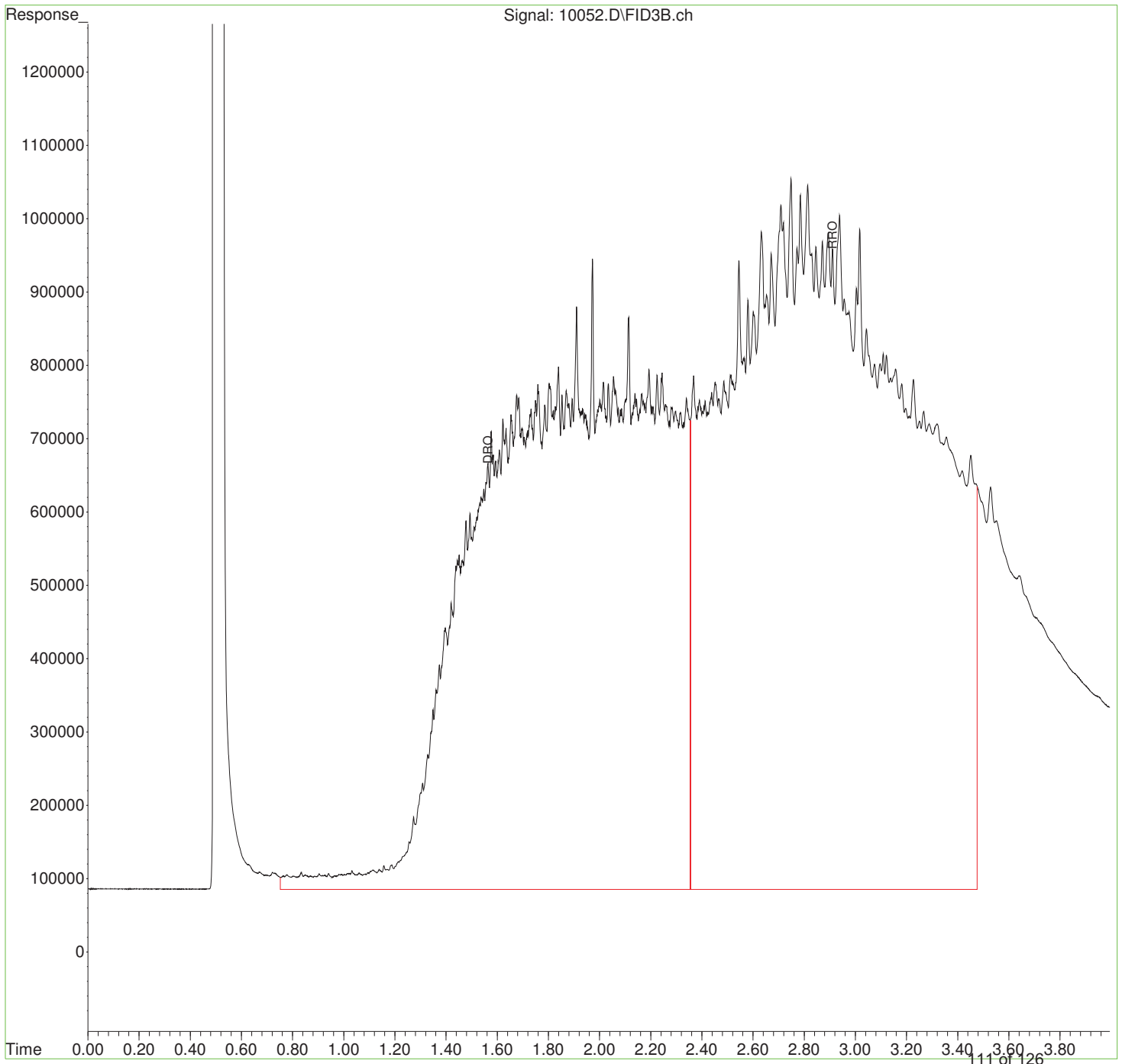
Volume Inj. :
Signal Phase :
Signal Info :



Data Path : Z:\06\SF\DATA\061016\
Data File : 10052.D
Signal(s) : FID3B.ch
Acq On : 10 Jun 2016 6:14 pm
Operator : AEE/S.G.
Sample : 1162856001 4X
Misc :
ALS Vial : 42 Sample Multiplier: 4

Integration File: autoint1.e
Quant Time: Jun 11 15:17:04 2016
Quant Method : Z:\06\SF\METHOD\SFR2016-0505J.M
Quant Title : DRO/RRO by Method AK 102/103
QLast Update : Fri May 06 15:26:44 2016
Response via : Initial Calibration
Integrator: ChemStation

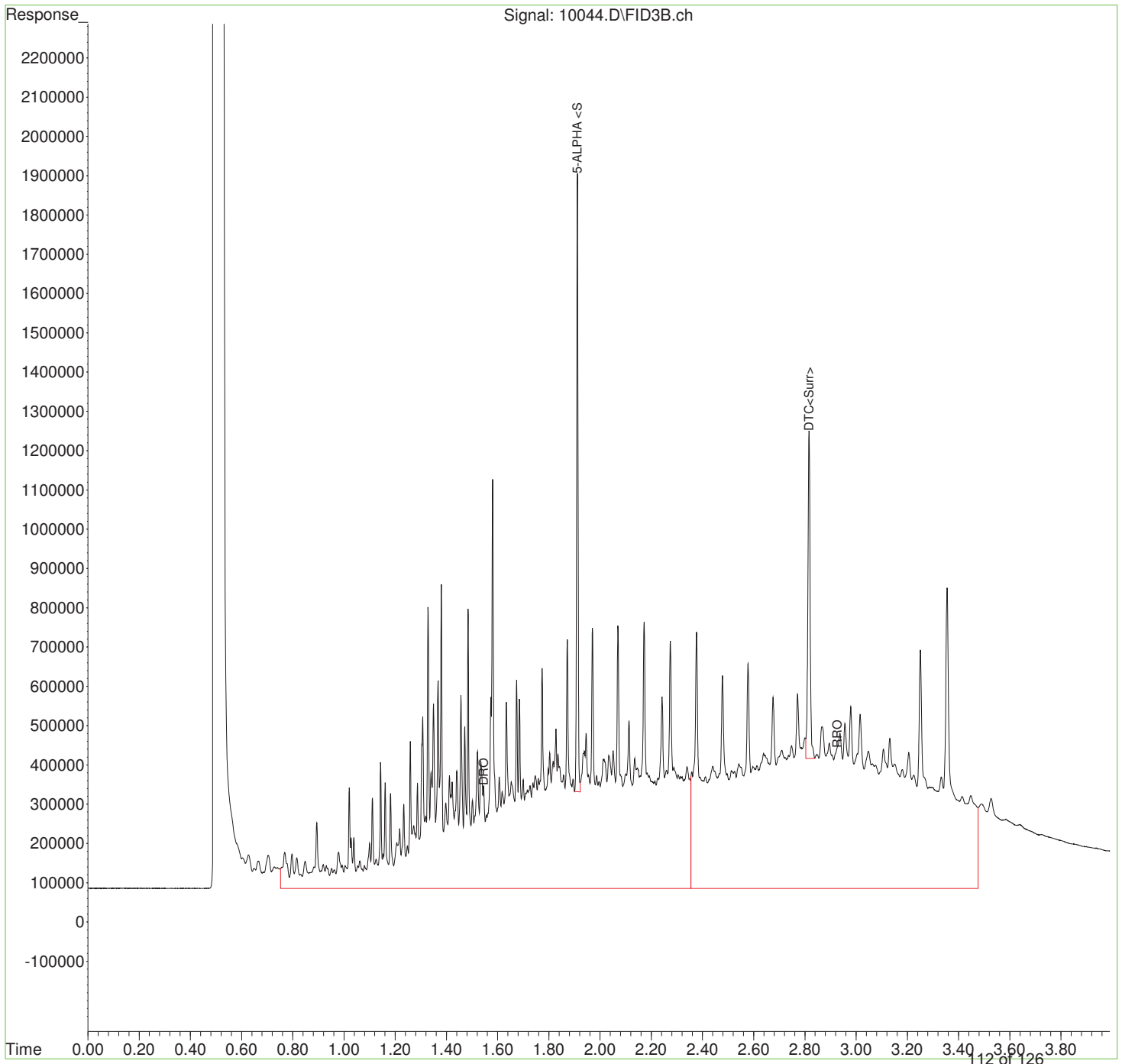
Volume Inj. :
Signal Phase :
Signal Info :



Data Path : Z:\06\SF\DATA\061016A\
Data File : 10044.D
Signal(s) : FID3B.ch
Acq On : 10 Jun 2016 4:52 pm
Operator : AEE/S.G.
Sample : 1162856002
Misc :
ALS Vial : 37 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Jun 11 14:59:56 2016
Quant Method : Z:\06\SF\METHOD\SFR2016-0505J.M
Quant Title : DRO/RRO by Method AK 102/103
QLast Update : Fri May 06 15:26:44 2016
Response via : Initial Calibration
Integrator: ChemStation

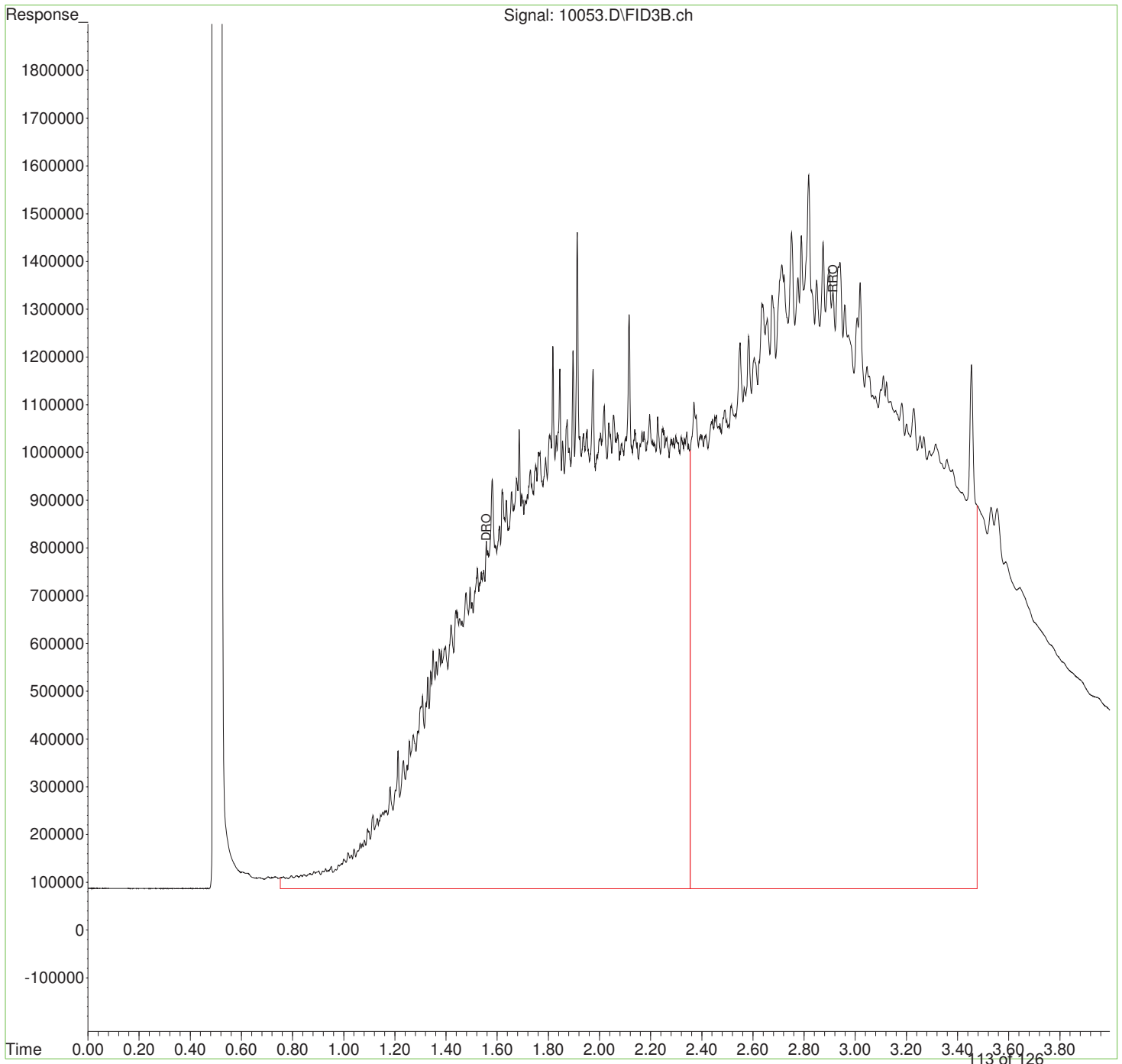
Volume Inj. :
Signal Phase :
Signal Info :



Data Path : Z:\06\SF\DATA\061016A\
 Data File : 10053.D
 Signal(s) : FID3B.ch
 Acq On : 10 Jun 2016 6:24 pm
 Operator : AEE/S.G.
 Sample : 1162856003 4X
 Misc :
 ALS Vial : 43 Sample Multiplier: 4

Integration File: autoint1.e
 Quant Time: Jun 11 15:21:00 2016
 Quant Method : Z:\06\SF\METHOD\SFR2016-0505J.M
 Quant Title : DRO/RRO by Method AK 102/103
 QLast Update : Fri May 06 15:26:44 2016
 Response via : Initial Calibration
 Integrator: ChemStation

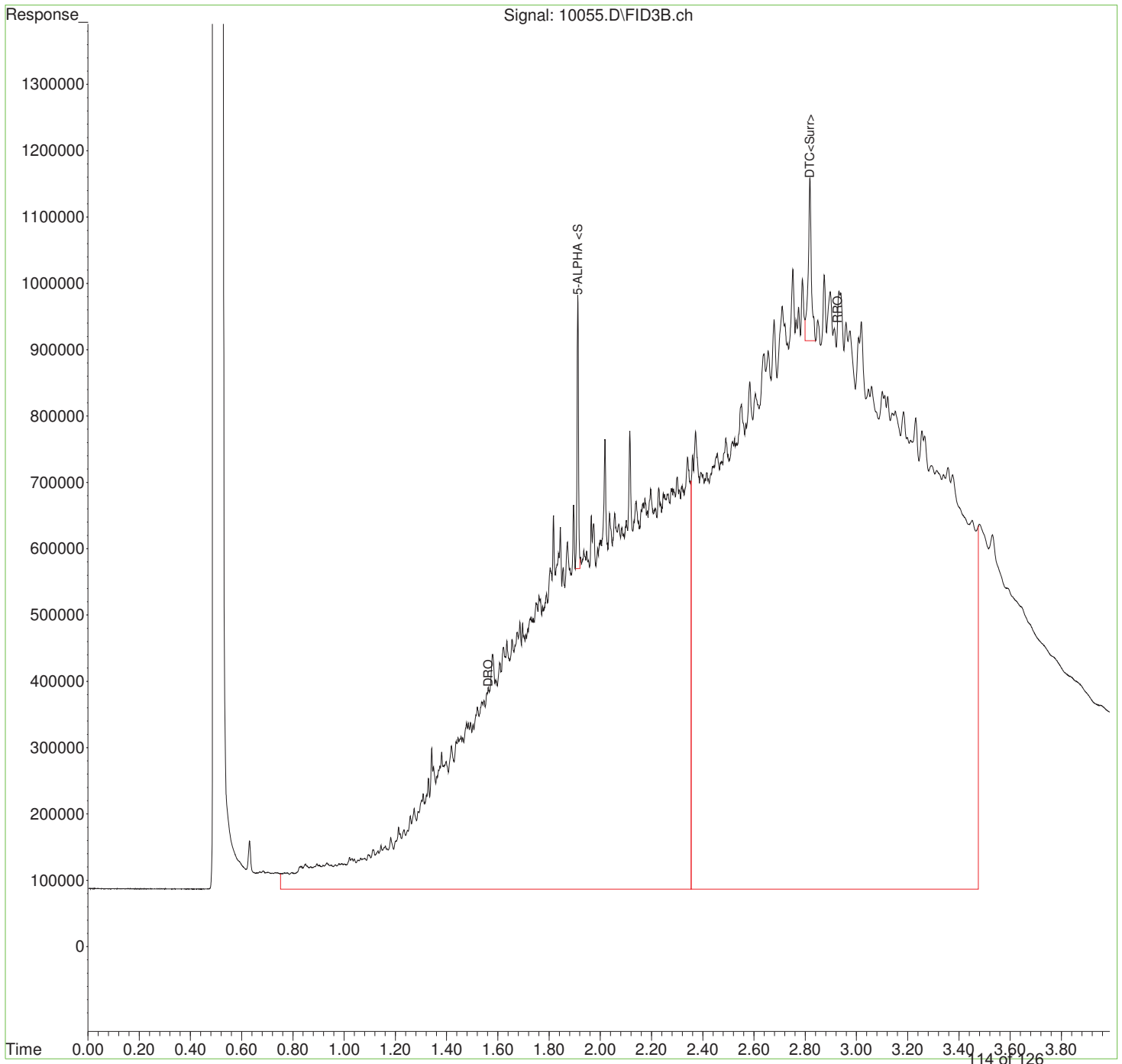
Volume Inj. :
 Signal Phase :
 Signal Info :



Data Path : Z:\06\SF\DATA\061016A\
Data File : 10055.D
Signal(s) : FID3B.ch
Acq On : 10 Jun 2016 6:45 pm
Operator : AEE/S.G.
Sample : 1162856004 4X
Misc :
ALS Vial : 44 Sample Multiplier: 4

Integration File: autoint1.e
Quant Time: Jun 11 15:30:34 2016
Quant Method : Z:\06\SF\METHOD\SFR2016-0505J.M
Quant Title : DRO/RRO by Method AK 102/103
QLast Update : Fri May 06 15:26:44 2016
Response via : Initial Calibration
Integrator: ChemStation

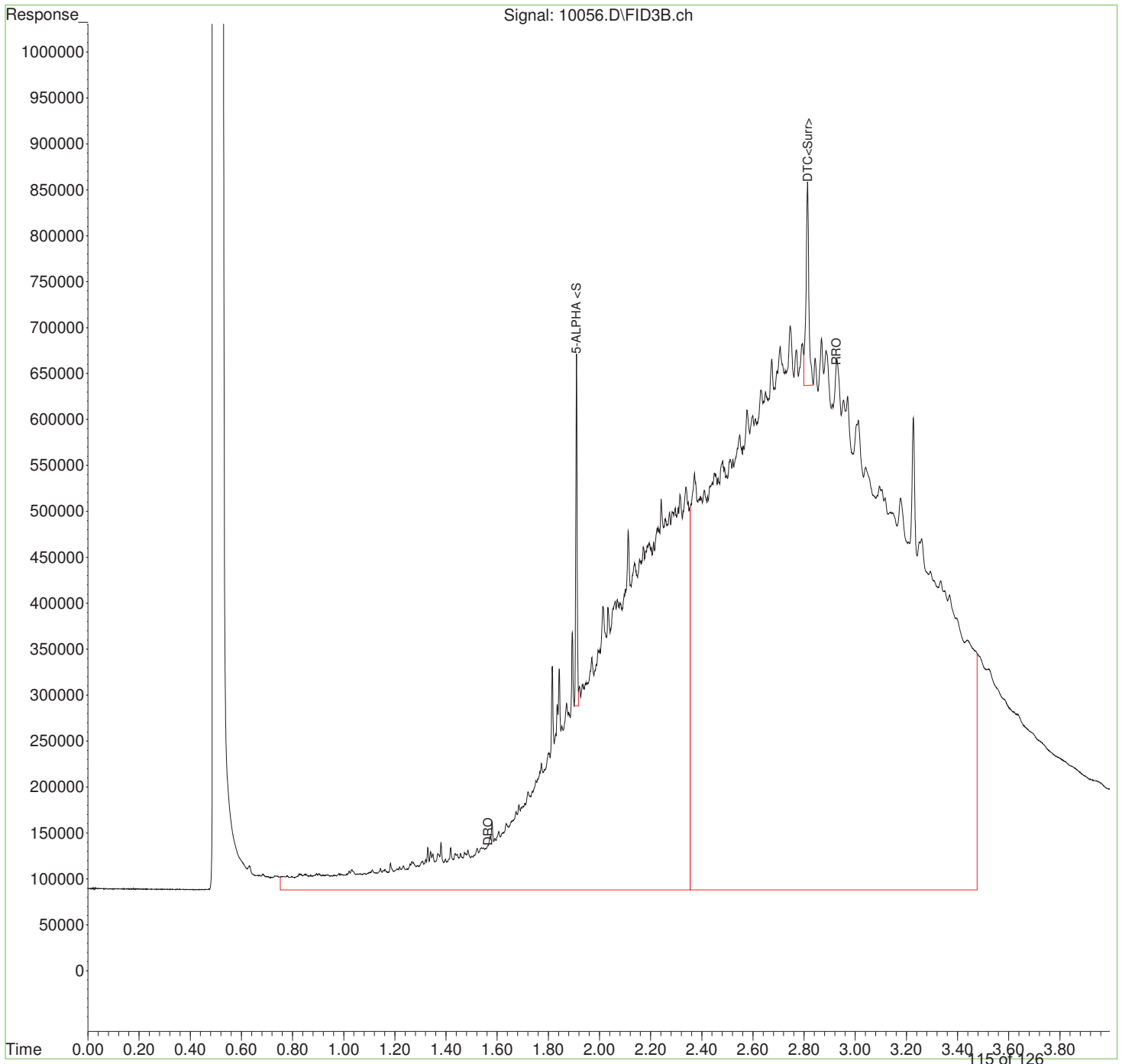
Volume Inj. :
Signal Phase :
Signal Info :



Data Path : Z:\06\SF\DATA\061016\
Data File : 10056.D
Signal(s) : FID3B.ch
Acq On : 10 Jun 2016 6:55 pm
Operator : AEE/S.G.
Sample : 1162856005 4X
Misc :
ALS Vial : 45 Sample Multiplier: 4

Integration File: autoint1.e
Quant Time: Jun 11 15:36:43 2016
Quant Method : Z:\06\SF\METHOD\SFR2016-0505J.M
Quant Title : DRO/RRO by Method AK 102/103
QLast Update : Fri May 06 15:26:44 2016
Response via : Initial Calibration
Integrator: ChemStation

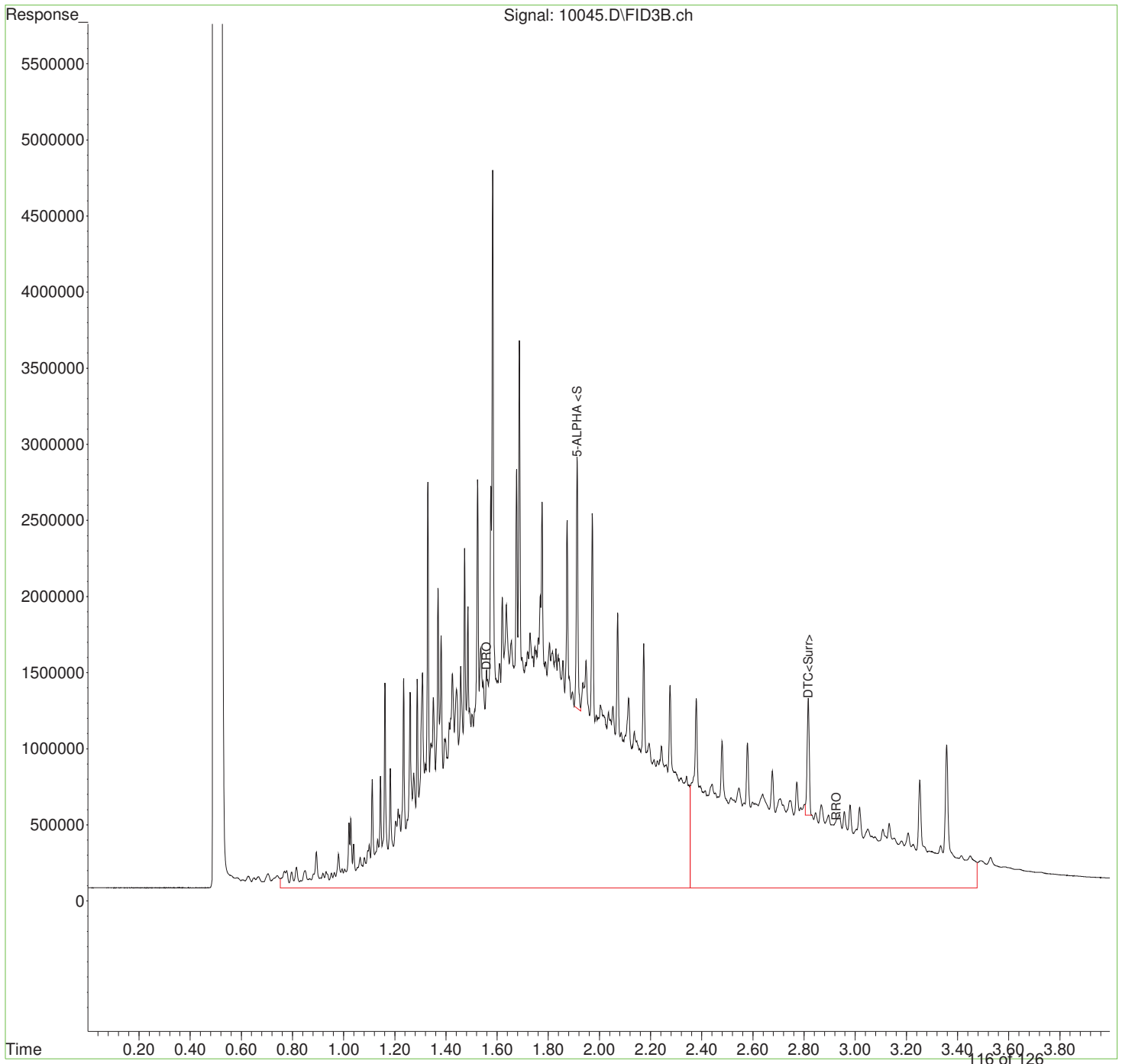
Volume Inj. :
Signal Phase :
Signal Info :



Data Path : Z:\06\SF\DATA\061016A\
 Data File : 10045.D
 Signal(s) : FID3B.ch
 Acq On : 10 Jun 2016 5:02 pm
 Operator : AEE/S.G.
 Sample : 1162856006
 Misc :
 ALS Vial : 38 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Jun 11 15:03:13 2016
 Quant Method : Z:\06\SF\METHOD\SFR2016-0505J.M
 Quant Title : DRO/RRO by Method AK 102/103
 QLast Update : Fri May 06 15:26:44 2016
 Response via : Initial Calibration
 Integrator: ChemStation

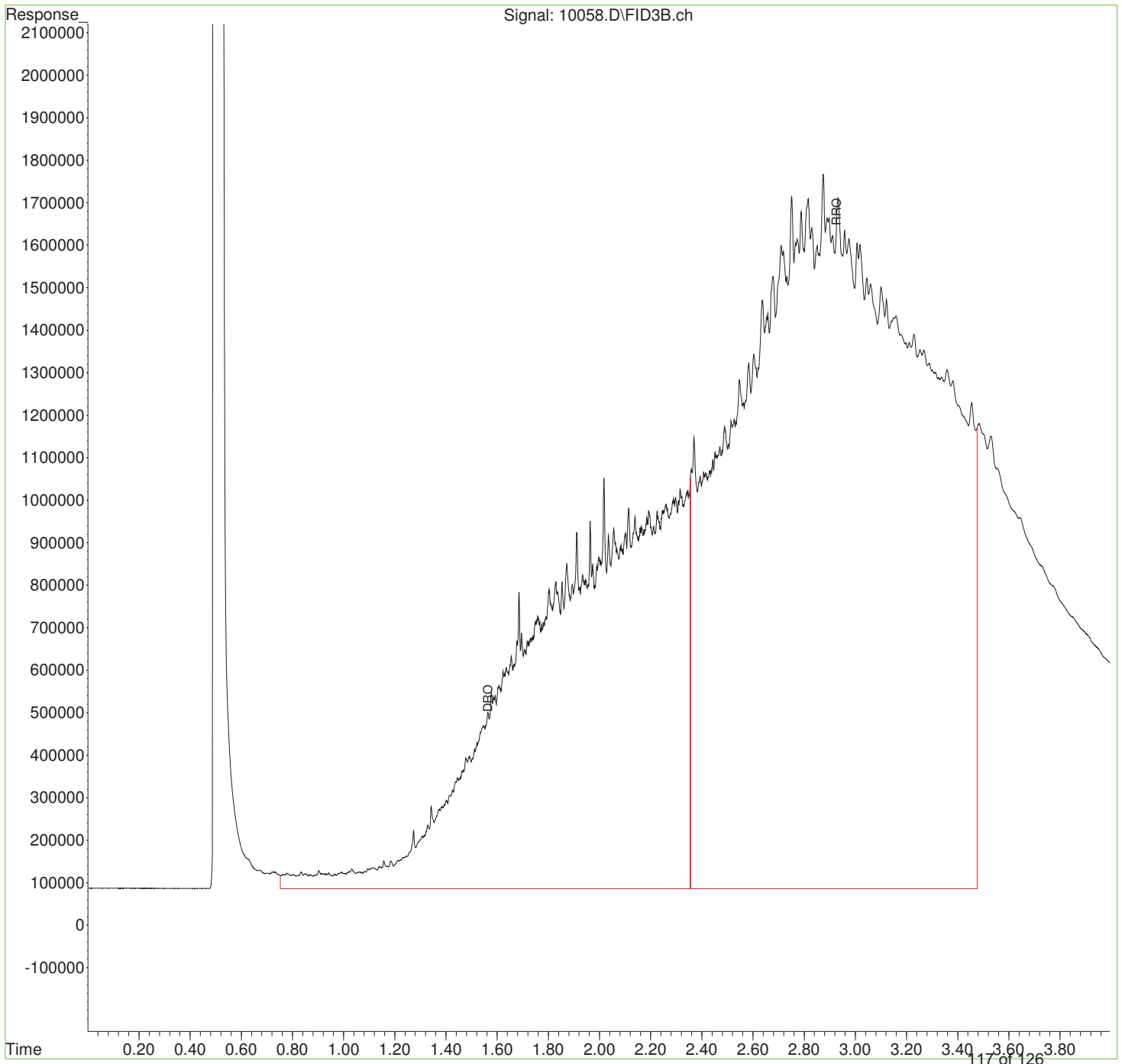
Volume Inj. :
 Signal Phase :
 Signal Info :



Data Path : Z:\06\SF\DATA\061016\
Data File : 10058.D
Signal(s) : FID3B.ch
Acq On : 10 Jun 2016 7:16 pm
Operator : AEE/S.G.
Sample : 1162856007 4X
Misc :
ALS Vial : 46 Sample Multiplier: 4

Integration File: autoint1.e
Quant Time: Jun 11 15:38:29 2016
Quant Method : Z:\06\SF\METHOD\SFR2016-0505J.M
Quant Title : DRO/RRO by Method AK 102/103
QLast Update : Fri May 06 15:26:44 2016
Response via : Initial Calibration
Integrator: ChemStation

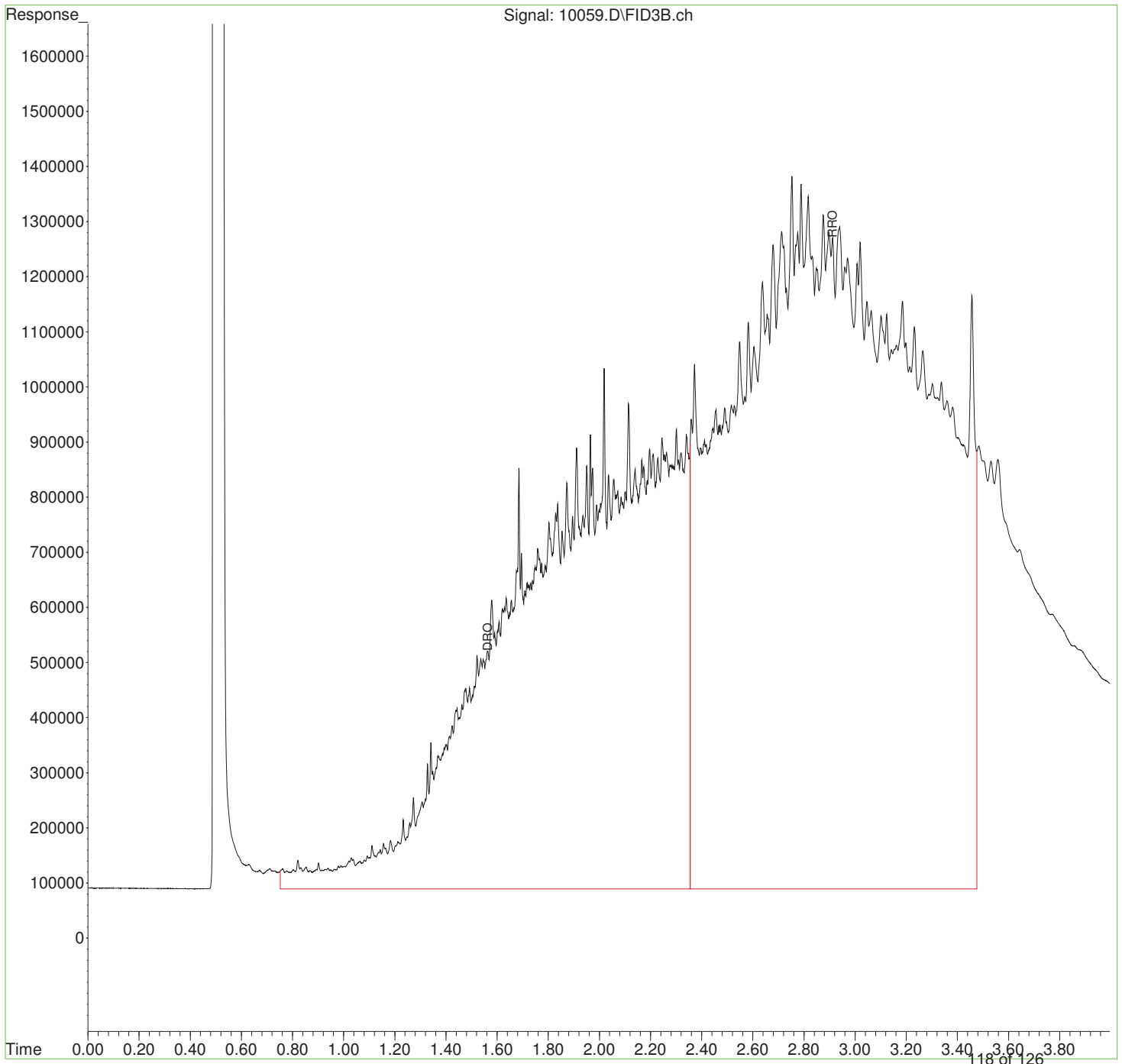
Volume Inj. :
Signal Phase :
Signal Info :



Data Path : Z:\06\SF\DATA\061016A\
Data File : 10059.D
Signal(s) : FID3B.ch
Acq On : 10 Jun 2016 7:26 pm
Operator : AEE/S.G.
Sample : 1162856008 4X
Misc :
ALS Vial : 47 Sample Multiplier: 4

Integration File: autoint1.e
Quant Time: Jun 11 15:40:25 2016
Quant Method : Z:\06\SF\METHOD\SFR2016-0505J.M
Quant Title : DRO/RRO by Method AK 102/103
QLast Update : Fri May 06 15:26:44 2016
Response via : Initial Calibration
Integrator: ChemStation

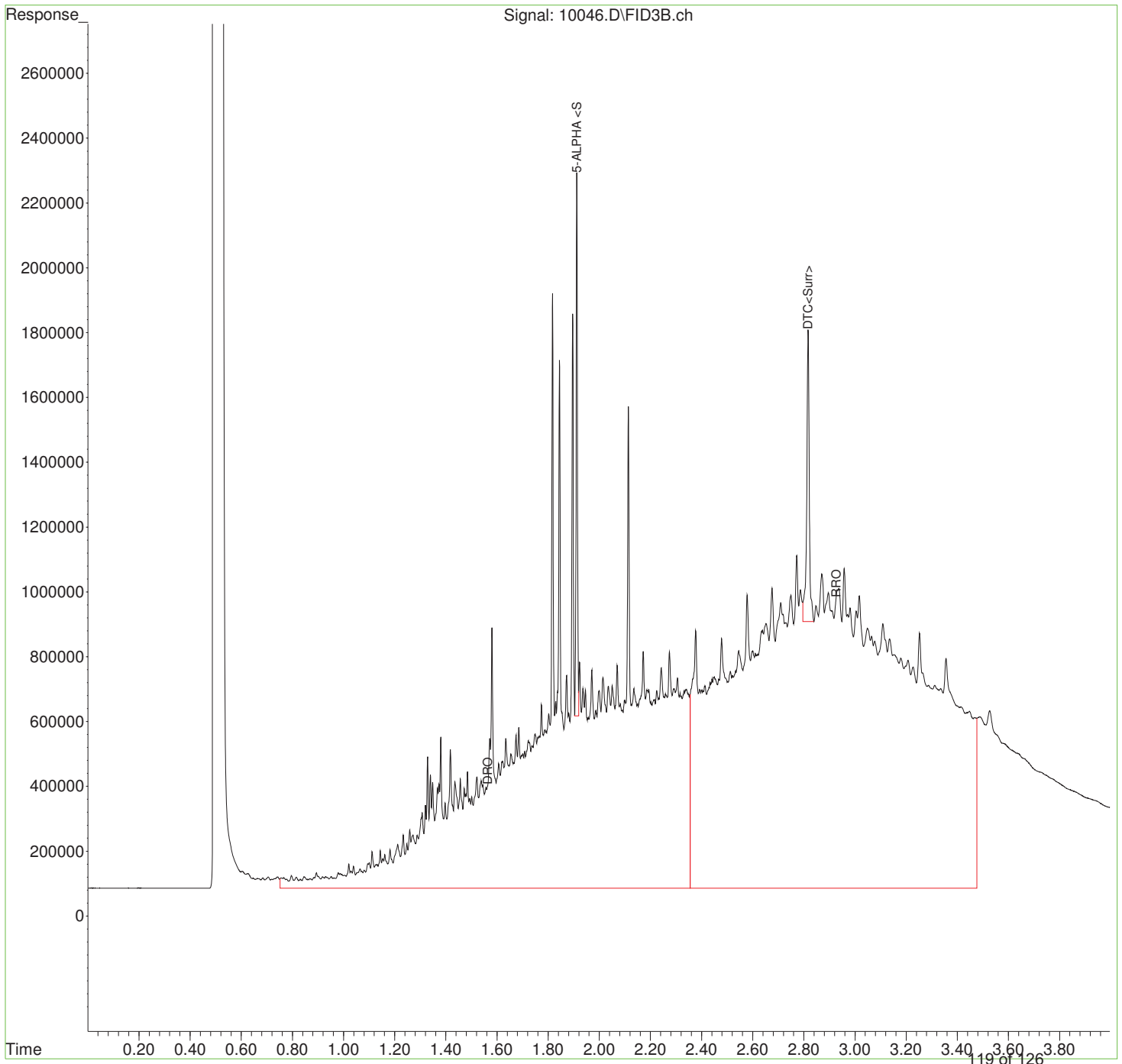
Volume Inj. :
Signal Phase :
Signal Info :



Data Path : Z:\06\SF\DATA\061016A\
Data File : 10046.D
Signal(s) : FID3B.ch
Acq On : 10 Jun 2016 5:12 pm
Operator : AEE/S.G.
Sample : 1162856009
Misc :
ALS Vial : 39 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Jun 11 15:07:33 2016
Quant Method : Z:\06\SF\METHOD\SFR2016-0505J.M
Quant Title : DRO/RRO by Method AK 102/103
QLast Update : Fri May 06 15:26:44 2016
Response via : Initial Calibration
Integrator: ChemStation

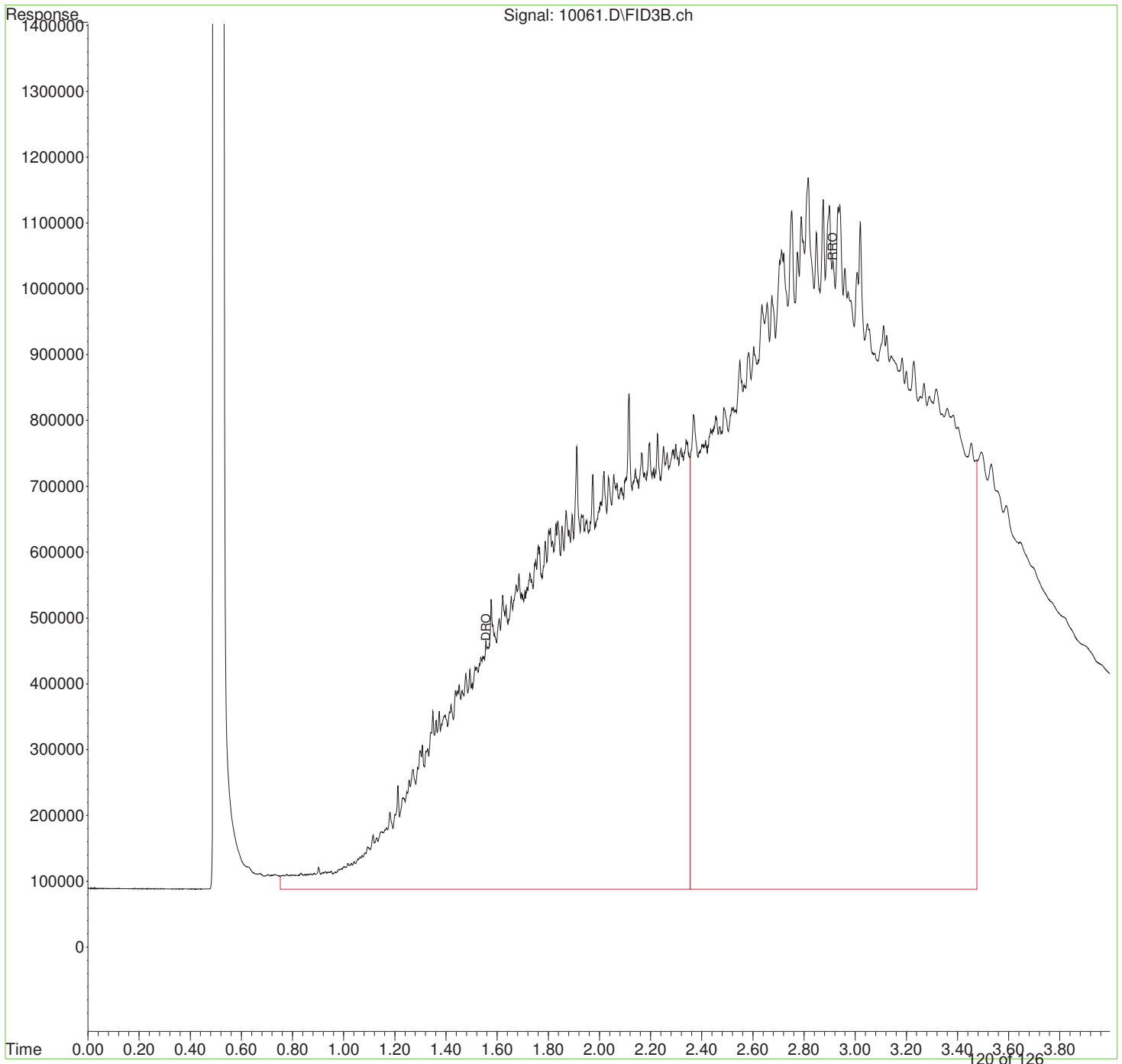
Volume Inj. :
Signal Phase :
Signal Info :



Data Path : Z:\06\SF\DATA\061016A\
Data File : 10061.D
Signal(s) : FID3B.ch
Acq On : 10 Jun 2016 7:46 pm
Operator : AEE/S.G.
Sample : 1162856010 4X
Misc :
ALS Vial : 48 Sample Multiplier: 4

Integration File: autoint1.e
Quant Time: Jun 11 15:42:04 2016
Quant Method : Z:\06\SF\METHOD\SFR2016-0505J.M
Quant Title : DRO/RRO by Method AK 102/103
QLast Update : Fri May 06 15:26:44 2016
Response via : Initial Calibration
Integrator: ChemStation

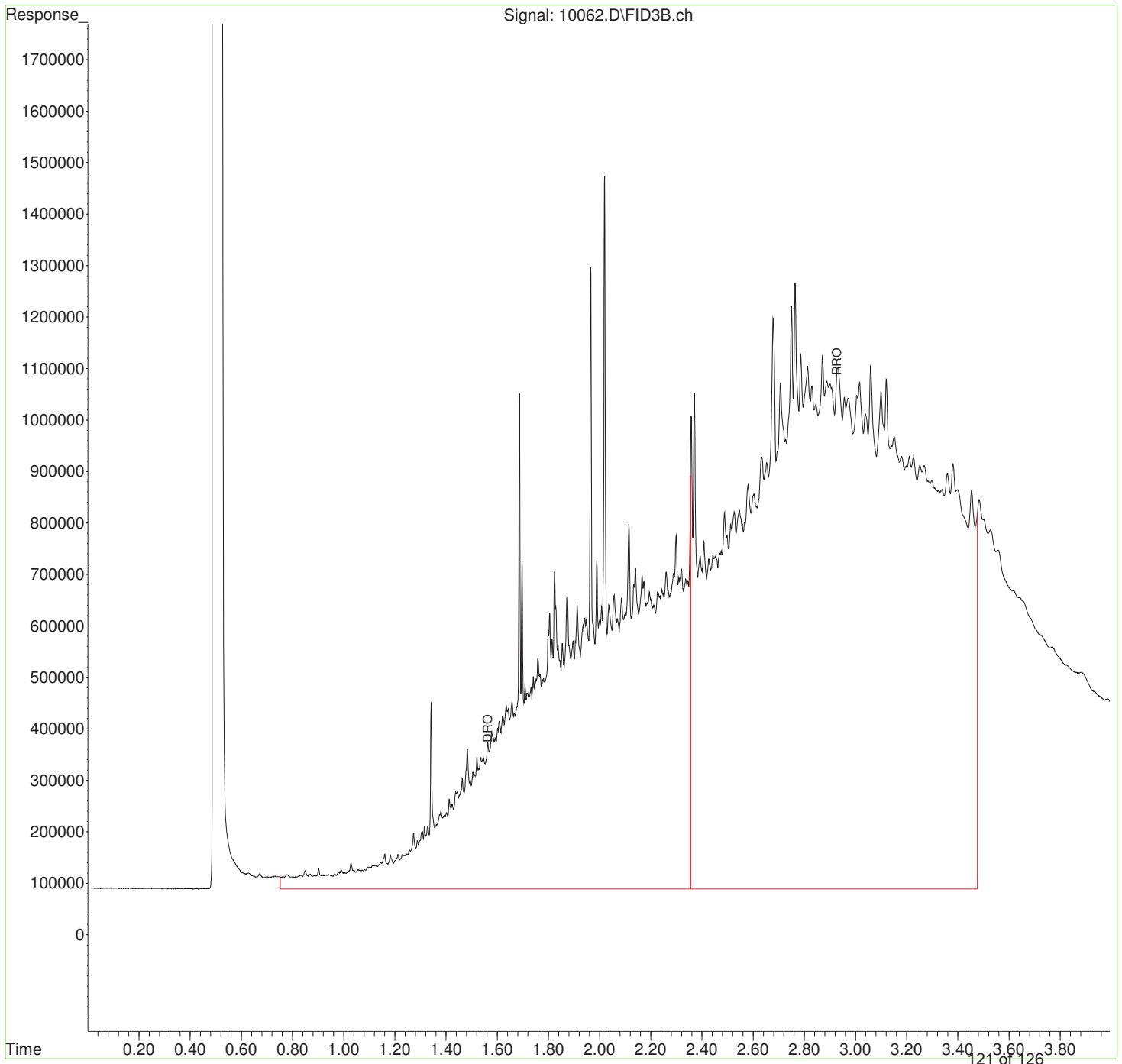
Volume Inj. :
Signal Phase :
Signal Info :



Data Path : Z:\06\SF\DATA\061016A\
Data File : 10062.D
Signal(s) : FID3B.ch
Acq On : 10 Jun 2016 7:57 pm
Operator : AEE/S.G.
Sample : 1162856011 4X
Misc :
ALS Vial : 49 Sample Multiplier: 4

Integration File: autoint1.e
Quant Time: Jun 11 15:44:08 2016
Quant Method : Z:\06\SF\METHOD\SFR2016-0505J.M
Quant Title : DRO/RRO by Method AK 102/103
QLast Update : Fri May 06 15:26:44 2016
Response via : Initial Calibration
Integrator: ChemStation

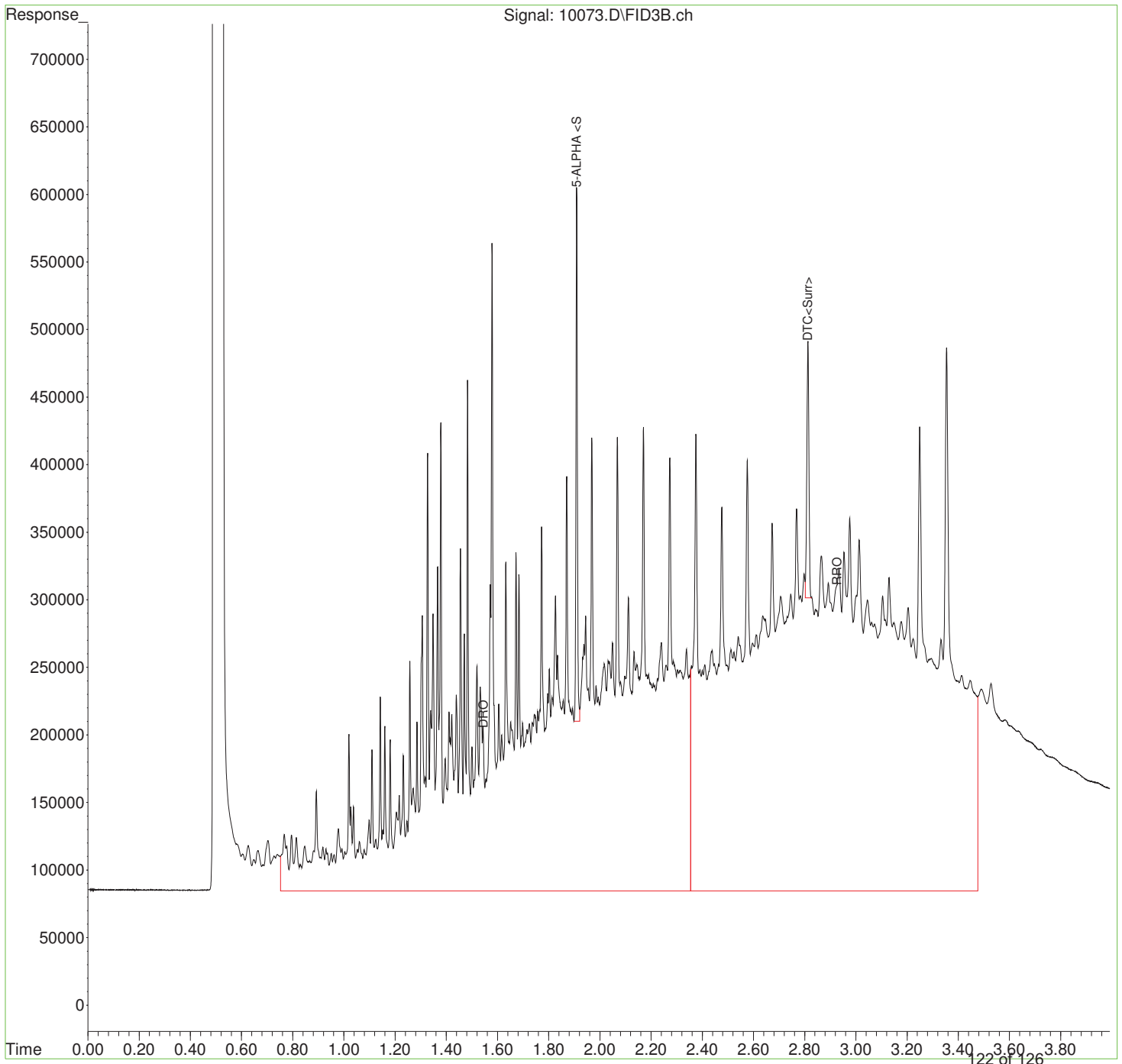
Volume Inj. :
Signal Phase :
Signal Info :



Data Path : Z:\06\SF\DATA\061016A\
Data File : 10073.D
Signal(s) : FID3B.ch
Acq On : 10 Jun 2016 9:49 pm
Operator : AEE/S.G.
Sample : 1162856012 4X
Misc :
ALS Vial : 55 Sample Multiplier: 4

Integration File: autoint1.e
Quant Time: Jun 11 15:59:48 2016
Quant Method : Z:\06\SF\METHOD\SFR2016-0505J.M
Quant Title : DRO/RRO by Method AK 102/103
QLast Update : Fri May 06 15:26:44 2016
Response via : Initial Calibration
Integrator: ChemStation

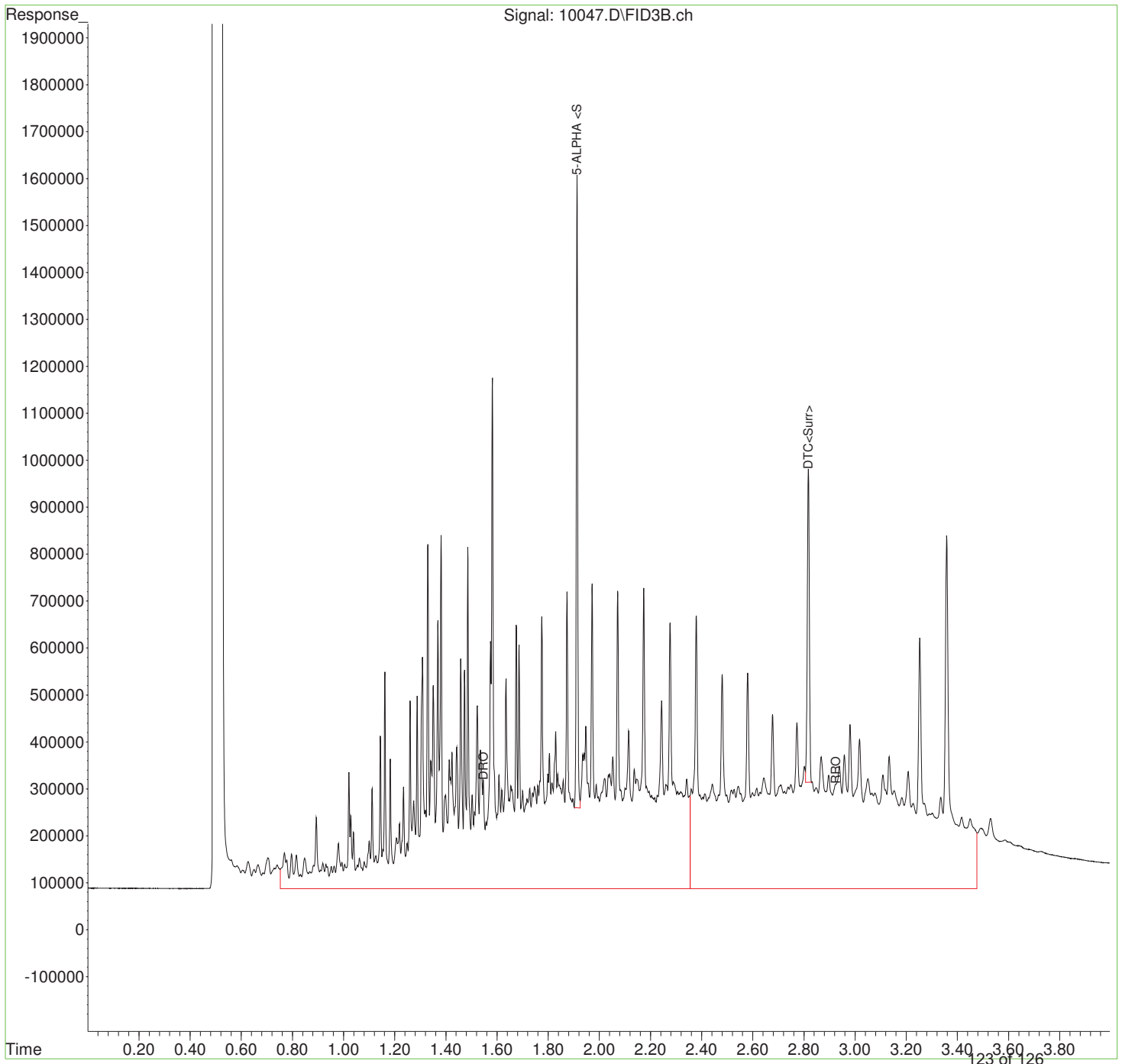
Volume Inj. :
Signal Phase :
Signal Info :



Data Path : Z:\06\SF\DATA\061016A\
 Data File : 10047.D
 Signal(s) : FID3B.ch
 Acq On : 10 Jun 2016 5:22 pm
 Operator : AEE/S.G.
 Sample : 1162856013
 Misc :
 ALS Vial : 40 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Jun 11 15:11:03 2016
 Quant Method : Z:\06\SF\METHOD\SFR2016-0505J.M
 Quant Title : DRO/RRO by Method AK 102/103
 QLast Update : Fri May 06 15:26:44 2016
 Response via : Initial Calibration
 Integrator: ChemStation

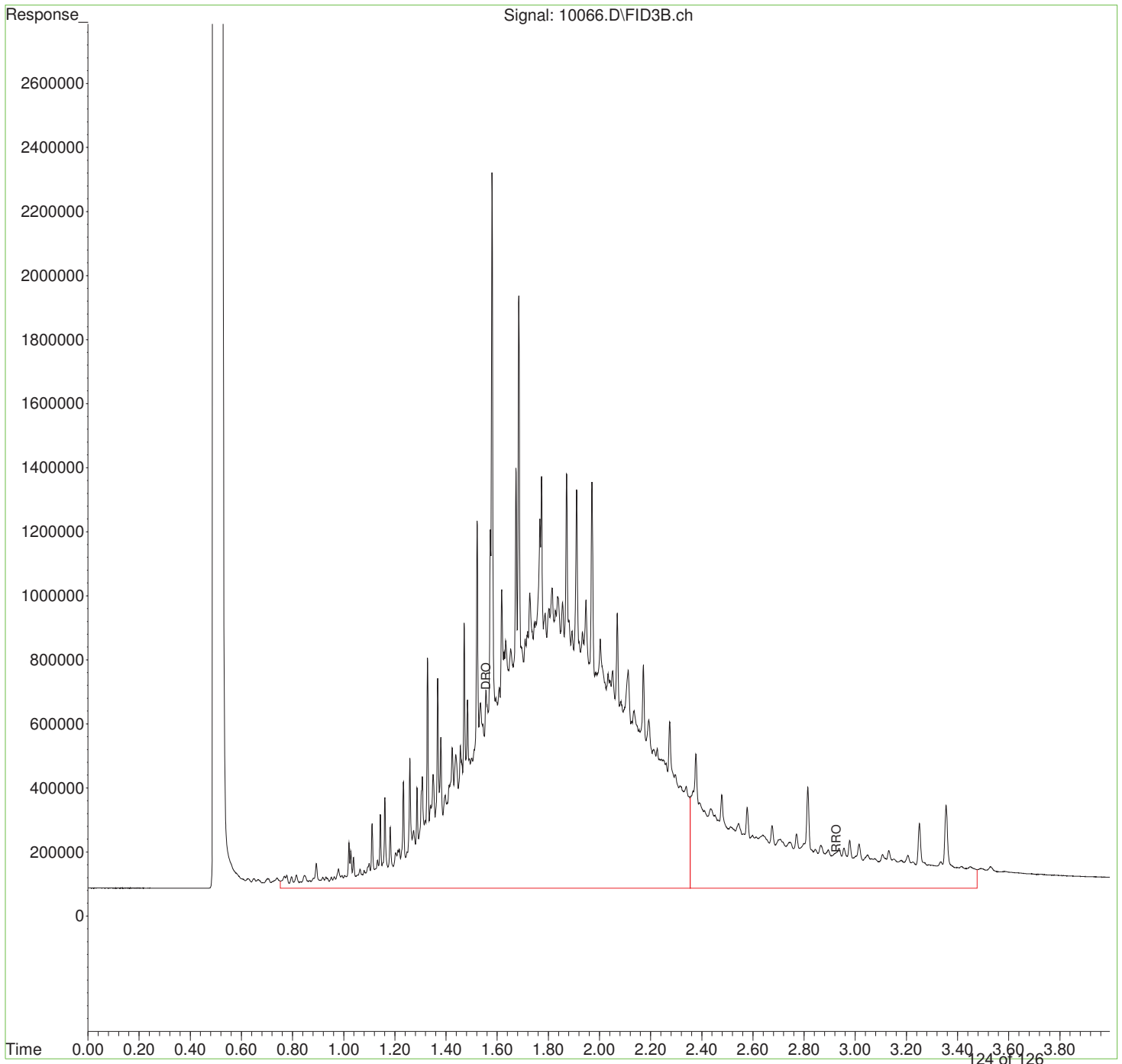
Volume Inj. :
 Signal Phase :
 Signal Info :



Data Path : Z:\06\SF\DATA\061016A\
Data File : 10066.D
Signal(s) : FID3B.ch
Acq On : 10 Jun 2016 8:37 pm
Operator : AEE/S.G.
Sample : 1162856014 4X
Misc :
ALS Vial : 50 Sample Multiplier: 4

Integration File: autoint1.e
Quant Time: Jun 11 15:48:24 2016
Quant Method : Z:\06\SF\METHOD\SFR2016-0505J.M
Quant Title : DRO/RRO by Method AK 102/103
QLast Update : Fri May 06 15:26:44 2016
Response via : Initial Calibration
Integrator: ChemStation

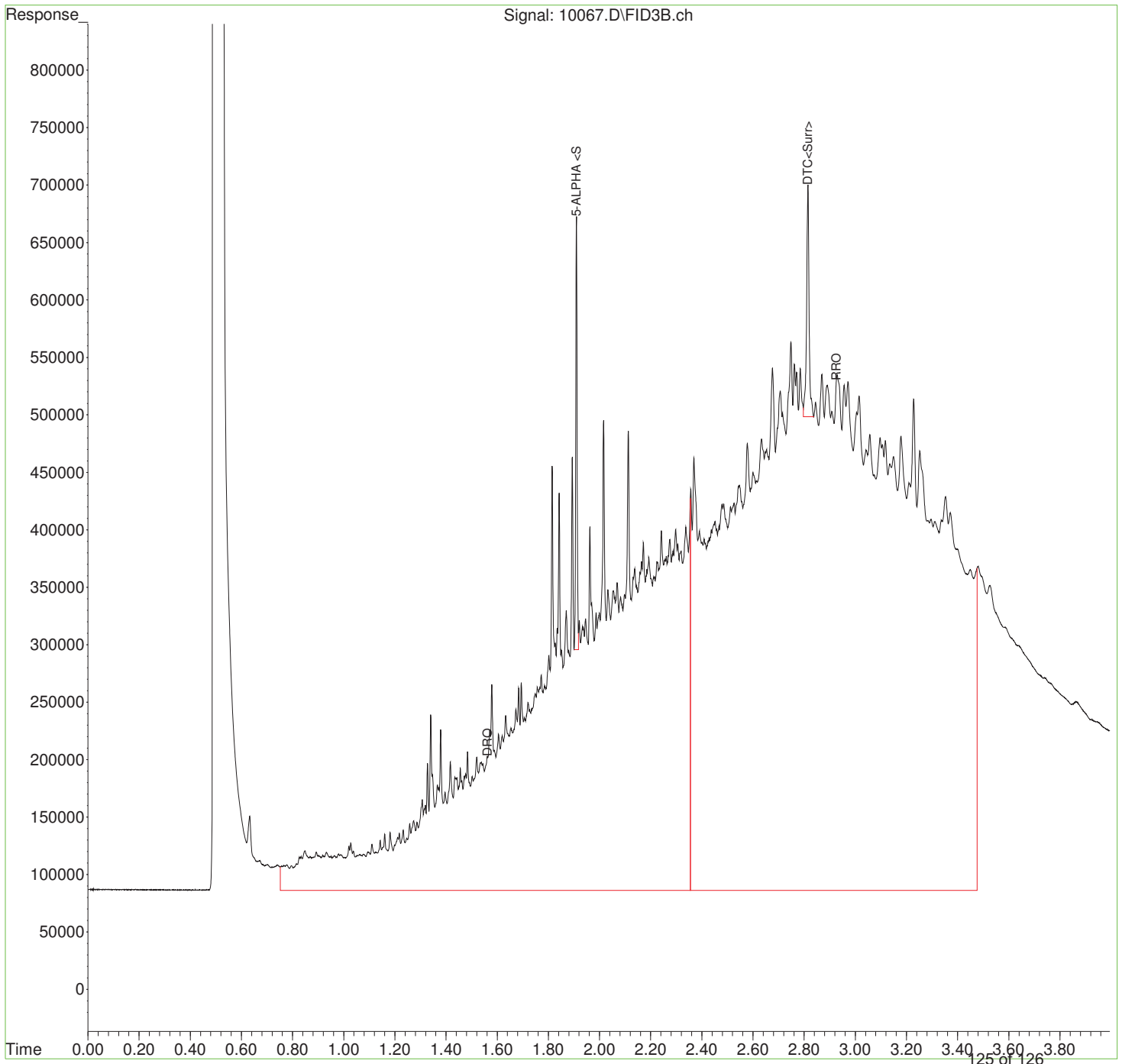
Volume Inj. :
Signal Phase :
Signal Info :



Data Path : Z:\06\SF\DATA\061016A\
 Data File : 10067.D
 Signal(s) : FID3B.ch
 Acq On : 10 Jun 2016 8:48 pm
 Operator : AEE/S.G.
 Sample : 1162856015 4X
 Misc :
 ALS Vial : 51 Sample Multiplier: 4

Integration File: autoint1.e
 Quant Time: Jun 11 15:52:38 2016
 Quant Method : Z:\06\SF\METHOD\SFR2016-0505J.M
 Quant Title : DRO/RRO by Method AK 102/103
 QLast Update : Fri May 06 15:26:44 2016
 Response via : Initial Calibration
 Integrator: ChemStation

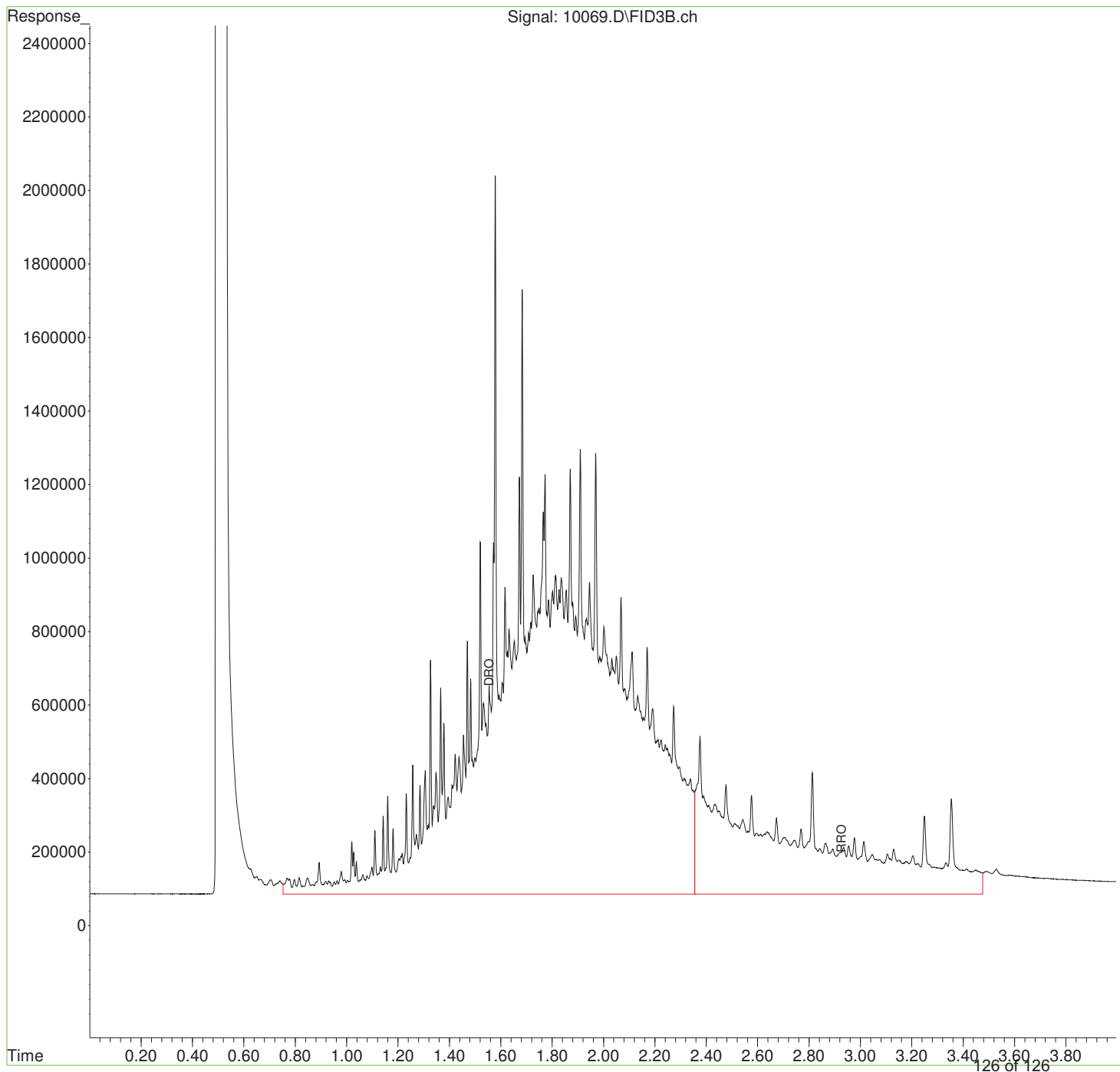
Volume Inj. :
 Signal Phase :
 Signal Info :



Data Path : Z:\06\SF\DATA\061016A\
Data File : 10069.D
Signal(s) : FID3B.ch
Acq On : 10 Jun 2016 9:08 pm
Operator : AEE/S.G.
Sample : 1162856016 4X
Misc :
ALS Vial : 52 Sample Multiplier: 4

Integration File: autoint1.e
Quant Time: Jun 11 15:54:05 2016
Quant Method : Z:\06\SF\METHOD\SFR2016-0505J.M
Quant Title : DRO/RRO by Method AK 102/103
QLast Update : Fri May 06 15:26:44 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



**Appendix D:
Laboratory Data Review Checklist**

Laboratory Data Review Checklist

Completed by:	Ori Miller		
Title:	Environmental Engineer	Date:	Jun 27, 2016
CS Report Name:	AJT Drums Treadwell Trail	Report Date:	Jun 24, 2016
Consultant Firm:	NORTECH		
Laboratory Name:	SGS North America	Laboratory Report Number:	1162856
ADEC File Number:	16119903901	ADEC RecKey Number:	

1. Laboratory

a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

Yes No NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

Yes No NA (Please explain) Comments:

Samples Not Transferred

2. Chain of Custody (COC)

a. COC information completed, signed, and dated (including released/received by)?

Yes No NA (Please explain) Comments:

b. Correct analyses requested?

Yes No NA (Please explain) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{C}$)?

Yes No NA (Please explain) Comments:

Temperature Blank Reported at 6.5 deg. C

b. Sample preservation acceptable - acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

Yes No NA (Please explain) Comments:

c. Sample condition documented - broken, leaking (Methanol), zero headspace (VOC vials)?

Yes No NA (Please explain) Comments:

d. If there were any discrepancies, were they documented? - For example, incorrect sample containers/preservation, sample temperature outside of acceptance range, insufficient or missing samples, etc.?

Yes No NA (Please explain) Comments:

No Discrepancies

e. Data quality or usability affected? (Please explain)

Comments:

Not Affected

4. Case Narrative

a. Present and understandable?

Yes No NA (Please explain) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

Yes No NA (Please explain) Comments:

Numerous problems due to dilution, and hydrocarbon interference

c. Were all corrective actions documented?

Yes No NA (Please explain) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

No effect

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

Yes No NA (Please explain)

Comments:

b. All applicable holding times met?

Yes No NA (Please explain)

Comments:

c. All soils reported on a dry weight basis?

Yes No NA (Please explain)

Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

Yes No NA (Please explain)

Comments:

higher PQLs due to dilution and hydrocarbon interference

e. Data quality or usability affected? (Please explain)

Comments:

Not affected due to dilutions

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

Yes No NA (Please explain)

Comments:

ii. All method blank results less than PQL?

Yes No NA (Please explain)

Comments:

iii. If above PQL, what samples are affected?

Comments:

No affected samples

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes No NA (Please explain) Comments:

No affected samples

v. Data quality or usability affected? (Please explain) Comments:

Not Affected

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics - One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

Yes No NA (Please explain) Comments:

ii. Metals/Inorganics - One LCS and one sample duplicate reported per matrix, analysis and 20 samples?

Yes No NA (Please explain) Comments:

No Inorganics

iii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

Yes No NA (Please explain) Comments:

iv. Precision - All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/DMSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

Yes No NA (Please explain) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

None

vi. Do the affected samples(s) have data flags? If so, are the data flags clearly defined?

Yes No NA (Please explain) Comments:

No Affected Samples

vii. Data quality or usability affected? (Please explain) Comments:

Not Affected

c. Surrogates - Organics Only

i. Are surrogate recoveries reported for organic analyses - field, QC and laboratory samples?

Yes No NA (Please explain) Comments:

ii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

Yes No NA (Please explain) Comments:

Surrogate recovery failed in some samples due to dilution

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

Yes No NA (Please explain) Comments:

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

Not Affected

d. Trip Blank - Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

Yes No NA (Please explain.) Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

Yes No NA (Please explain.) Comments:

iii. All results less than PQL?

Yes No NA (Please explain.)

Comments:

iv. If above PQL, what samples are affected?

Comments:

v. Data quality or usability affected? (Please explain.)

Comments:

Not Affected

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

Yes No NA (Please explain.)

Comments:

ii. Submitted blind to lab?

Yes No NA (Please explain.)

Comments:

iii. Precision - All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$RPD (\%) = \frac{\text{Absolute Value of: } (R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

Yes No NA (Please explain.)

Comments:

Duplicate CZ-40 for sample CZ-19 exceeded 50 % RPD

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Yes No NA (Please explain.)

Comments:

Not affected due to dilution

f. Decontamination or Equipment Blank (if applicable)

Yes No NA (Please explain)

Comments:

No Decon Equipment

i. All results less than PQL?

Yes No NA (Please explain)

Comments:

ii. If above PQL, what samples are affected?

Comments:

iii. Data quality or usability affected? (Please explain.)

Comments:

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

Yes No NA (Please explain)

Comments:

Reset Form

Appendix E: Conceptual Site Model

Appendix A - Human Health Conceptual Site Model Scoping Form and Standardized Graphic

Site Name:

File Number:

Completed by:

Introduction

The form should be used to reach agreement with the Alaska Department of Environmental Conservation (DEC) about which exposure pathways should be further investigated during site characterization. From this information, summary text about the CSM and a graphic depicting exposure pathways should be submitted with the site characterization work plan and updated as needed in later reports.

General Instructions: Follow the italicized instructions in each section below.

1. General Information:

Sources *(check potential sources at the site)*

- | | |
|--|--|
| <input type="checkbox"/> USTs | <input type="checkbox"/> Vehicles |
| <input type="checkbox"/> ASTs | <input type="checkbox"/> Landfills |
| <input type="checkbox"/> Dispensers/fuel loading racks | <input type="checkbox"/> Transformers |
| <input checked="" type="checkbox"/> Drums | <input type="checkbox"/> Other: <input type="text"/> |

Release Mechanisms *(check potential release mechanisms at the site)*

- | | |
|--|--|
| <input checked="" type="checkbox"/> Spills | <input type="checkbox"/> Direct discharge |
| <input checked="" type="checkbox"/> Leaks | <input type="checkbox"/> Burning |
| | <input type="checkbox"/> Other: <input type="text"/> |

Impacted Media *(check potentially-impacted media at the site)*

- | | |
|---|--|
| <input checked="" type="checkbox"/> Surface soil (0-2 feet bgs*) | <input checked="" type="checkbox"/> Groundwater |
| <input checked="" type="checkbox"/> Subsurface soil (>2 feet bgs) | <input checked="" type="checkbox"/> Surface water |
| <input type="checkbox"/> Air | <input checked="" type="checkbox"/> Biota |
| <input type="checkbox"/> Sediment | <input type="checkbox"/> Other: <input type="text"/> |

Receptors *(check receptors that could be affected by contamination at the site)*

- | | |
|--|---|
| <input type="checkbox"/> Residents (adult or child) | <input checked="" type="checkbox"/> Site visitor |
| <input checked="" type="checkbox"/> Commercial or industrial worker | <input type="checkbox"/> Trespasser |
| <input checked="" type="checkbox"/> Construction worker | <input checked="" type="checkbox"/> Recreational user |
| <input type="checkbox"/> Subsistence harvester (i.e. gathers wild foods) | <input type="checkbox"/> Farmer |
| <input type="checkbox"/> Subsistence consumer (i.e. eats wild foods) | <input type="checkbox"/> Other: <input type="text"/> |

* bgs - below ground surface

2. Exposure Pathways: *(The answers to the following questions will identify complete exposure pathways at the site. Check each box where the answer to the question is "yes".)*

a) Direct Contact -

1. Incidental Soil Ingestion

Are contaminants present or potentially present in surface soil between 0 and 15 feet below the ground surface? (Contamination at deeper depths may require evaluation on a site-specific basis.)

If the box is checked, label this pathway complete:

Complete

Comments:

2. Dermal Absorption of Contaminants from Soil

Are contaminants present or potentially present in surface soil between 0 and 15 feet below the ground surface? (Contamination at deeper depths may require evaluation on a site specific basis.)

Can the soil contaminants permeate the skin (see Appendix B in the guidance document)?

If both boxes are checked, label this pathway complete:

Complete

Comments:

b) Ingestion -

1. Ingestion of Groundwater

Have contaminants been detected or are they expected to be detected in the groundwater, or are contaminants expected to migrate to groundwater in the future?

Could the potentially affected groundwater be used as a current or future drinking water source? Please note, only leave the box unchecked if DEC has determined the groundwater is not a currently or reasonably expected future source of drinking water according to 18 AAC 75.350.

If both boxes are checked, label this pathway complete:

Incomplete

Comments:

Area is not native soil. It is fill raised up above Gastineau Channel. Water will permeate into the channel before it can reach true ground water.

2. Ingestion of Surface Water

Have contaminants been detected or are they expected to be detected in surface water, or are contaminants expected to migrate to surface water in the future?

Could potentially affected surface water bodies be used, currently or in the future, as a drinking water source? Consider both public water systems and private use (i.e., during residential, recreational or subsistence activities).

If both boxes are checked, label this pathway complete:

Incomplete

Comments:

3. Ingestion of Wild and Farmed Foods

Is the site in an area that is used or reasonably could be used for hunting, fishing, or harvesting of wild or farmed foods?

Do the site contaminants have the potential to bioaccumulate (see Appendix C in the guidance document)?

Are site contaminants located where they would have the potential to be taken up into biota? (i.e. soil within the root zone for plants or burrowing depth for animals, in groundwater that could be connected to surface water, etc.)

If all of the boxes are checked, label this pathway complete:

Incomplete

Comments:

c) Inhalation-

1. Inhalation of Outdoor Air

Are contaminants present or potentially present in surface soil between 0 and 15 feet below the ground surface? (Contamination at deeper depths may require evaluation on a site specific basis.)

Are the contaminants in soil volatile (see Appendix D in the guidance document)?

If both boxes are checked, label this pathway complete:

Incomplete

Comments:

Contamination occurred too long ago to be considered volatile.

2. Inhalation of Indoor Air

Are occupied buildings on the site or reasonably expected to be occupied or placed on the site in an area that could be affected by contaminant vapors? (within 30 horizontal or vertical feet of petroleum contaminated soil or groundwater; within 100 feet of non-petroleum contaminated soil or groundwater; or subject to "preferential pathways," which promote easy airflow like utility conduits or rock fractures)

Are volatile compounds present in soil or groundwater (see Appendix D in the guidance document)?

If both boxes are checked, label this pathway complete:

Incomplete

Comments:

3. Additional Exposure Pathways: *(Although there are no definitive questions provided in this section, these exposure pathways should also be considered at each site. Use the guidelines provided below to determine if further evaluation of each pathway is warranted.)*

Dermal Exposure to Contaminants in Groundwater and Surface Water

Dermal exposure to contaminants in groundwater and surface water may be a complete pathway if:

- Climate permits recreational use of waters for swimming.
- Climate permits exposure to groundwater during activities, such as construction.
- Groundwater or surface water is used for household purposes, such as bathing or cleaning.

Generally, DEC groundwater cleanup levels in 18 AAC 75, Table C, are assumed to be protective of this pathway.

Check the box if further evaluation of this pathway is needed:

Comments:

Inhalation of Volatile Compounds in Tap Water

Inhalation of volatile compounds in tap water may be a complete pathway if:

- The contaminated water is used for indoor household purposes such as showering, laundering, and dish washing.
- The contaminants of concern are volatile (common volatile contaminants are listed in Appendix D in the guidance document.)

Generally, DEC groundwater cleanup levels in 18 AAC 75, Table C, are assumed to be protective of this pathway.

Check the box if further evaluation of this pathway is needed:

Comments:

Inhalation of Fugitive Dust

Inhalation of fugitive dust may be a complete pathway if:

- Nonvolatile compounds are found in the top 2 centimeters of soil. The top 2 centimeters of soil are likely to be dispersed in the wind as dust particles.
- Dust particles are less than 10 micrometers (Particulate Matter - PM₁₀). Particles of this size are called respirable particles and can reach the pulmonary parts of the lungs when inhaled.
- Chromium is present in soil that can be dispersed as dust particles of any size.

Generally, DEC direct contact soil cleanup levels in Table B1 of 18 AAC 75 are protective of this pathway because it is assumed most dust particles are incidentally ingested instead of inhaled to the lower lungs. The inhalation pathway only needs to be evaluated when very small dust particles are present (e.g., along a dirt roadway or where dusts are a nuisance). This is not true in the case of chromium. Site specific cleanup levels will need to be calculated in the event that inhalation of dust containing chromium is a complete pathway at a site.

Check the box if further evaluation of this pathway is needed:

Comments:

Direct Contact with Sediment

This pathway involves people's hands being exposed to sediment, such as during some recreational, subsistence, or industrial activity. People then incidentally ingest sediment from normal hand-to-mouth activities. In addition, dermal absorption of contaminants may be of concern if the the contaminants are able to permeate the skin (see Appendix B in the guidance document). This type of exposure should be investigated if:

- Climate permits recreational activities around sediment.
- The community has identified subsistence or recreational activities that would result in exposure to the sediment, such as clam digging.

Generally, DEC direct contact soil cleanup levels in 18 AAC 75, Table B1, are assumed to be protective of direct contact with sediment.

Check the box if further evaluation of this pathway is needed:

Comments:

4. Other Comments *(Provide other comments as necessary to support the information provided in this form.)*

**Appendix F:
Weight Tickets and
Disposal Acceptance Forms**

Date: 6-1 Truck Number: Arctc

Customer's Name: Arctc

Project: Treadwell

Commodity: contaminated soil

Remarks: _____

Time Out: _____ Gross lbs.: 56700

Time In: _____ Tare lbs.: 26500

Weigher: Pal lbs. Net: 29400

Carrier: Arctc 14.95

Date: 10-1 Truck Number: Arctc
Customer's Name: Arctc
Project: Treadwell
Commodity: contaminated soil
Remarks: _____

Time Out: _____ Gross lbs.: 55620
Time In: _____ Tare lbs.: 16800
Weigher: Pal lbs. Net: 28820
Carrier: Arctc 14.41

Date: 10-1 Truck Number: Arctc
Customer's Name: Arctc
Project: Treadwell
Commodity: contaminated soil
Remarks: _____

Time Out: _____ Gross lbs.: 50700
Time In: _____ Tare lbs.: 26800
Weigher: Pal lbs. Net: 23900
Carrier: Arctc 11.95

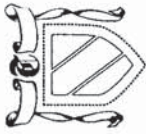
Date: 6-1 Truck Number: Arete
Customer's Name: Arete
Project: Treadwell
Commodity: Contaminated Soil
Remarks: _____

Time Out: _____ Gross lbs.: 41600
Time In: _____ Tare lbs.: 26500
Weigher: Paul lbs. Net: 14860
Carrier: Arete 7.43

Date: 6-1 Truck Number: Arete
Customer's Name: Arete
Project: Treadwell
Commodity: Contaminated Soil
Remarks: _____

Time Out: _____ Gross lbs.: 54860
Time In: _____ Tare lbs.: 26500
Weigher: Paul lbs. Net: 28060
Carrier: Arete 14.03

CHANNEL CONSTRUCTION, INC.



P.O. Box 33359 • Juneau, AK 99803
 907-780-4224 • 907-789-0200
 FAX: 907-780-5119

TICKET NO. 167323
 DATE 6/1 2016
 BILL TO: Arete

CUSTOMER NO. _____ ORDER NO. _____

JOB LOCATION South Treadwell Trail

REMARKS
 EQUIP. DESCRIP. Stright Dump EQ. NO. 56 TRL. NO. N/A SIZE 10 yd

MATERIALS	FROM	TO	LOADS
	<u>South Treadwell</u>	<u>Industrial Blvd</u>	<u>2</u>
HOURS	<u>1430</u>	<u>1800</u>	<u>3.5</u>
MISC.	<u>Tax 24,120</u>		<u>3.5</u>
	<u>#1 50,420 = 13.15T</u>	<u>#2 56,120 = 16T</u>	



**ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 DIVISION OF SPILL PREVENTION AND RESPONSE
 Contaminated Sites and Prevention and Emergency Response Programs
 Transport, Treatment, & Disposal Approval Form for Contaminated Media**

DEC HAZARD/SPILL ID #		NAME OF SPILL OR CONTAMINATED SITE	
16119903901		Treadwell Trail Drum Cache	
SITE OR SPILL LOCATION			
1 mile from the Treadwell Ditch trail head at St. Ann's Street in Douglas, Alaska.			
CURRENT LOCATION AND TYPE OF CONTAMINATED MEDIA		SOURCE OF THE CONTAMINATION	
1 mile from the Treadwell Ditch trail head at St. Ann's Street in Douglas, Alaska/Contaminated soils		26 fifty-five gallon drums	
COMPOUNDS OF CONCERN		ESTIMATED VOLUME	DATE(S) GENERATED
DRO, GRO, RRO		70 tons/ 41 yd ³	June 1, 2016
POST TREATMENT ANALYSIS REQUIRED (such as GRO, DRO, RRO, BTEX, and/or Chlorinated Solvents)			
DRO, GRO, RRO			
COMMENTS			
Soils taken to Bicknell, Inc. on 6/1/16. Backfill and final grading completed 6/2/16.			

Facility Accepting the Contaminated Media

NAME OF THE FACILITY	PHYSICAL ADDRESS/PHONE NUMBER
Bicknell Inc.	2217 Brandy Lane #1, Juneau AK (907) 789-5727

Responsible Party and Contractor Information

BUSINESS/NAME	ADDRESS/PHONE NUMBER
AJT Mining Properties, Inc.	5601 Tonsgard Court, Juneau, Alaska 99801
NORTECH Environment, Energy, Health & Safety	5438 Shaune Dr. Suite B, Juneau, AK 99801

Jason Ginter

NORTECH Principal, Juneau Technical Manager

Name of the Person Requesting Approval (printed)

Title/Association

Signature

Date

Phone Number

5/26/2016 (907)586-6813

-----DEC USE ONLY-----

Based on the information provided, ADEC approves transport of the above-described media for treatment in accordance with the approved facility operations plan. The Responsible Party or their consultant must submit to the DEC Project Manager a copy of weight/volume receipts of the loads transported to the facility and a post treatment analytical report. If the media is contaminated soil, it shall be transported as a covered load in compliance with 18 AAC 60.015.

Allison A. Natcher

Environmental Program Specialist

DEC Project Manager Name (printed)

Project Manager Title

Allison A. Natcher

5/26/2016 (907)465-5637

Signature

Date

Phone Number



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Prevention, Preparedness and Response Program

410 Willoughby Avenue Suite 303
Juneau, AK 99811
Office: 907-465-5346
Fax: 907-465-5245
www.dec.alaska.gov

December 20, 2016

AJT Mining Properties, Inc.
Attn: Mr. Bruce Howard
5601 Tonsgard Court
Juneau, AK 99801-7201

Subject: Case Closure, Treadwell Trail Drum Cache, Spill # 16119903901

Dear Mr. Howard:

The Alaska Department of Environmental Conservation (department) has completed review of the case file for the petroleum release found at AJT Mining Properties, Inc. property located one mile from the Treadwell Ditch trail head at St. Ann's Street in Douglas, Alaska, and reported on February 8, 2016.

The Site Assessment Report titled: Site Assessment Report Oil Drum Cache Along Treadwell Trail Douglas, Alaska, prepared by NORTECH, dated September 2016, gives a summary of the cleanup actions that were taken, including excavation and disposal of 63 cubic yards of petroleum impacted soils at Bicknell, Inc., Juneau, Alaska. Confirmation soil samples collected from the extent of the excavation indicate that petroleum impacted soil remains at the site. Laboratory analytical results indicate that soil concentrations for diesel range organics as high as 29,400 mg/kg and residual range organics 56,500 mg/kg were measured in soil sample CZ-2. NORTECH reports the contamination that remains is present as asphaltic tar balls and not distributed in the soil in liquid phase. Existing in this state, the contamination is not mobile. We have received a case closure request from NORTECH citing that petroleum impacted soils have been removed to the maximum extent practicable in accordance with 18 AAC 75.315. Based on the information provided to the department to date the department concurs with NORTECH's conclusions and has determined the case is closed with no further action required under 18 AAC 75.315.

If additional information becomes available in the future that suggests this case was closed in error, additional investigation and/or cleanup actions may be required. Should you become aware of information or circumstances that suggest the site was not cleaned up to the "lowest practicable level of contamination", you are required to contact this office and provide notification.

In addition, cost recovery under Alaska Statute 46.08.070, will continue until all State costs have been reimbursed. If you have questions or comments about cost recovery you can contact the Cost Recovery Section Manager at (907)465-5290 or dec.spar.cr@alaska.gov.

For questions or comments regarding this spill case, please contact me, at (907)465-5367 and allison.natcher@alaska.gov.

Sincerely,



Allison A. Natcher
Case Manager

Electronic cc:

David Pikul, Southeast Region Unit Supervisor
Cost Recovery, SPAR/RFA
Jason Ginter, NORTECH, Inc.