Statoil

February 16, 2016

Mr. James Justice
US EPA, Region 5
25063 Center Ridge Road
Westlake, Ohio 44145

Re: Statoil Eisenbarth Well Pad Site, Clarington, Ohio, Docket No. V-W-14-C-012, Paragraphs 15.a.ii and 15.b.

Mr. Justice:

This letter and report are hereby submitted pursuant to the Administrative Settlement Agreement and Order on Consent for Removal Action, In re: Statoil Eisenbarth Well Pad Site, Clarington, Ohio (effective Aug. 20, 2014) and the approved Work Plan. This report, required by Paragraph 15.b, addresses the evaluation specified in Paragraph 15.a.ii. and the approved Work Plan, which required Statoil to monitor, sample, and assess surface waters and sediments within an unnamed tributary to Opossum Creek and Opossum Creek for chemical constituents identified in the Environmental Sampling and Analysis Plan (SAP), Version 1.7. Statoil has utilized sample data collected after April 8, 2015 as part of a comprehensive analysis of the surface waters and sediments in the context of the SAP chemical constituents.

Statoil is providing hard copies to your office for review. A copy of all text, appendices, and figures will also be provided to you via electronic mail.

If you have any questions, please do not hesitate to contact me at 512-427-3404.

Sincerely,

Steve Tink
Leader- Safety and Sustainability Unit, Marcellus
Acting Project Coordinator

Administrative Settlement Agreement and Order on Consent for Removal Action

In re:

Statoil Eisenbarth Well Pad Site

Clarington, Ohio, Docket No. V-W-14-C-012

Supplemental Report for Paragraph 15.a.ii

Submitted February 16, 2016

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EXECUTIVE SUMMARY

The following report contains the results of Statoil's evaluation of data collected from monitoring, sampling, and assessment activities of the surface waters and sediments within an unnamed tributary to Opossum Creek and Opossum Creek. The surface waters and sediments within downgradient areas of the Eisenbarth Well Pad were monitored, sampled, and assessed for chemical constituents identified in the Center for Toxicology and Environmental Health's (CTEH) *Environmental Sampling and Analysis Plan* (SAP), Version 1.7, pursuant to Paragraph 15.a.ii of the Administrative Settlement Agreement and Order on Consent for Removal Action (AOC), Docket No. V-W-14-C-012 between Statoil USA Onshore Properties, Inc. (Statoil) and the United States Environmental Protection Agency (US EPA) and the approved Work Plan. This report is submitted pursuant to Paragraph 15.b of the AOC.

Statoil submitted the initial *Report for Paragraph 15.a.ii* to the US EPA on July 22, 2015, which summarized surface water and sediment chemistry within the area surrounding the Eisenbarth Well Pad. Pursuant to the approved Work Plan, Statoil was to further evaluate surface waters and sediments on three occasions beginning one month after the discontinuation of containment activities on the Eisenbarth Well Pad, herein referred to as "post-containment monitoring". This sampling was to be conducted within three areas:

1. The Eisenbarth Well Pad drains
2. Portions of the unnamed tributary to Opossum Creek
3. Opossum Creek

These three areas were evaluated on three (3) separate, weather and/or seasonal-dictated sampling events pursuant to the Work Plan as follows:

- **July 7, 2015 Sampling Event**: Met criteria to immediately follow a "significant" rain event (a 24-hour precipitation event producing 0.5-inches of rain, or greater).
- **August 24, 2015 Sampling Event**: Met criteria to immediately follow a minimum three-day period with no rain event.
- **October 12, 2015 Sampling Event**: Met criteria to be collected during the fall of 2015.

The laboratory data were used in conjunction with field-measured parameters (pH, dissolved oxygen (D.O.), total dissolved solids (TDS), conductivity, salinity, oxidation-reduction potential (ORP), turbidity and temperature) to evaluate trends and impacts.

Sampling and analysis of waters and sediments from the three post-containment sampling events indicate that the assessed constituents have naturally attenuated. Analytical results for the Eisenbarth Well Pad drainage ways, the unnamed tributary to Opossum Creek, and Opossum Creek indicate that, except for acetone, the target analytes are below ecological screening levels. Additionally, there are countervailing technical issues with the acetone data, as further described below. Based on the results of this supplemental evaluation, no impacts to the streams downgradient of the Eisenbarth Well Pad are anticipated.

1.0 INTRODUCTION

Moody and Associates, Inc. (Moody) has prepared this report on behalf of Statoil USA Onshore Properties, Inc. (Statoil) in accordance with Paragraphs 15.a.ii and 15.b of the Administrative Settlement Agreement and Order on Consent for Removal Action (AOC), and the Work Plan approved pursuant to Paragraph 16 of the AOC. This report summarizes the results of additional monitoring, sampling, and assessment of the surface waters and sediments within three (3) areas as required by the Work Plan.

The three evaluated areas consist of the Eisenbarth Well Pad underdrains, the unnamed tributary to Opossum Creek, and Opossum Creek (refer to *Figure 1*). The surface waters and sediments within these areas were analyzed for the chemical constituents identified in the Center for Toxicology and Environmental Health's (CTEH) *Environmental Sampling and Analysis Plan* (SAP), Version 1.7. This sampling program was initiated following the cessation of surface water runoff containment at the Eisenbarth Pad, referred to herein as the "post-containment monitoring period". The surface water and sediment sampling locations evaluated during the post-containment monitoring period are included on *Figure 1*.

This report provides a comprehensive analysis and evaluation of the sediment and surface water samples collected during three (3) post-containment period events: two (2) of the sampling events were weather-dictated and one (1) sampling event was seasonally-dictated. The sampling results collected during this evaluation were compared to sampling data collected from June 29, 2014 through April 8, 2015, which were previously summarized in Statoil's *Report for Paragraph 15.a.ii*, submitted to the US EPA on July 22, 2015.

1.1 Work Scope Summary

1.1.1 Evaluation of data collected from June 29, 2014 to August 8, 2015

On June 29, 2014, surface water and sediment sampling efforts were initiated under Unified Command guidance immediately following the Eisenbarth Well Pad incident. CTEH prepared the *Water, Soil, and Sediment Sampling and Analysis Adjustment Plan* (WSSSAAP) to further refine the water, soil, and sediment sampling. Following approval of the WSSSAAP, the original analytical parameter list was reduced from twenty five (25) chemicals of potential concern to four (4): acetone, chloride, total petroleum hydrocarbons (TPH), and tributyl tetradecyl phosphonium chloride (TTPC). Sampling efforts were conducted under the WSSSAAP during the period of July 18, 2014 through April 8, 2015.

A comprehensive analysis of surface water and sediment sampling results collected during the period of June 29, 2014 through April 8, 2015 was included in Statoil's July 22, 2015 *Report for Paragraph 15.a.ii*. Additionally, sampling and laboratory methodology, quality assurance procedures, and work scope are detailed in the July 22, 2015 *Report for Paragraph 15.a.ii* and in the approved Work Plan.

1.1.2 Current Scope

Pursuant to the AOC and the approved Work Plan, and in accordance with the US EPA-approved post-containment monitoring period sampling schedule, Statoil conducted an evaluation of surface waters and sediments within three (3) areas: three (3) Eisenbarth Well Pad drains, five (5) locations within the unnamed tributary to Opossum Creek, and three (3) locations within Opossum Creek. Two (2) background locations were also sampled during the post-containment monitoring period.

Of the three (3) sampling events, two (2) were weather-dictated and one (1) was seasonally-dictated:

- **July 7, 2015 Sampling Event**: Met criteria to immediately follow a "significant" rain event (a 24-hour precipitation event producing 0.5-inches of rain, or greater).
- **August 24, 2015 Sampling Event**: Met criteria to immediately follow a minimum three-day period with no rain event.
- **October 12, 2015 Sampling Event**: Met criteria to be collected during the fall of 2015.

During the post-containment period, surface water and sediment samples were collected utilizing the sampling methodologies outlined in CTEH's Sampling and Analysis Plan (SAP), and the samples were analyzed for the following parameters pursuant to the AOC and the Work Plan:

- Acetone
- Isopropyl Alcohol
- Chloride
- Total Petroleum Hydrocarbons (TPH)
- Tributyl tetradecyl phosphonium chloride (TTPC)

Portions of the sample sets were submitted to Gulf Coast Analytical Laboratories (GCAL) and were analyzed for TTPC (MS/LC/LC Method), isopropyl alcohol, acetone (US EPA method 8015C), and select samples were additionally analyzed for TTPC testing via the HPLC method (refer to the July 22, 2015 *Report for Paragraph 15.a.ii* for methodology variables). The portion of the sample sets submitted to Pace Analytical Services, Inc. (Pace) were analyzed for acetone (EPA method 8060B), TPH-DRO (EPA method 8015B), and chloride concentrations in sediment were analyzed as a leachate (mg/L) using US EPA method SM4500.

1.2 Sample Types Collected

A total of eleven (11) surface water and sediment sampling locations were evaluated within the three (3) aforementioned areas during the post-containment monitoring period. Two background locations were also evaluated. Sediment samples could not be collected from the three Eisenbarth Well Pad drains during the post-containment period (due to a lack of sedimentation at the pipe discharge locations), with the exception of the July 7, 2015 sampling event, where a sediment sample was collected immediately downgradient of the SW-24 drain pipe.

1.3 Sample Locations

Sediment and surface water sample locations were selected to evaluate potential impacts related to the June 2014 Eisenbarth Well Pad incident. As described above, sampling was conducted at eleven (11) total locations within the three (3) areas during the post-containment monitoring period. The Work Plan established that sampling events be conducted at two (2) background locations on the same schedule. Background sample locations have been established at EPA's direction per the Work Plan on one (1) non-impacted tributary to Opossum Creek and on one (1) Sunfish Creek location. These locations are described below in *Table 1*.

Table 1: Post-Containment Period Sample Location Summary

Location ID	Latitude	Longitude	Location Description
SW001	39.7854	-81.1170	Background Sampling Location on Sunfish Creek
PD03	39.6963	-80.8991	Drain Pipe Located South and Downgradient of the Eisenbarth Well Pad
PD07	39.6986	-80.9005	Outfall Drain Pipe Downgradient near the Northwest Corner of the Eisenbarth Well Pad
SW04	39.7111	-80.8878	Opossum Creek Located Downstream of the Confluence with Northern Unnamed Tributary
SW06	39.6946	-80.9041	Approximate Headwaters of the Western Unnamed Tributary and Southwest of Eisenbarth Well Pad
SW08/SW08DUP	39.7387	-80.8522	Mouth of Opossum Creek at the Ohio River
SW15	39.6941	-80.9039	Background Sampling Location on Southeast-flowing Unnamed Tributary to Opossum Creek
SW17	39.7029	-80.9066	Unnamed Tributary Downstream and to the Northwest of the Eisenbarth Well Pad Site
SW18	39.7102	-80.9031	Unnamed Tributary Downstream and to the North-Northwest of the Eisenbarth Well Pad Site
SW20	39.7140	-80.8970	Opossum Creek Immediately Downstream of Western Unnamed Tributary Confluence
SW21	39.6943	-80.9036	Drainage to Western Unnamed Tributary and Southwest of Eisenbarth Well Pad Site
SW24	39.6981	-80.9012	Outflow Pipe at the Western Side of the Eisenbarth Well Pad Site
SW25	39.6965	-80.9048	Drainage Pathway at Unnamed Tributary to the West of the Eisenbarth Well Pad Site

2.0 SURFACE WATER AND SEDIMENT EVALUATION

This report summarizes Statoil's evaluation of surface water and sediment data for five (5) constituents: acetone, chloride, isopropyl alcohol, TPH, and TTPC. Ecological screening levels were utilized in the evaluation of these constituents. A screening level summary is included in the July 22, 2015 *Report for Paragraph 15.a.ii*, and also summarized below.

2.1 Acetone Screening Criteria

The US EPA Region V Resource Conservation and Recovery Act (RCRA) program has identified a surface water screening level of 1,700 µg/L for acetone, which can be found in *US EPA Region V RCRA Ecological Screening Levels* (August, 2003). The 1,700 µg/L value was utilized as an acetone screening level in surface water due to the lack of alternative guidance, and an acetone screening level of 9.9 µg/kg for sediments in accordance with US EPA Region V RCRA ecological screening levels. The US EPA Region V RCRA program does not have a standard for isopropyl alcohol, and therefore no screening levels were developed by Unified Command during the onset of the investigation.

2.2 Chloride Screening Criteria

The US EPA aquatic life criterion of 230 mg/L for chronic, continuous concentrations in freshwater was utilized as the screening level for water quality samples analyzed for chloride. This aligns closely with the federal secondary drinking water standard of 250 mg/L. No screening levels are available from federal or regional agencies for chloride in soils or sediments.

2.3 TPH Screening Criteria

The only applicable guidelines regarding TPH found for Ohio is the Ohio Environmental Protection Agency (OEPA) *Petroleum Contaminated Sites Guidance Document for Emergency Response Actions*. These guidelines do not provide surface water screening or action levels for TPH, but provide a soil action level ranging from 380 parts per million (ppm) (380 mg/kg) to 1,156 ppm (1,156 mg/kg). The conservative value of 380 mg/kg was used as the screening level for TPH in sediment; however, no standard was utilized for surface water evaluation.

2.4 TTPC Screening Criteria

The screening level of one (1) part per billion (ppb) (1 µg/L) was established for TTPC in water, based upon the US EPA EcoSAR analysis of test data on analogous cationic surfactants (refer to the July 22, 2015 *Report for Paragraph 15.a.ii, pages 7-8*). The EcoSAR analysis estimated that adverse effects may occur to aquatic organisms if concentrations of TTPC were to exceed 11 ppb (µg/L) in surface waters. The 1 µg/L screening level was established by applying an uncertainty factor of ten (10). Therefore, the TTPC sediment screening level of 859,330 µg/kg was established using the US EPA guidelines for sediment partitioning (*Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms*) based on the binding affinity for soil to potentially result in a 1 ppb TTPC concentration in surface waters.

2.5 Laboratory Reporting

For the purposes of comparison and reporting, the phrase “non-detect” is used herein to identify any analyte that was not detected at or above the applicable reporting limit (RL). The RL is the limit of detection for a specific target analyte for a specific sample after any adjustments have been made for dilutions or percent moisture. Some state regulatory programs require a laboratory to prove it can reliably "see" down to its RL by setting the RL at the lowest point on the calibration curve. The term “detected” in this context means that a sample that contains the analyte detected above the RL, and can be distinguished from a blank with reliable certainty.

In contrast, the method detection limit (or MDL) is lower than the RL (often much lower) and is a statistical calculation. The MDL is a laboratory-specific number, dependent (among other things) on the instrumentation used by a particular laboratory. Because the MDL is below the point of calibration, results reported down to the MDL are not reliable and must be qualified as estimated values and, as such, carry a "J" qualifier designation. The “J” qualifier denotes that a result is between the MDL and the RL or the Limit of Quantitation (LOQ). Qualifiers are noted on all laboratory reports and attached tables.

3.0 SURFACE WATER AND SEDIMENT SAMPLING RESULTS

An overview of the post-containment sediment and surface water sampling results is provided herein. The analytical results for surface water sampling are provided on the attached *Table 2* and the sediment sampling results are provided on the attached *Table 3*.

3.1 Eisenbarth Well Pad Drains

Outfall and impoundment drain locations have been monitored extensively since the June 2014 incident to evaluate trends and potential offsite migration. Outfall locations PD03, PD07 and SW24 were evaluated during the post-containment period (refer to *Table 1* and *Figure 1*).

3.1.1 Eisenbarth Well Pad Surface Water

Acetone, isopropyl alcohol, and TPH were non-detect in surface water samples collected during the post-containment period from all three of the locations associated with the Eisenbarth Well Pad drains. Chloride was detected, but results were well under the suggested screening level of 230 mg/L. TTPC was also detected and did not exceed the established screening level of 1.0 µg/L. in any surface water samples.

3.1.2 Eisenbarth Well Pad Sediment

Due to restructuring of the outfalls for containment, adequate volumes of sediment were not available from the PD03 and PD07 locations. Location SW24 had adequate sediment for the dry sampling event only, which occurred on August 24, 2015. This sample had no detections of acetone, isopropyl alcohol, TPH, or chlorides. TTPC was detected at 13.7 µg/kg, which is significantly below the established screening criteria of 859,330 µg/kg.

3.1.3 Eisenbarth Well Pad Trends

Surface water and sediment trends provided in the July 22, 2015 *Report for Paragraph 15.a.ii* indicated that the constituent detections decreased over time since the June 2014 incident and as distance from the Eisenbarth Well Pad increased. None of the constituents were detected above screening levels in either surface water or sediment in the post-containment period sampling from the Eisenbarth Well Pad drains and/or outfalls.

3.2 Unnamed Tributary to Opossum Creek

The unnamed tributary to Opossum Creek has been monitored extensively since the June 2014 incident to evaluate trends and potential offsite migration. Surface water and sediment from SW06, SW17, SW18, SW21, and SW25 were evaluated during the post-containment period (refer to *Table 1* and *Figure 1*).

3.2.1 Unnamed Tributary to Opossum Creek Surface Water

There were no detections of acetone, isopropyl alcohol, or TPH in surface water samples collected from the five (5) sampling locations on the unnamed tributary to Opossum Creek at any point in the post-containment monitoring. Chloride was detected, but did not exceed the screening level of 230 mg/L at any of the five (5) sampling locations. TTPC was detected in stream samples at all five (5) locations, but remained orders of magnitude below the screening level of 1.0 µg/L.

3.2.2 Unnamed Tributary to Opossum Creek Sediment

There were no sediment detections of isopropyl alcohol or chloride at all five (5) sampling locations. On August 24, 2015, acetone analyzed by US EPA method 8260B at the SW25 location was detected at a concentration of 40.4 µg/kg, which exceeded the 9.9 µg/kg screening level. However, it should be noted that this acetone detection was less than the background concentration obtained at SW001 on the same sampling date, and acetone was not detected at SW25 during the other two post-containment period sampling events. Additionally, acetone was not detected in the same (August 24, 2015) composite sample which was analyzed by US EPA method 8015C rather than 8260B. It should also be noted that acetone is a common laboratory cleaning chemical and therefore is recognized as a potential sample contaminant. Acetone was not detected at any other unnamed tributary to Opossum Creek locations during the post-containment monitoring period. Please refer to the July 22, 2015 *Report for Paragraph 15.a.ii* (page 7) for more information related to the absence of acetone at the Eisenbarth Well Pad prior to the incident. Please also refer to Statoil's letter to the Ohio Department of Natural Resources, dated October 13, 2014.

TPH was detected in sediment once at SW25 on August 24, 2015 at a concentration of 355 mg/kg, which is less than the established screening level of 380 mg/kg. TTPC was detected in all five sediment samples, but was below the established screening level.

3.2.3 Unnamed Tributary to Opossum Creek Trends

A review of data previously collected and evaluated during the period of June 29, 2014 through April 8, 2015, and summarized in the July 22, 2015 *Report for Paragraph 15.a.ii*, indicates acetone levels in sediment has significantly declined since the Eisenbarth Well Pad incident. The last acetone detection in sediment at SW25 occurred on February 3, 2015 at a concentration of 376 µg/kg. The highest post-containment period acetone concentration (40.4 µg/kg) occurred on August 24, 2015 at SW25. However, the same composite sample from SW25 on that date that was also sent to GCAL for analysis under a different analytical method, and was non-detect. It should be noted that acetone was also detected in the background sampling location sediments at a higher concentration than samples collected within the areas investigated in this report. Acetone levels in sediment have continuously trended downward during the evaluation and were not detected during a majority of the post-containment sampling events within the unnamed tributary to Opossum Creek.

All other parameters tested during the post-containment monitoring period in the samples collected from the unnamed tributary to Opossum Creek were consistently non-detect or below screening levels.

3.3 Opossum Creek

Three (3) surface water and sediment locations were evaluated along Opossum Creek during the post-containment period, and are identified as SW04, SW08/SW08DUP, and SW20 (refer to *Table 1* and *Figure 1*).

3.3.1 Opossum Creek Surface Water

There were no detections of acetone, isopropyl alcohol, or TPH in surface water samples. Detections of chloride did not exceed the screening level. TTPC results were either non-detect, or the results fell between the MDL and LOQ, and did not exceed the screening level (refer to *Table 2*).

3.3.2 Opossum Creek Sediment

The acetone concentration from the duplicate sediment sample at SW08 (SW08DUP) was detected at 37.3 µg/kg on July 7, 2015. This detection exceeded the screening level of 9.9 µg/kg. However, acetone was non-detect from the corresponding parent sample, SW08. Additionally, this acetone detection from SW08DUP was only present in the results provided by Pace Laboratory using the US EPA 8260B method, and not in the results provided by GCAL using the US EPA 8015C Method.

TPH and TTPC were detected within the three Opossum Creek sediment sampling locations, but never exceeded their respective screening levels (refer to *Table 3*). Opossum Creek had no sediment detections of isopropyl alcohol or chloride throughout sampling.

3.3.3 Opossum Creek Trends

A review of data previously collected and evaluated during the period of June 29, 2014 through April 8, 2015, and summarized in the July 22, 2015 *Report for Paragraph 15.a.ii*, indicates decreasing detections of acetone in sediment over time. Additionally, the sediment acetone concentrations within Opossum Creek were significantly less than sediment acetone concentrations collected from the SW001 background

location. Likewise, this evaluation detected acetone above the sediment screening level once, but it also remained less than the background concentration. Sampling performed during the post-containment period for all other constituents shows that concentrations were consistently non-detect or below screening levels.

4.0 SUMMARY

Surface water and sediment samples were collected and analyzed from the Eisenbarth Well Pad drains, the unnamed tributary to Opossum Creek, and Opossum Creek on three (3) occasions during the post-containment period to evaluate the presence of acetone, isopropyl alcohol, chloride, TPH, and TTPC.

Results indicate that surface waters samples collected from all eleven (11) locations had either no detection of these constituents, or if detected, concentrations were significantly lower than the screening levels.

Sediment sample results indicate that acetone was the only constituent to exceed the screening level during the post-containment monitoring period. However, there are countervailing technical considerations related to the acetone data, including:

- One exceedance (SW08DUP on July 7, 2015) was detected in a duplicate sample and was not detected within the parent sample;
- The highest acetone concentration was detected at a background sampling location, SW001, which is located within a tributary to Opossum Creek and outside of the hydraulic influence of the Eisenbarth Well Pad;
- Acetone levels were only detected at two locations (SW08DUP on July 7, 2015 and SW25 on August 24, 2015), in both instances by Pace Laboratories, whereas GCAL did not detect acetone within the same split using a different analytical method;
- Acetone is a recognized potential laboratory contaminant.

Surface waters from the Eisenbarth Well Pad drains, the unnamed tributary to Opossum Creek, and Opossum Creek indicate that the constituents evaluated as part of this report, with the exception of acetone, are below ecological screening levels, and therefore, do not pose an aquatic risk or potential impact at or around the Eisenbarth Well Pad site.

Acetone only exceeded sediment ecological screening levels on two occasions, but concentrations were less than the background concentration at SW001. A downward trend in acetone sediment concentrations was observed within the data collected from June 29, 2014 to April 8, 2015, and no increasing trends were observed during the post-containment monitoring period.

Based on the results of this evaluation, conditions at and around the Eisenbarth Well Pad site have naturally attenuated. Therefore, no future impacts downstream of the Eisenbarth Well Pad are anticipated.

TABLES

Table 2: Eisenbarth Surface Water Sample Analytical Result Table

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Table 2

EISENBARTH SURFACE WATER SAMPLE ANALYTICAL RESULT TABLE

RECEPTOR	LOCATION	DATE	TIME	ANALYTE						
				GCAL Results				Pace Results		
				Acetone (EPA 8015C Method) (mg/L)	Isopropyl Alcohol (EPA 8015C Method) (mg/L)	TTPC (LC/MS/MS Method) (mg/L)	TTPC (HPLC Method) (mg/L)	Acetone (EPA 8260B Method) (µg/L)	TPH (EPA 8015B Method) (mg/L)	Chloride (SM 4500-CL-E Method) (mg/L)
PAD DRAIN LOCATIONS	SW24	7/7/15	09:45	ND	ND	0.026 J	NA	ND	ND	27.4
		8/24/15	11:40	ND	ND	ND	NA	ND	ND	49.4
		10/12/15	15:40	ND	ND	0.0426 J	NA	ND	ND	43.9
	PD03	7/7/15	12:30	ND	ND	ND	NA	ND	ND	35.2
		8/24/15	10:50	ND	ND	ND	NA	ND	ND	41.4
		10/12/15	13:35	ND	ND	0.0388 J	NA	ND	ND	39.2
	PD07	7/7/15	11:10	ND	ND	ND	NA	ND	ND	40.0
		8/24/15	12:30	ND	ND	ND	NA	ND	ND	82.0
		10/12/15	14:35	ND	ND	0.0393 J	NA	ND	ND	65.6
UNNAMED TRIBUTARY TO OPOSSUM CREEK LOCATIONS	SW06	7/7/15	13:55	ND	ND	0.123	ND	ND	ND	8.1
		8/24/15	13:28	ND	ND	0.0523 J	ND	ND	ND	8.5
		10/12/15	14:10	ND	ND	0.168	ND	ND	ND	7.0
	W17	7/7/15	12:10	ND	ND	0.161	NA	ND	ND	6.7
		8/24/15	12:01	ND	ND	0.0438 J	NA	ND	ND	8.9
		10/12/15	13:00	ND	ND	0.0849 J	NA	ND	ND	8.4
	SW18	7/7/15	11:10	ND	ND	0.0643 J	ND	ND	ND	6.0
		8/24/15	10:58	ND	ND	ND	ND	ND	ND	7.4
		10/12/15	11:55	ND	ND	0.0480 J	ND	ND	ND	7.2
	SW21	7/7/15	14:15	ND	ND	0.775	NA	ND	ND	7.0
		8/24/15	13:56	ND	ND	0.112	NA	ND	ND	12.6
		10/12/15	14:30	ND	ND	0.295	NA	ND	ND	10.5
	SW25	7/7/15	13:25	ND	ND	0.198	NA	ND	ND	6.1
		8/24/15	12:51	ND	ND	0.0339 J	NA	ND	ND	6.2
		10/12/15	13:40	ND	ND	0.151	NA	ND	ND	5.4
OPOSSUM CREEK LOCATIONS	SW04	7/7/15	13:30	ND	ND	ND	ND	ND	ND	6.3
		8/24/15	13:10	ND	ND	0.0438 J	ND	ND	ND	7.0
		10/12/15	12:30	ND	ND	0.0476 J	NA	ND	ND	9.1
	SW08	7/7/15	09:30	ND	ND	ND	NA	ND	ND	19.0
		8/24/15	10:15	ND	ND	0.0185 J	NA	ND	ND	40.9
		10/12/15	10:30	ND	ND	0.0453 J	NA	ND	ND	49.9
	SW08DUP	7/7/15	10:15	ND	ND	ND	NA	ND	ND	18.1
		8/24/15	10:40	ND	ND	ND	NA	ND	ND	40.6
		10/12/15	10:45	ND	ND	0.0417 J	NA	ND	ND	50.3
	SW20	7/7/15	12:00	ND	ND	0.0256 J	NA	ND	ND	5.9
		8/24/15	14:10	ND	ND	ND	NA	ND	ND	7.3
		10/12/15	13:40	ND	ND	0.0456 J	NA	ND	ND	8.4
BACKGROUND SAMPLING LOCATIONS	SW001	7/7/15	14:30	ND	ND	0.0411 J	NA	ND	ND	10.7
		8/24/15	14:10	ND	ND	ND	ND	ND	ND	46.6
		10/12/15	11:00	ND	ND	0.0394 J	ND	ND	ND	23.2
	SW15	7/7/15	15:30	ND	ND	ND	NA	ND	ND	3.2
		8/24/15	11:30	ND	ND	ND	NA	ND	ND	4.2
		10/12/15	11:35	ND	ND	0.0399 J	NA	ND	ND	4.0

NOTES:

NA = Not Analyzed; approximately 1 in 5 samples were analyzed for the additional HPLC Method analysis for TTPC

ND = Indicates the constituent was analyzed for but not detected above the specified reporting limit

J = Indicates the result is between the Method of Detection Limit and Limit of Quantitation

Acetone EPA Region 5 RCRA Screening Level: 1,700 µg/L (1.7 mg/L)

Isopropyl Alcohol has no current screening level for surface waters

TTPC EPA Suggested Screening Level: 1 µg/L

TPH has no current screening level for surface waters

Chloride EPA Freshwater Chronic Continuous Concentration = 230 mg/L

TABLES

Table 3: Eisenbarth Sediment Sample Analytical Result Table

STATOIL USA ONSHORE PROPERTIES INC.

Table 3

EISENBARTH SEDIMENT SAMPLE ANALYTICAL RESULT TABLE

RECEPTOR	LOCATION	DATE	TIME	ANALYTE						
				GCAL Results				Pace Results		
				Acetone (EPA 8015C Method) (µg/kg)	Isopropyl Alcohol (EPA 8015C Method) (µg/kg)	TTPC (LC/MS/MS Method) (µg/kg)	TTPC (HPLC Method) (µg/kg)	Acetone (EPA 8260B Method) (µg/kg)	TPH (EPA 8015B Method) (mg/kg)	Chloride (SM 4500-CL-E Method) (mg/L)
PAD DRAIN LOCATIONS	SW24	7/7/15	10:30	ND	ND	13.7	NA	ND	ND	ND
		8/24/15	--	--	--	--	--	--	--	--
		10/12/15	--	--	--	--	--	--	--	--
	PD03	7/7/15	--	--	--	--	--	--	--	--
		8/24/15	--	--	--	--	--	--	--	--
		10/12/15	--	--	--	--	--	--	--	--
	PD07	7/7/15	--	--	--	--	--	--	--	--
		8/24/15	--	--	--	--	--	--	--	--
		10/12/15	--	--	--	--	--	--	--	--
UNNAMED TRIBUTARY TO OPOSSUM CREEK LOCATIONS	SW06	7/7/15	13:55	ND	ND	14,100	ND	ND	ND	ND
		8/24/15	13:28	ND	ND	1,040	ND	ND	ND	ND
		10/12/15	14:15	ND	ND	9,300	ND	ND	ND	ND
	SW17	7/7/15	12:10	ND	ND	10,900	NA	ND	ND	ND
		8/24/15	12:01	ND	ND	8,070	NA	ND	ND	ND
		10/12/15	13:05	ND	ND	13,200	NA	ND	ND	ND
	SW18	7/7/15	11:10	ND	ND	420	ND	ND	ND	ND
		8/24/15	10:58	ND	ND	3,940	ND	ND	ND	ND
		10/12/15	12:00	ND	ND	1,670	ND	ND	ND	ND
	SW21	7/7/15	14:15	ND	ND	19,300	NA	ND	ND	ND
		8/24/15	13:56	ND	ND	29,700	NA	ND	ND	ND
		10/12/15	14:35	ND	ND	23,800	NA	ND	ND	ND
	SW25	7/7/15	13:25	ND	ND	7,880	NA	ND	ND	ND
		8/24/15	12:51	ND	ND	94,600	NA	40.4	355	ND
		10/12/15	13:40	ND	ND	5,780	NA	ND	ND	ND
OPOSSUM CREEK LOCATIONS	SW04	7/7/15	13:30	ND	ND	26.4	ND	ND	ND	ND
		8/24/15	13:10	ND	ND	10.3	ND	ND	10.6	ND
		10/12/15	12:45	ND	ND	34.5	ND	ND	ND	ND
	SW08	7/7/15	09:30	ND	ND	8.0	NA	ND	ND	ND
		8/24/15	10:15	ND	ND	10.9	NA	ND	28.2	ND
		10/12/15	11:00	ND	ND	0.837	NA	ND	17.1	ND
	SW08DUP	7/7/15	10:15	ND	ND	6.0	NA	37.3	12.3	ND
		8/24/15	10:40	ND	ND	5.79	NA	ND	29.2	ND
		10/12/15	11:15	ND	ND	0.437	NA	ND	ND	ND
	SW20	7/7/15	12:00	ND	ND	1,190	NA	ND	10.8	ND
		8/24/15	14:10	ND	ND	1,760	NA	ND	ND	ND
		10/12/15	13:50	ND	ND	1,800	NA	ND	ND	ND
BACKGROUND SAMPLING LOCATIONS	SW001	7/7/15	--	--	--	--	--	--	--	--
		8/24/15	14:10	ND	ND	0.306 J	ND	59.5	84.1	ND
		10/12/15	11:15	ND	ND	ND	ND	ND	8.8	ND
	SW15	7/7/15	15:30	ND	ND	0.0473 J	NA	ND	10.6	ND
		8/24/15	11:30	ND	ND	0.0838 J	NA	ND	23.4	ND
		10/12/15	11:45	ND	ND	0.149 J	NA	ND	12.7	ND

NOTES:

-- = No sample collected; Insufficient sediment present to collect sample

NA = Not Analyzed; approximately 1 in 10 samples were analyzed with the additional HPLC Method analysis for TTPC

TTPC US EPA Suggested Screening Level: 859,000 µg/kg

Isopropyl Alcohol has no current screening level for sediment

Acetone US EPA Region 5 RCRA Screening Level: 9.9 µg/kg

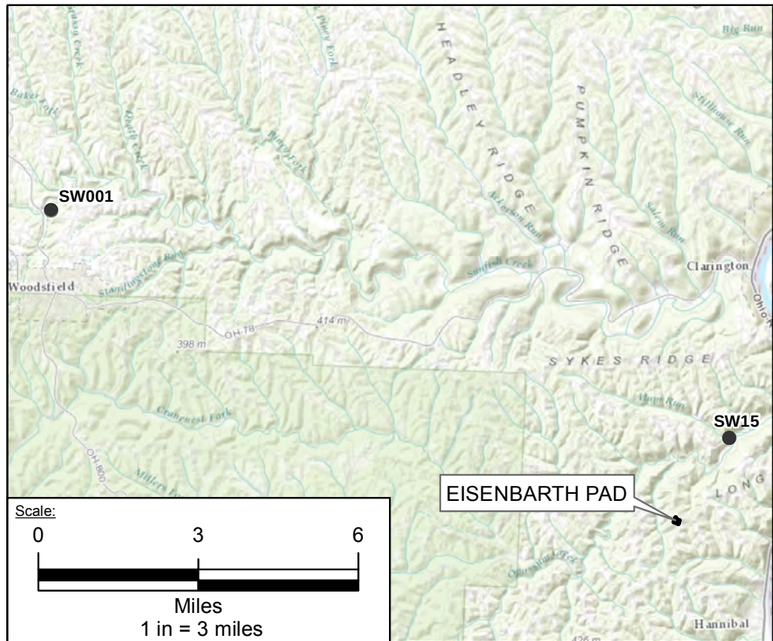
TPH Screening Level = 380 mg/kg OEPA DERR

Chloride has no current screening level for sediment

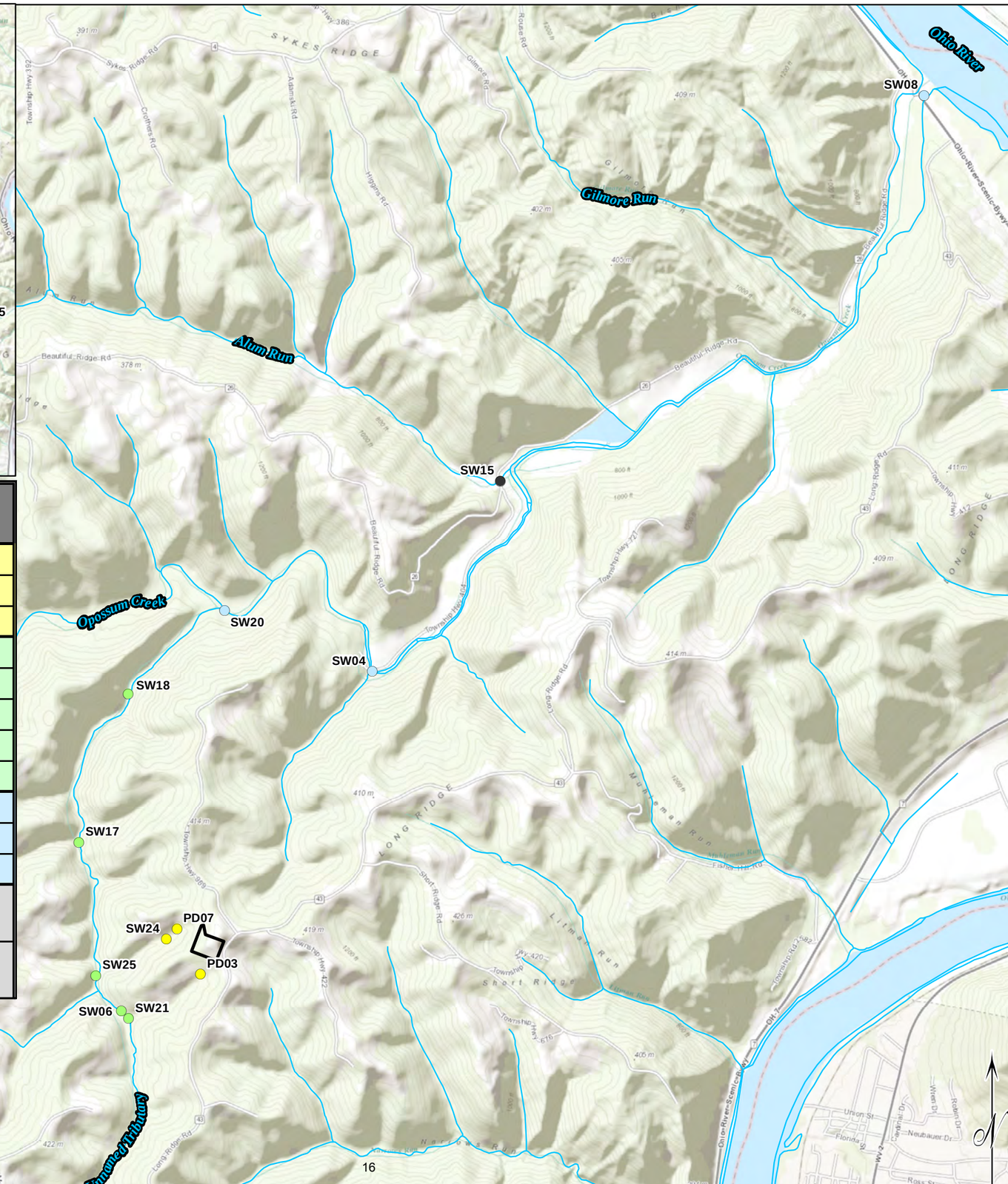
ND = Indicates the constituent was analyzed for but not detected

FIGURES

Figure 1: Master Location Summary Map



Receptor	Location ID	Latitude	Longitude
Pad Locations	PD03	39.69633865	-80.89904785
	PD07	39.69858551	-80.90053558
	SW24	39.69809623	-80.90117455
Unnamed Tributary Locations	SW06	39.69456482	-80.90405273
	SW17	39.70291255	-80.90657651
	SW18	39.71019256	-80.90308964
	SW21	39.69430920	-80.90362550
	SW25	39.69654332	-80.90476602
Opossum Creek Locations	SW04	39.71111618	-80.88783056
	SW08	39.73865509	-80.85214996
	SW20	39.71400000	-80.89700000
Background Sampling Locations	SW001	39.78505100	-81.11713900
	SW15	39.72036843	-80.87966859



LEGEND

- Eisenbarth Well Pad Sampling Locations
- Unnamed Tributary Sampling Locations
- Opossum Creek Sampling Locations
- Background Sampling Locations
- Streams
- Eisenbarth Pad

Scale:
0 2,000 4,000
Feet
1 in = 2,000 ft

Map References:
• Stream layer provided by Ohio Geographically Referenced Information Program (OGRIP). http://www.ogrip.oit.ohio.gov.
• Service Layer Credits: Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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FIGURE 1:

MASTER LOCATION SUMMARY MAP

Eisenbarth Well Pad Site

Project #: 14-467-LM

Prepared for : Statoil

199 Johnson Road
Building 2, Suite 101
Houston, PA 15342
Office: (724) 746-5200
Fax: (724) 746-5603
www.moody-s.com
Moody and Associates, Inc.

Drawn by:	ADJ	Date:	1/18/2016
Checked by:	JOJ	Revision:	

P:\GIS\Gas_Oil\Statoil\Projects\14-467-LM\Report Mapping\ASA_OCRA\Figure 1 Sampling Locations.mxd

FIGURES

Figure 2: Pad Location Summary Map

LEGEND

- Eisenbarth Well Pad Sampling Locations
- Streams
- Eisenbarth Pad

Scale:

0 150 300 600

1 in = 300 ft

Map References:
• USGS 7½ minute quadrangle: Round Bottom, OH.
• Stream layer provided by Ohio Geographically Referenced Information Program (OGRIP). http://www.ogrip.oit.ohio.gov.

Notes:
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FIGURE 2:

WELL PAD

Eisenbarth Well Pad Site

Project #: 14-467-LM

Prepared for : Statoil

Drawn by:	ADJ
Checked by:	JOJ
Date:	1/18/2016
Revision:	

199 Johnson Road
Building 2, Suite 101
Houston, PA 15342
Office: (724) 746-5200
Fax: (724) 746-5603
www.moody-s.com
Moody and Associates, Inc.

P:\GIS\Gas_Oil\Statoil\Projects\14-467-LM\Report Mapping\ASA_OCRA\Figure 2 Pad and Impoundment Location Summary.mxd

FIGURES

Figure 3: Unnamed Tributary Location Summary Map

LEGEND

- Unnamed Tributary Sampling Locations
- Streams
- Eisenbarth Pad

Scale:

0 500 1,000 2,000

1 in = 1,000 ft

Map References:
• USGS 7½ minute quadrangle: Round Bottom, OH.
• Stream layer provided by Ohio Geographically Referenced Information Program (OGRIP). http://www.ogrip.oit.ohio.gov.

Notes:
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FIGURE 3:

UNNAMED TRIBUTARY TO OPOSSUM CREEK

Eisenbarth Well Pad Site

Project #: 14-467-LM

Prepared for : Statoil

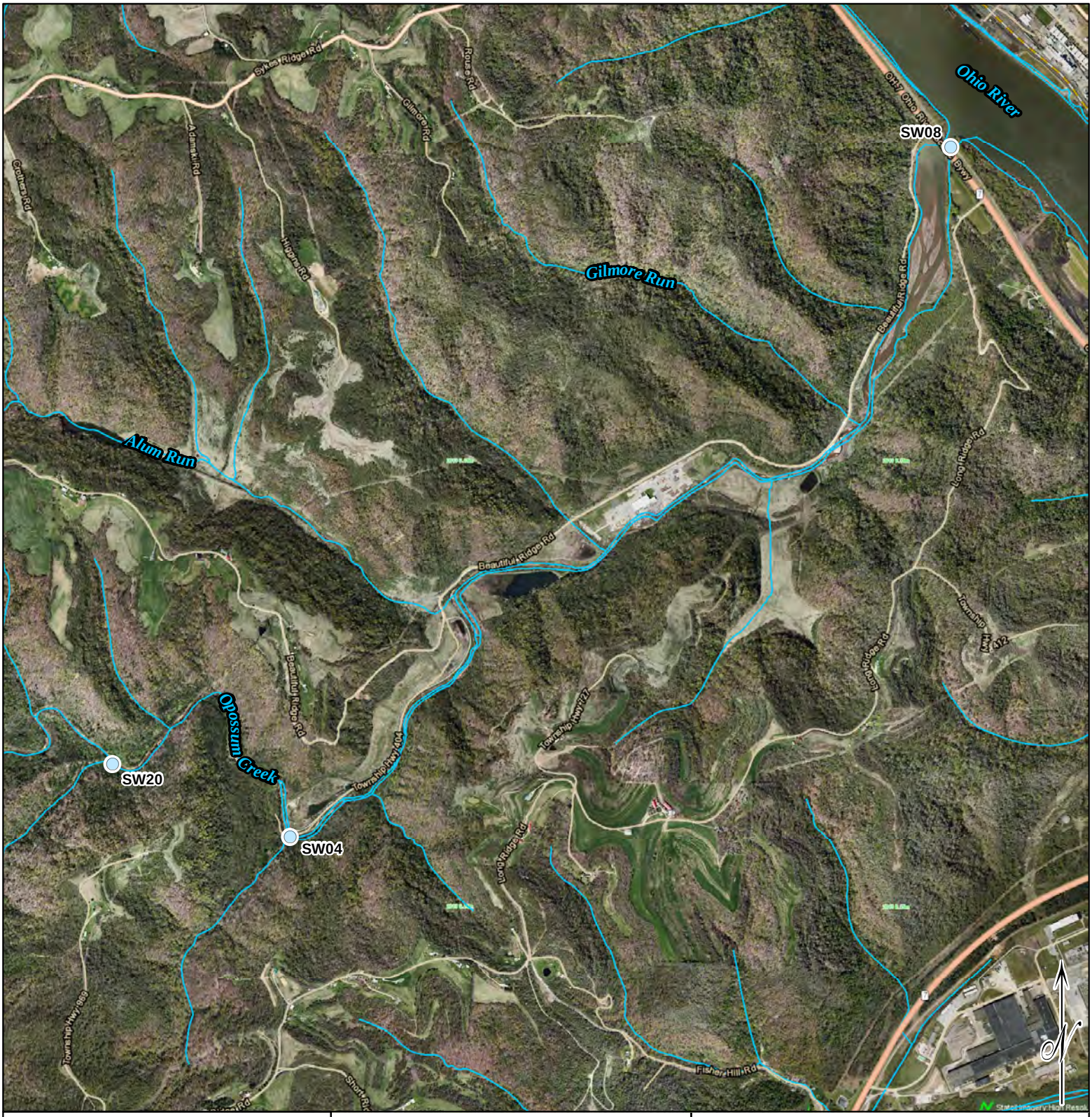
Drawn by:	ADJ
Checked by:	JOJ
Date:	1/18/2016
Revision:	

199 Johnson Road
Building 2, Suite 101
Houston, PA 15342
Office: (724) 746-5200
Fax: (724) 746-5603
www.moody-s.com
Moody and Associates, Inc.

P:\GIS\Gas_Oil\Statoil\Projects\14-467-LM\Report Mapping\ASA_OCRA\Figure 3 Unnamed Tributary Location Summary.mxd

FIGURES

Figure 4: Opossum Creek Location Summary Map



LEGEND

- Opossum Creek Sampling Locations
- Streams

Scale:

0 1,000 2,000 4,000

1 in = 2,000 ft

Map References:
- USGS 7½ minute quadrangle: Round Bottom OH, New Martinsville OH/WV.
- Stream layer provided by Ohio Geographically Referenced Information Program (OGRIP). http://www.ogrip.oit.ohio.gov.

Notes:
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FIGURE 4:

OPOSSUM CREEK

Eisenbarth Well Pad Site

Project #: 14-467-LM

Prepared for : Statoil

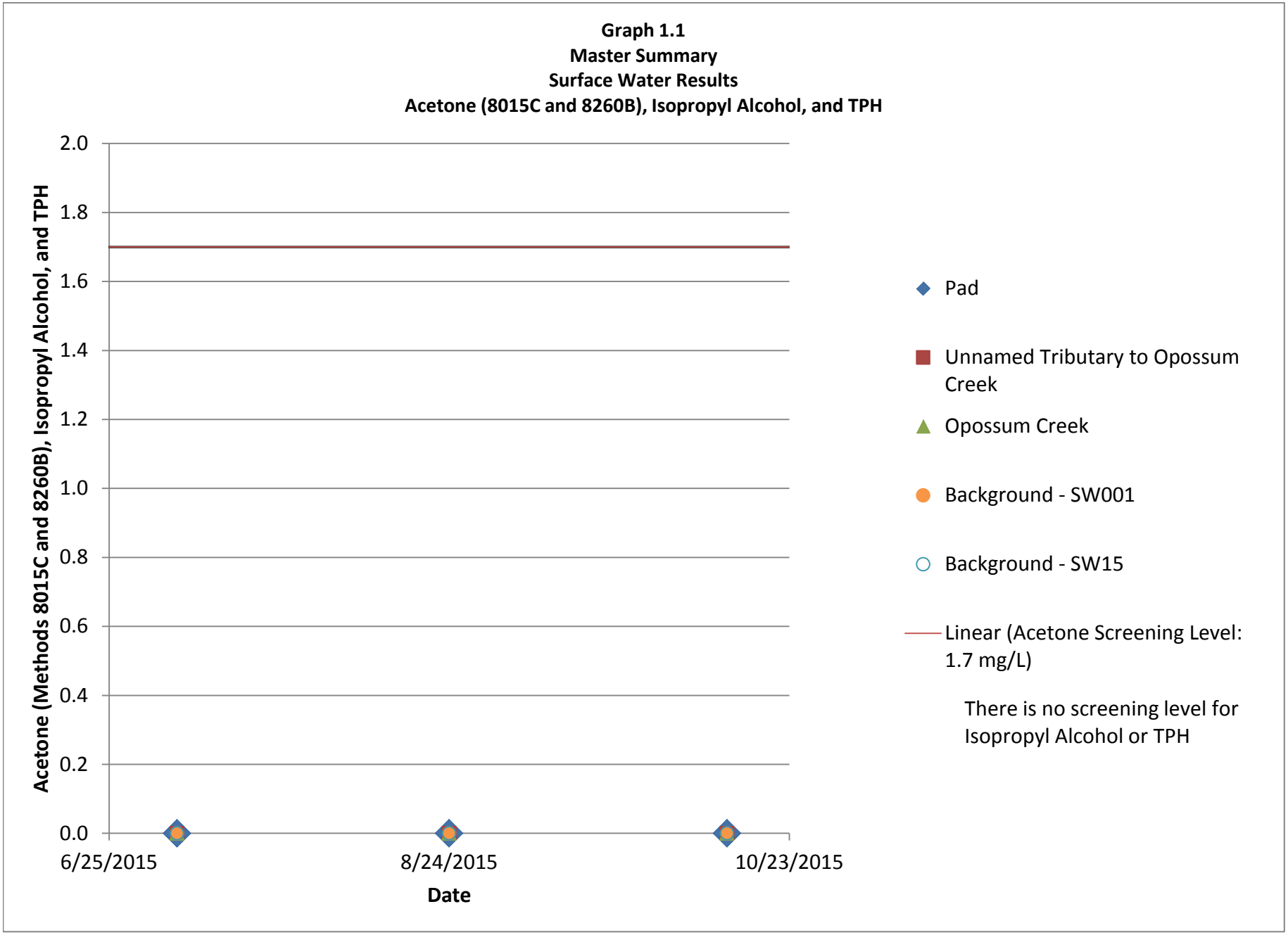
Drawn by:	ADJ
Checked by:	JOJ
Date:	1/18/2016
Revision:	

199 Johnson Road
Building 2, Suite 101
Houston, PA 15342
Office: (724) 746-5200
Fax: (724) 746-5603
www.moody-s.com
Moody and Associates, Inc.

P:\GIS\Gas_Oil\Statoil\Projects\14-467-LM\Report Mapping\ASA_OCRA\Figure 4 Opossum Creek Location Summary.mxd

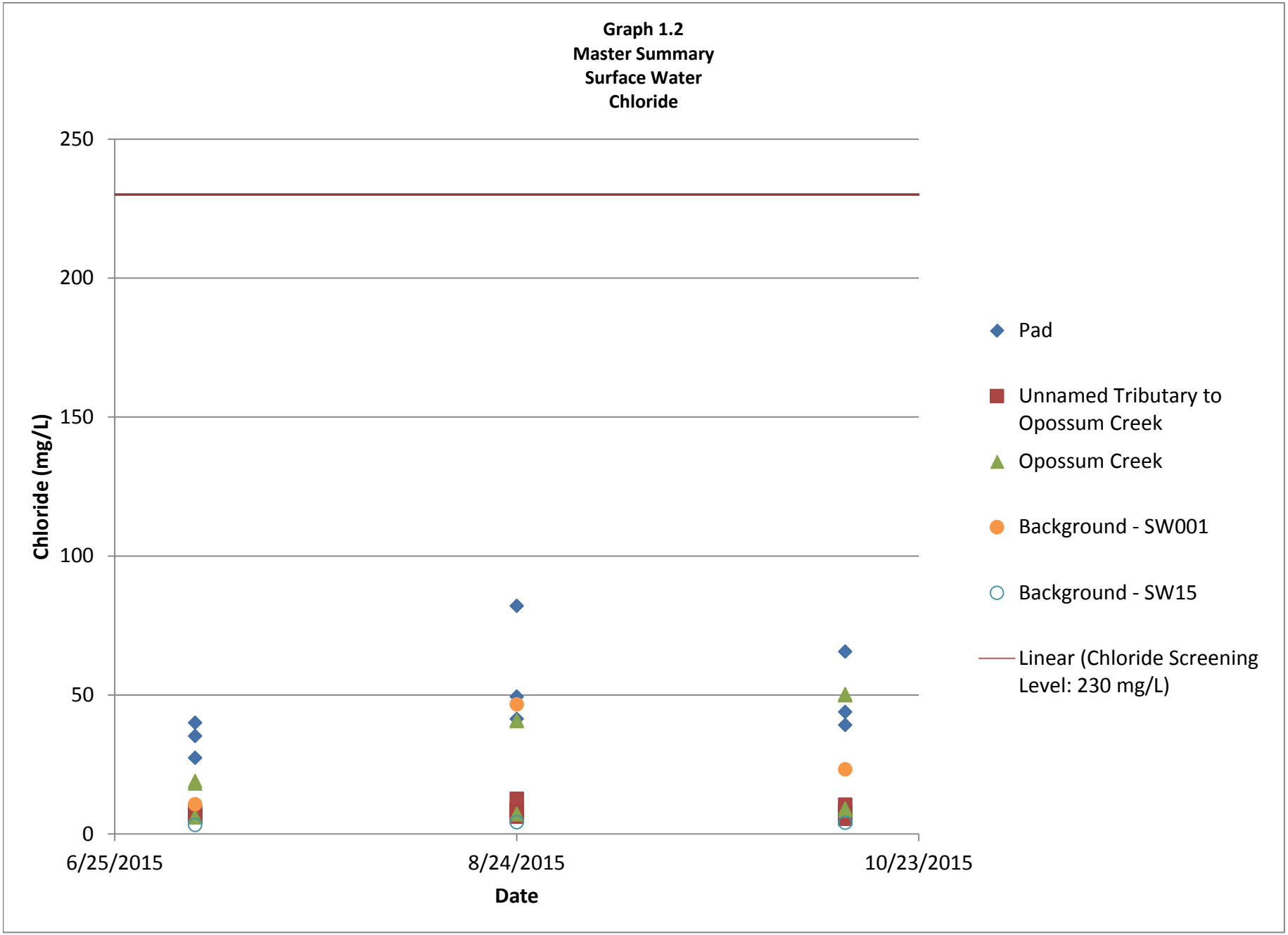
Graphs Set 1: Surface Water Master Trends

Graph 1.1: Acetone (8015C and 8260B), Isopropyl alcohol, and TPH


Graph 1.1
Master Summary
Surface Water Results
Acetone (8015C and 8260B), Isopropyl Alcohol, and TPH
Acetone (Methods 8015C and 8260B), Isopropyl Alcohol, and TPH
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
6/25/2015
8/24/2015
10/23/2015
Date
Pad
Unnamed Tributary to Opossum Creek
Opossum Creek
Background - SW001
Background - SW15
Linear (Acetone Screening Level: 1.7 mg/L)
There is no screening level for Isopropyl Alcohol or TPH

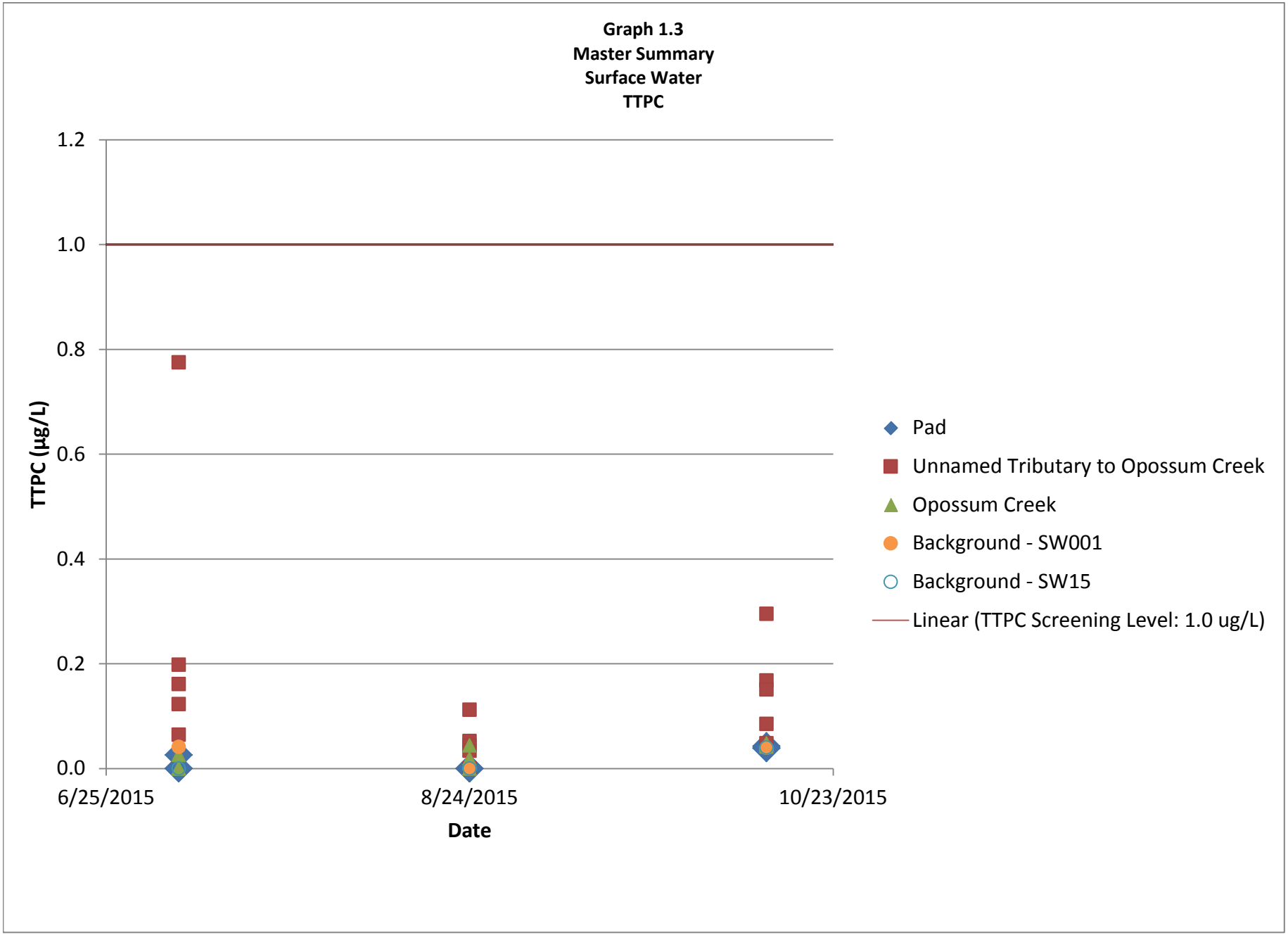
Graphs Set 1: Surface Water Master Trends

Graph 1.2: Chloride


Graph 1.2
Master Summary
Surface Water
Chloride
250
200
150
100
50
0
Chloride (mg/L)
6/25/2015
8/24/2015
10/23/2015
Date
Pad
Unnamed Tributary to Opossum Creek
Opossum Creek
Background - SW001
Background - SW15
Linear (Chloride Screening Level: 230 mg/L)

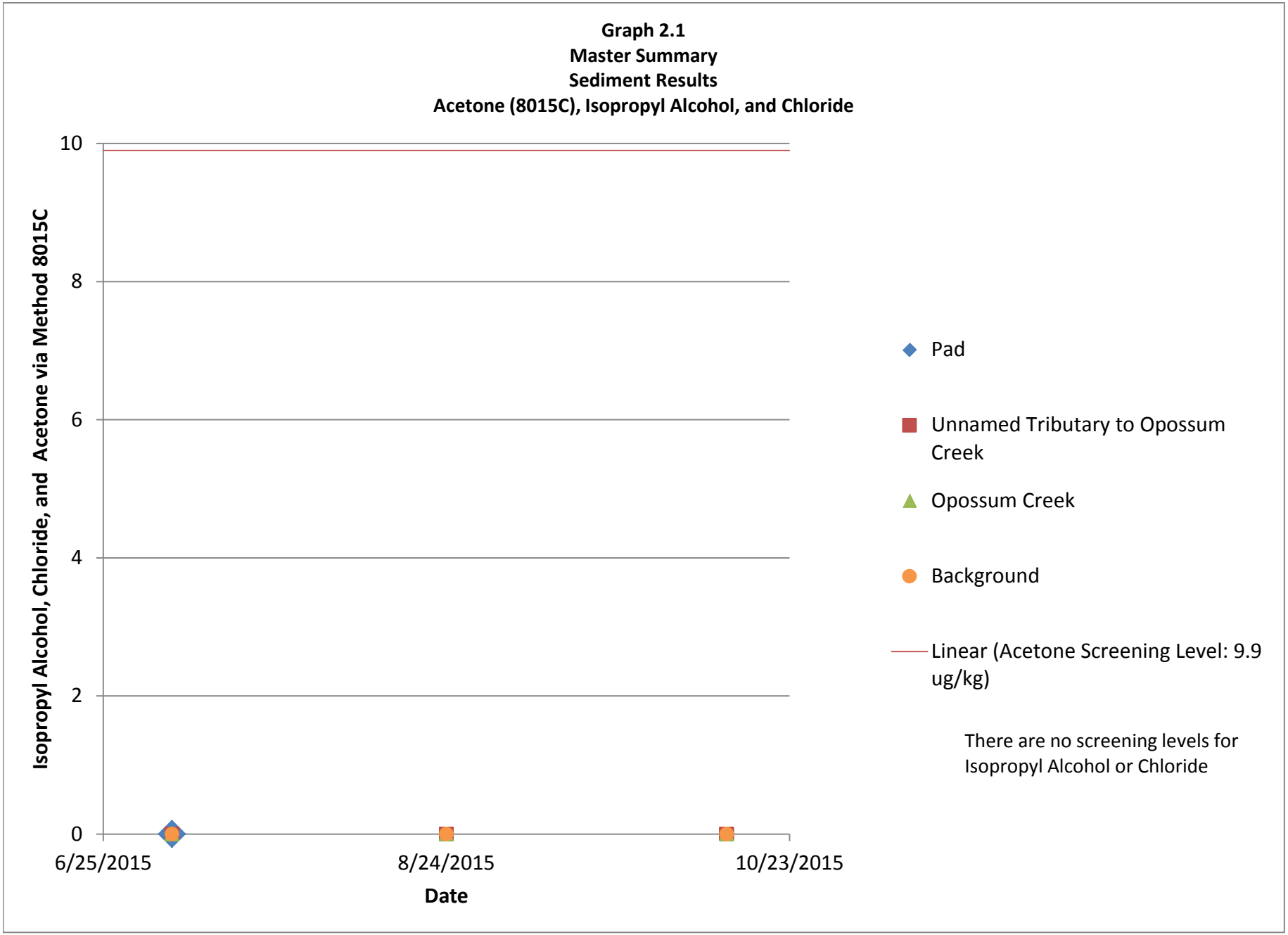
Graphs Set 1: Surface Water Master Trends

Graph 1.3: TTPC


Graph 1.3
Master Summary
Surface Water
TTPC
1.2
1.0
0.8
0.6
0.4
0.2
0.0
TTPC (µg/L)
6/25/2015
8/24/2015
10/23/2015
Date
Pad
Unnamed Tributary to Opossum Creek
Opossum Creek
Background - SW001
Background - SW15
Linear (TTPC Screening Level: 1.0 ug/L)

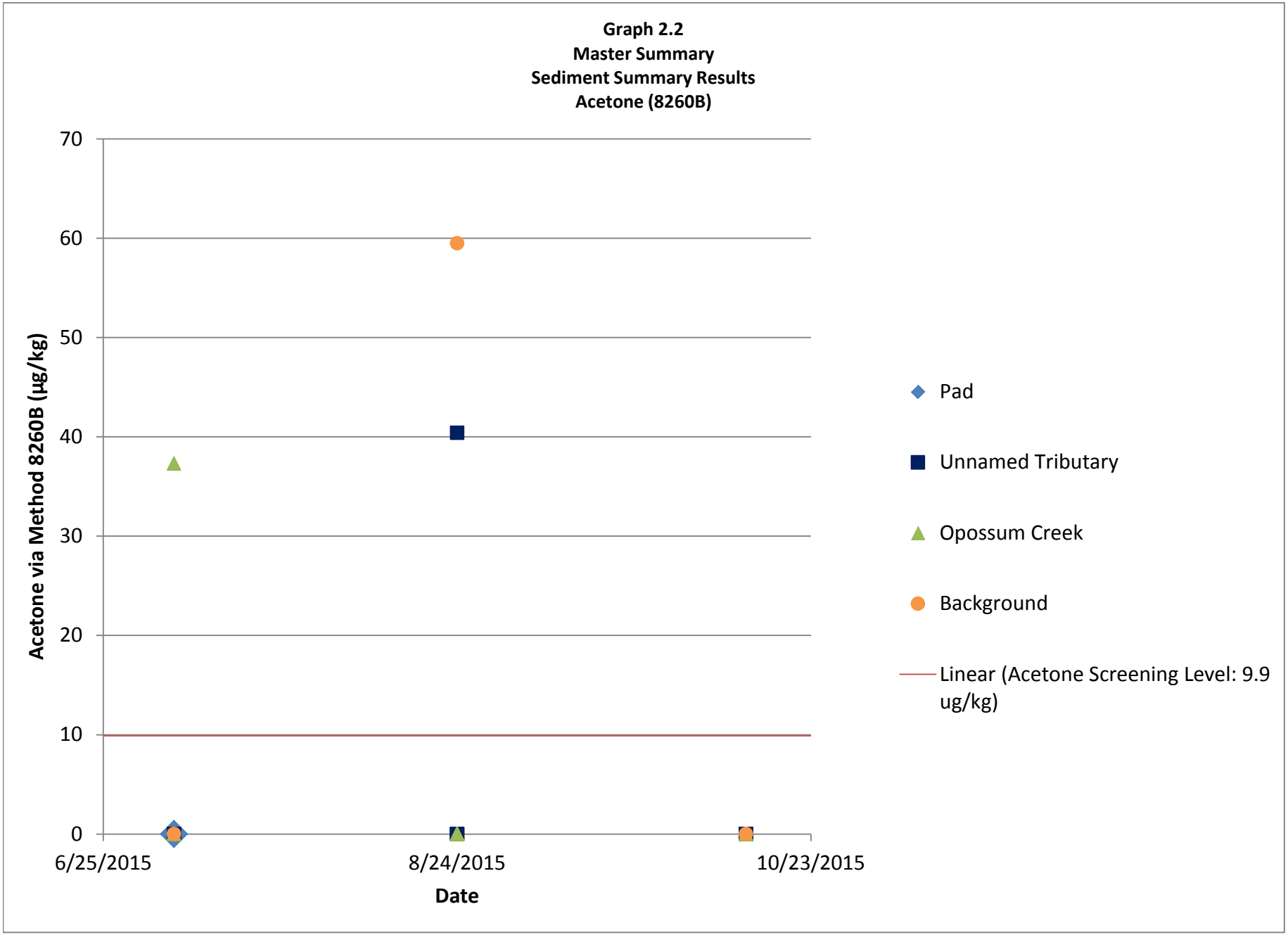
Graphs Set 2: Sediment Master Trends

Graph 2.1: Acetone (8015C), Isopropyl alcohol, and Chloride


Graph 2.1
Master Summary
Sediment Results
Acetone (8015C), Isopropyl Alcohol, and Chloride
Isopropyl Alcohol, Chloride, and Acetone via Method 8015C
10
8
6
4
2
0
6/25/2015
8/24/2015
10/23/2015
Date
Pad
Unnamed Tributary to Opossum Creek
Opossum Creek
Background
Linear (Acetone Screening Level: 9.9 ug/kg)
There are no screening levels for Isopropyl Alcohol or Chloride

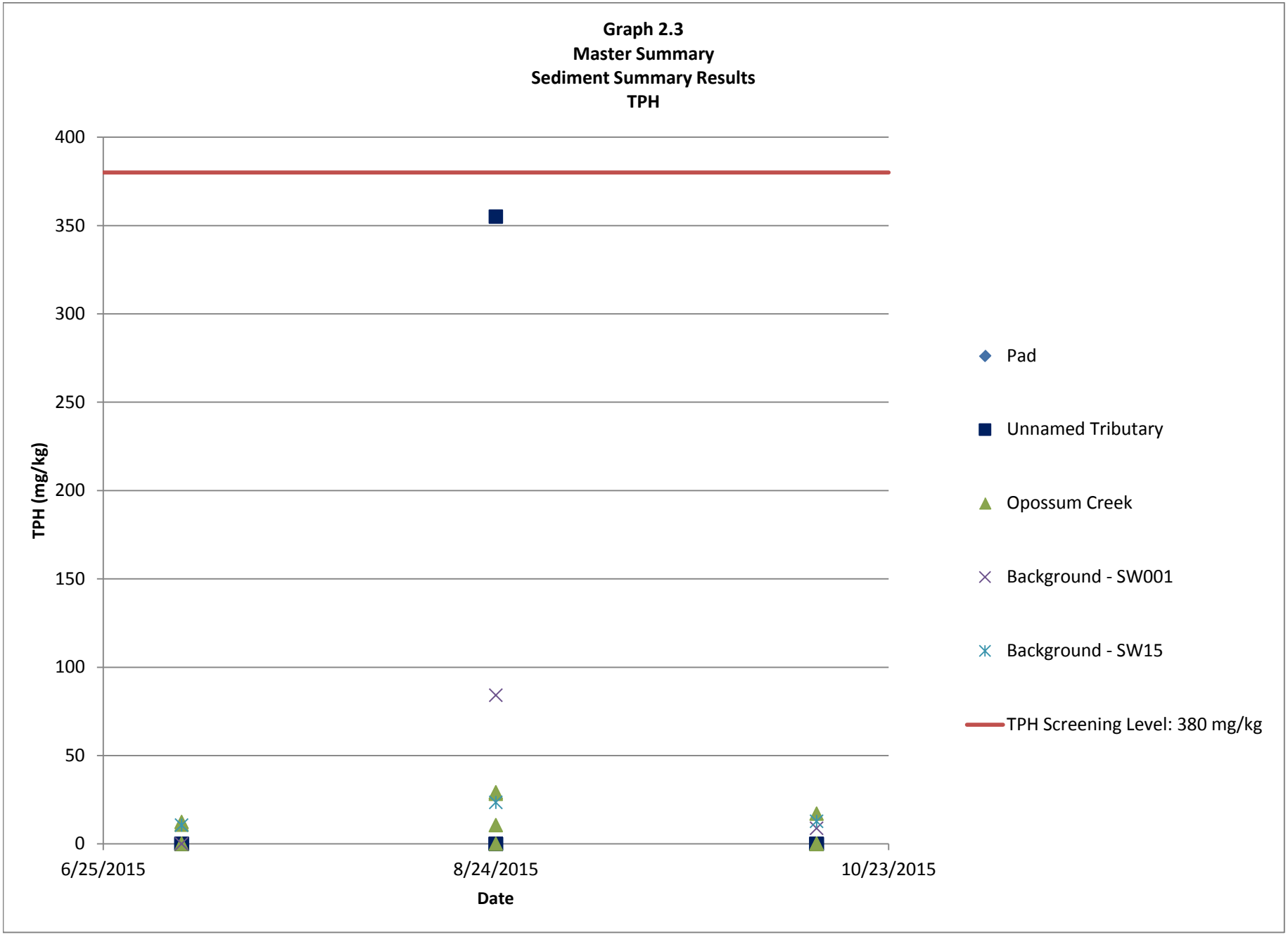
Graphs Set 2: Sediment Master Trends

Graph 2.2: Acetone (8260B)


Graph 2.2
Master Summary
Sediment Summary Results
Acetone (8260B)
Acetone via Method 8260B (µg/kg)
70
60
50
40
30
20
10
0
6/25/2015
8/24/2015
10/23/2015
Date
Pad
Unnamed Tributary
Opossum Creek
Background
Linear (Acetone Screening Level: 9.9 ug/kg)

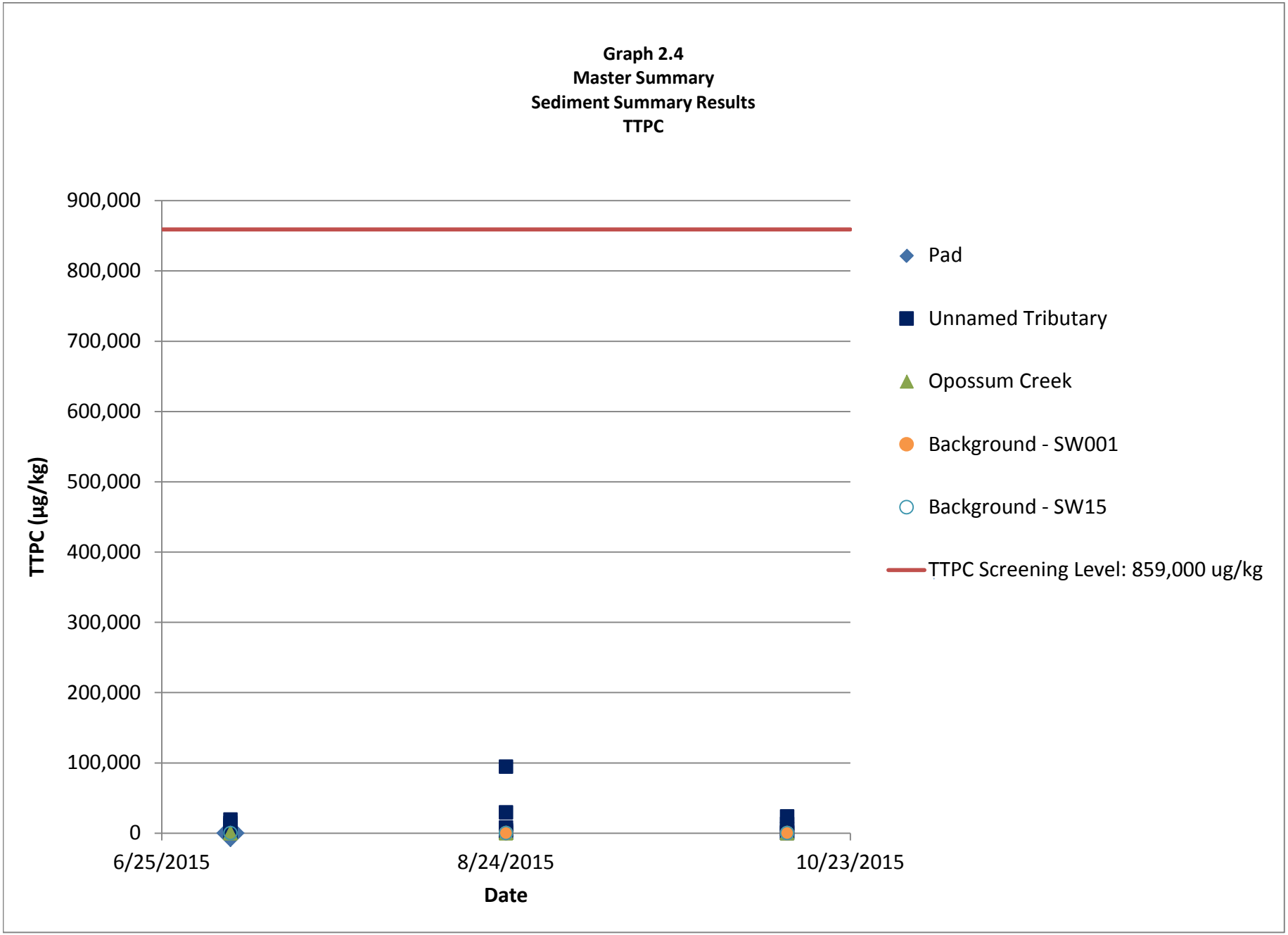
Graphs Set 2: Sediment Master Trends

Graph 2.3: TPH


Graph 2.3
Master Summary
Sediment Summary Results
TPH
400
350
300
250
200
150
100
50
0
TPH (mg/kg)
6/25/2015
8/24/2015
10/23/2015
Date
Pad
Unnamed Tributary
Opossum Creek
Background - SW001
Background - SW15
TPH Screening Level: 380 mg/kg

Graphs Set 2: Sediment Master Trends

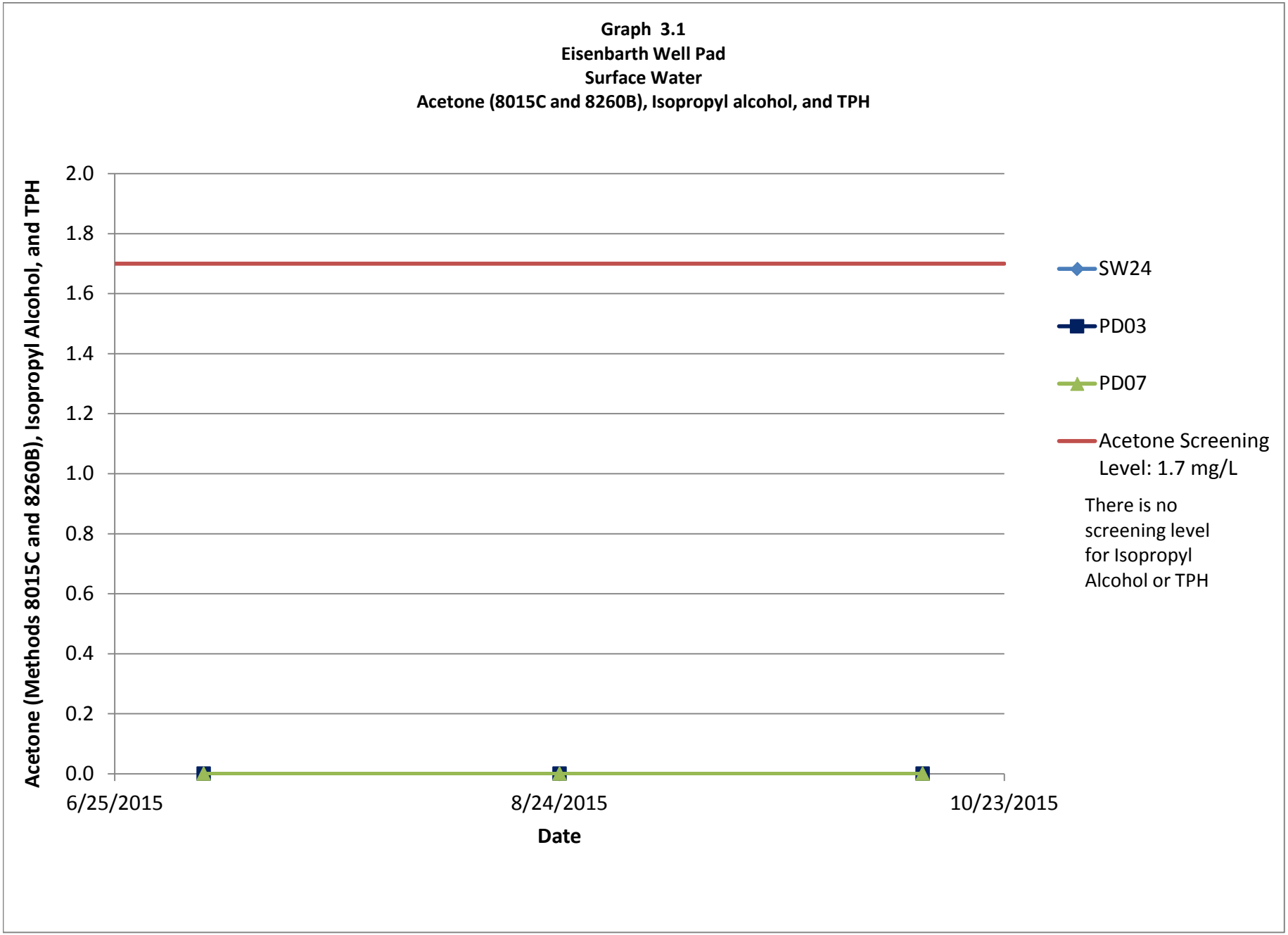
Graph 2.4: TTPC


Graph 2.4
Master Summary
Sediment Summary Results
TTPC
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
TTPC (µg/kg)
6/25/2015
8/24/2015
10/23/2015
Date
Pad
Unnamed Tributary
Opossum Creek
Background - SW001
Background - SW15
TTPC Screening Level: 859,000 ug/kg

Graphs Set 3: Eisenbarth Well Pad Locations

Surface Water

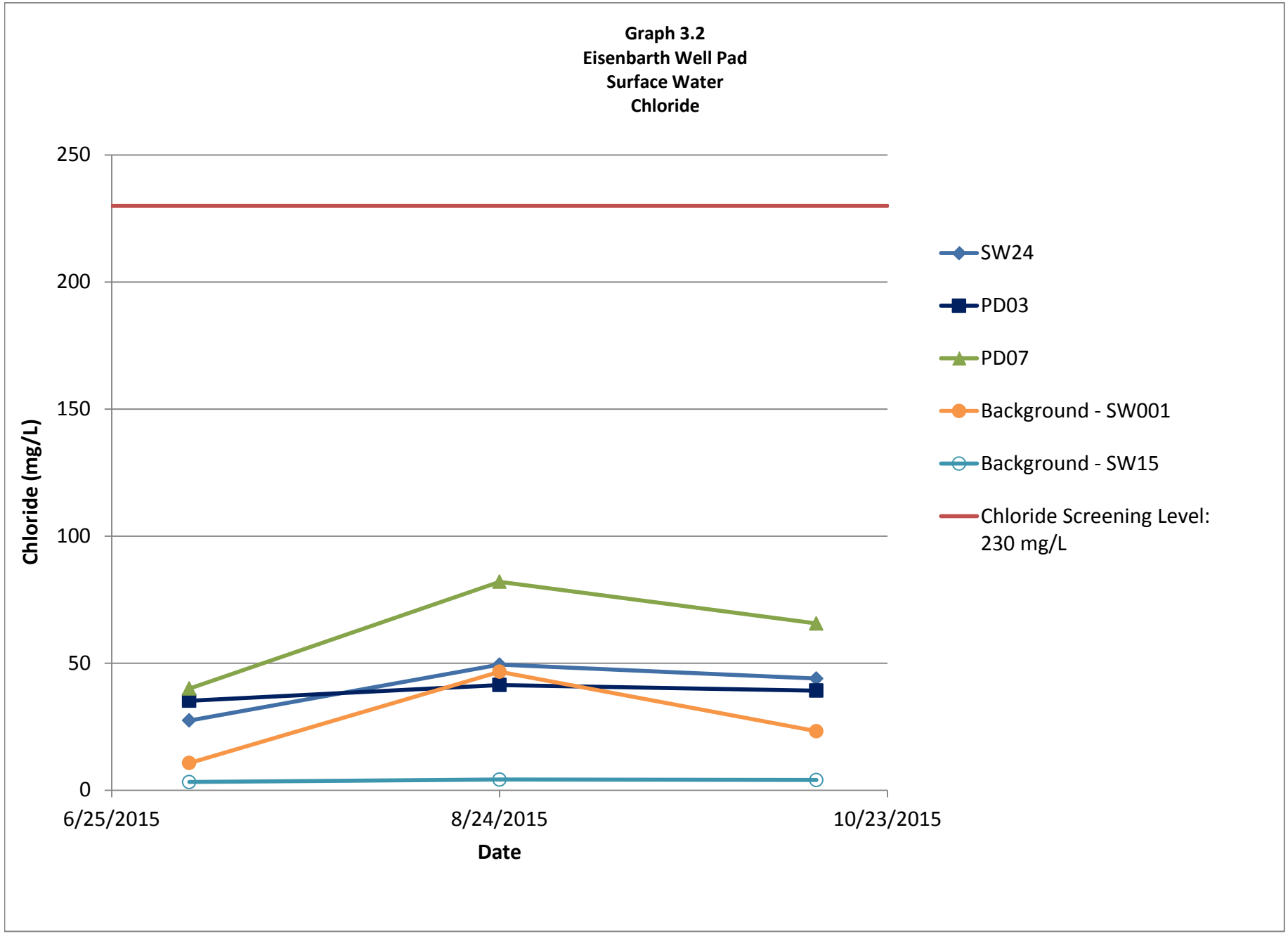
Graph 3.1: Acetone (8015C and 8260B), Isopropyl alcohol, and TPH


Graph 3.1
Eisenbarth Well Pad
Surface Water
Acetone (8015C and 8260B), Isopropyl alcohol, and TPH
Acetone (Methods 8015C and 8260B), Isopropyl Alcohol, and TPH
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
6/25/2015
8/24/2015
10/23/2015
Date
SW24
PD03
PD07
Acetone Screening Level: 1.7 mg/L
There is no screening level for Isopropyl Alcohol or TPH

Graphs Set 3: Eisenbarth Well Pad Locations

Surface Water

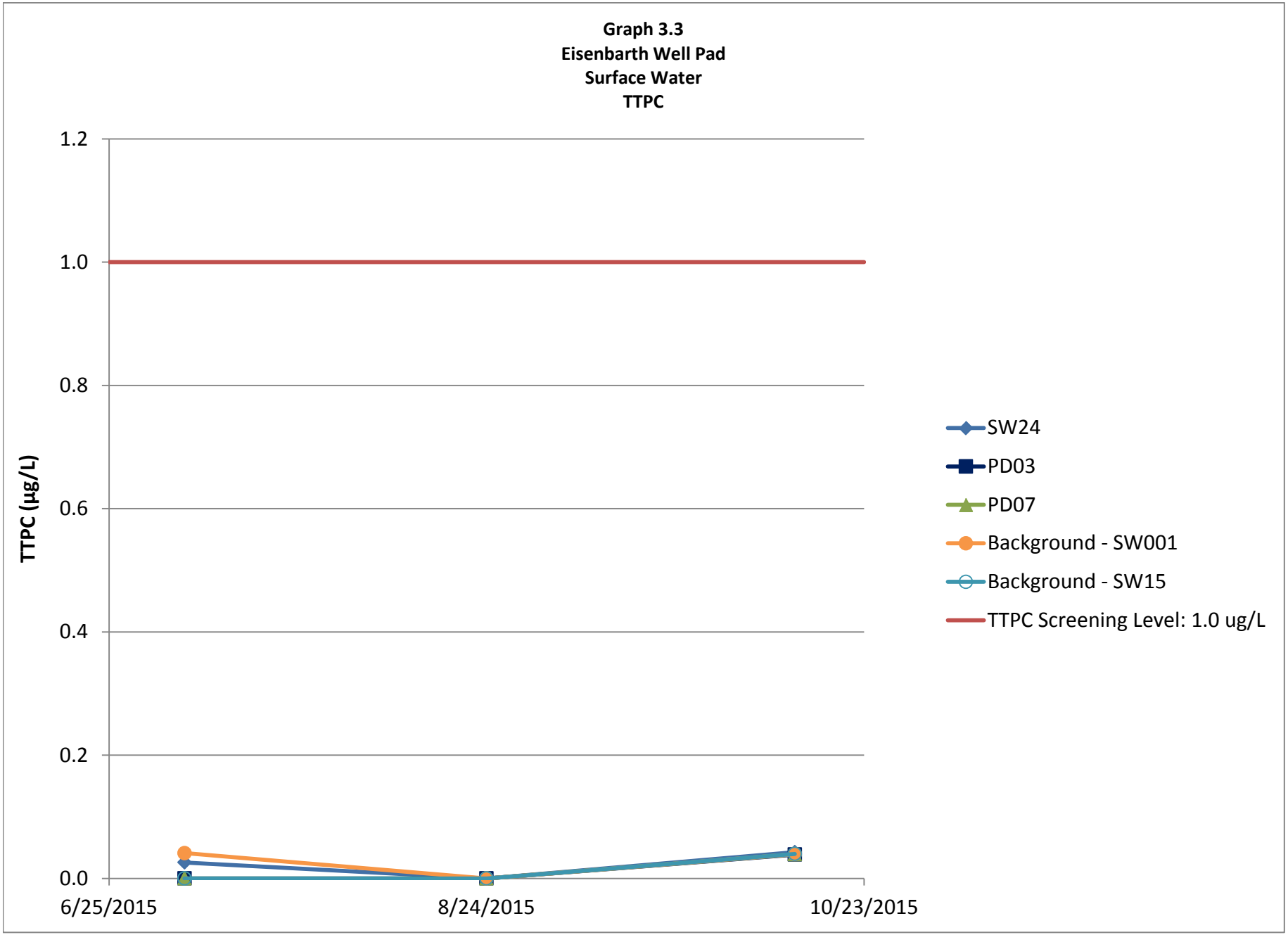
Graph 3.2: Chloride


Graph 3.2
Eisenbarth Well Pad
Surface Water
Chloride
250
200
150
100
50
0
Chloride (mg/L)
6/25/2015
8/24/2015
10/23/2015
Date
SW24
PD03
PD07
Background - SW001
Background - SW15
Chloride Screening Level: 230 mg/L

Graphs Set 3: Eisenbarth Well Pad Locations

Surface Water

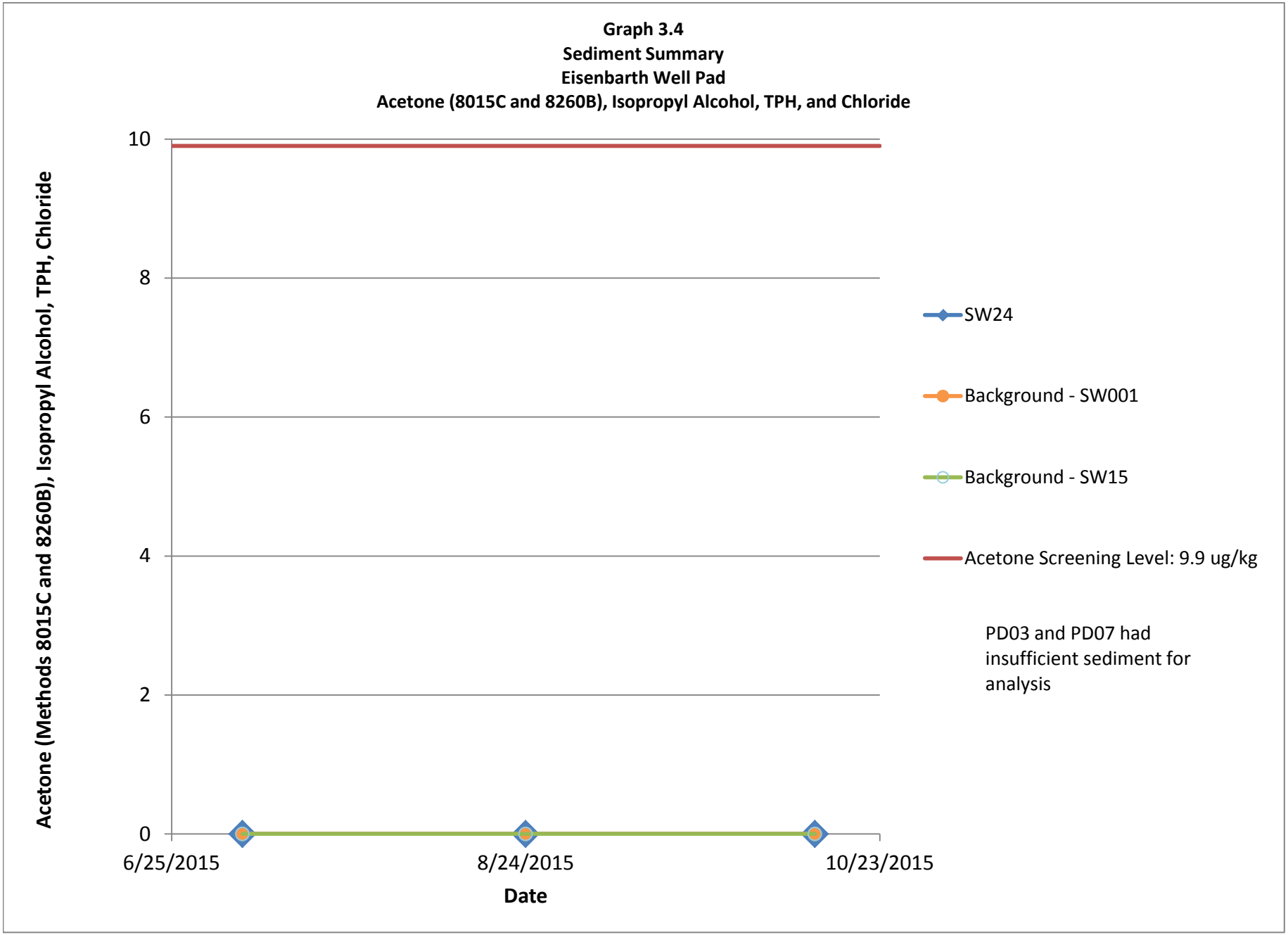
Graph 3.3: TTPC


Graph 3.3
Eisenbarth Well Pad
Surface Water
TTPC
TTPC (µg/L)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
6/25/2015
8/24/2015
10/23/2015
SW24
PD03
PD07
Background - SW001
Background - SW15
TTPC Screening Level: 1.0 ug/L

Graphs Set 3: Eisenbarth Well Pad Locations

Sediment

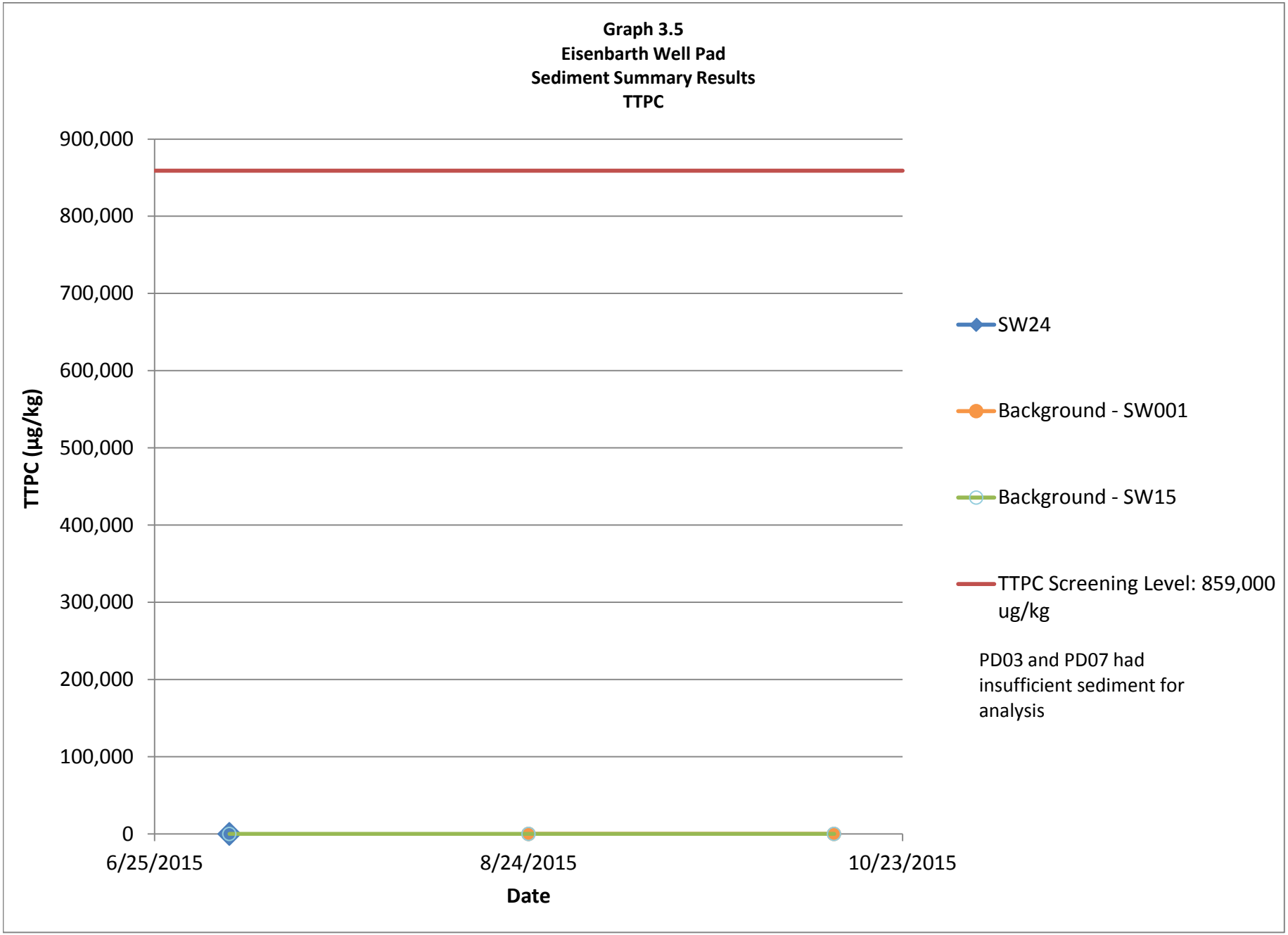
Graph 3.4: Acetone (8015C, 8260B), Isopropyl alcohol, TPH, and Chloride


Graph 3.4
Sediment Summary
Eisenbarth Well Pad
Acetone (8015C and 8260B), Isopropyl Alcohol, TPH, and Chloride
Acetone (Methods 8015C and 8260B), Isopropyl Alcohol, TPH, Chloride
10
8
6
4
2
0
6/25/2015
8/24/2015
10/23/2015
Date
SW24
Background - SW001
Background - SW15
Acetone Screening Level: 9.9 ug/kg
PD03 and PD07 had insufficient sediment for analysis

Graphs Set 3: Eisenbarth Well Pad Locations

Sediment

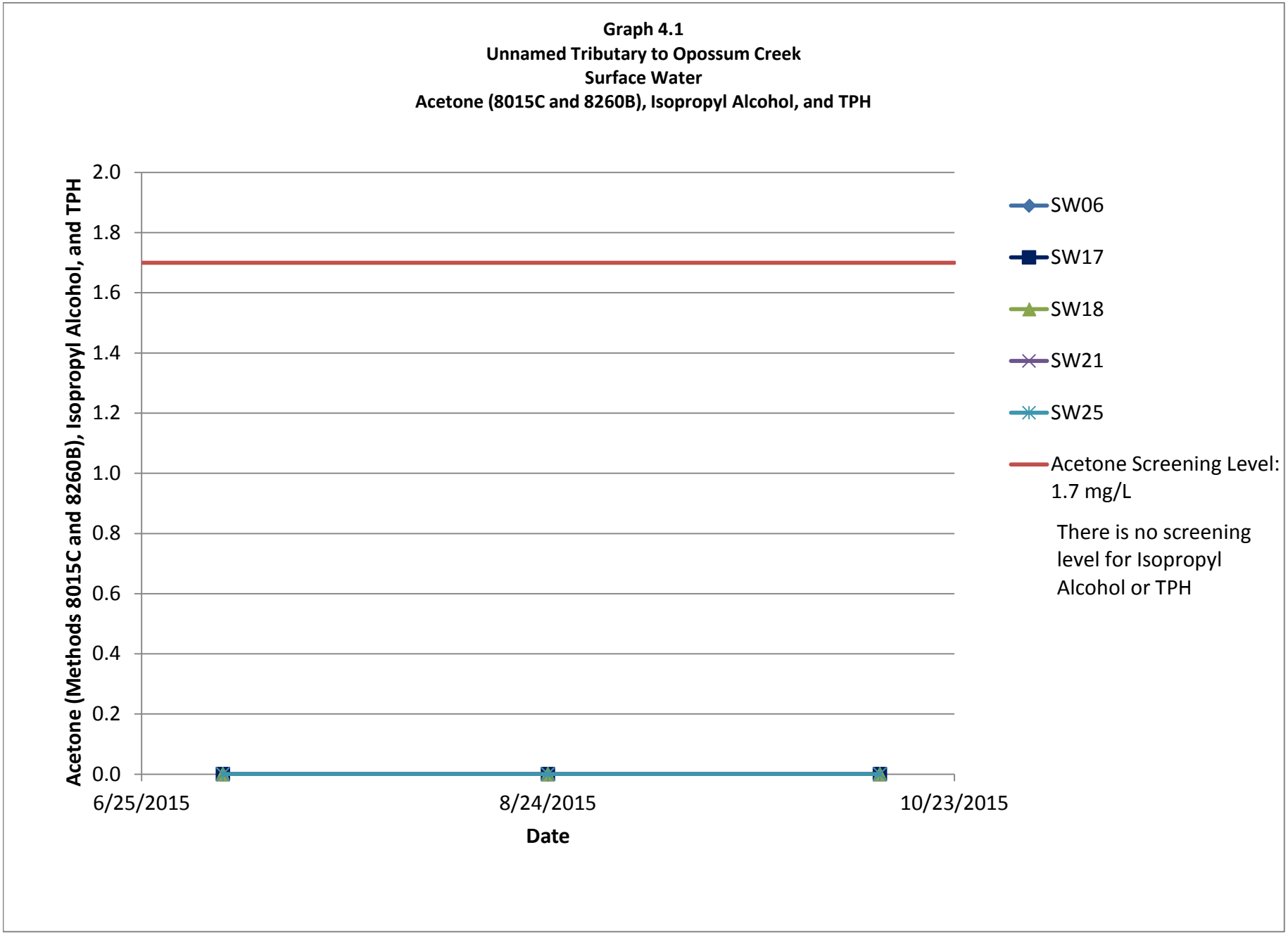
Graph 3.5: TTPC


Graph 3.5
Eisenbarth Well Pad
Sediment Summary Results
TTPC
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
TTPC (µg/kg)
6/25/2015
8/24/2015
10/23/2015
Date
SW24
Background - SW001
Background - SW15
TTPC Screening Level: 859,000 ug/kg
PD03 and PD07 had insufficient sediment for analysis

Graphs Set 4: Unnamed Tributary Locations

Surface Water

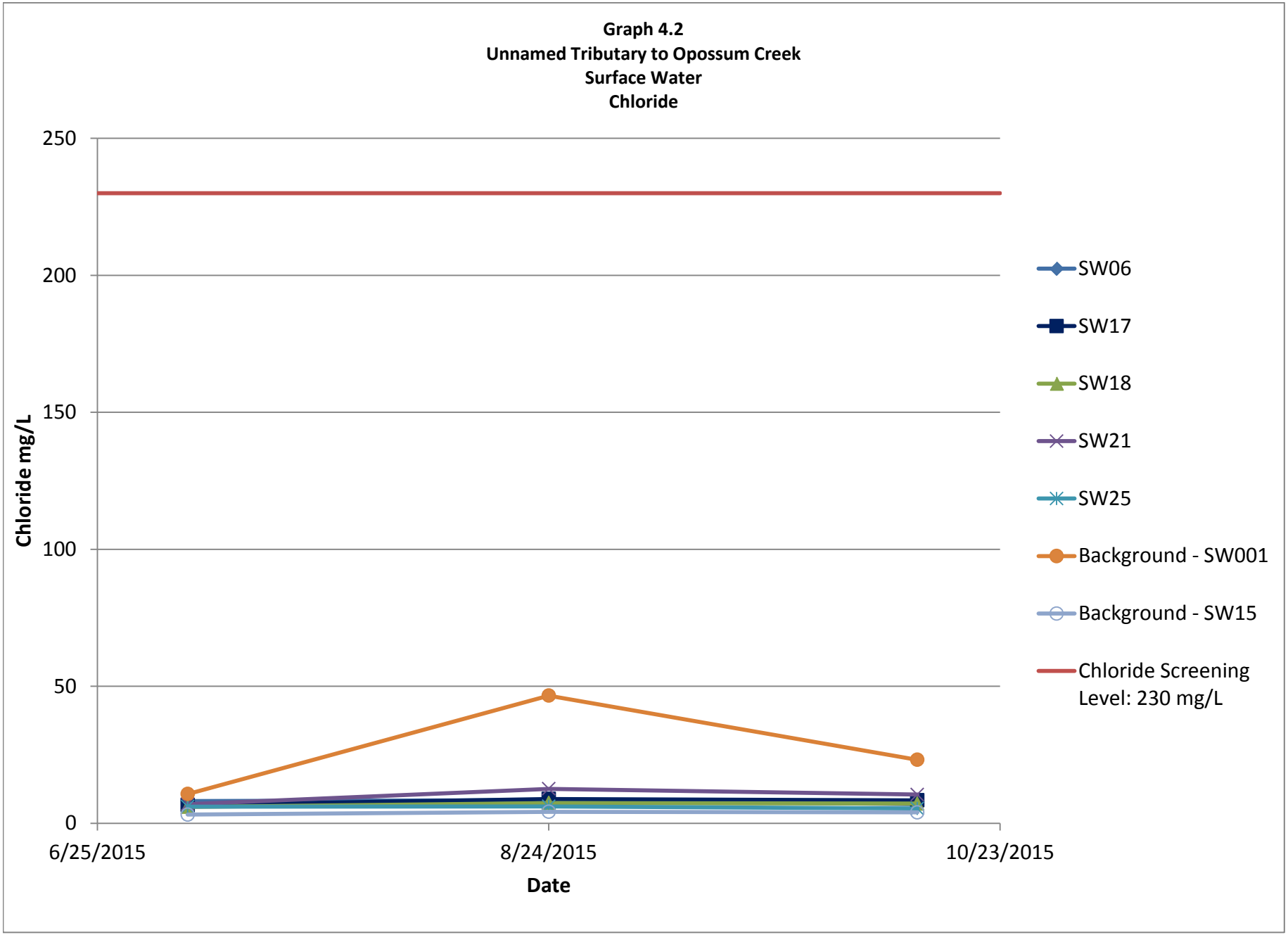
Graph 4.1: Acetone (8015C and 8260B), Isopropyl alcohol, and TPH


Graph 4.1
Unnamed Tributary to Opossum Creek
Surface Water
Acetone (8015C and 8260B), Isopropyl Alcohol, and TPH
Acetone (Methods 8015C and 8260B), Isopropyl Alcohol, and TPH
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
6/25/2015
8/24/2015
10/23/2015
Date
SW06
SW17
SW18
SW21
SW25
Acetone Screening Level: 1.7 mg/L
There is no screening level for Isopropyl Alcohol or TPH

Graphs Set 4: Unnamed Tributary Locations

Surface Water

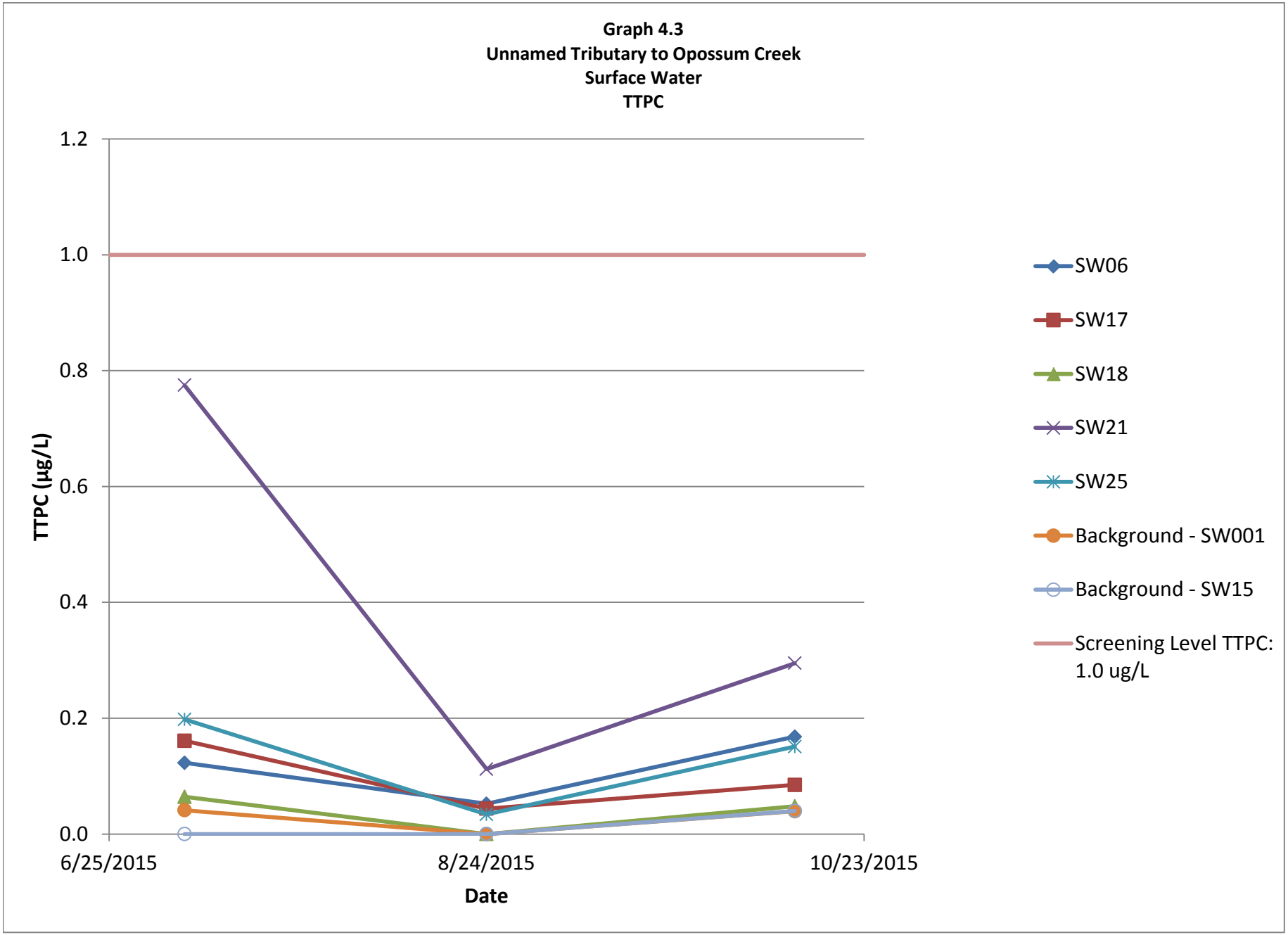
Graph 4.2: Chloride


Graph 4.2
Unnamed Tributary to Opossum Creek
Surface Water
Chloride
250
200
150
100
50
0
Chloride mg/L
6/25/2015
8/24/2015
10/23/2015
Date
SW06
SW17
SW18
SW21
SW25
Background - SW001
Background - SW15
Chloride Screening Level: 230 mg/L

Graphs Set 4: Unnamed Tributary Locations

Surface Water

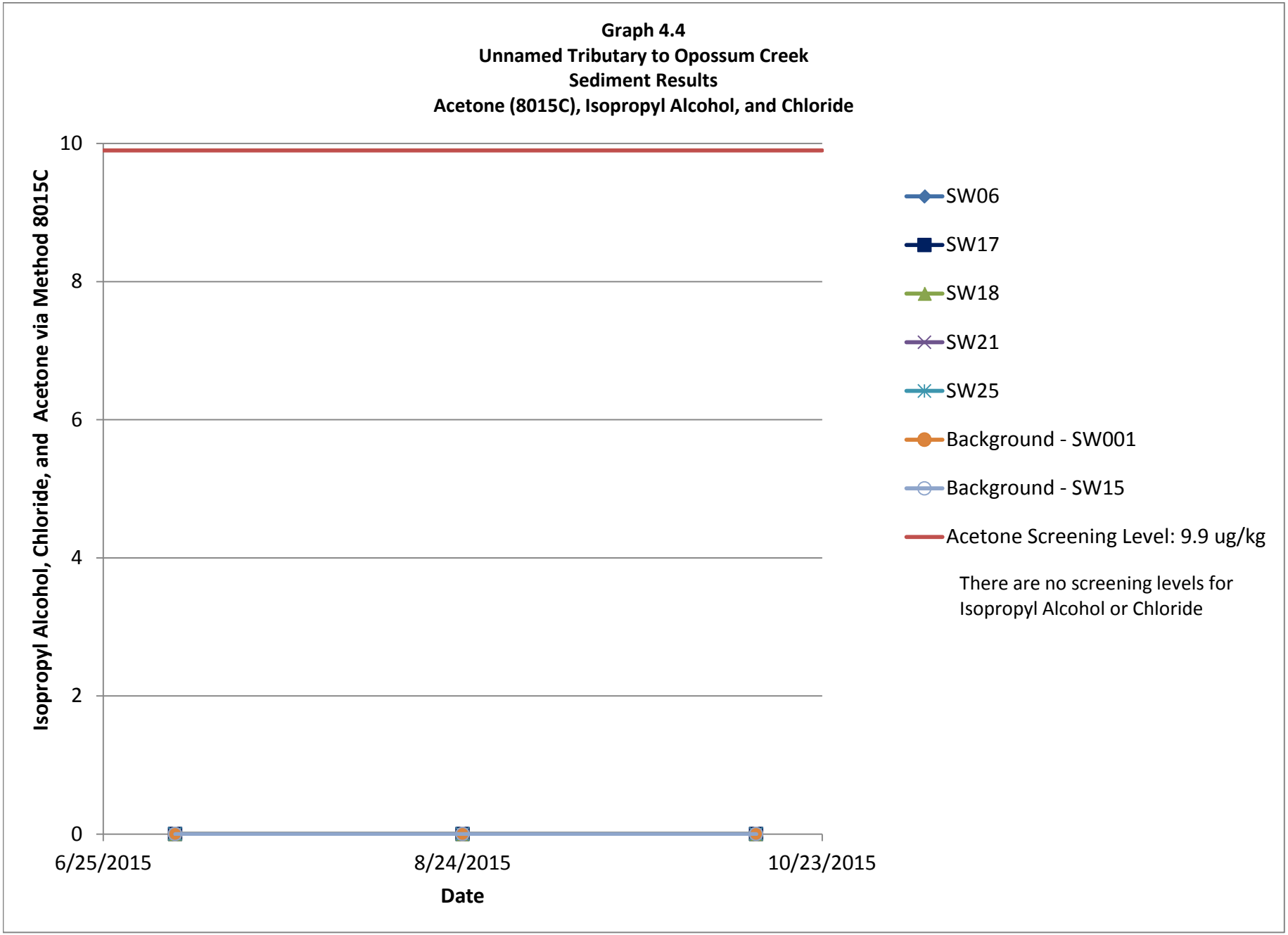
Graph 4.3: TTPC


Graph 4.3
Unnamed Tributary to Opossum Creek
Surface Water
TTPC
1.2
1.0
0.8
0.6
0.4
0.2
0.0
TTPC (µg/L)
6/25/2015
8/24/2015
10/23/2015
Date
SW06
SW17
SW18
SW21
SW25
Background - SW001
Background - SW15
Screening Level TTPC: 1.0 ug/L

Graphs Set 4: Unnamed Tributary Locations

Sediment

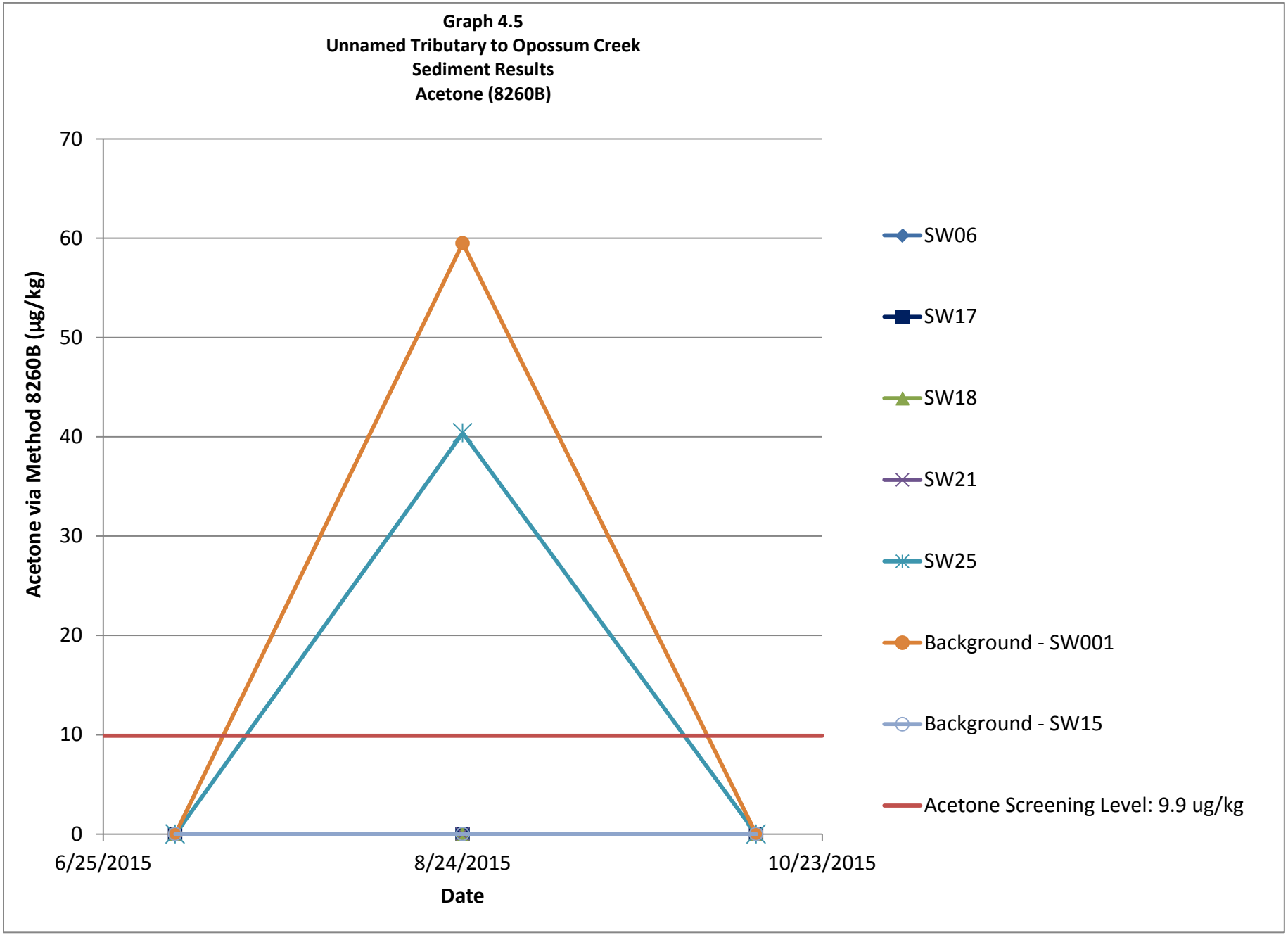
Graph 4.4: Acetone (8015C), Isopropyl alcohol, and Chloride


Graph 4.4
Unnamed Tributary to Opossum Creek
Sediment Results
Acetone (8015C), Isopropyl Alcohol, and Chloride
Isopropyl Alcohol, Chloride, and Acetone via Method 8015C
10
8
6
4
2
0
6/25/2015
8/24/2015
10/23/2015
Date
SW06
SW17
SW18
SW21
SW25
Background - SW001
Background - SW15
Acetone Screening Level: 9.9 ug/kg
There are no screening levels for Isopropyl Alcohol or Chloride

Graphs Set 4: Unnamed Tributary Locations

Sediment

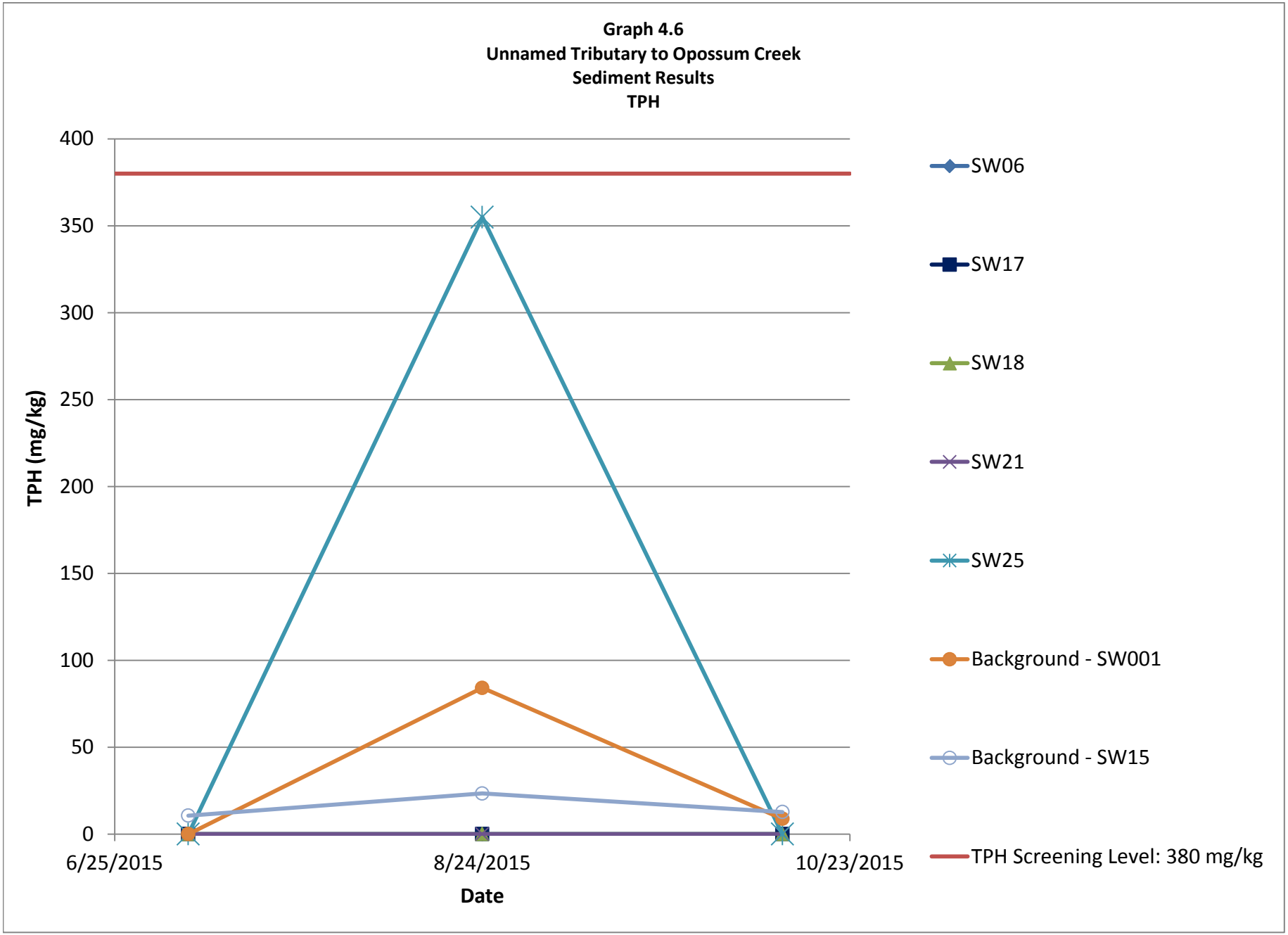
Graph 4.5: Acetone (8260B)


Graph 4.5
Unnamed Tributary to Opossum Creek
Sediment Results
Acetone (8260B)
Acetone via Method 8260B (µg/kg)
70
60
50
40
30
20
10
0
6/25/2015
8/24/2015
10/23/2015
Date
SW06
SW17
SW18
SW21
SW25
Background - SW001
Background - SW15
Acetone Screening Level: 9.9 ug/kg

Graphs Set 4: Unnamed Tributary Locations

Sediment

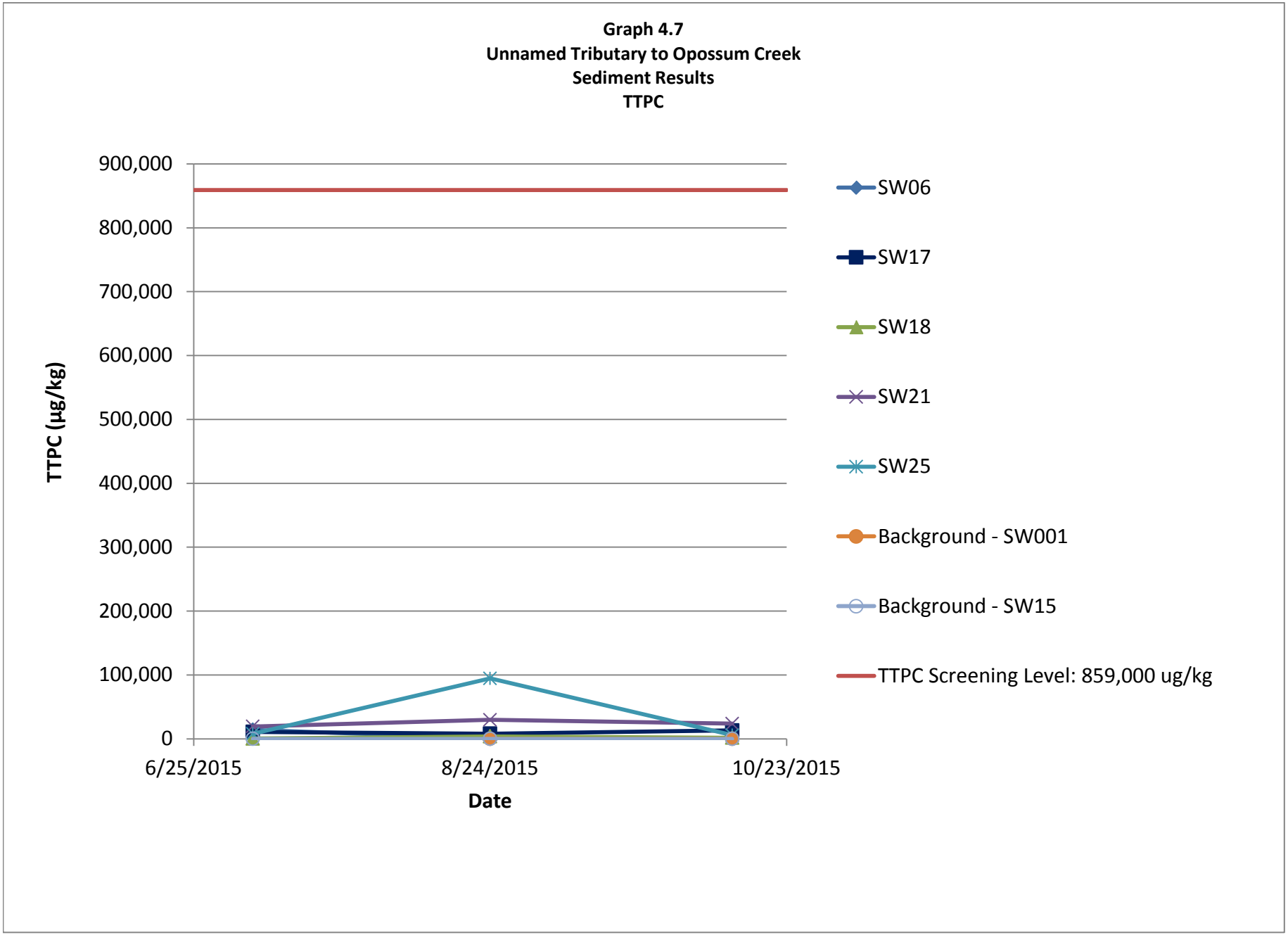
Graph 4.6: TPH


Graph 4.6
Unnamed Tributary to Opossum Creek
Sediment Results
TPH
TPH (mg/kg)
400
350
300
250
200
150
100
50
0
6/25/2015
8/24/2015
10/23/2015
Date
SW06
SW17
SW18
SW21
SW25
Background - SW001
Background - SW15
TPH Screening Level: 380 mg/kg

Graphs Set 4: Unnamed Tributary Locations

Sediment

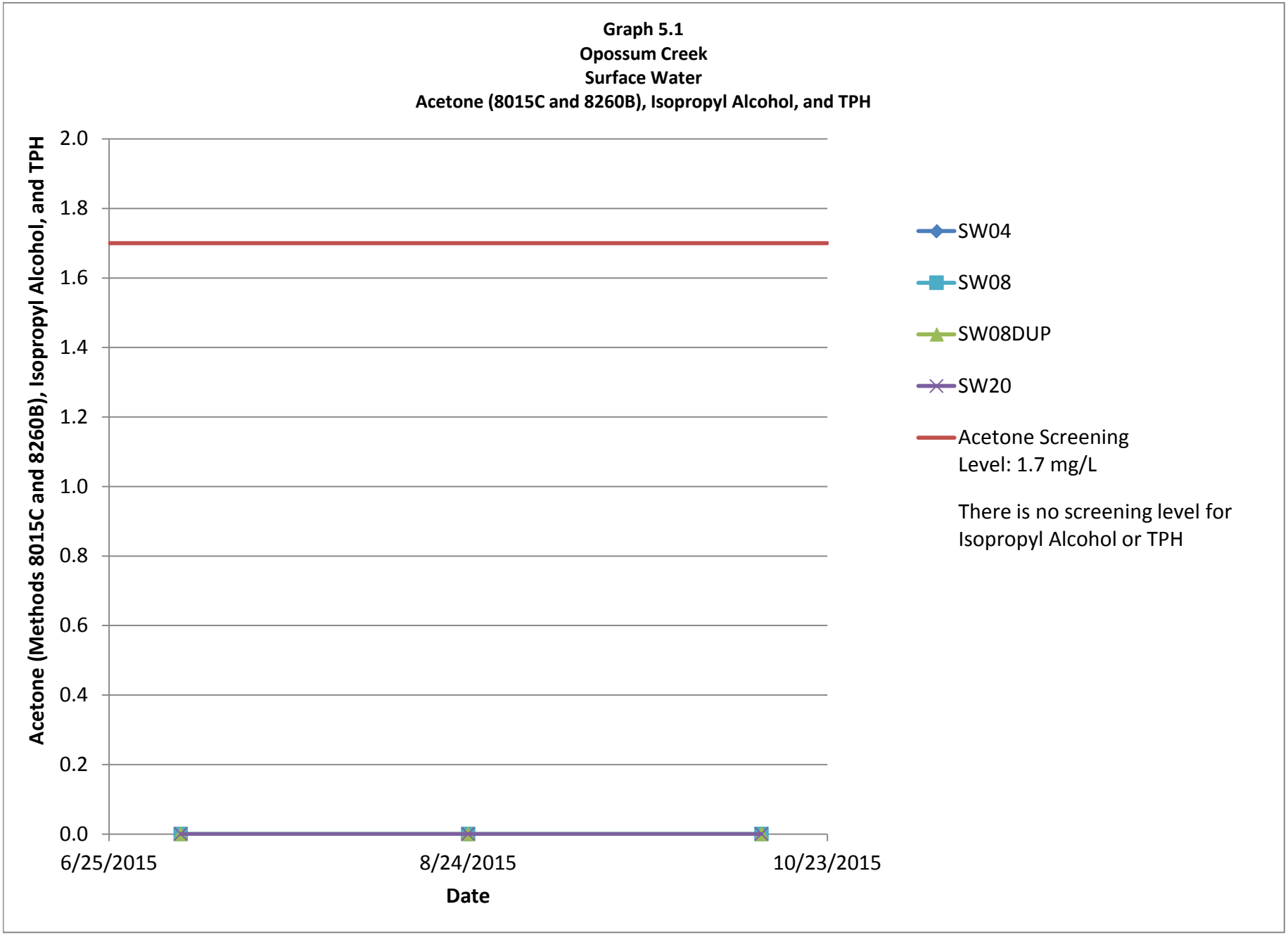
Graph 4.7: TTPC


Graph 4.7
Unnamed Tributary to Opossum Creek
Sediment Results
TTPC
TTPC (µg/kg)
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
6/25/2015
8/24/2015
10/23/2015
Date
SW06
SW17
SW18
SW21
SW25
Background - SW001
Background - SW15
TTPC Screening Level: 859,000 ug/kg

Graphs Set 5: Opossum Creek Locations

Surface Water

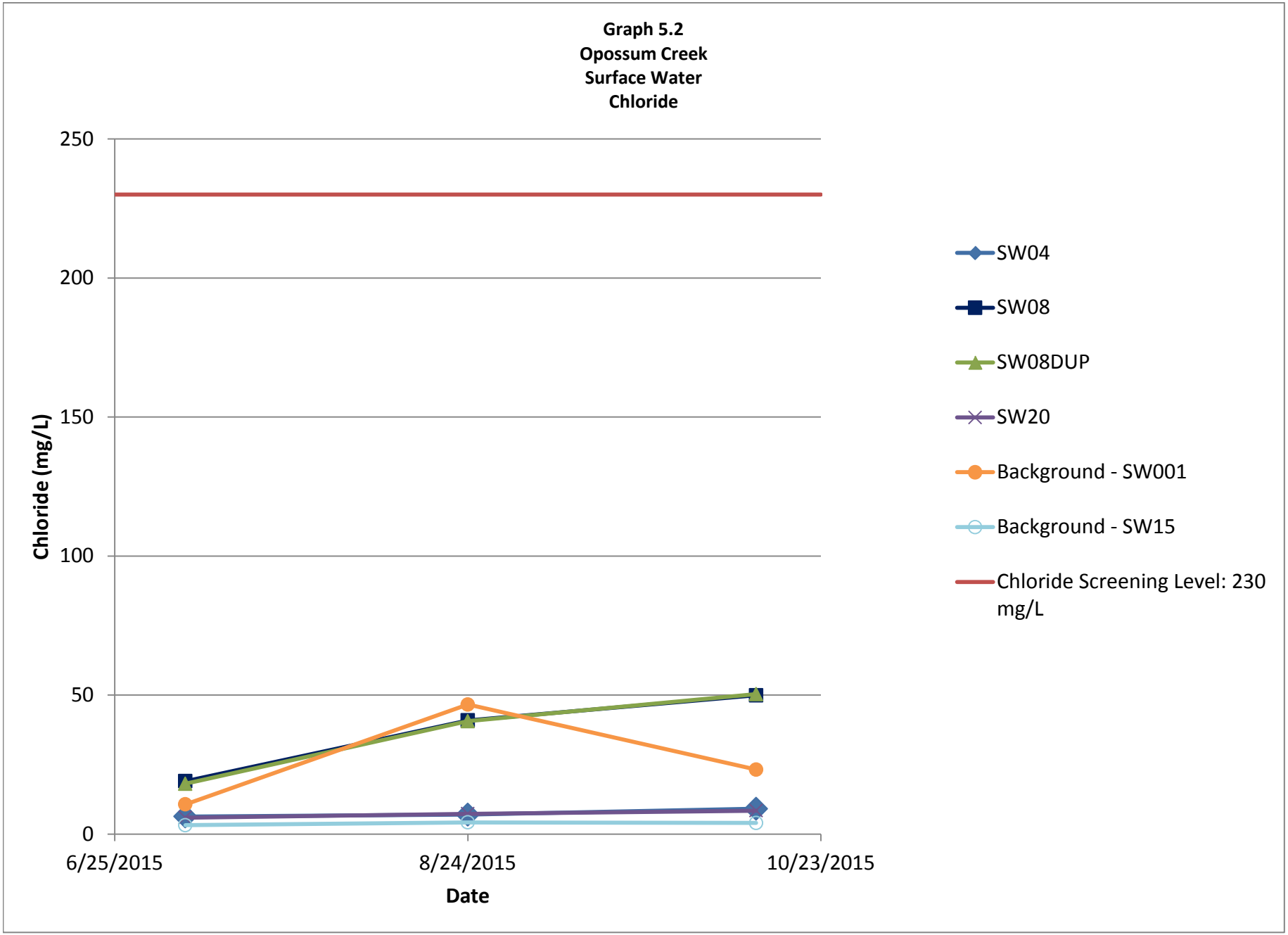
Graph 5.1: Acetone (8015C and 8260B), Isopropyl alcohol, and TPH


Graph 5.1
Opossum Creek
Surface Water
Acetone (8015C and 8260B), Isopropyl Alcohol, and TPH
Acetone (Methods 8015C and 8260B), Isopropyl Alcohol, and TPH
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
6/25/2015
8/24/2015
10/23/2015
Date
SW04
SW08
SW08DUP
SW20
Acetone Screening Level: 1.7 mg/L
There is no screening level for Isopropyl Alcohol or TPH

Graphs Set 5: Opossum Creek Locations

Surface Water

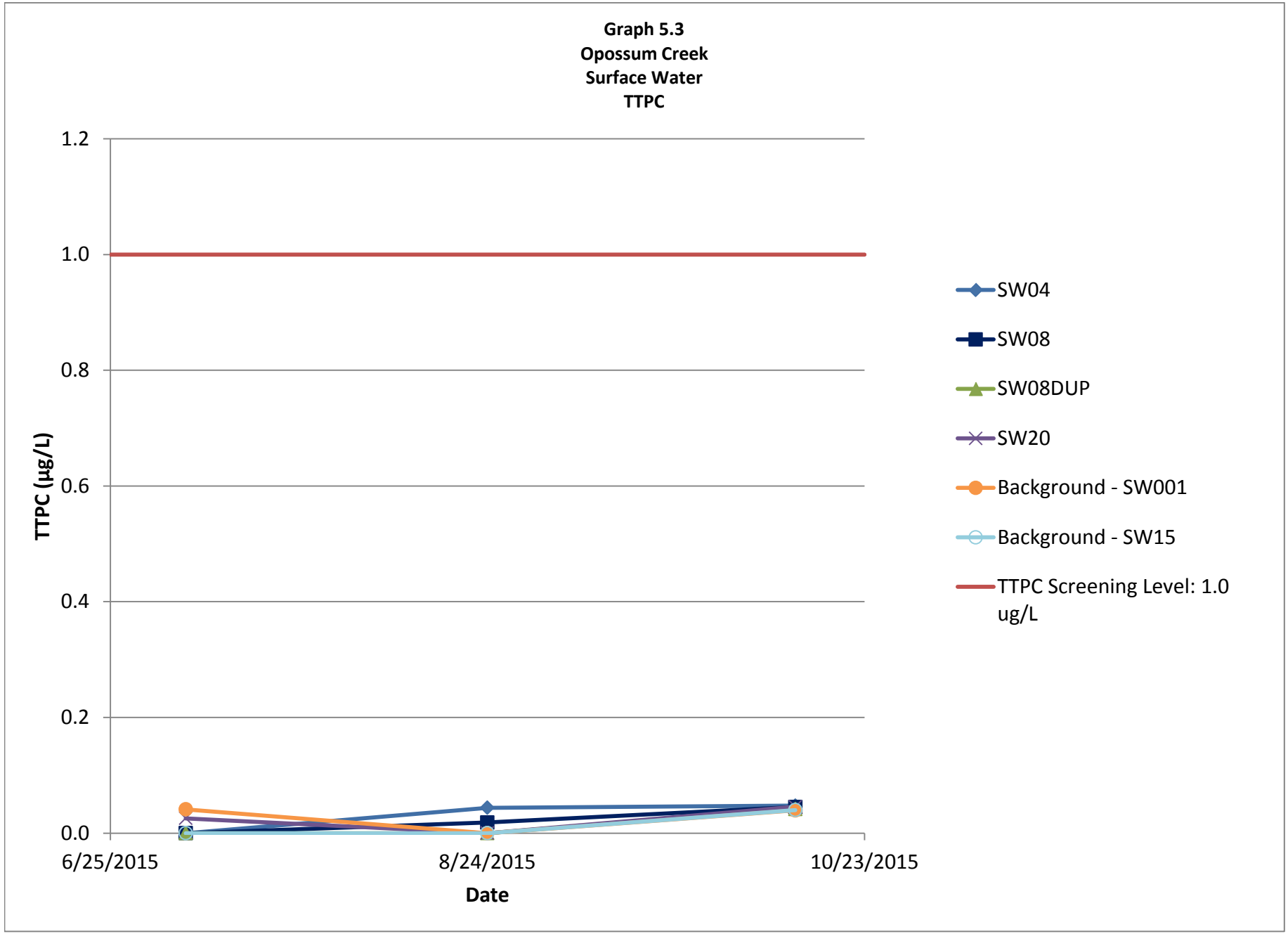
Graph 5.2: Chloride


Graph 5.2
Opossum Creek
Surface Water
Chloride
250
200
150
100
50
0
Chloride (mg/L)
6/25/2015
8/24/2015
10/23/2015
Date
SW04
SW08
SW08DUP
SW20
Background - SW001
Background - SW15
Chloride Screening Level: 230 mg/L

Graphs Set 5: Opossum Creek Locations

Surface Water

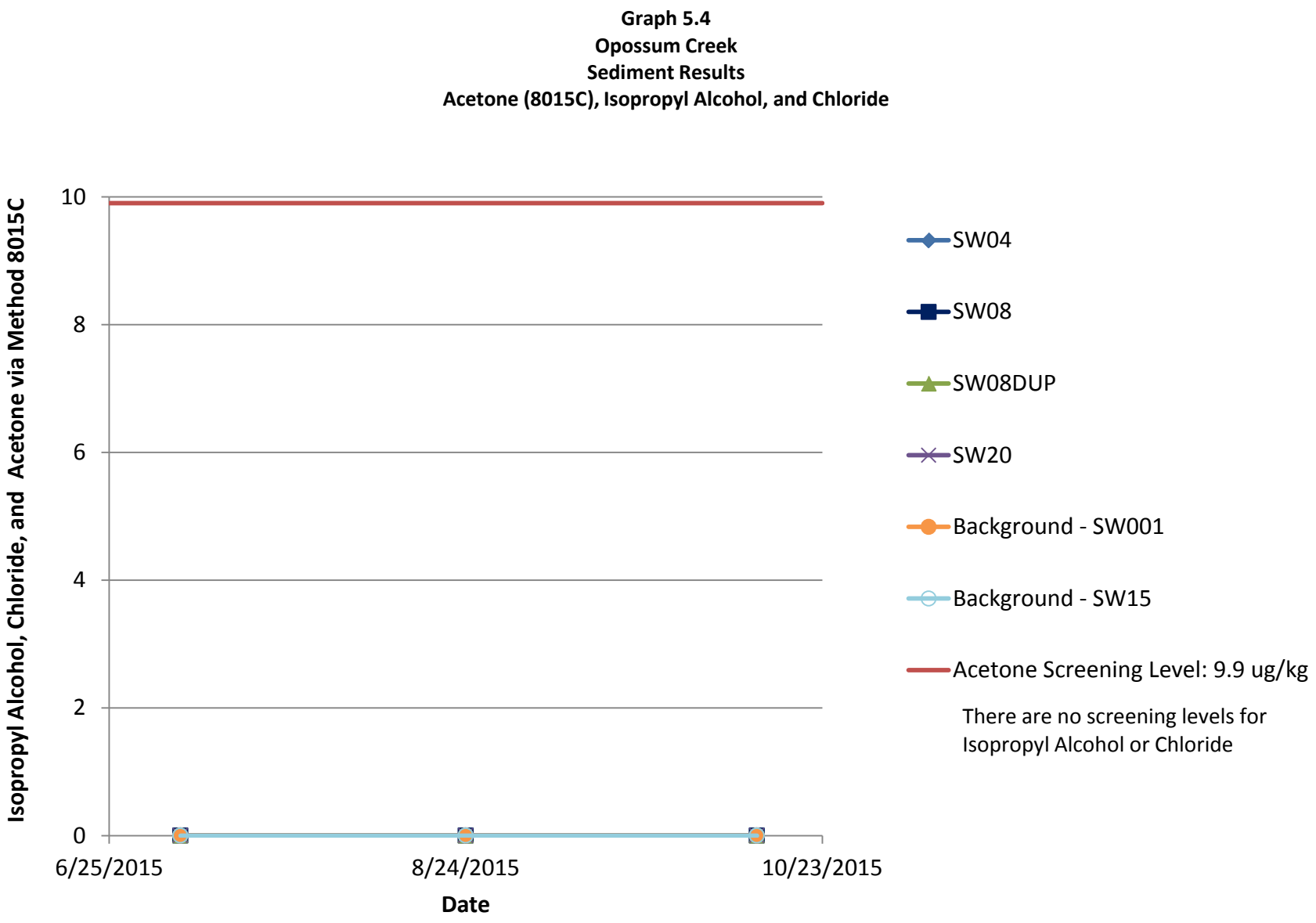
Graph 5.3: TTPC


Graph 5.3
Opossum Creek
Surface Water
TTPC
1.2
1.0
0.8
0.6
0.4
0.2
0.0
TTPC (µg/L)
6/25/2015
8/24/2015
10/23/2015
Date
SW04
SW08
SW08DUP
SW20
Background - SW001
Background - SW15
TTPC Screening Level: 1.0 ug/L

Graphs Set 5: Opossum Creek Locations

Sediment

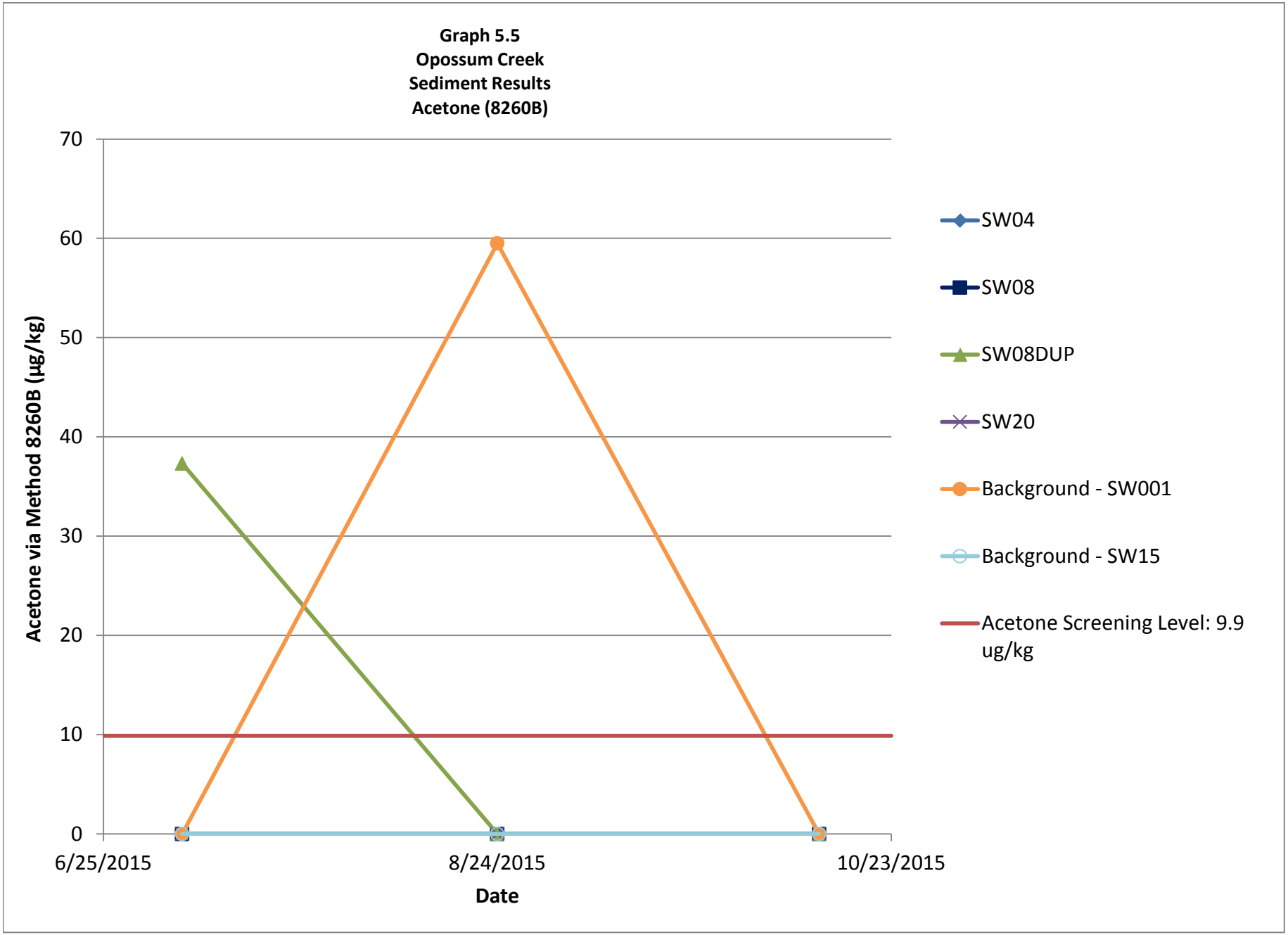
Graph 5.4: Acetone (8015C), Isopropyl alcohol, and Chloride


Graph 5.4
Opossum Creek
Sediment Results
Acetone (8015C), Isopropyl Alcohol, and Chloride
Isopropyl Alcohol, Chloride, and Acetone via Method 8015C
10
8
6
4
2
0
6/25/2015
8/24/2015
10/23/2015
Date
SW04
SW08
SW08DUP
SW20
Background - SW001
Background - SW15
Acetone Screening Level: 9.9 ug/kg
There are no screening levels for Isopropyl Alcohol or Chloride

Graphs Set 5: Opossum Creek Locations

Sediment

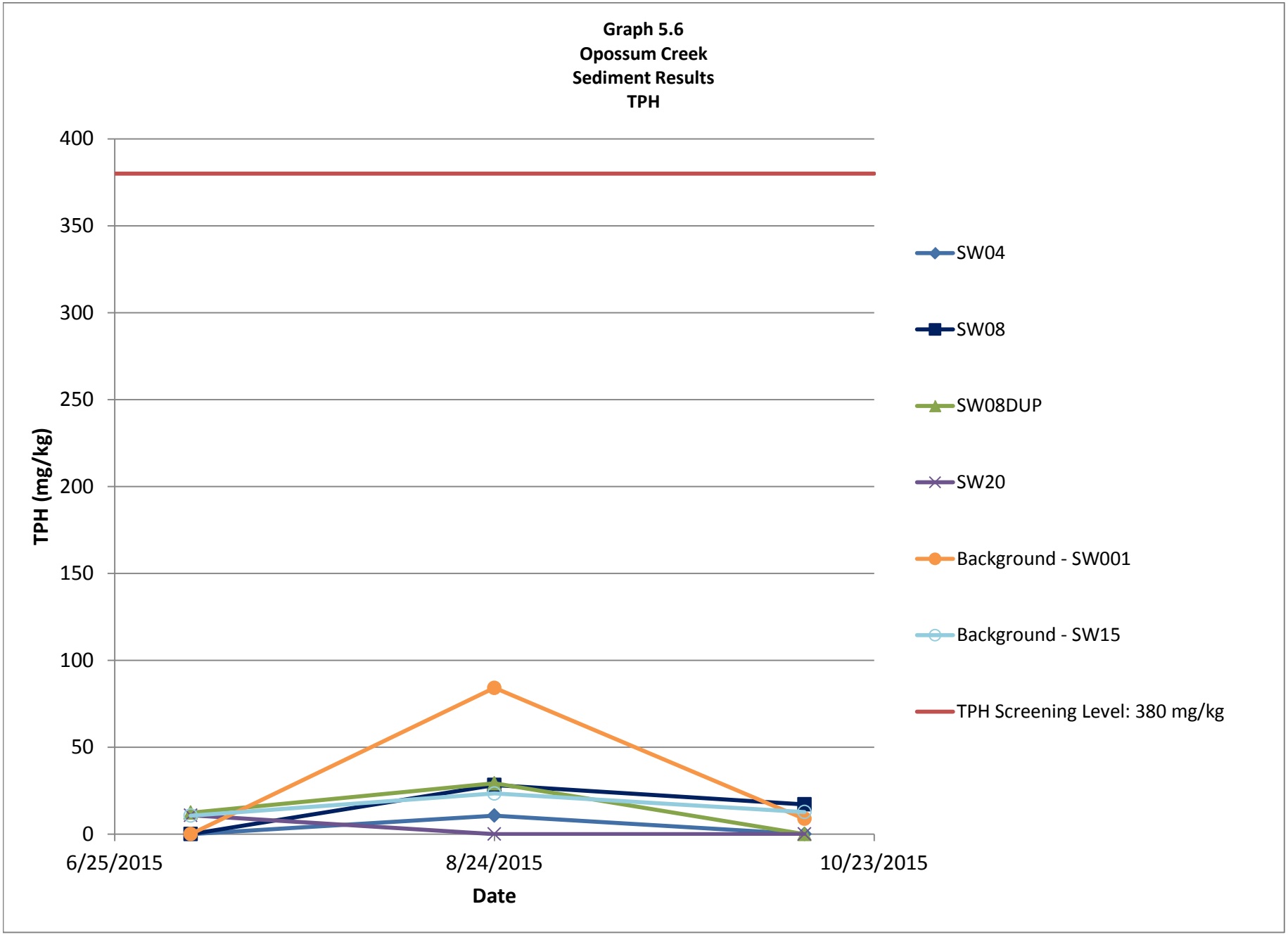
Graph 5.5: Acetone (8260B)


Graph 5.5
Opossum Creek
Sediment Results
Acetone (8260B)
Acetone via Method 8260B (µg/kg)
70
60
50
40
30
20
10
0
6/25/2015
8/24/2015
10/23/2015
Date
SW04
SW08
SW08DUP
SW20
Background - SW001
Background - SW15
Acetone Screening Level: 9.9 ug/kg

Graphs Set 5: Opossum Creek Locations

Sediment

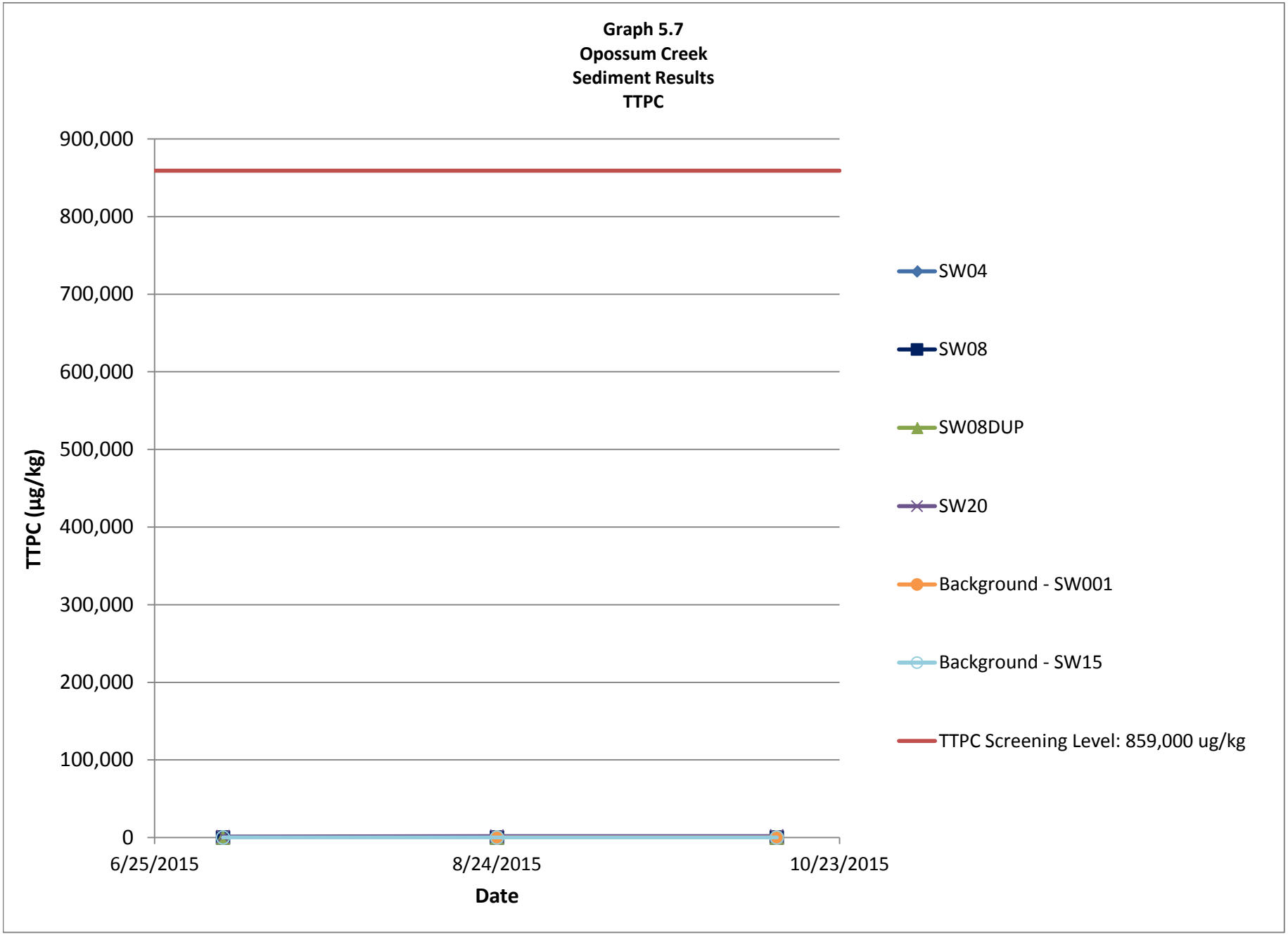
Graph 5.6: TPH


Graph 5.6
Opossum Creek
Sediment Results
TPH
400
350
300
250
200
150
100
50
0
TPH (mg/kg)
6/25/2015
8/24/2015
10/23/2015
Date
SW04
SW08
SW08DUP
SW20
Background - SW001
Background - SW15
TPH Screening Level: 380 mg/kg

Graphs Set 5: Opossum Creek Locations

Sediment

Graph 5.7: TTPC


Graph 5.7
Opossum Creek
Sediment Results
TTPC
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
TTPC (µg/kg)
6/25/2015
8/24/2015
10/23/2015
Date
SW04
SW08
SW08DUP
SW20
Background - SW001
Background - SW15
TTPC Screening Level: 859,000 ug/kg

APPENDIX A

Lab Results

NELAP CERTIFICATE NUMBER: 01955
DOD ELAP CERTIFICATE NUMBER: L14-243

ANALYTICAL RESULTS

PERFORMED BY

GCAL, LLC
7979 Innovation Park Dr.
Baton Rouge, LA 70820

Report Date 07/20/2015

GCAL Report 215071013

Deliver To	Moody & Associates, Inc. 199 S. Johnson Rd Bldg 2, Ste 101 Houston, PA 15342 724-746-5200
Attn	Leah Mistick
Project	Eisenbarth Consent Order

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations that may be Utilized in this Report

ND	Indicates the result was Not Detected at the specified reporting limit
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
DL	Detection Limit
DL	Diluted analysis – when appended to Client Sample ID
LOD	Limit of Detection
LOQ	Limit of Quantitation
RE	Re-analysis
N	Metals Matrix Spike or Matrix Spike Duplicate Recovery is outside control limits
00:00	Reported as a time equivalent to 12:00 AM

Reporting Flags that may be Utilized in this Report

J or I	Indicates the result is between the MDL and LOQ
U	Indicates the compound was analyzed for but not detected
B	Indicates the analyte was detected in the associated Method Blank
Q	Indicates a non-compliant QC Result (See Q Flag Application Report)
*****	Indicates a non-compliant or not applicable QC recovery or RPD

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the NELAC standard and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

_____
Authorized Signature
GCAL Report 215071013

Case Narrative

Client: Moody & Associates, Inc. **Report:** 215071013

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the Report Sample Summary page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

SEMI-VOLATILES MASS SPECTROMETRY

In the GCAL SOP LCMS-001 analysis, samples 21507101310 (HAOH0707SW06), 21507101316 (HAOH0707SW17), 21507101317 (HAOH0707SW18), 21507101318 (HAOH0707SW21), 21507101319 (HAOH0707SW25), 21507101320 (HAOH0707SW04), 21507101324 (HAOH0707SW20), and 21507101325 (HAOH0707SW24) had to be diluted to bracket the concentration of the target analyte within the calibration range of the instrument.

In the GCAL SOP LCMS-001 analysis for prep batch 562932, the MS/MSD spike recoveries are not applicable due to the high concentration of TPCC in the parent sample. The MS/MSD surrogate recoveries are not applicable because the spike was diluted out of the samples. All LCS/LCSD recoveries are acceptable.

Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21507101301	HAOH0707SW001	Water	07/07/2015 14:30	07/09/2015 10:13
21507101302	HAOH0707SW24	Water	07/07/2015 09:45	07/09/2015 10:13
21507101303	HAOH0707PD03	Water	07/07/2015 12:30	07/09/2015 10:13
21507101304	HAOH0707PD07	Water	07/07/2015 11:10	07/09/2015 10:13
21507101305	HAOH0707SW04	Water	07/07/2015 13:30	07/09/2015 10:13
21507101306	HAOH0707SW08	Water	07/07/2015 09:30	07/09/2015 10:13
21507101307	HAOH0707SW08DUP	Water	07/07/2015 10:15	07/09/2015 10:13
21507101308	HAOH0707SW15	Water	07/07/2015 15:30	07/09/2015 10:13
21507101309	HAOH0707SW20	Water	07/07/2015 12:00	07/09/2015 10:13
21507101310	HAOH0707SW06	Solid	07/07/2015 13:55	07/09/2015 10:13
21507101311	HAOH0707SW06	Water	07/07/2015 13:55	07/09/2015 10:13
21507101312	HAOH0707SW17	Water	07/07/2015 12:10	07/09/2015 10:13
21507101313	HAOH0707SW18	Water	07/07/2015 11:10	07/09/2015 10:13
21507101314	HAOH0707SW21	Water	07/07/2015 14:15	07/09/2015 10:13
21507101315	HAOH0707SW25	Water	07/07/2015 13:25	07/09/2015 10:13
21507101316	HAOH0707SW17	Solid	07/07/2015 12:10	07/09/2015 10:13
21507101317	HAOH0707SW18	Solid	07/07/2015 11:10	07/09/2015 10:13
21507101318	HAOH0707SW21	Solid	07/07/2015 14:15	07/09/2015 10:13
21507101319	HAOH0707SW25	Solid	07/07/2015 13:25	07/09/2015 10:13
21507101320	HAOH0707SW04	Solid	07/07/2015 13:30	07/09/2015 10:13
21507101321	HAOH0707SW08	Solid	07/07/2015 09:30	07/09/2015 10:13
21507101322	HAOH0707SW08DUP	Solid	07/07/2015 10:15	07/09/2015 10:13
21507101323	HAOH0707SW15	Solid	07/07/2015 15:30	07/09/2015 10:13
21507101324	HAOH0707SW20	Solid	07/07/2015 12:00	07/09/2015 10:13
21507101325	HAOH0707SW24	Solid	07/07/2015 10:30	07/09/2015 10:13

Summary of Compounds Detected

HAOH0707SW001	Collect Date	07/07/2015 14:30	GCAL ID	21507101301
	Receive Date	07/09/2015 10:13	Matrix	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	41.1J	14.3	100	ng/L

HAOH0707SW24	Collect Date	07/07/2015 09:45	GCAL ID	21507101302
	Receive Date	07/09/2015 10:13	Matrix	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	26.0J	14.3	100	ng/L

HAOH0707SW20	Collect Date	07/07/2015 12:00	GCAL ID	21507101309
	Receive Date	07/09/2015 10:13	Matrix	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	25.6J	14.3	100	ng/L

HAOH0707SW06	Collect Date	07/07/2015 13:55	GCAL ID	21507101310
	Receive Date	07/09/2015 10:13	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	14100000	97000	703000	ng/Kg

HAOH0707SW06	Collect Date	07/07/2015 13:55	GCAL ID	21507101311
	Receive Date	07/09/2015 10:13	Matrix	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	123	14.3	100	ng/L

Summary of Compounds Detected

HAOH0707SW17

Collect Date	07/07/2015 12:10	**GCAL ID**	21507101312
Receive Date	07/09/2015 10:13	**Matrix**	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	161	14.3	100	ng/L

HAOH0707SW18

Collect Date	07/07/2015 11:10	**GCAL ID**	21507101313
Receive Date	07/09/2015 10:13	**Matrix**	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	64.3J	14.3	100	ng/L

HAOH0707SW21

Collect Date	07/07/2015 14:15	**GCAL ID**	21507101314
Receive Date	07/09/2015 10:13	**Matrix**	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	775	14.3	100	ng/L

HAOH0707SW25

Collect Date	07/07/2015 13:25	**GCAL ID**	21507101315
Receive Date	07/09/2015 10:13	**Matrix**	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	198	14.3	100	ng/L

HAOH0707SW17

Collect Date	07/07/2015 12:10	**GCAL ID**	21507101316
Receive Date	07/09/2015 10:13	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	10900000	47400	344000	ng/Kg

Summary of Compounds Detected

HAOH0707SW18	Collect Date	07/07/2015 11:10	GCAL ID	21507101317
	Receive Date	07/09/2015 10:13	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	420000	2290	16600	ng/Kg

HAOH0707SW21	Collect Date	07/07/2015 14:15	GCAL ID	21507101318
	Receive Date	07/09/2015 10:13	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	19300000	118000	852000	ng/Kg

HAOH0707SW25	Collect Date	07/07/2015 13:25	GCAL ID	21507101319
	Receive Date	07/09/2015 10:13	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	7880000	43700	316000	ng/Kg

HAOH0707SW04	Collect Date	07/07/2015 13:30	GCAL ID	21507101320
	Receive Date	07/09/2015 10:13	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	26400	374	2710	ng/Kg

HAOH0707SW08	Collect Date	07/07/2015 09:30	GCAL ID	21507101321
	Receive Date	07/09/2015 10:13	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	8000	55.3	401	ng/Kg

Summary of Compounds Detected

HAOH0707SW08DUP

Collect Date	07/07/2015 10:15	**GCAL ID**	21507101322
Receive Date	07/09/2015 10:13	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	6000	53.9	391	ng/Kg

HAOH0707SW15

Collect Date	07/07/2015 15:30	**GCAL ID**	21507101323
Receive Date	07/09/2015 10:13	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	47.3J	42.5	308	ng/Kg

HAOH0707SW20

Collect Date	07/07/2015 12:00	**GCAL ID**	21507101324
Receive Date	07/09/2015 10:13	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	1190000	4800	34800	ng/Kg

HAOH0707SW24

Collect Date	07/07/2015 10:30	**GCAL ID**	21507101325
Receive Date	07/09/2015 10:13	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	13700	225	1630	ng/Kg

Sample Results

HAOH0707SW001

Collect Date	07/07/2015 14:30	**GCAL ID**	21507101301
Receive Date	07/09/2015 10:13	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/14/2015 08:30	562931	GCAL SOP LCMS-001	1	07/15/2015 17:28	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**41.1J**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/13/2015 14:44	SDD	562969

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

HAOH0707SW24

Collect Date	07/07/2015 09:45	**GCAL ID**	21507101302
Receive Date	07/09/2015 10:13	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/14/2015 08:30	562931	GCAL SOP LCMS-001	1	07/15/2015 18:03	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**26.0J**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/13/2015 14:59	SDD	562969

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

Sample Results

HAOH0707PD03

Collect Date	07/07/2015 12:30	**GCAL ID**	21507101303
Receive Date	07/09/2015 10:13	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/14/2015 08:30	562931	GCAL SOP LCMS-001	1	07/15/2015 18:15	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	14.3U	14.3	100	ng/L

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/13/2015 15:14	SDD	562969

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

HAOH0707PD07

Collect Date	07/07/2015 11:10	**GCAL ID**	21507101304
Receive Date	07/09/2015 10:13	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/14/2015 08:30	562931	GCAL SOP LCMS-001	1	07/15/2015 18:26	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	14.3U	14.3	100	ng/L

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/13/2015 15:29	SDD	562969

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

Sample Results

HAOH0707SW04

Collect Date	07/07/2015 13:30	**GCAL ID**	21507101305
Receive Date	07/09/2015 10:13	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/14/2015 08:30	562931	GCAL SOP LCMS-001	1	07/15/2015 18:38	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	14.3U	14.3	100	ng/L

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/13/2015 15:45	SDD	562969

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

GCAL SOP HPLC-009

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/13/2015 07:30	562808	GCAL SOP HPLC-009	1	07/13/2015 15:39	DLB	563078

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	0.850U	0.850	2.50	ug/L

HAOH0707SW08

Collect Date	07/07/2015 09:30	**GCAL ID**	21507101306
Receive Date	07/09/2015 10:13	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/14/2015 08:30	562931	GCAL SOP LCMS-001	1	07/15/2015 18:50	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	14.3U	14.3	100	ng/L

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/13/2015 16:00	SDD	562969

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

Sample Results

HAOH0707SW08DUP

Collect Date	07/07/2015 10:15	**GCAL ID**	21507101307
Receive Date	07/09/2015 10:13	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/14/2015 08:30	562931	GCAL SOP LCMS-001	1	07/15/2015 19:01	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	14.3U	14.3	100	ng/L

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/13/2015 16:15	SDD	562969

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

HAOH0707SW15

Collect Date	07/07/2015 15:30	**GCAL ID**	21507101308
Receive Date	07/09/2015 10:13	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/14/2015 08:30	562931	GCAL SOP LCMS-001	1	07/15/2015 19:14	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	14.3U	14.3	100	ng/L

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/13/2015 16:30	SDD	562969

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

Sample Results

HAOH0707SW20

Collect Date	07/07/2015 12:00	**GCAL ID**	21507101309
Receive Date	07/09/2015 10:13	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/14/2015 08:30	562931	GCAL SOP LCMS-001	1	07/15/2015 19:26	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**25.6J**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/13/2015 16:45	SDD	562969

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

HAOH0707SW06

Collect Date	07/07/2015 13:55	**GCAL ID**	21507101310
Receive Date	07/09/2015 10:13	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/13/2015 08:35	562932	EPA 3550C	2000	07/15/2015 21:10	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**14100000**	**97000**	**703000**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/15/2015 12:57	SDD	562971

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	443U	443	1670	ug/Kg
67-63-0	Isopropyl Alcohol	752U	752	1670	ug/Kg

GCAL SOP HPLC-009 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/13/2015 11:15	562930	GCAL SOP HPLC-009	1	07/14/2015 09:27	DLB	563079

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	72.4U	72.4	117	ug/Kg

Sample Results

HAOH0707SW06

Collect Date	07/07/2015 13:55	**GCAL ID**	21507101311
Receive Date	07/09/2015 10:13	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/14/2015 08:30	562931	GCAL SOP LCMS-001	1	07/15/2015 19:38	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**123**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/13/2015 17:00	SDD	562969

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

GCAL SOP HPLC-009

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/13/2015 07:30	562808	GCAL SOP HPLC-009	1	07/13/2015 15:53	DLB	563078

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	0.850U	0.850	2.50	ug/L

HAOH0707SW17

Collect Date	07/07/2015 12:10	**GCAL ID**	21507101312
Receive Date	07/09/2015 10:13	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/14/2015 08:30	562931	GCAL SOP LCMS-001	1	07/15/2015 19:49	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**161**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/13/2015 17:14	SDD	562969

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

Sample Results

HAOH0707SW18

Collect Date	07/07/2015 11:10	**GCAL ID**	21507101313
Receive Date	07/09/2015 10:13	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/14/2015 08:30	562931	GCAL SOP LCMS-001	1	07/15/2015 20:01	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**64.3J**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/13/2015 17:29	SDD	562969

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

GCAL SOP HPLC-009

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/13/2015 07:30	562808	GCAL SOP HPLC-009	1	07/13/2015 16:06	DLB	563078

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	0.850U	0.850	2.50	ug/L

HAOH0707SW21

Collect Date	07/07/2015 14:15	**GCAL ID**	21507101314
Receive Date	07/09/2015 10:13	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/14/2015 08:30	562931	GCAL SOP LCMS-001	1	07/15/2015 20:12	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**775**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/13/2015 17:43	SDD	562969

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

Sample Results

HAOH0707SW25	**Collect Date**	07/07/2015 13:25	**GCAL ID**	21507101315
	Receive Date	07/09/2015 10:13	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/14/2015 08:30	562931	GCAL SOP LCMS-001	1	07/15/2015 20:24	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**198**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/13/2015 17:58	SDD	562969

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

HAOH0707SW17	**Collect Date**	07/07/2015 12:10	**GCAL ID**	21507101316
	Receive Date	07/09/2015 10:13	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/13/2015 08:35	562932	EPA 3550C	1000	07/15/2015 21:45	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**10900000**	**47400**	**344000**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/15/2015 13:12	SDD	562971

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	433U	433	1640	ug/Kg
67-63-0	Isopropyl Alcohol	736U	736	1640	ug/Kg

Sample Results

HAOH0707SW18

Collect Date	07/07/2015 11:10	**GCAL ID**	21507101317
Receive Date	07/09/2015 10:13	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/13/2015 08:35	562932	EPA 3550C	50	07/15/2015 21:57	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**420000**	**2290**	**16600**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/15/2015 15:41	SDD	562971

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	418U	418	1580	ug/Kg
67-63-0	Isopropyl Alcohol	710U	710	1580	ug/Kg

GCAL SOP HPLC-009 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/13/2015 11:15	562930	GCAL SOP HPLC-009	1	07/14/2015 10:07	DLB	563079

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	68.3U	68.3	111	ug/Kg

HAOH0707SW21

Collect Date	07/07/2015 14:15	**GCAL ID**	21507101318
Receive Date	07/09/2015 10:13	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/13/2015 08:35	562932	EPA 3550C	2500	07/15/2015 22:08	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**19300000**	**118000**	**852000**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/15/2015 13:27	SDD	562971

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	451U	451	1700	ug/Kg
67-63-0	Isopropyl Alcohol	766U	766	1700	ug/Kg

Sample Results

HAOH0707SW25

Collect Date	07/07/2015 13:25	**GCAL ID**	21507101319
Receive Date	07/09/2015 10:13	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/13/2015 08:35	562932	EPA 3550C	1000	07/15/2015 22:20	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**7880000**	**43700**	**316000**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/15/2015 13:42	SDD	562971

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	381U	381	1440	ug/Kg
67-63-0	Isopropyl Alcohol	647U	647	1440	ug/Kg

HAOH0707SW04

Collect Date	07/07/2015 13:30	**GCAL ID**	21507101320
Receive Date	07/09/2015 10:13	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/13/2015 08:35	562932	EPA 3550C	8	07/15/2015 22:31	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**26400**	**374**	**2710**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/15/2015 13:57	SDD	562971

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	459U	459	1740	ug/Kg
67-63-0	Isopropyl Alcohol	780U	780	1740	ug/Kg

GCAL SOP HPLC-009 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/13/2015 11:15	562930	GCAL SOP HPLC-009	1	07/14/2015 10:21	DLB	563079

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	69.7U	69.7	113	ug/Kg

Sample Results

HAOH0707SW08

Collect Date	07/07/2015 09:30	**GCAL ID**	21507101321
Receive Date	07/09/2015 10:13	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/13/2015 08:35	562932	EPA 3550C	1	07/16/2015 05:03	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**8000**	**55.3**	**401**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/15/2015 14:12	SDD	562971

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	506U	506	1910	ug/Kg
67-63-0	Isopropyl Alcohol	859U	859	1910	ug/Kg

HAOH0707SW08DUP

Collect Date	07/07/2015 10:15	**GCAL ID**	21507101322
Receive Date	07/09/2015 10:13	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/13/2015 08:35	562932	EPA 3550C	1	07/16/2015 05:15	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**6000**	**53.9**	**391**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/15/2015 14:27	SDD	562971

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	531U	531	2000	ug/Kg
67-63-0	Isopropyl Alcohol	901U	901	2000	ug/Kg

Sample Results

HAOH0707SW15	**Collect Date**	07/07/2015 15:30	**GCAL ID**	21507101323
	Receive Date	07/09/2015 10:13	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/13/2015 08:35	562932	EPA 3550C	1	07/16/2015 05:27	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**47.3J**	**42.5**	**308**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/15/2015 14:41	SDD	562971

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	407U	407	1540	ug/Kg
67-63-0	Isopropyl Alcohol	692U	692	1540	ug/Kg

HAOH0707SW20	**Collect Date**	07/07/2015 12:00	**GCAL ID**	21507101324
	Receive Date	07/09/2015 10:13	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/13/2015 08:35	562932	EPA 3550C	100	07/15/2015 23:17	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**1190000**	**4800**	**34800**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/15/2015 14:57	SDD	562971

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	438U	438	1660	ug/Kg
67-63-0	Isopropyl Alcohol	744U	744	1660	ug/Kg

Sample Results

HAOH0707SW24	Collect Date	07/07/2015 10:30	GCAL ID	21507101325
	Receive Date	07/09/2015 10:13	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
07/13/2015 08:35	562932	EPA 3550C	5	07/15/2015 23:28	CEK	563294

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**13700**	**225**	**1630**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	07/15/2015 15:11	SDD	562971

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	432U	432	1630	ug/Kg
67-63-0	Isopropyl Alcohol	734U	734	1630	ug/Kg

LC/MS QC Summary

Analytical Batch	Client ID	MB562932		RLC562932			
563294	GCAL ID	1465814		1465817			
Prep Batch	Sample Type	MB		RLC			
562932	Prep Date	07/13/2015 08:35		07/13/2015 08:35			
Prep Method	Analysis Date	07/15/2015 16:30		07/15/2015 16:42			
EPA 3550C	Matrix	Solid		Solid			
GCAL SOP LCMS-001		Units Result	ng/Kg DL	Spike Added	Result	%R	Control Limits%R
TTPC	81741-28-8	95.0	34.5	250	222	89	60 - 140

Analytical Batch	Client ID	MB562932		LCS562932				LCSD562932				
563294	GCAL ID	1465814		1465815				1465816				
Prep Batch	Sample Type	MB		LCS				LCSD				
562932	Prep Date	07/13/2015 08:35		07/13/2015 08:35				07/13/2015 08:35				
Prep Method	Analysis Date	07/15/2015 16:30		07/15/2015 16:54				07/15/2015 17:05				
EPA 3550C	Matrix	Solid		Solid				Solid				
GCAL SOP LCMS-001		Units Result	ng/Kg DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
TTPC	81741-28-8	95.0	34.5	2500	1830	73	60 - 140	2500	1950	78	6	30

Analytical Batch	Client ID	HAOH0707SW06		1465038MS				1465038MSD				
563294	GCAL ID	21507101310		1465818				1465819				
Prep Batch	Sample Type	SAMPLE		MS				MSD				
562932	Prep Date	07/13/2015 08:35		07/13/2015 08:35				07/13/2015 08:35				
Prep Method	Analysis Date	07/15/2015 21:10		07/15/2015 21:22				07/15/2015 21:33				
EPA 3550C	Matrix	Solid		Solid				Solid				
GCAL SOP LCMS-001		Units Result	ng/Kg DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
TTPC	81741-28-8	14100000	97000	3510	14800000	**17700***	60 - 140	3510	13400000	**- 19700***	9	30

Analytical Batch	Client ID	MB562931		RLC562931			
563294	GCAL ID	1465808		1465811			
Prep Batch	Sample Type	MB		RLC			
562931	Prep Date	07/14/2015 08:30		07/14/2015 08:30			
Prep Method	Analysis Date	07/15/2015 15:32		07/15/2015 15:44			
GCAL SOP LCMS-001	Matrix	Water		Water			
GCAL SOP LCMS-001		Units Result	ng/L DL	Spike Added	Result	%R	Control Limits%R
TTPC	81741-28-8	14.3U	14.3	100	77.5	78	70 - 130

Analytical Batch	Client ID	MB562931		LCS562931				LCSD562931				
563294	GCAL ID	1465808		1465809				1465810				
Prep Batch	Sample Type	MB		LCS				LCSD				
562931	Prep Date	07/14/2015 08:30		07/14/2015 08:30				07/14/2015 08:30				
Prep Method	Analysis Date	07/15/2015 15:32		07/15/2015 15:56				07/15/2015 16:07				
GCAL SOP LCMS-001	Matrix	Water		Water				Water				
GCAL SOP LCMS-001		Units Result	ng/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
TTPC	81741-28-8	14.3U	14.3	2000	1630	82	56 - 99	2000	1850	93	13	30

LC/MS QC Summary

Analytical Batch	Client ID	HAOH0707SW001		1464973MS				1464973MSD				
563294	GCAL ID	21507101301		1465812				1465813				
Prep Batch	Sample Type	SAMPLE		MS				MSD				
562931	Prep Date	07/14/2015 08:30		07/14/2015 08:30				07/14/2015 08:30				
Prep Method	Analysis Date	07/15/2015 17:28		07/15/2015 17:40				07/15/2015 17:52				
GCAL SOP LCMS-001	Matrix	Water		Water				Water				
GCAL SOP LCMS-001		Units Result	ng/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
TTPC	81741-28-8	41.1	14.3	2000	1630	80	56 - 99	2000	1750	86	7	30

GC Semi-Volatiles QC Summary

Analytical Batch 562971	Client ID	MB562971		LCS562971			
	GCAL ID	1465939		1465940			
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	07/15/2015 11:59		07/15/2015 12:13			
	Matrix	Solid		Solid			
EPA 8015C		Units Result	ug/Kg DL	Spike Added	Result	%R	Control Limits%R
Acetone	67-64-1	323U	323	64100	73800	115	-
Isopropyl Alcohol	67-63-0	548U	548	64100	76500	119	50 - 150

Analytical Batch 562971	Client ID	HAOH0707SW06		1465038MS				1465038MSD				
	GCAL ID	21507101310		1465941				1465942				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA		NA				NA				
	Analysis Date	07/15/2015 12:57		07/15/2015 12:28				07/15/2015 12:43				
	Matrix	Solid		Solid				Solid				
EPA 8015C		Units Result	ug/Kg DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Acetone	67-64-1	0.00	465	87800	103000	117	-	81600	93300	114	10	
Isopropyl Alcohol	67-63-0	0.00	790	87800	90500	103	50 - 150	81600	82200	101	10	40

Analytical Batch 562969	Client ID	MB562969		LCS562969			
	GCAL ID	1465929		1465930			
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	07/13/2015 13:44		07/13/2015 13:59			
	Matrix	Water		Water			
EPA 8015C		Units Result	mg/L DL	Spike Added	Result	%R	Control Limits%R
Acetone	67-64-1	0.270U	0.270	25.0	29.0	116	50 - 150
Isopropyl Alcohol	67-63-0	0.231U	0.231	25.0	29.3	117	50 - 150

Analytical Batch 562969	Client ID	HAOH0707SW001		1464973MS				1464973MSD				
	GCAL ID	21507101301		1465931				1465932				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA		NA				NA				
	Analysis Date	07/13/2015 14:44		07/13/2015 14:14				07/13/2015 14:29				
	Matrix	Water		Water				Water				
EPA 8015C		Units Result	mg/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Acetone	67-64-1	0.00	0.270	25.0	29.9	120	50 - 150	25.0	28.1	112	6	40
Isopropyl Alcohol	67-63-0	0.00	0.231	25.0	30.3	121	50 - 150	25.0	27.6	110	9	40

General Chromatography QC Summary

Analytical Batch	Client ID	MB562930		LCS562930				LCSD562930				
563079	GCAL ID	1465802		1465803				1465804				
Prep Batch	Sample Type	MB		LCS				LCSD				
562930	Prep Date	07/13/2015 11:15		07/13/2015 11:15				07/13/2015 11:15				
Prep Method	Analysis Date	07/14/2015 07:49		07/14/2015 08:17				07/14/2015 09:13				
GCAL SOP HPLC-009	Matrix	Solid		Solid				Solid				
GCAL SOP HPLC-009		Units Result	ug/Kg DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
TTPC	81741-28-8	51.5U	51.5	33300	14500	44	40 - 120	33300	17800	53	20	30

Analytical Batch	Client ID	HAOH0707SW06		1465038MS				1465038MSD				
563079	GCAL ID	21507101310		1465805				1465806				
Prep Batch	Sample Type	SAMPLE		MS				MSD				
562930	Prep Date	07/13/2015 11:15		07/13/2015 11:15				07/13/2015 11:15				
Prep Method	Analysis Date	07/14/2015 09:27		07/14/2015 11:30				07/14/2015 11:43				
GCAL SOP HPLC-009	Matrix	Solid		Solid				Solid				
GCAL SOP HPLC-009		Units Result	ug/Kg DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
TTPC	81741-28-8	0.00	72.4	46800	23500	50	40 - 120	46800	19400	41	19	30

Analytical Batch	Client ID	MB562808		LCS562808				LCSD562808				
563078	GCAL ID	1465289		1465290				1465291				
Prep Batch	Sample Type	MB		LCS				LCSD				
562808	Prep Date	07/13/2015 07:30		07/13/2015 07:30				07/13/2015 07:30				
Prep Method	Analysis Date	07/13/2015 14:18		07/13/2015 14:58				07/13/2015 15:12				
GCAL SOP HPLC-009	Matrix	Water		Water				Water				
GCAL SOP HPLC-009		Units Result	ug/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
TTPC	81741-28-8	0.850U	0.850	1000	640	64	40 - 120	1000	624	62	3	30

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CHAIN OF CUSTODY RECOI

Client ID: 4896 - Moody & Associates, Inc.
SDG: 215071013

Report To:
Client: Moody & Associates, Inc.
Address: 199 South Johnson Rd
Houston, PA 15342
Contact: Leah Mistick
Phone: 724-746-5200
Email: lmistick@moody-s.com

Bill To:
Client: Moody & Associates, Inc.
Address: 199 South Johnson Rd
Houston, PA 15342
Contact: Leah Mistick
Phone: 724-746-5200
Email: lmistick@moody-s.com

P.O. Number: 14-467-LM
Project Name/Number: Eisenbarth Consent Order
Sampled By: JESSIE BOBRZYNSKI

Analytical Requests & Method

Custody Seal:
Used: ☐ Yes ☐ No
Intact: ☐ Yes ☐ No
Temperature: 1.5 Ex4

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None	← Preservative / Notes ↓	GCAL ID
W	7/7/15	1430		X	HAOH0707SW001	4	X		X	X		1
					HAOH0707SW02						DRY NO SAMPLE	
W	7/7/15	0945		X	HAOH0707SW24	4	X		X	X		2
W	7/7/15	1230		X	HAOH0707PD03	4	X		X	X		3
W	7/7/15	1110		X	HAOH0707PD07	4	X		X	X		4

Airbill Number: J234 163 6151

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[signature]	7/8/15 0904	[signature]	7/8/15 0904
[signature]	7/8/15 0905	UPS	
UPS	7-9-15 1013	[signature]	7-9-15 1013

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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CHAIN OF CUSTODY RECOI

Client ID: 4896 - Moody & Associates, Inc.
SDG: 215071013

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd	Address:	199 South Johnson Rd
	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

P.O. Number: 14-467-LM
Project Name/Number: Eisenbarth Consent Order
Sampled By: Matt Dracup

Custody Seal: Used: ☐ Yes ☐ No; Intact: ☐ Yes ☐ No
Temperature: 1.5 Ezm

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

Analytical Requests & Method

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None	← Preservative / Notes ↓	GCAL ID
W	7/7/15	1330		X	HAOH0707SW04	5	X	X	X	X		5
W	7/7/15	0930		X	HAOH0707SW08	4	X		X	X		6
W	7/7/15	1015		X	HAOH0707SW08DUP	4	X		X	X		7
W	7/7/15	1530		X	HAOH0707SW15	4	X		X	X		8
W	7/7/15	1200		X	HAOH0707SW20	4	X		X	X		9

Airbill Number: 5234 1163 6151

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
Matt Dracup	7/8/15 0900	[signature]	7/8/15 0900
[signature]	7/8/15 0901	UPS	
UPS	7-9-15 1013	[signature]	7-9-15 1013

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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CHAIN OF CUSTODY RECOR

Client ID: 4896 - Moody & Associates, Inc.

SDG: 215071013

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd	Address:	199 South Johnson Rd
	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

P.O. Number: 14-467-LM

Project Name/Number: Eisenbarth Consent Order

Sampled By: Joshua L. Boyd

Analytical Requests & Method

Custody Seal: Used: ☐ Yes ☐ No; Intact: ☐ Yes ☐ No

Temperature: 1.5 Ezu

☐ Dissolved Analysis Requested ☐ Field Filtered ☐ Lab Filtered

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None							← Preservative / Notes ↓	GCAL ID
S	07/07/15	1355		X	HAOH0707SW06	1	X	X	X	X								10

Airbill Number: J234 163 6151

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
	7/8/15 0900	UPS	
UPS	7-9-15 1013		7-9-15 1013

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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CHAIN OF CUSTODY REC

Client ID: 4896 - Moody & Associates, Inc.

SDG: 215071013

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd	Address:	199 South Johnson Rd
	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

P.O. Number: 14-467-LM

Project Name/Number: Eisenbarth Consent Order

Sampled By: Joshua L. Ryder

Analytical Requests & Method

Custody Seal: Used: ☐ Yes ☐ No; Intact: ☐ Yes ☐ No

Temperature: 1.5 EZY

☐ Dissolved Analysis Requested

☐ Field Filtered

☐ Lab Filtered

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method)	TTPC (HPLC Method)	Isopropyl Alcohol (8015 Method)	Acetone (8015 Method)	← Preservative / Notes ↓	GCAL ID
						None	None	None	None			
W	07/07/15	1355		X	HAOH0707SW06	5	X	X	X	X		11
W	07/07/15	1210		X	HAOH0707SW17	4	X		X	X		12
W	07/07/15	1410		X	HAOH0707SW18	5	X	X	X	X		13
W	07/07/15	1415		X	HAOH0707SW21	4	X		X	X		14
W	07/07/15	1325		X	HAOH0707SW25	4	X		X	X		15

Airbill Number: JZ34 163 6151

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	7/8/15 0900	Fedex UPS	
Fedex UPS	7-9-15 1013		7-9-15 1013
Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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CHAIN OF CUSTODY REC Y

Client ID: 4896 - Moody & Associates, Inc.
SDG: 215071013

Report To:
Client: Moody & Associates, Inc.
Address: 199 South Johnson Rd
Houston, PA 15342
Contact: Leah Mistick
Phone: 724-746-5200
Email: lmistick@moody-s.com

Bill To:
Client: Moody & Associates, Inc.
Address: 199 South Johnson Rd
Houston, PA 15342
Contact: Leah Mistick
Phone: 724-746-5200
Email: lmistick@moody-s.com

Analytical Requests & Method

Custody Seal:
Used: ☒ Yes ☐ No
Intact: ☐ Yes ☐ No
Temperature: 1.5 E24

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

P.O. Number: 14-467-LM
Project Name/Number: Eisenbarth Consent Order
Sampled By: Joshua L. Boyd

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None							← Preservative / Notes ↓	GCAL ID
S	07/07/15	1210		X	HAOH0707SW17	1	X		X	X								16

Airbill Number: J234 163 6151

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
	7/8/15 0900	UPS	
Relinquished by: (Signature) UPS	Date/Time: 7-9-15 1013	Received by: (Signature)	Date/Time: 7-9-15 1013
Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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CHAIN OF CUSTODY REC(

Client ID: 4896 - Moody & Associates, Inc.
SDG: 215071013

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd	Address:	199 South Johnson Rd
	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Analytical Requests & Method

Custody Seal: Used: ☐ Yes ☐ No; Intact: ☐ Yes ☐ No
Temperature: 1.5 E24

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

P.O. Number: 14-467-LM
Project Name/Number: Eisenbarth Consent Order
Sampled By: Joshua L. Boyda

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None	← Preservative / Notes ↓	GCAL ID
S	07/07/15	1110		X	HAOH0707SW18	1	X	X	X	X		17

Airbill Number: J234 163 6151

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
	7/8/15 0900	UPS	
Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
UPS	7-9-15 1013		7-9-15 1013
Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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225.769.4900 | www.gcal.com

CHAIN OF CUSTODY RE LY

Client ID: 4896 - Moody & Associates, Inc.
SDG: 215071013

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd	Address:	199 South Johnson Rd
	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal:
Used: ☒ Yes ☐ No
Intact: ☒ Yes ☐ No
Temperature: 1.5 EZY

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

P.O. Number: 14-467-LM
Project Name/Number: **Eisenbarth Consent Order**
Sampled By: Joshua L. Boyda

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None							← Preservative / Notes ↓	GCAL ID
S	07/07/15	1415		X	HAOH0707SW21	1	X		X	X								18

Airbill Number: 5234 163 6151

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[signature]	7/8/15 0900	UPS	
UPS	7-9-15 1013	[signature]	7-9-15 1013

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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225.769.4900 | www.gcal.com

CHAIN OF CUSTODY RECO

Client ID: 4896 - Moody & Associates, Inc.
SDG: 215071013

Report To:
Client: Moody & Associates, Inc.
Address: 199 South Johnson Rd
Houston, PA 15342
Contact: Leah Mistick
Phone: 724-746-5200
Email: lmistick@moody-s.com

Bill To:
Client: Moody & Associates, Inc.
Address: 199 South Johnson Rd
Houston, PA 15342
Contact: Leah Mistick
Phone: 724-746-5200
Email: lmistick@moody-s.com

P.O. Number: 14-467-LM
Project Name/Number: **Eisenbarth Consent Order**
Sampled By: Joshua L. Boyle

Analytical Requests & Method

Custody Seal: Used: ☐ Yes ☐ No; Intact: ☐ Yes ☐ No
Temperature: 1.5 EZM

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None							← Preservative / Notes ↓	GCAL ID
S	07/07/15	1325		X	HAOH0707SW25	1	X		X	X								19

Airbill Number: J234 163 6151

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☑ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[signature]	07/08/15 0900	UPS	
UPS	7-9-15 1613	[signature]	7-9-15 1613

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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CHAIN OF CUSTODY RECO

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SDG: 215071013

Report To:
Client: Moody & Associates, Inc.
Address: 199 South Johnson Rd
Houston, PA 15342
Contact: Leah Mistick
Phone: 724-746-5200
Email: lmistick@moody-s.com

Bill To:
Client: Moody & Associates, Inc.
Address: 199 South Johnson Rd
Houston, PA 15342
Contact: Leah Mistick
Phone: 724-746-5200
Email: lmistick@moody-s.com

Custody Seal:
Used: ☐ Yes ☐ No
Intact: ☐ Yes ☐ No
Temperature: 1.5 ℃

P.O. Number: 14-467-LM
Project Name/Number: Eisenbarth Consent Order
Sampled By: Matt Dracup

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

Analytical Requests & Method

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None							← Preservative / Notes ↓	GCAL ID
S	7/7/15	1330		X	HAOH0707SW04	1	X	X	X	X								20

Airbill Number: J 234 163 6151

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
Matt Dracup	7/8/15, 0900	[signature]	7/8/15 0900
[signature]	7/8/15 0901	UPS	
UPS	7-9-15 1013	[signature]	7-9-15 1013

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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CHAIN OF CUSTODY RECOI

Client ID: 4896 - Moody & Associates, Inc.
SDG: 215071013

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd	Address:	199 South Johnson Rd
	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

P.O. Number: 14-467-LM
Project Name/Number: **Eisenbarth Consent Order**
Sampled By: Matt Dracup

Analytical Requests & Method

Custody Seal: Used: ☐ Yes ☐ No; Intact: ☐ Yes ☐ No
Temperature: 1.5 Ecy

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None							← Preservative / Notes ↓	GCAL ID
S	7/7/15	0930		X	HAOH0707SW08	1	X		X	X								21

Airbill Number: J234 163 6151

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[signature]	7/8/15, 0900	[signature]	7/8/15 0900
[signature]	7/8/15 0900	UPS	
UPS	7-9-15 1013	[signature]	7-9-15 1013

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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CHAIN OF CUSTODY REC

Client ID: 4896 - Moody & Associates, Inc.
SDG: 215071013

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
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	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

P.O. Number: 14-467-LM
Project Name/Number: **Eisenbarth Consent Order**
Sampled By: Matt Draeup

Custody Seal: Used: ☒ Yes ☐ No; Intact: ☒ Yes ☐ No
Temperature: 15 °C

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None						← Preservative / Notes ↓	GCAL ID
S	7/7/15	1015		X	HAOH0707SW08DUP	1	X		X	X							22

Airbill Number: 5234 163 6151

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
Matt Draeup	7/8/15, 0900	[signature]	7/8/15 0900
[signature]	7/8/15 0900	UPS	
UPS	7-9-15 1013	[signature]	7-9-15 1013

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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CHAIN OF CUSTODY RECO

Client ID: 4896 - Moody & Associates, Inc.
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Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd	Address:	199 South Johnson Rd
	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal: Used: ☐ Yes ☐ No; Intact: ☐ Yes ☐ No
Temperature: 1.5 824

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

P.O. Number: 14-467-LM
Project Name/Number: Eisenbarth Consent Order
Sampled By: Matt Dracup / JESSICA JOYCE

Analytical Requests & Method

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None							← Preservative / Notes ↓	GCAL ID
S	7/7/15	1530		X	HAOH0707SW15	1	X		X	X								23

Airbill Number: J234 163 6131

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
Matt Dracup	07/08/15 0900	[signature]	7/8/15 0900
[signature]	7/8/15 0900	UPS	
UPS	7-9-15 1013	[signature]	7-9-15 1013

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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CHAIN OF CUSTODY REC(

Client ID: 4896 - Moody & Associates, Inc.
SDG: 215071013

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd	Address:	199 South Johnson Rd
	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

P.O. Number: 14-467-LM
Project Name/Number: **Eisenbarth Consent Order**
Sampled By: Matt Dracup

Analytical Requests & Method

Custody Seal:
Used: ☐ Yes ☐ No
Intact: ☐ Yes ☐ No
Temperature: 1.5 E24

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None							← Preservative / Notes ↓	GCAL ID
S	7/7/15	1200		X	HAOH0707SW20	1	X		X	X								24

Airbill Number: J234 163 6151

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
Matt Dracup	7/8/15 0900	[signature]	7/8/15 0900
[signature]	7/8/15 0900	UPS	
UPS	7-9-15 1013	[signature]	7-9-15 1013

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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CHAIN OF CUSTODY RECOI

Client ID: 4896 - Moody & Associates, Inc.

SDG: 215071013

Report To:
Client: Moody & Associates, Inc.
Address: 199 South Johnson Rd
Houston, PA 15342
Contact: Leah Mistick
Phone: 724-746-5200
Email: lmistick@moody-s.com

Bill To:
Client: Moody & Associates, Inc.
Address: 199 South Johnson Rd
Houston, PA 15342
Contact: Leah Mistick
Phone: 724-746-5200
Email: lmistick@moody-s.com

P.O. Number: 14-467-LM

Project Name/Number: Eisenbarth Consent Order

Sampled By: JESSIE BOBRZYNSKI

Analytical Requests & Method

Custody Seal: Used: ☐ Yes ☐ No; Intact: ☐ Yes ☐ No

Temperature: 15 Fzn

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None							← Preservative / Notes ↓	GCAL ID
S	7/7/15	1030		X	HAOH0707SW24	1	X		X	X								55

Airbill Number: J234 163 6151

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[signature]	7/8/15 0904	[signature]	7/8/15 0904
[signature]	7/8/15 0905	UPS	
UPS	7-9-15 1013	[signature]	7-9-15 1013

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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SAMPLE RECEIVING CHECKLIST

215071013

SAMPLE DELIVERY GROUP 215071013	
Client PM KBL 4896 - Moody & Associates, Inc.	**Transport Method** UPS
Profile Number 251668	**Received By** Saucier, Charlotte M.
Line Item(s) 1 - Solids 2 - Waters	**Receive Date(s)** 07/09/15

CHECKLIST	YES	NO	NA
Were all samples received using proper thermal preservation?	☑	☐	☐
When used, were all custody seals intact?	☑	☐	☐
Were all samples received in proper containers?	☑	☐	☐
Were all samples received using proper chemical preservation?	☑	☐	☐
Was preservative added to any container at the lab?	☐	☑	☐
Were all containers received in good condition?	☑	☐	☐
Were all VOA vials received with no head space?	☑	☐	☐
Do all sample labels match the Chain of Custody?	☑	☐	☐
Did the Chain of Custody list the sampling technician?	☑	☐	☐
Was the COC maintained i.e. all signatures, dates and time of receipt included?	☐	☑	☐

COOLERS

Airbill	Thermometer ID: E24	Temp(°C)
J234 163 6151		1.5

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES Relinquished date/time on COC not filled out

Revision 1.4

Page 1 of 1

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 21, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152801

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory on July 08, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152801

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ACLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: PA014572014-4
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

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Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152801

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30152801001	**HAOH0707SW001**	Water	07/07/15 14:30	07/08/15 13:50
30152801002	**HAOH0707SW24**	Water	07/07/15 09:45	07/08/15 13:50
30152801003	**HAOH0707PD03**	Water	07/07/15 12:30	07/08/15 13:50
30152801004	**HAOH0707PD07**	Water	07/07/15 11:10	07/08/15 13:50

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Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152801

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30152801001	**HAOH0707SW001**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30152801002	**HAOH0707SW24**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30152801003	**HAOH0707PD03**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30152801004	**HAOH0707PD07**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA

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Greensburg, PA 15601
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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152801

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30152801001	**HAOH0707SW001**					
SM 4500-Cl-E	Chloride	10.7	mg/L	3.0	07/10/15 11:50	
30152801002	**HAOH0707SW24**					
SM 4500-Cl-E	Chloride	27.4	mg/L	3.0	07/10/15 11:50	
30152801003	**HAOH0707PD03**					
SM 4500-Cl-E	Chloride	35.2	mg/L	3.0	07/10/15 11:51	
30152801004	**HAOH0707PD07**					
SM 4500-Cl-E	Chloride	40.0	mg/L	3.0	07/10/15 11:52	

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Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152801

Method: **EPA 8015B**
Description: 8015 TPH
Client: Moody and Associates, Inc.
Date: July 21, 2015

General Information:
4 samples were analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: OEXT/24382

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Analyte Comments:

QC Batch: OEXT/24382

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- HAOH0707PD03 (Lab ID: 30152801003)
  - TPH (C10-C28)
- HAOH0707PD07 (Lab ID: 30152801004)
  - TPH (C10-C28)
- HAOH0707SW001 (Lab ID: 30152801001)
  - TPH (C10-C28)
- HAOH0707SW24 (Lab ID: 30152801002)
  - TPH (C10-C28)

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Greensburg, PA 15601
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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152801

Method: **EPA 8015B**
Description: 8015 TPH
Client: Moody and Associates, Inc.
Date: July 21, 2015

Analyte Comments:

QC Batch: OEXT/24382

N2: The lab does not hold TNI accreditation for this parameter.

- BLANK (Lab ID: 921284)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH0707PD03 (Lab ID: 30152801003)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH0707PD07 (Lab ID: 30152801004)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH0707SW001 (Lab ID: 30152801001)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH0707SW24 (Lab ID: 30152801002)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- LCS (Lab ID: 921285)
  - TPH (C10-C28)
  - o-Terphenyl (S)

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152801

Method: **EPA 8260B**
Description: 8260 MSV
Client: Moody and Associates, Inc.
Date: July 21, 2015

General Information:
4 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152801

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: July 21, 2015

General Information:
4 samples were analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152801

Sample: HAOH0707SW001 **Lab ID: 30152801001** Collected: 07/07/15 14:30 Received: 07/08/15 13:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	07/13/15 15:00	07/17/15 18:59		1c,N2
Surrogates									
o-Terphenyl (S)	59	%	42-125		1	07/13/15 15:00	07/17/15 18:59	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		07/15/15 15:37	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	109	%	84-113		1		07/15/15 15:37	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	84-124		1		07/15/15 15:37	17060-07-0	
Toluene-d8 (S)	100	%	79-118		1		07/15/15 15:37	2037-26-5	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**10.7**	mg/L	3.0	0.70	1		07/10/15 11:50	16887-00-6	

Sample: HAOH0707SW24 **Lab ID: 30152801002** Collected: 07/07/15 09:45 Received: 07/08/15 13:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	07/13/15 15:00	07/17/15 19:07		1c,N2
Surrogates									
o-Terphenyl (S)	57	%	42-125		1	07/13/15 15:00	07/17/15 19:07	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		07/15/15 16:02	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	99	%	84-113		1		07/15/15 16:02	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	84-124		1		07/15/15 16:02	17060-07-0	
Toluene-d8 (S)	97	%	79-118		1		07/15/15 16:02	2037-26-5	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**27.4**	mg/L	3.0	0.70	1		07/10/15 11:50	16887-00-6	

Sample: HAOH0707PD03 **Lab ID: 30152801003** Collected: 07/07/15 12:30 Received: 07/08/15 13:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	07/13/15 15:00	07/17/15 19:15		1c,N2
Surrogates									
o-Terphenyl (S)	50	%	42-125		1	07/13/15 15:00	07/17/15 19:15	84-15-1	N2

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152801

Sample: HAOH0707PD03 **Lab ID: 30152801003** Collected: 07/07/15 12:30 Received: 07/08/15 13:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		07/15/15 16:28	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	95	%	84-113		1		07/15/15 16:28	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	84-124		1		07/15/15 16:28	17060-07-0	
Toluene-d8 (S)	99	%	79-118		1		07/15/15 16:28	2037-26-5	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**35.2**	mg/L	3.0	0.70	1		07/10/15 11:51	16887-00-6	

Sample: HAOH0707PD07 **Lab ID: 30152801004** Collected: 07/07/15 11:10 Received: 07/08/15 13:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	07/13/15 15:00	07/17/15 19:23		1c,N2
Surrogates									
o-Terphenyl (S)	59	%	42-125		1	07/13/15 15:00	07/17/15 19:23	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		07/15/15 16:53	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	99	%	84-113		1		07/15/15 16:53	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	84-124		1		07/15/15 16:53	17060-07-0	
Toluene-d8 (S)	109	%	79-118		1		07/15/15 16:53	2037-26-5	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**40.0**	mg/L	3.0	0.70	1		07/10/15 11:52	16887-00-6	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152801

QC Batch: MSV/24192 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260 MSV
Associated Lab Samples: 30152801001, 30152801002, 30152801003, 30152801004

METHOD BLANK: 922423 Matrix: Water
Associated Lab Samples: 30152801001, 30152801002, 30152801003, 30152801004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/L	ND	10.0	07/15/15 12:12	
1,2-Dichloroethane-d4 (S)	%	106	84-124	07/15/15 12:12	
4-Bromofluorobenzene (S)	%	107	84-113	07/15/15 12:12	
Toluene-d8 (S)	%	104	79-118	07/15/15 12:12	

LABORATORY CONTROL SAMPLE: 922424

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/L	20	17.0	85	56-142	
1,2-Dichloroethane-d4 (S)	%			108	84-124	
4-Bromofluorobenzene (S)	%			92	84-113	
Toluene-d8 (S)	%			98	79-118	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922680 922681

Parameter	Units	30152806001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/L	ND	20	20	17.4	18.3	87	91	56-142	5	30	
1,2-Dichloroethane-d4 (S)	%						110	106	84-124			
4-Bromofluorobenzene (S)	%						95	93	84-113			
Toluene-d8 (S)	%						94	93	79-118			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152801

QC Batch: OEXT/24382 Analysis Method: EPA 8015B
QC Batch Method: EPA 3510C Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30152801001, 30152801002, 30152801003, 30152801004

METHOD BLANK: 921284 Matrix: Water
Associated Lab Samples: 30152801001, 30152801002, 30152801003, 30152801004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/L	ND	0.10	07/17/15 17:20	N2
o-Terphenyl (S)	%	73	42-125	07/17/15 17:20	N2

LABORATORY CONTROL SAMPLE: 921285

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/L	1	0.73	73	50-121	N2
o-Terphenyl (S)	%			77	42-125	N2

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152801

QC Batch: WETA/20566 Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E Analysis Description: 4500 Chloride
Associated Lab Samples: 30152801001, 30152801002, 30152801003, 30152801004

METHOD BLANK: 920443 Matrix: Water
Associated Lab Samples: 30152801001, 30152801002, 30152801003, 30152801004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/10/15 11:34	

METHOD BLANK: 920445 Matrix: Water
Associated Lab Samples: 30152801001, 30152801002, 30152801003, 30152801004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/10/15 11:34	

LABORATORY CONTROL SAMPLE: 920444

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	39.6	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 920446 920447

Parameter	Units	30152770002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	3.5	20	20	25.3	25.6	109	111	85-115	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152801

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: OEXT/24382

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1c A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

N2 The lab does not hold TNI accreditation for this parameter.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152801

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30152801001	**HAOH0707SW001**	EPA 3510C	OEXT/24382	EPA 8015B	GCSV/8377
30152801002	**HAOH0707SW24**	EPA 3510C	OEXT/24382	EPA 8015B	GCSV/8377
30152801003	**HAOH0707PD03**	EPA 3510C	OEXT/24382	EPA 8015B	GCSV/8377
30152801004	**HAOH0707PD07**	EPA 3510C	OEXT/24382	EPA 8015B	GCSV/8377
30152801001	**HAOH0707SW001**	EPA 8260B	MSV/24192		
30152801002	**HAOH0707SW24**	EPA 8260B	MSV/24192		
30152801003	**HAOH0707PD03**	EPA 8260B	MSV/24192		
30152801004	**HAOH0707PD07**	EPA 8260B	MSV/24192		
30152801001	**HAOH0707SW001**	SM 4500-Cl-E	WETA/20566		
30152801002	**HAOH0707SW24**	SM 4500-Cl-E	WETA/20566		
30152801003	**HAOH0707PD03**	SM 4500-Cl-E	WETA/20566		
30152801004	**HAOH0707PD07**	SM 4500-Cl-E	WETA/20566		

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WO#: 30152801

30152801

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody and Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: STANDARD	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION

☐ GA ☐ IL ☐ IN ☐ MI ☐ NC
☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID

One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis: VOCs - Acetone only (8	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. / Lab I.D.
1	HAOH0707SW001	WT	G	7/7/15	1430				5	X			X					x	x	x	N	
2	HAOH0707SW02			7/7/15		DRY	NO	SAMPLE													N	
3	HAOH0707SW24	WT	G	7/7/15	0945				5	X			X					x	x	x	N	
4	HAOH0707PD03	WT	G	7/7/15	1230				5	X			X					x	x	x	N	
5	HAOH0707PD07	WT	G	7/7/15	1110				5	X			X					x	x	x	N	
6																						
7																						
8																						
9																						
10																						
11																						
12																						

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Additional Comments:

(3) 40 ml VOA Vials (HCL)

(1) Amber Glass L

(1) 250 ml Plastic

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Jessie Bobrzynski Moody	7/8/15	0904	Moody	7/8/15	0904	
Moody	7/8/15	0905		7/8/15	1350	5.9

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: JESSIE BOBRZYNSKI

SIGNATURE of SAMPLER: Jessie Bobrzynski

DATE Signed (MM / DD / YY): 07/07/15

Cont

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30152801

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no **Biological Tissue is Frozen:** Yes No

Packing Material: Bubble Wrap ___ Bubble Bags ___ None ___ Other _____

Thermometer Used 8 **Type of Ice:** (Wet) Blue None ☒ Samples on Ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.3 °C **Correction Factor:** -0.4 °C **Final Temp:** 5.9 °C

Date and Initials of person examining contents: AM 7/8/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	
exceptions: (VOA) coliform, TOC, O&G, Phenols	☒Yes ☐No	Initial when completed AM / Lot # of added preservative
Samples checked for dechlorination:	☒Yes ☐No ☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☒No ☐N/A	15.
Trip Blank Present:	☐Yes ☒No ☐N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 7/9/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30152801

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml / 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	WT			1	1									3										
004	WT			1	1									3										

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July 20, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152804

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory on July 08, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152804

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ACLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: PA014572014-4
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152804

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30152804001	**HAOH0707SW06**	Water	07/07/15 13:35	07/08/15 16:50
30152804002	**HAOH0707SW17**	Water	07/07/15 12:10	07/08/15 16:50
30152804003	**HAOH0707SW18**	Water	07/07/15 11:10	07/08/15 16:50
30152804004	**HAOH0707SW21**	Water	07/07/15 14:15	07/08/15 16:50
30152804005	**HAOH0707SW25**	Water	07/07/15 13:25	07/08/15 16:50

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152804

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30152804001	**HAOH0707SW06**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	CLG	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30152804002	**HAOH0707SW17**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	CLG	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30152804003	**HAOH0707SW18**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	CLG	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30152804004	**HAOH0707SW21**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	CLG	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30152804005	**HAOH0707SW25**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	CLG	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152804

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30152804001	**HAOH0707SW06**					
SM 4500-Cl-E	Chloride	8.1	mg/L	3.0	07/10/15 11:59	
30152804002	**HAOH0707SW17**					
SM 4500-Cl-E	Chloride	6.7	mg/L	3.0	07/10/15 12:01	
30152804003	**HAOH0707SW18**					
SM 4500-Cl-E	Chloride	6.0	mg/L	3.0	07/10/15 12:02	
30152804004	**HAOH0707SW21**					
SM 4500-Cl-E	Chloride	7.0	mg/L	3.0	07/10/15 12:02	
30152804005	**HAOH0707SW25**					
SM 4500-Cl-E	Chloride	6.1	mg/L	3.0	07/10/15 12:03	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152804

Method: **EPA 8015B**
Description: 8015 TPH
Client: Moody and Associates, Inc.
Date: July 20, 2015

General Information:
5 samples were analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: OEXT/24382

S0: Surrogate recovery outside laboratory control limits.
- HAOH0707SW17 (Lab ID: 30152804002)
  - o-Terphenyl (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: OEXT/24382

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Analyte Comments:

QC Batch: OEXT/24382

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
- HAOH0707SW06 (Lab ID: 30152804001)
  - TPH (C10-C28)

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152804

Method: **EPA 8015B**
Description: 8015 TPH
Client: Moody and Associates, Inc.
Date: July 20, 2015

Analyte Comments:

QC Batch: OEXT/24382

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
- HAOH0707SW17 (Lab ID: 30152804002)
  - TPH (C10-C28)
- HAOH0707SW18 (Lab ID: 30152804003)
  - TPH (C10-C28)
- HAOH0707SW21 (Lab ID: 30152804004)
  - TPH (C10-C28)
- HAOH0707SW25 (Lab ID: 30152804005)
  - TPH (C10-C28)

2c: The recovery of the surrogate O-Terphenyl is low. No sample remains for re-extraction. Results may be biased low.
- HAOH0707SW17 (Lab ID: 30152804002)
  - TPH (C10-C28)
  - o-Terphenyl (S)

N2: The lab does not hold TNI accreditation for this parameter.
- BLANK (Lab ID: 921284)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH0707SW06 (Lab ID: 30152804001)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH0707SW17 (Lab ID: 30152804002)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH0707SW18 (Lab ID: 30152804003)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH0707SW21 (Lab ID: 30152804004)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH0707SW25 (Lab ID: 30152804005)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- LCS (Lab ID: 921285)
  - TPH (C10-C28)
  - o-Terphenyl (S)

P2: Re-extraction or re-analysis could not be performed due to insufficient sample amount.
- HAOH0707SW17 (Lab ID: 30152804002)
  - o-Terphenyl (S)

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152804

Method: **EPA 8260B**
Description: 8260 MSV
Client: Moody and Associates, Inc.
Date: July 20, 2015

General Information:
5 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/24213

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152804

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: July 20, 2015

General Information:
5 samples were analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152804

Sample: HAOH0707SW06 **Lab ID: 30152804001** Collected: 07/07/15 13:35 Received: 07/08/15 16:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	07/13/15 15:00	07/17/15 19:39		1c,N2
Surrogates									
o-Terphenyl (S)	54	%	42-125		1	07/13/15 15:00	07/17/15 19:39	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		07/16/15 15:33	67-64-1	M5
Surrogates									
4-Bromofluorobenzene (S)	94	%	84-113		1		07/16/15 15:33	460-00-4	M5
1,2-Dichloroethane-d4 (S)	102	%	84-124		1		07/16/15 15:33	17060-07-0	M5
Toluene-d8 (S)	98	%	79-118		1		07/16/15 15:33	2037-26-5	M5
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**8.1**	mg/L	3.0	0.70	1		07/10/15 11:59	16887-00-6	

Sample: HAOH0707SW17 **Lab ID: 30152804002** Collected: 07/07/15 12:10 Received: 07/08/15 16:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	07/13/15 15:00	07/17/15 19:47		1c,2c, N2
Surrogates									
o-Terphenyl (S)	40	%	42-125		1	07/13/15 15:00	07/17/15 19:47	84-15-1	2c,N2, P2,S0
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		07/16/15 15:58	67-64-1	M5
Surrogates									
4-Bromofluorobenzene (S)	97	%	84-113		1		07/16/15 15:58	460-00-4	M5
1,2-Dichloroethane-d4 (S)	101	%	84-124		1		07/16/15 15:58	17060-07-0	M5
Toluene-d8 (S)	99	%	79-118		1		07/16/15 15:58	2037-26-5	M5
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**6.7**	mg/L	3.0	0.70	1		07/10/15 12:01	16887-00-6	

Sample: HAOH0707SW18 **Lab ID: 30152804003** Collected: 07/07/15 11:10 Received: 07/08/15 16:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	07/13/15 15:00	07/17/15 19:55		1c,N2
Surrogates									
o-Terphenyl (S)	56	%	42-125		1	07/13/15 15:00	07/17/15 19:55	84-15-1	N2

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152804

Sample: HAOH0707SW18 **Lab ID: 30152804003** Collected: 07/07/15 11:10 Received: 07/08/15 16:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		07/16/15 16:24	67-64-1	M5
Surrogates									
4-Bromofluorobenzene (S)	95	%	84-113		1		07/16/15 16:24	460-00-4	M5
1,2-Dichloroethane-d4 (S)	102	%	84-124		1		07/16/15 16:24	17060-07-0	M5
Toluene-d8 (S)	96	%	79-118		1		07/16/15 16:24	2037-26-5	M5
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**6.0**	mg/L	3.0	0.70	1		07/10/15 12:02	16887-00-6	

Sample: HAOH0707SW21 **Lab ID: 30152804004** Collected: 07/07/15 14:15 Received: 07/08/15 16:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	07/13/15 15:00	07/17/15 20:04		1c,N2
Surrogates									
o-Terphenyl (S)	58	%	42-125		1	07/13/15 15:00	07/17/15 20:04	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		07/16/15 16:50	67-64-1	M5
Surrogates									
4-Bromofluorobenzene (S)	94	%	84-113		1		07/16/15 16:50	460-00-4	M5
1,2-Dichloroethane-d4 (S)	102	%	84-124		1		07/16/15 16:50	17060-07-0	M5
Toluene-d8 (S)	98	%	79-118		1		07/16/15 16:50	2037-26-5	M5
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**7.0**	mg/L	3.0	0.70	1		07/10/15 12:02	16887-00-6	

Sample: HAOH0707SW25 **Lab ID: 30152804005** Collected: 07/07/15 13:25 Received: 07/08/15 16:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	07/13/15 15:00	07/17/15 20:12		1c,N2
Surrogates									
o-Terphenyl (S)	50	%	42-125		1	07/13/15 15:00	07/17/15 20:12	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		07/16/15 17:16	67-64-1	M5
Surrogates									
4-Bromofluorobenzene (S)	94	%	84-113		1		07/16/15 17:16	460-00-4	M5
1,2-Dichloroethane-d4 (S)	103	%	84-124		1		07/16/15 17:16	17060-07-0	M5

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152804

Sample: HAOH0707SW25 **Lab ID: 30152804005** Collected: 07/07/15 13:25 Received: 07/08/15 16:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Surrogates									
Toluene-d8 (S)	98	%	79-118		1		07/16/15 17:16	2037-26-5	M5
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**6.1**	mg/L	3.0	0.70	1		07/10/15 12:03	16887-00-6	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152804

QC Batch: MSV/24213 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260 MSV
Associated Lab Samples: 30152804001, 30152804002, 30152804003, 30152804004, 30152804005

METHOD BLANK: 923199 Matrix: Water
Associated Lab Samples: 30152804001, 30152804002, 30152804003, 30152804004, 30152804005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/L	ND	10.0	07/16/15 12:58	M5
1,2-Dichloroethane-d4 (S)	%	102	84-124	07/16/15 12:58	M5
4-Bromofluorobenzene (S)	%	95	84-113	07/16/15 12:58	M5
Toluene-d8 (S)	%	98	79-118	07/16/15 12:58	M5

LABORATORY CONTROL SAMPLE: 923200

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/L	20	12.7	63	56-142	M5
1,2-Dichloroethane-d4 (S)	%			100	84-124	M5
4-Bromofluorobenzene (S)	%			98	84-113	M5
Toluene-d8 (S)	%			99	79-118	M5

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152804

QC Batch: OEXT/24382 Analysis Method: EPA 8015B
QC Batch Method: EPA 3510C Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30152804001, 30152804002, 30152804003, 30152804004, 30152804005

METHOD BLANK: 921284 Matrix: Water
Associated Lab Samples: 30152804001, 30152804002, 30152804003, 30152804004, 30152804005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/L	ND	0.10	07/17/15 17:20	N2
o-Terphenyl (S)	%	73	42-125	07/17/15 17:20	N2

LABORATORY CONTROL SAMPLE: 921285

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/L	1	0.73	73	50-121	N2
o-Terphenyl (S)	%			77	42-125	N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152804

QC Batch: WETA/20567 Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E Analysis Description: 4500 Chloride
Associated Lab Samples: 30152804001, 30152804002, 30152804003, 30152804004, 30152804005

METHOD BLANK: 920448 Matrix: Water
Associated Lab Samples: 30152804001, 30152804002, 30152804003, 30152804004, 30152804005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/10/15 11:58	

LABORATORY CONTROL SAMPLE: 920449

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	39.0	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 920450 920451

Parameter	Units	30152804001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	8.1	20	20	28.9	29.5	104	107	85-115	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152804

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA	Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: OEXT/24382

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSV/24213

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1c	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
2c	The recovery of the surrogate O-Terphenyl is low. No sample remains for re-extraction. Results may be biased low.
M5	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
N2	The lab does not hold TNI accreditation for this parameter.
P2	Re-extraction or re-analysis could not be performed due to insufficient sample amount.
S0	Surrogate recovery outside laboratory control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152804

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30152804001	**HAOH0707SW06**	EPA 3510C	OEXT/24382	EPA 8015B	GCSV/8377
30152804002	**HAOH0707SW17**	EPA 3510C	OEXT/24382	EPA 8015B	GCSV/8377
30152804003	**HAOH0707SW18**	EPA 3510C	OEXT/24382	EPA 8015B	GCSV/8377
30152804004	**HAOH0707SW21**	EPA 3510C	OEXT/24382	EPA 8015B	GCSV/8377
30152804005	**HAOH0707SW25**	EPA 3510C	OEXT/24382	EPA 8015B	GCSV/8377
30152804001	**HAOH0707SW06**	EPA 8260B	MSV/24213		
30152804002	**HAOH0707SW17**	EPA 8260B	MSV/24213		
30152804003	**HAOH0707SW18**	EPA 8260B	MSV/24213		
30152804004	**HAOH0707SW21**	EPA 8260B	MSV/24213		
30152804005	**HAOH0707SW25**	EPA 8260B	MSV/24213		
30152804001	**HAOH0707SW06**	SM 4500-Cl-E	WETA/20567		
30152804002	**HAOH0707SW17**	SM 4500-Cl-E	WETA/20567		
30152804003	**HAOH0707SW18**	SM 4500-Cl-E	WETA/20567		
30152804004	**HAOH0707SW21**	SM 4500-Cl-E	WETA/20567		
30152804005	**HAOH0707SW25**	SM 4500-Cl-E	WETA/20567		

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WO#:30152804

30152804

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody and Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Requested: VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH0707SW06	WT	G	7/7/15	1555				5	X			X					x	x	x	N	001
2	HAOH0707SW17	WT	G	7/7/15	1210				5	X			X					x	x	x	N	002
3	HAOH0707SW18	WT	G	7/7/15	1110				5	X			X					x	x	x	N	003
4	HAOH0707SW21	WT	G	7/7/15	1415				5	X			X					x	x	x	N	004
5	HAOH0707SW25	WT	G	7/7/15	1325				5	X			X					x	x	x	N	005
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Filtered (Y/N)

Additional Comments:

(3) 40 ml VOA Vials (HCL)

(1) Amber Glass L

(1) 250 ml Plastic

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
[signature] / MOODY	7/8/15	0900	Cliff Mt by PACE	7/8/15	12:30		Y/N	Y/N	Y/N
			[signature]	7/8/15	1350	5.8	Y/N	Y/N	Y/N
Cliff Mt by PACE	7/8/15	1:50					Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
						Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joshua L. Boyda

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 07/07/2015

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30152804

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no **Biological Tissue is Frozen:** Yes No

Packing Material: Bubble Wrap ____ Bubble Bags ____ None ____ Other _____

Thermometer Used T **Type of Ice:** Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.1 °C **Correction Factor:** -0.3 °C **Final Temp:** 5.8 °C

Date and initials of person examining contents: JLL 7/8/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☐No	Initial when completed JLL / Lot # of added preservative
Samples checked for dechlorination:	☒Yes ☐No ☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☒No ☐N/A	15.
Trip Blank Present:	☐Yes ☒No ☐N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 7/9/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30152804

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml / 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	WT			1	1									3										
+ 005	+ WT			+ 1	+ 1									+ 3										

SCURF Back (C016-4 15May2012).xls

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July 22, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152826

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between July 08, 2015 and July 15, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152826

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ACLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: PA014572014-4
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152826

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30152826001	**HAOH0707SW24**	Solid	07/07/15 10:30	07/08/15 13:50
30152826002	**HAOH0707SW24 (ASTM)**	Water	07/15/15 11:30	07/15/15 11:30

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152826

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30152826001	**HAOH0707SW24**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		ASTM D2974-87	TAW	1	PASI-PA
30152826002	**HAOH0707SW24 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152826

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30152826001	**HAOH0707SW24**					
ASTM D2974-87	Percent Moisture	22.3	%	0.10	07/21/15 16:40	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152826

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152826

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152826

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152826

Sample: HAOH0707SW24 **Lab ID: 30152826001** Collected: 07/07/15 10:30 Received: 07/08/15 13:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	ND	mg/kg	8.5	4.5	1	07/16/15 10:10	07/17/15 16:31		
Surrogates									
o-Terphenyl (S)	61	%	20-129		1	07/16/15 10:10	07/17/15 16:31	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	13.2	6.4	1		07/10/15 17:45	67-64-1	
Surrogates									
Toluene-d8 (S)	105	%	73-124		1		07/10/15 17:45	2037-26-5	
4-Bromofluorobenzene (S)	101	%	71-124		1		07/10/15 17:45	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	83-138		1		07/10/15 17:45	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**22.3**	%	0.10	0.10	1		07/21/15 16:40		

Sample: HAOH0707SW24 (ASTM) **Lab ID: 30152826002** Collected: 07/15/15 11:30 Received: 07/15/15 11:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		07/15/15 13:36	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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(724)850-5600

QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152826

QC Batch: MSV/24154 | Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B | Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30152826001

METHOD BLANK: 920757 | Matrix: Solid
Associated Lab Samples: 30152826001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	07/10/15 12:36	
1,2-Dichloroethane-d4 (S)	%	94	83-138	07/10/15 12:36	
4-Bromofluorobenzene (S)	%	99	71-124	07/10/15 12:36	
Toluene-d8 (S)	%	103	73-124	07/10/15 12:36	

LABORATORY CONTROL SAMPLE: 920758

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	13.6	68	12-183	
1,2-Dichloroethane-d4 (S)	%			98	83-138	
4-Bromofluorobenzene (S)	%			98	71-124	
Toluene-d8 (S)	%			102	73-124	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 920759 920760

Parameter	Units	30152826001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	25.5	25	30.0	27.5	72	64	12-183	9	30	
1,2-Dichloroethane-d4 (S)	%						97	93	83-138			
4-Bromofluorobenzene (S)	%						105	104	71-124			
Toluene-d8 (S)	%						111	106	73-124			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152826

QC Batch: OEXT/24421 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30152826001

METHOD BLANK: 922782 | Matrix: Solid
Associated Lab Samples: 30152826001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	07/17/15 10:41	
o-Terphenyl (S)	%	67	20-129	07/17/15 10:41	

LABORATORY CONTROL SAMPLE: 922783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.6	80	52-126	
o-Terphenyl (S)	%			86	20-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922784 922785

Parameter	Units	30152810001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	10.8	93.4	94.5	82.5	88.0	77	82	52-126	6	25	
o-Terphenyl (S)	%						77	73	20-129			

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152826

QC Batch: PMST/5481
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30152826001

SAMPLE DUPLICATE: 925628

Parameter	Units	30152819001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	37.7	32.6	15	20	

SAMPLE DUPLICATE: 925629

Parameter	Units	30152820001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	27.9	25.5	9	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152826

QC Batch: WETA/20610 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30152826002

METHOD BLANK: 922464 | Matrix: Water
Associated Lab Samples: 30152826002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:31	

METHOD BLANK: 922466 | Matrix: Water
Associated Lab Samples: 30152826002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

METHOD BLANK: 922467 | Matrix: Water
Associated Lab Samples: 30152826002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

LABORATORY CONTROL SAMPLE: 922465

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	39.9	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922468 922469

Parameter	Units	30152812002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	21.3	21.5	99	100	85-115	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152826

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152826

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30152826001	**HAOH0707SW24**	EPA 3546	OEXT/24421	EPA 8015B	GCSV/8375
30152826001	**HAOH0707SW24**	EPA 8260B	MSV/24154		
30152826001	**HAOH0707SW24**	ASTM D2974-87	PMST/5481		
30152826002	**HAOH0707SW24 (ASTM)**	SM 4500-Cl-E	WETA/20610		

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WO#:30152826

30152826

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:

Company: Moody and Associates, Inc.
Address: 199 Johnson Road, Building 2, Suite 101
Houston, PA 15342
Email To: lmistick@moody-s.com
Phone:724-746-5200 Fax:724-746-5603
Requested Due Date/TAT: STANDARD

Section B Required Project Information:

Report To: Leah Mistick
Copy To: Josh Boyda
Purchase Order No.:
Project Name: Eisenbarth Consent Order
Project Number: 14-467-LM

Section C Invoice Information:

Attention: Leah Mistick
Company Name: Moody & Associates, Inc.
Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID: One Character per box. (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH0707SW24	SL	G	7/7/15	1030				2	X									X	X	X	N	001
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

Requested Analysis:

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Jessie Bobrzynski / Moody	7/8/15	0904	[signature] / MOODY	7/8/15	0904
[signature] / MOODY	7/8/15	0905	[signature]	7/8/15	1350

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
59	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: JESSIE BOBRZYNSKI

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 07/07/15

e-File(ALLQ020rev.3,31Mar05))22Jun2005

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30152826 CMT

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☒ yes ☒ no AML 7-8-15 Seals intact: ☒ yes ☐ no **Biological Tissue is Frozen:** Yes No

Packing Material: Bubble Wrap ____ Bubble Bags ____ None ____ Other _____ AML 7-8-15

Thermometer Used 8 **Type of Ice:** Wet Blue None ☒ Samples on Ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.3 °C **Correction Factor:** -0.4 °C **Final Temp:** 5.9 °C

Date and initials of person examining contents: AML 7/8/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☒No	Initial when completed AML / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 7/9/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

page 2

Project Number: 30152826

Client Name: Hoody

											001	Item No.
											SL	Matrix Code
											2	Glass Jar (120 / 250 / 500 / 1L)
												Soil kit (2 SB, 1M, soil jar)
												Chemistry (250 / 500 / 1L)
												Organics (1L)
												Nutrient (250 / 500)
												Phenolics (250 ml)
												TOC (40 ml / 250 ml)
												TOX (250 ml)
												Total Metals
												Dissolved Metals preserved Y N
												O & G (1L)
												TPH (1L)
												VOA (40 ml 30 ml)
												Cyanide (250 ml)
												Sulfide (500 ml)
												Bacteria (120 ml)
												Wipes / swipe/ smear/ filter
												Radchem Nalgene (125 / 250 / 500 / 1L)
												Radchem Nalgene (1/2 gal. / 1 gal.L)
												Cubitainer (500 ml / 4L)
												Ziploc
												Other
												Other

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July 22, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152825

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between July 08, 2015 and July 15, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152825

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ACLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: PA014572014-4
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152825

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30152825001	**HAOH0707SW25**	Solid	07/07/15 13:25	07/08/15 13:50
30152825002	**HAOH0707SW25 (ASTM)**	Water	07/15/15 11:22	07/15/15 11:22

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152825

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30152825001	**HAOH0707SW25**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		ASTM D2974-87	TAW	1	PASI-PA
30152825002	**HAOH0707SW25 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152825

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30152825001	**HAOH0707SW25**					
ASTM D2974-87	Percent Moisture	30.2	%	0.10	07/21/15 16:40	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152825

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152825

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152825

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152825

Sample: HAOH0707SW25 **Lab ID: 30152825001** Collected: 07/07/15 13:25 Received: 07/08/15 13:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	ND	mg/kg	9.4	5.0	1	07/16/15 10:10	07/17/15 16:15		
Surrogates									
o-Terphenyl (S)	70	%	20-129		1	07/16/15 10:10	07/17/15 16:15	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	13.4	6.6	1		07/10/15 17:18	67-64-1	
Surrogates									
Toluene-d8 (S)	103	%	73-124		1		07/10/15 17:18	2037-26-5	
4-Bromofluorobenzene (S)	97	%	71-124		1		07/10/15 17:18	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	83-138		1		07/10/15 17:18	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**30.2**	%	0.10	0.10	1		07/21/15 16:40		

Sample: HAOH0707SW25 (ASTM) **Lab ID: 30152825002** Collected: 07/15/15 11:22 Received: 07/15/15 11:22 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		07/15/15 13:41	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152825

QC Batch: MSV/24154 | Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B | Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30152825001

METHOD BLANK: 920757 | Matrix: Solid
Associated Lab Samples: 30152825001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	07/10/15 12:36	
1,2-Dichloroethane-d4 (S)	%	94	83-138	07/10/15 12:36	
4-Bromofluorobenzene (S)	%	99	71-124	07/10/15 12:36	
Toluene-d8 (S)	%	103	73-124	07/10/15 12:36	

LABORATORY CONTROL SAMPLE: 920758

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	13.6	68	12-183	
1,2-Dichloroethane-d4 (S)	%			98	83-138	
4-Bromofluorobenzene (S)	%			98	71-124	
Toluene-d8 (S)	%			102	73-124	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 920759 920760

Parameter	Units	30152826001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	25.5	25	30.0	27.5	72	64	12-183	9	30	
1,2-Dichloroethane-d4 (S)	%						97	93	83-138			
4-Bromofluorobenzene (S)	%						105	104	71-124			
Toluene-d8 (S)	%						111	106	73-124			

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152825

QC Batch: OEXT/24421 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30152825001

METHOD BLANK: 922782 | Matrix: Solid
Associated Lab Samples: 30152825001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	07/17/15 10:41	
o-Terphenyl (S)	%	67	20-129	07/17/15 10:41	

LABORATORY CONTROL SAMPLE: 922783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.6	80	52-126	
o-Terphenyl (S)	%			86	20-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922784 922785

Parameter	Units	30152810001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	10.8	93.4	94.5	82.5	88.0	77	82	52-126	6	25	
o-Terphenyl (S)	%						77	73	20-129			

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152825

QC Batch: PMST/5481
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30152825001

SAMPLE DUPLICATE: 925628

Parameter	Units	30152819001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	37.7	32.6	15	20	

SAMPLE DUPLICATE: 925629

Parameter	Units	30152820001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	27.9	25.5	9	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152825

QC Batch: WETA/20610 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30152825002

METHOD BLANK: 922464 | Matrix: Water
Associated Lab Samples: 30152825002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:31	

METHOD BLANK: 922466 | Matrix: Water
Associated Lab Samples: 30152825002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

METHOD BLANK: 922467 | Matrix: Water
Associated Lab Samples: 30152825002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

LABORATORY CONTROL SAMPLE: 922465

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	39.9	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922468 922469

Parameter	Units	30152812002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	21.3	21.5	99	100	85-115	1	20	

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152825

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152825

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30152825001	**HAOH0707SW25**	EPA 3546	OEXT/24421	EPA 8015B	GCSV/8375
30152825001	**HAOH0707SW25**	EPA 8260B	MSV/24154		
30152825001	**HAOH0707SW25**	ASTM D2974-87	PMST/5481		
30152825002	**HAOH0707SW25 (ASTM)**	SM 4500-Cl-E	WETA/20610		

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WO#:30152825

30152825

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER_____

Filtered (Y/N)

Requested Analysis:

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH0707SW25	SL	G	7/7/15	1325				2	X								X	X	X	N	001
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

187

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] / Moody	7/8/15	0900	Cliff Mt Joy Pace	7/8/15	12:30P
			[signature]	7/8/15	1350
Cliff Mt Joy Pace	7/8/15	1:50			

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
5.8	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joshua L. Boyda

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM / DD / YY): 07/07/15

e-File(ALLQ020rev.3,31Mar05))22Jun2005

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30152825

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no **Biological Tissue Is Frozen:** Yes No

Packing Material: Bubble Wrap ____ Bubble Bags ____ None ____ Other _____

Thermometer Used 7 **Type of Ice:** (Wet) Blue None ☒ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.1 °C **Correction Factor:** -0.3 °C **Final Temp:** 5.8 °C

Date and initials of person examining contents: AMM 7/15/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☑No	Initial when completed AMM / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 7/9/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30152825

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 22, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152823

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between July 08, 2015 and July 15, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152823

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ACLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: PA014572014-4
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152823

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30152823001	**HAOH0707SW21**	Solid	07/07/15 14:15	07/08/15 13:50
30152823002	**HAOH0707SW21 (ASTM)**	Water	07/15/15 10:18	07/15/15 10:18

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152823

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30152823001	**HAOH0707SW21**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		ASTM D2974-87	TAW	1	PASI-PA
30152823002	**HAOH0707SW21 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152823

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30152823001	**HAOH0707SW21**					
ASTM D2974-87	Percent Moisture	30.9	%	0.10	07/21/15 16:39	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152823

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152823

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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(724)850-5600

PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152823

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152823

Sample: HAOH0707SW21 **Lab ID: 30152823001** Collected: 07/07/15 14:15 Received: 07/08/15 13:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	ND	mg/kg	9.4	5.0	1	07/16/15 10:10	07/17/15 15:59		
Surrogates									
o-Terphenyl (S)	74	%	20-129		1	07/16/15 10:10	07/17/15 15:59	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	13.1	6.4	1		07/10/15 16:51	67-64-1	
Surrogates									
Toluene-d8 (S)	106	%	73-124		1		07/10/15 16:51	2037-26-5	
4-Bromofluorobenzene (S)	99	%	71-124		1		07/10/15 16:51	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	83-138		1		07/10/15 16:51	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**30.9**	%	0.10	0.10	1		07/21/15 16:39		

Sample: HAOH0707SW21 (ASTM) **Lab ID: 30152823002** Collected: 07/15/15 10:18 Received: 07/15/15 10:18 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		07/15/15 13:42	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152823

QC Batch: MSV/24154
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30152823001

METHOD BLANK: 920757
Matrix: Solid
Associated Lab Samples: 30152823001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	07/10/15 12:36	
1,2-Dichloroethane-d4 (S)	%	94	83-138	07/10/15 12:36	
4-Bromofluorobenzene (S)	%	99	71-124	07/10/15 12:36	
Toluene-d8 (S)	%	103	73-124	07/10/15 12:36	

LABORATORY CONTROL SAMPLE: 920758

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	13.6	68	12-183	
1,2-Dichloroethane-d4 (S)	%			98	83-138	
4-Bromofluorobenzene (S)	%			98	71-124	
Toluene-d8 (S)	%			102	73-124	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 920759 920760

Parameter	Units	30152826001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	25.5	25	30.0	27.5	72	64	12-183	9	30	
1,2-Dichloroethane-d4 (S)	%						97	93	83-138			
4-Bromofluorobenzene (S)	%						105	104	71-124			
Toluene-d8 (S)	%						111	106	73-124			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152823

QC Batch: OEXT/24421 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30152823001

METHOD BLANK: 922782 | Matrix: Solid
Associated Lab Samples: 30152823001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	07/17/15 10:41	
o-Terphenyl (S)	%	67	20-129	07/17/15 10:41	

LABORATORY CONTROL SAMPLE: 922783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.6	80	52-126	
o-Terphenyl (S)	%			86	20-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922784 922785

Parameter	Units	30152810001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	10.8	93.4	94.5	82.5	88.0	77	82	52-126	6	25	
o-Terphenyl (S)	%						77	73	20-129			

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152823

QC Batch: PMST/5481
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30152823001

SAMPLE DUPLICATE: 925628

Parameter	Units	30152819001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	37.7	32.6	15	20	

SAMPLE DUPLICATE: 925629

Parameter	Units	30152820001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	27.9	25.5	9	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152823

QC Batch: WETA/20610 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30152823002

METHOD BLANK: 922464 | Matrix: Water
Associated Lab Samples: 30152823002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:31	

METHOD BLANK: 922466 | Matrix: Water
Associated Lab Samples: 30152823002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

METHOD BLANK: 922467 | Matrix: Water
Associated Lab Samples: 30152823002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

LABORATORY CONTROL SAMPLE: 922465

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	39.9	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922468 922469

Parameter	Units	30152812002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	21.3	21.5	99	100	85-115	1	20	

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152823

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152823

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30152823001	**HAOH0707SW21**	EPA 3546	OEXT/24421	EPA 8015B	GCSV/8375
30152823001	**HAOH0707SW21**	EPA 8260B	MSV/24154		
30152823001	**HAOH0707SW21**	ASTM D2974-87	PMST/5481		
30152823002	**HAOH0707SW21 (ASTM)**	SM 4500-Cl-E	WETA/20610		

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WO#:30152823

30152823

Pace Analytical
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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☑ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis: VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH0707SW21	SL	G	7/7/15	1415				2	X								X	X	X	N	001
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Filtered (Y/N)

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] / MOODY	7/8/15	0900	Cliff Mitchell / PACE	7/8/15	12:30P
			[signature]	7/8/15	1350
Cliff Mitchell PACE	7/8/15				

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
55	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joshua L. Boyda

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 07/07/15

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30152823

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no **Biological Tissue is Frozen:** Yes No

Packing Material: Bubble Wrap ____ Bubble Bags ____ None ____ Other _____

Thermometer Used 7 **Type of Ice:** (Wet) Blue None ☒ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.1 °C **Correction Factor:** -0.3 °C **Final Temp:** 5.8 °C

Date and initials of person examining contents: AMM 7/8/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☑No	Initial when completed AMM / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 7/9/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30152823

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

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July 22, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152822

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between July 08, 2015 and July 15, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

Pace Analytical Services, Inc.
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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152822

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ACLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: PA014572014-4
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152822

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30152822001	**HAOH0707SW18**	Solid	07/07/15 11:10	07/08/15 13:50
30152822002	**HAOH0707SW18 (ASTM)**	Water	07/15/15 11:11	07/15/15 11:11

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152822

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30152822001	**HAOH0707SW18**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		ASTM D2974-87	TAW	1	PASI-PA
30152822002	**HAOH0707SW18 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152822

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30152822001	**HAOH0707SW18**					
ASTM D2974-87	Percent Moisture	22.3	%	0.10	07/21/15 16:38	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152822

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152822

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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(724)850-5600

PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152822

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152822

Sample: HAOH0707SW18 **Lab ID: 30152822001** Collected: 07/07/15 11:10 Received: 07/08/15 13:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	ND	mg/kg	8.5	4.5	1	07/16/15 10:10	07/17/15 15:42		
Surrogates									
o-Terphenyl (S)	64	%	20-129		1	07/16/15 10:10	07/17/15 15:42	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	11.7	5.7	1		07/10/15 16:25	67-64-1	
Surrogates									
Toluene-d8 (S)	104	%	73-124		1		07/10/15 16:25	2037-26-5	
4-Bromofluorobenzene (S)	98	%	71-124		1		07/10/15 16:25	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	83-138		1		07/10/15 16:25	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**22.3**	%	0.10	0.10	1		07/21/15 16:38		

Sample: HAOH0707SW18 (ASTM) **Lab ID: 30152822002** Collected: 07/15/15 11:11 Received: 07/15/15 11:11 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		07/15/15 13:43	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152822

QC Batch: MSV/24154 | Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B | Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30152822001

METHOD BLANK: 920757 | Matrix: Solid
Associated Lab Samples: 30152822001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	07/10/15 12:36	
1,2-Dichloroethane-d4 (S)	%	94	83-138	07/10/15 12:36	
4-Bromofluorobenzene (S)	%	99	71-124	07/10/15 12:36	
Toluene-d8 (S)	%	103	73-124	07/10/15 12:36	

LABORATORY CONTROL SAMPLE: 920758

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	13.6	68	12-183	
1,2-Dichloroethane-d4 (S)	%			98	83-138	
4-Bromofluorobenzene (S)	%			98	71-124	
Toluene-d8 (S)	%			102	73-124	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 920759 920760

Parameter	Units	30152826001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	25.5	25	30.0	27.5	72	64	12-183	9	30	
1,2-Dichloroethane-d4 (S)	%						97	93	83-138			
4-Bromofluorobenzene (S)	%						105	104	71-124			
Toluene-d8 (S)	%						111	106	73-124			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152822

QC Batch: OEXT/24421 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30152822001

METHOD BLANK: 922782 | Matrix: Solid
Associated Lab Samples: 30152822001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	07/17/15 10:41	
o-Terphenyl (S)	%	67	20-129	07/17/15 10:41	

LABORATORY CONTROL SAMPLE: 922783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.6	80	52-126	
o-Terphenyl (S)	%			86	20-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922784 922785

Parameter	Units	30152810001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	10.8	93.4	94.5	82.5	88.0	77	82	52-126	6	25	
o-Terphenyl (S)	%						77	73	20-129			

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152822

QC Batch: PMST/5481
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30152822001

SAMPLE DUPLICATE: 925628

Parameter	Units	30152819001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	37.7	32.6	15	20	

SAMPLE DUPLICATE: 925629

Parameter	Units	30152820001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	27.9	25.5	9	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152822

QC Batch: WETA/20610 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30152822002

METHOD BLANK: 922464 | Matrix: Water
Associated Lab Samples: 30152822002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:31	

METHOD BLANK: 922466 | Matrix: Water
Associated Lab Samples: 30152822002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

METHOD BLANK: 922467 | Matrix: Water
Associated Lab Samples: 30152822002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

LABORATORY CONTROL SAMPLE: 922465

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	39.9	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922468 922469

Parameter	Units	30152812002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	21.3	21.5	99	100	85-115	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152822

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152822

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30152822001	**HAOH0707SW18**	EPA 3546	OEXT/24421	EPA 8015B	GCSV/8375
30152822001	**HAOH0707SW18**	EPA 8260B	MSV/24154		
30152822001	**HAOH0707SW18**	ASTM D2974-87	PMST/5481		
30152822002	**HAOH0707SW18 (ASTM)**	SM 4500-Cl-E	WETA/20610		

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WO#:30152822

30152822

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☑ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION

☐ GA ☐ IL ☐ IN ☐ MI ☐ NC
☑ OH ☐ SC ☐ WI ☐ OTHER_____

Section D Required Client Information

SAMPLE ID

One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis: VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH0707SW18	SL	G	7/7/15	1110				2	X								X	X	X	N	001
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

223

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
[signature] / Moody	7/8/15	0900	Cliff Mitby Pace	7/8/15	1230P	
			[signature]	7/8/15	1350	5.8
Cliff Mitby Pace	7/8/15	1:50				

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joshua L. Boyda

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 07/07/15

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30152822

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no **Biological Tissue is Frozen:** Yes No

Packing Material: Bubble Wrap ___ Bubble Bags ___ None ___ Other _____

Thermometer Used 7 **Type of Ice:** (Wet) Blue None ☒ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.1 °C **Correction Factor:** -0.3 °C **Final Temp:** 5.8 °C

Date and initials of person examining contents: AMH 7/8/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☑No	Initial when completed AMH / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 7/8/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30152822

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

SCURF Back (C016-4 15May2012).xls

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(724)850-5600

July 22, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152820

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between July 08, 2015 and July 15, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152820

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ACLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: PA014572014-4
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152820

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30152820001	**HAOH0707SW17**	Solid	07/07/15 12:10	07/08/15 13:50
30152820002	**HAOH0707SW17 (ASTM)**	Water	07/15/15 10:56	07/15/15 10:56

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152820

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30152820001	**HAOH0707SW17**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		ASTM D2974-87	TAW	1	PASI-PA
30152820002	**HAOH0707SW17 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152820

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30152820001	**HAOH0707SW17**					
ASTM D2974-87	Percent Moisture	27.9	%	0.10	07/21/15 16:37	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152820

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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(724)850-5600

PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152820

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152820

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152820

Sample: HAOH0707SW17 **Lab ID: 30152820001** Collected: 07/07/15 12:10 Received: 07/08/15 13:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	ND	mg/kg	9.0	4.8	1	07/16/15 10:10	07/17/15 15:25		
Surrogates									
o-Terphenyl (S)	66	%	20-129		1	07/16/15 10:10	07/17/15 15:25	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	12.4	6.1	1		07/10/15 15:58	67-64-1	
Surrogates									
Toluene-d8 (S)	106	%	73-124		1		07/10/15 15:58	2037-26-5	
4-Bromofluorobenzene (S)	98	%	71-124		1		07/10/15 15:58	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	83-138		1		07/10/15 15:58	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**27.9**	%	0.10	0.10	1		07/21/15 16:37		

Sample: HAOH0707SW17 (ASTM) **Lab ID: 30152820002** Collected: 07/15/15 10:56 Received: 07/15/15 10:56 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		07/15/15 13:48	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152820

QC Batch: MSV/24154 | Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B | Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30152820001

METHOD BLANK: 920757 | Matrix: Solid
Associated Lab Samples: 30152820001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	07/10/15 12:36	
1,2-Dichloroethane-d4 (S)	%	94	83-138	07/10/15 12:36	
4-Bromofluorobenzene (S)	%	99	71-124	07/10/15 12:36	
Toluene-d8 (S)	%	103	73-124	07/10/15 12:36	

LABORATORY CONTROL SAMPLE: 920758

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	13.6	68	12-183	
1,2-Dichloroethane-d4 (S)	%			98	83-138	
4-Bromofluorobenzene (S)	%			98	71-124	
Toluene-d8 (S)	%			102	73-124	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 920759 920760

Parameter	Units	30152826001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	25.5	25	30.0	27.5	72	64	12-183	9	30	
1,2-Dichloroethane-d4 (S)	%						97	93	83-138			
4-Bromofluorobenzene (S)	%						105	104	71-124			
Toluene-d8 (S)	%						111	106	73-124			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152820

QC Batch: OEXT/24421 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30152820001

METHOD BLANK: 922782 | Matrix: Solid
Associated Lab Samples: 30152820001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	07/17/15 10:41	
o-Terphenyl (S)	%	67	20-129	07/17/15 10:41	

LABORATORY CONTROL SAMPLE: 922783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.6	80	52-126	
o-Terphenyl (S)	%			86	20-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922784 922785

Parameter	Units	30152810001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	10.8	93.4	94.5	82.5	88.0	77	82	52-126	6	25	
o-Terphenyl (S)	%						77	73	20-129			

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152820

QC Batch: PMST/5481
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30152820001

SAMPLE DUPLICATE: 925628

Parameter	Units	30152819001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	37.7	32.6	15	20	

SAMPLE DUPLICATE: 925629

Parameter	Units	30152820001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	27.9	25.5	9	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152820

QC Batch: WETA/20610 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30152820002

METHOD BLANK: 922464 | Matrix: Water
Associated Lab Samples: 30152820002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:31	

METHOD BLANK: 922466 | Matrix: Water
Associated Lab Samples: 30152820002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

METHOD BLANK: 922467 | Matrix: Water
Associated Lab Samples: 30152820002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

LABORATORY CONTROL SAMPLE: 922465

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	39.9	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922468 922469

Parameter	Units	30152812002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	21.3	21.5	99	100	85-115	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152820

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152820

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30152820001	**HAOH0707SW17**	EPA 3546	OEXT/24421	EPA 8015B	GCSV/8375
30152820001	**HAOH0707SW17**	EPA 8260B	MSV/24154		
30152820001	**HAOH0707SW17**	ASTM D2974-87	PMST/5481		
30152820002	**HAOH0707SW17 (ASTM)**	SM 4500-Cl-E	WETA/20610		

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WO#:30152820

30152820

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:

Company: Moody and Associates, Inc.
Address: 199 Johnson Road, Building 2, Suite 101
Houston, PA 15342
Email To: lmistick@moody-s.com
Phone:724-746-5200 Fax:724-746-5603
Requested Due Date/TAT: Standard.

Section B Required Project Information:

Report To: Leah Mistick
Copy To: Josh Boyda
Purchase Order No.:
Project Name: Eisenbarth Consent Order
Project Number: 14-467-LM

Section C Invoice Information:

Attention: Leah Mistick
Company Name: Moody & Associates, Inc.
Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID: One Character per box. (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis: VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH0707SW17	SL	G	7/7/15	1210				2	X								X	X	X	N	001
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Joshua L. Boyda / Moody	7/8/15	0900	Cliff Mt Joy Pace	7/8/15	1230P		Y/N	Y/N	Y/N
				7/8/15	1350	5.8	Y/N	Y/N	Y/N
Cliff Mt Joy Pace	7/8/15	1:50					Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joshua L. Boyda

SIGNATURE of SAMPLER: Joshua L. Boyda

DATE Signed (MM / DD / YY): 07/07/15

Temp in °C | Received on Ice | Custody Sealed Cooler | Samples Intact

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # ~~30152820~~

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no **Biological Tissue is Frozen:** Yes No

Packing Material: Bubble Wrap ___ Bubble Bags ___ None ___ Other _____

Thermometer Used 7 **Type of Ice:** (Wet) Blue None ☒ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.1 °C **Correction Factor:** -0.3 °C **Final Temp:** 5.8 °C

Date and initials of person examining contents: AMM 7/8/15

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☑Yes	☐No	☐N/A	8.
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
Containers Intact:	☑Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL				
All containers needing preservation have been checked.	☐Yes	☐No	☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes	☐No	☑N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes	☑No		Initial when completed AMM / Lot # of added preservative
Samples checked for dechlorination:	☐Yes	☐No	☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	15.
Trip Blank Present:	☐Yes	☐No	☑N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased): _____				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 7/8/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30152820

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

SCURF Back (C016-4 15May2012).xls

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Greensburg, PA 15601
(724)850-5600

July 22, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152819

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between July 08, 2015 and July 15, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152819

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ACLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: PA014572014-4
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152819

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30152819001	**HAOH0707SW06**	Solid	07/07/15 13:55	07/08/15 13:50
30152819002	**HAOH0707SW06 (ASTM)**	Water	07/15/15 10:56	07/15/15 10:56

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152819

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30152819001	**HAOH0707SW06**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		ASTM D2974-87	TAW	1	PASI-PA
30152819002	**HAOH0707SW06 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152819

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30152819001	**HAOH0707SW06**					
ASTM D2974-87	Percent Moisture	37.7	%	0.10	07/21/15 16:37	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152819

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152819

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152819

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152819

Sample: HAOH0707SW06 **Lab ID: 30152819001** Collected: 07/07/15 13:55 Received: 07/08/15 13:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	ND	mg/kg	10.5	5.6	1	07/16/15 10:10	07/17/15 15:09		
Surrogates									
o-Terphenyl (S)	63	%	20-129		1	07/16/15 10:10	07/17/15 15:09	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	16.1	7.9	1		07/10/15 15:32	67-64-1	
Surrogates									
Toluene-d8 (S)	109	%	73-124		1		07/10/15 15:32	2037-26-5	
4-Bromofluorobenzene (S)	106	%	71-124		1		07/10/15 15:32	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	83-138		1		07/10/15 15:32	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**37.7**	%	0.10	0.10	1		07/21/15 16:37		

Sample: HAOH0707SW06 (ASTM) **Lab ID: 30152819002** Collected: 07/15/15 10:56 Received: 07/15/15 10:56 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		07/15/15 13:49	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152819

QC Batch: MSV/24154
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30152819001

METHOD BLANK: 920757
Matrix: Solid
Associated Lab Samples: 30152819001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	07/10/15 12:36	
1,2-Dichloroethane-d4 (S)	%	94	83-138	07/10/15 12:36	
4-Bromofluorobenzene (S)	%	99	71-124	07/10/15 12:36	
Toluene-d8 (S)	%	103	73-124	07/10/15 12:36	

LABORATORY CONTROL SAMPLE: 920758

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	13.6	68	12-183	
1,2-Dichloroethane-d4 (S)	%			98	83-138	
4-Bromofluorobenzene (S)	%			98	71-124	
Toluene-d8 (S)	%			102	73-124	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 920759 920760

Parameter	Units	30152826001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	25.5	25	30.0	27.5	72	64	12-183	9	30	
1,2-Dichloroethane-d4 (S)	%						97	93	83-138			
4-Bromofluorobenzene (S)	%						105	104	71-124			
Toluene-d8 (S)	%						111	106	73-124			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152819

QC Batch: OEXT/24421 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30152819001

METHOD BLANK: 922782 | Matrix: Solid
Associated Lab Samples: 30152819001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	07/17/15 10:41	
o-Terphenyl (S)	%	67	20-129	07/17/15 10:41	

LABORATORY CONTROL SAMPLE: 922783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.6	80	52-126	
o-Terphenyl (S)	%			86	20-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922784 922785

Parameter	Units	30152810001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	10.8	93.4	94.5	82.5	88.0	77	82	52-126	6	25	
o-Terphenyl (S)	%						77	73	20-129			

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152819

QC Batch: PMST/5481
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30152819001

SAMPLE DUPLICATE: 925628

Parameter	Units	30152819001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	37.7	32.6	15	20	

SAMPLE DUPLICATE: 925629

Parameter	Units	30152820001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	27.9	25.5	9	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152819

QC Batch: WETA/20610 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30152819002

METHOD BLANK: 922464 | Matrix: Water
Associated Lab Samples: 30152819002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:31	

METHOD BLANK: 922466 | Matrix: Water
Associated Lab Samples: 30152819002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

METHOD BLANK: 922467 | Matrix: Water
Associated Lab Samples: 30152819002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

LABORATORY CONTROL SAMPLE: 922465

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	39.9	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922468 922469

Parameter	Units	30152812002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	21.3	21.5	99	100	85-115	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152819

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152819

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30152819001	**HAOH0707SW06**	EPA 3546	OEXT/24421	EPA 8015B	GCSV/8375
30152819001	**HAOH0707SW06**	EPA 8260B	MSV/24154		
30152819001	**HAOH0707SW06**	ASTM D2974-87	PMST/5481		
30152819002	**HAOH0707SW06 (ASTM)**	SM 4500-Cl-E	WETA/20610		

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WO#:30152819

30152819

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Pace Analytical™ www.pacelabs.com

Section A Required Client Information:

Company: Moody and Associates, Inc.
Address: 199 Johnson Road, Building 2, Suite 101
Houston, PA 15342
Email To: lmistick@moody-s.com
Phone:724-746-5200 Fax:724-746-5603
Requested Due Date/TAT: Standard

Section B Required Project Information:

Report To: Leah Mistick
Copy To: Josh Boyda
Purchase Order No.:
Project Name: Eisenbarth Consent Order
Project Number: 14-467-LM

Section C Invoice Information:

Attention: Leah Mistick
Company Name: Moody & Associates, Inc.
Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID: One Character per box. (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis: VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH0707SW06	SL	G	7/7/15	1355				2	X								X	X	X	N	001
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Joshua L. Boyda / Moody	7/8/15	0900	Cliff Mitchell PACE	7/8/15	12:30P
			[signature]	7/8/15	1350
Cliff Mitchell PACE	7/8/15	1:50			

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
5.8	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joshua L. Boyda

SIGNATURE of SAMPLER: Joshua L. Boyda

DATE Signed (MM / DD / YY): 07/07/15

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30152819

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no **Biological Tissue is Frozen:** Yes No

Packing Material: Bubble Wrap ____ Bubble Bags ____ None ____ Other _____

Thermometer Used T **Type of Ice:** (Wet) Blue None ☒ Samples on Ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.1 °C **Correction Factor:** -0.3 °C **Final Temp:** 5.8 °C

Date and Initials of person examining contents: AML 7/8/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☑No	Initial when completed AML Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 7/9/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30152819

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

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July 22, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152817

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between July 08, 2015 and July 15, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152817

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ACLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: PA014572014-4
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152817

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30152817001	**HAOH0707SW15**	Solid	07/07/15 15:30	07/08/15 13:50
30152817002	**HAOH0707SW15 (ASTM)**	Water	07/15/15 10:52	07/15/15 10:52

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152817

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30152817001	**HAOH0707SW15**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		ASTM D2974-87	SRA	1	PASI-PA
30152817002	**HAOH0707SW15 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152817

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30152817001	**HAOH0707SW15**					
EPA 8015B	TPH (C10-C28)	10.6	mg/kg	8.1	07/17/15 14:52	
ASTM D2974-87	Percent Moisture	20.2	%	0.10	07/20/15 19:15	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152817

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152817

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152817

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152817

Sample: HAOH0707SW15 **Lab ID: 30152817001** Collected: 07/07/15 15:30 Received: 07/08/15 13:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	**10.6**	mg/kg	8.1	4.3	1	07/16/15 10:10	07/17/15 14:52		
Surrogates									
o-Terphenyl (S)	65	%	20-129		1	07/16/15 10:10	07/17/15 14:52	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	11.6	5.7	1		07/10/15 15:05	67-64-1	
Surrogates									
Toluene-d8 (S)	104	%	73-124		1		07/10/15 15:05	2037-26-5	
4-Bromofluorobenzene (S)	100	%	71-124		1		07/10/15 15:05	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	83-138		1		07/10/15 15:05	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**20.2**	%	0.10	0.10	1		07/20/15 19:15		

Sample: HAOH0707SW15 (ASTM) **Lab ID: 30152817002** Collected: 07/15/15 10:52 Received: 07/15/15 10:52 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		07/15/15 13:41	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152817

QC Batch: MSV/24154
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30152817001

METHOD BLANK: 920757
Matrix: Solid
Associated Lab Samples: 30152817001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	07/10/15 12:36	
1,2-Dichloroethane-d4 (S)	%	94	83-138	07/10/15 12:36	
4-Bromofluorobenzene (S)	%	99	71-124	07/10/15 12:36	
Toluene-d8 (S)	%	103	73-124	07/10/15 12:36	

LABORATORY CONTROL SAMPLE: 920758

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	13.6	68	12-183	
1,2-Dichloroethane-d4 (S)	%			98	83-138	
4-Bromofluorobenzene (S)	%			98	71-124	
Toluene-d8 (S)	%			102	73-124	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 920759 920760

Parameter	Units	30152826001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	25.5	25	30.0	27.5	72	64	12-183	9	30	
1,2-Dichloroethane-d4 (S)	%						97	93	83-138			
4-Bromofluorobenzene (S)	%						105	104	71-124			
Toluene-d8 (S)	%						111	106	73-124			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152817

QC Batch: OEXT/24421 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30152817001

METHOD BLANK: 922782 | Matrix: Solid
Associated Lab Samples: 30152817001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	07/17/15 10:41	
o-Terphenyl (S)	%	67	20-129	07/17/15 10:41	

LABORATORY CONTROL SAMPLE: 922783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.6	80	52-126	
o-Terphenyl (S)	%			86	20-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922784 922785

Parameter	Units	30152810001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	10.8	93.4	94.5	82.5	88.0	77	82	52-126	6	25	
o-Terphenyl (S)	%						77	73	20-129			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152817

QC Batch: PMST/5479
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30152817001

SAMPLE DUPLICATE: 925050

Parameter	Units	30152661001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	77.4	77.3	0	20	

SAMPLE DUPLICATE: 925072

Parameter	Units	30153243001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	12.3	12.6	3	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152817

QC Batch: WETA/20610 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30152817002

METHOD BLANK: 922464 | Matrix: Water
Associated Lab Samples: 30152817002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:31	

METHOD BLANK: 922466 | Matrix: Water
Associated Lab Samples: 30152817002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

METHOD BLANK: 922467 | Matrix: Water
Associated Lab Samples: 30152817002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

LABORATORY CONTROL SAMPLE: 922465

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	39.9	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922468 922469

Parameter	Units	30152812002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	21.3	21.5	99	100	85-115	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152817

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152817

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30152817001	**HAOH0707SW15**	EPA 3546	OEXT/24421	EPA 8015B	GCSV/8375
30152817001	**HAOH0707SW15**	EPA 8260B	MSV/24154		
30152817001	**HAOH0707SW15**	ASTM D2974-87	PMST/5479		
30152817002	**HAOH0707SW15 (ASTM)**	SM 4500-Cl-E	WETA/20610		

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WO#:30152817

30152817

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:

Company: Moody and Associates, Inc.	
Address: 199 Johnson Road, Building 2, Suite 101	
Houston, PA 15342	
Email To: lmistick@moody-s.com	
Phone:724-746-5200	Fax:724-746-5603
Requested Due Date/TAT: STANDARD	

Section B Required Project Information:

Report To: Leah Mistick
Copy To: Josh Boyda
Purchase Order No.:
Project Name: Eisenbarth Consent Order
Project Number: 14-467-LM

Section C Invoice Information:

Attention: Leah Mistick
Company Name: Moody & Associates, Inc.
Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis: VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH0707SW15	SL	G	7/7/15	1530				2	X								X	X	X	N	001
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Filtered (Y/N)

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Matt Draeup MOODY	7/8/15	0900	[illegible] / MOODY	7/8/15	0900
[illegible] / MOODY	7/8/15	0901	[illegible]	7/8/15	1350

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
5.7	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Matt Draeup

SIGNATURE of SAMPLER: Matt Draeup

DATE Signed (MM / DD / YY): 07/07/15

SRA

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30152817

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no **Biological Tissue is Frozen:** Yes No

Packing Material: Bubble Wrap ____ Bubble Bags ____ None ____ Other _____

Thermometer Used 8 **Type of Ice:** Wet Blue None ☒ Samples on Ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.1 °C **Correction Factor:** -0.4 °C **Final Temp:** 5.7 °C

Date and initials of person examining contents: AUL 7/8/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	Initial when completed AUL / Lot # of added preservative
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☒No	
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 7/9/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30152817

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	4	2																						

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 22, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152816

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between July 08, 2015 and July 15, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152816

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ACLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: PA014572014-4
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152816

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30152816001	**HAOH0707SW08DUP**	Solid	07/07/15 10:15	07/08/15 13:50
30152816002	**HAOH0707SW08 DUP (ASTM)**	Water	07/15/15 10:31	07/15/15 10:31

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152816

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30152816001	**HAOH0707SW08DUP**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		ASTM D2974-87	SRA	1	PASI-PA
30152816002	**HAOH0707SW08 DUP (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152816

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30152816001	**HAOH0707SW08DUP**					
EPA 8015B	TPH (C10-C28)	12.3	mg/kg	11.7	07/17/15 14:22	1c
EPA 8260B	Acetone	37.3	ug/kg	18.2	07/10/15 19:04	
ASTM D2974-87	Percent Moisture	44.3	%	0.10	07/20/15 19:14	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152816

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: OEXT/24421

1c: The majority of the area quantitated as DRO for this sample is due to unresolved material eluting beyond C 20.

- HAOH0707SW08DUP (Lab ID: 30152816001)
  - TPH (C10-C28)

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152816

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152816

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152816

Sample: HAOH0707SW08DUP **Lab ID: 30152816001** Collected: 07/07/15 10:15 Received: 07/08/15 13:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	**12.3**	mg/kg	11.7	6.2	1	07/16/15 10:10	07/17/15 14:22		1c
Surrogates									
o-Terphenyl (S)	56	%	20-129		1	07/16/15 10:10	07/17/15 14:22	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	**37.3**	ug/kg	18.2	8.9	1		07/10/15 19:04	67-64-1	
Surrogates									
Toluene-d8 (S)	104	%	73-124		1		07/10/15 19:04	2037-26-5	
4-Bromofluorobenzene (S)	102	%	71-124		1		07/10/15 19:04	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	83-138		1		07/10/15 19:04	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**44.3**	%	0.10	0.10	1		07/20/15 19:14		

Sample: HAOH0707SW08 DUP (ASTM) **Lab ID: 30152816002** Collected: 07/15/15 10:31 Received: 07/15/15 10:31 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		07/15/15 13:40	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152816

QC Batch: MSV/24154 | Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B | Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30152816001

METHOD BLANK: 920757 | Matrix: Solid
Associated Lab Samples: 30152816001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	07/10/15 12:36	
1,2-Dichloroethane-d4 (S)	%	94	83-138	07/10/15 12:36	
4-Bromofluorobenzene (S)	%	99	71-124	07/10/15 12:36	
Toluene-d8 (S)	%	103	73-124	07/10/15 12:36	

LABORATORY CONTROL SAMPLE: 920758

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	13.6	68	12-183	
1,2-Dichloroethane-d4 (S)	%			98	83-138	
4-Bromofluorobenzene (S)	%			98	71-124	
Toluene-d8 (S)	%			102	73-124	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 920759 920760

Parameter	Units	30152826001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	25.5	25	30.0	27.5	72	64	12-183	9	30	
1,2-Dichloroethane-d4 (S)	%						97	93	83-138			
4-Bromofluorobenzene (S)	%						105	104	71-124			
Toluene-d8 (S)	%						111	106	73-124			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152816

QC Batch: OEXT/24421 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30152816001

METHOD BLANK: 922782 | Matrix: Solid
Associated Lab Samples: 30152816001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	07/17/15 10:41	
o-Terphenyl (S)	%	67	20-129	07/17/15 10:41	

LABORATORY CONTROL SAMPLE: 922783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.6	80	52-126	
o-Terphenyl (S)	%			86	20-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922784 922785

Parameter	Units	30152810001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	10.8	93.4	94.5	82.5	88.0	77	82	52-126	6	25	
o-Terphenyl (S)	%						77	73	20-129			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152816

QC Batch: PMST/5479
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30152816001

SAMPLE DUPLICATE: 925050

Parameter	Units	30152661001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	77.4	77.3	0	20	

SAMPLE DUPLICATE: 925072

Parameter	Units	30153243001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	12.3	12.6	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152816

QC Batch: WETA/20610 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30152816002

METHOD BLANK: 922464 | Matrix: Water
Associated Lab Samples: 30152816002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:31	

METHOD BLANK: 922466 | Matrix: Water
Associated Lab Samples: 30152816002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

METHOD BLANK: 922467 | Matrix: Water
Associated Lab Samples: 30152816002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

LABORATORY CONTROL SAMPLE: 922465

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	39.9	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922468 922469

Parameter	Units	30152812002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	21.3	21.5	99	100	85-115	1	20	

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152816

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

1c The majority of the area quantitated as DRO for this sample is due to unresolved material eluting beyond C 20.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152816

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30152816001	**HAOH0707SW08DUP**	EPA 3546	OEXT/24421	EPA 8015B	GCSV/8375
30152816001	**HAOH0707SW08DUP**	EPA 8260B	MSV/24154		
30152816001	**HAOH0707SW08DUP**	ASTM D2974-87	PMST/5479		
30152816002	**HAOH0707SW08 DUP (ASTM)**	SM 4500-Cl-E	WETA/20610		

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WO#:30152816

30152816

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: STANDARD	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID: One Character per box. (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis: VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH07070SW08DUP	SL	G	7/7/15	1015				2	X								X	X	X	N	001
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Filtered (Y/N)

295

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Matt Draeup / MOODY	7/8/15	0900	[illegible] / MOODY	7/8/15	0900		Y/N	Y/N	Y/N
[illegible] / MOODY	7/8/15	0901	[illegible]	7/8/15	1350	5.7	Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
						Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Matt Draeup

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 07/07/15

SRA

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30152816

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no Biological Tissue Is Frozen: Yes No

Packing Material: Bubble Wrap ___ Bubble Bags ___ None ___ Other _____

Thermometer Used 8 Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.1 °C Correction Factor: -0.4 °C Final Temp: 5.7 °C

Date and Initials of person examining contents: AMC 7/8/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☒No	Initial when completed AMC / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 7/9/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30152816

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	4	2																						

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 22, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152814

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between July 08, 2015 and July 15, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152814

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ACLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: PA014572014-4
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152814

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30152814001	**HAOH0707SW04**	Solid	07/07/15 13:30	07/08/15 16:50
30152814002	**HAOH0707SW04 (ASTM)**	Water	07/15/15 10:29	07/15/15 10:29

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152814

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30152814001	**HAOH0707SW04**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		ASTM D2974-87	SRA	1	PASI-PA
30152814002	**HAOH0707SW04 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152814

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30152814001	**HAOH0707SW04**					
ASTM D2974-87	Percent Moisture	23.8	%	0.10	07/20/15 19:14	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152814

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152814

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152814

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152814

Sample: HAOH0707SW04 **Lab ID: 30152814001** Collected: 07/07/15 13:30 Received: 07/08/15 16:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	ND	mg/kg	8.6	4.5	1	07/16/15 10:10	07/17/15 14:06		
Surrogates									
o-Terphenyl (S)	67	%	20-129		1	07/16/15 10:10	07/17/15 14:06	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	12.1	5.9	1		07/10/15 14:38	67-64-1	
Surrogates									
Toluene-d8 (S)	106	%	73-124		1		07/10/15 14:38	2037-26-5	
4-Bromofluorobenzene (S)	103	%	71-124		1		07/10/15 14:38	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	83-138		1		07/10/15 14:38	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**23.8**	%	0.10	0.10	1		07/20/15 19:14		

Sample: HAOH0707SW04 (ASTM) **Lab ID: 30152814002** Collected: 07/15/15 10:29 Received: 07/15/15 10:29 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		07/15/15 13:39	16887-00-6	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152814

QC Batch: MSV/24154 | Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B | Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30152814001

METHOD BLANK: 920757 | Matrix: Solid
Associated Lab Samples: 30152814001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	07/10/15 12:36	
1,2-Dichloroethane-d4 (S)	%	94	83-138	07/10/15 12:36	
4-Bromofluorobenzene (S)	%	99	71-124	07/10/15 12:36	
Toluene-d8 (S)	%	103	73-124	07/10/15 12:36	

LABORATORY CONTROL SAMPLE: 920758

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	13.6	68	12-183	
1,2-Dichloroethane-d4 (S)	%			98	83-138	
4-Bromofluorobenzene (S)	%			98	71-124	
Toluene-d8 (S)	%			102	73-124	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 920759 920760

Parameter	Units	30152826001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	25.5	25	30.0	27.5	72	64	12-183	9	30	
1,2-Dichloroethane-d4 (S)	%						97	93	83-138			
4-Bromofluorobenzene (S)	%						105	104	71-124			
Toluene-d8 (S)	%						111	106	73-124			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152814

QC Batch: OEXT/24421 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30152814001

METHOD BLANK: 922782 | Matrix: Solid
Associated Lab Samples: 30152814001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	07/17/15 10:41	
o-Terphenyl (S)	%	67	20-129	07/17/15 10:41	

LABORATORY CONTROL SAMPLE: 922783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.6	80	52-126	
o-Terphenyl (S)	%			86	20-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922784 922785

Parameter	Units	30152810001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	10.8	93.4	94.5	82.5	88.0	77	82	52-126	6	25	
o-Terphenyl (S)	%						77	73	20-129			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152814

QC Batch: PMST/5479
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30152814001

SAMPLE DUPLICATE: 925050

Parameter	Units	30152661001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	77.4	77.3	0	20	

SAMPLE DUPLICATE: 925072

Parameter	Units	30153243001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	12.3	12.6	3	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152814

QC Batch: WETA/20610 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30152814002

METHOD BLANK: 922464 | Matrix: Water
Associated Lab Samples: 30152814002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:31	

METHOD BLANK: 922466 | Matrix: Water
Associated Lab Samples: 30152814002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

METHOD BLANK: 922467 | Matrix: Water
Associated Lab Samples: 30152814002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

LABORATORY CONTROL SAMPLE: 922465

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	39.9	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922468 922469

Parameter	Units	30152812002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	21.3	21.5	99	100	85-115	1	20	

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152814

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152814

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30152814001	**HAOH0707SW04**	EPA 3546	OEXT/24421	EPA 8015B	GCSV/8375
30152814001	**HAOH0707SW04**	EPA 8260B	MSV/24154		
30152814001	**HAOH0707SW04**	ASTM D2974-87	PMST/5479		
30152814002	**HAOH0707SW04 (ASTM)**	SM 4500-Cl-E	WETA/20610		

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WO#:30152814

30152814

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: STANDARD	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	Requested Analysis: VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH0707SW04	SL	G	7/7/15	1350				2	X									X	X	X	N	001
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Matt Dracup / MOODY	7/8/15	0900	[illegible] / MOODY	7/8/15	0900
[illegible] / MOODY	7/8/15	0901	[illegible]	7/8/15	1350

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
5.7	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MATT DRACUP

SIGNATURE of SAMPLER: Matt Dracup

DATE Signed (MM / DD / YY): 07/07/15

313

e-File(ALLQ020rev.3,31Mar05))22Jun2005

SRA

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30152814

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no **Biological Tissue is Frozen:** Yes No

Packing Material: Bubble Wrap ____ Bubble Bags ____ None ____ Other _____

Thermometer Used 8 **Type of Ice:** Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.1 °C **Correction Factor:** -0.4 °C **Final Temp:** 5.7 °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: AWL 7/8/15

				Comments:
Chain of Custody Present:	☒Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☒Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☒Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☒Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☒Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☒No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☒No	☐N/A	7.
Sufficient Volume:	☒Yes	☐No	☐N/A	8.
Correct Containers Used:	☒Yes	☐No	☐N/A	9.
-Pace Containers Used:	☒Yes	☐No	☐N/A	
Containers Intact:	☒Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☒N/A	11.
Sample Labels match COC:	☒Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL				
All containers needing preservation have been checked.	☐Yes	☐No	☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes	☐No	☒N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes	☒No		Initial when completed AWL Lot # of added preservative
Samples checked for dechlorination:	☐Yes	☐No	☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☒N/A	15.
Trip Blank Present:	☐Yes	☐No	☒N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☒N/A	
Pace Trip Blank Lot # (if purchased): _____				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [signature] **Date:** 7/9/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30152814

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
ecl	4	2																						

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 22, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152812

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between July 08, 2015 and July 15, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152812

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ACLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: PA014572014-4
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152812

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30152812001	**HAOH0707SW08**	Solid	07/07/15 09:30	07/08/15 13:50
30152812002	**HAOH0707SW08 (ASTM)**	Water	07/15/15 10:27	07/15/15 10:27

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152812

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30152812001	**HAOH0707SW08**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		ASTM D2974-87	SRA	1	PASI-PA
30152812002	**HAOH0707SW08 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152812

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30152812001	**HAOH0707SW08**					
ASTM D2974-87	Percent Moisture	34.7	%	0.10	07/20/15 19:13	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152812

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152812

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152812

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152812

Sample: HAOH0707SW08 **Lab ID: 30152812001** Collected: 07/07/15 09:30 Received: 07/08/15 13:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	ND	mg/kg	10.1	5.3	1	07/16/15 10:10	07/17/15 13:50		
Surrogates									
o-Terphenyl (S)	65	%	20-129		1	07/16/15 10:10	07/17/15 13:50	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	15.9	7.8	1		07/10/15 14:12	67-64-1	
Surrogates									
Toluene-d8 (S)	104	%	73-124		1		07/10/15 14:12	2037-26-5	
4-Bromofluorobenzene (S)	96	%	71-124		1		07/10/15 14:12	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	83-138		1		07/10/15 14:12	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**34.7**	%	0.10	0.10	1		07/20/15 19:13		

Sample: HAOH0707SW08 (ASTM) **Lab ID: 30152812002** Collected: 07/15/15 10:27 Received: 07/15/15 10:27 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		07/15/15 13:36	16887-00-6	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152812

QC Batch: MSV/24154 | Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B | Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30152812001

METHOD BLANK: 920757 | Matrix: Solid
Associated Lab Samples: 30152812001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	07/10/15 12:36	
1,2-Dichloroethane-d4 (S)	%	94	83-138	07/10/15 12:36	
4-Bromofluorobenzene (S)	%	99	71-124	07/10/15 12:36	
Toluene-d8 (S)	%	103	73-124	07/10/15 12:36	

LABORATORY CONTROL SAMPLE: 920758

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	13.6	68	12-183	
1,2-Dichloroethane-d4 (S)	%			98	83-138	
4-Bromofluorobenzene (S)	%			98	71-124	
Toluene-d8 (S)	%			102	73-124	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 920759 920760

Parameter	Units	30152826001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	25.5	25	30.0	27.5	72	64	12-183	9	30	
1,2-Dichloroethane-d4 (S)	%						97	93	83-138			
4-Bromofluorobenzene (S)	%						105	104	71-124			
Toluene-d8 (S)	%						111	106	73-124			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152812

QC Batch: OEXT/24421 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30152812001

METHOD BLANK: 922782 | Matrix: Solid
Associated Lab Samples: 30152812001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	07/17/15 10:41	
o-Terphenyl (S)	%	67	20-129	07/17/15 10:41	

LABORATORY CONTROL SAMPLE: 922783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.6	80	52-126	
o-Terphenyl (S)	%			86	20-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922784 922785

Parameter	Units	30152810001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	10.8	93.4	94.5	82.5	88.0	77	82	52-126	6	25	
o-Terphenyl (S)	%						77	73	20-129			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152812

QC Batch: PMST/5479
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30152812001

SAMPLE DUPLICATE: 925050

Parameter	Units	30152661001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	77.4	77.3	0	20	

SAMPLE DUPLICATE: 925072

Parameter	Units	30153243001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	12.3	12.6	3	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152812

QC Batch: WETA/20610 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30152812002

METHOD BLANK: 922464 | Matrix: Water
Associated Lab Samples: 30152812002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:31	

METHOD BLANK: 922466 | Matrix: Water
Associated Lab Samples: 30152812002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

METHOD BLANK: 922467 | Matrix: Water
Associated Lab Samples: 30152812002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

LABORATORY CONTROL SAMPLE: 922465

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	39.9	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922468 922469

Parameter	Units	30152812002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	21.3	21.5	99	100	85-115	1	20	

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152812

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152812

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30152812001	**HAOH0707SW08**	EPA 3546	OEXT/24421	EPA 8015B	GCSV/8375
30152812001	**HAOH0707SW08**	EPA 8260B	MSV/24154		
30152812001	**HAOH0707SW08**	ASTM D2974-87	PMST/5479		
30152812002	**HAOH0707SW08 (ASTM)**	SM 4500-Cl-E	WETA/20610		

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WO#:30152812

30152812

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: STANDARD	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID: One Character per box. (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes: MATRIX / CODE — DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	Requested Analysis: VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH0707SW08	SL	G	7/7/15	0930				2	X									X	X	X	N	001
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS	Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
Matt Draeup / MOODY	7/8/15	0900	/ MOODY	7/8/15	0900			Y/N	Y/N	Y/N
/ MOODY	7/8/15	0901		7/8/15	1350	5.7		Y/N	Y/N	Y/N
								Y/N	Y/N	Y/N
								Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Matt Draeup

SIGNATURE of SAMPLER: Matt Draeup — DATE Signed (MM / DD / YY): 07/07/15

SRA

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30152812

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no **Biological Tissue is Frozen:** Yes No

Packing Material: Bubble Wrap ___ Bubble Bags ___ None ___ Other _____

Thermometer Used 8 **Type of Ice:** Wet Blue None ☒ Samples on Ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.1 °C **Correction Factor:** -0.4 °C **Final Temp:** 5.7 °C

Date and Initials of person examining contents: AMC 7/8/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☒No	Initial when completed AMC / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 7/9/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30152812

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	4	2																						

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 22, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152810

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between July 08, 2015 and July 15, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152810

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ACLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: PA014572014-4
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152810

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30152810001	**HAOH0707SW20**	Solid	07/07/15 12:00	07/08/15 13:50
30152810002	**HAOH0707SW20 (ASTM)**	Water	07/15/15 10:23	07/15/15 10:23

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152810

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30152810001	**HAOH0707SW20**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		ASTM D2974-87	SRA	1	PASI-PA
30152810002	**HAOH0707SW20 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152810

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30152810001	**HAOH0707SW20**					
EPA 8015B	TPH (C10-C28)	10.8	mg/kg	9.3	07/17/15 13:17	1c
ASTM D2974-87	Percent Moisture	29.9	%	0.10	07/20/15 19:12	

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152810

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: OEXT/24421

1c: The majority of the area quantitated as DRO for this sample is due to unresolved material eluting beyond C 20.

- HAOH0707SW20 (Lab ID: 30152810001)
  - TPH (C10-C28)

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152810

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152810

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: July 22, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152810

Sample: HAOH0707SW20 **Lab ID: 30152810001** Collected: 07/07/15 12:00 Received: 07/08/15 13:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	**10.8**	mg/kg	9.3	4.9	1	07/16/15 10:10	07/17/15 13:17		1c
Surrogates									
o-Terphenyl (S)	65	%	20-129		1	07/16/15 10:10	07/17/15 13:17	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	14.6	7.1	1		07/10/15 13:45	67-64-1	
Surrogates									
Toluene-d8 (S)	106	%	73-124		1		07/10/15 13:45	2037-26-5	
4-Bromofluorobenzene (S)	103	%	71-124		1		07/10/15 13:45	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	83-138		1		07/10/15 13:45	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**29.9**	%	0.10	0.10	1		07/20/15 19:12		

Sample: HAOH0707SW20 (ASTM) **Lab ID: 30152810002** Collected: 07/15/15 10:23 Received: 07/15/15 10:23 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		07/15/15 13:39	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152810

QC Batch: MSV/24154 | Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B | Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30152810001

METHOD BLANK: 920757 | Matrix: Solid
Associated Lab Samples: 30152810001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	07/10/15 12:36	
1,2-Dichloroethane-d4 (S)	%	94	83-138	07/10/15 12:36	
4-Bromofluorobenzene (S)	%	99	71-124	07/10/15 12:36	
Toluene-d8 (S)	%	103	73-124	07/10/15 12:36	

LABORATORY CONTROL SAMPLE: 920758

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	13.6	68	12-183	
1,2-Dichloroethane-d4 (S)	%			98	83-138	
4-Bromofluorobenzene (S)	%			98	71-124	
Toluene-d8 (S)	%			102	73-124	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 920759 920760

Parameter	Units	30152826001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	25.5	25	30.0	27.5	72	64	12-183	9	30	
1,2-Dichloroethane-d4 (S)	%						97	93	83-138			
4-Bromofluorobenzene (S)	%						105	104	71-124			
Toluene-d8 (S)	%						111	106	73-124			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152810

QC Batch: OEXT/24421 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30152810001

METHOD BLANK: 922782 | Matrix: Solid
Associated Lab Samples: 30152810001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	07/17/15 10:41	
o-Terphenyl (S)	%	67	20-129	07/17/15 10:41	

LABORATORY CONTROL SAMPLE: 922783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.6	80	52-126	
o-Terphenyl (S)	%			86	20-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922784 922785

Parameter	Units	30152810001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	10.8	93.4	94.5	82.5	88.0	77	82	52-126	6	25	
o-Terphenyl (S)	%						77	73	20-129			

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152810

QC Batch: PMST/5479
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30152810001

SAMPLE DUPLICATE: 925050

Parameter	Units	30152661001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	77.4	77.3	0	20	

SAMPLE DUPLICATE: 925072

Parameter	Units	30153243001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	12.3	12.6	3	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152810

QC Batch: WETA/20610 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30152810002

METHOD BLANK: 922464 | Matrix: Water
Associated Lab Samples: 30152810002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:31	

METHOD BLANK: 922466 | Matrix: Water
Associated Lab Samples: 30152810002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

METHOD BLANK: 922467 | Matrix: Water
Associated Lab Samples: 30152810002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	07/15/15 13:34	

LABORATORY CONTROL SAMPLE: 922465

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	39.9	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922468 922469

Parameter	Units	30152812002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	21.3	21.5	99	100	85-115	1	20	

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152810

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

1c	The majority of the area quantitated as DRO for this sample is due to unresolved material eluting beyond C 20.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent
Pace Project No.: 30152810

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30152810001	**HAOH0707SW20**	EPA 3546	OEXT/24421	EPA 8015B	GCSV/8375
30152810001	**HAOH0707SW20**	EPA 8260B	MSV/24154		
30152810001	**HAOH0707SW20**	ASTM D2974-87	PMST/5479		
30152810002	**HAOH0707SW20 (ASTM)**	SM 4500-Cl-E	WETA/20610		

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WO#: 30152810

30152810

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A

Required Client Information:	Required Project Information:	Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: STANDARD	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION

☐ GA ☐ IL ☐ IN ☐ MI ☐ NC
☑ OH ☐ SC ☐ WI ☐ OTHER_____

Filtered (Y/N)

Requested Analysis:

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH0707SW20	SL	G	7/7/15	1200				2	X								X	X	X	N	
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

349

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Matt Drueup MOODY	7/8/15	0900	[signature] / MOODY	7/8/15	0900
[signature] / MOODY	7/8/15	0901	[signature]	7/8/15	1350

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
57	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Matt Drueup

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM / DD / YY): 07/07/14

e-File(ALLQ020rev.3,31Mar05))22Jun2005

Cnt

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moorly

Project # 0152810

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no **Biological Tissue is Frozen:** Yes No

Packing Material: Bubble Wrap ___ Bubble Bags ___ None ___ Other _____

Thermometer Used 8 **Type of Ice:** Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.1 °C **Correction Factor:** -0.4 °C **Final Temp:** 5.7 °C

Date and initials of person examining contents: AAL 7/8/15

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present:	☒Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☒Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☒Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☒Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☒Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☒No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☒No	☐N/A	7.
Sufficient Volume:	☒Yes	☐No	☐N/A	8.
Correct Containers Used:	☒Yes	☐No	☐N/A	9.
-Pace Containers Used:	☒Yes	☐No	☐N/A	
Containers Intact:	☒Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☒N/A	11.
Sample Labels match COC:	☒Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL				
All containers needing preservation have been checked.	☐Yes	☐No	☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes	☐No	☒N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes	☒No		Initial when completed AAL / Lot # of added preservative
Samples checked for dechlorination:	☐Yes	☐No	☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☒N/A	15.
Trip Blank Present:	☐Yes	☐No	☒N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☒N/A	
Pace Trip Blank Lot # (if purchased): _____				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 7/9/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30152810

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
ea	4	2																						

NELAP CERTIFICATE NUMBER: 01955
DOD ELAP CERTIFICATE NUMBER: L14-243

ANALYTICAL RESULTS

PERFORMED BY

GCAL, LLC
7979 Innovation Park Dr.
Baton Rouge, LA 70820

Report Date 09/08/2015

GCAL Report 215082614

Project Eisenbarth Consent Order

Deliver To
Leah Mistick
Moody & Associates, Inc.
199 S. Johnson Rd
Bldg 2, Ste 101
Houston, PA 15342
724-746-5200

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations that may be Utilized in this Report

ND	Indicates the result was Not Detected at the specified reporting limit
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
DL	Detection Limit
DL	Diluted analysis – when appended to Client Sample ID
LOD	Limit of Detection
LOQ	Limit of Quantitation
RE	Re-analysis
N	Metals Matrix Spike or Matrix Spike Duplicate Recovery is outside control limits
00:00	Reported as a time equivalent to 12:00 AM

Reporting Flags that may be Utilized in this Report

J or I	Indicates the result is between the MDL and LOQ
U	Indicates the compound was analyzed for but not detected
B	Indicates the analyte was detected in the associated Method Blank
Q	Indicates a non-compliant QC Result (See Q Flag Application Report)
*****	Indicates a non-compliant or not applicable QC recovery or RPD

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the NELAC standard and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

_____
Authorized Signature
GCAL Report 215082614

Case Narrative

Client: Moody & Associates, Inc. **Report:** 215082614

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the Report Sample Summary page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

SEMI-VOLATILES MASS SPECTROMETRY

In the TTPC analysis for prep batch 566469, the RLC recovery is slightly the upper control limit. The LCS/LCSD recoveries are acceptable.

Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21508261401	HAOH0824SW04	Water	08/24/2015 13:10	08/26/2015 10:07
21508261402	HAOH0824SW08	Water	08/24/2015 10:15	08/26/2015 10:07
21508261403	HAOH0824SW08DUP	Water	08/24/2015 10:40	08/26/2015 10:07
21508261404	HAOH0824SW15	Water	08/24/2015 11:30	08/26/2015 10:07
21508261405	HAOH0824SW20	Water	08/24/2015 14:10	08/26/2015 10:07
21508261406	HAOH0824SW001	Water	08/24/2015 14:10	08/26/2015 10:07
21508261407	HAOH0824SW24	Water	08/24/2015 11:40	08/26/2015 10:07
21508261408	HAOH0824PD03	Water	08/24/2015 10:50	08/26/2015 10:07
21508261409	HAOH0824PD07	Water	08/24/2015 12:30	08/26/2015 10:07
21508261410	HAOH0824SW06	Water	08/24/2015 13:28	08/26/2015 10:07
21508261411	HAOH0824SW17	Water	08/24/2015 12:01	08/26/2015 10:07
21508261412	HAOH0824SW18	Water	08/24/2015 10:58	08/26/2015 10:07
21508261413	HAOH0824SW21	Water	08/24/2015 13:56	08/26/2015 10:07
21508261414	HAOH0824SW25	Water	08/24/2015 12:51	08/26/2015 10:07

Summary of Compounds Detected

HAOH0824SW04	Collect Date	08/24/2015 13:10	GCAL ID	21508261401
	Receive Date	08/26/2015 10:07	Matrix	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	43.8J	14.3	100	ng/L

HAOH0824SW08	Collect Date	08/24/2015 10:15	GCAL ID	21508261402
	Receive Date	08/26/2015 10:07	Matrix	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	18.5J	14.3	100	ng/L

HAOH0824SW06	Collect Date	08/24/2015 13:28	GCAL ID	21508261410
	Receive Date	08/26/2015 10:07	Matrix	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	52.3J	14.3	100	ng/L

HAOH0824SW17	Collect Date	08/24/2015 12:01	GCAL ID	21508261411
	Receive Date	08/26/2015 10:07	Matrix	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	43.8J	14.3	100	ng/L

HAOH0824SW21	Collect Date	08/24/2015 13:56	GCAL ID	21508261413
	Receive Date	08/26/2015 10:07	Matrix	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	112	14.3	100	ng/L

Summary of Compounds Detected

HAOH0824SW25	Collect Date	08/24/2015 12:51	GCAL ID	21508261414
	Receive Date	08/26/2015 10:07	Matrix	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	33.9J	14.3	100	ng/L

Sample Results

HAOH0824SW04

Collect Date	08/24/2015 13:10	**GCAL ID**	21508261401
Receive Date	08/26/2015 10:07	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
09/01/2015 10:30	566469	GCAL SOP LCMS-001	1	09/02/2015 19:41	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**43.8J**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/01/2015 15:34	SDD	566736

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

GCAL SOP HPLC-009

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
08/27/2015 11:00	566317	GCAL SOP HPLC-009	1	08/31/2015 08:23	DLB	566696

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	0.850U	0.850	2.50	ug/L

HAOH0824SW08

Collect Date	08/24/2015 10:15	**GCAL ID**	21508261402
Receive Date	08/26/2015 10:07	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
09/01/2015 10:30	566469	GCAL SOP LCMS-001	1	09/02/2015 20:19	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**18.5J**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/01/2015 15:48	SDD	566736

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L

Sample Results

HAOH0824SW08

Collect Date	08/24/2015 10:15	**GCAL ID**	21508261402
Receive Date	08/26/2015 10:07	**Matrix**	Water

EPA 8015C (Continued)

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/01/2015 15:48	SDD	566736

CAS#	Parameter	Result	DL	LOQ	Units
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

HAOH0824SW08DUP

Collect Date	08/24/2015 10:40	**GCAL ID**	21508261403
Receive Date	08/26/2015 10:07	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
09/01/2015 10:30	566469	GCAL SOP LCMS-001	1	09/02/2015 20:31	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	14.3U	14.3	100	ng/L

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/01/2015 16:03	SDD	566736

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

HAOH0824SW15

Collect Date	08/24/2015 11:30	**GCAL ID**	21508261404
Receive Date	08/26/2015 10:07	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
09/01/2015 10:30	566469	GCAL SOP LCMS-001	1	09/02/2015 20:44	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	14.3U	14.3	100	ng/L

Sample Results

HAOH0824SW15

Collect Date	08/24/2015 11:30	**GCAL ID**	21508261404
Receive Date	08/26/2015 10:07	**Matrix**	Water

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/01/2015 16:17	SDD	566736

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

HAOH0824SW20

Collect Date	08/24/2015 14:10	**GCAL ID**	21508261405
Receive Date	08/26/2015 10:07	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
09/01/2015 10:30	566469	GCAL SOP LCMS-001	1	09/02/2015 20:56	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	14.3U	14.3	100	ng/L

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/01/2015 16:32	SDD	566736

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

HAOH0824SW001

Collect Date	08/24/2015 14:10	**GCAL ID**	21508261406
Receive Date	08/26/2015 10:07	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
09/01/2015 10:30	566469	GCAL SOP LCMS-001	1	09/02/2015 21:09	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	14.3U	14.3	100	ng/L

Sample Results

HAOH0824SW001

Collect Date	08/24/2015 14:10	**GCAL ID**	21508261406
Receive Date	08/26/2015 10:07	**Matrix**	Water

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/01/2015 16:46	SDD	566736

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

GCAL SOP HPLC-009

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
08/27/2015 11:00	566317	GCAL SOP HPLC-009	1	08/31/2015 08:37	DLB	566696

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	0.850U	0.850	2.50	ug/L

HAOH0824SW24

Collect Date	08/24/2015 11:40	**GCAL ID**	21508261407
Receive Date	08/26/2015 10:07	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
09/01/2015 10:30	566469	GCAL SOP LCMS-001	1	09/02/2015 21:47	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	14.3U	14.3	100	ng/L

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/01/2015 17:01	SDD	566736

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

Sample Results

HAOH0824PD03

Collect Date	08/24/2015 10:50	**GCAL ID**	21508261408
Receive Date	08/26/2015 10:07	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
09/01/2015 10:30	566469	GCAL SOP LCMS-001	1	09/02/2015 21:59	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	14.3U	14.3	100	ng/L

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/01/2015 17:15	SDD	566736

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

HAOH0824PD07

Collect Date	08/24/2015 12:30	**GCAL ID**	21508261409
Receive Date	08/26/2015 10:07	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
09/01/2015 10:30	566469	GCAL SOP LCMS-001	1	09/02/2015 22:12	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	14.3U	14.3	100	ng/L

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/01/2015 17:30	SDD	566736

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

Sample Results

HAOH0824SW06

Collect Date	08/24/2015 13:28	**GCAL ID**	21508261410
Receive Date	08/26/2015 10:07	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
09/01/2015 10:30	566469	GCAL SOP LCMS-001	1	09/02/2015 21:22	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**52.3J**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/01/2015 17:44	SDD	566736

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

GCAL SOP HPLC-009

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
08/27/2015 11:00	566317	GCAL SOP HPLC-009	1	08/31/2015 08:50	DLB	566696

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	0.850U	0.850	2.50	ug/L

HAOH0824SW17

Collect Date	08/24/2015 12:01	**GCAL ID**	21508261411
Receive Date	08/26/2015 10:07	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
09/01/2015 10:30	566469	GCAL SOP LCMS-001	1	09/02/2015 22:25	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**43.8J**	**14.3**	**100**	**ng/L**

Sample Results

HAOH0824SW17

Collect Date	08/24/2015 12:01	**GCAL ID**	21508261411
Receive Date	08/26/2015 10:07	**Matrix**	Water

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/01/2015 17:58	SDD	566736

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

HAOH0824SW18

Collect Date	08/24/2015 10:58	**GCAL ID**	21508261412
Receive Date	08/26/2015 10:07	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
09/01/2015 10:30	566469	GCAL SOP LCMS-001	1	09/02/2015 21:34	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	14.3U	14.3	100	ng/L

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/01/2015 18:13	SDD	566736

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

GCAL SOP HPLC-009

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
08/27/2015 11:00	566317	GCAL SOP HPLC-009	1	08/31/2015 09:04	DLB	566696

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	0.850U	0.850	2.50	ug/L

Sample Results

HAOH0824SW21

Collect Date	08/24/2015 13:56	**GCAL ID**	21508261413
Receive Date	08/26/2015 10:07	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
09/01/2015 10:30	566469	GCAL SOP LCMS-001	1	09/02/2015 22:37	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**112**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/01/2015 18:27	SDD	566736

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

HAOH0824SW25

Collect Date	08/24/2015 12:51	**GCAL ID**	21508261414
Receive Date	08/26/2015 10:07	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
09/01/2015 10:30	566469	GCAL SOP LCMS-001	1	09/02/2015 22:50	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**33.9J**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/01/2015 18:41	SDD	566736

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

LC/MS QC Summary

Analytical Batch	Client ID	MB566469		RLC566469			
566986	GCAL ID	1481534		1481537			
Prep Batch	Sample Type	MB		RLC			
566469	Prep Date	09/01/2015 10:30		09/01/2015 10:30			
Prep Method	Analysis Date	09/02/2015 18:51		09/03/2015 16:43			
GCAL SOP LCMS-001	Matrix	Water		Water			
GCAL SOP LCMS-001		Units Result	ng/L DL	Spike Added	Result	%R	Control Limits%R
TTPC	81741-28-8	14.3U	14.3	100	132	**132***	70 - 130

Analytical Batch	Client ID	MB566469		LCS566469				LCSD566469				
566986	GCAL ID	1481534		1481535				1481536				
Prep Batch	Sample Type	MB		LCS				LCSD				
566469	Prep Date	09/01/2015 10:30		09/01/2015 10:30				09/01/2015 10:30				
Prep Method	Analysis Date	09/02/2015 18:51		09/02/2015 19:16				09/02/2015 19:28				
GCAL SOP LCMS-001	Matrix	Water		Water				Water				
GCAL SOP LCMS-001		Units Result	ng/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
TTPC	81741-28-8	14.3U	14.3	2000	1740	87	56 - 99	2000	1820	91	5	30

Analytical Batch	Client ID	HAOH0824SW04		1480555MS				1480555MSD				
566986	GCAL ID	21508261401		1481538				1481539				
Prep Batch	Sample Type	SAMPLE		MS				MSD				
566469	Prep Date	09/01/2015 10:30		09/01/2015 10:30				09/01/2015 10:30				
Prep Method	Analysis Date	09/02/2015 19:41		09/02/2015 19:54				09/02/2015 20:06				
GCAL SOP LCMS-001	Matrix	Water		Water				Water				
GCAL SOP LCMS-001		Units Result	ng/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
TTPC	81741-28-8	43.8	14.3	2000	1740	85	56 - 99	2000	1910	93	9	30

GC Semi-Volatiles QC Summary

Analytical Batch 566736	Client ID	MB566736		LCS566736			
	GCAL ID	1482599		1482600			
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	09/01/2015 14:36		09/01/2015 14:50			
	Matrix	Water		Water			
EPA 8015C		Units Result	mg/L DL	Spike Added	Result	%R	Control Limits%R
Acetone	67-64-1	0.270U	0.270	25.0	22.9	92	50 - 150
Isopropyl Alcohol	67-63-0	0.231U	0.231	25.0	21.3	85	50 - 150

Analytical Batch 566736	Client ID	HAOH0824SW04		1480555MS				1480555MSD				
	GCAL ID	21508261401		1482601				1482602				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA		NA				NA				
	Analysis Date	09/01/2015 15:34		09/01/2015 15:05				09/01/2015 15:19				
	Matrix	Water		Water				Water				
EPA 8015C		Units Result	mg/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Acetone	67-64-1	0.00	0.270	25.0	23.6	94	50 - 150	25.0	23.4	94	1	40
Isopropyl Alcohol	67-63-0	0.00	0.231	25.0	22.8	91	50 - 150	25.0	26.2	105	14	40

General Chromatography QC Summary

Analytical Batch	Client ID	MB566317		LCS566317				LCSD566317				
566696	GCAL ID	1480703		1480704				1480705				
Prep Batch	Sample Type	MB		LCS				LCSD				
566317	Prep Date	08/27/2015 11:00		08/27/2015 11:00				08/27/2015 11:00				
Prep Method	Analysis Date	08/31/2015 07:43		08/31/2015 07:56				08/31/2015 08:10				
GCAL SOP HPLC-009	Matrix	Water		Water				Water				
GCAL SOP HPLC-009		Units Result	ug/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
TTPC	81741-28-8	0.850U	0.850	1000	620	62	40 - 120	1000	543	54	13	30

GCAL ANALYTICAL LABORATORIES, LLC

7979 Innovation Park Drive | Baton Rouge, LA 70820-7402

225.769.4900 | www.gcal.com

CHAIN OF CUSTODY RECORD

Client ID: 4896 - Moody & Associates, Inc.

SDG: 215082614

Report To:
Client: Moody & Associates, Inc.
Address: 199 South Johnson Rd
Houston, PA 15342
Contact: Leah Mistick
Phone: 724-746-5200
Email: lmistick@moody-s.com

Bill To:
Client: Moody & Associates, Inc.
Address: 199 South Johnson Rd
Houston, PA 15342
Contact: Leah Mistick
Phone: 724-746-5200
Email: lmistick@moody-s.com

P.O. Number: 14-467-LM

Project Name/Number: Eisenbarth Consent Order

Sampled By: [signature]

Analytical Requests & Method

Custody Seal:
Used: ☐ Yes ☐ No
Intact: ☐ Yes ☐ No

Temperature: 0.8E24

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None							← Preservative / Notes ↓	GCAL ID
W	08/24/15	1310		X	HAOH0824SW04	5	X	X	X	X								1
W	08/24/15	1015		X	HAOH0824SW08	4	X		X	X								2
W	08/24/15	1040		X	HAOH0824SW08DUP	4	X		X	X								3
W	08/24/15	1130		X	HAOH0824SW15	4	X		X	X								4
W	08/24/15	1410		X	HAOH0824SW20	4	X		X	X								5

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☑ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[signature]	8/24/15 1700	[signature]	8/25/15 0900
[signature]	8/25/15 0900		
VPS	8/26/15 10:07	Didi McCune	8/26/15 10:07

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue.

*- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

GCAL ANALYTICAL LABORATORIES, LLC

7979 Innovation Park Drive | Baton Rouge, LA 70820-7402

225.769.4900 | www.gcal.com

CHAIN OF CUSTODY RECORD

Client ID: 4896 - Moody & Associates, Inc.

SDG: 215082614

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd	Address:	199 South Johnson Rd
	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

P.O. Number: 14-467-LM

Project Name/Number: Eisenbarth Consent Order

Sampled By: Josh Boyda

Custody Seal: Used: ☐ Yes ☐ No; Intact: ☐ Yes ☐ No

Temperature: 0.8E24

☐ Dissolved Analysis Requested ☐ Field Filtered ☐ Lab Filtered

Analytical Requests & Method

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) HCl	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) HCl	Acetone (8015 Method) HCl	← Preservative / Notes ↓	GCAL ID
W	08/24/15	1410		X	HAOH0824SW001	5	x	x	x	x		6
W	08/24/15			X	HAOH0824SW02						DRY*	
W	08/24/15	1140		X	HAOH0824SW24	4	x		x	x		7
W	08/24/15	1050		X	HAOH0824PD03	4	x		x	x		8
W	08/24/15	1230		X	HAOH0824PD07	4	x		x	x		9

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☑ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[signature]	8/24/15 1815	[signature]	8/24/15 0900
[signature]	8/25/15 0900		
VPS	8-26-15 10:07	Dodi McCune	8-26-15 10:07

Notes: * No sample received. KBL 8-26-15.

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

GCAL ANALYTICAL LABORATORIES, LLC

7979 Innovation Park Drive | Baton Rouge, LA 70820-7402

225.769.4900 | www.gcal.com

CHAIN OF CUSTODY RECORD

Client ID: 4896 - Moody & Associates, Inc.

SDG: 215082614

Report To:
Client: Moody & Associates, Inc.
Address: 199 South Johnson Rd
Houston, PA 15342
Contact: Leah Mistick
Phone: 724-746-5200
Email: lmistick@moody-s.com

Bill To:
Client: Moody & Associates, Inc.
Address: 199 South Johnson Rd
Houston, PA 15342
Contact: Leah Mistick
Phone: 724-746-5200
Email: lmistick@moody-s.com

P.O. Number: 14-467-LM

Project Name/Number: Eisenbarth Consent Order

Sampled By:

Custody Seal:
Used: ☐ Yes ☐ No
Intact: ☐ Yes ☐ No

Temperature: 0.8E24

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

Analytical Requests & Method

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None	← Preservative / Notes ↓	GCAL ID
W	08/24/15	1328		X	HAOH0824SW06	5	X	X	X	X		10
W	08/24/15	1201		X	HAOH0824SW17	4	X		X	X		11
W	08/24/15	1058		X	HAOH0824SW18	5	X	X	X	X		12
W	08/24/15	1356		X	HAOH0824SW21	4	X		X	X		13
W	08/24/15	1251		X	HAOH0824SW25	4	X		X	X		14

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☑ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
	8/24/15 1700		8/25/15 0900
	8/25/15 0900		
UPS	8-26-15	10:07 Dodie McCune	8-26-15 10:07

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

GCAL ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIVING CHECKLIST

215082614

SAMPLE DELIVERY GROUP 215082614

Client PM KBL 4896 - Moody & Associates, Inc.	**Transport Method** UPS
Profile Number 251668	**Received By** McCune, Dodie N.
Line Item(s) 2 - Waters	**Receive Date(s)** 08/26/15

CHECKLIST	YES	NO	NA
Were all samples received using proper thermal preservation?	☑	☐	☐
When used, were all custody seals intact?	☑	☐	☐
Were all samples received in proper containers?	☑	☐	☐
Were all samples received using proper chemical preservation?	☑	☐	☐
Was preservative added to any container at the lab?	☐	☑	☐
Were all containers received in good condition?	☑	☐	☐
Were all VOA vials received with no head space?	☑	☐	☐
Do all sample labels match the Chain of Custody?	☑	☐	☐
Did the Chain of Custody list the sampling technician?	☑	☐	☐
Was the COC maintained i.e. all signatures, dates and time of receipt included?	☐	☑	☐

COOLERS

Airbill	Thermometer ID: E24	Temp(°C)
		0.8

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES

Revision 1.4

Page 1 of 1

NELAP CERTIFICATE NUMBER: 01955
DOD ELAP CERTIFICATE NUMBER: L14-243

ANALYTICAL RESULTS

PERFORMED BY

GCAL, LLC
7979 Innovation Park Dr.
Baton Rouge, LA 70820

Report Date 09/08/2015

GCAL Report 215082613

Project Eisenbarth Consent Order

Deliver To
Leah Mistick
Moody & Associates, Inc.
199 S. Johnson Rd
Bldg 2, Ste 101
Houston, PA 15342
724-746-5200

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations that may be Utilized in this Report

ND	Indicates the result was Not Detected at the specified reporting limit
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
DL	Detection Limit
DL	Diluted analysis – when appended to Client Sample ID
LOD	Limit of Detection
LOQ	Limit of Quantitation
RE	Re-analysis
N	Metals Matrix Spike or Matrix Spike Duplicate Recovery is outside control limits
00:00	Reported as a time equivalent to 12:00 AM

Reporting Flags that may be Utilized in this Report

J or I	Indicates the result is between the MDL and LOQ
U	Indicates the compound was analyzed for but not detected
B	Indicates the analyte was detected in the associated Method Blank
Q	Indicates a non-compliant QC Result (See Q Flag Application Report)
*****	Indicates a non-compliant or not applicable QC recovery or RPD

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the NELAC standard and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

_____
Authorized Signature
GCAL Report 215082613

Case Narrative

Client: Moody & Associates, Inc. **Report:** 215082613

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the Report Sample Summary page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

SEMI-VOLATILES MASS SPECTROMETRY

In the GCAL SOP LCMS-001 analysis, samples 21508261303 (HAOH0824SW18), 21508261305 (HAOH0824SW17), 21508261306 (HAOH0824SW25), 21508261307 (HAOH0824SW04), 21508261308 (HAOH0824SW06) 21508261309 (HAOH0824SW21), and 21508261311 (HAOH0824SW20) had to be diluted to bracket the concentration of target compounds within the calibration range of the instrument. This is reflected in elevated detection limits.

In the GCAL SOP LCMS-001 analysis for prep batch 566470, the MS/MSD exhibited recovery and RPD failures. It is suspected that TTPC is non-homogeneous in the sample matrix. The LCS/LCSD recoveries and RPD are acceptable.

SEMI-VOLATILES GAS CHROMATOGRAPHY

In the EPA 8015 analysis of prep batch 566775, the %D is outside ±20% for Isopropyl Alcohol in the closing CCV. The response is high and this analyte was not detected in the associated samples.

Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21508261301	HAOH0824SW08	Solid	08/24/2015 10:15	08/26/2015 10:07
21508261302	HAOH0824SW08DUP	Solid	08/24/2015 10:40	08/26/2015 10:07
21508261303	HAOH0824SW18	Solid	08/24/2015 10:58	08/26/2015 10:07
21508261304	HAOH0824SW15	Solid	08/24/2015 11:30	08/26/2015 10:07
21508261305	HAOH0824SW17	Solid	08/24/2015 12:01	08/26/2015 10:07
21508261306	HAOH0824SW25	Solid	08/24/2015 12:51	08/26/2015 10:07
21508261307	HAOH0824SW04	Solid	08/24/2015 13:10	08/26/2015 10:07
21508261308	HAOH0824SW06	Solid	08/24/2015 13:28	08/26/2015 10:07
21508261309	HAOH0824SW21	Solid	08/24/2015 13:56	08/26/2015 10:07
21508261310	HAOH0824SW001	Solid	08/24/2015 14:10	08/26/2015 10:07
21508261311	HAOH0824SW20	Solid	08/24/2015 14:10	08/26/2015 10:07

Summary of Compounds Detected

HAOH0824SW08	Collect Date	08/24/2015 10:15	GCAL ID	21508261301
	Receive Date	08/26/2015 10:07	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	10900	69.5	504	ng/Kg

HAOH0824SW08DUP	Collect Date	08/24/2015 10:40	GCAL ID	21508261302
	Receive Date	08/26/2015 10:07	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	5790	68.8	498	ng/Kg

HAOH0824SW18	Collect Date	08/24/2015 10:58	GCAL ID	21508261303
	Receive Date	08/26/2015 10:07	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	3940000	24900	181000	ng/Kg

HAOH0824SW15	Collect Date	08/24/2015 11:30	GCAL ID	21508261304
	Receive Date	08/26/2015 10:07	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	83.8J	54.5	395	ng/Kg

HAOH0824SW17	Collect Date	08/24/2015 12:01	GCAL ID	21508261305
	Receive Date	08/26/2015 10:07	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	8070000	97500	707000	ng/Kg

Summary of Compounds Detected

HAOH0824SW25

Collect Date	08/24/2015 12:51	**GCAL ID**	21508261306
Receive Date	08/26/2015 10:07	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	94600000	571000	4140000	ng/Kg

HAOH0824SW04

Collect Date	08/24/2015 13:10	**GCAL ID**	21508261307
Receive Date	08/26/2015 10:07	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	10300	463	3360	ng/Kg

HAOH0824SW06

Collect Date	08/24/2015 13:28	**GCAL ID**	21508261308
Receive Date	08/26/2015 10:07	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	1040000	100000	727000	ng/Kg

HAOH0824SW21

Collect Date	08/24/2015 13:56	**GCAL ID**	21508261309
Receive Date	08/26/2015 10:07	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	29700000	237000	1710000	ng/Kg

HAOH0824SW001

Collect Date	08/24/2015 14:10	**GCAL ID**	21508261310
Receive Date	08/26/2015 10:07	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	306J	131	950	ng/Kg

Summary of Compounds Detected

HAOH0824SW20	**Collect Date**	08/24/2015 14:10	**GCAL ID**	21508261311
	Receive Date	08/26/2015 10:07	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	1760000	24700	179000	ng/Kg

Sample Results

HAOH0824SW08	Collect Date	08/24/2015 10:15	GCAL ID	21508261301
	Receive Date	08/26/2015 10:07	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
08/31/2015 10:30	566470	EPA 3550C	1	09/03/2015 02:44	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**10900**	**69.5**	**504**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/02/2015 08:25	SDD	566775

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	606U	606	2290	ug/Kg
67-63-0	Isopropyl Alcohol	1030U	1030	2290	ug/Kg

HAOH0824SW08DUP	Collect Date	08/24/2015 10:40	GCAL ID	21508261302
	Receive Date	08/26/2015 10:07	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
08/31/2015 10:30	566470	EPA 3550C	1	09/03/2015 03:21	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**5790**	**68.8**	**498**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/02/2015 08:39	SDD	566775

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	677U	677	2560	ug/Kg
67-63-0	Isopropyl Alcohol	1150U	1150	2560	ug/Kg

Sample Results

HAOH0824SW18

Collect Date	08/24/2015 10:58	**GCAL ID**	21508261303
Receive Date	08/26/2015 10:07	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
08/31/2015 10:30	566470	EPA 3550C	500	09/03/2015 03:34	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**3940000**	**24900**	**181000**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/02/2015 08:53	SDD	566775

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	456U	456	1720	ug/Kg
67-63-0	Isopropyl Alcohol	774U	774	1720	ug/Kg

GCAL SOP HPLC-009 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
08/28/2015 14:30	566414	GCAL SOP HPLC-009	1	08/31/2015 10:11	DLB	566696

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	74.5U	74.5	121	ug/Kg

HAOH0824SW15

Collect Date	08/24/2015 11:30	**GCAL ID**	21508261304
Receive Date	08/26/2015 10:07	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
08/31/2015 10:30	566470	EPA 3550C	1	09/03/2015 03:46	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**83.8J**	**54.5**	**395**	**ng/Kg**

Sample Results

HAOH0824SW15

Collect Date	08/24/2015 11:30	**GCAL ID**	21508261304
Receive Date	08/26/2015 10:07	**Matrix**	Solid

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/02/2015 09:07	SDD	566775

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	498U	498	1880	ug/Kg
67-63-0	Isopropyl Alcohol	845U	845	1880	ug/Kg

HAOH0824SW17

Collect Date	08/24/2015 12:01	**GCAL ID**	21508261305
Receive Date	08/26/2015 10:07	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
08/31/2015 10:30	566470	EPA 3550C	2000	09/03/2015 03:59	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**8070000**	**97500**	**707000**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/02/2015 09:21	SDD	566775

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	435U	435	1640	ug/Kg
67-63-0	Isopropyl Alcohol	739U	739	1640	ug/Kg

HAOH0824SW25

Collect Date	08/24/2015 12:51	**GCAL ID**	21508261306
Receive Date	08/26/2015 10:07	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
08/31/2015 10:30	566470	EPA 3550C	10000	09/03/2015 04:12	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**94600000**	**571000**	**4140000**	**ng/Kg**

Sample Results

HAOH0824SW25	Collect Date	08/24/2015 12:51	GCAL ID	21508261306
	Receive Date	08/26/2015 10:07	Matrix	Solid

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/02/2015 09:35	SDD	566775

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	562U	562	2120	ug/Kg
67-63-0	Isopropyl Alcohol	954U	954	2120	ug/Kg

HAOH0824SW04	Collect Date	08/24/2015 13:10	GCAL ID	21508261307
	Receive Date	08/26/2015 10:07	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
08/31/2015 10:30	566470	EPA 3550C	10	09/03/2015 04:24	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**10300**	**463**	**3360**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/02/2015 09:49	SDD	566775

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	456U	456	1720	ug/Kg
67-63-0	Isopropyl Alcohol	774U	774	1720	ug/Kg

GCAL SOP HPLC-009 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
08/28/2015 14:30	566414	GCAL SOP HPLC-009	1	08/31/2015 10:25	DLB	566696

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	69.1U	69.1	112	ug/Kg

Sample Results

HAOH0824SW06

Collect Date	08/24/2015 13:28	**GCAL ID**	21508261308
Receive Date	08/26/2015 10:07	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
08/31/2015 10:30	566470	EPA 3550C	2000	09/03/2015 17:40	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**1040000**	**100000**	**727000**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/02/2015 10:03	SDD	566775

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	448U	448	1690	ug/Kg
67-63-0	Isopropyl Alcohol	761U	761	1690	ug/Kg

GCAL SOP HPLC-009 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
08/28/2015 14:30	566414	GCAL SOP HPLC-009	1	08/31/2015 10:38	DLB	566696

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	74.9U	74.9	121	ug/Kg

HAOH0824SW21

Collect Date	08/24/2015 13:56	**GCAL ID**	21508261309
Receive Date	08/26/2015 10:07	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
08/31/2015 10:30	566470	EPA 3550C	5000	09/03/2015 04:49	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**29700000**	**237000**	**1710000**	**ng/Kg**

Sample Results

HAOH0824SW21	Collect Date	08/24/2015 13:56	GCAL ID	21508261309
	Receive Date	08/26/2015 10:07	Matrix	Solid

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/02/2015 10:17	SDD	566775

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	363U	363	1370	ug/Kg
67-63-0	Isopropyl Alcohol	617U	617	1370	ug/Kg

HAOH0824SW001	Collect Date	08/24/2015 14:10	GCAL ID	21508261310
	Receive Date	08/26/2015 10:07	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
08/31/2015 10:30	566470	EPA 3550C	1	09/03/2015 16:05	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**306J**	**131**	**950**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/02/2015 10:32	SDD	566775

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	1170U	1170	4420	ug/Kg
67-63-0	Isopropyl Alcohol	1990U	1990	4420	ug/Kg

GCAL SOP HPLC-009 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
08/28/2015 14:30	566414	GCAL SOP HPLC-009	1	08/31/2015 10:52	DLB	566696

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	196U	196	317	ug/Kg

Sample Results

HAOH0824SW20	**Collect Date**	08/24/2015 14:10	**GCAL ID**	21508261311
	Receive Date	08/26/2015 10:07	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
08/31/2015 10:30	566470	EPA 3550C	500	09/03/2015 16:18	CEK	566986

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**1760000**	**24700**	**179000**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	09/02/2015 10:46	SDD	566775

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	452U	452	1710	ug/Kg
67-63-0	Isopropyl Alcohol	768U	768	1710	ug/Kg

LC/MS QC Summary

Analytical Batch	Client ID	MB566470		RLC566470			
566986	GCAL ID	1481542		1481545			
Prep Batch	Sample Type	MB		RLC			
566470	Prep Date	08/31/2015 10:30		08/31/2015 10:30			
Prep Method	Analysis Date	09/03/2015 01:53		09/03/2015 17:08			
EPA 3550C	Matrix	Solid		Solid			
GCAL SOP LCMS-001		Units Result	ng/Kg DL	Spike Added	Result	%R	Control Limits%R
TTPC	81741-28-8	34.5U	34.5	250	325	130	60 - 140

Analytical Batch	Client ID	MB566470		LCS566470				LCSD566470				
566986	GCAL ID	1481542		1481543				1481544				
Prep Batch	Sample Type	MB		LCS				LCSD				
566470	Prep Date	08/31/2015 10:30		08/31/2015 10:30				08/31/2015 10:30				
Prep Method	Analysis Date	09/03/2015 01:53		09/03/2015 02:18				09/03/2015 02:31				
EPA 3550C	Matrix	Solid		Solid				Solid				
GCAL SOP LCMS-001		Units Result	ng/Kg DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
TTPC	81741-28-8	34.5U	34.5	2500	1840	74	60 - 140	2500	2030	81	10	30

Analytical Batch	Client ID	HAOH0824SW08		1480554MS				1480554MSD				
566986	GCAL ID	21508261301		1481546				1481547				
Prep Batch	Sample Type	SAMPLE		MS				MSD				
566470	Prep Date	08/31/2015 10:30		08/31/2015 10:30				08/31/2015 10:30				
Prep Method	Analysis Date	09/03/2015 02:44		09/03/2015 02:56				09/03/2015 03:09				
EPA 3550C	Matrix	Solid		Solid				Solid				
GCAL SOP LCMS-001		Units Result	ng/Kg DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
TTPC	81741-28-8	10900	69.5	5040	12000	23*	60 - 140	5040	8720	-43*	32*	30

GC Semi-Volatiles QC Summary

Analytical Batch 566775	Client ID	MB566775		LCS566775			
	GCAL ID	1482709		1482710			
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	09/02/2015 07:28		09/02/2015 07:42			
	Matrix	Solid		Solid			
EPA 8015C		Units Result	ug/Kg DL	Spike Added	Result	%R	Control Limits%R
Acetone	67-64-1	301U	301	55600	53900	97	50 - 150
Isopropyl Alcohol	67-63-0	511U	511	55600	50800	91	50 - 150

Analytical Batch 566775	Client ID	HAOH0824SW08		1480554MS				1480554MSD				
	GCAL ID	21508261301		1482711				1482712				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA		NA				NA				
	Analysis Date	09/02/2015 08:25		09/02/2015 07:57				09/02/2015 08:11				
	Matrix	Solid		Solid				Solid				
EPA 8015C		Units Result	ug/Kg DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Acetone	67-64-1	0.00	620	117000	107000	91	50 - 150	120000	105000	88	2	40
Isopropyl Alcohol	67-63-0	0.00	1050	117000	103000	88	50 - 150	120000	101000	84	2	40

General Chromatography QC Summary

Analytical Batch	Client ID	MB566414		LCS566414				LCSD566414				
566696	GCAL ID	1481247		1481248				1481249				
Prep Batch	Sample Type	MB		LCS				LCSD				
566414	Prep Date	08/28/2015 14:30		08/28/2015 14:30				08/28/2015 14:30				
Prep Method	Analysis Date	08/31/2015 09:17		08/31/2015 09:31				08/31/2015 09:44				
GCAL SOP HPLC-009	Matrix	Solid		Solid				Solid				
GCAL SOP HPLC-009		Units Result	ug/Kg DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
TTPC	81741-28-8	51.5U	51.5	16700	8030	48	40 - 120	16700	6730	40	18	30

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225.769.4900 | www.gcal.com

CHAIN OF CUSTODY RECORD

Client ID: 4896 - Moody & Associates, Inc.
SDG: 215082613

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd Houston, PA 15342	Address:	199 South Johnson Rd Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal:
Used: ☑ Yes ☐ No
Intact: ☑ Yes ☐ No
Temperature: 0.8 E24

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

P.O. Number: 14-467-LM
Project Name/Number: **Eisenbarth Consent Order**
Sampled By: [signature]

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None	← Preservative / Notes ↓	GCAL ID
S	08/24/15	1015		X	HAOH0824SW08	1	x		x	x		1

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☑ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[signature]	8/24/15 1700	[signature]	8/25/15 0900
[signature]	8/25/15 0900	[signature]	8/26/15 1007
Fedex KF UPS	8/26/15 1007	[signature]	8/26 1007

Notes: KF

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue.

*Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

GCAL ANALYTICAL LABORATORIES, LLC

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225.769.4900 | www.gcal.com

CHAIN OF CUSTODY RECOR

Client ID: 4896 - Moody & Associates, Inc.

SDG: 215082613

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd	Address:	199 South Johnson Rd
	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal: Used: ☐ Yes ☐ No Intact: ☐ Yes ☐ No

Temperature: 0.8 E24

P.O. Number: 14-467-LM

Project Name/Number: **Eisenbarth Consent Order**

Sampled By: [signature]

☐ Dissolved Analysis Requested ☐ Field Filtered ☐ Lab Filtered

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None	← Preservative / Notes ↓	GCAL ID
S	08/24/15	1040		X	HAOH0824SW08DUP	1	x		x	x		2

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☑ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[signature]	8/24/15 1700	[signature]	8/25/15 0800
Fedex	8/25/15 0900		
Fedex UPS	8/26 1007	[signature]	8/26 1007

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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CHAIN OF CUSTODY RECORD

Client ID: 4896 - Moody & Associates, Inc.

SDG: 215082613

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd	Address:	199 South Johnson Rd
	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

P.O. Number: 14-467-LM

Project Name/Number: **Eisenbarth Consent Order**

Sampled By:

Custody Seal: Used: ☐ Yes ☐ No Intact: ☐ Yes ☐ No E24

Temperature: 0.8

☐ Dissolved Analysis Requested ☐ Field Filtered ☐ Lab Filtered

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None	← Preservative / Notes ↓	GCAL ID
S	08/24/15	1058		X	HAOH0824SW18	1	x	x	x	x		3

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☑ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
	8/24/15 1700		8/25/15 900
	8/25/15 900		
Fedex 113 UPS	8/26/15 1007		8-26 1007

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. * Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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CHAIN OF CUSTODY RECOR

Client ID: 4896 - Moody & Associates, Inc.

SDG: 215082613

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd	Address:	199 South Johnson Rd
	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

P.O. Number: 14-467-LM

Project Name/Number: **Eisenbarth Consent Order**

Sampled By: [signature]

Custody Seal: Used: ☐ Yes ☐ No Intact: ☐ Yes ☐ No

Temperature: 0.8 EDY

☐ Dissolved Analysis Requested ☐ Field Filtered ☐ Lab Filtered

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None	← Preservative / Notes ↓	GCAL ID
S	08/24/15	1130		X	HAOH0824SW15	1	x		x	x		4

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☑ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[signature]	8/24/15 1700	[signature]	8/25/15 0900
[signature]	8/25/15 0900		
Fedex UPS	8/26 1007	[signature]	8/26 1007

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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CHAIN OF CUSTODY RECORD

Client ID: 4896 - Moody & Associates, Inc.

SDG: 215082613

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd	Address:	199 South Johnson Rd
	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal:
Used: ☐ Yes ☐ No
Intact: ☐ Yes ☐ No

Temperature: 0.8 E24

P.O. Number: 14-467-LM

Project Name/Number: **Eisenbarth Consent Order**

Sampled By:

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method)	TTPC (HPLC Method)	Isopropyl Alcohol (8015 Method)	Acetone (8015 Method)							← Preservative / Notes ↓	GCAL ID
							None	None	None	None								
S	08/24/15	1201		X	HAOH0824SW17	1	x		x	x								5

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☑ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[signature]	8/24/15 1700	[signature]	8/25/15 0900
[signature]	8/25/15 0900		
UPS	8/24/15 1000	[signature]	8/24/15 1000

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

GCAL ANALYTICAL LABORATORIES, LLC

7979 Innovation Park Drive | Baton Rouge, LA 70820-7402

225.769.4900 | www.gcal.com

CHAIN OF CUSTODY RECORD

Client ID: 4896 - Moody & Associates, Inc.

SDG: 215082613

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd	Address:	199 South Johnson Rd
	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

P.O. Number: 14-467-LM

Project Name/Number: Eisenbarth Consent Order

Sampled By:

Analytical Requests & Method

Custody Seal: Used: ☐ Yes ☐ No; Intact: ☐ Yes ☐ No

Temperature: 0.8 EDY

☐ Dissolved Analysis Requested ☐ Field Filtered ☐ Lab Filtered

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method)	TTPC (HPLC Method)	Isopropyl Alcohol (8015 Method)	Acetone (8015 Method)	← Preservative / Notes ↓	GCAL ID
S	08/24/15	1251		X	HAOH0824SW25	1	x		x	x		6

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☑ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[signature]	8/24/15 1700	[signature]	8/25/15 0900
[signature]	8/25/15 0900		
UPS	8/26 1007	[signature]	8/26 1007

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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CHAIN OF CUSTODY RECORD

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SDG: 215082613

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Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
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	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal:
Used: ☐ Yes ☐ No
Intact: ☐ Yes ☐ No

Temperature: 0.8 E24

P.O. Number: 14-467-LM

Project Name/Number: Eisenbarth Consent Order

Sampled By: [illegible]

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

Analytical Requests & Method

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None							← Preservative / Notes ↓	GCAL ID
S	08/24/15	1310		X	HAOH0824SW04	1	x	x	x	x								7

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☑ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[illegible]	8/24/15 1700	[illegible]	8/25/15 0900
[illegible]	8/25/15 0900		
~~Fedex~~ UPS	8-26-15 1007	[illegible]	8-26-15 1007

Notes:

[1]Matrix: W=Water, S=Solid, L=Liquid, T=Tissue.

*- Requires prior approval, Rush charges may apply.

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CHAIN OF CUSTODY RECOR

Client ID: 4896 - Moody & Associates, Inc.

SDG: 215082613

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd	Address:	199 South Johnson Rd
	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

P.O. Number: 14-467-LM

Project Name/Number: Eisenbarth Consent Order

Sampled By:

Custody Seal: Used: ☐ Yes ☐ No; Intact: ☐ Yes ☐ No

Temperature: 0.8 E24

☐ Dissolved Analysis Requested

☐ Field Filtered

☐ Lab Filtered

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None	← Preservative / Notes ↓	GCAL ID
S	08/24/15	1328		X	HAOH0824SW06	1	x	x	x	x		8

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☑ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[signature]	8/24/15 1700	[signature]	8/25/15 0900
[signature]	8/25/15 0900		
OPS	8/26 1007	[signature]	8/26 1007

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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CHAIN OF CUSTODY RECORD

Client ID: 4896 - Moody & Associates, Inc.

SDG: 215082613

Report To:
Client: Moody & Associates, Inc.
Address: 199 South Johnson Rd
Houston, PA 15342
Contact: Leah Mistick
Phone: 724-746-5200
Email: lmistick@moody-s.com

Bill To:
Client: Moody & Associates, Inc.
Address: 199 South Johnson Rd
Houston, PA 15342
Contact: Leah Mistick
Phone: 724-746-5200
Email: lmistick@moody-s.com

P.O. Number: 14-467-LM

Project Name/Number: Eisenbarth Consent Order

Sampled By:

Analytical Requests & Method

Custody Seal:
Used: ☐ Yes ☐ No
Intact: ☐ Yes ☐ No

Temperature: 0.8 E24

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None							← Preservative / Notes ↓	GCAL ID
S	08/24/15	1356		X	HAOH0824SW21	1	x		x	x								9

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☑ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[signature]	8/24/15 1700	[signature]	8/25/15 0900
[signature]	8/25/15 0900		
[signature]	8/26 1007	[signature]	8/26 1007

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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CHAIN OF CUSTODY RECOR

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SDG: 215082613

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Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal:
Used: ☐ Yes ☐ No
Intact: ☐ Yes ☐ No
Temperature: 0.8 EJA

P.O. Number: 14-467-LM

Project Name/Number: Eisenbarth Consent Order

Sampled By: Josh Boyda

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

Analytical Requests & Method

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None	← Preservative / Notes ↓	GCAL ID
S	08/24/15	1410		X	HAOH0824SW001	1	x	x	x	x		10

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☑ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[signature]	8/24/2015 1515	[signature]	8/24/2015 0900
[signature]	8/25/2015 0900		
OPS	8/26 1007	[signature]	8/26 1007

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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CHAIN OF CUSTODY RECOR

Client ID: 4896 - Moody & Associates, Inc.

SDG: 215082613

Report To:		Bill To:	
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	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal:
Used: ☐ Yes ☐ No
Intact: ☐ Yes ☐ No

Temperature: 0.8 EDY

P.O. Number: 14-467-LM

Project Name/Number: Eisenbarth Consent Order

Sampled By: [signature]

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

Analytical Requests & Method

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None	← Preservative / Notes ↓	GCAL ID
S	08/24/15	1410		X	HAOH0824SW20	1	x		x	x		11

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☑ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[signature]	8/24/15 1700	[signature]	8/25/15 0900
[signature]	8/25/15 0900		
[signature]	8/26 1007	[signature]	8/26 1007

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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SAMPLE RECEIVING CHECKLIST

215082613

SAMPLE DELIVERY GROUP 215082613

Client PM KBL 4896 - Moody & Associates, Inc.	**Transport Method** UPS
Profile Number 251668	**Received By** Lofton, Katie E.
Line Item(s) 1 - Solids	**Receive Date(s)** 08/26/15

CHECKLIST	YES	NO	NA
Were all samples received using proper thermal preservation?	☑	☐	☐
When used, were all custody seals intact?	☑	☐	☐
Were all samples received in proper containers?	☑	☐	☐
Were all samples received using proper chemical preservation?	☐	☐	☑
Was preservative added to any container at the lab?	☐	☑	☐
Were all containers received in good condition?	☑	☐	☐
Were all VOA vials received with no head space?	☐	☐	☑
Do all sample labels match the Chain of Custody?	☑	☐	☐
Did the Chain of Custody list the sampling technician?	☑	☐	☐
Was the COC maintained i.e. all signatures, dates and time of receipt included?	☐	☑	☐

COOLERS

Airbill	Thermometer ID: E24	Temp(°C)
		0.8

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES No "Received By" signature/date/time listed on COC

Revision 1.4

Page 1 of 1

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

September 10, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157381

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory on August 25, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157381

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157381

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30157381001	**HAOH0824SW001**	Water	08/24/15 14:10	08/25/15 15:30
30157381002	**HAOH0824SW24**	Water	08/24/15 11:40	08/25/15 15:30
30157381003	**HAOH0824PD03**	Water	08/24/15 10:50	08/25/15 15:30
30157381004	**HAOH0824PD07**	Water	08/24/15 12:30	08/25/15 15:30

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Greensburg, PA 15601
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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157381

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30157381001	**HAOH0824SW001**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30157381002	**HAOH0824SW24**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30157381003	**HAOH0824PD03**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30157381004	**HAOH0824PD07**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA

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Greensburg, PA 15601
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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157381

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30157381001	**HAOH0824SW001**					
SM 4500-Cl-E	Chloride	46.6	mg/L	3.0	08/28/15 11:41	
30157381002	**HAOH0824SW24**					
SM 4500-Cl-E	Chloride	49.4	mg/L	3.0	08/28/15 11:42	
30157381003	**HAOH0824PD03**					
SM 4500-Cl-E	Chloride	41.4	mg/L	3.0	08/28/15 11:47	
30157381004	**HAOH0824PD07**					
SM 4500-Cl-E	Chloride	82.0	mg/L	3.0	08/28/15 11:48	

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Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157381

Method: **EPA 8015B**
Description: 8015 TPH
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
4 samples were analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: OEXT/25072

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Analyte Comments:

QC Batch: OEXT/25072

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- HAOH0824PD03 (Lab ID: 30157381003)
  - TPH (C10-C28)
- HAOH0824PD07 (Lab ID: 30157381004)
  - TPH (C10-C28)
- HAOH0824SW001 (Lab ID: 30157381001)
  - TPH (C10-C28)
- HAOH0824SW24 (Lab ID: 30157381002)
  - TPH (C10-C28)

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Greensburg, PA 15601
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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157381

Method: **EPA 8015B**
Description: 8015 TPH
Client: Moody and Associates, Inc.
Date: September 10, 2015

Analyte Comments:

QC Batch: OEXT/25072

N2: The lab does not hold TNI accreditation for this parameter.

- BLANK (Lab ID: 945004)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH0824PD03 (Lab ID: 30157381003)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH0824PD07 (Lab ID: 30157381004)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH0824SW001 (Lab ID: 30157381001)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH0824SW24 (Lab ID: 30157381002)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- LCS (Lab ID: 945005)
  - TPH (C10-C28)
  - o-Terphenyl (S)

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Greensburg, PA 15601
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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157381

Method: **EPA 8260B**
Description: 8260 MSV
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
4 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157381

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
4 samples were analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157381

Sample: HAOH0824SW001 **Lab ID: 30157381001** Collected: 08/24/15 14:10 Received: 08/25/15 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.11	0.028	1	08/31/15 13:20	09/09/15 23:00		1c,N2
Surrogates									
o-Terphenyl (S)	80	%	42-125		1	08/31/15 13:20	09/09/15 23:00	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		08/31/15 18:41	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	113	%	84-113		1		08/31/15 18:41	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	84-124		1		08/31/15 18:41	17060-07-0	
Toluene-d8 (S)	113	%	79-118		1		08/31/15 18:41	2037-26-5	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**46.6**	mg/L	3.0	0.70	1		08/28/15 11:41	16887-00-6	

Sample: HAOH0824SW24 **Lab ID: 30157381002** Collected: 08/24/15 11:40 Received: 08/25/15 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	08/31/15 13:20	09/09/15 23:08		1c,N2
Surrogates									
o-Terphenyl (S)	72	%	42-125		1	08/31/15 13:20	09/09/15 23:08	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		08/31/15 19:06	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	100	%	84-113		1		08/31/15 19:06	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	84-124		1		08/31/15 19:06	17060-07-0	
Toluene-d8 (S)	99	%	79-118		1		08/31/15 19:06	2037-26-5	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**49.4**	mg/L	3.0	0.70	1		08/28/15 11:42	16887-00-6	

Sample: HAOH0824PD03 **Lab ID: 30157381003** Collected: 08/24/15 10:50 Received: 08/25/15 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.027	1	08/31/15 13:20	09/09/15 23:16		1c,N2
Surrogates									
o-Terphenyl (S)	75	%	42-125		1	08/31/15 13:20	09/09/15 23:16	84-15-1	N2

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157381

Sample: HAOH0824PD03 **Lab ID: 30157381003** Collected: 08/24/15 10:50 Received: 08/25/15 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		08/31/15 19:32	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	112	%	84-113		1		08/31/15 19:32	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	84-124		1		08/31/15 19:32	17060-07-0	
Toluene-d8 (S)	101	%	79-118		1		08/31/15 19:32	2037-26-5	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**41.4**	mg/L	3.0	0.70	1		08/28/15 11:47	16887-00-6	

Sample: HAOH0824PD07 **Lab ID: 30157381004** Collected: 08/24/15 12:30 Received: 08/25/15 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	08/31/15 13:20	09/09/15 23:25		1c,N2
Surrogates									
o-Terphenyl (S)	74	%	42-125		1	08/31/15 13:20	09/09/15 23:25	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		08/31/15 19:57	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	98	%	84-113		1		08/31/15 19:57	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	84-124		1		08/31/15 19:57	17060-07-0	
Toluene-d8 (S)	105	%	79-118		1		08/31/15 19:57	2037-26-5	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**82.0**	mg/L	3.0	0.70	1		08/28/15 11:48	16887-00-6	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157381

QC Batch: MSV/24733 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260 MSV
Associated Lab Samples: 30157381001, 30157381002, 30157381003, 30157381004

METHOD BLANK: 945185 Matrix: Water
Associated Lab Samples: 30157381001, 30157381002, 30157381003, 30157381004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/L	ND	10.0	08/31/15 17:24	
1,2-Dichloroethane-d4 (S)	%	104	84-124	08/31/15 17:24	
4-Bromofluorobenzene (S)	%	110	84-113	08/31/15 17:24	
Toluene-d8 (S)	%	103	79-118	08/31/15 17:24	

LABORATORY CONTROL SAMPLE: 945186

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/L	20	11.6	58	56-142	
1,2-Dichloroethane-d4 (S)	%			100	84-124	
4-Bromofluorobenzene (S)	%			107	84-113	
Toluene-d8 (S)	%			100	79-118	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 945614 945615

Parameter	Units	30157381001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/L	ND	20	20	20.7	16.6	103	83	56-142	22	30	
1,2-Dichloroethane-d4 (S)	%						109	99	84-124			
4-Bromofluorobenzene (S)	%						109	93	84-113			
Toluene-d8 (S)	%						98	94	79-118			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157381

QC Batch: OEXT/25072 Analysis Method: EPA 8015B
QC Batch Method: EPA 3510C Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30157381001, 30157381002, 30157381003, 30157381004

METHOD BLANK: 945004 Matrix: Water
Associated Lab Samples: 30157381001, 30157381002, 30157381003, 30157381004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/L	ND	0.10	09/09/15 22:16	N2
o-Terphenyl (S)	%	78	42-125	09/09/15 22:16	N2

LABORATORY CONTROL SAMPLE: 945005

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/L	1	0.89	89	50-121	N2
o-Terphenyl (S)	%			87	42-125	N2

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157381

QC Batch: WETA/21048 Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E Analysis Description: 4500 Chloride
Associated Lab Samples: 30157381001, 30157381002, 30157381003, 30157381004

METHOD BLANK: 944114 Matrix: Water
Associated Lab Samples: 30157381001, 30157381002, 30157381003, 30157381004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	08/28/15 11:33	

METHOD BLANK: 944116 Matrix: Water
Associated Lab Samples: 30157381001, 30157381002, 30157381003, 30157381004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	08/28/15 11:33	

LABORATORY CONTROL SAMPLE: 944115

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	41.3	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 944117 944118

Parameter	Units	30157076002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.8	19.8	93	93	85-115	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157381

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: OEXT/25072

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1c A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

N2 The lab does not hold TNI accreditation for this parameter.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157381

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30157381001	**HAOH0824SW001**	EPA 3510C	OEXT/25072	EPA 8015B	GCSV/8567
30157381002	**HAOH0824SW24**	EPA 3510C	OEXT/25072	EPA 8015B	GCSV/8567
30157381003	**HAOH0824PD03**	EPA 3510C	OEXT/25072	EPA 8015B	GCSV/8567
30157381004	**HAOH0824PD07**	EPA 3510C	OEXT/25072	EPA 8015B	GCSV/8567
30157381001	**HAOH0824SW001**	EPA 8260B	MSV/24733		
30157381002	**HAOH0824SW24**	EPA 8260B	MSV/24733		
30157381003	**HAOH0824PD03**	EPA 8260B	MSV/24733		
30157381004	**HAOH0824PD07**	EPA 8260B	MSV/24733		
30157381001	**HAOH0824SW001**	SM 4500-Cl-E	WETA/21048		
30157381002	**HAOH0824SW24**	SM 4500-Cl-E	WETA/21048		
30157381003	**HAOH0824PD03**	SM 4500-Cl-E	WETA/21048		
30157381004	**HAOH0824PD07**	SM 4500-Cl-E	WETA/21048		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

30157381

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody and Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Requested: VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH0824SW00 1	WT	G	8/24/15	1410				5	X			X					x	x	x	N	001
2	HAOH0824SW02	WT	G	8/24/15														DRY - NO SAMPLE				
3	HAOH0824SW24	WT	G	8/24/15	1140				5	X			X					x	x	x	N	002
4	HAOH0824PD03	WT	G	8/24/15	1050				5	X			X					x	x	x	N	003
5	HAOH0824PD07	WT	G	8/24/15	1230				5	X			X					x	x	x	N	004
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Additional Comments:

(3) 40 ml VOA Vials (HCL)

(1) Amber Glass L

(1) 250 ml Plastic

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
[signature] / Moody	8/24/2015	1815	[signature] / Moody	8/25/15	0900		Y/N	Y/N	Y/N
[signature] / Moody	8/25/15	0900	Cliff Mitchell by Pace	8/25/15	12:50P		Y/N	Y/N	Y/N
Cliff Mitchell by Pace	8/25/15	3:30	[signature]	8/25/15	1530	1.4	Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
						Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joshua L. Boyda

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 08/24/15

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30157381

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: ~~Bubble Wrap~~ ____ Bubble Bags ____ None ____ Other _____

Thermometer Used 6 Type of Ice: (Wet) Blue None ☒ Samples on Ice, cooling process has begun

Cooler Temp.: Observed Temp.: 1.6 °C Correction Factor: -0.2 °C Final Temp: 1.4 °C

Date and Initials of person examining contents: AMC 8/25/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☒Yes ☐No	Initial when completed AMC Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☒No ☐N/A	15.
Trip Blank Present:	☐Yes ☒No ☐N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [signature] **Date:** 8/26/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30157381

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml) 30 ml	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	WT			1	1									3										
004	WT			1	1									3										

SCURF Back (C016-4 15May2012).xls

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September 10, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157390

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory on August 25, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157390

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157390

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30157390001	**HOAH0824SW04**	Water	08/24/15 13:10	08/25/15 15:30
30157390002	**HOAH0824SW08**	Water	08/24/15 10:15	08/25/15 15:30
30157390003	**HOAH0824SW08DUP**	Water	08/24/15 10:40	08/25/15 15:30
30157390004	**HOAH0824SW15**	Water	08/24/15 11:30	08/25/15 15:30
30157390005	**HOAH0824SW20**	Water	08/24/15 14:10	08/25/15 15:30

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157390

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30157390001	**HOAH0824SW04**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30157390002	**HOAH0824SW08**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30157390003	**HOAH0824SW08DUP**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30157390004	**HOAH0824SW15**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30157390005	**HOAH0824SW20**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157390

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30157390001	**HOAH0824SW04**					
SM 4500-Cl-E	Chloride	7.0	mg/L	3.0	08/28/15 11:56	
30157390002	**HOAH0824SW08**					
SM 4500-Cl-E	Chloride	40.9	mg/L	3.0	08/28/15 11:59	
30157390003	**HOAH0824SW08DUP**					
SM 4500-Cl-E	Chloride	40.6	mg/L	3.0	08/28/15 11:59	
30157390004	**HOAH0824SW15**					
SM 4500-Cl-E	Chloride	4.2	mg/L	3.0	08/28/15 12:00	
30157390005	**HOAH0824SW20**					
SM 4500-Cl-E	Chloride	7.3	mg/L	3.0	08/28/15 12:01	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157390

Method: **EPA 8015B**
Description: 8015 TPH
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
5 samples were analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: OEXT/25072

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Analyte Comments:

QC Batch: OEXT/25072

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- HOAH0824SW04 (Lab ID: 30157390001)
  - TPH (C10-C28)
- HOAH0824SW08 (Lab ID: 30157390002)
  - TPH (C10-C28)
- HOAH0824SW08DUP (Lab ID: 30157390003)
  - TPH (C10-C28)
- HOAH0824SW15 (Lab ID: 30157390004)
  - TPH (C10-C28)

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157390

Method: **EPA 8015B**
Description: 8015 TPH
Client: Moody and Associates, Inc.
Date: September 10, 2015

Analyte Comments:

QC Batch: OEXT/25072

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- HOAH0824SW20 (Lab ID: 30157390005)
  - TPH (C10-C28)

N2: The lab does not hold TNI accreditation for this parameter.

- BLANK (Lab ID: 945004)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HOAH0824SW04 (Lab ID: 30157390001)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HOAH0824SW08 (Lab ID: 30157390002)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HOAH0824SW08DUP (Lab ID: 30157390003)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HOAH0824SW15 (Lab ID: 30157390004)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HOAH0824SW20 (Lab ID: 30157390005)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- LCS (Lab ID: 945005)
  - TPH (C10-C28)
  - o-Terphenyl (S)

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157390

Method: **EPA 8260B**
Description: 8260 MSV
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
5 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: MSV/24757

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- BLANK (Lab ID: 946932)
  - 4-Bromofluorobenzene (S)
- HOAH0824SW04 (Lab ID: 30157390001)
  - 4-Bromofluorobenzene (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/24757

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157390

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
5 samples were analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157390

Sample: HOAH0824SW04 **Lab ID: 30157390001** Collected: 08/24/15 13:10 Received: 08/25/15 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	08/31/15 13:20	09/10/15 00:30		1c,N2
Surrogates									
o-Terphenyl (S)	71	%	42-125		1	08/31/15 13:20	09/10/15 00:30	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		09/03/15 13:37	67-64-1	M5
Surrogates									
4-Bromofluorobenzene (S)	121	%	84-113		1		09/03/15 13:37	460-00-4	M5,S3
1,2-Dichloroethane-d4 (S)	107	%	84-124		1		09/03/15 13:37	17060-07-0	M5
Toluene-d8 (S)	107	%	79-118		1		09/03/15 13:37	2037-26-5	M5
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**7.0**	mg/L	3.0	0.70	1		08/28/15 11:56	16887-00-6	

Sample: HOAH0824SW08 **Lab ID: 30157390002** Collected: 08/24/15 10:15 Received: 08/25/15 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	08/31/15 13:20	09/10/15 00:39		1c,N2
Surrogates									
o-Terphenyl (S)	68	%	42-125		1	08/31/15 13:20	09/10/15 00:39	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		09/03/15 14:02	67-64-1	M5
Surrogates									
4-Bromofluorobenzene (S)	111	%	84-113		1		09/03/15 14:02	460-00-4	M5
1,2-Dichloroethane-d4 (S)	109	%	84-124		1		09/03/15 14:02	17060-07-0	M5
Toluene-d8 (S)	105	%	79-118		1		09/03/15 14:02	2037-26-5	M5
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**40.9**	mg/L	3.0	0.70	1		08/28/15 11:59	16887-00-6	

Sample: HOAH0824SW08DUP **Lab ID: 30157390003** Collected: 08/24/15 10:40 Received: 08/25/15 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	08/31/15 13:20	09/10/15 00:47		1c,N2
Surrogates									
o-Terphenyl (S)	67	%	42-125		1	08/31/15 13:20	09/10/15 00:47	84-15-1	N2

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157390

Sample: HOAH0824SW08DUP **Lab ID: 30157390003** Collected: 08/24/15 10:40 Received: 08/25/15 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		09/03/15 14:28	67-64-1	M5
Surrogates									
4-Bromofluorobenzene (S)	110	%	84-113		1		09/03/15 14:28	460-00-4	M5
1,2-Dichloroethane-d4 (S)	110	%	84-124		1		09/03/15 14:28	17060-07-0	M5
Toluene-d8 (S)	93	%	79-118		1		09/03/15 14:28	2037-26-5	M5
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**40.6**	mg/L	3.0	0.70	1		08/28/15 11:59	16887-00-6	

Sample: HOAH0824SW15 **Lab ID: 30157390004** Collected: 08/24/15 11:30 Received: 08/25/15 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.11	0.029	1	08/31/15 13:20	09/10/15 00:55		1c,N2
Surrogates									
o-Terphenyl (S)	78	%	42-125		1	08/31/15 13:20	09/10/15 00:55	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		09/03/15 14:54	67-64-1	M5
Surrogates									
4-Bromofluorobenzene (S)	112	%	84-113		1		09/03/15 14:54	460-00-4	M5
1,2-Dichloroethane-d4 (S)	118	%	84-124		1		09/03/15 14:54	17060-07-0	M5
Toluene-d8 (S)	104	%	79-118		1		09/03/15 14:54	2037-26-5	M5
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**4.2**	mg/L	3.0	0.70	1		08/28/15 12:00	16887-00-6	

Sample: HOAH0824SW20 **Lab ID: 30157390005** Collected: 08/24/15 14:10 Received: 08/25/15 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	08/31/15 13:20	09/10/15 01:03		1c,N2
Surrogates									
o-Terphenyl (S)	71	%	42-125		1	08/31/15 13:20	09/10/15 01:03	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		09/03/15 15:19	67-64-1	M5
Surrogates									
4-Bromofluorobenzene (S)	99	%	84-113		1		09/03/15 15:19	460-00-4	M5
1,2-Dichloroethane-d4 (S)	106	%	84-124		1		09/03/15 15:19	17060-07-0	M5

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157390

Sample: HOAH0824SW20 **Lab ID: 30157390005** Collected: 08/24/15 14:10 Received: 08/25/15 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Surrogates									
Toluene-d8 (S)	99	%	79-118		1		09/03/15 15:19	2037-26-5	M5
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**7.3**	mg/L	3.0	0.70	1		08/28/15 12:01	16887-00-6	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157390

QC Batch: MSV/24757 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260 MSV
Associated Lab Samples: 30157390001, 30157390002, 30157390003, 30157390004, 30157390005

METHOD BLANK: 946932 Matrix: Water
Associated Lab Samples: 30157390001, 30157390002, 30157390003, 30157390004, 30157390005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/L	ND	10.0	09/03/15 10:37	M5
1,2-Dichloroethane-d4 (S)	%	105	84-124	09/03/15 10:37	M5
4-Bromofluorobenzene (S)	%	116	84-113	09/03/15 10:37	M5,S3
Toluene-d8 (S)	%	101	79-118	09/03/15 10:37	M5

LABORATORY CONTROL SAMPLE: 946933

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/L	20	15.4	77	56-142	M5
1,2-Dichloroethane-d4 (S)	%			99	84-124	M5
4-Bromofluorobenzene (S)	%			103	84-113	M5
Toluene-d8 (S)	%			99	79-118	M5

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157390

QC Batch: OEXT/25072 Analysis Method: EPA 8015B
QC Batch Method: EPA 3510C Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30157390001, 30157390002, 30157390003, 30157390004, 30157390005

METHOD BLANK: 945004 Matrix: Water
Associated Lab Samples: 30157390001, 30157390002, 30157390003, 30157390004, 30157390005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/L	ND	0.10	09/09/15 22:16	N2
o-Terphenyl (S)	%	78	42-125	09/09/15 22:16	N2

LABORATORY CONTROL SAMPLE: 945005

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/L	1	0.89	89	50-121	N2
o-Terphenyl (S)	%			87	42-125	N2

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157390

QC Batch: WETA/21049 — Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E — Analysis Description: 4500 Chloride
Associated Lab Samples: 30157390001, 30157390002, 30157390003, 30157390004, 30157390005

METHOD BLANK: 944119 — Matrix: Water
Associated Lab Samples: 30157390001, 30157390002, 30157390003, 30157390004, 30157390005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	08/28/15 11:56	

LABORATORY CONTROL SAMPLE: 944120

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	43.1	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 944121 944123

Parameter	Units	30157390001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	7.0	20	20	27.8	28.4	104	107	85-115	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157390

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA	Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: OEXT/25072

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSV/24757

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1c	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
M5	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
N2	The lab does not hold TNI accreditation for this parameter.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157390

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30157390001	**HOAH0824SW04**	EPA 3510C	OEXT/25072	EPA 8015B	GCSV/8567
30157390002	**HOAH0824SW08**	EPA 3510C	OEXT/25072	EPA 8015B	GCSV/8567
30157390003	**HOAH0824SW08DUP**	EPA 3510C	OEXT/25072	EPA 8015B	GCSV/8567
30157390004	**HOAH0824SW15**	EPA 3510C	OEXT/25072	EPA 8015B	GCSV/8567
30157390005	**HOAH0824SW20**	EPA 3510C	OEXT/25072	EPA 8015B	GCSV/8567
30157390001	**HOAH0824SW04**	EPA 8260B	MSV/24757		
30157390002	**HOAH0824SW08**	EPA 8260B	MSV/24757		
30157390003	**HOAH0824SW08DUP**	EPA 8260B	MSV/24757		
30157390004	**HOAH0824SW15**	EPA 8260B	MSV/24757		
30157390005	**HOAH0824SW20**	EPA 8260B	MSV/24757		
30157390001	**HOAH0824SW04**	SM 4500-Cl-E	WETA/21049		
30157390002	**HOAH0824SW08**	SM 4500-Cl-E	WETA/21049		
30157390003	**HOAH0824SW08DUP**	SM 4500-Cl-E	WETA/21049		
30157390004	**HOAH0824SW15**	SM 4500-Cl-E	WETA/21049		
30157390005	**HOAH0824SW20**	SM 4500-Cl-E	WETA/21049		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

30157390

Section A Required Client Information:

Company: Moody and Associates, Inc.	
Address: 199 Johnson Road, Building 2, Suite 101	
Houston, PA 15342	
Email To: lmistick@moody-s.com	
Phone:724-746-5200	Fax:724-746-5603
Requested Due Date/TAT: Standard	

Section B Required Project Information:

Report To: Leah Mistick
Copy To: Josh Boyda
Purchase Order No.:
Project Name: Eisenbarth Consent Order
Project Number: 14-467-LM

Section C Invoice Information:

Attention: Leah Mistick
Company Name: Moody and Associates, Inc.
Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER_____

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis: VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH0824SW04	WT	G	8/24/15	1310				5	X			X					x	x	x	N	001
2	HAOH0824SW08	WT	G	8/24/15	1615				5	X			X					x	x	x	N	002
3	HAOH0824SW08DUP	WT	G	8/24/15	1040				5	X			X					x	x	x	N	003
4	HAOH0824SW15	WT	G	8/24/15	1130				5	X			X					x	x	x	N	004
5	HAOH0824SW20	WT	G	8/24/15	1410				5	X			X					x	x	x	N	005
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Additional Comments:

(3) 40 ml VOA Vials (HCL)

(1) Amber Glass L

(1) 250 ml Plastic

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Moodys + Associates	8/24/15	1700	Moodys	8/25/15	0900
Moodys + Assoc.	8/25/15	0900	Alyna R. Muchmore Pace	8/25/15	1530

SAMPLE CONDITIONS

Temp in °C	Received on Ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N
	Y/N	Y/N	Y/N
2.3	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM / DD / YY)

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30157390

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no **Biological Tissue is Frozen:** Yes No

Packing Material: Bubble Wrap ✓ Bubble Bags ✓ None ____ Other _____

Thermometer Used 7 Type of Ice: Wet Blue None ☑ Samples on Ice, cooling process has begun

Cooler Temp.: Observed Temp.: 2.5 °C Correction Factor: -0.2 °C Final Temp: 2.3 °C

Date and Initials of person examining contents: ARM 8/25/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No ☐N/A	6.
Rush Turn Around Time Requested:	☑Yes ☐No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☑Yes ☐No ☐N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☑Yes ☐No	Initial when completed ARM / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☑No ☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☐Yes ☑No ☐N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Rachel D Christner **Date:** 8/26/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

page 2

Project Number: 30157390

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml, 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	WT			1	1									3										
005	WT			1	1									3										

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
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September 10, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157382

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory on August 25, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157382

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157382

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30157382001	**HAOH0824SW06**	Water	08/24/15 13:28	08/25/15 15:30
30157382002	**HAOH0824SW17**	Water	08/24/15 12:01	08/25/15 15:30
30157382003	**HAOH0824SW18**	Water	08/24/15 10:58	08/25/15 15:30
30157382004	**HAOH0824SW21**	Water	08/24/15 13:56	08/25/15 15:30
30157382005	**HAOH0824SW25**	Water	08/24/15 12:51	08/25/15 15:30

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157382

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30157382001	**HAOH0824SW06**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30157382002	**HAOH0824SW17**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30157382003	**HAOH0824SW18**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30157382004	**HAOH0824SW21**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30157382005	**HAOH0824SW25**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	4	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157382

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30157382001	**HAOH0824SW06**					
SM 4500-Cl-E	Chloride	8.5	mg/L	3.0	08/28/15 11:48	
30157382002	**HAOH0824SW17**					
SM 4500-Cl-E	Chloride	8.9	mg/L	3.0	08/28/15 11:49	
30157382003	**HAOH0824SW18**					
SM 4500-Cl-E	Chloride	7.4	mg/L	3.0	08/28/15 11:50	
30157382004	**HAOH0824SW21**					
SM 4500-Cl-E	Chloride	12.6	mg/L	3.0	08/28/15 11:51	
30157382005	**HAOH0824SW25**					
SM 4500-Cl-E	Chloride	6.2	mg/L	3.0	08/28/15 11:51	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157382

Method: **EPA 8015B**
Description: 8015 TPH
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
5 samples were analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: OEXT/25072

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Analyte Comments:

QC Batch: OEXT/25072

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- HAOH0824SW06 (Lab ID: 30157382001)
  - TPH (C10-C28)
- HAOH0824SW17 (Lab ID: 30157382002)
  - TPH (C10-C28)
- HAOH0824SW18 (Lab ID: 30157382003)
  - TPH (C10-C28)
- HAOH0824SW21 (Lab ID: 30157382004)
  - TPH (C10-C28)

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157382

Method: **EPA 8015B**
Description: 8015 TPH
Client: Moody and Associates, Inc.
Date: September 10, 2015

Analyte Comments:

QC Batch: OEXT/25072

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- HAOH0824SW25 (Lab ID: 30157382005)
  - TPH (C10-C28)

N2: The lab does not hold TNI accreditation for this parameter.

- BLANK (Lab ID: 945004)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH0824SW06 (Lab ID: 30157382001)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH0824SW17 (Lab ID: 30157382002)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH0824SW18 (Lab ID: 30157382003)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH0824SW21 (Lab ID: 30157382004)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH0824SW25 (Lab ID: 30157382005)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- LCS (Lab ID: 945005)
  - TPH (C10-C28)
  - o-Terphenyl (S)

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157382

Method: **EPA 8260B**
Description: 8260 MSV
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
5 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157382

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
5 samples were analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157382

Sample: HAOH0824SW06 **Lab ID: 30157382001** Collected: 08/24/15 13:28 Received: 08/25/15 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	08/31/15 13:20	09/09/15 23:42		1c,N2
Surrogates									
o-Terphenyl (S)	74	%	42-125		1	08/31/15 13:20	09/09/15 23:42	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		08/31/15 20:23	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	105	%	84-113		1		08/31/15 20:23	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	84-124		1		08/31/15 20:23	17060-07-0	
Toluene-d8 (S)	102	%	79-118		1		08/31/15 20:23	2037-26-5	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**8.5**	mg/L	3.0	0.70	1		08/28/15 11:48	16887-00-6	

Sample: HAOH0824SW17 **Lab ID: 30157382002** Collected: 08/24/15 12:01 Received: 08/25/15 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	08/31/15 13:20	09/09/15 23:50		1c,N2
Surrogates									
o-Terphenyl (S)	75	%	42-125		1	08/31/15 13:20	09/09/15 23:50	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		08/31/15 20:48	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	105	%	84-113		1		08/31/15 20:48	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	84-124		1		08/31/15 20:48	17060-07-0	
Toluene-d8 (S)	99	%	79-118		1		08/31/15 20:48	2037-26-5	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**8.9**	mg/L	3.0	0.70	1		08/28/15 11:49	16887-00-6	

Sample: HAOH0824SW18 **Lab ID: 30157382003** Collected: 08/24/15 10:58 Received: 08/25/15 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	08/31/15 13:20	09/09/15 23:58		1c,N2
Surrogates									
o-Terphenyl (S)	77	%	42-125		1	08/31/15 13:20	09/09/15 23:58	84-15-1	N2

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157382

Sample: HAOH0824SW18 **Lab ID: 30157382003** Collected: 08/24/15 10:58 Received: 08/25/15 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		08/31/15 21:14	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	105	%	84-113		1		08/31/15 21:14	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	84-124		1		08/31/15 21:14	17060-07-0	
Toluene-d8 (S)	105	%	79-118		1		08/31/15 21:14	2037-26-5	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**7.4**	mg/L	3.0	0.70	1		08/28/15 11:50	16887-00-6	

Sample: HAOH0824SW21 **Lab ID: 30157382004** Collected: 08/24/15 13:56 Received: 08/25/15 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	08/31/15 13:20	09/10/15 00:06		1c,N2
Surrogates									
o-Terphenyl (S)	74	%	42-125		1	08/31/15 13:20	09/10/15 00:06	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		08/31/15 21:40	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	108	%	84-113		1		08/31/15 21:40	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	84-124		1		08/31/15 21:40	17060-07-0	
Toluene-d8 (S)	104	%	79-118		1		08/31/15 21:40	2037-26-5	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**12.6**	mg/L	3.0	0.70	1		08/28/15 11:51	16887-00-6	

Sample: HAOH0824SW25 **Lab ID: 30157382005** Collected: 08/24/15 12:51 Received: 08/25/15 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	08/31/15 13:20	09/10/15 00:14		1c,N2
Surrogates									
o-Terphenyl (S)	75	%	42-125		1	08/31/15 13:20	09/10/15 00:14	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		08/31/15 22:05	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	96	%	84-113		1		08/31/15 22:05	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	84-124		1		08/31/15 22:05	17060-07-0	

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157382

Sample: HAOH0824SW25 **Lab ID: 30157382005** Collected: 08/24/15 12:51 Received: 08/25/15 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Surrogates									
Toluene-d8 (S)	98	%	79-118		1		08/31/15 22:05	2037-26-5	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**6.2**	mg/L	3.0	0.70	1		08/28/15 11:51	16887-00-6	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157382

QC Batch: MSV/24733 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260 MSV
Associated Lab Samples: 30157382001, 30157382002, 30157382003, 30157382004, 30157382005

METHOD BLANK: 945185 Matrix: Water
Associated Lab Samples: 30157382001, 30157382002, 30157382003, 30157382004, 30157382005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/L	ND	10.0	08/31/15 17:24	
1,2-Dichloroethane-d4 (S)	%	104	84-124	08/31/15 17:24	
4-Bromofluorobenzene (S)	%	110	84-113	08/31/15 17:24	
Toluene-d8 (S)	%	103	79-118	08/31/15 17:24	

LABORATORY CONTROL SAMPLE: 945186

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/L	20	11.6	58	56-142	
1,2-Dichloroethane-d4 (S)	%			100	84-124	
4-Bromofluorobenzene (S)	%			107	84-113	
Toluene-d8 (S)	%			100	79-118	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 945614 945615

Parameter	Units	30157381001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/L	ND	20	20	20.7	16.6	103	83	56-142	22	30	
1,2-Dichloroethane-d4 (S)	%						109	99	84-124			
4-Bromofluorobenzene (S)	%						109	93	84-113			
Toluene-d8 (S)	%						98	94	79-118			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157382

QC Batch: OEXT/25072 Analysis Method: EPA 8015B
QC Batch Method: EPA 3510C Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30157382001, 30157382002, 30157382003, 30157382004, 30157382005

METHOD BLANK: 945004 Matrix: Water
Associated Lab Samples: 30157382001, 30157382002, 30157382003, 30157382004, 30157382005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/L	ND	0.10	09/09/15 22:16	N2
o-Terphenyl (S)	%	78	42-125	09/09/15 22:16	N2

LABORATORY CONTROL SAMPLE: 945005

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/L	1	0.89	89	50-121	N2
o-Terphenyl (S)	%			87	42-125	N2

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157382

QC Batch: WETA/21048 Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E Analysis Description: 4500 Chloride
Associated Lab Samples: 30157382001, 30157382002, 30157382003, 30157382004, 30157382005

METHOD BLANK: 944114 Matrix: Water
Associated Lab Samples: 30157382001, 30157382002, 30157382003, 30157382004, 30157382005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	08/28/15 11:33	

METHOD BLANK: 944116 Matrix: Water
Associated Lab Samples: 30157382001, 30157382002, 30157382003, 30157382004, 30157382005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	08/28/15 11:33	

LABORATORY CONTROL SAMPLE: 944115

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	41.3	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 944117 944118

Parameter	Units	30157076002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.8	19.8	93	93	85-115	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157382

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: OEXT/25072

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1c A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

N2 The lab does not hold TNI accreditation for this parameter.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157382

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30157382001	**HAOH0824SW06**	EPA 3510C	OEXT/25072	EPA 8015B	GCSV/8567
30157382002	**HAOH0824SW17**	EPA 3510C	OEXT/25072	EPA 8015B	GCSV/8567
30157382003	**HAOH0824SW18**	EPA 3510C	OEXT/25072	EPA 8015B	GCSV/8567
30157382004	**HAOH0824SW21**	EPA 3510C	OEXT/25072	EPA 8015B	GCSV/8567
30157382005	**HAOH0824SW25**	EPA 3510C	OEXT/25072	EPA 8015B	GCSV/8567
30157382001	**HAOH0824SW06**	EPA 8260B	MSV/24733		
30157382002	**HAOH0824SW17**	EPA 8260B	MSV/24733		
30157382003	**HAOH0824SW18**	EPA 8260B	MSV/24733		
30157382004	**HAOH0824SW21**	EPA 8260B	MSV/24733		
30157382005	**HAOH0824SW25**	EPA 8260B	MSV/24733		
30157382001	**HAOH0824SW06**	SM 4500-Cl-E	WETA/21048		
30157382002	**HAOH0824SW17**	SM 4500-Cl-E	WETA/21048		
30157382003	**HAOH0824SW18**	SM 4500-Cl-E	WETA/21048		
30157382004	**HAOH0824SW21**	SM 4500-Cl-E	WETA/21048		
30157382005	**HAOH0824SW25**	SM 4500-Cl-E	WETA/21048		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

30157382

Section A Required Client Information:

Company: Moody and Associates, Inc.	
Address: 199 Johnson Road, Building 2, Suite 101	
Houston, PA 15342	
Email To: lmistick@moody-s.com	
Phone:724-746-5200	Fax:724-746-5603
Requested Due Date/TAT: Standard	

Section B Required Project Information:

Report To: Leah Mistick
Copy To: Josh Boyda
Purchase Order No.:
Project Name: Eisenbarth Consent Order
Project Number: 14-467-LM

Section C Invoice Information:

Attention: Leah Mistick
Company Name: Moody and Associates, Inc.
Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analyses: VOCs - Acetone only (8	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH0824SW06	WT	G	8/24/15	1328				5	X			X					x	x	x	N	001
2	HAOH0824SW17	WT	G	8/24/15	1201				5	X			X					x	x	x	N	002
3	HAOH0824SW18	WT	G	8/24/15	1058				5	X			X					x	x	x	N	003
4	HAOH0824SW21	WT	G	8/24/15	1356				5	X			X					x	x	x	N	004
5	HAOH0824SW25	WT	G	8/24/15	1251				5	X			X					x	x	x	N	005
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Additional Comments:

(3) 40 ml VOA Vials (HCL)

(1) Amber Glass L

(1) 250 ml Plastic

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Moody & Assoc	8/24/15	1700	Moody & Assoc.	8/25/15	0900
Moody & Assoc	8/25/15	0900	Cliff Mt Joy Pace	8/25/15	12:50P
Cliff Mt Joy Pace	8/25/15	3:30		8/25/15	1530

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
1-9	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Lori Horowitz

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 08/25/15

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30157382

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no Biological Tissue Is Frozen: Yes No

Packing Material: Bubble Wrap ___ Bubble Bags ___ None ___ Other _____

Thermometer Used 6 Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 1.6 °C Correction Factor: -0.2 °C Final Temp: 1.4 °C

Date and initials of person examining contents: AMM 8/25/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☒Yes ☐No	Initial when completed AMM / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☒No ☐N/A	15.
Trip Blank Present:	☐Yes ☒No ☐N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Rachel Christner **Date:** 8/26/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

30157382

page 2

Pace Analytical

Project Number: _____

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	WT			1	1									3										
005	WT			1	1									3										

SCURF Back (C016-4 15May2012).xls

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September 10, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157388

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between August 25, 2015 and September 01, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157388

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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(724)850-5600

SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157388

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30157388001	**HAOH0824SW001**	Solid	08/24/15 14:10	08/25/15 15:30
30157388002	**HAOH0824SW001 (ASTM)**	Water	09/01/15 10:45	09/01/15 10:45

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157388

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30157388001	**HAOH0824SW001**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30157388002	**HAOH0824SW001 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157388

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30157388001	**HAOH0824SW001**					
EPA 8015B	TPH (C10-C28)	84.1	mg/kg	21.8	09/09/15 20:28	
EPA 8260B	Acetone	59.5	ug/kg	38.5	09/04/15 13:43	M5
Dry Weight	Percent Moisture	70.0	%	0.10	09/02/15 16:30	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157388

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157388

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/24786

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157388

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157388

Sample: HAOH0824SW001 **Lab ID: 30157388001** Collected: 08/24/15 14:10 Received: 08/25/15 15:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	**84.1**	mg/kg	21.8	11.5	1	08/31/15 12:30	09/09/15 20:28		
Surrogates									
o-Terphenyl (S)	55	%	20-129		1	08/31/15 12:30	09/09/15 20:28	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	**59.5**	ug/kg	38.5	18.8	1		09/04/15 13:43	67-64-1	M5
Surrogates									
Toluene-d8 (S)	105	%	73-124		1		09/04/15 13:43	2037-26-5	M5
4-Bromofluorobenzene (S)	123	%	71-124		1		09/04/15 13:43	460-00-4	M5
1,2-Dichloroethane-d4 (S)	97	%	83-138		1		09/04/15 13:43	17060-07-0	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**70.0**	%	0.10	0.10	1		09/02/15 16:30		

Sample: HAOH0824SW001 (ASTM) **Lab ID: 30157388002** Collected: 09/01/15 10:45 Received: 09/01/15 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		09/01/15 12:53	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157388

QC Batch: MSV/24786 | Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B | Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30157388001

METHOD BLANK: 947761 | Matrix: Solid
Associated Lab Samples: 30157388001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	09/04/15 11:30	M5
1,2-Dichloroethane-d4 (S)	%	99	83-138	09/04/15 11:30	M5
4-Bromofluorobenzene (S)	%	102	71-124	09/04/15 11:30	M5
Toluene-d8 (S)	%	102	73-124	09/04/15 11:30	M5

LABORATORY CONTROL SAMPLE: 947762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	16.3	82	12-183	M5
1,2-Dichloroethane-d4 (S)	%			106	83-138	M5
4-Bromofluorobenzene (S)	%			103	71-124	M5
Toluene-d8 (S)	%			99	73-124	M5

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157388

QC Batch: OEXT/25066 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30157388001

METHOD BLANK: 944952 | Matrix: Solid
Associated Lab Samples: 30157388001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	08/31/15 22:08	
o-Terphenyl (S)	%	63	20-129	08/31/15 22:08	

LABORATORY CONTROL SAMPLE: 944953

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.5	80	52-126	
o-Terphenyl (S)	%			82	20-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 944954 944955

Parameter	Units	30157383001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	ND	91.7	92.7	90.3	73.0	95	76	52-126	21	25	
o-Terphenyl (S)	%						93	83	20-129			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157388

QC Batch: PMST/5592
QC Batch Method: Dry Weight
Analysis Method: Dry Weight
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30157388001

SAMPLE DUPLICATE: 946453

Parameter	Units	30157383001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	29.1	28.8	1	20	

SAMPLE DUPLICATE: 946454

Parameter	Units	30157384001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	23.3	23.8	2	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157388

QC Batch: WETA/21083 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30157388002

METHOD BLANK: 945747 | Matrix: Water
Associated Lab Samples: 30157388002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:36	

METHOD BLANK: 945749 | Matrix: Water
Associated Lab Samples: 30157388002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:37	

METHOD BLANK: 945750 | Matrix: Water
Associated Lab Samples: 30157388002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

METHOD BLANK: 945751 | Matrix: Water
Associated Lab Samples: 30157388002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

LABORATORY CONTROL SAMPLE: 945748

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.7	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 945752 945753

Parameter	Units	30157383002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.0	91	90	85-115	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157388

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/24786

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157388

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30157388001	**HAOH0824SW001**	EPA 3546	OEXT/25066	EPA 8015B	GCSV/8546
30157388001	**HAOH0824SW001**	EPA 8260B	MSV/24786		
30157388001	**HAOH0824SW001**	Dry Weight	PMST/5592		
30157388002	**HAOH0824SW001 (ASTM)**	SM 4500-Cl-E	WETA/21083		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

30157388

Section A **Required** Client Information:	Section B **Required** Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D **Required** Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	Requested Analysis: VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH082 4SW001	SL	G	8/24/15	1410				2	X									X	X	X	N	001
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Joshua L Boyda / Moody	8/24/15	1815	Joshua L Boyda / Moody	8/25/15	0900
Joshua L Boyda / Moody	8/25/15	0900	Cliff Mutty Pace	8/25/15	12:50P
Cliff Mutty Pace	8/25/15	3:30	[illegible]	8/25/15	1530

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
1.4	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joshua L Boyda

SIGNATURE of SAMPLER: Joshua L Boyda

DATE Signed (MM / DD / YY): 08/24/2015

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30157388

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap ___ Bubble Bags ___ None ___ Other _____

Thermometer Used 6 Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 1.6 °C Correction Factor: -0.2 °C Final Temp: 1.4 °C

Date and initials of person examining contents: AMC 8/25/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: SL	☒Yes ☐No ☐N/A	12.
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☐No ☒N/A ☐Yes ☐No	Initial when completed AMC / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Rachel Christmas **Date:** 8/26/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30157388

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

September 10, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157412

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between August 25, 2015 and September 01, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157412

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157412

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30157412001	**HAOH0824SW04**	Solid	08/24/15 13:10	08/25/15 15:30
30157412002	**HAOH0824SW04 (ASTM)**	Water	09/01/15 10:59	09/01/15 10:59

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157412

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30157412001	**HAOH0824SW04**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30157412002	**HAOH0824SW04 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157412

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30157412001	**HAOH0824SW04**					
EPA 8015B	TPH (C10-C28)	10.6	mg/kg	8.3	09/09/15 21:20	1c
Dry Weight	Percent Moisture	20.6	%	0.10	09/02/15 16:35	

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157412

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: OEXT/25066

1c: The majority of the area quantitated as DRO for this sample is due to unresolved material eluting beyond C 20.

- HAOH0824SW04 (Lab ID: 30157412001)
  - TPH (C10-C28)

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157412

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/24786

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157412

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157412

Sample: HAOH0824SW04 **Lab ID: 30157412001** Collected: 08/24/15 13:10 Received: 08/25/15 15:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	**10.6**	mg/kg	8.3	4.4	1	08/31/15 12:30	09/09/15 21:20		1c
Surrogates									
o-Terphenyl (S)	75	%	20-129		1	08/31/15 12:30	09/09/15 21:20	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	8.6	4.2	1		09/04/15 15:55	67-64-1	M5
Surrogates									
Toluene-d8 (S)	99	%	73-124		1		09/04/15 15:55	2037-26-5	M5
4-Bromofluorobenzene (S)	103	%	71-124		1		09/04/15 15:55	460-00-4	M5
1,2-Dichloroethane-d4 (S)	98	%	83-138		1		09/04/15 15:55	17060-07-0	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**20.6**	%	0.10	0.10	1		09/02/15 16:35		

Sample: HAOH0824SW04 (ASTM) **Lab ID: 30157412002** Collected: 09/01/15 10:59 Received: 09/01/15 10:59 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		09/01/15 12:55	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157412

QC Batch: MSV/24786 | Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B | Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30157412001

METHOD BLANK: 947761 | Matrix: Solid
Associated Lab Samples: 30157412001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	09/04/15 11:30	M5
1,2-Dichloroethane-d4 (S)	%	99	83-138	09/04/15 11:30	M5
4-Bromofluorobenzene (S)	%	102	71-124	09/04/15 11:30	M5
Toluene-d8 (S)	%	102	73-124	09/04/15 11:30	M5

LABORATORY CONTROL SAMPLE: 947762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	16.3	82	12-183	M5
1,2-Dichloroethane-d4 (S)	%			106	83-138	M5
4-Bromofluorobenzene (S)	%			103	71-124	M5
Toluene-d8 (S)	%			99	73-124	M5

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157412

QC Batch: OEXT/25066 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30157412001

METHOD BLANK: 944952 | Matrix: Solid
Associated Lab Samples: 30157412001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	08/31/15 22:08	
o-Terphenyl (S)	%	63	20-129	08/31/15 22:08	

LABORATORY CONTROL SAMPLE: 944953

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.5	80	52-126	
o-Terphenyl (S)	%			82	20-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 944954 944955

Parameter	Units	30157383001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	ND	91.7	92.7	90.3	73.0	95	76	52-126	21	25	
o-Terphenyl (S)	%						93	83	20-129			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157412

QC Batch: PMST/5592 | Analysis Method: Dry Weight
QC Batch Method: Dry Weight | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30157412001

SAMPLE DUPLICATE: 946453

Parameter	Units	30157383001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	29.1	28.8	1	20	

SAMPLE DUPLICATE: 946454

Parameter	Units	30157384001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	23.3	23.8	2	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157412

QC Batch: WETA/21083 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30157412002

METHOD BLANK: 945747 | Matrix: Water
Associated Lab Samples: 30157412002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:36	

METHOD BLANK: 945749 | Matrix: Water
Associated Lab Samples: 30157412002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:37	

METHOD BLANK: 945750 | Matrix: Water
Associated Lab Samples: 30157412002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

METHOD BLANK: 945751 | Matrix: Water
Associated Lab Samples: 30157412002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

LABORATORY CONTROL SAMPLE: 945748

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.7	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 945752 945753

Parameter	Units	30157383002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.0	91	90	85-115	2	20	

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157412

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/24786

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1c The majority of the area quantitated as DRO for this sample is due to unresolved material eluting beyond C 20.

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157412

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30157412001	**HAOH0824SW04**	EPA 3546	OEXT/25066	EPA 8015B	GCSV/8546
30157412001	**HAOH0824SW04**	EPA 8260B	MSV/24786		
30157412001	**HAOH0824SW04**	Dry Weight	PMST/5592		
30157412002	**HAOH0824SW04 (ASTM)**	SM 4500-Cl-E	WETA/21083		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

30157412

Section A Required Client Information:

Company: Moody and Associates, Inc.
Address: 199 Johnson Road, Building 2, Suite 101
Houston, PA 15342
Email To: lmistick@moody-s.com
Phone:724-746-5200 Fax:724-746-5603
Requested Due Date/TAT: Standard

Section B Required Project Information:

Report To: Leah Mistick
Copy To: Josh Boyda
Purchase Order No.:
Project Name: Eisenbarth Consent Order
Project Number: 14-467-LM

Section C Invoice Information:

Attention: Leah Mistick
Company Name: Moody & Associates, Inc.
Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER_____

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis: VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH08 2 4 SW04	SL	G	8/24/15	1310				2	X								X	X	X	N	001, 002
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] Moodys + Assoc.	8/24/15	1700	[signature] Moodys + Ass.	8/25/15	0900
[signature] Moodys + Ass	8/25/15	0900	[signature] Pace	8/25/15	1530

SAMPLE CONDITIONS

Temp in °C	Received on Ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N
	Y/N	Y/N	Y/N
2.3	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM / DD / YY)

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30157412

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no Biological Tissue Is Frozen: Yes No

Packing Material: Bubble Wrap ✓ Bubble Bags ✓ None ___ Other _____

Thermometer Used 7 Type of Ice: (Wet) Blue None ☑ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 2.5 °C Correction Factor: -0.2 °C Final Temp: 2.3 °C

Date and initials of person examining contents: ARM 8/25/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☐No ☑	Initial when completed: ARM Lot # of added preservative:
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Rachel D Chambers **Date:** 8/26/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30157412

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

September 10, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157383

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between August 25, 2015 and September 01, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157383

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157383

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30157383001	**HAOH0824SW06**	Solid	08/24/15 13:28	08/25/15 15:30
30157383002	**HAOH0824SW06 (ASTM)**	Water	09/01/15 10:14	09/01/15 10:14

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157383

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30157383001	**HAOH0824SW06**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30157383002	**HAOH0824SW06 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157383

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30157383001	**HAOH0824SW06**					
Dry Weight	Percent Moisture	29.1	%	0.10	09/02/15 16:26	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157383

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157383

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/24786

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157383

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157383

Sample: HAOH0824SW06 **Lab ID: 30157383001** Collected: 08/24/15 13:28 Received: 08/25/15 15:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	ND	mg/kg	9.3	4.9	1	08/31/15 12:30	09/09/15 18:32		
Surrogates									
o-Terphenyl (S)	73	%	20-129		1	08/31/15 12:30	09/09/15 18:32	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	13.7	6.7	1		09/04/15 14:10	67-64-1	M5
Surrogates									
Toluene-d8 (S)	100	%	73-124		1		09/04/15 14:10	2037-26-5	M5
4-Bromofluorobenzene (S)	104	%	71-124		1		09/04/15 14:10	460-00-4	M5
1,2-Dichloroethane-d4 (S)	101	%	83-138		1		09/04/15 14:10	17060-07-0	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**29.1**	%	0.10	0.10	1		09/02/15 16:26		

Sample: HAOH0824SW06 (ASTM) **Lab ID: 30157383002** Collected: 09/01/15 10:14 Received: 09/01/15 10:14 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		09/01/15 12:44	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157383

QC Batch: MSV/24786 | Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B | Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30157383001

METHOD BLANK: 947761 | Matrix: Solid
Associated Lab Samples: 30157383001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	09/04/15 11:30	M5
1,2-Dichloroethane-d4 (S)	%	99	83-138	09/04/15 11:30	M5
4-Bromofluorobenzene (S)	%	102	71-124	09/04/15 11:30	M5
Toluene-d8 (S)	%	102	73-124	09/04/15 11:30	M5

LABORATORY CONTROL SAMPLE: 947762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	16.3	82	12-183	M5
1,2-Dichloroethane-d4 (S)	%			106	83-138	M5
4-Bromofluorobenzene (S)	%			103	71-124	M5
Toluene-d8 (S)	%			99	73-124	M5

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157383

QC Batch: OEXT/25066 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30157383001

METHOD BLANK: 944952 | Matrix: Solid
Associated Lab Samples: 30157383001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	08/31/15 22:08	
o-Terphenyl (S)	%	63	20-129	08/31/15 22:08	

LABORATORY CONTROL SAMPLE: 944953

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.5	80	52-126	
o-Terphenyl (S)	%			82	20-129	

MATRIX SPIKE SAMPLE: 944954

Parameter	Units	30157383001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	ND	91.7	90.3	95	52-126	
o-Terphenyl (S)	%				93	20-129	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157383

QC Batch: PMST/5592
QC Batch Method: Dry Weight
Analysis Method: Dry Weight
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30157383001

SAMPLE DUPLICATE: 946453

Parameter	Units	30157383001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	29.1	28.8	1	20	

SAMPLE DUPLICATE: 946454

Parameter	Units	30157384001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	23.3	23.8	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157383

QC Batch: WETA/21083 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30157383002

METHOD BLANK: 945747 | Matrix: Water
Associated Lab Samples: 30157383002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:36	

METHOD BLANK: 945749 | Matrix: Water
Associated Lab Samples: 30157383002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:37	

METHOD BLANK: 945750 | Matrix: Water
Associated Lab Samples: 30157383002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

METHOD BLANK: 945751 | Matrix: Water
Associated Lab Samples: 30157383002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

LABORATORY CONTROL SAMPLE: 945748

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.7	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 945752 945753

Parameter	Units	30157383002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.0	91	90	85-115	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157383

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/24786

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157383

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30157383001	**HAOH0824SW06**	EPA 3546	OEXT/25066	EPA 8015B	GCSV/8546
30157383001	**HAOH0824SW06**	EPA 8260B	MSV/24786		
30157383001	**HAOH0824SW06**	Dry Weight	PMST/5592		
30157383002	**HAOH0824SW06 (ASTM)**	SM 4500-Cl-E	WETA/21083		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

30157383

Section A Required Client Information:

Company: Moody and Associates, Inc.
Address: 199 Johnson Road, Building 2, Suite 101
Houston, PA 15342
Email To: lmistick@moody-s.com
Phone:724-746-5200 Fax:724-746-5603
Requested Due Date/TAT: Standard

Section B Required Project Information:

Report To: Leah Mistick
Copy To: Josh Boyda
Purchase Order No.:
Project Name: Eisenbarth Consent Order
Project Number: 14-467-LM

Section C Invoice Information:

Attention: Leah Mistick
Company Name: Moody & Associates, Inc.
Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER_____

Filtered (Y/N)

Requested Ana

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	VOCs - Acetone only (8	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH08245SW06	SL	G	8/24/15	1378				2	X								X	X	X	N	001,002
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Moody + Assoc	8/24/15	1700	Moody + Assoc.	8/25/15	0900
Moody + Assoc	8/25/15	0900	Cliff Mt by Pace	8/25/15	12:50
Cliff Mt by Pace	8/25/15	3:30		8/25/15	1530

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
1.4	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Lori Horowitz

SIGNATURE of SAMPLER:

DATE Signed (MM / DD / YY): 08/25/15

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project #30157383

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap ____ Bubble Bags ____ None ____ Other _____

Thermometer Used 6 Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 1.6 °C Correction Factor: -0.2 °C Final Temp: 1.4 °C

Date and initials of person examining contents: AML 8/25/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☒No	Initial when completed AML / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Rachel D Christier **Date:** 8/26/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30157383

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	S	2																						

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

September 10, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157413

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between August 25, 2015 and September 01, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157413

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157413

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30157413001	**HAOH0824SW08**	Solid	08/24/15 10:15	08/25/15 15:30
30157413002	**HAOH0824SW08 (ASTM)**	Water	09/01/15 11:02	09/01/15 11:02

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157413

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30157413001	**HAOH0824SW08**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30157413002	**HAOH0824SW08 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157413

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30157413001	**HAOH0824SW08**					
EPA 8015B	TPH (C10-C28)	28.2	mg/kg	11.0	09/09/15 21:41	1c
Dry Weight	Percent Moisture	40.9	%	0.10	09/02/15 16:36	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157413

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: OEXT/25066

1c: The majority of the area quantitated as DRO for this sample is due to unresolved material eluting beyond C 20.

- HAOH0824SW08 (Lab ID: 30157413001)
  - TPH (C10-C28)

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157413

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/24786

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157413

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157413

Sample: HAOH0824SW08 **Lab ID: 30157413001** Collected: 08/24/15 10:15 Received: 08/25/15 15:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	**28.2**	mg/kg	11.0	5.8	1	08/31/15 12:30	09/09/15 21:41		1c
Surrogates									
o-Terphenyl (S)	71	%	20-129		1	08/31/15 12:30	09/09/15 21:41	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	19.2	9.4	1		09/04/15 16:22	67-64-1	M5
Surrogates									
Toluene-d8 (S)	104	%	73-124		1		09/04/15 16:22	2037-26-5	M5
4-Bromofluorobenzene (S)	101	%	71-124		1		09/04/15 16:22	460-00-4	M5
1,2-Dichloroethane-d4 (S)	103	%	83-138		1		09/04/15 16:22	17060-07-0	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**40.9**	%	0.10	0.10	1		09/02/15 16:36		

Sample: HAOH0824SW08 (ASTM) **Lab ID: 30157413002** Collected: 09/01/15 11:02 Received: 09/01/15 11:02 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		09/01/15 12:56	16887-00-6	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157413

QC Batch: MSV/24786 | Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B | Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30157413001

METHOD BLANK: 947761 | Matrix: Solid
Associated Lab Samples: 30157413001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	09/04/15 11:30	M5
1,2-Dichloroethane-d4 (S)	%	99	83-138	09/04/15 11:30	M5
4-Bromofluorobenzene (S)	%	102	71-124	09/04/15 11:30	M5
Toluene-d8 (S)	%	102	73-124	09/04/15 11:30	M5

LABORATORY CONTROL SAMPLE: 947762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	16.3	82	12-183	M5
1,2-Dichloroethane-d4 (S)	%			106	83-138	M5
4-Bromofluorobenzene (S)	%			103	71-124	M5
Toluene-d8 (S)	%			99	73-124	M5

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157413

QC Batch: OEXT/25066 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30157413001

METHOD BLANK: 944952 | Matrix: Solid
Associated Lab Samples: 30157413001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	08/31/15 22:08	
o-Terphenyl (S)	%	63	20-129	08/31/15 22:08	

LABORATORY CONTROL SAMPLE: 944953

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.5	80	52-126	
o-Terphenyl (S)	%			82	20-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 944954 944955

Parameter	Units	30157383001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	ND	91.7	92.7	90.3	73.0	95	76	52-126	21	25	
o-Terphenyl (S)	%						93	83	20-129			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157413

QC Batch: PMST/5592
QC Batch Method: Dry Weight
Analysis Method: Dry Weight
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30157413001

SAMPLE DUPLICATE: 946453

Parameter	Units	30157383001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	29.1	28.8	1	20	

SAMPLE DUPLICATE: 946454

Parameter	Units	30157384001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	23.3	23.8	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157413

QC Batch: WETA/21083 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30157413002

METHOD BLANK: 945747 | Matrix: Water
Associated Lab Samples: 30157413002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:36	

METHOD BLANK: 945749 | Matrix: Water
Associated Lab Samples: 30157413002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:37	

METHOD BLANK: 945750 | Matrix: Water
Associated Lab Samples: 30157413002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

METHOD BLANK: 945751 | Matrix: Water
Associated Lab Samples: 30157413002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

LABORATORY CONTROL SAMPLE: 945748

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.7	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 945752 945753

Parameter	Units	30157383002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.0	91	90	85-115	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157413

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/24786

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1c The majority of the area quantitated as DRO for this sample is due to unresolved material eluting beyond C 20.

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157413

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30157413001	**HAOH0824SW08**	EPA 3546	OEXT/25066	EPA 8015B	GCSV/8546
30157413001	**HAOH0824SW08**	EPA 8260B	MSV/24786		
30157413001	**HAOH0824SW08**	Dry Weight	PMST/5592		
30157413002	**HAOH0824SW08 (ASTM)**	SM 4500-Cl-E	WETA/21083		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Pace Analytical™ www.pacelabs.com

30157413

Page: 1 of 1

Section A Required Client Information:

Company: Moody and Associates, Inc.
Address: 199 Johnson Road, Building 2, Suite 101
Houston, PA 15342
Email To: lmistick@moody-s.com
Phone:724-746-5200 Fax:724-746-5603
Requested Due Date/TAT: Standard

Section B Required Project Information:

Report To: Leah Mistick
Copy To: Josh Boyda
Purchase Order No.:
Project Name: Eisenbarth Consent Order
Project Number: 14-467-LM

Section C Invoice Information:

Attention: Leah Mistick
Company Name: Moody & Associates, Inc.
Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	VOCs+ - Acetone only (a	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH08 24SW08	SL	G	8/24/15	1015				2	X									X	X	X	N	001,002
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] Moodys	8/24/15	1700	[signature] Moodys	8/25/15	0900
[signature] Moodys	8/25/15	0900	[signature] R. Michael Pace	8/25/15	1530

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
2.3	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM / DD / YY)

e-File(ALLQ020rev.3,31Mar05))22Jun2005

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30157413

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap ✓ Bubble Bags ✓ None ___ Other _____

Thermometer Used 7 Type of Ice: (Wet) Blue None ☑ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 2.5 °C Correction Factor: -0.2 °C Final Temp: 2.3 °C

Date and initials of person examining contents: ARM 8/25/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☐Yes ☑No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☑N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☐No	Initial when completed ARM / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Rachel Christner **Date:** 8/26/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Face Analytical

Project Number: 30157413

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

September 10, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157414

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between August 25, 2015 and September 01, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157414

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157414

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30157414001	**HAOH0824SW08DUP**	Solid	08/24/15 10:40	08/25/15 15:30
30157414002	**HAOH0824SW08 (ASTM)**	Water	09/01/15 11:06	09/01/15 11:06

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157414

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30157414001	**HAOH0824SW08DUP**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30157414002	**HAOH0824SW08 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157414

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30157414001	**HAOH0824SW08DUP**					
EPA 8015B	TPH (C10-C28)	29.2	mg/kg	12.0	09/09/15 21:59	1c
Dry Weight	Percent Moisture	45.9	%	0.10	09/02/15 16:36	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157414

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: OEXT/25066

1c: The majority of the area quantitated as DRO for this sample is due to unresolved material eluting beyond C 20.

- HAOH0824SW08DUP (Lab ID: 30157414001)
  - TPH (C10-C28)

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157414

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/24786

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157414

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157414

Sample: HAOH0824SW08DUP **Lab ID: 30157414001** Collected: 08/24/15 10:40 Received: 08/25/15 15:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	**29.2**	mg/kg	12.0	6.3	1	08/31/15 12:30	09/09/15 21:59		1c
Surrogates									
o-Terphenyl (S)	66	%	20-129		1	08/31/15 12:30	09/09/15 21:59	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	17.8	8.7	1		09/04/15 16:48	67-64-1	M5
Surrogates									
Toluene-d8 (S)	97	%	73-124		1		09/04/15 16:48	2037-26-5	M5
4-Bromofluorobenzene (S)	100	%	71-124		1		09/04/15 16:48	460-00-4	M5
1,2-Dichloroethane-d4 (S)	103	%	83-138		1		09/04/15 16:48	17060-07-0	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**45.9**	%	0.10	0.10	1		09/02/15 16:36		

Sample: HAOH0824SW08 (ASTM) **Lab ID: 30157414002** Collected: 09/01/15 11:06 Received: 09/01/15 11:06 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		09/01/15 12:57	16887-00-6	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157414

QC Batch: MSV/24786 | Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B | Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30157414001

METHOD BLANK: 947761 | Matrix: Solid
Associated Lab Samples: 30157414001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	09/04/15 11:30	M5
1,2-Dichloroethane-d4 (S)	%	99	83-138	09/04/15 11:30	M5
4-Bromofluorobenzene (S)	%	102	71-124	09/04/15 11:30	M5
Toluene-d8 (S)	%	102	73-124	09/04/15 11:30	M5

LABORATORY CONTROL SAMPLE: 947762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	16.3	82	12-183	M5
1,2-Dichloroethane-d4 (S)	%			106	83-138	M5
4-Bromofluorobenzene (S)	%			103	71-124	M5
Toluene-d8 (S)	%			99	73-124	M5

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157414

QC Batch: OEXT/25066 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30157414001

METHOD BLANK: 944952 | Matrix: Solid
Associated Lab Samples: 30157414001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	08/31/15 22:08	
o-Terphenyl (S)	%	63	20-129	08/31/15 22:08	

LABORATORY CONTROL SAMPLE: 944953

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.5	80	52-126	
o-Terphenyl (S)	%			82	20-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 944954 944955

Parameter	Units	30157383001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	ND	91.7	92.7	90.3	73.0	95	76	52-126	21	25	
o-Terphenyl (S)	%						93	83	20-129			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157414

QC Batch: PMST/5592
QC Batch Method: Dry Weight
Analysis Method: Dry Weight
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30157414001

SAMPLE DUPLICATE: 946453

Parameter	Units	30157383001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	29.1	28.8	1	20	

SAMPLE DUPLICATE: 946454

Parameter	Units	30157384001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	23.3	23.8	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157414

QC Batch: WETA/21083 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30157414002

METHOD BLANK: 945747 | Matrix: Water
Associated Lab Samples: 30157414002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:36	

METHOD BLANK: 945749 | Matrix: Water
Associated Lab Samples: 30157414002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:37	

METHOD BLANK: 945750 | Matrix: Water
Associated Lab Samples: 30157414002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

METHOD BLANK: 945751 | Matrix: Water
Associated Lab Samples: 30157414002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

LABORATORY CONTROL SAMPLE: 945748

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.7	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 945752 945753

Parameter	Units	30157383002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.0	91	90	85-115	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157414

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/24786

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1c The majority of the area quantitated as DRO for this sample is due to unresolved material eluting beyond C 20.

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157414

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30157414001	**HAOH0824SW08DUP**	EPA 3546	OEXT/25066	EPA 8015B	GCSV/8546
30157414001	**HAOH0824SW08DUP**	EPA 8260B	MSV/24786		
30157414001	**HAOH0824SW08DUP**	Dry Weight	PMST/5592		
30157414002	**HAOH0824SW08 (ASTM)**	SM 4500-Cl-E	WETA/21083		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

30157414

Section A Required Client Information:

Company: Moody and Associates, Inc.	
Address: 199 Johnson Road, Building 2, Suite 101	
Houston, PA 15342	
Email To: lmistick@moody-s.com	
Phone:724-746-5200	Fax:724-746-5603
Requested Due Date/TAT:	Standard

Section B Required Project Information:

Report To: Leah Mistick
Copy To: Josh Boyda
Purchase Order No.:
Project Name: Eisenbarth Consent Order
Project Number: 14-467-LM

Section C Invoice Information:

Attention: Leah Mistick
Company Name: Moody & Associates, Inc.
Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis: VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH082 4SW08DUP	SL	G	8/24/15	1040				2	X								X	X	X	N	001, 002
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] Moodys	8/24/15	1700	[signature] Moodys	8/25/15	0900
[signature] Moodys	8/25/15	0900	[signature] PACE	8/25/15	1530

SAMPLE CONDITIONS

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Y/N	Y/N	Y/N
2.3	N	N	N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM / DD / YY):

Sample Condition Upon Receipt

30157414

Pace Analytical

Client Name: Moody

Project # _____

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no Biological Tissue Is Frozen: Yes No

Packing Material: Bubble Wrap ✓ Bubble Bags ✓ None ___ Other _____

Thermometer Used 7 Type of Ice: (Wet) Blue None ☑ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 2.5 °C Correction Factor: -0.2 °C Final Temp: 2.3 °C

Date and initials of person examining contents: ARM 8/26/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☐Yes ☑No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☐No	Initial when completed ARM / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [signature] **Date:** 8/27/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

30157414

Pace Analytical

Project Number: _____

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

September 10, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157410

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between August 25, 2015 and September 01, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157410

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157410

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30157410001	**HAOH0824SW15**	Solid	08/24/15 11:30	08/25/15 15:30
30157410002	**HAOH0824SW15 (ASTM)**	Water	09/01/15 10:50	09/01/15 10:50

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157410

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30157410001	**HAOH0824SW15**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30157410002	**HAOH0824SW15 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157410

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30157410001	**HAOH0824SW15**					
EPA 8015B	TPH (C10-C28)	23.4	mg/kg	9.4	09/09/15 20:46	
Dry Weight	Percent Moisture	29.8	%	0.10	09/02/15 16:34	

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157410

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157410

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/24786

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157410

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157410

Sample: HAOH0824SW15 **Lab ID: 30157410001** Collected: 08/24/15 11:30 Received: 08/25/15 15:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	**23.4**	mg/kg	9.4	4.9	1	08/31/15 12:30	09/09/15 20:46		
Surrogates									
o-Terphenyl (S)	64	%	20-129		1	08/31/15 12:30	09/09/15 20:46	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	17.7	8.7	1		09/04/15 15:02	67-64-1	M5
Surrogates									
Toluene-d8 (S)	107	%	73-124		1		09/04/15 15:02	2037-26-5	M5
4-Bromofluorobenzene (S)	116	%	71-124		1		09/04/15 15:02	460-00-4	M5
1,2-Dichloroethane-d4 (S)	98	%	83-138		1		09/04/15 15:02	17060-07-0	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**29.8**	%	0.10	0.10	1		09/02/15 16:34		

Sample: HAOH0824SW15 (ASTM) **Lab ID: 30157410002** Collected: 09/01/15 10:50 Received: 09/01/15 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		09/01/15 12:54	16887-00-6	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157410

QC Batch: MSV/24786 | Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B | Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30157410001

METHOD BLANK: 947761 | Matrix: Solid
Associated Lab Samples: 30157410001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	09/04/15 11:30	M5
1,2-Dichloroethane-d4 (S)	%	99	83-138	09/04/15 11:30	M5
4-Bromofluorobenzene (S)	%	102	71-124	09/04/15 11:30	M5
Toluene-d8 (S)	%	102	73-124	09/04/15 11:30	M5

LABORATORY CONTROL SAMPLE: 947762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	16.3	82	12-183	M5
1,2-Dichloroethane-d4 (S)	%			106	83-138	M5
4-Bromofluorobenzene (S)	%			103	71-124	M5
Toluene-d8 (S)	%			99	73-124	M5

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157410

QC Batch: OEXT/25066 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30157410001

METHOD BLANK: 944952 | Matrix: Solid
Associated Lab Samples: 30157410001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	08/31/15 22:08	
o-Terphenyl (S)	%	63	20-129	08/31/15 22:08	

LABORATORY CONTROL SAMPLE: 944953

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.5	80	52-126	
o-Terphenyl (S)	%			82	20-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 944954 944955

Parameter	Units	30157383001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	ND	91.7	92.7	90.3	73.0	95	76	52-126	21	25	
o-Terphenyl (S)	%						93	83	20-129			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157410

QC Batch: PMST/5592
QC Batch Method: Dry Weight
Analysis Method: Dry Weight
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30157410001

SAMPLE DUPLICATE: 946453

Parameter	Units	30157383001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	29.1	28.8	1	20	

SAMPLE DUPLICATE: 946454

Parameter	Units	30157384001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	23.3	23.8	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157410

QC Batch: WETA/21083 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30157410002

METHOD BLANK: 945747 | Matrix: Water
Associated Lab Samples: 30157410002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:36	

METHOD BLANK: 945749 | Matrix: Water
Associated Lab Samples: 30157410002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:37	

METHOD BLANK: 945750 | Matrix: Water
Associated Lab Samples: 30157410002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

METHOD BLANK: 945751 | Matrix: Water
Associated Lab Samples: 30157410002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

LABORATORY CONTROL SAMPLE: 945748

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.7	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 945752 945753

Parameter	Units	30157383002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.0	91	90	85-115	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157410

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/24786

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157410

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30157410001	**HAOH0824SW15**	EPA 3546	OEXT/25066	EPA 8015B	GCSV/8546
30157410001	**HAOH0824SW15**	EPA 8260B	MSV/24786		
30157410001	**HAOH0824SW15**	Dry Weight	PMST/5592		
30157410002	**HAOH0824SW15 (ASTM)**	SM 4500-Cl-E	WETA/21083		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

30157410

Page: 1 of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Filtered (Y/N)

Requested Ana

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	VOCs - Acetone only (6	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH0824SW15	SL	G	8/24/15	1130				2	X								X	X	X	N	001, 002
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

566

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] Moodys	8/24/15	1700	[signature] Moodys	8/25/15	0900
[signature] Moodys	8/25/15	0900	Cliff Mitchell Pace	8/25/15	12:50
Cliff Mitchell Pace	8/25/15	3:30	[signature] Muchmore Pace	8/25/15	1530

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Av...	ntact
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
2.3	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM / DD / YY)

e-File(ALLQ020rev.3,31Mar05)

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30157410

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no **Biological Tissue Is Frozen:** Yes No

Packing Material: Bubble Wrap ✓ Bubble Bags ✓ None ___ Other _____

Thermometer Used 7 **Type of Ice:** (Wet) Blue None ☑ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 2.5 °C **Correction Factor:** -0.2 °C **Final Temp:** 2.3 °C

Date and initials of person examining contents: ARM 8/25/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☐Yes ☑No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☑N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☐No	Initial when completed ARM / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Rachel S Cummer **Date:** 8/26/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30157410

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

September 10, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157385

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between August 25, 2015 and September 01, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157385

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157385

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30157385001	**HAOH0824SW17**	Solid	08/24/15 12:01	08/25/15 15:30
30157385002	**HAOH0824SW17 (ASTM)**	Water	09/01/15 10:29	09/01/15 10:29

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157385

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30157385001	**HAOH0824SW17**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30157385002	**HAOH0824SW17 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157385

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30157385001	**HAOH0824SW17**					
Dry Weight	Percent Moisture	23.2	%	0.10	09/02/15 16:29	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157385

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157385

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/24786

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157385

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157385

Sample: HAOH0824SW17 **Lab ID: 30157385001** Collected: 08/24/15 12:01 Received: 08/25/15 15:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	ND	mg/kg	8.5	4.5	1	08/31/15 12:30	09/09/15 19:29		
Surrogates									
o-Terphenyl (S)	59	%	20-129		1	08/31/15 12:30	09/09/15 19:29	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	11.3	5.5	1		09/04/15 12:23	67-64-1	M5
Surrogates									
Toluene-d8 (S)	101	%	73-124		1		09/04/15 12:23	2037-26-5	M5
4-Bromofluorobenzene (S)	107	%	71-124		1		09/04/15 12:23	460-00-4	M5
1,2-Dichloroethane-d4 (S)	94	%	83-138		1		09/04/15 12:23	17060-07-0	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**23.2**	%	0.10	0.10	1		09/02/15 16:29		

Sample: HAOH0824SW17 (ASTM) **Lab ID: 30157385002** Collected: 09/01/15 10:29 Received: 09/01/15 10:29 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		09/01/15 12:47	16887-00-6	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157385

QC Batch: MSV/24786 | Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B | Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30157385001

METHOD BLANK: 947761 | Matrix: Solid
Associated Lab Samples: 30157385001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	09/04/15 11:30	M5
1,2-Dichloroethane-d4 (S)	%	99	83-138	09/04/15 11:30	M5
4-Bromofluorobenzene (S)	%	102	71-124	09/04/15 11:30	M5
Toluene-d8 (S)	%	102	73-124	09/04/15 11:30	M5

LABORATORY CONTROL SAMPLE: 947762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	16.3	82	12-183	M5
1,2-Dichloroethane-d4 (S)	%			106	83-138	M5
4-Bromofluorobenzene (S)	%			103	71-124	M5
Toluene-d8 (S)	%			99	73-124	M5

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157385

QC Batch: OEXT/25066 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30157385001

METHOD BLANK: 944952 | Matrix: Solid
Associated Lab Samples: 30157385001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	08/31/15 22:08	
o-Terphenyl (S)	%	63	20-129	08/31/15 22:08	

LABORATORY CONTROL SAMPLE: 944953

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.5	80	52-126	
o-Terphenyl (S)	%			82	20-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 944954 944955

Parameter	Units	30157383001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	ND	91.7	92.7	90.3	73.0	95	76	52-126	21	25	
o-Terphenyl (S)	%						93	83	20-129			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157385

QC Batch: PMST/5592
QC Batch Method: Dry Weight
Analysis Method: Dry Weight
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30157385001

SAMPLE DUPLICATE: 946453

Parameter	Units	30157383001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	29.1	28.8	1	20	

SAMPLE DUPLICATE: 946454

Parameter	Units	30157384001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	23.3	23.8	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157385

QC Batch: WETA/21083 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30157385002

METHOD BLANK: 945747 | Matrix: Water
Associated Lab Samples: 30157385002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:36	

METHOD BLANK: 945749 | Matrix: Water
Associated Lab Samples: 30157385002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:37	

METHOD BLANK: 945750 | Matrix: Water
Associated Lab Samples: 30157385002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

METHOD BLANK: 945751 | Matrix: Water
Associated Lab Samples: 30157385002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

LABORATORY CONTROL SAMPLE: 945748

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.7	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 945752 945753

Parameter	Units	30157383002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.0	91	90	85-115	2	20	

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REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157385

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/24786

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157385

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30157385001	**HAOH0824SW17**	EPA 3546	OEXT/25066	EPA 8015B	GCSV/8546
30157385001	**HAOH0824SW17**	EPA 8260B	MSV/24786		
30157385001	**HAOH0824SW17**	Dry Weight	PMST/5592		
30157385002	**HAOH0824SW17 (ASTM)**	SM 4500-Cl-E	WETA/21083		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

30157385

Page: 1 of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION

☐ GA ☐ IL ☐ IN ☐ MI ☐ NC
☑ OH ☐ SC ☐ WI ☐ OTHER_____

Filtered (Y/N)

Requested Ana

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	VOCs - Acetone only (&	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH0824SW17	SL	G	8/24/15	1201				2	X								X	X	X	N	001, 002
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] Moody & Assoc	8/24/15	1700	[signature] Moody & Assoc	8/25/15	0900
[signature] Moody & Assoc	8/25/15	0900	Cliff Mtsloy Pace	8/25/15	12:50P
Cliff Mtsloy Pace	8/25/15	3:30	[signature]	8/25/15	1530

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
1.4	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Lori Horowitz

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM / DD / YY): 08/25/15

e-File(ALLQ020rev.3,31Mar05))22Jun2005

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30157385

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap ____ Bubble Bags ____ None ____ Other _____

Thermometer Used 6 Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 1.6 °C Correction Factor: -0.2 °C Final Temp: 1.4 °C

Date and initials of person examining contents: AML 8/25/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☒No	Initial when completed AML / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Rachel Christner **Date:** 8/26/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

page 2

Project Number: 30157385

Client Name: Moody

Item No.	001
Matrix Code	X
Glass Jar (120 / 250 / 500 / 1L)	2
Soil kit (2 SB, 1M, soil jar)	
Chemistry (250 / 500 / 1L)	
Organics (1L)	
Nutrient (250 / 500)	
Phenolics (250 ml)	
TOC (40 ml / 250 ml)	
TOX (250 ml)	
Total Metals	
Dissolved Metals preserved Y N	
O & G (1L)	
TPH (1L)	
VOA (40 ml 30 ml)	
Cyanide (250 ml)	
Sulfide (500 ml)	
Bacteria (120 ml)	
Wipes / swipe/ smear/ filter	
Radchem Nalgene (125 / 250 / 500 / 1L)	
Radchem Nalgene (1/2 gal. / 1 gal.L)	
Cubitainer (500 ml / 4L)	
Ziploc	
Other	
Other	

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
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Greensburg, PA 15601
(724)850-5600

September 10, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157384

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between August 25, 2015 and September 01, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157384

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157384

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30157384001	**HAOH0824SW18**	Solid	08/24/15 10:58	08/25/15 15:30
30157384002	**HAOH0824SW18 (ASTM)**	Water	09/01/15 10:25	09/01/15 10:25

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157384

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30157384001	**HAOH0824SW18**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30157384002	**HAOH0824SW18 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157384

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30157384001	**HAOH0824SW18**					
Dry Weight	Percent Moisture	23.3	%	0.10	09/02/15 16:27	

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157384

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157384

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/24786

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157384

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157384

Sample: HAOH0824SW18 **Lab ID: 30157384001** Collected: 08/24/15 10:58 Received: 08/25/15 15:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	ND	mg/kg	8.5	4.5	1	08/31/15 12:30	09/09/15 19:10		
Surrogates									
o-Terphenyl (S)	63	%	20-129		1	08/31/15 12:30	09/09/15 19:10	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	11.8	5.8	1		09/04/15 14:36	67-64-1	M5
Surrogates									
Toluene-d8 (S)	100	%	73-124		1		09/04/15 14:36	2037-26-5	M5
4-Bromofluorobenzene (S)	102	%	71-124		1		09/04/15 14:36	460-00-4	M5
1,2-Dichloroethane-d4 (S)	101	%	83-138		1		09/04/15 14:36	17060-07-0	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**23.3**	%	0.10	0.10	1		09/02/15 16:27		

Sample: HAOH0824SW18 (ASTM) **Lab ID: 30157384002** Collected: 09/01/15 10:25 Received: 09/01/15 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		09/01/15 12:46	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157384

QC Batch: MSV/24786
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30157384001

METHOD BLANK: 947761
Matrix: Solid
Associated Lab Samples: 30157384001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	09/04/15 11:30	M5
1,2-Dichloroethane-d4 (S)	%	99	83-138	09/04/15 11:30	M5
4-Bromofluorobenzene (S)	%	102	71-124	09/04/15 11:30	M5
Toluene-d8 (S)	%	102	73-124	09/04/15 11:30	M5

LABORATORY CONTROL SAMPLE: 947762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	16.3	82	12-183	M5
1,2-Dichloroethane-d4 (S)	%			106	83-138	M5
4-Bromofluorobenzene (S)	%			103	71-124	M5
Toluene-d8 (S)	%			99	73-124	M5

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157384

QC Batch: OEXT/25066 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30157384001

METHOD BLANK: 944952 | Matrix: Solid
Associated Lab Samples: 30157384001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	08/31/15 22:08	
o-Terphenyl (S)	%	63	20-129	08/31/15 22:08	

LABORATORY CONTROL SAMPLE: 944953

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.5	80	52-126	
o-Terphenyl (S)	%			82	20-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 944954 944955

Parameter	Units	30157383001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	ND	91.7	92.7	90.3	73.0	95	76	52-126	21	25	
o-Terphenyl (S)	%						93	83	20-129			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157384

QC Batch: PMST/5592
QC Batch Method: Dry Weight
Analysis Method: Dry Weight
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30157384001

SAMPLE DUPLICATE: 946453

Parameter	Units	30157383001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	29.1	28.8	1	20	

SAMPLE DUPLICATE: 946454

Parameter	Units	30157384001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	23.3	23.8	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157384

QC Batch: WETA/21083 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30157384002

METHOD BLANK: 945747 | Matrix: Water
Associated Lab Samples: 30157384002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:36	

METHOD BLANK: 945749 | Matrix: Water
Associated Lab Samples: 30157384002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:37	

METHOD BLANK: 945750 | Matrix: Water
Associated Lab Samples: 30157384002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

METHOD BLANK: 945751 | Matrix: Water
Associated Lab Samples: 30157384002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

LABORATORY CONTROL SAMPLE: 945748

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.7	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 945752 945753

Parameter	Units	30157383002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.0	91	90	85-115	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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(724)850-5600

QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157384

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/24786

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157384

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30157384001	**HAOH0824SW18**	EPA 3546	OEXT/25066	EPA 8015B	GCSV/8546
30157384001	**HAOH0824SW18**	EPA 8260B	MSV/24786		
30157384001	**HAOH0824SW18**	Dry Weight	PMST/5592		
30157384002	**HAOH0824SW18 (ASTM)**	SM 4500-Cl-E	WETA/21083		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

30157384

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analyses Test: VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. / Lab I.D.
1	HAOH082 4SW18	SL	G	8/24/15	1058				2	X								X	X	X	N	001, 002
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Moody & Assoc.	8/24/15	1700	Moody & Assoc	8/25/15	0900
Moody & Assoc	8/25/15	0900	Cliff Mt Lay Pace	8/25/15	12:50P
Cliff Mt Lay Pace	8/25/15	3:30		8/25/15	1530

SAMPLE CONDITIONS

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
1.4	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Lori Horowitz

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 08/25/15

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30157384

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no Biological Tissue Is Frozen: Yes No

Packing Material: Bubble Wrap ___ Bubble Bags ___ None ___ Other _____

Thermometer Used 6 Type of Ice: Wet Blue None ☒ Samples on Ice, cooling process has begun

Cooler Temp.: Observed Temp.: 1.6 °C Correction Factor: -0.2 °C Final Temp: 1.4 °C

Date and Initials of person examining contents: AML 8/25/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	Initial when completed AML / Lot # of added preservative
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☐No ☒N/A	
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Donna L Christner **Date:** 8/26/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

page 2

Project Number: 30157384

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

SCURF Back (C016-4 15May2012).xls

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(724)850-5600

September 10, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157411

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between August 25, 2015 and September 01, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157411

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157411

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30157411001	**HAOH0824SW20**	Solid	08/24/15 14:10	08/25/15 15:30
30157411002	**HAOH0824SW20 (ASTM)**	Water	09/01/15 10:55	09/01/15 10:55

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157411

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30157411001	**HAOH0824SW20**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30157411002	**HAOH0824SW20 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157411

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30157411001	**HAOH0824SW20**					
Dry Weight	Percent Moisture	30.8	%	0.10	09/02/15 16:35	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157411

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157411

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/24786

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157411

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157411

Sample: HAOH0824SW20 **Lab ID: 30157411001** Collected: 08/24/15 14:10 Received: 08/25/15 15:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	ND	mg/kg	9.4	5.0	1	08/31/15 12:30	09/09/15 21:04		
Surrogates									
o-Terphenyl (S)	76	%	20-129		1	08/31/15 12:30	09/09/15 21:04	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	13.2	6.4	1		09/04/15 15:29	67-64-1	M5
Surrogates									
Toluene-d8 (S)	100	%	73-124		1		09/04/15 15:29	2037-26-5	M5
4-Bromofluorobenzene (S)	104	%	71-124		1		09/04/15 15:29	460-00-4	M5
1,2-Dichloroethane-d4 (S)	97	%	83-138		1		09/04/15 15:29	17060-07-0	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**30.8**	%	0.10	0.10	1		09/02/15 16:35		

Sample: HAOH0824SW20 (ASTM) **Lab ID: 30157411002** Collected: 09/01/15 10:55 Received: 09/01/15 10:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		09/01/15 12:55	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157411

QC Batch: MSV/24786
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30157411001

METHOD BLANK: 947761
Matrix: Solid
Associated Lab Samples: 30157411001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	09/04/15 11:30	M5
1,2-Dichloroethane-d4 (S)	%	99	83-138	09/04/15 11:30	M5
4-Bromofluorobenzene (S)	%	102	71-124	09/04/15 11:30	M5
Toluene-d8 (S)	%	102	73-124	09/04/15 11:30	M5

LABORATORY CONTROL SAMPLE: 947762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	16.3	82	12-183	M5
1,2-Dichloroethane-d4 (S)	%			106	83-138	M5
4-Bromofluorobenzene (S)	%			103	71-124	M5
Toluene-d8 (S)	%			99	73-124	M5

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157411

QC Batch: OEXT/25066 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30157411001

METHOD BLANK: 944952 | Matrix: Solid
Associated Lab Samples: 30157411001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	08/31/15 22:08	
o-Terphenyl (S)	%	63	20-129	08/31/15 22:08	

LABORATORY CONTROL SAMPLE: 944953

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.5	80	52-126	
o-Terphenyl (S)	%			82	20-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 944954 944955

Parameter	Units	30157383001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	ND	91.7	92.7	90.3	73.0	95	76	52-126	21	25	
o-Terphenyl (S)	%						93	83	20-129			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157411

QC Batch: PMST/5592
QC Batch Method: Dry Weight
Analysis Method: Dry Weight
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30157411001

SAMPLE DUPLICATE: 946453

Parameter	Units	30157383001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	29.1	28.8	1	20	

SAMPLE DUPLICATE: 946454

Parameter	Units	30157384001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	23.3	23.8	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157411

QC Batch: WETA/21083 — Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E — Analysis Description: 4500 Chloride
Associated Lab Samples: 30157411002

METHOD BLANK: 945747 — Matrix: Water
Associated Lab Samples: 30157411002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:36	

METHOD BLANK: 945749 — Matrix: Water
Associated Lab Samples: 30157411002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:37	

METHOD BLANK: 945750 — Matrix: Water
Associated Lab Samples: 30157411002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

METHOD BLANK: 945751 — Matrix: Water
Associated Lab Samples: 30157411002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

LABORATORY CONTROL SAMPLE: 945748

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.7	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 945752 945753

Parameter	Units	30157383002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.0	91	90	85-115	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157411

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/24786

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157411

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30157411001	**HAOH0824SW20**	EPA 3546	OEXT/25066	EPA 8015B	GCSV/8546
30157411001	**HAOH0824SW20**	EPA 8260B	MSV/24786		
30157411001	**HAOH0824SW20**	Dry Weight	PMST/5592		
30157411002	**HAOH0824SW20 (ASTM)**	SM 4500-Cl-E	WETA/21083		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

30157411

Page: 1 of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER_____

Filtered (Y/N)

Requested Ana

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	VOCs - Acetone only (&	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH0824SW20	SL	G	8/24/15	1410				2	X								X	X	X	N	001,002
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] Moodys + Associate	8/24/15	1700	[signature] Moodys + Ass	8/25/15	0900
[signature] Moodys + Associates	8/25/15	0900			
			Cliff Mt Joy Pace	8/25/15	12:50P
Cliff Mt Joy Pace	8/25/15	3:30	Alyna R Muchanov	8/25/15	1530

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
2.3	Y/N	Y/N	Y/N

8/25/15 AR

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Pace

SIGNATURE of SAMPLER:

DATE Signed (MM / DD / YY)

e-File(ALLQ020rev.3,31Mar05))22Jun2005

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30157411

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap ✓ Bubble Bags ✓ None ____ Other _____

Thermometer Used 7 Type of Ice: (Wet) Blue None ☑ Samples on Ice, cooling process has begun

Cooler Temp.: Observed Temp.: 2.5 °C Correction Factor: -0.2 °C Final Temp: 2.3 °C

Date and initials of person examining contents: ARM 8/25/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☐No	Initial when completed ARM / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Rachel S Christner **Date:** 8/26/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

30157411

Project Number: _____

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

September 10, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157387

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between August 25, 2015 and September 01, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157387

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157387

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30157387001	**HAOH0824SW21**	Solid	08/24/15 13:56	08/25/15 15:30
30157387002	**HAOH0824SW21 (ASTM)**	Water	09/01/15 10:36	09/01/15 10:36

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157387

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30157387001	**HAOH0824SW21**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30157387002	**HAOH0824SW21 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157387

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30157387001	**HAOH0824SW21**					
Dry Weight	Percent Moisture	24.4	%	0.10	09/02/15 16:30	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157387

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157387

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/24786

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157387

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157387

Sample: HAOH0824SW21 **Lab ID: 30157387001** Collected: 08/24/15 13:56 Received: 08/25/15 15:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	ND	mg/kg	8.7	4.6	1	08/31/15 12:30	09/09/15 20:10		
Surrogates									
o-Terphenyl (S)	71	%	20-129		1	08/31/15 12:30	09/09/15 20:10	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	10.9	5.3	1		09/04/15 13:17	67-64-1	M5
Surrogates									
Toluene-d8 (S)	101	%	73-124		1		09/04/15 13:17	2037-26-5	M5
4-Bromofluorobenzene (S)	94	%	71-124		1		09/04/15 13:17	460-00-4	M5
1,2-Dichloroethane-d4 (S)	97	%	83-138		1		09/04/15 13:17	17060-07-0	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**24.4**	%	0.10	0.10	1		09/02/15 16:30		

Sample: HAOH0824SW21 (ASTM) **Lab ID: 30157387002** Collected: 09/01/15 10:36 Received: 09/01/15 10:36 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		09/01/15 12:53	16887-00-6	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157387

QC Batch: MSV/24786 | Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B | Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30157387001

METHOD BLANK: 947761 | Matrix: Solid
Associated Lab Samples: 30157387001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	09/04/15 11:30	M5
1,2-Dichloroethane-d4 (S)	%	99	83-138	09/04/15 11:30	M5
4-Bromofluorobenzene (S)	%	102	71-124	09/04/15 11:30	M5
Toluene-d8 (S)	%	102	73-124	09/04/15 11:30	M5

LABORATORY CONTROL SAMPLE: 947762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	16.3	82	12-183	M5
1,2-Dichloroethane-d4 (S)	%			106	83-138	M5
4-Bromofluorobenzene (S)	%			103	71-124	M5
Toluene-d8 (S)	%			99	73-124	M5

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157387

QC Batch: OEXT/25066 — Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 — Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30157387001

METHOD BLANK: 944952 — Matrix: Solid
Associated Lab Samples: 30157387001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	08/31/15 22:08	
o-Terphenyl (S)	%	63	20-129	08/31/15 22:08	

LABORATORY CONTROL SAMPLE: 944953

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.5	80	52-126	
o-Terphenyl (S)	%			82	20-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 944954 944955

Parameter	Units	30157383001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	ND	91.7	92.7	90.3	73.0	95	76	52-126	21	25	
o-Terphenyl (S)	%						93	83	20-129			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157387

QC Batch: PMST/5592
QC Batch Method: Dry Weight
Analysis Method: Dry Weight
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30157387001

SAMPLE DUPLICATE: 946453

Parameter	Units	30157383001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	29.1	28.8	1	20	

SAMPLE DUPLICATE: 946454

Parameter	Units	30157384001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	23.3	23.8	2	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157387

QC Batch: WETA/21083 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30157387002

METHOD BLANK: 945747 | Matrix: Water
Associated Lab Samples: 30157387002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:36	

METHOD BLANK: 945749 | Matrix: Water
Associated Lab Samples: 30157387002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:37	

METHOD BLANK: 945750 | Matrix: Water
Associated Lab Samples: 30157387002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

METHOD BLANK: 945751 | Matrix: Water
Associated Lab Samples: 30157387002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

LABORATORY CONTROL SAMPLE: 945748

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.7	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 945752 945753

Parameter	Units	30157383002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.0	91	90	85-115	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157387

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/24786

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157387

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30157387001	**HAOH0824SW21**	EPA 3546	OEXT/25066	EPA 8015B	GCSV/8546
30157387001	**HAOH0824SW21**	EPA 8260B	MSV/24786		
30157387001	**HAOH0824SW21**	Dry Weight	PMST/5592		
30157387002	**HAOH0824SW21 (ASTM)**	SM 4500-Cl-E	WETA/21083		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

30157387

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analyses Test: VOCs - Acetone only (6	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH08242SW21	SL	G	8/24/15	1356				2	X								X	X	X	N	001
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Moody & Assoc	08/24/15	1700	Moody & Assoc	08/25/15	0900		Y/N	Y/N	Y/N
Moody & Assoc	08/25/15	0900	Cliff Mt Joy Pace	8/25/15	12:50P		Y/N	Y/N	Y/N
Cliff Mt Joy Pace	8/25/15	3:30		8/25/15	1530	1.4	Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
PRINT Name of SAMPLER: Lori Horowitz					
SIGNATURE of SAMPLER:	DATE Signed (MM / DD / YY): 08/25/15				

Sample Condition Upon Receipt

Pace Analytical™

Client Name: Moody

Project # 30157387

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no **Biological Tissue is Frozen:** Yes No

Packing Material: Bubble Wrap ___ Bubble Bags ___ None ___ Other _____

Thermometer Used 6 **Type of Ice:** Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 1.6 °C **Correction Factor:** -0.2 °C **Final Temp:** 1.4 °C

Date and initials of person examining contents: AMC 8/25/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☒No	Initial when completed AMC / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Rachel Christmas **Date:** 8/26/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30157387

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

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Greensburg, PA 15601
(724)850-5600

September 10, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157386

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between August 25, 2015 and September 01, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157386

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157386

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30157386001	**HAOH0824SW25**	Solid	08/24/15 12:51	08/25/15 15:30
30157386002	**HAOH0824SW25 (ASTM)**	Water	09/01/15 10:34	09/01/15 10:34

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157386

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30157386001	**HAOH0824SW25**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	4	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30157386002	**HAOH0824SW25 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157386

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30157386001	**HAOH0824SW25**					
EPA 8015B	TPH (C10-C28)	355	mg/kg	57.0	09/10/15 13:18	
EPA 8260B	Acetone	40.4	ug/kg	21.2	09/04/15 12:50	M5
Dry Weight	Percent Moisture	42.2	%	0.10	09/02/15 16:29	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157386

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157386

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/24786

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157386

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: September 10, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157386

Sample: HAOH0824SW25 **Lab ID: 30157386001** Collected: 08/24/15 12:51 Received: 08/25/15 15:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	**355**	mg/kg	57.0	30.1	5	08/31/15 12:30	09/10/15 13:18		
Surrogates									
o-Terphenyl (S)	72	%	20-129		5	08/31/15 12:30	09/10/15 13:18	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	**40.4**	ug/kg	21.2	10.4	1		09/04/15 12:50	67-64-1	M5
Surrogates									
Toluene-d8 (S)	90	%	73-124		1		09/04/15 12:50	2037-26-5	M5
4-Bromofluorobenzene (S)	95	%	71-124		1		09/04/15 12:50	460-00-4	M5
1,2-Dichloroethane-d4 (S)	100	%	83-138		1		09/04/15 12:50	17060-07-0	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**42.2**	%	0.10	0.10	1		09/02/15 16:29		

Sample: HAOH0824SW25 (ASTM) **Lab ID: 30157386002** Collected: 09/01/15 10:34 Received: 09/01/15 10:34 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		09/01/15 12:52	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157386

QC Batch: MSV/24786 | Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B | Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30157386001

METHOD BLANK: 947761 | Matrix: Solid
Associated Lab Samples: 30157386001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	09/04/15 11:30	M5
1,2-Dichloroethane-d4 (S)	%	99	83-138	09/04/15 11:30	M5
4-Bromofluorobenzene (S)	%	102	71-124	09/04/15 11:30	M5
Toluene-d8 (S)	%	102	73-124	09/04/15 11:30	M5

LABORATORY CONTROL SAMPLE: 947762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	16.3	82	12-183	M5
1,2-Dichloroethane-d4 (S)	%			106	83-138	M5
4-Bromofluorobenzene (S)	%			103	71-124	M5
Toluene-d8 (S)	%			99	73-124	M5

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157386

QC Batch: OEXT/25066 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30157386001

METHOD BLANK: 944952 | Matrix: Solid
Associated Lab Samples: 30157386001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	08/31/15 22:08	
o-Terphenyl (S)	%	63	20-129	08/31/15 22:08	

LABORATORY CONTROL SAMPLE: 944953

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	53.5	80	52-126	
o-Terphenyl (S)	%			82	20-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 944954 944955

Parameter	Units	30157383001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	ND	91.7	92.7	90.3	73.0	95	76	52-126	21	25	
o-Terphenyl (S)	%						93	83	20-129			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157386

QC Batch: PMST/5592 | Analysis Method: Dry Weight
QC Batch Method: Dry Weight | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30157386001

SAMPLE DUPLICATE: 946453

Parameter	Units	30157383001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	29.1	28.8	1	20	

SAMPLE DUPLICATE: 946454

Parameter	Units	30157384001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	23.3	23.8	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157386

QC Batch: WETA/21083 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30157386002

METHOD BLANK: 945747 | Matrix: Water
Associated Lab Samples: 30157386002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:36	

METHOD BLANK: 945749 | Matrix: Water
Associated Lab Samples: 30157386002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:37	

METHOD BLANK: 945750 | Matrix: Water
Associated Lab Samples: 30157386002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

METHOD BLANK: 945751 | Matrix: Water
Associated Lab Samples: 30157386002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	09/01/15 12:38	

LABORATORY CONTROL SAMPLE: 945748

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.7	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 945752 945753

Parameter	Units	30157383002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.0	91	90	85-115	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157386

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/24786

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30157386

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30157386001	**HAOH0824SW25**	EPA 3546	OEXT/25066	EPA 8015B	GCSV/8546
30157386001	**HAOH0824SW25**	EPA 8260B	MSV/24786		
30157386001	**HAOH0824SW25**	Dry Weight	PMST/5592		
30157386002	**HAOH0824SW25 (ASTM)**	SM 4500-Cl-E	WETA/21083		

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www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

30157386

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE)	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N)	VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH08245SW25	SL	G	8/24/15	1251				2	X									X	X	X	N	001
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Moody & Assoc	08/24/15	1700	Moody & Assoc	8/25/15	0900
Moody & Assoc	08/25/15	0900	Cliff Mt. Jay Pace	8/25/15	12:50P
Cliff Mt. Jay Pace	8/25/15	3:30		8/25/15	1530

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
1.4	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Lori Harowitz

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 08/25/15

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30157386

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap ___ Bubble Bags ___ None ___ Other _____

Thermometer Used 6 Type of Ice: Wet Blue None ☒ Samples on Ice, cooling process has begun

Cooler Temp.: Observed Temp.: 1.6 °C Correction Factor: -0.2 °C Final Temp: 1.4 °C

Date and initials of person examining contents: AMC 8/25/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	Initial when completed AMC / Lot # of added preservative
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Rachel S Christmas **Date:** 8/26/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

page 2

30157386

Project Number: _____

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

SCURF Back (C016-4 15May2012).xls

NELAP CERTIFICATE NUMBER: 01955
DOD ELAP CERTIFICATE NUMBER: L14-243

ANALYTICAL RESULTS

PERFORMED BY

GCAL, LLC
7979 Innovation Park Dr.
Baton Rouge, LA 70820

Report Date 10/29/2015

GCAL Report 215101401

Project Eisenbarth Consent Order

Deliver To Leah Mistick Moody & Associates, Inc. 199 S. Johnson Rd Bldg 2, Ste 101 Houston, PA 15342 724-746-5200

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations that may be Utilized in this Report

ND	Indicates the result was Not Detected at the specified reporting limit
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
DL	Detection Limit
DL	Diluted analysis – when appended to Client Sample ID
LOD	Limit of Detection
LOQ	Limit of Quantitation
RE	Re-analysis
00:01	Reported as a time equivalent to 12:00 AM

Reporting Flags that may be Utilized in this Report

J or I	Indicates the result is between the MDL and LOQ
J	DOD flag on analyte in the parent sample for MS/MSD outside acceptance criteria
U	Indicates the compound was analyzed for but not detected
B or V	Indicates the analyte was detected in the associated Method Blank
Q	Indicates a non-compliant QC Result (See Q Flag Application Report)
*****	Indicates a non-compliant or not applicable QC recovery or RPD – see narrative
E	The result is estimated because it exceeded the instrument calibration range
E	Metals - % diference for the serial dilution is > 10%

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the NELAC Institute standard and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

_____
Authorized Signature
GCAL Report 215101401

Case Narrative

Client: Moody & Associates, Inc. **Report:** 215101401

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the Report Sample Summary page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

SEMI-VOLATILES MASS SPECTROMETRY

In the GCAL SOP LCMS-001 analysis, samples 21510140106 (HAOH1012SW04), 21510140110 (HAOH1012SW20), 21510140116 (HAOH1012SW06), 21510140117 (HAOH1012SW17), 21510140118 (HAOH1012SW18), 21510140119 (HAOH1012SW21) and 21510140120 (HAOH1012SW25) had to be diluted to bracket the concentration of target compounds within the calibration range of the instrument. This is reflected in elevated detection limits.

In the GCAL SOP LCMS-001 analysis for prep batch 570201, the MS/MSD exhibited recovery failures. The LCS/LCSD recoveries are acceptable.

In the GCAL SOP LCMS-001 analysis for prep batch 570202, TTPC was recovered outside of the established control limits for the LCS and LCSD.The MS/MSD recoveries were above QC limits in samples 1498923 and 1498924.

HIGH PERFORMANCE LIQUID CHROMATOGRAPHY

In the GCAL SOP HPLC-009 analysis for prep batch 570761, the MS/MSD exhibited sporadic recovery failures. The LCS/LCSD recoveries are acceptable.

Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21510140101	HAOH1012SW04	Water	10/12/2015 12:30	10/14/2015 07:55
21510140102	HAOH1012SW08	Water	10/12/2015 10:30	10/14/2015 07:55
21510140103	HAOH1012SW08DUP	Water	10/12/2015 10:45	10/14/2015 07:55
21510140104	HAOH1012SW15	Water	10/12/2015 11:35	10/14/2015 07:55
21510140105	HAOH1012SW20	Water	10/12/2015 13:40	10/14/2015 07:55
21510140106	HAOH1012SW04	Solid	10/12/2015 12:45	10/14/2015 07:55
21510140107	HAOH1012SW08	Solid	10/12/2015 11:00	10/14/2015 07:55
21510140108	HAOH1012SW08DUP	Solid	10/12/2015 11:15	10/14/2015 07:55
21510140109	HAOH1012SW15	Solid	10/12/2015 11:45	10/14/2015 07:55
21510140110	HAOH1012SW20	Solid	10/12/2015 13:50	10/14/2015 07:55
21510140111	HAOH1012SW06	Water	10/12/2015 14:10	10/14/2015 07:55
21510140112	HAOH1012SW17	Water	10/12/2015 13:00	10/14/2015 07:55
21510140113	HAOH1012SW18	Water	10/12/2015 11:55	10/14/2015 07:55
21510140114	HAOH1012SW21	Water	10/12/2015 14:30	10/14/2015 07:55
21510140115	HAOH1012SW25	Water	10/12/2015 13:40	10/14/2015 07:55
21510140116	HAOH1012SW06	Solid	10/12/2015 14:15	10/14/2015 07:55
21510140117	HAOH1012SW17	Solid	10/12/2015 13:05	10/14/2015 07:55
21510140118	HAOH1012SW18	Solid	10/12/2015 12:00	10/14/2015 07:55
21510140119	HAOH1012SW21	Solid	10/12/2015 14:35	10/14/2015 07:55
21510140120	HAOH1012SW25	Solid	10/12/2015 13:40	10/14/2015 07:55
21510140121	HAOH1012SW001	Water	10/12/2015 11:00	10/14/2015 07:55
21510140122	HAOH1012SW24	Water	10/12/2015 15:40	10/14/2015 07:55
21510140123	HAOH1012PD03	Water	10/12/2015 13:35	10/14/2015 07:55
21510140124	HAOH1012PD07	Water	10/12/2015 14:35	10/14/2015 07:55
21510140125	HAOH1012SW001	Solid	10/12/2015 11:15	10/14/2015 07:55

Summary of Compounds Detected

HAOH1012SW04	Collect Date	10/12/2015 12:30	GCAL ID	21510140101
	Receive Date	10/14/2015 07:55	Matrix	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	47.6J	14.3	100	ng/L

HAOH1012SW08	Collect Date	10/12/2015 10:30	GCAL ID	21510140102
	Receive Date	10/14/2015 07:55	Matrix	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	45.3J	14.3	100	ng/L

HAOH1012SW08DUP	Collect Date	10/12/2015 10:45	GCAL ID	21510140103
	Receive Date	10/14/2015 07:55	Matrix	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	41.7J	14.3	100	ng/L

HAOH1012SW15	Collect Date	10/12/2015 11:35	GCAL ID	21510140104
	Receive Date	10/14/2015 07:55	Matrix	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	39.9J	14.3	100	ng/L

HAOH1012SW20	Collect Date	10/12/2015 13:40	GCAL ID	21510140105
	Receive Date	10/14/2015 07:55	Matrix	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	45.6J	14.3	100	ng/L

Summary of Compounds Detected

HAOH1012SW04	Collect Date	10/12/2015 12:45	GCAL ID	21510140106
	Receive Date	10/14/2015 07:55	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	34500	417	3020	ng/Kg

HAOH1012SW08	Collect Date	10/12/2015 11:00	GCAL ID	21510140107
	Receive Date	10/14/2015 07:55	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	837	53.4	387	ng/Kg

HAOH1012SW08DUP	Collect Date	10/12/2015 11:15	GCAL ID	21510140108
	Receive Date	10/14/2015 07:55	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	437	50.9	369	ng/Kg

HAOH1012SW15	Collect Date	10/12/2015 11:45	GCAL ID	21510140109
	Receive Date	10/14/2015 07:55	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	149J	49.8	361	ng/Kg

HAOH1012SW20	Collect Date	10/12/2015 13:50	GCAL ID	21510140110
	Receive Date	10/14/2015 07:55	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	1800000	23600	171000	ng/Kg

Summary of Compounds Detected

HAOH1012SW06

Collect Date	10/12/2015 14:10	**GCAL ID**	21510140111
Receive Date	10/14/2015 07:55	**Matrix**	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	168	14.3	100	ng/L

HAOH1012SW17

Collect Date	10/12/2015 13:00	**GCAL ID**	21510140112
Receive Date	10/14/2015 07:55	**Matrix**	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	84.9J	14.3	100	ng/L

HAOH1012SW18

Collect Date	10/12/2015 11:55	**GCAL ID**	21510140113
Receive Date	10/14/2015 07:55	**Matrix**	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	48.0J	14.3	100	ng/L

HAOH1012SW21

Collect Date	10/12/2015 14:30	**GCAL ID**	21510140114
Receive Date	10/14/2015 07:55	**Matrix**	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	295	14.3	100	ng/L

HAOH1012SW25

Collect Date	10/12/2015 13:40	**GCAL ID**	21510140115
Receive Date	10/14/2015 07:55	**Matrix**	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	151	14.3	100	ng/L

Summary of Compounds Detected

HAOH1012SW06	Collect Date	10/12/2015 14:15	GCAL ID	21510140116
	Receive Date	10/14/2015 07:55	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	9300000	96900	702000	ng/Kg

HAOH1012SW17	Collect Date	10/12/2015 13:05	GCAL ID	21510140117
	Receive Date	10/14/2015 07:55	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	13200000	99500	721000	ng/Kg

HAOH1012SW18	Collect Date	10/12/2015 12:00	GCAL ID	21510140118
	Receive Date	10/14/2015 07:55	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	1670000	22600	164000	ng/Kg

HAOH1012SW21	Collect Date	10/12/2015 14:35	GCAL ID	21510140119
	Receive Date	10/14/2015 07:55	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	23800000	452000	3270000	ng/Kg

HAOH1012SW25	Collect Date	10/12/2015 13:40	GCAL ID	21510140120
	Receive Date	10/14/2015 07:55	Matrix	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	5780000	43700	317000	ng/Kg

Summary of Compounds Detected

HAOH1012SW001	Collect Date	10/12/2015 11:00	GCAL ID	21510140121
	Receive Date	10/14/2015 07:55	Matrix	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	39.4J	14.3	100	ng/L

HAOH1012SW24	Collect Date	10/12/2015 15:40	GCAL ID	21510140122
	Receive Date	10/14/2015 07:55	Matrix	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	42.6J	14.3	100	ng/L

HAOH1012PD03	Collect Date	10/12/2015 13:35	GCAL ID	21510140123
	Receive Date	10/14/2015 07:55	Matrix	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	38.8J	14.3	100	ng/L

HAOH1012PD07	Collect Date	10/12/2015 14:35	GCAL ID	21510140124
	Receive Date	10/14/2015 07:55	Matrix	Water

GCAL SOP LCMS-001

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	39.3J	14.3	100	ng/L

Sample Results

HAOH1012SW04

Collect Date	10/12/2015 12:30	**GCAL ID**	21510140101
Receive Date	10/14/2015 07:55	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/15/2015 09:30	570202	GCAL SOP LCMS-001	1	10/20/2015 15:02	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**47.6J**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/15/2015 11:38	SDD	570267

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

GCAL SOP HPLC-009

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/21/2015 17:50	570721	GCAL SOP HPLC-009	1	10/22/2015 12:22	DLB	570798

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	0.895U	0.895	2.63	ug/L

HAOH1012SW08

Collect Date	10/12/2015 10:30	**GCAL ID**	21510140102
Receive Date	10/14/2015 07:55	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/15/2015 09:30	570202	GCAL SOP LCMS-001	1	10/20/2015 15:34	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**45.3J**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/15/2015 11:52	SDD	570267

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L

Sample Results

HAOH1012SW08

Collect Date	10/12/2015 10:30	**GCAL ID**	21510140102
Receive Date	10/14/2015 07:55	**Matrix**	Water

EPA 8015C (Continued)

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/15/2015 11:52	SDD	570267

CAS#	Parameter	Result	DL	LOQ	Units
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

HAOH1012SW08DUP

Collect Date	10/12/2015 10:45	**GCAL ID**	21510140103
Receive Date	10/14/2015 07:55	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/15/2015 09:30	570202	GCAL SOP LCMS-001	1	10/20/2015 15:44	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**41.7J**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/15/2015 12:06	SDD	570267

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

HAOH1012SW15

Collect Date	10/12/2015 11:35	**GCAL ID**	21510140104
Receive Date	10/14/2015 07:55	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/15/2015 09:30	570202	GCAL SOP LCMS-001	1	10/20/2015 15:55	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**39.9J**	**14.3**	**100**	**ng/L**

Sample Results

HAOH1012SW15

Collect Date	10/12/2015 11:35	**GCAL ID**	21510140104
Receive Date	10/14/2015 07:55	**Matrix**	Water

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/15/2015 12:21	SDD	570267

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

HAOH1012SW20

Collect Date	10/12/2015 13:40	**GCAL ID**	21510140105
Receive Date	10/14/2015 07:55	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/15/2015 09:30	570202	GCAL SOP LCMS-001	1	10/20/2015 16:05	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**45.6J**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/15/2015 12:35	SDD	570267

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

HAOH1012SW04

Collect Date	10/12/2015 12:45	**GCAL ID**	21510140106
Receive Date	10/14/2015 07:55	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/14/2015 13:30	570201	EPA 3550C	10	10/20/2015 18:55	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**34500**	**417**	**3020**	**ng/Kg**

Sample Results

HAOH1012SW04

Collect Date	10/12/2015 12:45	**GCAL ID**	21510140106
Receive Date	10/14/2015 07:55	**Matrix**	Solid

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/22/2015 11:27	ARW	570483

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	400U	400	1510	ug/Kg
67-63-0	Isopropyl Alcohol	680U	680	1510	ug/Kg

GCAL SOP HPLC-009 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/22/2015 12:15	570761	GCAL SOP HPLC-009	1	10/22/2015 15:35	DLB	570798

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	61.5U	61.5	99.7	ug/Kg

HAOH1012SW08

Collect Date	10/12/2015 11:00	**GCAL ID**	21510140107
Receive Date	10/14/2015 07:55	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/14/2015 13:30	570201	EPA 3550C	1	10/20/2015 19:27	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**837**	**53.4**	**387**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/22/2015 11:42	ARW	570483

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	526U	526	1990	ug/Kg
67-63-0	Isopropyl Alcohol	893U	893	1990	ug/Kg

Sample Results

HAOH1012SW08DUP

Collect Date	10/12/2015 11:15	**GCAL ID**	21510140108
Receive Date	10/14/2015 07:55	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/14/2015 13:30	570201	EPA 3550C	1	10/20/2015 19:38	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**437**	**50.9**	**369**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/22/2015 11:56	ARW	570483

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	543U	543	2050	ug/Kg
67-63-0	Isopropyl Alcohol	921U	921	2050	ug/Kg

HAOH1012SW15

Collect Date	10/12/2015 11:45	**GCAL ID**	21510140109
Receive Date	10/14/2015 07:55	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/14/2015 13:30	570201	EPA 3550C	1	10/20/2015 19:49	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**149J**	**49.8**	**361**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/22/2015 12:10	ARW	570483

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	444U	444	1680	ug/Kg
67-63-0	Isopropyl Alcohol	754U	754	1680	ug/Kg

Sample Results

HAOH1012SW20

Collect Date	10/12/2015 13:50	**GCAL ID**	21510140110
Receive Date	10/14/2015 07:55	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/14/2015 13:30	570201	EPA 3550C	500	10/21/2015 03:09	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**1800000**	**23600**	**171000**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/22/2015 12:25	ARW	570483

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	431U	431	1630	ug/Kg
67-63-0	Isopropyl Alcohol	732U	732	1630	ug/Kg

HAOH1012SW06

Collect Date	10/12/2015 14:10	**GCAL ID**	21510140111
Receive Date	10/14/2015 07:55	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/15/2015 09:30	570202	GCAL SOP LCMS-001	1	10/20/2015 16:16	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**168**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/15/2015 12:50	SDD	570267

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

Sample Results

HAOH1012SW06

Collect Date	10/12/2015 14:10	**GCAL ID**	21510140111
Receive Date	10/14/2015 07:55	**Matrix**	Water

GCAL SOP HPLC-009

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/21/2015 17:50	570721	GCAL SOP HPLC-009	1	10/22/2015 12:36	DLB	570798

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	0.850U	0.850	2.50	ug/L

HAOH1012SW17

Collect Date	10/12/2015 13:00	**GCAL ID**	21510140112
Receive Date	10/14/2015 07:55	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/15/2015 09:30	570202	GCAL SOP LCMS-001	1	10/20/2015 16:27	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**84.9J**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/15/2015 13:04	SDD	570267

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

HAOH1012SW18

Collect Date	10/12/2015 11:55	**GCAL ID**	21510140113
Receive Date	10/14/2015 07:55	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/15/2015 09:30	570202	GCAL SOP LCMS-001	1	10/20/2015 16:37	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**48.0J**	**14.3**	**100**	**ng/L**

Sample Results

HAOH1012SW18

Collect Date	10/12/2015 11:55	**GCAL ID**	21510140113
Receive Date	10/14/2015 07:55	**Matrix**	Water

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/15/2015 13:19	SDD	570267

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

GCAL SOP HPLC-009

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/21/2015 17:50	570721	GCAL SOP HPLC-009	1	10/22/2015 12:50	DLB	570798

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	0.850U	0.850	2.50	ug/L

HAOH1012SW21

Collect Date	10/12/2015 14:30	**GCAL ID**	21510140114
Receive Date	10/14/2015 07:55	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/15/2015 09:30	570202	GCAL SOP LCMS-001	1	10/20/2015 16:48	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**295**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/15/2015 13:33	SDD	570267

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

Sample Results

HAOH1012SW25

Collect Date	10/12/2015 13:40	**GCAL ID**	21510140115
Receive Date	10/14/2015 07:55	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/15/2015 09:30	570202	GCAL SOP LCMS-001	1	10/20/2015 16:59	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**151**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/15/2015 13:47	SDD	570267

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

HAOH1012SW06

Collect Date	10/12/2015 14:15	**GCAL ID**	21510140116
Receive Date	10/14/2015 07:55	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/14/2015 13:30	570201	EPA 3550C	2000	10/21/2015 03:19	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**9300000**	**96900**	**702000**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/22/2015 12:39	ARW	570483

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	454U	454	1710	ug/Kg
67-63-0	Isopropyl Alcohol	770U	770	1710	ug/Kg

Sample Results

HAOH1012SW06

Collect Date	10/12/2015 14:15	**GCAL ID**	21510140116
Receive Date	10/14/2015 07:55	**Matrix**	Solid

GCAL SOP HPLC-009 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/22/2015 12:15	570761	GCAL SOP HPLC-009	1	10/22/2015 16:16	DLB	570798

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	72.3U	72.3	117	ug/Kg

HAOH1012SW17

Collect Date	10/12/2015 13:05	**GCAL ID**	21510140117
Receive Date	10/14/2015 07:55	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/14/2015 13:30	570201	EPA 3550C	2000	10/21/2015 03:30	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**13200000**	**99500**	**721000**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/22/2015 12:53	ARW	570483

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	530U	530	2000	ug/Kg
67-63-0	Isopropyl Alcohol	900U	900	2000	ug/Kg

HAOH1012SW18

Collect Date	10/12/2015 12:00	**GCAL ID**	21510140118
Receive Date	10/14/2015 07:55	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/14/2015 13:30	570201	EPA 3550C	500	10/21/2015 03:41	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**1670000**	**22600**	**164000**	**ng/Kg**

Sample Results

HAOH1012SW18

Collect Date	10/12/2015 12:00	**GCAL ID**	21510140118
Receive Date	10/14/2015 07:55	**Matrix**	Solid

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/22/2015 13:08	ARW	570483

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	434U	434	1640	ug/Kg
67-63-0	Isopropyl Alcohol	737U	737	1640	ug/Kg

GCAL SOP HPLC-009 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/22/2015 12:15	570761	GCAL SOP HPLC-009	1	10/22/2015 16:29	DLB	570798

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	67.6U	67.6	110	ug/Kg

HAOH1012SW21

Collect Date	10/12/2015 14:35	**GCAL ID**	21510140119
Receive Date	10/14/2015 07:55	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/14/2015 13:30	570201	EPA 3550C	10000	10/21/2015 03:51	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**23800000**	**452000**	**3270000**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/22/2015 13:22	ARW	570483

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	495U	495	1870	ug/Kg
67-63-0	Isopropyl Alcohol	841U	841	1870	ug/Kg

Sample Results

HAOH1012SW25	**Collect Date**	10/12/2015 13:40	**GCAL ID**	21510140120
	Receive Date	10/14/2015 07:55	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/14/2015 13:30	570201	EPA 3550C	1000	10/21/2015 04:02	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**5780000**	**43700**	**317000**	**ng/Kg**

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/22/2015 13:36	ARW	570483

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	409U	409	1540	ug/Kg
67-63-0	Isopropyl Alcohol	694U	694	1540	ug/Kg

HAOH1012SW001	**Collect Date**	10/12/2015 11:00	**GCAL ID**	21510140121
	Receive Date	10/14/2015 07:55	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/15/2015 09:30	570202	GCAL SOP LCMS-001	1	10/20/2015 17:09	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**39.4J**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/15/2015 14:02	SDD	570267

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

Sample Results

HAOH1012SW001

Collect Date	10/12/2015 11:00	**GCAL ID**	21510140121
Receive Date	10/14/2015 07:55	**Matrix**	Water

GCAL SOP HPLC-009

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/21/2015 17:50	570721	GCAL SOP HPLC-009	1	10/22/2015 13:03	DLB	570798

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	0.859U	0.859	2.53	ug/L

HAOH1012SW24

Collect Date	10/12/2015 15:40	**GCAL ID**	21510140122
Receive Date	10/14/2015 07:55	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/15/2015 09:30	570202	GCAL SOP LCMS-001	1	10/20/2015 17:20	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**42.6J**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/15/2015 14:16	SDD	570267

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

HAOH1012PD03

Collect Date	10/12/2015 13:35	**GCAL ID**	21510140123
Receive Date	10/14/2015 07:55	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/15/2015 09:30	570202	GCAL SOP LCMS-001	1	10/20/2015 17:30	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**38.8J**	**14.3**	**100**	**ng/L**

Sample Results

HAOH1012PD03

Collect Date	10/12/2015 13:35	**GCAL ID**	21510140123
Receive Date	10/14/2015 07:55	**Matrix**	Water

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/15/2015 14:31	SDD	570267

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

HAOH1012PD07

Collect Date	10/12/2015 14:35	**GCAL ID**	21510140124
Receive Date	10/14/2015 07:55	**Matrix**	Water

GCAL SOP LCMS-001

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/15/2015 09:30	570202	GCAL SOP LCMS-001	1	10/20/2015 17:41	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	**TTPC**	**39.3J**	**14.3**	**100**	**ng/L**

EPA 8015C

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/15/2015 14:45	SDD	570267

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	0.270U	0.270	1.00	mg/L
67-63-0	Isopropyl Alcohol	0.231U	0.231	1.00	mg/L

HAOH1012SW001

Collect Date	10/12/2015 11:15	**GCAL ID**	21510140125
Receive Date	10/14/2015 07:55	**Matrix**	Solid

GCAL SOP LCMS-001 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/14/2015 13:30	570201	EPA 3550C	1	10/21/2015 13:33	CEK	570700

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	45.9U	45.9	332	ng/Kg

Sample Results

HAOH1012SW001	Collect Date	10/12/2015 11:15	GCAL ID	21510140125
	Receive Date	10/14/2015 07:55	Matrix	Solid

EPA 8015C *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/22/2015 13:51	ARW	570483

CAS#	Parameter	Result	DL	LOQ	Units
67-64-1	Acetone	451U	451	1700	ug/Kg
67-63-0	Isopropyl Alcohol	766U	766	1700	ug/Kg

GCAL SOP HPLC-009 *Results Reported on Dry Weight Basis

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/22/2015 12:15	570761	GCAL SOP HPLC-009	1	10/22/2015 16:56	DLB	570798

CAS#	Parameter	Result	DL	LOQ	Units
81741-28-8	TTPC	67.8U	67.8	110	ug/Kg

LC/MS QC Summary

Analytical Batch	Client ID	MB570201		RLC570201			
570700	GCAL ID	1498912		1498915			
Prep Batch	Sample Type	MB		RLC			
570201	Prep Date	10/14/2015 13:30		10/14/2015 13:30			
Prep Method	Analysis Date	10/20/2015 18:13		10/20/2015 18:24			
EPA 3550C	Matrix	Solid		Solid			
GCAL SOP LCMS-001		Units Result	ng/Kg DL	Spike Added	Result	%R	Control Limits%R
TTPC	81741-28-8	102J	34.5	250	204	82	60 - 140

Analytical Batch	Client ID	MB570201		LCS570201				LCSD570201				
570700	GCAL ID	1498912		1498913				1498914				
Prep Batch	Sample Type	MB		LCS				LCSD				
570201	Prep Date	10/14/2015 13:30		10/14/2015 13:30				10/14/2015 13:30				
Prep Method	Analysis Date	10/20/2015 18:13		10/20/2015 18:34				10/20/2015 18:45				
EPA 3550C	Matrix	Solid		Solid				Solid				
GCAL SOP LCMS-001		Units Result	ng/Kg DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
TTPC	81741-28-8	102J	34.5	2500	1980	79	60 - 140	2500	2090	83	5	30

Analytical Batch	Client ID	HAOH1012SW04		1498739MS				1498739MSD				
570700	GCAL ID	21510140106		1498916				1498917				
Prep Batch	Sample Type	SAMPLE		MS				MSD				
570201	Prep Date	10/14/2015 13:30		10/14/2015 13:30				10/14/2015 13:30				
Prep Method	Analysis Date	10/20/2015 18:55		10/20/2015 19:06				10/20/2015 19:17				
EPA 3550C	Matrix	Solid		Solid				Solid				
GCAL SOP LCMS-001		Units Result	ng/Kg DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
TTPC	81741-28-8	34500	417	3020	39100	**152***	60 - 140	3020	39200	**156***	0	30

Analytical Batch	Client ID	MB570202		RLC570202			
570700	GCAL ID	1498919		1498922			
Prep Batch	Sample Type	MB		RLC			
570202	Prep Date	10/15/2015 09:30		10/15/2015 09:30			
Prep Method	Analysis Date	10/20/2015 14:19		10/20/2015 14:30			
GCAL SOP LCMS-001	Matrix	Water		Water			
GCAL SOP LCMS-001		Units Result	ng/L DL	Spike Added	Result	%R	Control Limits%R
TTPC	81741-28-8	44.9J	14.3	100	87.9	88	70 - 130

Analytical Batch	Client ID	MB570202		LCS570202				LCSD570202				
570700	GCAL ID	1498919		1498920				1498921				
Prep Batch	Sample Type	MB		LCS				LCSD				
570202	Prep Date	10/15/2015 09:30		10/15/2015 09:30				10/15/2015 09:30				
Prep Method	Analysis Date	10/20/2015 14:19		10/20/2015 14:40				10/20/2015 14:51				
GCAL SOP LCMS-001	Matrix	Water		Water				Water				
GCAL SOP LCMS-001		Units Result	ng/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
TTPC	81741-28-8	44.9J	14.3	2000	2140	**107***	56 - 99	2000	2480	**124***	15	30

LC/MS QC Summary

Analytical Batch	Client ID	HAOH1012SW04		1498734MS				1498734MSD				
570700	GCAL ID	21510140101		1498923				1498924				
Prep Batch	Sample Type	SAMPLE		MS				MSD				
570202	Prep Date	10/15/2015 09:30		10/15/2015 09:30				10/15/2015 09:30				
Prep Method	Analysis Date	10/20/2015 15:02		10/20/2015 15:12				10/20/2015 15:23				
GCAL SOP LCMS-001	Matrix	Water		Water				Water				
GCAL SOP LCMS-001		Units Result	ng/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
TTPC	81741-28-8	47.6	14.3	2000	2070	**101***	56 - 99	2000	2530	**124***	20	30

GC Semi-Volatiles QC Summary

Analytical Batch 570483	Client ID	MB570483		LCS570483			
	GCAL ID	1500173		1500174			
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	10/22/2015 10:30		10/22/2015 10:44			
	Matrix	Solid		Solid			
EPA 8015C		Units Result	ug/Kg DL	Spike Added	Result	%R	Control Limits%R
Acetone	67-64-1	358U	358	64100	66500	104	50 - 150
Isopropyl Alcohol	67-63-0	608U	608	64100	76400	119	50 - 150

Analytical Batch 570483	Client ID	HAOH1012SW04		1498739MS				1498739MSD				
	GCAL ID	21510140106		1500175				1500176				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA		NA				NA				
	Analysis Date	10/22/2015 11:27		10/22/2015 10:59				10/22/2015 11:13				
	Matrix	Solid		Solid				Solid				
EPA 8015C		Units Result	ug/Kg DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Acetone	67-64-1	0.00	411	77500	73200	94	50 - 150	81800	110000	134	40	40
Isopropyl Alcohol	67-63-0	0.00	697	77500	109000	141	50 - 150	81800	108000	133	1	40

Analytical Batch 570267	Client ID	MB570267		LCS570267			
	GCAL ID	1499223		1499224			
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	10/15/2015 10:40		10/15/2015 10:54			
	Matrix	Water		Water			
EPA 8015C		Units Result	mg/L DL	Spike Added	Result	%R	Control Limits%R
Acetone	67-64-1	0.270U	0.270	25.0	25.4	102	50 - 150
Isopropyl Alcohol	67-63-0	0.231U	0.231	25.0	24.4	98	50 - 150

Analytical Batch 570267	Client ID	HAOH1012SW04		1498734MS				1498734MSD				
	GCAL ID	21510140101		1499225				1499226				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA		NA				NA				
	Analysis Date	10/15/2015 11:38		10/15/2015 11:09				10/15/2015 11:23				
	Matrix	Water		Water				Water				
EPA 8015C		Units Result	mg/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Acetone	67-64-1	0.00	0.270	25.0	23.6	94	50 - 150	25.0	21.9	88	7	40
Isopropyl Alcohol	67-63-0	0.00	0.231	25.0	24.3	97	50 - 150	25.0	22.8	91	6	40

General Chromatography QC Summary

Analytical Batch	Client ID	MB570761		LCS570761				LCSD570761				
570798	GCAL ID	1501510		1501511				1501512				
Prep Batch	Sample Type	MB		LCS				LCSD				
570761	Prep Date	10/22/2015 12:15		10/22/2015 12:15				10/22/2015 12:15				
Prep Method	Analysis Date	10/22/2015 14:55		10/22/2015 15:08				10/22/2015 15:22				
GCAL SOP HPLC-009	Matrix	Solid		Solid				Solid				
GCAL SOP HPLC-009		Units Result	ug/Kg DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
TTPC	81741-28-8	51.5U	51.5	33300	14300	43	40 - 120	33300	16800	50	16	30

Analytical Batch	Client ID	HAOH1012SW04		1498739MS				1498739MSD				
570798	GCAL ID	21510140106		1501513				1501514				
Prep Batch	Sample Type	SAMPLE		MS				MSD				
570761	Prep Date	10/22/2015 12:15		10/22/2015 12:15				10/22/2015 12:15				
Prep Method	Analysis Date	10/22/2015 15:35		10/22/2015 15:49				10/22/2015 16:02				
GCAL SOP HPLC-009	Matrix	Solid		Solid				Solid				
GCAL SOP HPLC-009		Units Result	ug/Kg DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
TTPC	81741-28-8	0.00	62.3	40300	7630	**19***	40 - 120	40200	6420	**16***	17	30

Analytical Batch	Client ID	MB570721		LCS570721				LCSD570721				
570798	GCAL ID	1501406		1501407				1501408				
Prep Batch	Sample Type	MB		LCS				LCSD				
570721	Prep Date	10/21/2015 17:50		10/21/2015 17:50				10/21/2015 17:50				
Prep Method	Analysis Date	10/22/2015 11:42		10/22/2015 11:56				10/22/2015 12:09				
GCAL SOP HPLC-009	Matrix	Water		Water				Water				
GCAL SOP HPLC-009		Units Result	ug/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
TTPC	81741-28-8	0.850U	0.850	1000	766	77	40 - 120	1000	899	90	16	30

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225.769.4900 | www.gcal.com

CHAIN OF CUSTODY RECORI

Client ID: 4896 - Moody & Associates, Inc.
SDG: 215101401
PM: KBL

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd	Address:	199 South Johnson Rd
	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal:
Used: ☑ Yes ☐ No
Intact: ☑ Yes ☐ No
Temperature: 4.1 E26

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

P.O. Number: 14-467-LM
Project Name/Number: **Eisenbarth Consent Order**
Sampled By: Matt Dracup

Analytical Requests & Method

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None	← Preservative / Notes ↓	GCAL ID
W	10/12/15	1230		X	HAOH1012SW04	5	X	X	X	X		1
W	10/12/15	1030		X	HAOH1012SW08	4	X		X	X		2
W	10/12/15	1045		X	HAOH1012SW08DUP	4	X		X	X		3
W	10/12/15	1135		X	HAOH1012SW15	4	X		X	X		4
W	10/12/15	1340		X	HAOH1012SW20	4	X		X	X		5

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
Matt Dracup	10/13/15 0940	UPS# 12 443 504 15 9464 5899	10/13/15 930
UPS	10/14/15 0755	Robert Mugie	10/14/15 0755

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue.

*- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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CHAIN OF CUSTODY RECO

Client ID: 4896 - Moody & Associates, Inc.
SDG: 215101401
PM: KBL

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd	Address:	199 South Johnson Rd
	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal:
Used: ☑ Yes ☐ No
Intact: ☑ Yes ☐ No
Temperature: 4.1 E26

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

P.O. Number: 14-467-LM
Project Name/Number: **Eisenbarth Consent Order**
Sampled By: Matt Dracup

Analytical Requests & Method

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None	← Preservative / Notes ↓	GCAL ID
S	10/12/15	1245		X	HAOH1012SW04	1	X	X	X	X		6

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
Matt Dracup	10/13/15 0940	USH 12 443 504 15 9464 5899	10/13/15 930
UPS	10/14/15 0755	Kathy Mugins	10/14/15 0755

Notes:

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CHAIN OF CUSTODY RECOR

Client ID: 4896 - Moody & Associates, Inc.
SDG: 215101401
PM: KBL

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd Houston, PA 15342	Address:	199 South Johnson Rd Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal:
Used: ☑ Yes ☐ No
Intact: ☑ Yes ☐ No
Temperature: 4.1 E26

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

P.O. Number: 14-467-LM
Project Name/Number: **Eisenbarth Consent Order**
Sampled By: Matt Dracup

Analytical Requests & Method

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None							← Preservative / Notes ↓	GCAL ID
S	10/12/15	1100		X	HAOH1012SW08	1	X		X	X								7

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
Matt Dracup	10/13/15 0900	1:15 12 443 504 15 9464 5899	10/13/15 E30
UPS	10/14/15 0755	Robyn Mignes	10/14/15 0755

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue.

*- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

GCAL ANALYTICAL LABORATORIES, LLC
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225.769.4900 | www.gcal.com

CHAIN OF CUSTODY RECO

Client ID: 4896 - Moody & Associates, Inc.
SDG: 215101401
PM: KBL

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd Houston, PA 15342	Address:	199 South Johnson Rd Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal:
Used: ☑ Yes ☐ No
Intact: ☑ Yes ☐ No
Temperature: 4 1 E26

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

P.O. Number: 14-467-LM
Project Name/Number: **Eisenbarth Consent Order**
Sampled By: MATT DRACUP

Analytical Requests & Method

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None							← Preservative / Notes ↓	GCAL ID
S	10/12/15	1115		X	HAOH1012SW08DUP	1	X		X	X								8

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
Matt Dracup	10/13/15 0940	UPS# 12 443 504 15 9464 5899	10/13/15 930
UPS	10/14/15 0755	Rob Megie	10/14/15 0755

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue.

*- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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7979 Innovation Park Drive | Baton Rouge, LA 70820-7402
225.769.4900 | www.gcal.com

CHAIN OF CUSTODY REC(

Client ID: 4896 - Moody & Associates, Inc.
SDG: 215101401
PM: KBL

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd	Address:	199 South Johnson Rd
	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal:
Used: ☑ Yes ☐ No
Intact: ☑ Yes ☐ No
Temperature: 4.1 E26

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

P.O. Number: 14-467-LM
Project Name/Number: **Eisenbarth Consent Order**
Sampled By: Matt Dracup

Analytical Requests & Method

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None							← Preservative / Notes ↓	GCAL ID
S	10/12/15	1145		X	HAOH1012SW15	1	X		X	X								9

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☑ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
Matt Dracup	10/13/15 0940	UPS# 12 443 504 15 9464 5899	10/13/15 930
UPS	10/14/15 0755	Rob Meguier	10/14/15 0755

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue.

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PM: KBL

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Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
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Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal:
Used: ☑ Yes ☐ No
Intact: ☑ Yes ☐ No
Temperature: 4.1 E26

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

P.O. Number: 14-467-LM
Project Name/Number: **Eisenbarth Consent Order**
Sampled By: Matt Dracup

Analytical Requests & Method

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None							← Preservative / Notes ↓	GCAL ID
S	10/12/15	1350		X	HAOH1012SW20	1	X		X	X								10

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
Matt Dracup	10/13/15 0940	UPS # 12 443 504 15 9464 5899	10/13/15 0930
UPS	10/14/15 0755	Robyn Mugrie	10/14/15 0755

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue.

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692

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CHAIN OF CUSTODY RECC

Client ID: 4896 - Moody & Associates, Inc.
SDG: 215101401
PM: KBL

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd	Address:	199 South Johnson Rd
	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal:
Used: ☑ Yes ☐ No
Intact: ☑ Yes ☐ No
Temperature: 4.1 E26

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

P.O. Number: 14-467-LM
Project Name/Number: **Eisenbarth Consent Order**
Sampled By: Joshua L. Boyd (MOODY)

Analytical Requests & Method

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method)	TTPC (HPLC Method)	Isopropyl Alcohol (8015 Method)	Acetone (8015 Method)	← Preservative / Notes ↓	GCAL ID
							None	None	None	None		
W	10/12/15	1410		X	HAOH1012SW06	5	X	X	X	X		11
W	10/12/15	1300		X	HAOH1012SW17	4	X		X	X		12
W	10/12/15	1155		X	HAOH1012SW18	5	X	X	X	X		13
W	10/12/15	1430		X	HAOH1012SW21	4	X		X	X		14
W	10/12/15	1340		X	HAOH1012SW25	4	X		X	X		15

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
(Moody)	10/12/15 930	UPS #1Z4435041594645899	10/13/15
UPS	10/14/15 0755		10/14/15 0755

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue. *- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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CHAIN OF CUSTODY RECC

Client ID: 4896 - Moody & Associates, Inc.
SDG: 215101401
PM: KBL

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd Houston, PA 15342	Address:	199 South Johnson Rd Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal:
Used: ☑ Yes ☐ No
Intact: ☑ Yes ☐ No
Temperature: 4.1 E26

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

P.O. Number: 14-467-LM
Project Name/Number: **Eisenbarth Consent Order**

Sampled By: Joshua L. Boyda / Aaron Peterson [signature] (Moody)

Analytical Requests & Method

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None							← Preservative / Notes ↓	GCAL ID
S	10/12/15	1415		X	HAOH1012SW06	1	X	X	X	X								16

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[signature] (Moody)	10/13/15 930	UPS# 1Z44350415946458 99	10/13/15
UPS	10/14/15 0755	[signature]	10/14/15 0755

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue.

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CHAIN OF CUSTODY RE

Client ID: 4896 - Moody & Associates, Inc.
SDG: 215101401
PM: KBL

LY

Report To:		Bill To:	
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Address:	199 South Johnson Rd	Address:	199 South Johnson Rd
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Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal:
Used: ☑ Yes ☐ No
Intact: ☑ Yes ☐ No
Temperature: 4.1 E26

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

P.O. Number: 14-467-LM
Project Name/Number: **Eisenbarth Consent Order**
Sampled By: Joshua C. Boyde / Aaron Peterson [signature] (Moody)

Analytical Requests & Method

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None							← Preservative / Notes ↓	GCAL ID
S	10/12/15	1305		X	HAOH1012SW17	1	X		X	X								17

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[signature] (Moody)	10/13/15 930	LFS# 1244350415946458 99	10/13/15
[signature]	10/14/15 0755	[signature]	10/14/15 0755

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue.

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CHAIN OF CUSTODY REC(

Client ID: 4896 - Moody & Associates, Inc.
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PM: KBL

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
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Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal:
Used: ☑ Yes ☐ No
Intact: ☑ Yes ☐ No
Temperature: 4.1 E26

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

P.O. Number: 14-467-LM
Project Name/Number: **Eisenbarth Consent Order**

Sampled By: Joshua L. Boyda / Aaron Peterson [signature] (Moody)

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None							← Preservative / Notes ↓	GCAL ID
S	10/12/15	1200		X	HAOH1012SW18	1	X	X	X	X								18

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[signature] (Moody)	10/13/15 930	UPS# 1244350415946458 99	10/13/15
UPS	10/14/15 0755	[signature]	10/14/15 0755

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue.

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	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal:
Used: ☑ Yes ☐ No
Intact: ☑ Yes ☐ No
Temperature: 4.1 E26

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

P.O. Number: 14-467-LM
Project Name/Number: **Eisenbarth Consent Order**

Sampled By: Joshua L. Boyda / Aaron Peterson — Joshua L. Boyda (Moody)

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None	← Preservative / Notes ↓	GCAL ID
S	10/12/15	1435		X	HAOH1012SW21	1	X		X	X		19

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
Joshua L. Boyda (Moody)	10/13/15 930	UPS# 1Z4435041594645899	10/13/15
UPS	10/14/15 0755	Kathy Nugent	10/14/15 0755

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue.

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225.769.4900 | www.gcal.com

CHAIN OF CUSTODY RECORD

GCAL USE ONLY

Report To:		Bill To:	
Client:	Moody & Associates, Inc.	Client:	Moody & Associates, Inc.
Address:	199 South Johnson Rd	Address:	199 South Johnson Rd
	Houston, PA 15342		Houston, PA 15342
Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal:
Used: ☑ Yes ☐ No
Intact: ☑ Yes ☐ No
Temperature: 4.1 E26

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

P.O. Number: 14-467-LM

Project Name/Number: **Eisenbarth Consent Order**

Sampled By: Joshua L. Boyda / Aaron Peterson [signature] (Moody)

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None							← Preservative / Notes ↓	GCAL ID
S	10/12/15	1340		X	HAOH1012SW25	1	X		X	X								20

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[signature] (Moody)	10/13/15 930	UPS# 1244350415946458 99	10/13/15
UPS	10/14/15 0755	[signature]	10/14/15 0755

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue.

*- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your GCAL Project Manager.

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CHAIN OF CUSTODY RECO

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SDG: 215101401
PM: KBL

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Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal:
Used: ☑ Yes ☐ No
Intact: ☑ Yes ☐ No
Temperature: 4.1 E26

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

P.O. Number: 14-467-LM
Project Name/Number: **Eisenbarth Consent Order**
Sampled By: Brendan Poffenbaugh

Analytical Requests & Method

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) HCl	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) HCl	Acetone (8015 Method) HCl	← Preservative / Notes ↓	GCAL ID
W	10/12/15	1100		X	HAOH1012SW001	5	X	X	X	X		21
~~W~~	~~10/12/15~~			~~X~~	~~HAOH1012SW02~~	~~4~~	~~X~~		~~X~~	~~X~~	BP 10/13/15	
W	10/12/15	1540		X	HAOH1012SW24	4	X		X	X		22
W	10/12/15	1335		X	HAOH1012PD03	4	X		X	X		23
W	10/12/15	1435		X	HAOH1012PD07	4	X		X	X		24

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
Brendan Poffenbaugh	10/13/15 0924	UPS# 1Z443504159464 5899	10/13/15 930
UPS	10/14/15 0755	Robert Mezies	10/14/15 0755

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue.

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Contact:	Leah Mistick	Contact:	Leah Mistick
Phone:	724-746-5200	Phone:	724-746-5200
Email:	lmistick@moody-s.com	Email:	lmistick@moody-s.com

Custody Seal:
Used: ☑ Yes ☐ No
Intact: ☑ Yes ☐ No
Temperature: 4.1 E20

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

P.O. Number: 14-467-LM
Project Name/Number: **Eisenbarth Consent Order**
Sampled By: Brendan Poffenbaugh

Analytical Requests & Method

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	TTPC (MS/LC/LC Method) None	TTPC (HPLC Method) None	Isopropyl Alcohol (8015 Method) None	Acetone (8015 Method) None							← Preservative / Notes ↓	GCAL ID
S	10/12/15	1115		X	HAOH1012SW001	1	X	X	X	X								25

Airbill Number:

Turn Around Time(Business Days): ☐ 24 hr* ☐ 48 hr* ☐ 3 days* ☐ 5 days* ☒ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
Brendan Poffenbaugh	10/13/15 0924	UPS# 1Z44 3504 1594 645 899	10/13/15 930
UPS	10/14/15 0755	Kelly Mignes	10/14/15 0755

Notes:

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue.

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700

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SAMPLE RECEIVING CHECKLIST

215101401

SAMPLE DELIVERY GROUP 215101401

Client PM KBL 4896 - Moody & Associates, Inc.	**Transport Method** UPS
Profile Number 251668	**Received By** Saucier, Charlotte M.
Line Item(s) 1 - Solids 2 - Waters	**Receive Date(s)** 10/14/15

CHECKLIST	YES	NO	NA
Were all samples received using proper thermal preservation?	☑	☐	☐
When used, were all custody seals intact?	☑	☐	☐
Were all samples received in proper containers?	☑	☐	☐
Were all samples received using proper chemical preservation?	☐	☐	☑
Was preservative added to any container at the lab?	☐	☑	☐
Were all containers received in good condition?	☐	☑	☐
Were all VOA vials received with no head space?	☑	☐	☐
Do all sample labels match the Chain of Custody?	☑	☐	☐
Did the Chain of Custody list the sampling technician?	☑	☐	☐
Was the COC maintained i.e. all signatures, dates and time of receipt included?	☑	☐	☐

COOLERS

Airbill	Thermometer ID: E26	Temp(°C)
1Z YY3 504 15 9464 5899		4.1

DISCREPANCIES

21510140114 - HAOH1012SW21:
Broken Container (Container 2 - Unassigned)

LAB PRESERVATIONS

None

NOTES

Revision 1.4

Page 1 of 1

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

October 26, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161957

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory on October 13, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161957

Pennsylvania Certification IDs

Georgia Certification #: C040
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161957

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30161957001	**HAOH1012SW001**	Water	10/12/15 11:00	10/13/15 16:45
30161957002	**HAOH1012SW24**	Water	10/12/15 15:40	10/13/15 16:45
30161957003	**HAOH1012PD03**	Water	10/12/15 13:35	10/13/15 16:45
30161957004	**HAOH1012PD07**	Water	10/12/15 14:35	10/13/15 16:45

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161957

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30161957001	**HAOH1012SW001**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	5	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30161957002	**HAOH1012SW24**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	5	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30161957003	**HAOH1012PD03**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	5	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30161957004	**HAOH1012PD07**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	5	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161957

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30161957001	**HAOH1012SW001**					
SM 4500-Cl-E	Chloride	23.2	mg/L	3.0	10/22/15 14:06	
30161957002	**HAOH1012SW24**					
SM 4500-Cl-E	Chloride	43.9	mg/L	3.0	10/22/15 14:07	
30161957003	**HAOH1012PD03**					
SM 4500-Cl-E	Chloride	39.2	mg/L	3.0	10/22/15 14:07	
30161957004	**HAOH1012PD07**					
SM 4500-Cl-E	Chloride	65.6	mg/L	3.0	10/22/15 14:08	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161957

Method: **EPA 8015B**
Description: 8015 TPH
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
4 samples were analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: OEXT/25718

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Analyte Comments:

QC Batch: OEXT/25718

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- HAOH1012PD03 (Lab ID: 30161957003)
  - TPH (C10-C28)
- HAOH1012PD07 (Lab ID: 30161957004)
  - TPH (C10-C28)
- HAOH1012SW001 (Lab ID: 30161957001)
  - TPH (C10-C28)
- HAOH1012SW24 (Lab ID: 30161957002)
  - TPH (C10-C28)

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161957

Method: **EPA 8015B**
Description: 8015 TPH
Client: Moody and Associates, Inc.
Date: October 26, 2015

Analyte Comments:

QC Batch: OEXT/25718

N2: The lab does not hold TNI accreditation for this parameter.

- BLANK (Lab ID: 969243)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH1012PD03 (Lab ID: 30161957003)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH1012PD07 (Lab ID: 30161957004)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH1012SW001 (Lab ID: 30161957001)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH1012SW24 (Lab ID: 30161957002)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- LCS (Lab ID: 969244)
  - TPH (C10-C28)
  - o-Terphenyl (S)

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161957

Method: **EPA 8260B**
Description: 8260 MSV
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
4 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161957

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
4 samples were analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161957

Sample: HAOH1012SW001 **Lab ID: 30161957001** Collected: 10/12/15 11:00 Received: 10/13/15 16:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.027	1	10/19/15 12:50	10/24/15 19:22		1c,N2
Surrogates									
o-Terphenyl (S)	63	%	29-110		1	10/19/15 12:50	10/24/15 19:22	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		10/19/15 20:25	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	95	%	81-119		1		10/19/15 20:25	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	77-126		1		10/19/15 20:25	17060-07-0	
Toluene-d8 (S)	103	%	84-115		1		10/19/15 20:25	2037-26-5	
Dibromofluoromethane (S)	103	%	70-130		1		10/19/15 20:25	1868-53-7	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**23.2**	mg/L	3.0	0.70	1		10/22/15 14:06	16887-00-6	

Sample: HAOH1012SW24 **Lab ID: 30161957002** Collected: 10/12/15 15:40 Received: 10/13/15 16:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	10/19/15 12:50	10/24/15 19:31		1c,N2
Surrogates									
o-Terphenyl (S)	64	%	29-110		1	10/19/15 12:50	10/24/15 19:31	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		10/19/15 20:50	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	99	%	81-119		1		10/19/15 20:50	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	77-126		1		10/19/15 20:50	17060-07-0	
Toluene-d8 (S)	103	%	84-115		1		10/19/15 20:50	2037-26-5	
Dibromofluoromethane (S)	93	%	70-130		1		10/19/15 20:50	1868-53-7	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**43.9**	mg/L	3.0	0.70	1		10/22/15 14:07	16887-00-6	

Sample: HAOH1012PD03 **Lab ID: 30161957003** Collected: 10/12/15 13:35 Received: 10/13/15 16:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	10/19/15 12:50	10/24/15 19:41		1c,N2

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161957

Sample: HAOH1012PD03 **Lab ID: 30161957003** Collected: 10/12/15 13:35 Received: 10/13/15 16:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
Surrogates									
o-Terphenyl (S)	63	%	29-110		1	10/19/15 12:50	10/24/15 19:41	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		10/19/15 21:16	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	101	%	81-119		1		10/19/15 21:16	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	77-126		1		10/19/15 21:16	17060-07-0	
Toluene-d8 (S)	108	%	84-115		1		10/19/15 21:16	2037-26-5	
Dibromofluoromethane (S)	106	%	70-130		1		10/19/15 21:16	1868-53-7	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**39.2**	mg/L	3.0	0.70	1		10/22/15 14:07	16887-00-6	

Sample: HAOH1012PD07 **Lab ID: 30161957004** Collected: 10/12/15 14:35 Received: 10/13/15 16:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.027	1	10/19/15 12:50	10/24/15 19:49		1c,N2
Surrogates									
o-Terphenyl (S)	66	%	29-110		1	10/19/15 12:50	10/24/15 19:49	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		10/19/15 21:41	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	99	%	81-119		1		10/19/15 21:41	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	77-126		1		10/19/15 21:41	17060-07-0	
Toluene-d8 (S)	103	%	84-115		1		10/19/15 21:41	2037-26-5	
Dibromofluoromethane (S)	104	%	70-130		1		10/19/15 21:41	1868-53-7	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**65.6**	mg/L	3.0	0.70	1		10/22/15 14:08	16887-00-6	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161957

QC Batch: MSV/25319 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260 MSV
Associated Lab Samples: 30161957001, 30161957002, 30161957003, 30161957004

METHOD BLANK: 969396 Matrix: Water
Associated Lab Samples: 30161957001, 30161957002, 30161957003, 30161957004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ug/L	ND	10.0	2.3	10/19/15 14:02	
1,2-Dichloroethane-d4 (S)	%	94	77-126		10/19/15 14:02	
4-Bromofluorobenzene (S)	%	101	81-119		10/19/15 14:02	
Dibromofluoromethane (S)	%	101	70-130		10/19/15 14:02	
Toluene-d8 (S)	%	105	84-115		10/19/15 14:02	

LABORATORY CONTROL SAMPLE: 969397

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/L	20	13.7	69	35-113	
1,2-Dichloroethane-d4 (S)	%			92	77-126	
4-Bromofluorobenzene (S)	%			97	81-119	
Dibromofluoromethane (S)	%			103	70-130	
Toluene-d8 (S)	%			102	84-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 969398 969399

Parameter	Units	30161955001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/L	ND	20	20	18.0	15.2	90	76	10-150	17	30	
1,2-Dichloroethane-d4 (S)	%						93	103	77-126			
4-Bromofluorobenzene (S)	%						98	101	81-119			
Dibromofluoromethane (S)	%						101	101	70-130			
Toluene-d8 (S)	%						103	100	84-115			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161957

QC Batch: OEXT/25718 Analysis Method: EPA 8015B
QC Batch Method: EPA 3510C Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30161957001, 30161957002, 30161957003, 30161957004

METHOD BLANK: 969243 Matrix: Water
Associated Lab Samples: 30161957001, 30161957002, 30161957003, 30161957004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
TPH (C10-C28)	mg/L	ND	0.10	0.026	10/24/15 16:41	N2
o-Terphenyl (S)	%	78	29-110		10/24/15 16:41	N2

LABORATORY CONTROL SAMPLE: 969244

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/L	1	0.91	91	61-104	N2
o-Terphenyl (S)	%			86	29-110	N2

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161957

QC Batch: WETA/21601 Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E Analysis Description: 4500 Chloride
Associated Lab Samples: 30161957001, 30161957002, 30161957003, 30161957004

METHOD BLANK: 970989 Matrix: Water
Associated Lab Samples: 30161957001, 30161957002, 30161957003, 30161957004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/22/15 13:46	

METHOD BLANK: 970991 Matrix: Water
Associated Lab Samples: 30161957001, 30161957002, 30161957003, 30161957004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/22/15 13:48	

METHOD BLANK: 970992 Matrix: Water
Associated Lab Samples: 30161957001, 30161957002, 30161957003, 30161957004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/22/15 13:48	

METHOD BLANK: 970993 Matrix: Water
Associated Lab Samples: 30161957001, 30161957002, 30161957003, 30161957004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/22/15 13:49	

METHOD BLANK: 971005 Matrix: Water
Associated Lab Samples: 30161957001, 30161957002, 30161957003, 30161957004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/22/15 13:47	

LABORATORY CONTROL SAMPLE: 970990

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	39.4	99	90-110	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161957

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 970994 970995

Parameter	Units	30161955001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	7.0	20	20	27.3	28.0	101	105	85-115	3	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161957

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: OEXT/25718

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1c A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

N2 The lab does not hold TNI accreditation for this parameter.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161957

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30161957001	**HAOH1012SW001**	EPA 3510C	OEXT/25718	EPA 8015B	GCSV/8764
30161957002	**HAOH1012SW24**	EPA 3510C	OEXT/25718	EPA 8015B	GCSV/8764
30161957003	**HAOH1012PD03**	EPA 3510C	OEXT/25718	EPA 8015B	GCSV/8764
30161957004	**HAOH1012PD07**	EPA 3510C	OEXT/25718	EPA 8015B	GCSV/8764
30161957001	**HAOH1012SW001**	EPA 8260B	MSV/25319		
30161957002	**HAOH1012SW24**	EPA 8260B	MSV/25319		
30161957003	**HAOH1012PD03**	EPA 8260B	MSV/25319		
30161957004	**HAOH1012PD07**	EPA 8260B	MSV/25319		
30161957001	**HAOH1012SW001**	SM 4500-Cl-E	WETA/21601		
30161957002	**HAOH1012SW24**	SM 4500-Cl-E	WETA/21601		
30161957003	**HAOH1012PD03**	SM 4500-Cl-E	WETA/21601		
30161957004	**HAOH1012PD07**	SM 4500-Cl-E	WETA/21601		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody and Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis: VOCs - Acetone only (8260)	TPH GRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. / Lab I.D.
1	HAOH1012SW00 1	WT	G	10/12/15	1100			12.22°C	5	X			X					x	x	x	N	001
2	HAOH1012SW02			10/12/15																	N	
3	HAOH1012SW24	WT	G	10/12/15	1540			16.29°C	5	X			X					x	x	x	N	002
4	HAOH1012PD03	WT	G	10/12/15	1335			16.98°C	5	X			X					x	x	x	N	003
5	HAOH1012PD07	WT	G	10/12/15	1435			17.67°C	5	X			X					x	x	x	N	004
6																						
7																						
8																						
9																						
10																						
11																						
12																						

30161957

Additional Comments:

(3) 40 ml VOA Vials (HCL)

(1) Amber Glass L

(1) 250 ml Plastic

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Brendan Poffenbaugh / Moody	10/13/15	0924	[illegible]	10-13-15	1645	6.0	Y/N	Y/N	Y/N
[illegible] / Moody	10/13/15	1645	[illegible]	10/13/15	1645		Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
						Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brendan Poffenbaugh

SIGNATURE of SAMPLER: Brendan Poffenbaugh

DATE Signed (MM / DD / YY): 10/13/15

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project# 30161957

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals Intact: ☐ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap X Bubble Bags X None ___ Other _____

Thermometer Used 6 Type of Ice: (Wet) Blue None ☒ Samples on Ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.2 °C Correction Factor: -0.2 °C Final Temp: 6.0 °C

Date and Initials of person examining contents: 10/13/15 RB

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☒Yes ☐No 10-13-15	Initial when completed 10/13/15 RB — Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☒No ☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☒No ☐N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [signature] **Date:** 10/14/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

30161957

Pace Analytical

page 2

Project Number: _____

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml / 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	WT			1	1									3										
004	WT			1	1									3										

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
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October 26, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161956

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory on October 13, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161956

Pennsylvania Certification IDs

Georgia Certification #: C040
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161956

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30161956001	**HAOH1012SW04**	Water	10/12/15 12:30	10/13/15 16:45
30161956002	**HAOH1012SW08**	Water	10/12/15 10:30	10/13/15 16:45
30161956003	**HAOH1012SW08DUP**	Water	10/12/15 10:45	10/13/15 16:45
30161956004	**HAOH1012SW15**	Water	10/12/15 11:35	10/13/15 16:45
30161956005	**HAOH1012SW20**	Water	10/12/15 13:40	10/13/15 16:45
30161956006	**Trip Blank**	Water	10/12/15 00:01	10/13/15 16:45

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161956

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30161956001	**HAOH1012SW04**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	5	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30161956002	**HAOH1012SW08**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	5	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30161956003	**HAOH1012SW08DUP**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	5	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30161956004	**HAOH1012SW15**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	5	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30161956005	**HAOH1012SW20**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	5	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30161956006	**Trip Blank**	EPA 8260B	JAS	5	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161956

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30161956001	**HAOH1012SW04**					
SM 4500-Cl-E	Chloride	9.1	mg/L	3.0	10/22/15 14:02	
30161956002	**HAOH1012SW08**					
SM 4500-Cl-E	Chloride	49.9	mg/L	3.0	10/22/15 14:03	
30161956003	**HAOH1012SW08DUP**					
SM 4500-Cl-E	Chloride	50.3	mg/L	3.0	10/22/15 14:04	
30161956004	**HAOH1012SW15**					
SM 4500-Cl-E	Chloride	4.0	mg/L	3.0	10/22/15 14:05	
30161956005	**HAOH1012SW20**					
SM 4500-Cl-E	Chloride	8.4	mg/L	3.0	10/22/15 14:05	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161956

Method: **EPA 8015B**
Description: 8015 TPH
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
5 samples were analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: OEXT/25718

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Analyte Comments:

QC Batch: OEXT/25718

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- HAOH1012SW04 (Lab ID: 30161956001)
  - TPH (C10-C28)
- HAOH1012SW08 (Lab ID: 30161956002)
  - TPH (C10-C28)
- HAOH1012SW08DUP (Lab ID: 30161956003)
  - TPH (C10-C28)
- HAOH1012SW15 (Lab ID: 30161956004)
  - TPH (C10-C28)

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161956

Method: **EPA 8015B**
Description: 8015 TPH
Client: Moody and Associates, Inc.
Date: October 26, 2015

Analyte Comments:

QC Batch: OEXT/25718

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- HAOH1012SW20 (Lab ID: 30161956005)
  - TPH (C10-C28)

N2: The lab does not hold TNI accreditation for this parameter.

- BLANK (Lab ID: 969243)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH1012SW04 (Lab ID: 30161956001)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH1012SW08 (Lab ID: 30161956002)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH1012SW08DUP (Lab ID: 30161956003)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH1012SW15 (Lab ID: 30161956004)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH1012SW20 (Lab ID: 30161956005)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- LCS (Lab ID: 969244)
  - TPH (C10-C28)
  - o-Terphenyl (S)

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161956

Method: **EPA 8260B**
Description: 8260 MSV
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
6 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161956

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
5 samples were analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161956

Sample: HAOH1012SW04 **Lab ID: 30161956001** Collected: 10/12/15 12:30 Received: 10/13/15 16:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.11	0.028	1	10/19/15 12:50	10/24/15 18:25		1c,N2
Surrogates									
o-Terphenyl (S)	66	%	29-110		1	10/19/15 12:50	10/24/15 18:25	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		10/19/15 17:52	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	100	%	81-119		1		10/19/15 17:52	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	77-126		1		10/19/15 17:52	17060-07-0	
Toluene-d8 (S)	101	%	84-115		1		10/19/15 17:52	2037-26-5	
Dibromofluoromethane (S)	103	%	70-130		1		10/19/15 17:52	1868-53-7	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**9.1**	mg/L	3.0	0.70	1		10/22/15 14:02	16887-00-6	

Sample: HAOH1012SW08 **Lab ID: 30161956002** Collected: 10/12/15 10:30 Received: 10/13/15 16:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	10/19/15 12:50	10/24/15 18:36		1c,N2
Surrogates									
o-Terphenyl (S)	66	%	29-110		1	10/19/15 12:50	10/24/15 18:36	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		10/19/15 18:17	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	94	%	81-119		1		10/19/15 18:17	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	77-126		1		10/19/15 18:17	17060-07-0	
Toluene-d8 (S)	103	%	84-115		1		10/19/15 18:17	2037-26-5	
Dibromofluoromethane (S)	101	%	70-130		1		10/19/15 18:17	1868-53-7	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**49.9**	mg/L	3.0	0.70	1		10/22/15 14:03	16887-00-6	

Sample: HAOH1012SW08DUP **Lab ID: 30161956003** Collected: 10/12/15 10:45 Received: 10/13/15 16:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.027	1	10/19/15 12:50	10/24/15 18:45		1c,N2

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161956

Sample: HAOH1012SW08DUP **Lab ID: 30161956003** Collected: 10/12/15 10:45 Received: 10/13/15 16:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
Surrogates									
o-Terphenyl (S)	65	%	29-110		1	10/19/15 12:50	10/24/15 18:45	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		10/19/15 18:42	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	98	%	81-119		1		10/19/15 18:42	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	77-126		1		10/19/15 18:42	17060-07-0	
Toluene-d8 (S)	100	%	84-115		1		10/19/15 18:42	2037-26-5	
Dibromofluoromethane (S)	102	%	70-130		1		10/19/15 18:42	1868-53-7	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**50.3**	mg/L	3.0	0.70	1		10/22/15 14:04	16887-00-6	

Sample: HAOH1012SW15 **Lab ID: 30161956004** Collected: 10/12/15 11:35 Received: 10/13/15 16:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	10/19/15 12:50	10/24/15 18:55		1c,N2
Surrogates									
o-Terphenyl (S)	73	%	29-110		1	10/19/15 12:50	10/24/15 18:55	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		10/19/15 19:08	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	94	%	81-119		1		10/19/15 19:08	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	77-126		1		10/19/15 19:08	17060-07-0	
Toluene-d8 (S)	103	%	84-115		1		10/19/15 19:08	2037-26-5	
Dibromofluoromethane (S)	103	%	70-130		1		10/19/15 19:08	1868-53-7	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**4.0**	mg/L	3.0	0.70	1		10/22/15 14:05	16887-00-6	

Sample: HAOH1012SW20 **Lab ID: 30161956005** Collected: 10/12/15 13:40 Received: 10/13/15 16:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	10/19/15 12:50	10/24/15 19:04		1c,N2
Surrogates									
o-Terphenyl (S)	66	%	29-110		1	10/19/15 12:50	10/24/15 19:04	84-15-1	N2

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161956

Sample: HAOH1012SW20 **Lab ID: 30161956005** Collected: 10/12/15 13:40 Received: 10/13/15 16:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		10/19/15 19:33	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	91	%	81-119		1		10/19/15 19:33	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	77-126		1		10/19/15 19:33	17060-07-0	
Toluene-d8 (S)	106	%	84-115		1		10/19/15 19:33	2037-26-5	
Dibromofluoromethane (S)	105	%	70-130		1		10/19/15 19:33	1868-53-7	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**8.4**	mg/L	3.0	0.70	1		10/22/15 14:05	16887-00-6	

Sample: Trip Blank **Lab ID: 30161956006** Collected: 10/12/15 00:01 Received: 10/13/15 16:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		10/19/15 19:59	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	100	%	81-119		1		10/19/15 19:59	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	77-126		1		10/19/15 19:59	17060-07-0	
Toluene-d8 (S)	100	%	84-115		1		10/19/15 19:59	2037-26-5	
Dibromofluoromethane (S)	99	%	70-130		1		10/19/15 19:59	1868-53-7	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161956

QC Batch: MSV/25319 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260 MSV
Associated Lab Samples: 30161956001, 30161956002, 30161956003, 30161956004, 30161956005, 30161956006

METHOD BLANK: 969396 Matrix: Water
Associated Lab Samples: 30161956001, 30161956002, 30161956003, 30161956004, 30161956005, 30161956006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ug/L	ND	10.0	2.3	10/19/15 14:02	
1,2-Dichloroethane-d4 (S)	%	94	77-126		10/19/15 14:02	
4-Bromofluorobenzene (S)	%	101	81-119		10/19/15 14:02	
Dibromofluoromethane (S)	%	101	70-130		10/19/15 14:02	
Toluene-d8 (S)	%	105	84-115		10/19/15 14:02	

LABORATORY CONTROL SAMPLE: 969397

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/L	20	13.7	69	35-113	
1,2-Dichloroethane-d4 (S)	%			92	77-126	
4-Bromofluorobenzene (S)	%			97	81-119	
Dibromofluoromethane (S)	%			103	70-130	
Toluene-d8 (S)	%			102	84-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 969398 969399

Parameter	Units	30161955001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/L	ND	20	20	18.0	15.2	90	76	10-150	17	30	
1,2-Dichloroethane-d4 (S)	%						93	103	77-126			
4-Bromofluorobenzene (S)	%						98	101	81-119			
Dibromofluoromethane (S)	%						101	101	70-130			
Toluene-d8 (S)	%						103	100	84-115			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161956

QC Batch: OEXT/25718 Analysis Method: EPA 8015B
QC Batch Method: EPA 3510C Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30161956001, 30161956002, 30161956003, 30161956004, 30161956005

METHOD BLANK: 969243 Matrix: Water
Associated Lab Samples: 30161956001, 30161956002, 30161956003, 30161956004, 30161956005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
TPH (C10-C28)	mg/L	ND	0.10	0.026	10/24/15 16:41	N2
o-Terphenyl (S)	%	78	29-110		10/24/15 16:41	N2

LABORATORY CONTROL SAMPLE: 969244

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/L	1	0.91	91	61-104	N2
o-Terphenyl (S)	%			86	29-110	N2

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161956

QC Batch: WETA/21601 Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E Analysis Description: 4500 Chloride
Associated Lab Samples: 30161956001, 30161956002, 30161956003, 30161956004, 30161956005

METHOD BLANK: 970989 Matrix: Water
Associated Lab Samples: 30161956001, 30161956002, 30161956003, 30161956004, 30161956005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/22/15 13:46	

METHOD BLANK: 970991 Matrix: Water
Associated Lab Samples: 30161956001, 30161956002, 30161956003, 30161956004, 30161956005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/22/15 13:48	

METHOD BLANK: 970992 Matrix: Water
Associated Lab Samples: 30161956001, 30161956002, 30161956003, 30161956004, 30161956005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/22/15 13:48	

METHOD BLANK: 970993 Matrix: Water
Associated Lab Samples: 30161956001, 30161956002, 30161956003, 30161956004, 30161956005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/22/15 13:49	

METHOD BLANK: 971005 Matrix: Water
Associated Lab Samples: 30161956001, 30161956002, 30161956003, 30161956004, 30161956005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/22/15 13:47	

LABORATORY CONTROL SAMPLE: 970990

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	39.4	99	90-110	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161956

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 970994 970995

Parameter	Units	30161955001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	7.0	20	20	27.3	28.0	101	105	85-115	3	20	

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161956

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: OEXT/25718

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1c A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

N2 The lab does not hold TNI accreditation for this parameter.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161956

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30161956001	**HAOH1012SW04**	EPA 3510C	OEXT/25718	EPA 8015B	GCSV/8764
30161956002	**HAOH1012SW08**	EPA 3510C	OEXT/25718	EPA 8015B	GCSV/8764
30161956003	**HAOH1012SW08DUP**	EPA 3510C	OEXT/25718	EPA 8015B	GCSV/8764
30161956004	**HAOH1012SW15**	EPA 3510C	OEXT/25718	EPA 8015B	GCSV/8764
30161956005	**HAOH1012SW20**	EPA 3510C	OEXT/25718	EPA 8015B	GCSV/8764
30161956001	**HAOH1012SW04**	EPA 8260B	MSV/25319		
30161956002	**HAOH1012SW08**	EPA 8260B	MSV/25319		
30161956003	**HAOH1012SW08DUP**	EPA 8260B	MSV/25319		
30161956004	**HAOH1012SW15**	EPA 8260B	MSV/25319		
30161956005	**HAOH1012SW20**	EPA 8260B	MSV/25319		
30161956006	**Trip Blank**	EPA 8260B	MSV/25319		
30161956001	**HAOH1012SW04**	SM 4500-Cl-E	WETA/21601		
30161956002	**HAOH1012SW08**	SM 4500-Cl-E	WETA/21601		
30161956003	**HAOH1012SW08DUP**	SM 4500-Cl-E	WETA/21601		
30161956004	**HAOH1012SW15**	SM 4500-Cl-E	WETA/21601		
30161956005	**HAOH1012SW20**	SM 4500-Cl-E	WETA/21601		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody and Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER_____

Section D Required Client Information

SAMPLE ID: One Character per box. (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes: MATRIX / CODE — DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOLUSOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

Filtered (Y/N); Requested Analyses: VOCs - Acetone only (8015); TPH - DRO (8015); Chlorides (4500); Residual Chlorine (Y/N)

30161956

Pace Project No. / Lab I.D.

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	VOCs - Acetone only (8015)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. / Lab I.D.
1	HAOH1012SW04	WT	G	10/12/15	1230			15.37	5	X			X					x	x	x	N	TB
2	HAOH1012SW08	WT	G	10/12/15	1030			18.00	5	X			X					x	x	x	N	
3	HAOH1012SW08DUP	WT	G	10/12/15	1045			18.00	5	X			X					x	x	x	N	
4	HAOH1012SW15	WT	G	10/12/15	1135			12.44	5	X			X					x	x	x	N	
5	HAOH1012SW20	WT	G	10/12/15	1340			14.91	5	X			X					x	x	x	N	
6																						DB MW 10-13-15 TB
7																						
8																						
9																						
10																						
11																						
12																						

Additional Comments:

(3) 40 ml VOA Vials (HCL)

(1) Amber Glass L

(1) 250 ml Plastic

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
[signature]	10/13/15	0940	[signature]	10/13/15	1645		Y/N	Y/N	Y/N
[signature]	10/13/15	1645	[signature]	10-13-15	1645	6.0	Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
						Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MATT DRAUP

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 10/13/15

Sample Condition Upon Receipt

30161956

Pace Analytical

Client Name: Moody

Project # _____

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap X Bubble Bags X None ____ Other _____

Thermometer Used 6 Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.2 °C Correction Factor: -0.2 °C Final Temp: 6.0 °C

Date and Initials of person examining contents: 10/13/15 RB

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☒Yes ☐No 10-13-15	Initial when completed 10/13/15 RB Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☒No ☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☒No ☐N/A	15.
Trip Blank Present:	☒Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☒Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: PJWestrick **Date:** 10/14/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

page 2

30161956

Project Number: _____

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml / 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	WT			1	1									~~5~~ 3										
002	WT			1	1									3										
005	WT			1	1									3										
006	WT			+	Taken 10/13/15									2										

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SCURF Back (C016-4 15May2012).xls

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October 26, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161955

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory on October 13, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161955

Pennsylvania Certification IDs

Georgia Certification #: C040
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161955

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30161955001	**HAOH1012SW06**	Water	10/12/15 14:10	10/13/15 16:45
30161955002	**HAOH1012SW17**	Water	10/12/15 13:00	10/13/15 16:45
30161955003	**HAOH1012SW18**	Water	10/12/15 11:55	10/13/15 16:45
30161955004	**HAOH1012SW21**	Water	10/12/15 14:30	10/13/15 16:45
30161955005	**HAOH1012SW25**	Water	10/12/15 13:40	10/13/15 16:45

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161955

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30161955001	**HAOH1012SW06**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	5	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30161955002	**HAOH1012SW17**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	5	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30161955003	**HAOH1012SW18**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	5	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30161955004	**HAOH1012SW21**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	5	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA
30161955005	**HAOH1012SW25**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JAS	5	PASI-PA
		SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161955

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30161955001	**HAOH1012SW06**					
SM 4500-Cl-E	Chloride	7.0	mg/L	3.0	10/22/15 13:53	
30161955002	**HAOH1012SW17**					
SM 4500-Cl-E	Chloride	8.4	mg/L	3.0	10/22/15 13:55	
30161955003	**HAOH1012SW18**					
SM 4500-Cl-E	Chloride	7.2	mg/L	3.0	10/22/15 13:56	
30161955004	**HAOH1012SW21**					
SM 4500-Cl-E	Chloride	10.5	mg/L	3.0	10/22/15 13:57	
30161955005	**HAOH1012SW25**					
SM 4500-Cl-E	Chloride	5.4	mg/L	3.0	10/22/15 13:57	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161955

Method: **EPA 8015B**
Description: 8015 TPH
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
5 samples were analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: OEXT/25718

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Analyte Comments:

QC Batch: OEXT/25718

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- HAOH1012SW06 (Lab ID: 30161955001)
  - TPH (C10-C28)
- HAOH1012SW17 (Lab ID: 30161955002)
  - TPH (C10-C28)
- HAOH1012SW18 (Lab ID: 30161955003)
  - TPH (C10-C28)
- HAOH1012SW21 (Lab ID: 30161955004)
  - TPH (C10-C28)

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161955

Method: **EPA 8015B**
Description: 8015 TPH
Client: Moody and Associates, Inc.
Date: October 26, 2015

Analyte Comments:

QC Batch: OEXT/25718

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- HAOH1012SW25 (Lab ID: 30161955005)
  - TPH (C10-C28)

N2: The lab does not hold TNI accreditation for this parameter.

- BLANK (Lab ID: 969243)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH1012SW06 (Lab ID: 30161955001)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH1012SW17 (Lab ID: 30161955002)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH1012SW18 (Lab ID: 30161955003)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH1012SW21 (Lab ID: 30161955004)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- HAOH1012SW25 (Lab ID: 30161955005)
  - TPH (C10-C28)
  - o-Terphenyl (S)
- LCS (Lab ID: 969244)
  - TPH (C10-C28)
  - o-Terphenyl (S)

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161955

Method: **EPA 8260B**
Description: 8260 MSV
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
5 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161955

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
5 samples were analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161955

Sample: HAOH1012SW06 **Lab ID: 30161955001** Collected: 10/12/15 14:10 Received: 10/13/15 16:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	10/19/15 12:50	10/24/15 17:06		1c,N2
Surrogates									
o-Terphenyl (S)	75	%	29-110		1	10/19/15 12:50	10/24/15 17:06	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		10/19/15 15:44	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	100	%	81-119		1		10/19/15 15:44	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	77-126		1		10/19/15 15:44	17060-07-0	
Toluene-d8 (S)	101	%	84-115		1		10/19/15 15:44	2037-26-5	
Dibromofluoromethane (S)	100	%	70-130		1		10/19/15 15:44	1868-53-7	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**7.0**	mg/L	3.0	0.70	1		10/22/15 13:53	16887-00-6	

Sample: HAOH1012SW17 **Lab ID: 30161955002** Collected: 10/12/15 13:00 Received: 10/13/15 16:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	10/19/15 12:50	10/24/15 17:15		1c,N2
Surrogates									
o-Terphenyl (S)	76	%	29-110		1	10/19/15 12:50	10/24/15 17:15	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		10/19/15 16:09	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	99	%	81-119		1		10/19/15 16:09	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	77-126		1		10/19/15 16:09	17060-07-0	
Toluene-d8 (S)	101	%	84-115		1		10/19/15 16:09	2037-26-5	
Dibromofluoromethane (S)	101	%	70-130		1		10/19/15 16:09	1868-53-7	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**8.4**	mg/L	3.0	0.70	1		10/22/15 13:55	16887-00-6	

Sample: HAOH1012SW18 **Lab ID: 30161955003** Collected: 10/12/15 11:55 Received: 10/13/15 16:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	10/19/15 12:50	10/24/15 17:23		1c,N2

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161955

Sample: HAOH1012SW18 **Lab ID: 30161955003** Collected: 10/12/15 11:55 Received: 10/13/15 16:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
Surrogates									
o-Terphenyl (S)	68	%	29-110		1	10/19/15 12:50	10/24/15 17:23	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		10/19/15 16:35	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	97	%	81-119		1		10/19/15 16:35	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	77-126		1		10/19/15 16:35	17060-07-0	
Toluene-d8 (S)	102	%	84-115		1		10/19/15 16:35	2037-26-5	
Dibromofluoromethane (S)	102	%	70-130		1		10/19/15 16:35	1868-53-7	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**7.2**	mg/L	3.0	0.70	1		10/22/15 13:56	16887-00-6	

Sample: HAOH1012SW21 **Lab ID: 30161955004** Collected: 10/12/15 14:30 Received: 10/13/15 16:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	10/19/15 12:50	10/24/15 17:31		1c,N2
Surrogates									
o-Terphenyl (S)	72	%	29-110		1	10/19/15 12:50	10/24/15 17:31	84-15-1	N2
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		10/19/15 17:00	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	100	%	81-119		1		10/19/15 17:00	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	77-126		1		10/19/15 17:00	17060-07-0	
Toluene-d8 (S)	98	%	84-115		1		10/19/15 17:00	2037-26-5	
Dibromofluoromethane (S)	102	%	70-130		1		10/19/15 17:00	1868-53-7	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**10.5**	mg/L	3.0	0.70	1		10/22/15 13:57	16887-00-6	

Sample: HAOH1012SW25 **Lab ID: 30161955005** Collected: 10/12/15 13:40 Received: 10/13/15 16:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH	Analytical Method: EPA 8015B Preparation Method: EPA 3510C								
TPH (C10-C28)	ND	mg/L	0.10	0.026	1	10/19/15 12:50	10/24/15 17:40		1c,N2
Surrogates									
o-Terphenyl (S)	72	%	29-110		1	10/19/15 12:50	10/24/15 17:40	84-15-1	N2

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161955

Sample: HAOH1012SW25 **Lab ID: 30161955005** Collected: 10/12/15 13:40 Received: 10/13/15 16:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	10.0	2.3	1		10/19/15 17:26	67-64-1	
Surrogates									
4-Bromofluorobenzene (S)	99	%	81-119		1		10/19/15 17:26	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	77-126		1		10/19/15 17:26	17060-07-0	
Toluene-d8 (S)	105	%	84-115		1		10/19/15 17:26	2037-26-5	
Dibromofluoromethane (S)	103	%	70-130		1		10/19/15 17:26	1868-53-7	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**5.4**	mg/L	3.0	0.70	1		10/22/15 13:57	16887-00-6	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161955

QC Batch: MSV/25319 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260 MSV
Associated Lab Samples: 30161955001, 30161955002, 30161955003, 30161955004, 30161955005

METHOD BLANK: 969396 Matrix: Water
Associated Lab Samples: 30161955001, 30161955002, 30161955003, 30161955004, 30161955005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ug/L	ND	10.0	2.3	10/19/15 14:02	
1,2-Dichloroethane-d4 (S)	%	94	77-126		10/19/15 14:02	
4-Bromofluorobenzene (S)	%	101	81-119		10/19/15 14:02	
Dibromofluoromethane (S)	%	101	70-130		10/19/15 14:02	
Toluene-d8 (S)	%	105	84-115		10/19/15 14:02	

LABORATORY CONTROL SAMPLE: 969397

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/L	20	13.7	69	35-113	
1,2-Dichloroethane-d4 (S)	%			92	77-126	
4-Bromofluorobenzene (S)	%			97	81-119	
Dibromofluoromethane (S)	%			103	70-130	
Toluene-d8 (S)	%			102	84-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 969398 969399

Parameter	Units	30161955001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/L	ND	20	20	18.0	15.2	90	76	10-150	17	30	
1,2-Dichloroethane-d4 (S)	%						93	103	77-126			
4-Bromofluorobenzene (S)	%						98	101	81-119			
Dibromofluoromethane (S)	%						101	101	70-130			
Toluene-d8 (S)	%						103	100	84-115			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161955

QC Batch: OEXT/25718 Analysis Method: EPA 8015B
QC Batch Method: EPA 3510C Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30161955001, 30161955002, 30161955003, 30161955004, 30161955005

METHOD BLANK: 969243 Matrix: Water
Associated Lab Samples: 30161955001, 30161955002, 30161955003, 30161955004, 30161955005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
TPH (C10-C28)	mg/L	ND	0.10	0.026	10/24/15 16:41	N2
o-Terphenyl (S)	%	78	29-110		10/24/15 16:41	N2

LABORATORY CONTROL SAMPLE: 969244

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/L	1	0.91	91	61-104	N2
o-Terphenyl (S)	%			86	29-110	N2

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161955

QC Batch: WETA/21601 Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E Analysis Description: 4500 Chloride
Associated Lab Samples: 30161955001, 30161955002, 30161955003, 30161955004, 30161955005

METHOD BLANK: 970989 Matrix: Water
Associated Lab Samples: 30161955001, 30161955002, 30161955003, 30161955004, 30161955005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/22/15 13:46	

METHOD BLANK: 970991 Matrix: Water
Associated Lab Samples: 30161955001, 30161955002, 30161955003, 30161955004, 30161955005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/22/15 13:48	

METHOD BLANK: 970992 Matrix: Water
Associated Lab Samples: 30161955001, 30161955002, 30161955003, 30161955004, 30161955005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/22/15 13:48	

METHOD BLANK: 970993 Matrix: Water
Associated Lab Samples: 30161955001, 30161955002, 30161955003, 30161955004, 30161955005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/22/15 13:49	

METHOD BLANK: 971005 Matrix: Water
Associated Lab Samples: 30161955001, 30161955002, 30161955003, 30161955004, 30161955005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/22/15 13:47	

LABORATORY CONTROL SAMPLE: 970990

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	39.4	99	90-110	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161955

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 970994 970995

Parameter	Units	30161955001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	7.0	20	20	27.3	28.0	101	105	85-115	3	20	

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161955

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: OEXT/25718

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1c A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

N2 The lab does not hold TNI accreditation for this parameter.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161955

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30161955001	**HAOH1012SW06**	EPA 3510C	OEXT/25718	EPA 8015B	GCSV/8764
30161955002	**HAOH1012SW17**	EPA 3510C	OEXT/25718	EPA 8015B	GCSV/8764
30161955003	**HAOH1012SW18**	EPA 3510C	OEXT/25718	EPA 8015B	GCSV/8764
30161955004	**HAOH1012SW21**	EPA 3510C	OEXT/25718	EPA 8015B	GCSV/8764
30161955005	**HAOH1012SW25**	EPA 3510C	OEXT/25718	EPA 8015B	GCSV/8764
30161955001	**HAOH1012SW06**	EPA 8260B	MSV/25319		
30161955002	**HAOH1012SW17**	EPA 8260B	MSV/25319		
30161955003	**HAOH1012SW18**	EPA 8260B	MSV/25319		
30161955004	**HAOH1012SW21**	EPA 8260B	MSV/25319		
30161955005	**HAOH1012SW25**	EPA 8260B	MSV/25319		
30161955001	**HAOH1012SW06**	SM 4500-Cl-E	WETA/21601		
30161955002	**HAOH1012SW17**	SM 4500-Cl-E	WETA/21601		
30161955003	**HAOH1012SW18**	SM 4500-Cl-E	WETA/21601		
30161955004	**HAOH1012SW21**	SM 4500-Cl-E	WETA/21601		
30161955005	**HAOH1012SW25**	SM 4500-Cl-E	WETA/21601		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody and Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: STANDARD	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER_____

Filtered (Y/N)

Requested Ana

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION °C	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	VOCs - Acetone only (6	TPH - DRO (8015)	Chlorides (4	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH1012SW06	WT	G	10/12/15	1410			12.79	5	X			X					x	x	x	N	001
2	HAOH1012SW17	WT	G	10/12/15	1300			13.37	5	X			X					x	x	x	N	002
3	HAOH1012SW18	WT	G	10/12/15	1156			10.67	5	X			X					x	x	x	N	003
4	HAOH1012SW21	WT	G	10/12/15	1430			12.61	5	X			X					x	x	x	N	004
5	HAOH1012SW25	WT	G	10/12/15	1340			16.20	5	X			X					x	x	x	N	005
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Preservatives

30161055

Additional Comments:

(3) 40 ml VOA Vials (HCL)

(1) Amber Glass L

(1) 250 ml Plastic

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] / Moody	10/13/15	930	[signature]	10/13/15	1645
[signature] / Moody	10/13/15	1645	[signature]	10-13-15	1645

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
6.0	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joshua L. Boyda

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM / DD / YY): 10/13/15

e-File(ALLQ020rev.3,31Mar05))22Jun2005

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30161955

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals Intact: ☐ yes ☐ no **Biological Tissue is Frozen:** Yes No

Packing Material: Bubble Wrap X Bubble Bags X None ____ Other _____

Thermometer Used 6 **Type of Ice:** (Wet) Blue None ☒ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.2 °C **Correction Factor:** -0.2 °C **Final Temp:** 6.0 °C

Date and initials of person examining contents: 10/13/15 RB

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☒Yes ☐No 10135	Initial when completed 10/13/15 RB — Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☒No ☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☒No ☐N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: PJ Destruck **Date:** 10/14/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

page 2

30161955

Project Number: _____

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml / 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	WT			1	1									3										
005	WT			1	1									3										

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

October 26, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161974

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between October 13, 2015 and October 24, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161974

Pennsylvania Certification IDs

Georgia Certification #: C040
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161974

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30161974001	**HAOH1012SW001**	Solid	10/12/15 11:15	10/13/15 16:45
30161974002	**HAOH1012SW001 (ASTM)**	Water	10/24/15 11:59	10/24/15 11:59

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161974

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30161974001	**HAOH1012SW001**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	5	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30161974002	**HAOH1012SW001 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161974

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30161974001	**HAOH1012SW001**					
EPA 8015B	TPH (C10-C28)	8.8	mg/kg	8.4	10/16/15 22:17	1c
Dry Weight	Percent Moisture	22.4	%	0.10	10/24/15 15:07	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161974

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: OEXT/25667

1c: The majority of the area quantitated as DRO for this sample is due to unresolved material eluting beyond C 20.

- HAOH1012SW001 (Lab ID: 30161974001)
  - TPH (C10-C28)

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161974

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/25282

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161974

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161974

Sample: HAOH1012SW001 **Lab ID: 30161974001** Collected: 10/12/15 11:15 Received: 10/13/15 16:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	**8.8**	mg/kg	8.4	4.4	1	10/15/15 09:15	10/16/15 22:17		1c
Surrogates									
o-Terphenyl (S)	75	%	45-103		1	10/15/15 09:15	10/16/15 22:17	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	11.4	5.6	1		10/15/15 15:42	67-64-1	M5
Surrogates									
Toluene-d8 (S)	105	%	68-135		1		10/15/15 15:42	2037-26-5	M5
4-Bromofluorobenzene (S)	109	%	65-146		1		10/15/15 15:42	460-00-4	M5
1,2-Dichloroethane-d4 (S)	91	%	69-137		1		10/15/15 15:42	17060-07-0	M5
Dibromofluoromethane (S)	91	%	70-130		1		10/15/15 15:42	1868-53-7	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**22.4**	%	0.10	0.10	1		10/24/15 15:07		

Sample: HAOH1012SW001 (ASTM) **Lab ID: 30161974002** Collected: 10/24/15 11:59 Received: 10/24/15 11:59 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		10/26/15 11:26	16887-00-6	

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1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161974

QC Batch: MSV/25282
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30161974001

METHOD BLANK: 967725
Matrix: Solid
Associated Lab Samples: 30161974001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	4.9	10/15/15 10:54	M5
1,2-Dichloroethane-d4 (S)	%	91	69-137		10/15/15 10:54	M5
4-Bromofluorobenzene (S)	%	100	65-146		10/15/15 10:54	M5
Dibromofluoromethane (S)	%	91	70-130		10/15/15 10:54	M5
Toluene-d8 (S)	%	102	68-135		10/15/15 10:54	M5

LABORATORY CONTROL SAMPLE: 967726

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	8.7J	44	32-113	M5
1,2-Dichloroethane-d4 (S)	%			91	69-137	M5
4-Bromofluorobenzene (S)	%			100	65-146	M5
Dibromofluoromethane (S)	%			94	70-130	M5
Toluene-d8 (S)	%			102	68-135	M5

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967996 967997

Parameter	Units	30161959001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	19.8	19.1	9.7J	8.8J	49	46	10-175		30	M5
1,2-Dichloroethane-d4 (S)	%						88	90	69-137			M5
4-Bromofluorobenzene (S)	%						101	102	65-146			M5
Dibromofluoromethane (S)	%						92	93	70-130			M5
Toluene-d8 (S)	%						103	102	68-135			M5

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161974

QC Batch: OEXT/25667 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30161974001

METHOD BLANK: 967362 | Matrix: Solid
Associated Lab Samples: 30161974001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	3.5	10/16/15 16:12	
o-Terphenyl (S)	%	75	45-103		10/16/15 16:12	

LABORATORY CONTROL SAMPLE: 967363

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	58.8	88	64-109	
o-Terphenyl (S)	%			87	45-103	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967364 967365

Parameter	Units	30161961001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	ND	91.5	90.1	94.2	84.7	99	90	10-175	11	25	
o-Terphenyl (S)	%						96	80	45-103			

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161974

QC Batch: PMST/5697
QC Batch Method: Dry Weight
Analysis Method: Dry Weight
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30161974001

SAMPLE DUPLICATE: 972235

Parameter	Units	30161810001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	27.9	28.6	3	20	

SAMPLE DUPLICATE: 972236

Parameter	Units	30161831001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	0.39	0.37	5	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161974

QC Batch: WETA/21636 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30161974002

METHOD BLANK: 972490 | Matrix: Water
Associated Lab Samples: 30161974002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

METHOD BLANK: 972498 | Matrix: Water
Associated Lab Samples: 30161974002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

LABORATORY CONTROL SAMPLE: 972491

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.9	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 972492 972493

Parameter	Units	30161959002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.7	90	91	85-115	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161974

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/25282

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1c The majority of the area quantitated as DRO for this sample is due to unresolved material eluting beyond C 20.

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161974

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30161974001	**HAOH1012SW001**	EPA 3546	OEXT/25667	EPA 8015B	GCSV/8732
30161974001	**HAOH1012SW001**	EPA 8260B	MSV/25282		
30161974001	**HAOH1012SW001**	Dry Weight	PMST/5697		
30161974002	**HAOH1012SW001 (ASTM)**	SM 4500-Cl-E	WETA/21636		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION

☐ GA ☐ IL ☐ IN ☐ MI ☐ NC
☑ OH ☐ SC ☐ WI ☐ OTHER_____

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Filtered (Y/N)

Requested Analysis

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	VOCs - Acetone only (8	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH1012SW001	SL	G	10/12/15	1115			12.22°C	2	X								X	X	X	N	001,002
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

5016 1974

779

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Brendan Poffenbaugh / Moody	10/13/15	0924	[signature]	10/13/15	1645
[signature] / Moody	10/13/15	1645	[signature]	10-13-15	1645

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
6.0	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brendan Poffenbaugh

SIGNATURE of SAMPLER: Brendan Poffenbaugh

DATE Signed (MM / DD / YY): 10/13/15

e-File(ALLQ020rev.3,31Mar05))22Jun2005

NJV

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project# 30161974

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals Intact: ☐ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap X Bubble Bags X None ___ Other _____

Thermometer Used 6 Type of Ice: Wet Blue None ☒ Samples on Ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.2 °C Correction Factor: -0.2 °C Final Temp: 6.0 °C

Date and Initials of person examining contents: 10/13/15 RB

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: ✓ SL	NJV 10-13-15	
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☒No	Initial when completed 10/13/15 RB Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [signature] **Date:** 10/14/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

30161974

Pace Analytical

page 2

Project Number: _____

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
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Greensburg, PA 15601
(724)850-5600

October 26, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161973

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between October 13, 2015 and October 24, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161973

Pennsylvania Certification IDs

Georgia Certification #: C040
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161973

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30161973001	**HAOH1012SW04**	Solid	10/12/15 12:45	10/13/15 16:45
30161973002	**HAOH1012SW04 (ASTM)**	Water	10/24/15 11:59	10/24/15 11:59

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161973

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30161973001	**HAOH1012SW04**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	5	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30161973002	**HAOH1012SW04 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161973

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30161973001	**HAOH1012SW04**					
Dry Weight	Percent Moisture	13.9	%	0.10	10/24/15 15:07	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161973

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161973

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/25282

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161973

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161973

Sample: HAOH1012SW04 **Lab ID: 30161973001** Collected: 10/12/15 12:45 Received: 10/13/15 16:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	ND	mg/kg	7.7	4.1	1	10/15/15 09:15	10/16/15 21:52		
Surrogates									
o-Terphenyl (S)	73	%	45-103		1	10/15/15 09:15	10/16/15 21:52	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	11.0	5.4	1		10/15/15 15:20	67-64-1	M5
Surrogates									
Toluene-d8 (S)	101	%	68-135		1		10/15/15 15:20	2037-26-5	M5
4-Bromofluorobenzene (S)	102	%	65-146		1		10/15/15 15:20	460-00-4	M5
1,2-Dichloroethane-d4 (S)	92	%	69-137		1		10/15/15 15:20	17060-07-0	M5
Dibromofluoromethane (S)	93	%	70-130		1		10/15/15 15:20	1868-53-7	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**13.9**	%	0.10	0.10	1		10/24/15 15:07		

Sample: HAOH1012SW04 (ASTM) **Lab ID: 30161973002** Collected: 10/24/15 11:59 Received: 10/24/15 11:59 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		10/26/15 11:26	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161973

QC Batch: MSV/25282
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30161973001

METHOD BLANK: 967725
Matrix: Solid
Associated Lab Samples: 30161973001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	4.9	10/15/15 10:54	M5
1,2-Dichloroethane-d4 (S)	%	91	69-137		10/15/15 10:54	M5
4-Bromofluorobenzene (S)	%	100	65-146		10/15/15 10:54	M5
Dibromofluoromethane (S)	%	91	70-130		10/15/15 10:54	M5
Toluene-d8 (S)	%	102	68-135		10/15/15 10:54	M5

LABORATORY CONTROL SAMPLE: 967726

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	8.7J	44	32-113	M5
1,2-Dichloroethane-d4 (S)	%			91	69-137	M5
4-Bromofluorobenzene (S)	%			100	65-146	M5
Dibromofluoromethane (S)	%			94	70-130	M5
Toluene-d8 (S)	%			102	68-135	M5

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967996 967997

Parameter	Units	30161959001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	19.8	19.1	9.7J	8.8J	49	46	10-175		30	M5
1,2-Dichloroethane-d4 (S)	%						88	90	69-137			M5
4-Bromofluorobenzene (S)	%						101	102	65-146			M5
Dibromofluoromethane (S)	%						92	93	70-130			M5
Toluene-d8 (S)	%						103	102	68-135			M5

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161973

QC Batch: OEXT/25667 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30161973001

METHOD BLANK: 967362 | Matrix: Solid
Associated Lab Samples: 30161973001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	3.5	10/16/15 16:12	
o-Terphenyl (S)	%	75	45-103		10/16/15 16:12	

LABORATORY CONTROL SAMPLE: 967363

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	58.8	88	64-109	
o-Terphenyl (S)	%			87	45-103	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967364 967365

Parameter	Units	30161961001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	ND	91.5	90.1	94.2	84.7	99	90	10-175	11	25	
o-Terphenyl (S)	%						96	80	45-103			

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161973

QC Batch: PMST/5697
QC Batch Method: Dry Weight
Analysis Method: Dry Weight
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30161973001

SAMPLE DUPLICATE: 972235

Parameter	Units	30161810001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	27.9	28.6	3	20	

SAMPLE DUPLICATE: 972236

Parameter	Units	30161831001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	0.39	0.37	5	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161973

QC Batch: WETA/21636 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30161973002

METHOD BLANK: 972490 | Matrix: Water
Associated Lab Samples: 30161973002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

METHOD BLANK: 972498 | Matrix: Water
Associated Lab Samples: 30161973002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

LABORATORY CONTROL SAMPLE: 972491

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.9	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 972492 972493

Parameter	Units	30161959002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.7	90	91	85-115	2	20	

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161973

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/25282

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161973

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30161973001	**HAOH1012SW04**	EPA 3546	OEXT/25667	EPA 8015B	GCSV/8732
30161973001	**HAOH1012SW04**	EPA 8260B	MSV/25282		
30161973001	**HAOH1012SW04**	Dry Weight	PMST/5697		
30161973002	**HAOH1012SW04 (ASTM)**	SM 4500-Cl-E	WETA/21636		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:

Company: Moody and Associates, Inc.	
Address: 199 Johnson Road, Building 2, Suite 101	
Houston, PA 15342	
Email To: lmistick@moody-s.com	
Phone:724-746-5200	Fax:724-746-5603
Requested Due Date/TAT: Standard	

Section B Required Project Information:

Report To: Leah Mistick
Copy To: Josh Boyda
Purchase Order No.:
Project Name: Eisenbarth Consent Order
Project Number: 14-467-LM

Section C Invoice Information:

Attention: Leah Mistick
Company Name: Moody & Associates, Inc.
Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis: VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorine (4500)	Residual Chlorine (Y/N)	Pace Project No. / Lab I.D.
1	HAOH1012SW04	SL	G	10/12/15	1245			N4	2	X								X	X	X	N	001,002
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

797

Pace Project No. / Lab I.D.: 30161973

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Matt Drucker	10/13/15	0940	[illegible]	10/13/15	1645		Y/N	Y/N	Y/N
[illegible]	10/13/15	1645	[illegible]	10-13-15	1645	6.0	N	Y	N
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
						Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MATT DRUCKER

SIGNATURE of SAMPLER: Matt Drucker

DATE Signed (MM / DD / YY): 10/13/15

BLM

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30161973

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap X Bubble Bags X None ___ Other _____

Thermometer Used 6 Type of Ice: (Wet) Blue None ☒ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.2 °C Correction Factor: -0.2 °C Final Temp: 6.0 °C

Date and initials of person examining contents: 10/13/15 RB

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: SL	☒Yes ☐No ☐N/A	12.
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☒No	Initial when completed 10/13/15 RB Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [signature] **Date:** 10/14/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30161973

Client Name: Moody

Item No.	Matrix Code	Glass Jar (20, 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
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Greensburg, PA 15601
(724)850-5600

October 26, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161972

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between October 13, 2015 and October 24, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161972

Pennsylvania Certification IDs

Georgia Certification #: C040
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161972

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30161972001	**HAOH1012SW06**	Solid	10/12/15 14:15	10/13/15 16:45
30161972002	**HAOH1012SW06 (ASTM)**	Water	10/24/15 11:48	10/24/15 11:48

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161972

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30161972001	**HAOH1012SW06**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	5	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30161972002	**HAOH1012SW06 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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Greensburg, PA 15601
(724)850-5600

SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161972

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30161972001	**HAOH1012SW06**					
Dry Weight	Percent Moisture	29.0	%	0.10	10/24/15 15:06	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161972

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161972

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/25282

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161972

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161972

Sample: HAOH1012SW06 **Lab ID: 30161972001** Collected: 10/12/15 14:15 Received: 10/13/15 16:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	ND	mg/kg	9.1	4.8	1	10/15/15 09:15	10/16/15 21:27		
Surrogates									
o-Terphenyl (S)	72	%	45-103		1	10/15/15 09:15	10/16/15 21:27	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	11.5	5.6	1		10/15/15 14:58	67-64-1	M5
Surrogates									
Toluene-d8 (S)	103	%	68-135		1		10/15/15 14:58	2037-26-5	M5
4-Bromofluorobenzene (S)	103	%	65-146		1		10/15/15 14:58	460-00-4	M5
1,2-Dichloroethane-d4 (S)	89	%	69-137		1		10/15/15 14:58	17060-07-0	M5
Dibromofluoromethane (S)	91	%	70-130		1		10/15/15 14:58	1868-53-7	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**29.0**	%	0.10	0.10	1		10/24/15 15:06		

Sample: HAOH1012SW06 (ASTM) **Lab ID: 30161972002** Collected: 10/24/15 11:48 Received: 10/24/15 11:48 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		10/26/15 11:21	16887-00-6	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161972

QC Batch: MSV/25282
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30161972001

METHOD BLANK: 967725
Matrix: Solid
Associated Lab Samples: 30161972001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	4.9	10/15/15 10:54	M5
1,2-Dichloroethane-d4 (S)	%	91	69-137		10/15/15 10:54	M5
4-Bromofluorobenzene (S)	%	100	65-146		10/15/15 10:54	M5
Dibromofluoromethane (S)	%	91	70-130		10/15/15 10:54	M5
Toluene-d8 (S)	%	102	68-135		10/15/15 10:54	M5

LABORATORY CONTROL SAMPLE: 967726

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	8.7J	44	32-113	M5
1,2-Dichloroethane-d4 (S)	%			91	69-137	M5
4-Bromofluorobenzene (S)	%			100	65-146	M5
Dibromofluoromethane (S)	%			94	70-130	M5
Toluene-d8 (S)	%			102	68-135	M5

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967996 967997

Parameter	Units	30161959001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	19.8	19.1	9.7J	8.8J	49	46	10-175		30	M5
1,2-Dichloroethane-d4 (S)	%						88	90	69-137			M5
4-Bromofluorobenzene (S)	%						101	102	65-146			M5
Dibromofluoromethane (S)	%						92	93	70-130			M5
Toluene-d8 (S)	%						103	102	68-135			M5

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161972

QC Batch: OEXT/25667 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30161972001

METHOD BLANK: 967362 | Matrix: Solid
Associated Lab Samples: 30161972001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	3.5	10/16/15 16:12	
o-Terphenyl (S)	%	75	45-103		10/16/15 16:12	

LABORATORY CONTROL SAMPLE: 967363

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	58.8	88	64-109	
o-Terphenyl (S)	%			87	45-103	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967364 967365

Parameter	Units	30161961001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	ND	91.5	90.1	94.2	84.7	99	90	10-175	11	25	
o-Terphenyl (S)	%						96	80	45-103			

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161972

QC Batch: PMST/5697
QC Batch Method: Dry Weight
Analysis Method: Dry Weight
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30161972001

SAMPLE DUPLICATE: 972235

Parameter	Units	30161810001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	27.9	28.6	3	20	

SAMPLE DUPLICATE: 972236

Parameter	Units	30161831001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	0.39	0.37	5	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161972

QC Batch: WETA/21636 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30161972002

METHOD BLANK: 972490 | Matrix: Water
Associated Lab Samples: 30161972002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

METHOD BLANK: 972498 | Matrix: Water
Associated Lab Samples: 30161972002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

LABORATORY CONTROL SAMPLE: 972491

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.9	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 972492 972493

Parameter	Units	30161959002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.7	90	91	85-115	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161972

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/25282

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161972

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30161972001	**HAOH1012SW06**	EPA 3546	OEXT/25667	EPA 8015B	GCSV/8732
30161972001	**HAOH1012SW06**	EPA 8260B	MSV/25282		
30161972001	**HAOH1012SW06**	Dry Weight	PMST/5697		
30161972002	**HAOH1012SW06 (ASTM)**	SM 4500-Cl-E	WETA/21636		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH1012SW06	SL	G	10/12/15	1415			N/A	2	X								X	X	X	N	001,002
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Filtered (Y/N)

Requested Analysis Filtered (Y/N)

30161972

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Joshua L. Boyda / Moody	10/13/15	930	[signature]	10/13/15	1645
[signature] / Moody	10/13/15	1645	[signature]	10-13-15	1645

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
6.0	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joshua L. Boyda

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 10/13/15

BCM

30161972

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # _____

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals Intact: ☐ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap X Bubble Bags X None ____ Other _____

Thermometer Used 6 Type of Ice: (Wet) Blue None ☒ Samples on Ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.2 °C Correction Factor: -0.2 °C Final Temp: 6.0 °C

Date and Initials of person examining contents: 10/13/15 RB

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	Initial when completed 10/13/15 RB — Lot # of added preservative
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☒No	
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [signature] **Date:** 10/14/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

30161972

page 2

Project Number: _____

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

October 26, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161971

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between October 13, 2015 and October 24, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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Greensburg, PA 15601
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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161971

Pennsylvania Certification IDs

Georgia Certification #: C040
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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(724)850-5600

SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161971

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30161971001	**HAOH1012SW08**	Solid	10/12/15 11:00	10/13/15 16:45
30161971002	**HAOH1012SW08 (ASTM)**	Water	10/24/15 11:43	10/24/15 11:43

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161971

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30161971001	**HAOH1012SW08**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	5	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30161971002	**HAOH1012SW08 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161971

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30161971001	**HAOH1012SW08**					
EPA 8015B	TPH (C10-C28)	17.1	mg/kg	15.0	10/16/15 21:02	1c
Dry Weight	Percent Moisture	56.3	%	0.10	10/24/15 15:06	

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161971

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: OEXT/25667

1c: The majority of the area quantitated as DRO for this sample is due to unresolved material eluting beyond C 20.

- HAOH1012SW08 (Lab ID: 30161971001)
  - TPH (C10-C28)

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161971

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/25282

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161971

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161971

Sample: HAOH1012SW08 **Lab ID: 30161971001** Collected: 10/12/15 11:00 Received: 10/13/15 16:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	**17.1**	mg/kg	15.0	7.9	1	10/15/15 09:15	10/16/15 21:02		1c
Surrogates									
o-Terphenyl (S)	70	%	45-103		1	10/15/15 09:15	10/16/15 21:02	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	17.3	8.5	1		10/15/15 14:36	67-64-1	M5
Surrogates									
Toluene-d8 (S)	104	%	68-135		1		10/15/15 14:36	2037-26-5	M5
4-Bromofluorobenzene (S)	107	%	65-146		1		10/15/15 14:36	460-00-4	M5
1,2-Dichloroethane-d4 (S)	88	%	69-137		1		10/15/15 14:36	17060-07-0	M5
Dibromofluoromethane (S)	92	%	70-130		1		10/15/15 14:36	1868-53-7	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**56.3**	%	0.10	0.10	1		10/24/15 15:06		

Sample: HAOH1012SW08 (ASTM) **Lab ID: 30161971002** Collected: 10/24/15 11:43 Received: 10/24/15 11:43 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		10/26/15 11:20	16887-00-6	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161971

QC Batch: MSV/25282 | Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B | Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30161971001

METHOD BLANK: 967725 | Matrix: Solid
Associated Lab Samples: 30161971001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	4.9	10/15/15 10:54	M5
1,2-Dichloroethane-d4 (S)	%	91	69-137		10/15/15 10:54	M5
4-Bromofluorobenzene (S)	%	100	65-146		10/15/15 10:54	M5
Dibromofluoromethane (S)	%	91	70-130		10/15/15 10:54	M5
Toluene-d8 (S)	%	102	68-135		10/15/15 10:54	M5

LABORATORY CONTROL SAMPLE: 967726

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	8.7J	44	32-113	M5
1,2-Dichloroethane-d4 (S)	%			91	69-137	M5
4-Bromofluorobenzene (S)	%			100	65-146	M5
Dibromofluoromethane (S)	%			94	70-130	M5
Toluene-d8 (S)	%			102	68-135	M5

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967996 967997

Parameter	Units	30161959001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	19.8	19.1	9.7J	8.8J	49	46	10-175		30	M5
1,2-Dichloroethane-d4 (S)	%						88	90	69-137			M5
4-Bromofluorobenzene (S)	%						101	102	65-146			M5
Dibromofluoromethane (S)	%						92	93	70-130			M5
Toluene-d8 (S)	%						103	102	68-135			M5

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161971

QC Batch: OEXT/25667 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30161971001

METHOD BLANK: 967362 | Matrix: Solid
Associated Lab Samples: 30161971001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	3.5	10/16/15 16:12	
o-Terphenyl (S)	%	75	45-103		10/16/15 16:12	

LABORATORY CONTROL SAMPLE: 967363

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	58.8	88	64-109	
o-Terphenyl (S)	%			87	45-103	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967364 967365

Parameter	Units	30161961001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	ND	91.5	90.1	94.2	84.7	99	90	10-175	11	25	
o-Terphenyl (S)	%						96	80	45-103			

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161971

QC Batch: PMST/5697
QC Batch Method: Dry Weight
Analysis Method: Dry Weight
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30161971001

SAMPLE DUPLICATE: 972235

Parameter	Units	30161810001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	27.9	28.6	3	20	

SAMPLE DUPLICATE: 972236

Parameter	Units	30161831001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	0.39	0.37	5	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161971

QC Batch: WETA/21636 — Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E — Analysis Description: 4500 Chloride
Associated Lab Samples: 30161971002

METHOD BLANK: 972490 — Matrix: Water
Associated Lab Samples: 30161971002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

METHOD BLANK: 972498 — Matrix: Water
Associated Lab Samples: 30161971002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

LABORATORY CONTROL SAMPLE: 972491

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.9	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 972492 — 972493

Parameter	Units	30161959002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.7	90	91	85-115	2	20	

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161971

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/25282

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1c The majority of the area quantitated as DRO for this sample is due to unresolved material eluting beyond C 20.

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161971

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30161971001	**HAOH1012SW08**	EPA 3546	OEXT/25667	EPA 8015B	GCSV/8732
30161971001	**HAOH1012SW08**	EPA 8260B	MSV/25282		
30161971001	**HAOH1012SW08**	Dry Weight	PMST/5697		
30161971002	**HAOH1012SW08 (ASTM)**	SM 4500-Cl-E	WETA/21636		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION

☐ GA ☐ IL ☐ IN ☐ MI ☐ NC
☑ OH ☐ SC ☐ WI ☐ OTHER_____

Filtered (Y/N)

Requested Ana

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	VOCs - Acetone only (6	TPH - DRO (8015)	Chlorides (4500	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH1012SW08	SL	G	10/12/15	1100			NA	2	X								X	X	X	N	001,002
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Matt Dracup	10/13/15	0940	[signature]	10/13/15	1643
[signature]	10/13/15	1645	[signature]	10-13-15	1645

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
6.0	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Matt Dracup

SIGNATURE of SAMPLER: Matt Dracup

DATE Signed (MM / DD / YY): 10/13/15

e-File(ALLQ020rev.3,31Mar05))22Jun2005

BCM

30161971

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # _____

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap X Bubble Bags X None ___ Other _____

Thermometer Used 6 Type of Ice: (Wet) Blue None ☒ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.2 °C Correction Factor: -0.2 °C Final Temp: 6.0 °C

Date and Initials of person examining contents: 10/13/15 RB

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: SL	☒Yes ☐No ☐N/A	12.
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	Initial when completed 10/13/15 RB Lot # of added preservative
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☒No	
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [signature] **Date:** 10/14/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30161971

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

October 26, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161970

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between October 13, 2015 and October 24, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161970

Pennsylvania Certification IDs

Georgia Certification #: C040
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161970

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30161970001	**HAOH1012SW08DUP**	Solid	10/12/15 11:15	10/13/15 16:45
30161970002	**HAOH1012SW08DUP (ASTM)**	Water	10/24/15 11:40	10/24/15 11:40

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161970

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30161970001	**HAOH1012SW08DUP**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	5	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30161970002	**HAOH1012SW08DUP (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161970

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30161970001	**HAOH1012SW08DUP**					
Dry Weight	Percent Moisture	26.5	%	0.10	10/24/15 15:05	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161970

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161970

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/25282

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161970

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161970

Sample: HAOH1012SW08DUP **Lab ID: 30161970001** Collected: 10/12/15 11:15 Received: 10/13/15 16:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	ND	mg/kg	9.0	4.8	1	10/15/15 09:15	10/16/15 20:36		
Surrogates									
o-Terphenyl (S)	71	%	45-103		1	10/15/15 09:15	10/16/15 20:36	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	13.8	6.7	1		10/15/15 14:13	67-64-1	M5
Surrogates									
Toluene-d8 (S)	104	%	68-135		1		10/15/15 14:13	2037-26-5	M5
4-Bromofluorobenzene (S)	108	%	65-146		1		10/15/15 14:13	460-00-4	M5
1,2-Dichloroethane-d4 (S)	88	%	69-137		1		10/15/15 14:13	17060-07-0	M5
Dibromofluoromethane (S)	91	%	70-130		1		10/15/15 14:13	1868-53-7	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**26.5**	%	0.10	0.10	1		10/24/15 15:05		

Sample: HAOH1012SW08DUP (ASTM) **Lab ID: 30161970002** Collected: 10/24/15 11:40 Received: 10/24/15 11:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		10/26/15 11:19	16887-00-6	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161970

QC Batch: MSV/25282
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30161970001

METHOD BLANK: 967725
Matrix: Solid
Associated Lab Samples: 30161970001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	4.9	10/15/15 10:54	M5
1,2-Dichloroethane-d4 (S)	%	91	69-137		10/15/15 10:54	M5
4-Bromofluorobenzene (S)	%	100	65-146		10/15/15 10:54	M5
Dibromofluoromethane (S)	%	91	70-130		10/15/15 10:54	M5
Toluene-d8 (S)	%	102	68-135		10/15/15 10:54	M5

LABORATORY CONTROL SAMPLE: 967726

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	8.7J	44	32-113	M5
1,2-Dichloroethane-d4 (S)	%			91	69-137	M5
4-Bromofluorobenzene (S)	%			100	65-146	M5
Dibromofluoromethane (S)	%			94	70-130	M5
Toluene-d8 (S)	%			102	68-135	M5

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967996 967997

Parameter	Units	30161959001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	19.8	19.1	9.7J	8.8J	49	46	10-175		30	M5
1,2-Dichloroethane-d4 (S)	%						88	90	69-137			M5
4-Bromofluorobenzene (S)	%						101	102	65-146			M5
Dibromofluoromethane (S)	%						92	93	70-130			M5
Toluene-d8 (S)	%						103	102	68-135			M5

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161970

QC Batch: OEXT/25667 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30161970001

METHOD BLANK: 967362 | Matrix: Solid
Associated Lab Samples: 30161970001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	3.5	10/16/15 16:12	
o-Terphenyl (S)	%	75	45-103		10/16/15 16:12	

LABORATORY CONTROL SAMPLE: 967363

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	58.8	88	64-109	
o-Terphenyl (S)	%			87	45-103	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967364 967365

Parameter	Units	30161961001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	ND	91.5	90.1	94.2	84.7	99	90	10-175	11	25	
o-Terphenyl (S)	%						96	80	45-103			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161970

QC Batch: PMST/5697
QC Batch Method: Dry Weight
Analysis Method: Dry Weight
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30161970001

SAMPLE DUPLICATE: 972235

Parameter	Units	30161810001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	27.9	28.6	3	20	

SAMPLE DUPLICATE: 972236

Parameter	Units	30161831001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	0.39	0.37	5	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161970

QC Batch: WETA/21636 — Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E — Analysis Description: 4500 Chloride
Associated Lab Samples: 30161970002

METHOD BLANK: 972490 — Matrix: Water
Associated Lab Samples: 30161970002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

METHOD BLANK: 972498 — Matrix: Water
Associated Lab Samples: 30161970002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

LABORATORY CONTROL SAMPLE: 972491

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.9	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 972492 — 972493

Parameter	Units	30161959002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.7	90	91	85-115	2	20	

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161970

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/25282

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161970

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30161970001	**HAOH1012SW08DUP**	EPA 3546	OEXT/25667	EPA 8015B	GCSV/8732
30161970001	**HAOH1012SW08DUP**	EPA 8260B	MSV/25282		
30161970001	**HAOH1012SW08DUP**	Dry Weight	PMST/5697		
30161970002	**HAOH1012SW08DUP (ASTM)**	SM 4500-Cl-E	WETA/21636		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:

Company: Moody and Associates, Inc.	
Address: 199 Johnson Road, Building 2, Suite 101	
Houston, PA 15342	
Email To: lmistick@moody-s.com	
Phone:724-746-5200	Fax:724-746-5603
Requested Due Date/TAT: Standard	

Section B Required Project Information:

Report To: Leah Mistick
Copy To: Josh Boyda
Purchase Order No.:
Project Name: Eisenbarth Consent Order
Project Number: 14-467-LM

Section C Invoice Information:

Attention: Leah Mistick
Company Name: Moody & Associates, Inc.
Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	Requested Analysis: VOCs - Acetone only (8	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH10128SWO8DUP	SL	G	10/12/15	1115			NA	2	X									X	X	X	N	001,002
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

851

30161970

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Matt Draeger	10/13/15	0940	[illegible]	10/13/15	1645		Y/N	Y/N	Y/N
[illegible]	10/13/15	1645	[illegible]	10-13-15	1645	6.0	Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
						Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Matt Draeger

SIGNATURE of SAMPLER: Matt Draeger — DATE Signed (MM / DD / YY): 10/13/15

B4M

30161970

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # _____

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals Intact: ☐ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap X Bubble Bags X None ___ Other _____

Thermometer Used 6 Type of Ice: (Wet) Blue None ☒ Samples on Ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.2 °C Correction Factor: -0.2 °C Final Temp: 6.0 °C

Date and initials of person examining contents: 10/13/15 RB

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	Initial when completed 10/13/15 RB — Lot # of added preservative
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☒No	
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [signature] **Date:** 10/14/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

30161970

Pace Analytical

page 2

Project Number: _____

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

October 26, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161968

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between October 13, 2015 and October 24, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161968

Pennsylvania Certification IDs

Georgia Certification #: C040
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161968

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30161968001	**HAOH1012SW15**	Solid	10/12/15 11:45	10/13/15 16:45
30161968002	**HAOH1012SW15 (ASTM)**	Water	10/24/15 11:34	10/24/15 11:34

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161968

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30161968001	**HAOH1012SW15**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	5	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30161968002	**HAOH1012SW15 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161968

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30161968001	**HAOH1012SW15**					
EPA 8015B	TPH (C10-C28)	12.7	mg/kg	8.9	10/16/15 20:14	
Dry Weight	Percent Moisture	25.7	%	0.10	10/24/15 15:05	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161968

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161968

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/25282

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161968

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161968

Sample: HAOH1012SW15 **Lab ID: 30161968001** Collected: 10/12/15 11:45 Received: 10/13/15 16:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	**12.7**	mg/kg	8.9	4.7	1	10/15/15 09:15	10/16/15 20:14		
Surrogates									
o-Terphenyl (S)	57	%	45-103		1	10/15/15 09:15	10/16/15 20:14	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	13.3	6.5	1		10/15/15 13:51	67-64-1	M5
Surrogates									
Toluene-d8 (S)	104	%	68-135		1		10/15/15 13:51	2037-26-5	M5
4-Bromofluorobenzene (S)	107	%	65-146		1		10/15/15 13:51	460-00-4	M5
1,2-Dichloroethane-d4 (S)	90	%	69-137		1		10/15/15 13:51	17060-07-0	M5
Dibromofluoromethane (S)	91	%	70-130		1		10/15/15 13:51	1868-53-7	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**25.7**	%	0.10	0.10	1		10/24/15 15:05		

Sample: HAOH1012SW15 (ASTM) **Lab ID: 30161968002** Collected: 10/24/15 11:34 Received: 10/24/15 11:34 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		10/26/15 11:19	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161968

QC Batch: MSV/25282
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30161968001

METHOD BLANK: 967725
Matrix: Solid
Associated Lab Samples: 30161968001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	4.9	10/15/15 10:54	M5
1,2-Dichloroethane-d4 (S)	%	91	69-137		10/15/15 10:54	M5
4-Bromofluorobenzene (S)	%	100	65-146		10/15/15 10:54	M5
Dibromofluoromethane (S)	%	91	70-130		10/15/15 10:54	M5
Toluene-d8 (S)	%	102	68-135		10/15/15 10:54	M5

LABORATORY CONTROL SAMPLE: 967726

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	8.7J	44	32-113	M5
1,2-Dichloroethane-d4 (S)	%			91	69-137	M5
4-Bromofluorobenzene (S)	%			100	65-146	M5
Dibromofluoromethane (S)	%			94	70-130	M5
Toluene-d8 (S)	%			102	68-135	M5

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967996 967997

Parameter	Units	30161959001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	19.8	19.1	9.7J	8.8J	49	46	10-175		30	M5
1,2-Dichloroethane-d4 (S)	%						88	90	69-137			M5
4-Bromofluorobenzene (S)	%						101	102	65-146			M5
Dibromofluoromethane (S)	%						92	93	70-130			M5
Toluene-d8 (S)	%						103	102	68-135			M5

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161968

QC Batch: OEXT/25667 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30161968001

METHOD BLANK: 967362 | Matrix: Solid
Associated Lab Samples: 30161968001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	3.5	10/16/15 16:12	
o-Terphenyl (S)	%	75	45-103		10/16/15 16:12	

LABORATORY CONTROL SAMPLE: 967363

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	58.8	88	64-109	
o-Terphenyl (S)	%			87	45-103	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967364 967365

Parameter	Units	30161961001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	ND	91.5	90.1	94.2	84.7	99	90	10-175	11	25	
o-Terphenyl (S)	%						96	80	45-103			

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161968

QC Batch: PMST/5697
QC Batch Method: Dry Weight
Analysis Method: Dry Weight
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30161968001

SAMPLE DUPLICATE: 972235

Parameter	Units	30161810001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	27.9	28.6	3	20	

SAMPLE DUPLICATE: 972236

Parameter	Units	30161831001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	0.39	0.37	5	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161968

QC Batch: WETA/21636 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30161968002

METHOD BLANK: 972490 | Matrix: Water
Associated Lab Samples: 30161968002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

METHOD BLANK: 972498 | Matrix: Water
Associated Lab Samples: 30161968002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

LABORATORY CONTROL SAMPLE: 972491

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.9	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 972492 972493

Parameter	Units	30161959002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.7	90	91	85-115	2	20	

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161968

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/25282

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161968

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30161968001	**HAOH1012SW15**	EPA 3546	OEXT/25667	EPA 8015B	GCSV/8732
30161968001	**HAOH1012SW15**	EPA 8260B	MSV/25282		
30161968001	**HAOH1012SW15**	Dry Weight	PMST/5697		
30161968002	**HAOH1012SW15 (ASTM)**	SM 4500-Cl-E	WETA/21636		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER_____

Filtered (Y/N)

Requested Ana

30161960

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	VOCs - Methane only (& TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH1012SW15	SL	G	10/12/15	1145			NA	2	X								X	X	X	N	001, 002
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Matt Dracup	10/13/15	0940	[signature]	10/13/15	1600
[signature]	10/13/15	1615	[signature]	10-13-15	1645
				1645	10/13/15

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
6.0	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Matt Dracup

SIGNATURE of SAMPLER: Matt Dracup

DATE Signed (MM / DD / YY): 10/13/15

e-File(ALLQ020rev.3,31Mar05))22Jun2005

BLM

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30161968

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no **Biological Tissue is Frozen:** Yes No

Packing Material: Bubble Wrap X Bubble Bags X None ____ Other _____

Thermometer Used 6 **Type of Ice:** (Wet) Blue None ☒ Samples on Ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.2 °C **Correction Factor:** -0.2 °C **Final Temp:** 6.0 °C

Date and initials of person examining contents: 10/13/15 RB

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present:	☒Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☒Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☒Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☒Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☒Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☒No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☒No	☐N/A	7.
Sufficient Volume:	☒Yes	☐No	☐N/A	8.
Correct Containers Used:	☒Yes	☐No	☐N/A	9.
-Pace Containers Used:	☒Yes	☐No	☐N/A	
Containers Intact:	☒Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☒N/A	11.
Sample Labels match COC:	☒Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL				
All containers needing preservation have been checked.	☐Yes	☐No	☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes	☐No	☒N/A	Initial when completed 10/13/15 RB — Lot # of added preservative
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes	☒No		
Samples checked for dechlorination:	☐Yes	☐No	☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☒N/A	15.
Trip Blank Present:	☐Yes	☐No	☒N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☒N/A	
Pace Trip Blank Lot # (if purchased): _____				

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [signature] **Date:** 10/14/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30161968

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

October 26, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161966

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between October 13, 2015 and October 24, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161966

Pennsylvania Certification IDs

Georgia Certification #: C040
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161966

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30161966001	**HAOH1012SW17**	Solid	10/12/15 13:05	10/13/15 16:45
30161966002	**HAOH1012SW17 (ASTM)**	Water	10/24/15 11:30	10/24/15 11:30

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161966

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30161966001	**HAOH1012SW17**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	5	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30161966002	**HAOH1012SW17 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161966

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30161966001	**HAOH1012SW17**					
Dry Weight	Percent Moisture	27.4	%	0.10	10/24/15 15:05	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161966

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161966

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/25282

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161966

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161966

Sample: HAOH1012SW17 **Lab ID: 30161966001** Collected: 10/12/15 13:05 Received: 10/13/15 16:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	ND	mg/kg	9.0	4.8	1	10/15/15 09:15	10/16/15 19:49		
Surrogates									
o-Terphenyl (S)	81	%	45-103		1	10/15/15 09:15	10/16/15 19:49	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	14.3	7.0	1		10/15/15 13:29	67-64-1	M5
Surrogates									
Toluene-d8 (S)	103	%	68-135		1		10/15/15 13:29	2037-26-5	M5
4-Bromofluorobenzene (S)	102	%	65-146		1		10/15/15 13:29	460-00-4	M5
1,2-Dichloroethane-d4 (S)	88	%	69-137		1		10/15/15 13:29	17060-07-0	M5
Dibromofluoromethane (S)	91	%	70-130		1		10/15/15 13:29	1868-53-7	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**27.4**	%	0.10	0.10	1		10/24/15 15:05		

Sample: HAOH1012SW17 (ASTM) **Lab ID: 30161966002** Collected: 10/24/15 11:30 Received: 10/24/15 11:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		10/26/15 11:18	16887-00-6	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161966

QC Batch: MSV/25282
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30161966001

METHOD BLANK: 967725
Matrix: Solid
Associated Lab Samples: 30161966001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	4.9	10/15/15 10:54	M5
1,2-Dichloroethane-d4 (S)	%	91	69-137		10/15/15 10:54	M5
4-Bromofluorobenzene (S)	%	100	65-146		10/15/15 10:54	M5
Dibromofluoromethane (S)	%	91	70-130		10/15/15 10:54	M5
Toluene-d8 (S)	%	102	68-135		10/15/15 10:54	M5

LABORATORY CONTROL SAMPLE: 967726

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	8.7J	44	32-113	M5
1,2-Dichloroethane-d4 (S)	%			91	69-137	M5
4-Bromofluorobenzene (S)	%			100	65-146	M5
Dibromofluoromethane (S)	%			94	70-130	M5
Toluene-d8 (S)	%			102	68-135	M5

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967996 967997

Parameter	Units	30161959001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	19.8	19.1	9.7J	8.8J	49	46	10-175		30	M5
1,2-Dichloroethane-d4 (S)	%						88	90	69-137			M5
4-Bromofluorobenzene (S)	%						101	102	65-146			M5
Dibromofluoromethane (S)	%						92	93	70-130			M5
Toluene-d8 (S)	%						103	102	68-135			M5

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161966

QC Batch: OEXT/25667 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30161966001

METHOD BLANK: 967362 | Matrix: Solid
Associated Lab Samples: 30161966001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	3.5	10/16/15 16:12	
o-Terphenyl (S)	%	75	45-103		10/16/15 16:12	

LABORATORY CONTROL SAMPLE: 967363

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	58.8	88	64-109	
o-Terphenyl (S)	%			87	45-103	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967364 967365

Parameter	Units	30161961001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	ND	91.5	90.1	94.2	84.7	99	90	10-175	11	25	
o-Terphenyl (S)	%						96	80	45-103			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161966

QC Batch: PMST/5697
QC Batch Method: Dry Weight
Analysis Method: Dry Weight
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30161966001

SAMPLE DUPLICATE: 972235

Parameter	Units	30161810001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	27.9	28.6	3	20	

SAMPLE DUPLICATE: 972236

Parameter	Units	30161831001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	0.39	0.37	5	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161966

QC Batch: WETA/21636 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30161966002

METHOD BLANK: 972490 | Matrix: Water
Associated Lab Samples: 30161966002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

METHOD BLANK: 972498 | Matrix: Water
Associated Lab Samples: 30161966002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

LABORATORY CONTROL SAMPLE: 972491

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.9	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 972492 972493

Parameter	Units	30161959002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.7	90	91	85-115	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161966

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/25282

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161966

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30161966001	**HAOH1012SW17**	EPA 3546	OEXT/25667	EPA 8015B	GCSV/8732
30161966001	**HAOH1012SW17**	EPA 8260B	MSV/25282		
30161966001	**HAOH1012SW17**	Dry Weight	PMST/5697		
30161966002	**HAOH1012SW17 (ASTM)**	SM 4500-Cl-E	WETA/21636		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	Requested Analysis: VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. / Lab I.D.
1	HAOH1012SW17	SL	G	10/12/15	1305			N/A	2	X									X	X	X	N	001, 002
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

30161965

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible] / Moody	10/13/15	930	[illegible]	10/13/15	1645
[illegible] / Moody	10/13/15	1645	[illegible]	10-13-15	1645

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
6.0	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joshua L. Boyda

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 10/13/15

BLM

30161966

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # _____

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap X Bubble Bags X None ___ Other _____

Thermometer Used 6 Type of Ice: (Wet) Blue None ☒ Samples on Ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.2 °C Correction Factor: -0.2 °C Final Temp: 6.0 °C

Date and initials of person examining contents: 10/13/15 RB

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	Initial when completed 10/13/15 RB Lot # of added preservative
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☒No	
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: PJ Vestrack **Date:** 10/14/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30161966

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

October 26, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161964

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between October 13, 2015 and October 24, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161964

Pennsylvania Certification IDs

Georgia Certification #: C040
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161964

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30161964001	**HAOH1012SW18**	Solid	10/12/15 12:00	10/13/15 16:45
30161964002	**HAOH1012SW18 (ASTM)**	Water	10/24/15 11:29	10/24/15 11:29

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161964

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30161964001	**HAOH1012SW18**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	5	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30161964002	**HAOH1012SW18 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161964

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30161964001	**HAOH1012SW18**					
Dry Weight	Percent Moisture	21.3	%	0.10	10/24/15 15:04	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161964

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161964

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/25282

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161964

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161964

Sample: HAOH1012SW18 **Lab ID: 30161964001** Collected: 10/12/15 12:00 Received: 10/13/15 16:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	ND	mg/kg	8.2	4.4	1	10/15/15 09:15	10/16/15 19:20		
Surrogates									
o-Terphenyl (S)	88	%	45-103		1	10/15/15 09:15	10/16/15 19:20	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	11.7	5.7	1		10/15/15 13:07	67-64-1	M5
Surrogates									
Toluene-d8 (S)	102	%	68-135		1		10/15/15 13:07	2037-26-5	M5
4-Bromofluorobenzene (S)	104	%	65-146		1		10/15/15 13:07	460-00-4	M5
1,2-Dichloroethane-d4 (S)	91	%	69-137		1		10/15/15 13:07	17060-07-0	M5
Dibromofluoromethane (S)	92	%	70-130		1		10/15/15 13:07	1868-53-7	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**21.3**	%	0.10	0.10	1		10/24/15 15:04		

Sample: HAOH1012SW18 (ASTM) **Lab ID: 30161964002** Collected: 10/24/15 11:29 Received: 10/24/15 11:29 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		10/26/15 11:17	16887-00-6	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161964

QC Batch: MSV/25282
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30161964001

METHOD BLANK: 967725
Matrix: Solid
Associated Lab Samples: 30161964001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	4.9	10/15/15 10:54	M5
1,2-Dichloroethane-d4 (S)	%	91	69-137		10/15/15 10:54	M5
4-Bromofluorobenzene (S)	%	100	65-146		10/15/15 10:54	M5
Dibromofluoromethane (S)	%	91	70-130		10/15/15 10:54	M5
Toluene-d8 (S)	%	102	68-135		10/15/15 10:54	M5

LABORATORY CONTROL SAMPLE: 967726

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	8.7J	44	32-113	M5
1,2-Dichloroethane-d4 (S)	%			91	69-137	M5
4-Bromofluorobenzene (S)	%			100	65-146	M5
Dibromofluoromethane (S)	%			94	70-130	M5
Toluene-d8 (S)	%			102	68-135	M5

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967996 967997

Parameter	Units	30161959001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	19.8	19.1	9.7J	8.8J	49	46	10-175		30	M5
1,2-Dichloroethane-d4 (S)	%						88	90	69-137			M5
4-Bromofluorobenzene (S)	%						101	102	65-146			M5
Dibromofluoromethane (S)	%						92	93	70-130			M5
Toluene-d8 (S)	%						103	102	68-135			M5

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161964

QC Batch: OEXT/25667 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30161964001

METHOD BLANK: 967362 | Matrix: Solid
Associated Lab Samples: 30161964001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	3.5	10/16/15 16:12	
o-Terphenyl (S)	%	75	45-103		10/16/15 16:12	

LABORATORY CONTROL SAMPLE: 967363

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	58.8	88	64-109	
o-Terphenyl (S)	%			87	45-103	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967364 967365

Parameter	Units	30161961001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	ND	91.5	90.1	94.2	84.7	99	90	10-175	11	25	
o-Terphenyl (S)	%						96	80	45-103			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161964

QC Batch: PMST/5697
QC Batch Method: Dry Weight
Analysis Method: Dry Weight
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30161964001

SAMPLE DUPLICATE: 972235

Parameter	Units	30161810001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	27.9	28.6	3	20	

SAMPLE DUPLICATE: 972236

Parameter	Units	30161831001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	0.39	0.37	5	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161964

QC Batch: WETA/21636 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30161964002

METHOD BLANK: 972490 | Matrix: Water
Associated Lab Samples: 30161964002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

METHOD BLANK: 972498 | Matrix: Water
Associated Lab Samples: 30161964002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

LABORATORY CONTROL SAMPLE: 972491

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.9	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 972492 972493

Parameter	Units	30161959002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.7	90	91	85-115	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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(724)850-5600

QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161964

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/25282

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161964

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30161964001	**HAOH1012SW18**	EPA 3546	OEXT/25667	EPA 8015B	GCSV/8732
30161964001	**HAOH1012SW18**	EPA 8260B	MSV/25282		
30161964001	**HAOH1012SW18**	Dry Weight	PMST/5697		
30161964002	**HAOH1012SW18 (ASTM)**	SM 4500-Cl-E	WETA/21636		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Filtered (Y/N)

Requested Ana

3016 1964

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	VOCs - Acetone (OH)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH1012SW18	SL	G	10/12/15	1200			NA	2	X								X	X	X	N	001,002
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] / Moody	10/13/15	930	[signature]	10/13/15	1645
[signature] / Moody	10/13/15	1645	[signature]	10-13-15	1645

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
6.0	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joshua L. Boyda

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM / DD / YY): 10/13/15

e-File(ALLQ020rev.3,31Mar05))22Jun2005

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30161964

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no **Biological Tissue is Frozen:** Yes No

Packing Material: Bubble Wrap X Bubble Bags X None ___ Other _____

Thermometer Used 6 **Type of Ice:** (Wet) Blue None ☒ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.2 °C **Correction Factor:** -0.2 °C **Final Temp:** 6.0 °C

Date and initials of person examining contents: 10/13/15 RB

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☒No	Initial when completed 10/13/15 RB Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: D. Westbrook **Date:** 10/14/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30161964

Client Name:

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
601	SL	2																						

SCURF Back (C016-4 15May2012).xls

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(724)850-5600

October 26, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161961

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between October 13, 2015 and October 24, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161961

Pennsylvania Certification IDs

Georgia Certification #: C040
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161961

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30161961001	**HAOH1012SW20**	Solid	10/12/15 13:50	10/13/15 16:45
30161961002	**HAOH1012SW20 (ASTM)**	Water	10/24/15 11:23	10/24/15 11:23

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161961

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30161961001	**HAOH1012SW20**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	5	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30161961002	**HAOH1012SW20 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161961

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30161961001	**HAOH1012SW20**					
Dry Weight	Percent Moisture	28.2	%	0.10	10/24/15 15:04	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161961

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161961

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/25282

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161961

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161961

Sample: HAOH1012SW20 **Lab ID: 30161961001** Collected: 10/12/15 13:50 Received: 10/13/15 16:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	ND	mg/kg	9.2	4.9	1	10/15/15 09:15	10/16/15 18:30		
Surrogates									
o-Terphenyl (S)	76	%	45-103		1	10/15/15 09:15	10/16/15 18:30	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	13.1	6.4	1		10/15/15 12:45	67-64-1	M5
Surrogates									
Toluene-d8 (S)	102	%	68-135		1		10/15/15 12:45	2037-26-5	M5
4-Bromofluorobenzene (S)	102	%	65-146		1		10/15/15 12:45	460-00-4	M5
1,2-Dichloroethane-d4 (S)	88	%	69-137		1		10/15/15 12:45	17060-07-0	M5
Dibromofluoromethane (S)	91	%	70-130		1		10/15/15 12:45	1868-53-7	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**28.2**	%	0.10	0.10	1		10/24/15 15:04		

Sample: HAOH1012SW20 (ASTM) **Lab ID: 30161961002** Collected: 10/24/15 11:23 Received: 10/24/15 11:23 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		10/26/15 11:17	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161961

QC Batch: MSV/25282
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30161961001

METHOD BLANK: 967725
Matrix: Solid
Associated Lab Samples: 30161961001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	4.9	10/15/15 10:54	M5
1,2-Dichloroethane-d4 (S)	%	91	69-137		10/15/15 10:54	M5
4-Bromofluorobenzene (S)	%	100	65-146		10/15/15 10:54	M5
Dibromofluoromethane (S)	%	91	70-130		10/15/15 10:54	M5
Toluene-d8 (S)	%	102	68-135		10/15/15 10:54	M5

LABORATORY CONTROL SAMPLE: 967726

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	8.7J	44	32-113	M5
1,2-Dichloroethane-d4 (S)	%			91	69-137	M5
4-Bromofluorobenzene (S)	%			100	65-146	M5
Dibromofluoromethane (S)	%			94	70-130	M5
Toluene-d8 (S)	%			102	68-135	M5

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967996 967997

Parameter	Units	30161959001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	19.8	19.1	9.7J	8.8J	49	46	10-175		30	M5
1,2-Dichloroethane-d4 (S)	%						88	90	69-137			M5
4-Bromofluorobenzene (S)	%						101	102	65-146			M5
Dibromofluoromethane (S)	%						92	93	70-130			M5
Toluene-d8 (S)	%						103	102	68-135			M5

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161961

QC Batch: OEXT/25667 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30161961001

METHOD BLANK: 967362 | Matrix: Solid
Associated Lab Samples: 30161961001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	3.5	10/16/15 16:12	
o-Terphenyl (S)	%	75	45-103		10/16/15 16:12	

LABORATORY CONTROL SAMPLE: 967363

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	58.8	88	64-109	
o-Terphenyl (S)	%			87	45-103	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967364 967365

Parameter	Units	30161961001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	ND	91.5	90.1	94.2	84.7	99	90	10-175	11	25	
o-Terphenyl (S)	%						96	80	45-103			

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161961

QC Batch: PMST/5697
QC Batch Method: Dry Weight
Analysis Method: Dry Weight
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30161961001

SAMPLE DUPLICATE: 972235

Parameter	Units	30161810001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	27.9	28.6	3	20	

SAMPLE DUPLICATE: 972236

Parameter	Units	30161831001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	0.39	0.37	5	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161961

QC Batch: WETA/21636 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30161961002

METHOD BLANK: 972490 | Matrix: Water
Associated Lab Samples: 30161961002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

METHOD BLANK: 972498 | Matrix: Water
Associated Lab Samples: 30161961002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

LABORATORY CONTROL SAMPLE: 972491

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.9	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 972492 972493

Parameter	Units	30161959002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.7	90	91	85-115	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161961

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/25282

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161961

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30161961001	**HAOH1012SW20**	EPA 3546	OEXT/25667	EPA 8015B	GCSV/8732
30161961001	**HAOH1012SW20**	EPA 8260B	MSV/25282		
30161961001	**HAOH1012SW20**	Dry Weight	PMST/5697		
30161961002	**HAOH1012SW20 (ASTM)**	SM 4500-Cl-E	WETA/21636		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE)	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	Requested Analysis: VOCs - Acetone only (8260)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. / Lab I.D.
1	HAOH10123SW20	SL	G	10/12/15	1350			NA	2	X									X	X	X	N	001,002
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

923

3016161

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Matt Drueep	10/13/15	0940	[illegible]	10/13/15	1645
[illegible]	10/13/15	1645	[illegible]	10-13-15	1645

SAMPLE CONDITIONS

Temp in °C	Received on Ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N
	Y/N	Y/N	Y/N
6.0	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Matt Drueep

SIGNATURE of SAMPLER: Matt Drueep

DATE Signed (MM / DD / YY): 10/13/15

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30161961

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap X Bubble Bags X None ___ Other _____

Thermometer Used 6 Type of Ice: (Wet) Blue None ☒ Samples on Ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.2 °C Correction Factor: -0.2 °C Final Temp: 6.0 °C

Date and initials of person examining contents: 10/13/15 RB

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: SL	☒Yes ☐No ☐N/A	12.
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	Initial when completed 10/13/15 RB — Lot # of added preservative
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☒No	
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [signature] **Date:** 10/14/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

page 2

30161961

Project Number: _____

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

October 26, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161959

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between October 13, 2015 and October 24, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161959

Pennsylvania Certification IDs

Georgia Certification #: C040
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161959

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30161959001	**HAOH1012SW21**	Solid	10/12/15 14:35	10/13/15 16:45
30161959002	**HAOH1012SW21 (ASTM)**	Water	10/24/15 11:15	10/24/15 11:15

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161959

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30161959001	**HAOH1012SW21**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	5	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30161959002	**HAOH1012SW21 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161959

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30161959001	**HAOH1012SW21**					
Dry Weight	Percent Moisture	23.1	%	0.10	10/24/15 15:04	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161959

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161959

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/25282

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161959

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161959

Sample: HAOH1012SW21 **Lab ID: 30161959001** Collected: 10/12/15 14:35 Received: 10/13/15 16:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	ND	mg/kg	8.5	4.5	1	10/15/15 09:15	10/16/15 18:03		
Surrogates									
o-Terphenyl (S)	80	%	45-103		1	10/15/15 09:15	10/16/15 18:03	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	9.8	4.8	1		10/15/15 16:27	67-64-1	M5
Surrogates									
Toluene-d8 (S)	103	%	68-135		1		10/15/15 16:27	2037-26-5	M5
4-Bromofluorobenzene (S)	102	%	65-146		1		10/15/15 16:27	460-00-4	M5
1,2-Dichloroethane-d4 (S)	89	%	69-137		1		10/15/15 16:27	17060-07-0	M5
Dibromofluoromethane (S)	91	%	70-130		1		10/15/15 16:27	1868-53-7	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**23.1**	%	0.10	0.10	1		10/24/15 15:04		

Sample: HAOH1012SW21 (ASTM) **Lab ID: 30161959002** Collected: 10/24/15 11:15 Received: 10/24/15 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		10/26/15 11:14	16887-00-6	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161959

QC Batch: MSV/25282
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30161959001

METHOD BLANK: 967725
Matrix: Solid
Associated Lab Samples: 30161959001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	4.9	10/15/15 10:54	M5
1,2-Dichloroethane-d4 (S)	%	91	69-137		10/15/15 10:54	M5
4-Bromofluorobenzene (S)	%	100	65-146		10/15/15 10:54	M5
Dibromofluoromethane (S)	%	91	70-130		10/15/15 10:54	M5
Toluene-d8 (S)	%	102	68-135		10/15/15 10:54	M5

LABORATORY CONTROL SAMPLE: 967726

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	8.7J	44	32-113	M5
1,2-Dichloroethane-d4 (S)	%			91	69-137	M5
4-Bromofluorobenzene (S)	%			100	65-146	M5
Dibromofluoromethane (S)	%			94	70-130	M5
Toluene-d8 (S)	%			102	68-135	M5

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967996 967997

Parameter	Units	30161959001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	19.8	19.1	9.7J	8.8J	49	46	10-175		30	M5
1,2-Dichloroethane-d4 (S)	%						88	90	69-137			M5
4-Bromofluorobenzene (S)	%						101	102	65-146			M5
Dibromofluoromethane (S)	%						92	93	70-130			M5
Toluene-d8 (S)	%						103	102	68-135			M5

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REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161959

QC Batch: OEXT/25667 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30161959001

METHOD BLANK: 967362 | Matrix: Solid
Associated Lab Samples: 30161959001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	3.5	10/16/15 16:12	
o-Terphenyl (S)	%	75	45-103		10/16/15 16:12	

LABORATORY CONTROL SAMPLE: 967363

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	58.8	88	64-109	
o-Terphenyl (S)	%			87	45-103	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967364 967365

Parameter	Units	30161961001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	ND	91.5	90.1	94.2	84.7	99	90	10-175	11	25	
o-Terphenyl (S)	%						96	80	45-103			

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161959

QC Batch: PMST/5697
QC Batch Method: Dry Weight
Analysis Method: Dry Weight
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30161959001

SAMPLE DUPLICATE: 972235

Parameter	Units	30161810001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	27.9	28.6	3	20	

SAMPLE DUPLICATE: 972236

Parameter	Units	30161831001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	0.39	0.37	5	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161959

QC Batch: WETA/21636 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30161959002

METHOD BLANK: 972490 | Matrix: Water
Associated Lab Samples: 30161959002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

METHOD BLANK: 972498 | Matrix: Water
Associated Lab Samples: 30161959002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

LABORATORY CONTROL SAMPLE: 972491

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.9	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 972492 972493

Parameter	Units	30161959002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.7	90	91	85-115	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161959

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/25282

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161959

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30161959001	**HAOH1012SW21**	EPA 3546	OEXT/25667	EPA 8015B	GCSV/8732
30161959001	**HAOH1012SW21**	EPA 8260B	MSV/25282		
30161959001	**HAOH1012SW21**	Dry Weight	PMST/5697		
30161959002	**HAOH1012SW21 (ASTM)**	SM 4500-Cl-E	WETA/21636		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER____

Filtered (Y/N)

Requested Ana

3016 1959

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	VOCs - Acetone only (6	TPH - DRO (8015)	Chlorides (4500)					Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH1012SW21	SL	G	10/12/15	1435			NA	2	X								X	X	X					N	001,002
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] / Moody	10/13/15	930	[signature]	10/13/15	1645
[signature] / Moody	10/13/15	1645	[signature]	10-13-15	1645

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
6.0	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joshua L. Boyda

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM / DD / YY): 10/13/15

e-File(ALLQ020rev.3,31Mar05))22Jun2005

Sample Condition Upon Receipt

Pace Analytical

Client Name: Moody

Project # 30161959 NJV

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap X Bubble Bags X None ___ Other _____

Thermometer Used 6 Type of Ice: (Wet) Blue None ☒ Samples on Ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.2 °C Correction Factor: -0.2 °C Final Temp: 6.0 °C

Date and initials of person examining contents: 10/13/15 RB

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: SL	☒Yes ☐No ☐N/A	12.
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☐No ☒N/A ☐Yes ☒No	Initial when completed 10/13/15 RB Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: P Westbrook **Date:** 10/14/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

page 2

30161959

Project Number: _____

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
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Greensburg, PA 15601
(724)850-5600

October 26, 2015

Leah Mistick
Moody and Associates, Inc.
199 Johnson Road
Building 2, Suite 101
Houston, PA 15342

RE: Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161975

Dear Leah Mistick:
Enclosed are the analytical results for sample(s) received by the laboratory between October 13, 2015 and October 24, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. Josh Boyda, Moody and Associates, Inc.
Mr. Brendan Poffenbaugh, Moody and Associates, Inc.

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CERTIFICATIONS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161975

Pennsylvania Certification IDs

Georgia Certification #: C040
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161975

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30161975001	**HAOH1012SW25**	Solid	10/12/15 13:40	10/13/15 16:45
30161975002	**HAOH1012SW25 (ASTM)**	Water	10/24/15 12:02	10/24/15 12:02

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SAMPLE ANALYTE COUNT

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161975

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30161975001	**HAOH1012SW25**	EPA 8015B	CWB	2	PASI-PA
		EPA 8260B	JEW	5	PASI-PA
		Dry Weight	TAW	1	PASI-PA
30161975002	**HAOH1012SW25 (ASTM)**	SM 4500-Cl-E	EHW	1	PASI-PA

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SUMMARY OF DETECTION

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161975

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
30161975001	**HAOH1012SW25**					
Dry Weight	Percent Moisture	22.5	%	0.10	10/24/15 15:07	

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161975

Method: **EPA 8015B**
Description: 8015 TPH Microwave
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161975

Method: **EPA 8260B**
Description: 8260 MSV 5030 Low Level
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/25282

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161975

Method: **SM 4500-Cl-E**
Description: 4500 Chloride
Client: Moody and Associates, Inc.
Date: October 26, 2015

General Information:
1 sample was analyzed for SM 4500-Cl-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161975

Sample: HAOH1012SW25 **Lab ID: 30161975001** Collected: 10/12/15 13:40 Received: 10/13/15 16:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Microwave	Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH (C10-C28)	ND	mg/kg	8.5	4.5	1	10/15/15 09:15	10/16/15 22:40		
Surrogates									
o-Terphenyl (S)	83	%	45-103		1	10/15/15 09:15	10/16/15 22:40	84-15-1	
8260 MSV 5030 Low Level	Analytical Method: EPA 8260B								
Acetone	ND	ug/kg	12.4	6.0	1		10/15/15 16:05	67-64-1	M5
Surrogates									
Toluene-d8 (S)	100	%	68-135		1		10/15/15 16:05	2037-26-5	M5
4-Bromofluorobenzene (S)	103	%	65-146		1		10/15/15 16:05	460-00-4	M5
1,2-Dichloroethane-d4 (S)	90	%	69-137		1		10/15/15 16:05	17060-07-0	M5
Dibromofluoromethane (S)	90	%	70-130		1		10/15/15 16:05	1868-53-7	M5
Percent Moisture	Analytical Method: Dry Weight								
Percent Moisture	**22.5**	%	0.10	0.10	1		10/24/15 15:07		

Sample: HAOH1012SW25 (ASTM) **Lab ID: 30161975002** Collected: 10/24/15 12:02 Received: 10/24/15 12:02 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	3.0	0.70	1		10/26/15 11:27	16887-00-6	

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161975

QC Batch: MSV/25282
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260 MSV 5035 Low
Associated Lab Samples: 30161975001

METHOD BLANK: 967725
Matrix: Solid
Associated Lab Samples: 30161975001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ug/kg	ND	10.0	4.9	10/15/15 10:54	M5
1,2-Dichloroethane-d4 (S)	%	91	69-137		10/15/15 10:54	M5
4-Bromofluorobenzene (S)	%	100	65-146		10/15/15 10:54	M5
Dibromofluoromethane (S)	%	91	70-130		10/15/15 10:54	M5
Toluene-d8 (S)	%	102	68-135		10/15/15 10:54	M5

LABORATORY CONTROL SAMPLE: 967726

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	20	8.7J	44	32-113	M5
1,2-Dichloroethane-d4 (S)	%			91	69-137	M5
4-Bromofluorobenzene (S)	%			100	65-146	M5
Dibromofluoromethane (S)	%			94	70-130	M5
Toluene-d8 (S)	%			102	68-135	M5

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967996 967997

Parameter	Units	30161959001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetone	ug/kg	ND	19.8	19.1	9.7J	8.8J	49	46	10-175		30	M5
1,2-Dichloroethane-d4 (S)	%						88	90	69-137			M5
4-Bromofluorobenzene (S)	%						101	102	65-146			M5
Dibromofluoromethane (S)	%						92	93	70-130			M5
Toluene-d8 (S)	%						103	102	68-135			M5

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161975

QC Batch: OEXT/25667 | Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 | Analysis Description: EPA 8015 TPH
Associated Lab Samples: 30161975001

METHOD BLANK: 967362 | Matrix: Solid
Associated Lab Samples: 30161975001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
TPH (C10-C28)	mg/kg	ND	6.7	3.5	10/16/15 16:12	
o-Terphenyl (S)	%	75	45-103		10/16/15 16:12	

LABORATORY CONTROL SAMPLE: 967363

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/kg	66.7	58.8	88	64-109	
o-Terphenyl (S)	%			87	45-103	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 967364 967365

Parameter	Units	30161961001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C10-C28)	mg/kg	ND	91.5	90.1	94.2	84.7	99	90	10-175	11	25	
o-Terphenyl (S)	%						96	80	45-103			

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161975

QC Batch: PMST/5697
QC Batch Method: Dry Weight
Analysis Method: Dry Weight
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30161975001

SAMPLE DUPLICATE: 972235

Parameter	Units	30161810001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	27.9	28.6	3	20	

SAMPLE DUPLICATE: 972236

Parameter	Units	30161831001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	0.39	0.37	5	20	

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QUALITY CONTROL DATA

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161975

QC Batch: WETA/21636 | Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E | Analysis Description: 4500 Chloride
Associated Lab Samples: 30161975002

METHOD BLANK: 972490 | Matrix: Water
Associated Lab Samples: 30161975002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

METHOD BLANK: 972498 | Matrix: Water
Associated Lab Samples: 30161975002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	3.0	0.70	10/26/15 11:12	

LABORATORY CONTROL SAMPLE: 972491

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	40	40.9	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 972492 972493

Parameter	Units	30161959002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	20	20	19.3	19.7	90	91	85-115	2	20	

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REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161975

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: MSV/25282

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-467-LM Eisenbarth Consent O
Pace Project No.: 30161975

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30161975001	**HAOH1012SW25**	EPA 3546	OEXT/25667	EPA 8015B	GCSV/8732
30161975001	**HAOH1012SW25**	EPA 8260B	MSV/25282		
30161975001	**HAOH1012SW25**	Dry Weight	PMST/5697		
30161975002	**HAOH1012SW25 (ASTM)**	SM 4500-Cl-E	WETA/21636		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Moody and Associates, Inc.	Report To: Leah Mistick	Attention: Leah Mistick
Address: 199 Johnson Road, Building 2, Suite 101	Copy To: Josh Boyda	Company Name: Moody & Associates, Inc.
Houston, PA 15342		Address: 199 Johnson Road, Building 2, Suite 101, Houston, PA 15342
Email To: lmistick@moody-s.com	Purchase Order No.:	Pace Quote Reference:
Phone:724-746-5200 Fax:724-746-5603	Project Name: Eisenbarth Consent Order	Pace Project Manager:
Requested Due Date/TAT: STANDARD	Project Number: 14-467-LM	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☑ OH ☐ SC ☐ WI ☐ OTHER_____

Filtered (Y/N)

Requested Ana 30161975

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	VOCs - Acetone only (8015)	TPH - DRO (8015)	Chlorides (4500)	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	HAOH1012SW25	SL	G	10/12/15	1340			NA	2	X								X	X	X	N	001,002
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Additional Comments:

(2) 4 oz. glass jars

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] / Moody	10/13/15	930	[signature]	10/13/15	1645
[signature] / Moody	10/13/15	1645	[signature]	10-13-15	1645

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
6.0	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joshua L. Boyda

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM / DD / YY): 10/13/15

e-File(ALLQ020rev.3,31Mar05))22Jun2005

Sample Condition Upon Receipt

30161975

Pace Analytical

Client Name: Moody

Project # NSV

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap X Bubble Bags X None ___ Other _____

Thermometer Used 6 Type of Ice: (Wet) Blue None ☒ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 6.2 °C Correction Factor: -0.2 °C Final Temp: 6.0 °C

Date and Initials of person examining contents: 10/13/15 RB

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: SL	☒Yes ☐No ☐N/A	12.
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	Initial when completed 10/13/15 RB — Lot # of added preservative
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☒No	
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: DJ Westrick **Date:** 10/14/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

page 2

30161975

Project Number: _____

Client Name: Moody

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SL	2																						

SCURF Back (C016-4 15May2012).xls

APPENDIX B

Field Quality Readings

STATOIL USA ONSHORE PROPERTIES INC.
APPENDIX B
FIELD QUALITY READINGS

RECEPTOR	LOCATION	DATE	TIME	SURFACE WATER PARAMETERS						
				Temperature (ºC)	pH (S.U.)	Conductivity (µS cm^{-1})	Dissolved Oxygen† (mg/L)	Turbidity (NTU)	ORP (mV)	TDS (mg/L)
PAD DRAIN LOCATIONS	SW24	7/7/15	09:45	17.07	7.71	898	9.61	23.5	100	584
		8/24/15	11:40	16.98	7.82	861	8.88	24.1	22	551
		10/12/15	15:40	16.29	7.80	921	8.52	103	75	585
	PD03	7/7/15	12:30	15.32	6.75	836	9.46	0.3	148	536
		8/24/15	10:50	17.93	7.49	935	8.89	3.5	178	594
		10/12/15	13:35	16.98	6.65	940	4.55	0.0	104	603
	PD07	7/7/15	11:10	17.36	7.63	1,170	10.75	1.7	131	747
		8/24/15	12:30	17.66	8.07	1,060	10.26	2.2	112	678
		10/12/15	14:35	17.67	8.00	1,060	9.00	0.0	94	678
UNNAMED TRIBUTARY TO OPOSSUM CREEK LOCATIONS	SW06	7/7/15	13:55	19.32	8.15	278	8.52	12.2	140	181
		8/24/15	13:28	21.10	8.17	330	6.24	4.4	70	214
		10/12/15	14:10	12.79	7.89	310	97.8	55.3	84	201
	SW17	7/7/15	12:10	18.83	8.22	311	8.99	3.0	149	202
		8/24/15	12:01	17.77	8.21	327	8.27	0.6	66	213
		10/12/15	13:00	13.37	8.19	351	104.3	18.3	61	228
	SW18	7/7/15	11:10	18.04	7.91	308	9.63	3.5	130	200
		8/24/15	10:58	17.61	8.01	301	7.48	0.0	53	196
		10/12/15	11:55	10.67	7.75	338	100.9	16.6	80	220
	SW21	7/7/15	14:15	18.24	8.18	372	8.36	4.7	145	242
		8/24/15	13:56	18.90	7.85	433	5.43	0.0	78	281
		10/12/15	14:30	12.61	7.96	446	81.2	19.8	95	290
	SW25	7/7/15	13:25	20.34	8.34	276	9.17	11.4	123	180
		8/24/15	12:51	21.60	8.34	314	8.23	0.0	69	204
		10/12/15	13:40	16.20	8.24	292	101.9	19.2	76	190
OPOSSUM CREEK LOCATIONS	SW04	7/7/15	13:30	21.47	7.7	222	9.90	6.3	124	145
		8/24/15	13:10	21.13	8.20	268	8.30	0.0	107	174
		10/12/15	12:30	15.37	7.05	253	8.00	2.1	204	165
	SW08/DUP	7/7/15	09:30	21.6	8.75	284	10.66	135	98	184
		8/24/15	10:15	26.08	8.31	456	6.85	33.9	78	296
		10/12/15	10:30	18.00	6.25	502	7.35	18.4	205	320
	SW20	7/7/15	12:00	20.04	7.83	250	10.13	5.5	98	162
		8/24/15	14:10	21.52	8.31	272	10.07	0.0	79	177
		10/12/15	13:40	14.99	7.24	267	9.48	1.1	188	173
BACKGROUND SAMPLING LOCATIONS	SW001	7/7/15	14:30	22.86	8.33	239	13.19	12.7	118	155
		8/24/15	14:10	27.39	8.68	469	9.79	8.1	98	299
		10/12/15	11:00	12.22	8.00	347	120.8	0.0	104	225
	SW15	7/7/15	15:30	23.44	7.31	302	9.63	4.9	138	196
		8/24/15	11:30	19.44	8.12	447	7.85	0.0	86	291
		10/12/15	11:35	12.44	6.72	444	10.64	0.0	215	289

NOTES:
S.U. = Standard Units
ORP = Oxidation Reduction Potential
NTU = Nephelometric Turbidity Unit
† = Results reported greater than 50, are percentages rather than concentrations