



May 13, 2019

Mr. Jacob Evans
Noble Energy, Inc.
2115 117th Avenue
Greeley, Colorado 80631

**Re: Soil Excavation Summary Report
Bierig 1-26
40.373436, -104.742267
NENE, Sec 26, 5N66W
Weld County, Colorado
Location ID: 322612**

Dear Mr. Evans:

Apex Companies, LLC (Apex) submits the Soil Excavation Summary Report for the subject site shown on Figure 1. The purpose of this report is to provide details of the excavation activities that were conducted and overseen by Apex related to the soil remediation at the subject site.

1.0 PROJECT BACKGROUND

Apex Companies, LLC (Apex) provided environmental support for soil remediation associated with the Bierig 1-26 site, starting on February 26, 2019. Prior to Apex involvement with this project, another consultant oversaw soil remediation activities, which included ex-situ soil treatment utilizing hydrogen peroxide. It is our understanding that at the initiation of Apex oversight of the remediation, approximately 80 percent of the hydrocarbon impacted soil on site had been treated using the ex-situ soil treatment remediation method.

During Apex oversight of the excavation activities, it was determined by Noble Energy, Inc. (Noble) that ex-situ soil treatment using hydrogen peroxide would no longer be employed as a method for remediation. The remaining impacted soil would be excavated, stockpiled, and transported offsite for disposal.

2.0 SITE DESCRIPTION

The Bierig 1-26 site is located in Weld County, Colorado within the northeast quarter of the northeast quarter of Section 26, Township 5 North, Range 66 west of the 6th Prime Meridian at coordinates 40.373436°, -104.742267°. A topographic site map is presented as Figure 1.

The current site use is cropland with no structures present on the site, however, an overhead powerline transected the site, east to west, in the northern portion of the site. The soil lithology consists of sandy loam, underlain by silty clay and shale, to the maximum depth excavated of 19 feet below ground

surface (bgs). Groundwater was periodically observed seeping into the excavation, typically at 12-13 feet bgs.

3.0 EXCAVATION OVERSIGHT ACTIVITIES

Apex oversight of the excavation activities took place between February 26, 2019 and April 5, 2019. Apex was not continually on site during this time, however, due to days of inclement weather and during periods when impacted soil was being transported offsite. 4X Industrial operated the excavation equipment used for soil removal. Apex oversight was conducted primarily where impacts were observed on the northern portion of the site, while the remaining site area was remediated by the previous consultant. Hydrocarbon impacts were typically observed between 7 and 15 feet bgs, with some areas excavated to 19 feet bgs. Soil samples collected by Apex included confirmation base and sidewalls, test pit, stockpile, and clean fill samples.

To maintain excavation safety, goal posts with flagging were installed underneath the powerlines, and represented an in-field reminder of the maximum height and reach of equipment. At the direction of Noble, no samples were collected from the buffer areas surrounding the goal posts, due to safety concerns related to overhead powerlines. The GPS coordinates of these two "buffer zone" areas were recorded. The extents of each day's excavation activities were mapped and are indicated on Figure 2. This includes the border of each excavation section, and the location of all soil samples.

3.1. Confirmation Soil Sampling (Base and Sidewall)

Apex oversight of the excavation activities included daily field screening of organic vapors from the excavation sidewalls and base by using a calibrated photoionization detector (PID). In addition, soil samples were collected from the exposed base and sidewalls with a portion of each sample placed in a sealable plastic bag for PID field screening and the remaining portion of each soil sample placed in a 4-ounce glass jar. The glass jars were put into a sealed plastic bag and placed on ice in a cooler for preservation.

Excavation base and sidewall samples were collected at varying depths throughout the excavation and approximately every 30 feet for lateral definition. A total of 139 base and sidewall samples were collected for screening. All samples were submitted to the analytical laboratory with 8 of the 139 samples placed on hold pending initial analytical results.

Soil samples were submitted to Summit Scientific Laboratory (Summit) in Golden, Colorado for analysis of organic chemicals of concern (COCs), which included benzene, toluene, ethylbenzene, xylenes, and naphthalene (BTEXN) by EPA Method 8260c, and total petroleum hydrocarbons-gasoline range organics (TPH-GRO) and total petroleum hydrocarbons-diesel range organics (TPH-DRO) by EPA Method 8015c. Each day's samples were submitted for same day turn-around-time (TAT), with analytical results available for analysis the following morning prior to any new excavation.

3.1.1. Soil Analytical Results (Base and Sidewall)

The following samples were in exceedance of the Colorado Oil & Gas Conservation Commission (COGCC) Table 910-1 Standard for at least one of the analyzed COCs:

- February 26, 2019: B04@7', B05@7', E04@11', and E04@8';

- February 27, 2019: B04@11', and B05@11';
- February 28, 2019: W03@14', W03@7', W02@14', S03@14', and S03@7';
- March 1, 2019: S04@7';
- March 4, 2019: N02@11', N03@14', and N02@14';
- March 5, 2019: N04@14', N05@11', and N04@11'; and
- March 25, 2019: N08@14', W03-2@7', W03-2@14', and S03-2@14'

The previous day's sampling results were reviewed each morning by the field team. Additional excavation was conducted in any areas where the previous day's analytical results indicated exceedances of the COGCC Table 910-1 Standard, including all sample locations listed above. Analytical results are summarized in Table 1, and the laboratory analytical reports are attached as Appendix A. Confirmation samples were collected in all areas where additional excavation was conducted following indications of exceedances of the Table 910-1 Standards.

3.1.2. Prior Excavation Verification

On February 28, 2019, the western and southern sidewalls of that day's excavation were extended into the remediation areas overseen by the previous consultant by approximately 6 feet. These locations were verified in the field by using GPS coordinates as well as observation of the compacted material. Confirmation samples were collected from the southern and western sidewalls (W02@14', W03@7', W03@14', S03@7', and S03@14'). All five of the samples collected exceeded the COGCC Table 910-1 concentration levels for either total TPH or benzene.

Additional excavation was performed in these western and southern areas associated with the above sidewall samples. Following this additional excavation, confirmation samples W02-2@7' and W02-2@14' from the north side of the western sidewall were either non-detect (ND) or did not exceed COGCC Table 910-1 standards. The area around the W03 and S03 sample locations was excavated down to 18 feet bgs, and base sample B33@18' was collected from this area. The analytical results for B33@18' were either non-detect (ND) or did not exceed COGCC Table 910-1 standards.

3.2. Test Pit Sampling

Test pits were periodically dug to support in defining the extents of the impacted area by using both the PID and analytical results. Test pit names were continued using the naming convention of the previous consultant and are listed as on the figure and table as "TP."

A total of 24 test pit samples were collected and submitted for analysis at Summit for the same COCs (BTEXN, TPH-GRO, and TPH-DRO). Analytical results for the test pits are presented in Table 1.

3.3. Soil Stockpile Sampling

After the offsite disposal of impacted material, Apex analyzed surface samples from the footprint areas where impacted stockpiles were stored onsite. Apex collected surface samples approximately every 30' laterally from these impacted soil stockpile areas. Approximately six inches of soil was removed prior to sample collection to ensure a fresh, non-volatilized sample was collected.

A total of 26 samples were collected, and those samples with the highest PID screening levels were analyzed at Summit, with the remaining samples submitted on hold, pending laboratory results. Sample SS08 was the only sample to exceed the COGCC Table 910-1 Standard (800 mg/kg Total TPH). The area around SS08 was scraped down and resampled (SS15) to demonstrate clearance. Analytical results for the impacted stockpile footprint samples are presented in Table 1.

3.4. Clean Fill Screening

Following the excavation of impacted soil and transport of that material offsite, PetroCanada began transporting clean fill material to the site for use in backfilling the excavation areas to pre-release grade. Apex collected grab samples of the imported clean fill for PID screening. This included one sample screened for approximately every 500 cubic yards (yd³) of fill imported to the site.

PID screening levels for the imported fill ranged from <1 to 8.7 ppm. A total of 6 samples were randomly collected and submitted to Summit for BTEXN, TPH-GRO, and TPH-DRO analysis. The 6 samples were non-detect (ND) for all COCs with the results presented in Table 1.

4.0 CONCLUSIONS

Apex oversaw the excavation of hydrocarbon impacted soil, performed PID screening and confirmation soil sampling to verify the removal of the impacted soils, and confirmed that imported fill material was suitable for use as backfill. The analytical results for all samples submitted to Summit, including base, sidewall, test pit, stockpile and clean fill samples, is summarized in Table 1, and the laboratory analytical reports are attached as Attachment A. The removal of impacted soil was confirmed by laboratory analysis, and based on these results, all impacted soil in the areas overseen by Apex has been removed from the site.

Based on information provided by Noble, a total of 483 truckloads of impacted soil was transported offsite for disposal. The amount of soil disposed of was approximately 7,350 yd³, with 697 yd³ taken to the Buffalo Ridge facility and the remaining soil taken to the disposal facility in Ault. The excavation was backfilled using 8,114 yd³ of imported clean fill material.

Please contact me at (303) 483-8656 if you have any questions regarding this report or require additional information.

Sincerely,
Apex Companies, LLC

Ken Worthington

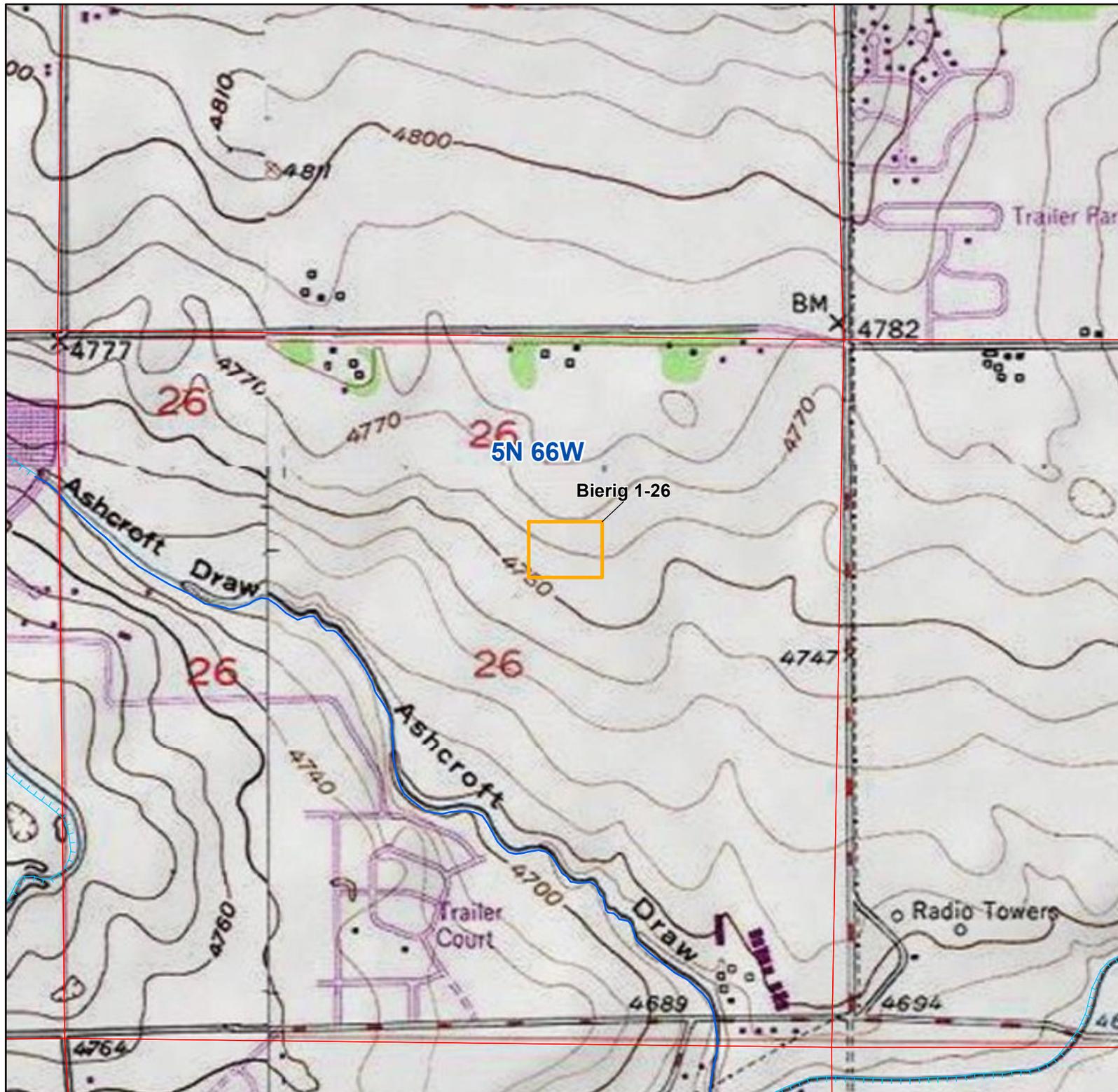
Ken Worthington
Project Manager

Attachments:

- Figure 1 – Bierig 1-26– Topographic Site Map
- Figure 2 – Bierig 1-26– Excavation Remediation Map
- Table 1 – Analytical Report Summary
- Attachment A – Laboratory Analytical Reports



Figure 1
Bierig 1-26 -
Regional Map



Legend

- Facility Location
- Section Line



Site Characteristics

Bierig 1-26
Remedial Investigation
40.373436, -104.742267
NENE, Sec 26, 5N66W
Weld County, Colorado
Location ID 322612

REVISED	BY	COMMENT
5/9/2019	BJB	Figure 1



Apex Companies, LLC
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Lakewood, Colorado 80401
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**Figure 2
Bierig 1-26 -
Excavation
Remediation Map**



Legend

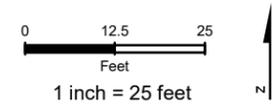
- Excavation Extent (2/26/2019)
- Excavation Extent (2/28/2019)
- Excavation Extent (3/1/2019)
- Excavation Extent (3/4/2019)
- Excavation Extent (3/5/2019)
- Excavation Extent (3/25/2019)
- Excavation Extent (3/26/2019)
- Excavation Extent (3/27/2019)
- Safety Buffer Zone
- Soil Stockpile Footprint
- DCP Line
- Irrigation Line (to be re-installed post remediation)

Soil Sample - Below COGCC 910-1 Standard

- Base
- Sidewall
- Soil Stockpile
- Soil Stockpile - PID Screening Only
- Test Pit

Soil Sample - Exceeded COGCC 910-1 Standard

- Sidewall
- Soil Stockpile
- Test Pit



Site Characteristics

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Remedial Investigation
40.373436, -104.742267
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REVISED	BY	COMMENT
5/9/2019	BJB	Figure 2

Spatial data collected for this project was acquired using a GPS with submeter accuracy. Illustration discrepancies may be present in this diagram due to the inherent limitations of data accuracy for both project data and the underlying aerial imagery. To accurately reflect field conditions, illustrated data may have been manually corrected in order to fit with the aerial imagery reference points and other collected data points.

Location	Sample Date	Sample ID	Organics (mg/kg)							(mg/kg)
			COGCC Allowable Concentration (Soil) -->	500			0.17	85	100	175
			TPH (total volatile and extractable petroleum hydrocarbons) (TPH-GRO + TPH-DRO)	TPH-GRO (C6-C10) Low Fraction	TPH-DRO (C10-C28) High Fraction	Benzene	Toluene	Ethylbenzene	Xylenes - total	Naphthalene
Bierig 1-26	2/26/19	E03@14'	51	51	<50	<0.0020	<0.0050	0.10	2.0	0.032
Bierig 1-26	2/26/19	E01@6'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	2/26/19	E02@6'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	2/26/19	B04@7'	5400	4200	1200	3.0	0.0064	13	200	0.41
Bierig 1-26	2/26/19	B05@7'	4800	3800	1000	2.6	0.040	12	180	1.9
Bierig 1-26	2/26/19	E04@11'	2510	2100	410	0.97	<0.0050	8.1	110	1.0
Bierig 1-26	2/26/19	E04@8'	681	61	620	0.36	<0.0050	8.0	120	0.40
Bierig 1-26	2/26/19	E03@8'	405	55	350	0.10	<0.0050	4.7	22	0.44
Bierig 1-26	2/26/19	E01@9'	325	55	270	0.057	<0.0050	0.55	18	0.17
Bierig 1-26	2/26/19	B10@15'	<50	<50	<50	0.036	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	2/26/19	B06@15'	<50	<50	<50	0.011	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	2/26/19	E04@14'	<50	<50	<50	0.008	<0.0050	0.059	0.69	0.016
Bierig 1-26	2/26/19	B09@15'	<50	<50	<50	0.0070	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	2/26/19	E02@9'	410	50	360	0.0046	<0.0050	0.60	18	0.18
Bierig 1-26	2/26/19	B08@15'	<50	<50	<50	0.0043	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	2/26/19	E03@11'	138	54	84	0.0042	<0.0050	0.46	6.7	0.11
Bierig 1-26	2/26/19	B07@15'	<50	<50	<50	0.0033	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	2/27/19	TP03@15'	67	67	<50	<0.0020	<0.0050	0.089	1.1	0.031
Bierig 1-26	2/27/19	TP22@15'	70	70	<50	<0.0020	<0.0050	0.14	5.1	0.037
Bierig 1-26	2/27/19	TP04@7'	73	73	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	2/27/19	TP03@7'	430	<50	430	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	2/27/19	TP04@11'	2770	2200	570	<0.0020	<0.0050	5.3	28	1.7
Bierig 1-26	2/27/19	TP22@7'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	2/27/19	TP04@15'	<50	<50	<50	<0.0020	<0.0050	0.028	0.17	0.031
Bierig 1-26	2/27/19	TP23@15'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	2/27/19	B04@11'	1450	1200	250	2.7	<0.0050	2.9	31	0.24

Orange Highlight - Exceedance
 Yellow Highlight - TPH Detection
 Grey Highlight - Below Detection Limit

COGCC Allowable Concentration (Soil) -->			Organics (mg/kg)							(mg/kg)
Location	Sample Date	Sample ID	500			0.17	85	100	175	23
			TPH (total volatile and extractable petroleum hydrocarbons) (TPH-GRO + TPH-DRO)	TPH-GRO (C6-C10) Low Fraction	TPH-DRO (C10-C28) High Fraction	Benzene	Toluene	Ethylbenzene	Xylenes - total	Naphthalene
Bierig 1-26	2/27/19	B05@11'	1460	1300	160	2.3	<0.0050	2.6	25	0.24
Bierig 1-26	2/27/19	TP03@11'	6110	5300	810	0.097	0.014	23	240	2.3
Bierig 1-26	2/27/19	B05@15'	68	<50	68	0.067	0.038	0.13	2.0	0.030
Bierig 1-26	2/27/19	TP23@11'	582	510	72	0.067	0.017	3.0	22	0.15
Bierig 1-26	2/27/19	B04@15'	<50	<50	<50	0.058	0.033	0.010	0.089	<0.010
Bierig 1-26	2/27/19	TP23@7'	2330	1700	630	0.014	0.015	5.1	73	1.2
Bierig 1-26	2/27/19	TP22@11'	2050	1900	150	0.0058	0.019	2.7	40	1.0
Bierig 1-26	2/28/19	W03@14'	980	790	190	2.0	<0.0050	3.0	32	0.17
Bierig 1-26	2/28/19	W03@7'	1790	1600	190	1.7	0.035	3.5	39	0.40
Bierig 1-26	2/28/19	W02@14'	1690	1500	190	0.30	<0.0050	3.4	36	0.20
Bierig 1-26	2/28/19	S03@14'	173	82	91	0.26	0.020	0.14	2.4	0.077
Bierig 1-26	2/28/19	S03@7'	1180	910	270	0.24	0.067	0.68	0.24	0.25
Bierig 1-26	2/28/19	S01@14'	92	92	<50	0.16	0.0076	0.24	2.2	0.039
Bierig 1-26	2/28/19	B12@15'	<50	<50	<50	0.080	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	2/28/19	B11@15'	<50	<50	<50	0.048	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	2/28/19	S02@11'	<50	<50	<50	0.031	0.0050	0.11	1.2	0.030
Bierig 1-26	2/28/19	W02@7'	<50	<50	<50	0.014	0.0077	0.070	1.1	0.035
Bierig 1-26	2/28/19	S01@7'	<50	<50	<50	0.011	<0.0050	0.043	0.36	0.015
Bierig 1-26	3/1/19	B13@15'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/1/19	TP26@14'	110	110	<50	0.31	0.026	0.63	11	0.23
Bierig 1-26	3/1/19	TP25@7'	62	<50	62	0.065	0.012	0.21	3.0	0.062
Bierig 1-26	3/1/19	TP26@7'	770	170	600	0.060	0.11	0.14	17	0.23
Bierig 1-26	3/1/19	TP25@14'	60	<50	60	0.037	<0.0050	0.087	1.2	0.054
Bierig 1-26	3/1/19	E01@14'	<50	<50	<50	0.028	<0.0050	0.50	0.18	0.11
Bierig 1-26	3/1/19	TP24@14'	<50	<50	<50	0.016	0.019	0.12	3.2	0.056
Bierig 1-26	3/1/19	S04@14'	91	<50	91	0.0057	<0.0050	0.68	9.6	0.24

Orange Highlight - Exceedance
 Yellow Highlight - TPH Detection
 Grey Highlight - Below Detection Limit

Location	Sample Date	Sample ID	Organics (mg/kg)							(mg/kg)
			COGCC Allowable Concentration (Soil) -->	500			0.17	85	100	175
			TPH (total volatile and extractable petroleum hydrocarbons) (TPH-GRO + TPH-DRO)	TPH-GRO (C6-C10) Low Fraction	TPH-DRO (C10-C28) High Fraction	Benzene	Toluene	Ethylbenzene	Xylenes - total	Naphthalene
Bierig 1-26	3/1/19	TP24@7'	<50	<50	<50	0.0056	0.0062	0.031	0.90	0.028
Bierig 1-26	3/1/19	S04@7'	645	85	560	0.0031	<0.0050	0.64	9.2	0.44
Bierig 1-26	3/4/19	E05@11'	58	<50	58	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/4/19	E05@14'	115	51	64	<0.0020	<0.0050	0.036	0.53	0.055
Bierig 1-26	3/4/19	N03@11'	158	71	87	<0.0020	<0.0050	0.016	0.064	<0.010
Bierig 1-26	3/4/19	N02@11'	750	620	130	<0.0020	<0.0050	0.0052	0.047	<0.010
Bierig 1-26	3/4/19	N03@14'	3650	3100	550	<0.0020	0.022	2.4	44	0.049
Bierig 1-26	3/4/19	N01@8'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/4/19	N01@11'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/4/19	N01@14'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/4/19	E06@8'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/4/19	E06@11'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/4/19	E06@14'	<50	<50	<50	<0.0020	<0.0050	0.027	0.44	0.011
Bierig 1-26	3/4/19	E05@8'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/4/19	B14@15'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/4/19	B15@15'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/4/19	N02@8'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/4/19	B17@15'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/4/19	B16@15'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/4/19	B18@15'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/4/19	B19@15'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/4/19	N03@8'	<50	<50	<50	<0.0020	<0.0050	<0.0050	0.042	<0.010
Bierig 1-26	3/4/19	N02@14'	2220	1900	320	0.0035	<0.0050	0.59	18	0.16
Bierig 1-26	3/5/19	S07@14'	61	<50	61	<0.0020	<0.0050	0.039	1.1	0.039
Bierig 1-26	3/5/19	S06@14'	279	79	200	<0.0020	<0.0050	0.049	2.8	0.16
Bierig 1-26	3/5/19	N04@14'	700	450	250	<0.0020	<0.0050	1.5	24	0.15

Orange Highlight - Exceedance
 Yellow Highlight - TPH Detection
 Grey Highlight - Below Detection Limit

Location	Sample Date	Sample ID	Organics (mg/kg)							(mg/kg)
			COGCC Allowable Concentration (Soil) -->	500			0.17	85	100	175
			TPH (total volatile and extractable petroleum hydrocarbons) (TPH-GRO + TPH-DRO)	TPH-GRO (C6-C10) Low Fraction	TPH-DRO (C10-C28) High Fraction	Benzene	Toluene	Ethylbenzene	Xylenes - total	Naphthalene
Bierig 1-26	3/5/19	N05@11'	878	810	68	<0.0020	<0.0050	3.9	48	0.18
Bierig 1-26	3/5/19	N04@11'	2210	1900	310	<0.0020	<0.0050	3.5	58	0.33
Bierig 1-26	3/5/19	B20@15'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/5/19	B21@15'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/5/19	N04@8'	<50	<50	<50	<0.0020	<0.0050	<0.0050	0.078	<0.010
Bierig 1-26	3/5/19	B23@15'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/5/19	B24@15'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/5/19	N05@8'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/5/19	N05@14'	<50	<50	<50	<0.0020	<0.0050	<0.0050	0.046	<0.010
Bierig 1-26	3/5/19	B22@15'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/5/19	TP27@14'	<50	<50	<50	<0.0020	<0.0050	<0.0050	0.016	<0.010
Bierig 1-26	3/5/19	TP12@10'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/5/19	TP12@14'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/5/19	S05@8'	137	74	63	0.027	0.0084	0.17	15	0.069
Bierig 1-26	3/5/19	TP27@8'	<50	<50	<50	0.0044	<0.0050	0.077	1.0	0.037
Bierig 1-26	3/25/19	N06@8'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/25/19	N06@11'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/25/19	N06@15'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/25/19	N06@18'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/25/19	N07@8'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/25/19	N07@11'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/25/19	N07@16'	100	<50	100	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/25/19	N07@19'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/25/19	N08@8'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/25/19	N08@11'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/25/19	N08@14'	2270	1600	670	<0.0020	<0.0050	<0.0050	<0.010	0.019

Orange Highlight - Exceedance
 Yellow Highlight - TPH Detection
 Grey Highlight - Below Detection Limit

COGCC Allowable Concentration (Soil) -->			Organics (mg/kg)							(mg/kg)
Location	Sample Date	Sample ID	500			0.17	85	100	175	23
			TPH (total volatile and extractable petroleum hydrocarbons) (TPH-GRO + TPH-DRO)	TPH-GRO (C6-C10) Low Fraction	TPH-DRO (C10-C28) High Fraction	Benzene	Toluene	Ethylbenzene	Xylenes - total	Naphthalene
Bierig 1-26	3/25/19	N08@20'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/25/19	N09@8'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/25/19	N09@11'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/25/19	N09@15'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/25/19	N09@20'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/25/19	S08@8'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/25/19	S08@14'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/25/19	S09@8'	<50	<50	<50	<0.0020	<0.0050	<0.0050	0.026	<0.010
Bierig 1-26	3/25/19	S09@14'	<50	<50	<50	0.025	<0.0050	0.14	1.4	0.077
Bierig 1-26	3/25/19	B23@15'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/25/19	E07@8'	93	<50	93	0.0035	<0.0050	0.0070	0.037	<0.010
Bierig 1-26	3/25/19	E07@14'	<50	<50	<50	0.062	<0.0050	0.013	0.055	<0.010
Bierig 1-26	3/25/19	W02-2@7'	490	490	<50	0.0054	0.0050	0.19	1.5	0.076
Bierig 1-26	3/25/19	W02-2@14'	<50	<50	<50	0.090	<0.0050	0.031	0.36	0.012
Bierig 1-26	3/25/19	W03-2@7'	1010	880	130	0.024	<0.0050	0.70	44	0.75
Bierig 1-26	3/25/19	W03-2@14'	1290	1100	190	0.27	<0.0050	1.1	40	0.50
Bierig 1-26	3/25/19	S03-2@7'	56	<50	56	0.047	0.0064	0.11	2.0	0.060
Bierig 1-26	3/25/19	S03-2@14'	1038	960	78	0.41	<0.0050	0.41	6.0	0.15
Bierig 1-26	3/25/19	TP26-2@7'	93	93	<50	0.039	0.032	0.25	4.4	0.085
Bierig 1-26	3/25/19	TP26-2@14'	256	160	96	0.057	0.0068	0.41	7.8	0.77
Bierig 1-26	3/26/19	NE10@8'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/26/19	NE10@11'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/26/19	NE10@16'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/26/19	N11@8'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/26/19	N11@11'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/26/19	N11@16'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010

Orange Highlight - Exceedance
 Yellow Highlight - TPH Detection
 Grey Highlight - Below Detection Limit

COGCC Allowable Concentration (Soil) -->			Organics (mg/kg)							(mg/kg)
Location	Sample Date	Sample ID	500			0.17	85	100	175	23
			TPH (total volatile and extractable petroleum hydrocarbons) (TPH-GRO + TPH-DRO)	TPH-GRO (C6-C10) Low Fraction	TPH-DRO (C10-C28) High Fraction	Benzene	Toluene	Ethylbenzene	Xylenes - total	Naphthalene
Bierig 1-26	3/26/19	B24@19'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/26/19	B25@19'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/26/19	B26@19'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/26/19	B27@19'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/26/19	N12@11'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/26/19	N12@16'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/26/19	SS05	80	<50	80	<0.0020	<0.0050	<0.0050	0.39	<0.010
Bierig 1-26	3/26/19	SS08	800	510	290	0.067	0.065	0.30	35	0.13
Bierig 1-26	3/26/19	SS09	123	67	56	0.013	0.010	0.17	9.9	0.085
Bierig 1-26	3/26/19	S10@8'	55	<50	55	0.019	<0.0050	0.052	0.28	0.13
Bierig 1-26	3/26/19	S10@16'	73	<50	73	0.0089	<0.0050	<0.0050	0.014	<0.010
Bierig 1-26	3/26/19	S11@16'	<50	<50	<50	0.0065	<0.0050	0.13	9.2	0.12
Bierig 1-26	3/26/19	B28@18'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/26/19	S12@8'	212	52	160	<0.0020	<0.0050	0.44	16	0.26
Bierig 1-26	3/26/19	B29@18'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/27/19	B30@18'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/27/19	B31@18'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/27/19	B32@18'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/27/19	B33@18'	<50	<50	<50	0.0040	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/27/19	N13@16'	<50	<50	<50	<0.0020	0.0066	0.016	0.23	0.017
Bierig 1-26	3/27/19	N13@8'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/27/19	W07@16'	150	79	71	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/27/19	W07@8'	<50	<50	<50	<0.0020	<0.0050	0.0068	0.13	<0.010
Bierig 1-26	3/27/19	B34@18'	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	3/27/19	W08@16'	280	130	150	<0.0020	<0.0050	0.079	1.8	0.064
Bierig 1-26	3/27/19	W08@8'	<50	<50	<50	<0.0020	<0.0050	0.051	1.2	0.055

Orange Highlight - Exceedance
 Yellow Highlight - TPH Detection
 Grey Highlight - Below Detection Limit

Location	Sample Date	Sample ID	Organics (mg/kg)					(mg/kg)		
			TPH (total volatile and extractable petroleum hydrocarbons) (TPH-GRO + TPH-DRO)	TPH-GRO (C6-C10) Low Fraction	TPH-DRO (C10-C28) High Fraction	Benzene	Toluene	Ethylbenzene	Xylenes - total	Naphthalene
COGCC Allowable Concentration (Soil) -->			500			0.17	85	100	175	23
Bierig 1-26	4/2/19	SS13	265	65	200	0.0088	<0.0050	0.50	0.14	0.071
Bierig 1-26	4/2/19	SS15	<50	<50	<50	<0.0020	<0.0050	0.0062	0.10	<0.010
Bierig 1-26	4/2/19	SS19	<50	<50	<50	0.012	0.0073	0.021	1.3	0.024
Bierig 1-26	4/2/19	SS20	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	4/2/19	SS22	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	4/3/19	CF03	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	4/3/19	CF04	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	4/3/19	CF05	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	4/5/19	C11	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	4/5/19	C12	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010
Bierig 1-26	4/5/19	C14	<50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.010

Attachment A

Laboratory Analytical Report

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

February 28, 2019

Ken Worthington

Apex Companies

176 Cole Blvd. Suite 250

Lakewood, CO 80101

RE: Noble - Bierig 1-26

Enclosed are the results of analyses for samples received by Summit Scientific on 02/26/19 16:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'P. Shrewsbury', written in a cursive style.

Paul Shrewsbury

President



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B04@7'	1902245-04	Soil	02/26/19 10:56	02/26/19 16:45
B05@7'	1902245-05	Soil	02/26/19 11:00	02/26/19 16:45
E01@6'	1902245-06	Soil	02/26/19 11:30	02/26/19 16:45
E01@9'	1902245-07	Soil	02/26/19 11:33	02/26/19 16:45
E02@6'	1902245-08	Soil	02/26/19 11:45	02/26/19 16:45
E02@9'	1902245-09	Soil	02/26/19 11:49	02/26/19 16:45
B06@15'	1902245-10	Soil	02/26/19 12:32	02/26/19 16:45
E03@8'	1902245-11	Soil	02/26/19 12:38	02/26/19 16:45
E03@11'	1902245-12	Soil	02/26/19 12:42	02/26/19 16:45
E03@14'	1902245-13	Soil	02/26/19 12:45	02/26/19 16:45
B07@15'	1902245-14	Soil	02/26/19 13:05	02/26/19 16:45
E04@8'	1902245-15	Soil	02/26/19 13:10	02/26/19 16:45
E04@11'	1902245-16	Soil	02/26/19 13:15	02/26/19 16:45
E04@14'	1902245-17	Soil	02/26/19 13:20	02/26/19 16:45
B08@15'	1902245-18	Soil	02/26/19 13:55	02/26/19 16:45
B09@15'	1902245-19	Soil	02/26/19 14:45	02/26/19 16:45
B10@15'	1902245-20	Soil	02/26/19 15:15	02/26/19 16:45

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

1902245

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 2

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax:
Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexcos.com
Project Name: Bierig 1-26
Project No.: WO#: 247039 RC# 815902161 Noble Contact: Harold Amick

Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:				Special Instructions
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	GBTEX + Naphth by 8260C	DRO by 8015C	pH, EC, SAR	
B0107'	2/26/19	1043	1			✓			✓						Call Ken Worthington with questions
B0207'		1046	1			✓			✓						
B0307'		1051	1			✓			✓						
B0407'		1056	1			✓			✓						
B0507'		1100	1			✓			✓						
E0106'		1130	1			✓			✓	✓					
E0109'		1133	1			✓			✓	✓					
E0206'		1145	1			✓			✓	✓					
E0209'		1149	1			✓			✓	✓					
B06015'		1232	1			✓			✓	✓					
Relinquished by: <u>Caitlin Thomas</u> Date/Time: <u>2/26/19 1645</u>			Received by: <u>[Signature]</u> Date/Time: <u>2.26.19 1645</u>			Turn Around Time (Check)				Notes					
						Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/>				Circle applicable regulatory agency: <u>COGCC/CDPHE</u>					
						24 Hours <input type="checkbox"/> Standard <input type="checkbox"/>				Client Name: <u>Bill to Noble Energy</u>					
						48 Hours <input type="checkbox"/>				Sample Integrity: Temperature Upon Receipt: <u>8.7</u>					
										Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					

1902245

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 2 of 2

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax: _____
Sampler Name: _____

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexcos.com
Project Name: Bierig 1-26
Project No.: WO#: 247039 RC# 815902161 Noble Contact: Harold Aamodt

Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:						Special Instructions				
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	GBTEX + Napth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD						
E0308'	2/26/19	1238	1			✓			✓			✓	✓							Call Ken Worthington with questions	
E03011'		1242	1			✓			✓			✓	✓								
E03014'		1245	1			✓			✓			✓	✓								
B07015'		1305	1			✓			✓			✓	✓								
E0408'		1310	1			✓			✓			✓	✓								
E04011'		1315	1			✓			✓			✓	✓								
E04014'		1320	1			✓			✓			✓	✓								
B08015'		1355	1			✓			✓			✓	✓								
B09015'		1445	1			✓			✓			✓	✓								
B10015'		1515	1			✓			✓			✓	✓								
Relinquished by: <u>Carter</u> Date/Time: <u>2/26/19 1645</u>			Received by: <u>[Signature]</u> Date/Time: <u>2-26-19 1645</u>			Turn Around Time (Check)						Notes									
Relinquished by: _____ Date/Time: _____			Received by: _____ Date/Time: _____			<input checked="" type="checkbox"/> Same Day <input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 72 Hours <input type="checkbox"/> Standard						Circle applicable regulatory agency: <input checked="" type="checkbox"/> COGCC / <input type="checkbox"/> CDPHE Client Name: Bill to Noble Energy									
Relinquished by: _____ Date/Time: _____			Received in Lab by: _____ Date/Time: _____			Sample Integrity: Temperature Upon Receipt: <u>0.7</u> Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No															

Sample Receipt Checklist

S2 Work Order 1902245

Client: APEX/COGCC Client Project ID: Biering 1-26

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other H.P. Airbill #: _____

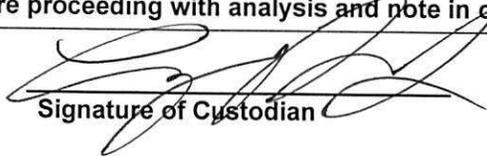
Matrix (check all that apply): Air Soil/Solid Water Other: _____
(Describe)

Temp (°C)	8.7
-----------	-----

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>			
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
If custody seals are present, are they intact ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?			<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?			<input checked="" type="checkbox"/>	
Additional Comments (if any): 				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

UP
Custodian Printed Name or Initials


Signature of Custodian

2-26-19 1815
Date/Time



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

B04@7'
1902245-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/26/19 10:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	3.0	0.20	mg/kg	100	1902334	02/27/19	02/27/19	EPA 8260B	
Toluene	0.0064	0.0050	"	1	"	"	"	"	
Ethylbenzene	13	0.50	"	100	"	"	"	"	
Xylenes (total)	200	1.0	"	"	"	"	"	"	
Naphthalene	0.41	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	4200	50	"	100	"	"	"	"	

Date Sampled: **02/26/19 10:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		87.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		190 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/26/19 10:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	1200	50	mg/kg	1	1902335	"	02/27/19	EPA 8015M	

Date Sampled: **02/26/19 10:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		117 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

B05@7'
1902245-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/26/19 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	2.6	0.20	mg/kg	100	1902334	02/27/19	02/27/19	EPA 8260B	
Toluene	0.040	0.0050	"	1	"	"	"	"	
Ethylbenzene	12	0.50	"	100	"	"	"	"	
Xylenes (total)	180	1.0	"	"	"	"	"	"	
Naphthalene	1.9	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	3800	50	"	"	"	"	"	"	

Date Sampled: **02/26/19 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		91.1 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		88.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		188 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/26/19 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	1000	50	mg/kg	1	1902335	"	02/27/19	EPA 8015M	

Date Sampled: **02/26/19 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		113 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

E01@6'
1902245-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/26/19 11:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1902320	02/26/19	02/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/26/19 11:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/26/19 11:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1902322	02/26/19	02/26/19	EPA 8015M	

Date Sampled: **02/26/19 11:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		111 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

E01@9'
1902245-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/26/19 11:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.057	0.0020	mg/kg	1	1902320	02/26/19	02/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.55	0.0050	"	"	"	"	"	"	
Xylenes (total)	18	0.10	"	10	"	"	"	"	
Naphthalene	0.17	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	55	50	"	"	"	"	"	"	

Date Sampled: **02/26/19 11:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		114 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		160 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/26/19 11:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	270	50	mg/kg	1	1902322	02/26/19	02/26/19	EPA 8015M	

Date Sampled: **02/26/19 11:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		103 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

E02@6'
1902245-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/26/19 11:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1902320	02/26/19	02/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/26/19 11:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.7 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/26/19 11:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1902322	02/26/19	02/26/19	EPA 8015M	

Date Sampled: **02/26/19 11:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		104 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

E02@9'
1902245-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/26/19 11:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0046	0.0020	mg/kg	1	1902320	02/26/19	02/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.60	0.0050	"	"	"	"	"	"	
Xylenes (total)	18	0.10	"	10	"	"	"	"	
Naphthalene	0.18	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	50	50	"	"	"	"	"	"	

Date Sampled: **02/26/19 11:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		134 %	23-173	"	"	"	"	"	
Surrogate: Toluene-d8		99.1 %	20-170	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		170 %	21-167	"	"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/26/19 11:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	360	50	mg/kg	1	1902322	02/26/19	02/26/19	EPA 8015M	

Date Sampled: **02/26/19 11:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		102 %	30-150	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

B06@15'
1902245-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/26/19 12:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.011	0.0020	mg/kg	1	1902320	02/26/19	02/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/26/19 12:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/26/19 12:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1902322	02/26/19	02/26/19	EPA 8015M	

Date Sampled: **02/26/19 12:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		99.5 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

E03@8'
1902245-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/26/19 12:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.10	0.0020	mg/kg	1	1902320	02/26/19	02/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	4.7	0.050	"	10	"	"	"	"	
Xylenes (total)	22	0.10	"	"	"	"	"	"	
Naphthalene	0.44	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	55	50	"	"	"	"	"	"	

Date Sampled: **02/26/19 12:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		116 %	23-173	"	"	"	"	"	
Surrogate: Toluene-d8		89.2 %	20-170	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		228 %	21-167	"	"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/26/19 12:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	350	50	mg/kg	1	1902322	02/26/19	02/26/19	EPA 8015M	

Date Sampled: **02/26/19 12:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		105 %	30-150	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

E03@11'
1902245-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/26/19 12:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0042	0.0020	mg/kg	1	1902320	02/26/19	02/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.46	0.0050	"	"	"	"	"	"	
Xylenes (total)	6.7	0.10	"	10	"	"	"	"	
Naphthalene	0.11	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	54	50	"	"	"	"	"	"	

Date Sampled: **02/26/19 12:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		119 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/26/19 12:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	84	50	mg/kg	1	1902322	02/26/19	02/26/19	EPA 8015M	

Date Sampled: **02/26/19 12:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		99.7 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

E03@14'
1902245-13 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/26/19 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1902320	02/26/19	02/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.10	0.0050	"	"	"	"	"	"	
Xylenes (total)	2.0	0.10	"	10	"	"	"	"	
Naphthalene	0.032	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	51	50	"	"	"	"	"	"	

Date Sampled: **02/26/19 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		107 %	23-173	"	"	"	"	"	
Surrogate: Toluene-d8		96.7 %	20-170	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		129 %	21-167	"	"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/26/19 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1902322	02/26/19	02/26/19	EPA 8015M	

Date Sampled: **02/26/19 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		97.8 %	30-150	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

B07@15'
1902245-14 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/26/19 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0033	0.0020	mg/kg	1	1902320	02/26/19	02/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/26/19 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.7 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/26/19 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1902322	02/26/19	02/26/19	EPA 8015M	

Date Sampled: **02/26/19 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		97.1 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

E04@8'
1902245-15 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/26/19 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.36	0.0020	mg/kg	1	1902320	02/26/19	02/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	8.0	0.50	"	100	"	"	"	"	
Xylenes (total)	120	1.0	"	"	"	"	"	"	
Naphthalene	0.40	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	61	50	"	"	"	"	"	"	

Date Sampled: **02/26/19 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		173 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		91.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		131 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/26/19 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	620	50	mg/kg	1	1902322	02/26/19	02/27/19	EPA 8015M	

Date Sampled: **02/26/19 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		141 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

E04@11'
1902245-16 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/26/19 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.97	0.20	mg/kg	100	1902320	02/26/19	02/27/19	EPA 8260B	
Toluene	ND	0.0050	"	1	"	"	"	"	
Ethylbenzene	8.1	0.50	"	100	"	"	"	"	
Xylenes (total)	110	1.0	"	"	"	"	"	"	
Naphthalene	1.0	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	2100	50	"	"	"	"	"	"	

Date Sampled: **02/26/19 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		121 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/26/19 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	410	50	mg/kg	1	1902322	02/26/19	02/27/19	EPA 8015M	

Date Sampled: **02/26/19 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		111 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

E04@14'
1902245-17 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/26/19 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0080	0.0020	mg/kg	1	1902320	02/26/19	02/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.059	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.69	0.010	"	"	"	"	"	"	
Naphthalene	0.016	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/26/19 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		105 %	23-173	"	"	"	"	"	
Surrogate: Toluene-d8		97.3 %	20-170	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		110 %	21-167	"	"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/26/19 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1902322	02/26/19	02/27/19	EPA 8015M	

Date Sampled: **02/26/19 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		98.7 %	30-150	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

B08@15'
1902245-18 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/26/19 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0043	0.0020	mg/kg	1	1902320	02/26/19	02/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/26/19 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/26/19 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1902322	02/26/19	02/27/19	EPA 8015M	

Date Sampled: **02/26/19 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		105 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

B09@15'
1902245-19 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/26/19 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0070	0.0020	mg/kg	1	1902320	02/26/19	02/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/26/19 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/26/19 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1902322	02/26/19	02/27/19	EPA 8015M	

Date Sampled: **02/26/19 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		92.0 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

B10@15'
1902245-20 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/26/19 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.036	0.0020	mg/kg	1	1902320	02/26/19	02/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/26/19 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		103 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.1 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/26/19 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1902322	02/26/19	02/27/19	EPA 8015M	

Date Sampled: **02/26/19 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		102 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1902320 - EPA 5030 Soil MS

Blank (1902320-BLK1)

Prepared: 02/26/19 Analyzed: 02/27/19

Benzene	ND	0.0020	mg/kg								
Toluene	ND	0.0050	"								
Ethylbenzene	ND	0.0050	"								
Xylenes (total)	ND	0.010	"								
Naphthalene	ND	0.010	"								
Gasoline Range Hydrocarbons	ND	50	"								
Surrogate: 1,2-Dichloroethane-d4	0.0394		"	0.0400		98.6	23-173				
Surrogate: Toluene-d8	0.0393		"	0.0400		98.2	20-170				
Surrogate: 4-Bromofluorobenzene	0.0403		"	0.0400		101	21-167				

LCS (1902320-BS1)

Prepared: 02/26/19 Analyzed: 02/27/19

Benzene	0.101	0.0020	mg/kg	0.100		101	70-130				
Toluene	0.0992	0.0050	"	0.100		99.2	70-130				
Ethylbenzene	0.0906	0.0050	"	0.100		90.6	70-130				
m,p-Xylene	0.172	0.010	"	0.200		86.0	70-130				
o-Xylene	0.0967	0.0050	"	0.100		96.7	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0328		"	0.0400		81.9	23-173				
Surrogate: Toluene-d8	0.0412		"	0.0400		103	20-170				
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.8	21-167				

Matrix Spike (1902320-MS1)

Source: 1902245-06

Prepared: 02/26/19 Analyzed: 02/27/19

Benzene	0.0947	0.0020	mg/kg	0.100	ND	94.7	70-130				
Toluene	0.0919	0.0050	"	0.100	ND	91.9	70-130				
Ethylbenzene	0.0828	0.0050	"	0.100	ND	82.8	70-130				
m,p-Xylene	0.161	0.010	"	0.200	0.00570	77.9	70-130				
o-Xylene	0.0896	0.0050	"	0.100	ND	89.6	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0344		"	0.0400		86.0	23-173				
Surrogate: Toluene-d8	0.0420		"	0.0400		105	20-170				
Surrogate: 4-Bromofluorobenzene	0.0397		"	0.0400		99.2	21-167				

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1902320 - EPA 5030 Soil MS

Matrix Spike Dup (1902320-MSD1)

Source: 1902245-06

Prepared: 02/26/19 Analyzed: 02/27/19

Benzene	0.0931	0.0020	mg/kg	0.100	ND	93.1	70-130	1.66	30	
Toluene	0.0899	0.0050	"	0.100	ND	89.9	70-130	2.21	30	
Ethylbenzene	0.0799	0.0050	"	0.100	ND	79.9	70-130	3.54	30	
m,p-Xylene	0.154	0.010	"	0.200	0.00570	74.2	70-130	4.66	30	
o-Xylene	0.0870	0.0050	"	0.100	ND	87.0	70-130	2.92	30	
Surrogate: 1,2-Dichloroethane-d4	0.0351		"	0.0400		87.8	23-173			
Surrogate: Toluene-d8	0.0415		"	0.0400		104	20-170			
Surrogate: 4-Bromofluorobenzene	0.0395		"	0.0400		98.7	21-167			

Batch 1902334 - EPA 5030 Soil MS

Blank (1902334-BLK1)

Prepared: 02/27/19 Analyzed: 02/28/19

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0371		"	0.0400		92.7	23-173			
Surrogate: Toluene-d8	0.0410		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0409		"	0.0400		102	21-167			

LCS (1902334-BS1)

Prepared: 02/27/19 Analyzed: 02/28/19

Benzene	0.0996	0.0020	mg/kg	0.100		99.6	70-130			
Toluene	0.0996	0.0050	"	0.100		99.6	70-130			
Ethylbenzene	0.0908	0.0050	"	0.100		90.8	70-130			
m,p-Xylene	0.174	0.010	"	0.200		87.1	70-130			
o-Xylene	0.0937	0.0050	"	0.100		93.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0324		"	0.0400		80.9	23-173			
Surrogate: Toluene-d8	0.0421		"	0.0400		105	20-170			
Surrogate: 4-Bromofluorobenzene	0.0382		"	0.0400		95.4	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1902334 - EPA 5030 Soil MS

Matrix Spike (1902334-MS1)	Source: 1902256-01			Prepared: 02/27/19 Analyzed: 02/28/19						
Benzene	0.103	0.0020	mg/kg	0.100	ND	103	70-130			
Toluene	0.103	0.0050	"	0.100	ND	103	70-130			
Ethylbenzene	0.0959	0.0050	"	0.100	ND	95.9	70-130			
m,p-Xylene	0.182	0.010	"	0.200	0.00351	89.4	70-130			
o-Xylene	0.0977	0.0050	"	0.100	ND	97.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0334		"	0.0400		83.6	23-173			
Surrogate: Toluene-d8	0.0421		"	0.0400		105	20-170			
Surrogate: 4-Bromofluorobenzene	0.0386		"	0.0400		96.6	21-167			

Matrix Spike Dup (1902334-MSD1)	Source: 1902256-01			Prepared: 02/27/19 Analyzed: 02/28/19						
Benzene	0.0998	0.0020	mg/kg	0.100	ND	99.8	70-130	3.11	30	
Toluene	0.0989	0.0050	"	0.100	ND	98.9	70-130	3.75	30	
Ethylbenzene	0.0922	0.0050	"	0.100	ND	92.2	70-130	3.99	30	
m,p-Xylene	0.176	0.010	"	0.200	0.00351	86.4	70-130	3.36	30	
o-Xylene	0.0953	0.0050	"	0.100	ND	95.3	70-130	2.55	30	
Surrogate: 1,2-Dichloroethane-d4	0.0332		"	0.0400		83.1	23-173			
Surrogate: Toluene-d8	0.0415		"	0.0400		104	20-170			
Surrogate: 4-Bromofluorobenzene	0.0390		"	0.0400		97.4	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 02/28/19 08:22

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1902322 - EPA 3550A

Blank (1902322-BLK1)		Prepared: 02/26/19 Analyzed: 02/27/19									
C10-C28 (DRO)	ND	50	mg/kg								
LCS (1902322-BS1)		Prepared: 02/26/19 Analyzed: 02/27/19									
C10-C28 (DRO)	527	50	mg/kg	500	105	70-130					
Matrix Spike (1902322-MS1)		Source: 1902245-06		Prepared: 02/26/19 Analyzed: 02/27/19							
C10-C28 (DRO)	430	50	mg/kg	500	33.7	79.3	70-130				
Matrix Spike Dup (1902322-MSD1)		Source: 1902245-06		Prepared: 02/26/19 Analyzed: 02/27/19							
C10-C28 (DRO)	428	50	mg/kg	500	33.7	78.8	70-130	0.591	20		

Batch 1902335 - EPA 3550A

Blank (1902335-BLK1)		Prepared: 02/27/19 Analyzed: 02/28/19									
C10-C28 (DRO)	ND	50	mg/kg								
LCS (1902335-BS1)		Prepared: 02/27/19 Analyzed: 02/28/19									
C10-C28 (DRO)	430	50	mg/kg	500	86.0	70-130					
Matrix Spike (1902335-MS1)		Source: 1902256-01		Prepared: 02/27/19 Analyzed: 02/28/19							
C10-C28 (DRO)	416	50	mg/kg	500	24.5	78.3	70-130				
Matrix Spike Dup (1902335-MSD1)		Source: 1902256-01		Prepared: 02/27/19 Analyzed: 02/28/19							
C10-C28 (DRO)	414	50	mg/kg	500	24.5	77.8	70-130	0.499	20		

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:22

Notes and Definitions

- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

February 28, 2019

Ken Worthington

Apex Companies

176 Cole Blvd. Suite 250

Lakewood, CO 80101

RE: Noble - Bierig 1-26

Enclosed are the results of analyses for samples received by Summit Scientific on 02/27/19 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'P. Shrewsbury', written in a cursive style.

Paul Shrewsbury

President



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TP22@7'	1902266-01	Soil	02/27/19 10:00	02/27/19 16:30
TP22@11'	1902266-02	Soil	02/27/19 10:04	02/27/19 16:30
TP22@15'	1902266-03	Soil	02/27/19 10:08	02/27/19 16:30
TP03@7'	1902266-04	Soil	02/27/19 10:12	02/27/19 16:30
TP03@11'	1902266-05	Soil	02/27/19 10:16	02/27/19 16:30
TP03@15'	1902266-06	Soil	02/27/19 10:20	02/27/19 16:30
TP04@7'	1902266-07	Soil	02/27/19 10:24	02/27/19 16:30
TP04@11'	1902266-08	Soil	02/27/19 10:28	02/27/19 16:30
TP04@15'	1902266-09	Soil	02/27/19 10:32	02/27/19 16:30
B04@11'	1902266-10	Soil	02/27/19 11:50	02/27/19 16:30
B05@11'	1902266-11	Soil	02/27/19 11:51	02/27/19 16:30
B04@15'	1902266-12	Soil	02/27/19 12:00	02/27/19 16:30
B05@15'	1902266-13	Soil	02/27/19 12:01	02/27/19 16:30
TP23@7'	1902266-14	Soil	02/27/19 13:00	02/27/19 16:30
TP23@11'	1902266-15	Soil	02/27/19 13:05	02/27/19 16:30
TP23@15'	1902266-16	Soil	02/27/19 13:10	02/27/19 16:30

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

1902266.1

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 2

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax:
Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexcos.com
Project Name: Bierig 1-26
Project No.: WO#: 247039 RC# 815902161 Noble Contact: ~~Harold Ansel~~

Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix		Air - Canister Serial #	Other (Specify)	Analyze For:						Special Instructions
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil			GBTEX + Naphth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD			
TP22@7'	2/27/19	1000	1			✓					✓	✓						Call Ken Worthington with questions
TP22@11'		1004	1			✓					✓	✓						
TP22@15'		1008	1			✓					✓	✓						
TP03@7'		1012	1			✓					✓	✓						
TP03@11'		1016	1			✓					✓	✓						
TP03@15'		1020	1			✓					✓	✓						
TP04@7'		1024	1			✓					✓	✓						
TP04@11'		1028	1			✓					✓	✓						
TP04@15'		1032	1			✓					✓	✓						
B04@11'	✓	1150	1			✓					✓	✓						
Relinquished by: <u>Caitlin Thomas</u> Date/Time: <u>2/27/19/1430</u>				Received by: <u>[Signature]</u> Date/Time: <u>2-27-19 1430</u>				Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>						Notes Circle applicable regulatory agency: <u>COGCC</u> /CDPHE				
Relinquished by:				Received by:				Sample Integrity: Temperature Upon Receipt: <u>4.2</u> Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						Client Name: Bill to Noble Energy				
Relinquished by:				Received in Lab by:														

1902266.2

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 2 of 2

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax:
Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexcos.com
Project Name: Bierig 1-26
Project No.: WO#: 247039 RC# 815902161 Noble Contact: ~~Harold Arnold~~

Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:						Special Instructions		
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	GBTEX + Naphth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD				
B05@11'	2/27/19	1151	1			✓						✓	✓						Call Ken Worthington with questions
B04@15'		1200	1			✓						✓	✓						
B05@15'		1201	1			✓						✓	✓						
TP23@7'		1300	1			✓						✓	✓						
TP23@11'		1305	1			✓						✓	✓						
TP23@15'		1310	1			✓						✓	✓						
Relinquished by: <u>[Signature]</u> Date/Time: <u>2/27/19/1430</u>				Received by: <u>[Signature]</u> Date/Time: <u>2-27-19 1430</u>				Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>						Notes Circle applicable regulatory agency: <u>COGCC</u> /CDPHE					
Relinquished by: _____ Date/Time: _____				Received by: _____ Date/Time: _____				Sample Integrity: Temperature Upon Receipt: <u>4.2</u> Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						Client Name: Bill to Noble Energy					
Relinquished by: _____ Date/Time: _____				Received in Lab by: _____ Date/Time: _____															

Sample Receipt Checklist

S2 Work Order 1902266

Client: APEX/COACC Client Project ID: Brieng 1-26

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other H.D. Airbill #: _____

Matrix (check all that apply): Air Soil/Solid Water Other: _____
(Describe)

Temp (°C)	<u>4.2</u>
-----------	------------

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

CP
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

2-27-19 1820
Date/Time



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:04

TP22@7'
1902266-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/27/19 10:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1902342	02/27/19	02/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/27/19 10:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		95.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/27/19 10:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1902343	"	02/27/19	EPA 8015M	

Date Sampled: **02/27/19 10:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		101 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:04

TP22@11'
1902266-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/27/19 10:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0058	0.0020	mg/kg	1	1902342	02/27/19	02/28/19	EPA 8260B	
Toluene	0.019	0.0050	"	"	"	"	"	"	
Ethylbenzene	2.7	0.50	"	100	"	"	"	"	
Xylenes (total)	40	1.0	"	"	"	"	"	"	
Naphthalene	1.0	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1900	50	"	"	"	"	"	"	

Date Sampled: **02/27/19 10:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		98.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		114 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/27/19 10:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	150	50	mg/kg	1	1902343	"	02/27/19	EPA 8015M	

Date Sampled: **02/27/19 10:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		104 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:04

TP22@15'
1902266-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/27/19 10:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1902342	02/27/19	02/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.14	0.0050	"	"	"	"	"	"	
Xylenes (total)	5.1	0.10	"	10	"	"	"	"	
Naphthalene	0.037	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	70	50	"	"	"	"	"	"	

Date Sampled: **02/27/19 10:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173	"	"	"	"	"	
Surrogate: Toluene-d8		89.2 %	20-170	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		129 %	21-167	"	"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/27/19 10:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1902343	"	02/27/19	EPA 8015M	

Date Sampled: **02/27/19 10:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		98.9 %	30-150	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 02/28/19 08:04

TP03@7'
1902266-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/27/19 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1902342	02/27/19	02/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/27/19 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		91.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		80.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		137 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/27/19 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	430	50	mg/kg	1	1902343	"	02/27/19	EPA 8015M	

Date Sampled: **02/27/19 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		121 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:04

TP03@11'
1902266-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/27/19 10:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.097	0.0020	mg/kg	1	1902342	02/27/19	02/28/19	EPA 8260B	
Toluene	0.014	0.0050	"	"	"	"	"	"	
Ethylbenzene	23	0.50	"	100	"	"	"	"	
Xylenes (total)	240	1.0	"	"	"	"	"	"	E
Naphthalene	2.3	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	5300	50	"	"	"	"	"	"	

Date Sampled: **02/27/19 10:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		107 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		148 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/27/19 10:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	810	50	mg/kg	1	1902343	"	02/27/19	EPA 8015M	

Date Sampled: **02/27/19 10:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		115 %	30-150		"	"	"	"	

Summit Scientific

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Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 02/28/19 08:04

TP03@15'
1902266-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/27/19 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1902342	02/27/19	02/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.089	0.0050	"	"	"	"	"	"	
Xylenes (total)	1.1	0.010	"	"	"	"	"	"	
Naphthalene	0.031	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	67	50	"	"	"	"	"	"	

Date Sampled: **02/27/19 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		108 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		88.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		121 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/27/19 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1902343	"	02/27/19	EPA 8015M	

Date Sampled: **02/27/19 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		104 %	30-150		"	"	"	"	

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:04

TP04@7'
1902266-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/27/19 10:24**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1902342	02/27/19	02/28/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/27/19 10:24**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		97.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		119 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/27/19 10:24**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	73	50	mg/kg	1	1902343	"	02/28/19	EPA 8015M	

Date Sampled: **02/27/19 10:24**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		116 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:04

TP04@11'
1902266-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/27/19 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1902342	02/27/19	02/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	5.3	0.050	"	10	"	"	"	"	
Xylenes (total)	28	0.10	"	"	"	"	"	"	E
Naphthalene	1.7	0.10	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	2200	50	"	"	"	"	"	"	E

Date Sampled: **02/27/19 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		175 %	23-173		"	"	"	"	S-02
Surrogate: Toluene-d8		86.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		532 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/27/19 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	570	50	mg/kg	1	1902343	"	02/27/19	EPA 8015M	

Date Sampled: **02/27/19 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		129 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:04

TP04@15'
1902266-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/27/19 10:32**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1902342	02/27/19	02/27/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	0.028	0.0050		"	"	"	"	"	"	
Xylenes (total)	0.17	0.010		"	"	"	"	"	"	
Naphthalene	0.031	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **02/27/19 10:32**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		108 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		93.4 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		145 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/27/19 10:32**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	1902343	"	02/27/19	EPA 8015M	

Date Sampled: **02/27/19 10:32**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		102 %		30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:04

B04@11'
1902266-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/27/19 11:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	2.7	0.020	mg/kg	10	1902342	02/27/19	02/27/19	EPA 8260B	
Toluene	ND	0.0050	"	1	"	"	"	"	
Ethylbenzene	2.9	0.050	"	10	"	"	"	"	
Xylenes (total)	31	0.10	"	"	"	"	"	"	E
Naphthalene	0.24	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	1200	50	"	10	"	"	"	"	E

Date Sampled: **02/27/19 11:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		109 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		85.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		198 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/27/19 11:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	250	50	mg/kg	1	1902343	"	02/27/19	EPA 8015M	

Date Sampled: **02/27/19 11:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		104 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:04

B05@11'
1902266-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/27/19 11:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	2.3	0.020	mg/kg	10	1902342	02/27/19	02/28/19	EPA 8260B	
Toluene	ND	0.0050	"	1	"	"	"	"	
Ethylbenzene	2.6	0.050	"	10	"	"	"	"	
Xylenes (total)	25	0.10	"	"	"	"	"	"	E
Naphthalene	0.24	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	1300	50	"	10	"	"	"	"	E

Date Sampled: **02/27/19 11:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		117 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		78.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		199 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/27/19 11:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	160	50	mg/kg	1	1902343	"	02/27/19	EPA 8015M	

Date Sampled: **02/27/19 11:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		104 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:04

B04@15'
1902266-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/27/19 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.058	0.0020	mg/kg	1	1902342	02/27/19	02/27/19	EPA 8260B	
Toluene	0.033	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.010	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.089	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/27/19 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/27/19 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1902343	"	02/27/19	EPA 8015M	

Date Sampled: **02/27/19 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		97.7 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:04

B05@15'
1902266-13 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/27/19 12:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.067	0.0020	mg/kg	1	1902342	02/27/19	02/28/19	EPA 8260B	
Toluene	0.038	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.13	0.0050	"	"	"	"	"	"	
Xylenes (total)	2.0	0.010	"	"	"	"	"	"	
Naphthalene	0.030	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/27/19 12:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		133 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/27/19 12:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	68	50	mg/kg	1	1902343	"	02/27/19	EPA 8015M	

Date Sampled: **02/27/19 12:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		93.8 %	30-150		"	"	"	"	

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:04

TP23@7'
1902266-14 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/27/19 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.014	0.0020	mg/kg	1	1902342	02/27/19	02/28/19	EPA 8260B	
Toluene	0.015	0.0050	"	"	"	"	"	"	
Ethylbenzene	5.1	0.50	"	100	"	"	"	"	
Xylenes (total)	73	1.0	"	"	"	"	"	"	
Naphthalene	1.2	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1700	50	"	"	"	"	"	"	

Date Sampled: **02/27/19 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		96.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		124 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/27/19 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	630	50	mg/kg	1	1902343	"	02/27/19	EPA 8015M	

Date Sampled: **02/27/19 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		118 %	30-150		"	"	"	"	

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:04

TP23@11'
1902266-15 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/27/19 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.067	0.0020	mg/kg	1	1902342	02/27/19	02/28/19	EPA 8260B	
Toluene	0.017	0.0050	"	"	"	"	"	"	
Ethylbenzene	3.0	0.050	"	10	"	"	"	"	
Xylenes (total)	22	0.10	"	"	"	"	"	"	E
Naphthalene	0.15	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	510	50	"	10	"	"	"	"	

Date Sampled: **02/27/19 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		107 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		139 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/27/19 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	72	50	mg/kg	1	1902343	"	02/27/19	EPA 8015M	

Date Sampled: **02/27/19 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		90.4 %	30-150		"	"	"	"	

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:04

TP23@15'
1902266-16 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/27/19 13:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1902342	02/27/19	02/28/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/27/19 13:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		99.1 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.7 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/27/19 13:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1902343	"	02/27/19	EPA 8015M	

Date Sampled: **02/27/19 13:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		103 %	30-150		"	"	"	"	

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:04

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1902342 - EPA 5030 Soil MS

Blank (1902342-BLK1)

Prepared: 02/27/19 Analyzed: 02/28/19

Benzene	ND	0.0020	mg/kg								
Toluene	ND	0.0050	"								
Ethylbenzene	ND	0.0050	"								
Xylenes (total)	ND	0.010	"								
Naphthalene	ND	0.010	"								
Gasoline Range Hydrocarbons	ND	50	"								
Surrogate: 1,2-Dichloroethane-d4	0.0378		"	0.0400		94.6	23-173				
Surrogate: Toluene-d8	0.0393		"	0.0400		98.3	20-170				
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.6	21-167				

LCS (1902342-BS1)

Prepared: 02/27/19 Analyzed: 02/28/19

Benzene	0.0987	0.0020	mg/kg	0.100		98.7	70-130				
Toluene	0.112	0.0050	"	0.100		112	70-130				
Ethylbenzene	0.107	0.0050	"	0.100		107	70-130				
m,p-Xylene	0.245	0.010	"	0.200		122	70-130				
o-Xylene	0.102	0.0050	"	0.100		102	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0370		"	0.0400		92.6	23-173				
Surrogate: Toluene-d8	0.0387		"	0.0400		96.8	20-170				
Surrogate: 4-Bromofluorobenzene	0.0386		"	0.0400		96.6	21-167				

Matrix Spike (1902342-MS1)

Source: 1902266-01

Prepared: 02/27/19 Analyzed: 02/28/19

Benzene	0.0985	0.0020	mg/kg	0.100	ND	98.5	70-130				
Toluene	0.114	0.0050	"	0.100	ND	114	70-130				
Ethylbenzene	0.109	0.0050	"	0.100	ND	109	70-130				
m,p-Xylene	0.249	0.010	"	0.200	ND	125	70-130				
o-Xylene	0.105	0.0050	"	0.100	ND	105	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0388		"	0.0400		97.1	23-173				
Surrogate: Toluene-d8	0.0388		"	0.0400		97.0	20-170				
Surrogate: 4-Bromofluorobenzene	0.0401		"	0.0400		100	21-167				

Summit Scientific

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Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 02/28/19 08:04

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1902342 - EPA 5030 Soil MS

Matrix Spike Dup (1902342-MSD1)	Source: 1902266-01			Prepared: 02/27/19 Analyzed: 02/28/19						
Benzene	0.0988	0.0020	mg/kg	0.100	ND	98.8	70-130	0.335	30	
Toluene	0.111	0.0050	"	0.100	ND	111	70-130	2.51	30	
Ethylbenzene	0.109	0.0050	"	0.100	ND	109	70-130	0.110	30	
m,p-Xylene	0.246	0.010	"	0.200	ND	123	70-130	1.13	30	
o-Xylene	0.105	0.0050	"	0.100	ND	105	70-130	0.286	30	
Surrogate: 1,2-Dichloroethane-d4	0.0383		"	0.0400		95.8	23-173			
Surrogate: Toluene-d8	0.0386		"	0.0400		96.4	20-170			
Surrogate: 4-Bromofluorobenzene	0.0401		"	0.0400		100	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 02/28/19 08:04

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source Result	%REC		RPD		Notes
		Limit	Units			Limits	RPD	Limit		

Batch 1902343 - EPA 3550A

Blank (1902343-BLK1)

Prepared & Analyzed: 02/27/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1902343-BS1)

Prepared & Analyzed: 02/27/19

C10-C28 (DRO) 423 50 mg/kg 500 84.6 70-130

Matrix Spike (1902343-MS1)

Source: 1902266-01

Prepared & Analyzed: 02/27/19

C10-C28 (DRO) 403 50 mg/kg 500 24.1 75.8 70-130

Matrix Spike Dup (1902343-MSD1)

Source: 1902266-01

Prepared & Analyzed: 02/27/19

C10-C28 (DRO) 401 50 mg/kg 500 24.1 75.4 70-130 0.407 20

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
02/28/19 08:04

Notes and Definitions

- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 01, 2019

Ken Worthington

Apex Companies

176 Cole Blvd. Suite 250

Lakewood, CO 80101

RE: Noble - Bierig 1-26

Enclosed are the results of analyses for samples received by Summit Scientific on 02/28/19 15:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'P. Shrewsbury', written in a cursive style.

Paul Shrewsbury

President



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/01/19 15:44

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S01@7'	1902276-01	Soil	02/28/19 12:30	02/28/19 15:55
S01@14'	1902276-02	Soil	02/28/19 12:33	02/28/19 15:55
S02@11'	1902276-03	Soil	02/28/19 13:30	02/28/19 15:55
B11@15'	1902276-04	Soil	02/28/19 13:45	02/28/19 15:55
W02@7'	1902276-05	Soil	02/28/19 13:50	02/28/19 15:55
W02@14'	1902276-06	Soil	02/28/19 13:52	02/28/19 15:55
B12@15'	1902276-07	Soil	02/28/19 14:04	02/28/19 15:55
W03@7'	1902276-08	Soil	02/28/19 14:08	02/28/19 15:55
W03@14'	1902276-09	Soil	02/28/19 14:10	02/28/19 15:55
S03@7'	1902276-10	Soil	02/28/19 14:18	02/28/19 15:55
S03@14'	1902276-11	Soil	02/28/19 14:20	02/28/19 15:55

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

1902276

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 2

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax: _____
Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexcos.com
Project Name: Bierig 1-26
Project No.: WO#: 247039 RC# 815902161 Noble Contact: Harold Arnold

Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:						Special Instructions			
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	GBTEX + Naphth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD					
S01@7'	2/28/19	1230	1			✓		✓				✓	✓							Call Ken Worthington with questions
S01@14'		1233	1			✓		✓				✓	✓							
S02@11'		1330	1			✓		✓				✓	✓							
B11@15'		1345	1			✓		✓				✓	✓							
W02@7'		1350	1			✓		✓				✓	✓							
W02@14'		1352	1			✓		✓				✓	✓							
B12@15'		1404	1			✓		✓				✓	✓							
W03@7'		1408	1			✓		✓				✓	✓							
W03@14'		1410	1			✓		✓				✓	✓							
S03@7'	✓	1418	1			✓		✓				✓	✓							
Relinquished by: <u>[Signature]</u> Date/Time: <u>2/28/19 1555</u>			Received by: <u>[Signature]</u> Date/Time: <u>2.28.19 1555</u>			Turn Around Time (Check)						Notes								
Relinquished by: _____ Date/Time: _____			Received by: _____ Date/Time: _____			Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/>						Circle applicable regulatory agency:								
Relinquished by: _____ Date/Time: _____			Received in Lab by: _____ Date/Time: _____			24 Hours <input type="checkbox"/> Standard <input type="checkbox"/>						<u>COGCC</u> /CDPHE								
Relinquished by: _____ Date/Time: _____			Received in Lab by: _____ Date/Time: _____			48 Hours <input type="checkbox"/>						Client Name: Bill to Noble Energy								
Relinquished by: _____ Date/Time: _____			Received in Lab by: _____ Date/Time: _____			Sample Integrity: Temperature Upon Receipt: <u>10.8</u>														
Relinquished by: _____ Date/Time: _____			Received in Lab by: _____ Date/Time: _____			Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														

Summit Scientific

1902276

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 2 of 2

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax:
Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexcos.com
Project Name: Bierig 1-26
Project No.: WO#: 247039 RC# 815902161 Noble Contact: ~~Harold Arnold~~
Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:						Special Instructions		
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	GBTEX + Naphth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD				
S03@14'	2/28/19	1420	1			✓			✓										Call Ken Worthington with questions
Relinquished by: <u>Caitlin Thomas</u>	Date/Time: <u>2/28/19 1555</u>	Received by: <u>[Signature]</u>	Date/Time: <u>2.28.19 1555</u>	Turn Around Time (Check)				Notes											
				Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/>				Circle applicable regulatory agency:											
				24 Hours <input type="checkbox"/> Standard <input type="checkbox"/>				<u>COGCC</u> /CDPHE											
				48 Hours <input type="checkbox"/>				Client Name: Bill to											
Relinquished by:	Date/Time:	Received in Lab by:	Date/Time:	Sample Integrity:				Noble Energy											
				Temperature Upon Receipt: <u>10.8</u>															
				Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>															

Sample Receipt Checklist

S2 Work Order 1902276

Client: APEX/COACC Client Project ID: Breng 1-26

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other H.D. Airbill #: _____

Matrix (check all that apply): Air Soil/Solid Water Other: _____
(Describe)

Temp (°C)	10.2
-----------	------

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	✓			
Were all samples received intact ⁽¹⁾ ?	✓			
Was adequate sample volume provided ⁽¹⁾ ?	✓			
If custody seals are present, are they intact ⁽¹⁾ ?			✓	
Are samples with holding times due within 48 hours sample due within 48 hours present?			✓	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	✓			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	✓			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	✓			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	✓			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			✓	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			✓	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any): 				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

CP
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

2-28-19 FBK
Date/Time



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/01/19 15:44

S01@7'
1902276-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/28/19 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	0.011	0.0020		mg/kg	1	1902361	02/28/19	02/28/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	0.043	0.0050		"	"	"	"	"	"	
Xylenes (total)	0.36	0.010		"	"	"	"	"	"	
Naphthalene	0.015	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **02/28/19 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		92.9 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		90.1 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		146 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/28/19 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	1902363	02/28/19	02/28/19	EPA 8015M	

Date Sampled: **02/28/19 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		112 %		30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/01/19 15:44

S01@14'
1902276-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/28/19 12:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.16	0.0020	mg/kg	1	1902361	02/28/19	02/28/19	EPA 8260B	
Toluene	0.0076	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.24	0.0050	"	"	"	"	"	"	
Xylenes (total)	2.2	0.010	"	"	"	"	"	"	
Naphthalene	0.039	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	92	50	"	"	"	"	"	"	

Date Sampled: **02/28/19 12:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		115 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		90.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		192 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/28/19 12:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1902363	02/28/19	02/28/19	EPA 8015M	

Date Sampled: **02/28/19 12:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		111 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/01/19 15:44

S02@11'
1902276-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/28/19 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.031	0.0020	mg/kg	1	1902361	02/28/19	02/28/19	EPA 8260B	
Toluene	0.0050	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.11	0.0050	"	"	"	"	"	"	
Xylenes (total)	1.2	0.010	"	"	"	"	"	"	
Naphthalene	0.030	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/28/19 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		90.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		145 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/28/19 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1902363	02/28/19	02/28/19	EPA 8015M	

Date Sampled: **02/28/19 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		102 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/01/19 15:44

B11@15'
1902276-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/28/19 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.048	0.0020	mg/kg	1	1902361	02/28/19	02/28/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/28/19 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		88.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/28/19 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1902363	02/28/19	02/28/19	EPA 8015M	

Date Sampled: **02/28/19 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		103 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/01/19 15:44

W02@7'
1902276-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/28/19 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.014	0.0020	mg/kg	1	1902361	02/28/19	02/28/19	EPA 8260B	
Toluene	0.0077	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.070	0.0050	"	"	"	"	"	"	
Xylenes (total)	1.1	0.010	"	"	"	"	"	"	
Naphthalene	0.035	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/28/19 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		90.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		153 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/28/19 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1902363	02/28/19	02/28/19	EPA 8015M	

Date Sampled: **02/28/19 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		102 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/01/19 15:44

W02@14'
1902276-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/28/19 13:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.30	0.0020	mg/kg	1	1902361	02/28/19	03/01/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	3.4	0.50	"	100	"	"	"	"	
Xylenes (total)	36	1.0	"	"	"	"	"	"	
Naphthalene	0.20	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	1500	50	"	100	"	"	"	"	

Date Sampled: **02/28/19 13:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		141 %	23-173	"	"	"	"	"	
Surrogate: Toluene-d8		87.2 %	20-170	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		126 %	21-167	"	"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/28/19 13:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	190	50	mg/kg	1	1902363	02/28/19	02/28/19	EPA 8015M	

Date Sampled: **02/28/19 13:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		104 %	30-150	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/01/19 15:44

B12@15'
1902276-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/28/19 14:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.080	0.0020	mg/kg	1	1902361	02/28/19	02/28/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/28/19 14:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		86.7 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.0 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		98.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/28/19 14:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1902363	02/28/19	02/28/19	EPA 8015M	

Date Sampled: **02/28/19 14:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		100 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/01/19 15:44

W03@7'
1902276-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/28/19 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	1.7	0.20	mg/kg	100	1902361	02/28/19	03/01/19	EPA 8260B	
Toluene	0.035	0.0050	"	1	"	"	"	"	
Ethylbenzene	3.5	0.50	"	100	"	"	"	"	
Xylenes (total)	39	1.0	"	"	"	"	"	"	
Naphthalene	0.40	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	1600	50	"	100	"	"	"	"	

Date Sampled: **02/28/19 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		89.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		126 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/28/19 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	190	50	mg/kg	1	1902363	02/28/19	02/28/19	EPA 8015M	

Date Sampled: **02/28/19 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		108 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/01/19 15:44

W03@14'
1902276-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/28/19 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	2.0	0.020	mg/kg	10	1902361	02/28/19	03/01/19	EPA 8260B	
Toluene	ND	0.0050	"	1	"	"	"	"	
Ethylbenzene	3.0	0.050	"	10	"	"	"	"	
Xylenes (total)	32	0.10	"	"	"	"	"	"	E
Naphthalene	0.17	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	790	50	"	10	"	"	"	"	

Date Sampled: **02/28/19 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173	"	"	"	"	"	
Surrogate: Toluene-d8		84.3 %	20-170	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		192 %	21-167	"	"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/28/19 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	190	50	mg/kg	1	1902363	02/28/19	02/28/19	EPA 8015M	

Date Sampled: **02/28/19 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		106 %	30-150	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/01/19 15:44

S03@7'
1902276-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/28/19 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.24	0.0020	mg/kg	1	1902361	02/28/19	03/01/19	EPA 8260B	
Toluene	0.067	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.68	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.24	0.010	"	"	"	"	"	"	
Naphthalene	0.25	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	910	50	"	100	"	"	"	"	

Date Sampled: **02/28/19 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		118 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		89.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		133 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/28/19 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	270	50	mg/kg	1	1902363	02/28/19	03/01/19	EPA 8015M	

Date Sampled: **02/28/19 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		112 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/01/19 15:44

S03@14'
1902276-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/28/19 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.26	0.0020	mg/kg	1	1902361	02/28/19	02/28/19	EPA 8260B	
Toluene	0.020	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.14	0.0050	"	"	"	"	"	"	
Xylenes (total)	2.4	0.010	"	"	"	"	"	"	
Naphthalene	0.077	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	82	50	"	"	"	"	"	"	

Date Sampled: **02/28/19 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		95.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		90.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		212 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/28/19 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	91	50	mg/kg	1	1902363	02/28/19	03/01/19	EPA 8015M	

Date Sampled: **02/28/19 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		107 %	30-150		"	"	"	"	

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/01/19 15:44

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1902361 - EPA 5030 Soil MS

Blank (1902361-BLK1)

Prepared: 02/28/19 Analyzed: 03/01/19

Benzene	ND	0.0020	mg/kg								
Toluene	ND	0.0050	"								
Ethylbenzene	ND	0.0050	"								
Xylenes (total)	ND	0.010	"								
Naphthalene	ND	0.010	"								
Gasoline Range Hydrocarbons	ND	50	"								
Surrogate: 1,2-Dichloroethane-d4	0.0395		"	0.0400		98.8	23-173				
Surrogate: Toluene-d8	0.0400		"	0.0400		100	20-170				
Surrogate: 4-Bromofluorobenzene	0.0383		"	0.0400		95.7	21-167				

LCS (1902361-BS1)

Prepared: 02/28/19 Analyzed: 03/01/19

Benzene	0.0975	0.0020	mg/kg	0.100		97.5	70-130				
Toluene	0.106	0.0050	"	0.100		106	70-130				
Ethylbenzene	0.108	0.0050	"	0.100		108	70-130				
m,p-Xylene	0.227	0.010	"	0.200		114	70-130				
o-Xylene	0.104	0.0050	"	0.100		104	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0383		"	0.0400		95.7	23-173				
Surrogate: Toluene-d8	0.0391		"	0.0400		97.7	20-170				
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.7	21-167				

Matrix Spike (1902361-MS1)

Source: 1902276-01

Prepared: 02/28/19 Analyzed: 03/01/19

Benzene	0.123	0.0020	mg/kg	0.100	0.0114	111	70-130				
Toluene	0.106	0.0050	"	0.100	ND	106	70-130				
Ethylbenzene	0.172	0.0050	"	0.100	0.0427	129	70-130				
m,p-Xylene	0.525	0.010	"	0.200	0.357	84.1	70-130				
o-Xylene	0.113	0.0050	"	0.100	0.00486	108	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0400		"	0.0400		100	23-173				
Surrogate: Toluene-d8	0.0376		"	0.0400		94.0	20-170				
Surrogate: 4-Bromofluorobenzene	0.0500		"	0.0400		125	21-167				

Summit Scientific

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Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/01/19 15:44

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1902361 - EPA 5030 Soil MS

Matrix Spike Dup (1902361-MSD1)

Source: 1902276-01

Prepared: 02/28/19 Analyzed: 03/01/19

Benzene	0.121	0.0020	mg/kg	0.100	0.0114	110	70-130	1.43	30
Toluene	0.110	0.0050	"	0.100	ND	110	70-130	3.05	30
Ethylbenzene	0.154	0.0050	"	0.100	0.0427	111	70-130	11.2	30
m,p-Xylene	0.499	0.010	"	0.200	0.357	70.9	70-130	5.14	30
o-Xylene	0.118	0.0050	"	0.100	0.00486	113	70-130	4.43	30
Surrogate: 1,2-Dichloroethane-d4	0.0418		"	0.0400		105	23-173		
Surrogate: Toluene-d8	0.0381		"	0.0400		95.2	20-170		
Surrogate: 4-Bromofluorobenzene	0.0490		"	0.0400		123	21-167		

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/01/19 15:44

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1902363 - EPA 3550A

Blank (1902363-BLK1)

Prepared: 02/28/19 Analyzed: 03/01/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1902363-BS1)

Prepared: 02/28/19 Analyzed: 03/01/19

C10-C28 (DRO) 417 50 mg/kg 500 83.4 70-130

Matrix Spike (1902363-MS1)

Source: 1902276-01

Prepared: 02/28/19 Analyzed: 03/01/19

C10-C28 (DRO) 439 50 mg/kg 500 43.0 79.2 70-130

Matrix Spike Dup (1902363-MSD1)

Source: 1902276-01

Prepared: 02/28/19 Analyzed: 03/01/19

C10-C28 (DRO) 448 50 mg/kg 500 43.0 81.1 70-130 2.09 20

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/01/19 15:44

Notes and Definitions

- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 04, 2019

Ken Worthington

Apex Companies

176 Cole Blvd. Suite 250

Lakewood, CO 80101

RE: Noble - Bierig 1-26

Enclosed are the results of analyses for samples received by Summit Scientific on 03/01/19 14:25. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', with a stylized, cursive script.

Paul Shrewsbury

President



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/04/19 06:26

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TP24@7'	1903001-01	Soil	03/01/19 10:42	03/01/19 14:25
TP24@14'	1903001-02	Soil	03/01/19 10:45	03/01/19 14:25
TP25@7'	1903001-03	Soil	03/01/19 10:55	03/01/19 14:25
TP25@14'	1903001-04	Soil	03/01/19 10:58	03/01/19 14:25
TP26@7'	1903001-05	Soil	03/01/19 11:25	03/01/19 14:25
TP26@14'	1903001-06	Soil	03/01/19 11:27	03/01/19 14:25
E01@14'	1903001-07	Soil	03/01/19 12:15	03/01/19 14:25
B13@15'	1903001-08	Soil	03/01/19 12:19	03/01/19 14:25
S04@7'	1903001-09	Soil	03/01/19 12:22	03/01/19 14:25
S04@14'	1903001-10	Soil	03/01/19 12:25	03/01/19 14:25

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

1903001

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 1

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax:
Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexcos.com
Project Name: Bierig 1-26
Project No.: WO#: 247039 RC# 815902161
Noble Contact: ~~Mark Arnold~~
Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix		Air - Canister Serial #	Other (Specify)	Analyze For:						Special Instructions	
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil			GBTEX + Naphth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD				
TP24@7'	3/1/19	1042	1			✓					✓	✓							Call Ken Worthington with questions
TP24@14'		1045	1			✓					✓	✓							*need results Monday morning
TP25@7'		1055	1			✓					✓	✓							
TP25@14'		1058	1			✓					✓	✓							
TP26@7'		1125	1			✓					✓	✓							
TP26@14'		1127	1			✓					✓	✓							
E01@14'		1215	1			✓					✓	✓							
B13@15'		1219	1			✓					✓	✓							
S04@7'		1222	1			✓					✓	✓							
S04@14'		1225	1			✓					✓	✓							
Relinquished by: <u>Caitlin Thomas</u>		Date/Time: 3/1/19 1425	Received by: <u>[Signature]</u>		Date/Time: 3.1.19 1425	Turn Around Time (Check)			Notes										
						Same Day	<input checked="" type="checkbox"/>	72 Hours	<input type="checkbox"/>	Circle applicable regulatory agency:									
						24 Hours	<input type="checkbox"/>	Standard	<input type="checkbox"/>	COGCC/CDPHE									
						48 Hours	<input type="checkbox"/>		<input type="checkbox"/>	Client Name: Bill to Noble Energy									
Relinquished by:		Date/Time:	Received in Lab by:		Date/Time:	Sample Integrity:													
						Temperature Upon Receipt: 12.9													
						Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>													

Sample Receipt Checklist

S2 Work Order 1903001

Client: APEX/COGCC Client Project ID: Berry 1-26

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other H.D. Airbill #: _____

Matrix (check all that apply): Air Soil/Solid Water Other: _____
(Describe)

Temp (°C)	12.9
-----------	------

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	/			
Were all samples received intact ⁽¹⁾ ?	/			
Was adequate sample volume provided ⁽¹⁾ ?	/			
If custody seals are present, are they intact ⁽¹⁾ ?			/	
Are samples with holding times due within 48 hours sample due within 48 hours present?			/	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	/			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	/			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	/			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	/			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			/	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			/	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			/	
If dissolved metals are requested, were samples field filtered?			/	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

UP
Custodian Printed Name or Initials


Signature of Custodian

3.1.19 1704
Date/Time



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/04/19 06:26

TP24@7'
1903001-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/01/19 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0056	0.0020	mg/kg	1	1903023	03/01/19	03/02/19	EPA 8260B	
Toluene	0.0062	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.031	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.90	0.010	"	"	"	"	"	"	
Naphthalene	0.028	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/01/19 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		124 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/01/19 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903024	03/01/19	03/01/19	EPA 8015M	

Date Sampled: **03/01/19 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		101 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/04/19 06:26

TP24@14'
1903001-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/01/19 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.016	0.0020	mg/kg	1	1903023	03/01/19	03/02/19	EPA 8260B	
Toluene	0.019	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.12	0.0050	"	"	"	"	"	"	
Xylenes (total)	3.2	0.10	"	10	"	"	"	"	
Naphthalene	0.056	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/01/19 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		95.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		142 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/01/19 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903024	03/01/19	03/01/19	EPA 8015M	

Date Sampled: **03/01/19 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		99.1 %	30-150		"	"	"	"	

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/04/19 06:26

TP25@7'
1903001-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/01/19 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.065	0.0020	mg/kg	1	1903023	03/01/19	03/02/19	EPA 8260B	
Toluene	0.012	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.21	0.0050	"	"	"	"	"	"	
Xylenes (total)	3.0	0.10	"	10	"	"	"	"	
Naphthalene	0.062	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/01/19 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		95.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		155 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/01/19 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	62	50	mg/kg	1	1903024	03/01/19	03/02/19	EPA 8015M	

Date Sampled: **03/01/19 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		102 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/04/19 06:26

TP25@14'
1903001-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/01/19 10:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.037	0.0020	mg/kg	1	1903023	03/01/19	03/02/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.087	0.0050	"	"	"	"	"	"	
Xylenes (total)	1.2	0.010	"	"	"	"	"	"	
Naphthalene	0.054	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/01/19 10:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		95.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		129 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/01/19 10:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	60	50	mg/kg	1	1903024	03/01/19	03/02/19	EPA 8015M	

Date Sampled: **03/01/19 10:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		101 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/04/19 06:26

TP26@7'
1903001-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/01/19 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.060	0.020	mg/kg	10	1903023	03/01/19	03/02/19	EPA 8260B	
Toluene	0.11	0.050	"	"	"	"	"	"	
Ethylbenzene	0.14	0.050	"	"	"	"	"	"	
Xylenes (total)	17	1.0	"	100	"	"	"	"	
Naphthalene	0.23	0.10	"	10	"	"	"	"	
Gasoline Range Hydrocarbons	170	50	"	1	"	"	"	"	

Date Sampled: **03/01/19 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		95.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		134 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/01/19 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	600	50	mg/kg	1	1903024	03/01/19	03/02/19	EPA 8015M	

Date Sampled: **03/01/19 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		125 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/04/19 06:26

TP26@14'
1903001-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/01/19 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.31	0.020	mg/kg	10	1903023	03/01/19	03/02/19	EPA 8260B	
Toluene	0.026	0.0050	"	1	"	"	"	"	
Ethylbenzene	0.63	0.050	"	10	"	"	"	"	
Xylenes (total)	11	0.10	"	"	"	"	"	"	
Naphthalene	0.23	0.10	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	110	50	"	1	"	"	"	"	

Date Sampled: **03/01/19 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		117 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/01/19 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903024	03/01/19	03/02/19	EPA 8015M	

Date Sampled: **03/01/19 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		103 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/04/19 06:26

E01@14'
1903001-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/01/19 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.028	0.0020	mg/kg	1	1903023	03/01/19	03/02/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.50	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.18	0.010	"	"	"	"	"	"	
Naphthalene	0.11	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/01/19 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		111 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/01/19 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903024	03/01/19	03/02/19	EPA 8015M	

Date Sampled: **03/01/19 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		93.5 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/04/19 06:26

B13@15'
1903001-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/01/19 12:19**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903023	03/01/19	03/02/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/01/19 12:19**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		99.9 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.1 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/01/19 12:19**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903024	03/01/19	03/02/19	EPA 8015M	

Date Sampled: **03/01/19 12:19**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		104 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/04/19 06:26

S04@7'
1903001-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/01/19 12:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0031	0.0020	mg/kg	1	1903023	03/01/19	03/02/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.64	0.050	"	10	"	"	"	"	
Xylenes (total)	9.2	0.10	"	"	"	"	"	"	
Naphthalene	0.44	0.10	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	85	50	"	1	"	"	"	"	

Date Sampled: **03/01/19 12:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		94.9 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		148 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/01/19 12:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	560	50	mg/kg	1	1903024	03/01/19	03/02/19	EPA 8015M	

Date Sampled: **03/01/19 12:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		105 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/04/19 06:26

S04@14'
1903001-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/01/19 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0057	0.0020	mg/kg	1	1903023	03/01/19	03/02/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.68	0.050	"	10	"	"	"	"	
Xylenes (total)	9.6	0.10	"	"	"	"	"	"	
Naphthalene	0.24	0.10	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	1	"	"	"	"	

Date Sampled: **03/01/19 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		117 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/01/19 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	91	50	mg/kg	1	1903024	03/01/19	03/02/19	EPA 8015M	

Date Sampled: **03/01/19 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		121 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/04/19 06:26

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1903023 - EPA 5030 Soil MS

Blank (1903023-BLK1)

Prepared: 03/01/19 Analyzed: 03/02/19

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0392		"	0.0400		97.9	23-173			
Surrogate: Toluene-d8	0.0393		"	0.0400		98.2	20-170			
Surrogate: 4-Bromofluorobenzene	0.0397		"	0.0400		99.3	21-167			

LCS (1903023-BS1)

Prepared: 03/01/19 Analyzed: 03/02/19

Benzene	0.0978	0.0020	mg/kg	0.100		97.8	70-130			
Toluene	0.104	0.0050	"	0.100		104	70-130			
Ethylbenzene	0.108	0.0050	"	0.100		108	70-130			
m,p-Xylene	0.228	0.010	"	0.200		114	70-130			
o-Xylene	0.104	0.0050	"	0.100		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0387		"	0.0400		96.7	23-173			
Surrogate: Toluene-d8	0.0389		"	0.0400		97.3	20-170			
Surrogate: 4-Bromofluorobenzene	0.0404		"	0.0400		101	21-167			

Matrix Spike (1903023-MS1)

Source: 1903001-01

Prepared: 03/01/19 Analyzed: 03/02/19

Benzene	0.0998	0.0020	mg/kg	0.100	0.00564	94.2	70-130			
Toluene	0.103	0.0050	"	0.100	0.00618	96.7	70-130			
Ethylbenzene	0.106	0.0050	"	0.100	0.0314	74.2	70-130			
m,p-Xylene	0.213	0.010	"	0.200	0.723	NR	70-130			QM-07
o-Xylene	0.134	0.0050	"	0.100	0.175	NR	70-130			QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0404		"	0.0400		101	23-173			
Surrogate: Toluene-d8	0.0372		"	0.0400		93.1	20-170			
Surrogate: 4-Bromofluorobenzene	0.0506		"	0.0400		127	21-167			

Summit Scientific

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Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/04/19 06:26

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1903023 - EPA 5030 Soil MS

Matrix Spike Dup (1903023-MSD1)	Source: 1903001-01			Prepared: 03/01/19 Analyzed: 03/02/19							
Benzene	0.0992	0.0020	mg/kg	0.100	0.00564	93.6	70-130	0.633	30		
Toluene	0.101	0.0050	"	0.100	0.00618	95.2	70-130	1.44	30		
Ethylbenzene	0.106	0.0050	"	0.100	0.0314	74.6	70-130	0.397	30		
m,p-Xylene	0.217	0.010	"	0.200	0.723	NR	70-130	1.78	30		QM-07
o-Xylene	0.267	0.0050	"	0.100	0.175	92.7	70-130	66.4	30		QM-07
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0410</i>		<i>"</i>	<i>0.0400</i>		<i>102</i>	<i>23-173</i>				
<i>Surrogate: Toluene-d8</i>	<i>0.0370</i>		<i>"</i>	<i>0.0400</i>		<i>92.4</i>	<i>20-170</i>				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0500</i>		<i>"</i>	<i>0.0400</i>		<i>125</i>	<i>21-167</i>				

Summit Scientific

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Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/04/19 06:26

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1903024 - EPA 3550A

Blank (1903024-BLK1)

Prepared & Analyzed: 03/01/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1903024-BS1)

Prepared & Analyzed: 03/01/19

C10-C28 (DRO) 432 50 mg/kg 500 86.5 70-130

Matrix Spike (1903024-MS1)

Source: 1903001-01

Prepared & Analyzed: 03/01/19

C10-C28 (DRO) 433 50 mg/kg 500 29.9 80.5 70-130

Matrix Spike Dup (1903024-MSD1)

Source: 1903001-01

Prepared & Analyzed: 03/01/19

C10-C28 (DRO) 449 50 mg/kg 500 29.9 83.9 70-130 3.81 20

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/04/19 06:26

Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 05, 2019

Ken Worthington

Apex Companies

176 Cole Blvd. Suite 250

Lakewood, CO 80101

RE: Noble - Bierig 1-26

Enclosed are the results of analyses for samples received by Summit Scientific on 03/04/19 17:37. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'P. Shrewsbury', written in a cursive style.

Paul Shrewsbury

President



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/05/19 07:36

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N01@8'	1903016-01	Soil	03/04/19 10:15	03/04/19 17:37
N01@11'	1903016-02	Soil	03/04/19 10:18	03/04/19 17:37
N01@14'	1903016-03	Soil	03/04/19 10:20	03/04/19 17:37
E06@8'	1903016-04	Soil	03/04/19 10:23	03/04/19 17:37
E06@11'	1903016-05	Soil	03/04/19 10:25	03/04/19 17:37
E06@14'	1903016-06	Soil	03/04/19 10:27	03/04/19 17:37
E05@8'	1903016-07	Soil	03/04/19 10:30	03/04/19 17:37
E05@11'	1903016-08	Soil	03/04/19 10:33	03/04/19 17:37
E05@14'	1903016-09	Soil	03/04/19 10:35	03/04/19 17:37
B14@15'	1903016-10	Soil	03/04/19 10:38	03/04/19 17:37
B15@15'	1903016-11	Soil	03/04/19 10:40	03/04/19 17:37
N02@8'	1903016-12	Soil	03/04/19 13:24	03/04/19 17:37
N02@11'	1903016-13	Soil	03/04/19 13:26	03/04/19 17:37
N02@14'	1903016-14	Soil	03/04/19 13:29	03/04/19 17:37
B17@15'	1903016-15	Soil	03/04/19 13:32	03/04/19 17:37
B16@15'	1903016-16	Soil	03/04/19 13:35	03/04/19 17:37
B18@15'	1903016-17	Soil	03/04/19 14:50	03/04/19 17:37
B19@15'	1903016-18	Soil	03/04/19 14:53	03/04/19 17:37
N03@8'	1903016-19	Soil	03/04/19 14:56	03/04/19 17:37
N03@11'	1903016-20	Soil	03/04/19 14:58	03/04/19 17:37
N03@14'	1903016-21	Soil	03/04/19 15:00	03/04/19 17:37

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

1903016.1

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 3

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax:
Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexcos.com
Project Name: Bierig 1-26
Project No.: WO#: 247039 RC# 815902161 Noble Contact: ~~Ken Worthington~~
Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix		Air - Canister Serial #	Other (Specify)	Analyze For:						Special Instructions	
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil			GBTEX + Napth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD				
N01@8'	3/34/19	1015	1			✓					✓	✓							Call Ken Worthington with questions
N01@11'		1018	1			✓					✓	✓							
N01@14'		1020	1			✓					✓	✓							
E06@8'		1023	1			✓					✓	✓							
E06@11'		1025	1			✓					✓	✓							
E06@14'		1027	1			✓					✓	✓							
E05@8'		1030	1			✓					✓	✓							
E05@11'		1033	1			✓					✓	✓							
E05@14'		1035	1			✓					✓	✓							
B14@15'	✓	1038	1			✓					✓	✓							
Relinquished by: <u>Caitlin Thomas</u>		Date/Time: <u>3/14/19</u>	Received by: <u>[Signature]</u>		Date/Time: <u>3.4.19</u>	Turn Around Time (Check)			Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>						Notes				
Relinquished by:		Date/Time:	Received by:		Date/Time:	Sample Integrity:			Temperature Upon Receipt: <u>10.6</u> Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						Circle applicable regulatory agency: <u>COGCC</u> /CDPHE Client Name: Bill to Noble Energy				

1903016.2

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 2 of 3

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax:
Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexcos.com
Project Name: Bierig 1-26
Project No.: WO#: 247039 RC# 815902161 Noble Contact: Mark [unclear]

Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix		Air - Canister Serial #	Other (Specify)	Analyze For:						Special Instructions
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil			GBTEX + Naphth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD			
B15@15'	3/4/19	1040	1			✓					✓	✓						Call Ken Worthington with questions
N02@8'		1324	1			✓					✓	✓						
N02@11'		1326	1			✓					✓	✓						
N02@14'		1329	1			✓					✓	✓						
B17@15'		1332	1			✓					✓	✓						
B16@15'		1335	1			✓					✓	✓						
B18@15'		1450	1			✓					✓	✓						
B19@15'		1453	1			✓					✓	✓						
N03@8'		1456	1			✓					✓	✓						
N03@11'		1458	1			✓					✓	✓						
Relinquished by: <u>[Signature]</u> 3/4/19			Date/Time: <u>1625</u>	Received by: <u>[Signature]</u>			Date/Time: <u>3.4.19 1625</u>	Turn Around Time (Check)						Notes Circle applicable regulatory agency: COGCC/CDPHE Client Name: <u>Bill to Noble Energy</u>				
Relinquished by:			Date/Time:	Received by:			Date/Time:	Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>										
Relinquished by:			Date/Time:	Received in Lab by:			Date/Time:	Sample Integrity: Temperature Upon Receipt: <u>10-6</u> Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>										

1903016.3

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 3 of 3

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax:
Sampler Name: Carlin Thomas

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexc.com
Project Name: Bierig-26
Project No.: WO#: 247039 RC# 815902161 Noble Contact: ~~Harold Kopp~~
Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:						Special Instructions			
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	GBTEX + Naph by 8260C	DRO by 8015C	pH, EC, SAR	HOLD					
N03014	3/4/19	1500	1			✓			✓			✓	✓							Call Ken Worthington with questions
Relinquished by: <u>Carlin Thomas</u> 3/4/19		Date/Time: 1625	Received by: <u>[Signature]</u>		Date/Time: 3.4.19 1625	Turn-Around Time (Check)			Notes											
Relinquished by:		Date/Time:	Received by:		Date/Time:	Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/>			Circle applicable regulatory agency:											
Relinquished by:		Date/Time:	Received in Lab by:		Date/Time:	24 Hours <input type="checkbox"/>			COGCC/CDPHE											
Relinquished by:		Date/Time:	Received in Lab by:		Date/Time:	48 Hours <input type="checkbox"/>			Client Name: Bill to Noble Energy											
Relinquished by:		Date/Time:	Received in Lab by:		Date/Time:	Sample Integrity:			Temperature Upon Receipt: <u>10.6</u>											
Relinquished by:		Date/Time:	Received in Lab by:		Date/Time:	Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														

Sample Receipt Checklist

S2 Work Order 1903016

Client: APEX/COGCC Client Project ID: Bierig 1-26

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other H.D. Airbill #: _____

Matrix (check all that apply): Air Soil/Solid Water Other: _____
(Describe)

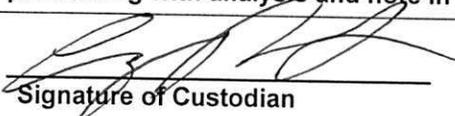
Temp (°C)	10.6
-----------	------

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	/			
Were all samples received intact ⁽¹⁾ ?	/			
Was adequate sample volume provided ⁽¹⁾ ?	/			
If custody seals are present, are they intact ⁽¹⁾ ?			/	
Are samples with holding times due within 48 hours sample due within 48 hours present?			/	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	/			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	/			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	/			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	/			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			/	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			/	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			/	
If dissolved metals are requested, were samples field filtered?			/	
Additional Comments (if any):				

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

CP
Custodian Printed Name or Initials


Signature of Custodian

2.4.19 1700
Date/Time



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/05/19 07:36

N01@8'
1903016-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/04/19 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1903041	03/04/19	03/04/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Naphthalene	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **03/04/19 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		103 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		98.0 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/04/19 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	1903042	03/04/19	03/04/19	EPA 8015M	

Date Sampled: **03/04/19 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		105 %		30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/05/19 07:36

N01@11'
1903016-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/04/19 10:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903041	03/04/19	03/04/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/04/19 10:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		99.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/04/19 10:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903042	03/04/19	03/04/19	EPA 8015M	

Date Sampled: **03/04/19 10:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		106 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/05/19 07:36

N01@14'
1903016-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/04/19 10:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903041	03/04/19	03/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/04/19 10:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		81.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		95.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		162 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/04/19 10:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903042	03/04/19	03/04/19	EPA 8015M	

Date Sampled: **03/04/19 10:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		110 %	30-150		"	"	"	"	

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/05/19 07:36

E06@8'
1903016-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/04/19 10:23**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903041	03/04/19	03/04/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/04/19 10:23**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		100 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/04/19 10:23**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903042	03/04/19	03/04/19	EPA 8015M	

Date Sampled: **03/04/19 10:23**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		99.3 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/05/19 07:36

E06@11'
1903016-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/04/19 10:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903041	03/04/19	03/04/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/04/19 10:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/04/19 10:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903042	03/04/19	03/04/19	EPA 8015M	

Date Sampled: **03/04/19 10:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		106 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/05/19 07:36

E06@14'
1903016-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/04/19 10:27**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1903041	03/04/19	03/05/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	0.027	0.0050		"	"	"	"	"	"	
Xylenes (total)	0.44	0.010		"	"	"	"	"	"	
Naphthalene	0.011	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **03/04/19 10:27**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		103 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		96.7 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		123 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/04/19 10:27**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	1903042	03/04/19	03/04/19	EPA 8015M	

Date Sampled: **03/04/19 10:27**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		114 %		30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/05/19 07:36

E05@8'
1903016-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/04/19 10:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903041	03/04/19	03/04/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/04/19 10:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		103 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.7 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/04/19 10:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903042	03/04/19	03/04/19	EPA 8015M	

Date Sampled: **03/04/19 10:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		114 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/05/19 07:36

E05@11'
1903016-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/04/19 10:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903041	03/04/19	03/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/04/19 10:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		135 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/04/19 10:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	58	50	mg/kg	1	1903042	03/04/19	03/04/19	EPA 8015M	

Date Sampled: **03/04/19 10:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		105 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/05/19 07:36

E05@14'
1903016-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/04/19 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903041	03/04/19	03/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.036	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.53	0.010	"	"	"	"	"	"	
Naphthalene	0.055	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	51	50	"	"	"	"	"	"	

Date Sampled: **03/04/19 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		95.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		148 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/04/19 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	64	50	mg/kg	1	1903042	03/04/19	03/05/19	EPA 8015M	

Date Sampled: **03/04/19 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		106 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/05/19 07:36

B14@15'
1903016-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/04/19 10:38**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903041	03/04/19	03/04/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/04/19 10:38**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/04/19 10:38**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903042	03/04/19	03/05/19	EPA 8015M	

Date Sampled: **03/04/19 10:38**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		104 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/05/19 07:36

B15@15'
1903016-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/04/19 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903041	03/04/19	03/04/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/04/19 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/04/19 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903042	03/04/19	03/04/19	EPA 8015M	

Date Sampled: **03/04/19 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		103 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/05/19 07:36

N02@8'
1903016-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/04/19 13:24**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903041	03/04/19	03/04/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/04/19 13:24**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		103 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.3 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/04/19 13:24**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903042	03/04/19	03/04/19	EPA 8015M	

Date Sampled: **03/04/19 13:24**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		104 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/05/19 07:36

N02@11'
1903016-13 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/04/19 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903041	03/04/19	03/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.0052	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.047	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	620	50	"	100	"	"	"	"	

Date Sampled: **03/04/19 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		94.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		132 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/04/19 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	130	50	mg/kg	1	1903042	03/04/19	03/04/19	EPA 8015M	

Date Sampled: **03/04/19 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		110 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/05/19 07:36

N02@14'
1903016-14 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/04/19 13:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0035	0.0020	mg/kg	1	1903041	03/04/19	03/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.59	0.0050	"	"	"	"	"	"	
Xylenes (total)	18	1.0	"	100	"	"	"	"	
Naphthalene	0.16	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	1900	50	"	100	"	"	"	"	

Date Sampled: **03/04/19 13:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		90.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		95.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		141 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/04/19 13:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	320	50	mg/kg	1	1903042	03/04/19	03/04/19	EPA 8015M	

Date Sampled: **03/04/19 13:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		112 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/05/19 07:36

B17@15'
1903016-15 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/04/19 13:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903041	03/04/19	03/04/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/04/19 13:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		99.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/04/19 13:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903042	03/04/19	03/04/19	EPA 8015M	

Date Sampled: **03/04/19 13:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		99.9 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/05/19 07:36

B16@15'
1903016-16 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/04/19 13:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903041	03/04/19	03/04/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/04/19 13:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		103 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/04/19 13:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903042	03/04/19	03/04/19	EPA 8015M	

Date Sampled: **03/04/19 13:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		111 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/05/19 07:36

B18@15'
1903016-17 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/04/19 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903041	03/04/19	03/04/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/04/19 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/04/19 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903042	03/04/19	03/04/19	EPA 8015M	

Date Sampled: **03/04/19 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		111 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/05/19 07:36

B19@15'
1903016-18 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/04/19 14:53**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903041	03/04/19	03/04/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/04/19 14:53**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/04/19 14:53**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903042	03/04/19	03/04/19	EPA 8015M	

Date Sampled: **03/04/19 14:53**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		109 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/05/19 07:36

N03@8'
1903016-19 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/04/19 14:56**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903041	03/04/19	03/04/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.042	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/04/19 14:56**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/04/19 14:56**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903042	03/04/19	03/04/19	EPA 8015M	

Date Sampled: **03/04/19 14:56**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		108 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/05/19 07:36

N03@11'
1903016-20 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/04/19 14:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903041	03/04/19	03/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.016	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.064	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	71	50	"	"	"	"	"	"	

Date Sampled: **03/04/19 14:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		84.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		122 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/04/19 14:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	87	50	mg/kg	1	1903042	03/04/19	03/04/19	EPA 8015M	

Date Sampled: **03/04/19 14:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		111 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/05/19 07:36

N03@14'
1903016-21 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/04/19 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903041	03/04/19	03/05/19	EPA 8260B	
Toluene	0.022	0.0050	"	"	"	"	"	"	
Ethylbenzene	2.4	0.50	"	100	"	"	"	"	
Xylenes (total)	44	1.0	"	"	"	"	"	"	
Naphthalene	0.049	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	3100	50	"	100	"	"	"	"	

Date Sampled: **03/04/19 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		103 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		95.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		149 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/04/19 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	550	50	mg/kg	1	1903042	03/04/19	03/04/19	EPA 8015M	

Date Sampled: **03/04/19 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		134 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/05/19 07:36

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1903041 - EPA 5030 Soil MS

Blank (1903041-BLK1)

Prepared: 03/04/19 Analyzed: 03/05/19

Benzene	ND	0.0020	mg/kg								
Toluene	ND	0.0050	"								
Ethylbenzene	ND	0.0050	"								
Xylenes (total)	ND	0.010	"								
Naphthalene	ND	0.010	"								
Gasoline Range Hydrocarbons	ND	50	"								
Surrogate: 1,2-Dichloroethane-d4	0.0393		"	0.0400		98.2	23-173				
Surrogate: Toluene-d8	0.0390		"	0.0400		97.6	20-170				
Surrogate: 4-Bromofluorobenzene	0.0402		"	0.0400		100	21-167				

LCS (1903041-BS1)

Prepared: 03/04/19 Analyzed: 03/05/19

Benzene	0.0979	0.0020	mg/kg	0.100		97.9	70-130				
Toluene	0.103	0.0050	"	0.100		103	70-130				
Ethylbenzene	0.106	0.0050	"	0.100		106	70-130				
m,p-Xylene	0.221	0.010	"	0.200		110	70-130				
o-Xylene	0.102	0.0050	"	0.100		102	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0377		"	0.0400		94.2	23-173				
Surrogate: Toluene-d8	0.0393		"	0.0400		98.2	20-170				
Surrogate: 4-Bromofluorobenzene	0.0417		"	0.0400		104	21-167				

Matrix Spike (1903041-MS1)

Source: 1903016-01

Prepared: 03/04/19 Analyzed: 03/05/19

Benzene	0.0992	0.0020	mg/kg	0.100	ND	99.2	70-130				
Toluene	0.106	0.0050	"	0.100	ND	106	70-130				
Ethylbenzene	0.107	0.0050	"	0.100	ND	107	70-130				
m,p-Xylene	0.222	0.010	"	0.200	ND	111	70-130				
o-Xylene	0.101	0.0050	"	0.100	ND	101	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0407		"	0.0400		102	23-173				
Surrogate: Toluene-d8	0.0390		"	0.0400		97.6	20-170				
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.6	21-167				

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/05/19 07:36

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1903041 - EPA 5030 Soil MS

Matrix Spike Dup (1903041-MSD1)

Source: 1903016-01

Prepared: 03/04/19 Analyzed: 03/05/19

Benzene	0.0998	0.0020	mg/kg	0.100	ND	99.8	70-130	0.603	30	
Toluene	0.106	0.0050	"	0.100	ND	106	70-130	0.424	30	
Ethylbenzene	0.106	0.0050	"	0.100	ND	106	70-130	0.169	30	
m,p-Xylene	0.221	0.010	"	0.200	ND	111	70-130	0.244	30	
o-Xylene	0.103	0.0050	"	0.100	ND	103	70-130	1.55	30	
Surrogate: 1,2-Dichloroethane-d4	0.0409		"	0.0400		102	23-173			
Surrogate: Toluene-d8	0.0393		"	0.0400		98.2	20-170			
Surrogate: 4-Bromofluorobenzene	0.0395		"	0.0400		98.8	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/05/19 07:36

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source Result	%REC		RPD		Notes
		Limit	Units			Limits	RPD	Limit		

Batch 1903042 - EPA 3550A

Blank (1903042-BLK1)

Prepared & Analyzed: 03/04/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1903042-BS1)

Prepared & Analyzed: 03/04/19

C10-C28 (DRO) 466 50 mg/kg 500 93.2 70-130

Matrix Spike (1903042-MS1)

Source: 1903016-01

Prepared & Analyzed: 03/04/19

C10-C28 (DRO) 441 50 mg/kg 500 19.9 84.3 70-130

Matrix Spike Dup (1903042-MSD1)

Source: 1903016-01

Prepared & Analyzed: 03/04/19

C10-C28 (DRO) 431 50 mg/kg 500 19.9 82.1 70-130 2.50 20

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/05/19 07:36

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 06, 2019

Ken Worthington

Apex Companies

176 Cole Blvd. Suite 250

Lakewood, CO 80101

RE: Noble - Bierig 1-26

Enclosed are the results of analyses for samples received by Summit Scientific on 03/05/19 15:49. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', written in a cursive style.

Paul Shrewsbury

President



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/06/19 06:34

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B20@15'	1903020-01	Soil	03/05/19 09:30	03/05/19 15:49
B21@15'	1903020-02	Soil	03/05/19 09:33	03/05/19 15:49
N04@8'	1903020-03	Soil	03/05/19 09:35	03/05/19 15:49
N04@11'	1903020-04	Soil	03/05/19 09:37	03/05/19 15:49
N04@14'	1903020-05	Soil	03/05/19 09:40	03/05/19 15:49
B23@15'	1903020-06	Soil	03/05/19 11:50	03/05/19 15:49
B24@15'	1903020-07	Soil	03/05/19 11:53	03/05/19 15:49
N05@8'	1903020-08	Soil	03/05/19 11:56	03/05/19 15:49
N05@11'	1903020-09	Soil	03/05/19 11:58	03/05/19 15:49
N05@14'	1903020-10	Soil	03/05/19 12:00	03/05/19 15:49
B22@15'	1903020-11	Soil	03/05/19 12:30	03/05/19 15:49
S05@8'	1903020-12	Soil	03/05/19 12:32	03/05/19 15:49
S06@14'	1903020-15	Soil	03/05/19 12:40	03/05/19 15:49
S07@14'	1903020-17	Soil	03/05/19 12:45	03/05/19 15:49
TP27@8'	1903020-18	Soil	03/05/19 13:43	03/05/19 15:49
TP27@14'	1903020-19	Soil	03/05/19 13:45	03/05/19 15:49
TP12@10'	1903020-20	Soil	03/05/19 14:02	03/05/19 15:49
TP12@14'	1903020-21	Soil	03/05/19 14:05	03/05/19 15:49

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

1903020

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 3

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax: _____
Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexcos.com
Project Name: Bierig 1-26
Project No.: WO#: 247039 RC# 815902161 Noble Contact: ~~Ken Worthington~~
Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:						Special Instructions		
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	GBTEX + Naphth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD				
B20@15'	3/5/19	0930	1			✓		✓				✓	✓						Call Ken Worthington with questions
B21@15'		0933	1			✓		✓				✓	✓						
N04@8'		0935	1			✓		✓				✓	✓						
N04@11'		0937	1			✓		✓				✓	✓						
N04@14'		0940	1			✓		✓				✓	✓						
B23@15'		1150	1			✓		✓				✓	✓						
B24@15'		1153	1			✓		✓				✓	✓						
N05@8'		1156	1			✓		✓				✓	✓						
N05@11'		1158	1			✓		✓				✓	✓						
N05@14'	↓	1200	1			✓		✓				✓	✓						
Relinquished by: <u>Caitlin Thomas</u> Date/Time: <u>3/5/19 1549</u>				Received by: <u>[Signature]</u> Date/Time: <u>3.5.19 1549</u>				Turn Around Time (Check)						Notes					
Relinquished by: _____ Date/Time: _____				Received by: _____ Date/Time: _____				<input checked="" type="checkbox"/> Same Day <input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 72 Hours Standard						Circle applicable regulatory agency: <input checked="" type="checkbox"/> COGCC / <input type="checkbox"/> CDPHE					
Relinquished by: _____ Date/Time: _____				Received in Lab by: _____ Date/Time: _____				Sample Integrity: Temperature Upon Receipt: <u>7.4</u> Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						Client Name: Bill to Noble Energy					

1903020

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
 303-277-9310 ♦ 303-374-5933 Fax

Page 2 of 3

Client: APEX Companies, LLC
 Address: 1746 Cole Blvd. Suite 250
 City/State/Zip: Lakewood, Colorado 80401
 Phone: 303-487-1020 Fax:
 Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
 E-Mail: Ken.Worthington@apexcos.com
 Project Name: Bieria 1-26
 Project No.: WO#: 247039 RC# 815902161 Noble Contact: Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:						Special Instructions		
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	GBTEX + Napth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD				
B22@15'	3/5/19	1230	1			✓		✓				✓	✓						Call Ken Worthington with questions
S05@8'		1232	1			✓		✓				✓	✓						
S05@14'		1235	1			✓		✓						✓					
S06@8'		1237	1			✓		✓						✓					
S06@14'		1240	1			✓		✓				✓	✓						
S07@8'		1243	1			✓		✓						✓					
S07@14'		1245	1			✓		✓				✓	✓						
TP27@8'		1343	1			✓		✓				✓	✓						
TP27@14'		1345	1			✓		✓				✓	✓						
TP12@10'		1402	1			✓		✓				✓	✓						
Relinquished by: <u>Caitlin Thomas</u>		Date/Time: <u>3/5/19</u>	Date/Time: <u>1549</u>	Received by: <u>[Signature]</u>		Date/Time: <u>3.5.19</u>	Date/Time: <u>1549</u>	Turn Around Time (Check)			<input checked="" type="checkbox"/> Same Day <input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 72 Hours Standard <input type="checkbox"/>						Notes		
Relinquished by:		Date/Time:	Date/Time:	Received by:		Date/Time:	Date/Time:	Sample Integrity:			Temperature Upon Receipt: <u>7.4</u> Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						<input type="checkbox"/> Circle applicable regulatory agency: <input checked="" type="checkbox"/> COGCC/CDPHE Client Name: Bill to Noble Energy		

1903020

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 3 of 3

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax:
Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexcos.com
Project Name: Bierig 1-26
Project No.: WO#: 247039 RC# 815902161 Noble Contact: ~~David Bennett~~
Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:						Special Instructions		
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	GBTEX + Naphth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD				
TPI2@14'	3/5/19	1405	1			✓			✓			✓	✓						Call Ken Worthington with questions
Relinquished by: <u>Caitlin Thomas</u>		Date/Time: <u>3/5/19 1549</u>		Received by: <u>[Signature]</u>		Date/Time: <u>3.5.19 1549</u>		Turn Around Time (Check)						Notes					
Relinquished by:		Date/Time:		Received by:		Date/Time:		Same Day <input checked="" type="checkbox"/>		72 Hours <input type="checkbox"/>		Standard <input type="checkbox"/>		Circle applicable regulatory agency:					
Relinquished by:		Date/Time:		Received by:		Date/Time:		24 Hours <input type="checkbox"/>		48 Hours <input type="checkbox"/>		Sample Integrity:		COGCC/CDPHE					
Relinquished by:		Date/Time:		Received in Lab by:		Date/Time:		Temperature Upon Receipt: <u>7.4</u>		Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Client Name: Bill to Noble Energy							

Sample Receipt Checklist

S2 Work Order 1903020

Client: APEX/COGCC Client Project ID: Bieng 1-26

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other H-D Airbill #: _____

Matrix (check all that apply): Air Soil/Solid Water Other: _____
(Describe)

Temp (°C)	<u>7.4</u>
-----------	------------

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

UP
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

3.5.19 1644
Date/Time



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/06/19 06:34

B20@15'
1903020-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/05/19 09:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1903046	03/05/19	03/05/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Naphthalene	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **03/05/19 09:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		100 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		97.6 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.3 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/05/19 09:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	1903047	03/05/19	03/05/19	EPA 8015M	

Date Sampled: **03/05/19 09:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		114 %		30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/06/19 06:34

B21@15'
1903020-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/05/19 09:33**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903046	03/05/19	03/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/05/19 09:33**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		99.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.7 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/05/19 09:33**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903047	03/05/19	03/05/19	EPA 8015M	

Date Sampled: **03/05/19 09:33**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		108 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/06/19 06:34

N04@8'
1903020-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/05/19 09:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1903046	03/05/19	03/06/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	0.078	0.010		"	"	"	"	"	"	
Naphthalene	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **03/05/19 09:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		100 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		95.8 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/05/19 09:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	1903047	03/05/19	03/05/19	EPA 8015M	

Date Sampled: **03/05/19 09:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		113 %		30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/06/19 06:34

N04@11'
1903020-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/05/19 09:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903046	03/05/19	03/06/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	3.5	0.50	"	100	"	"	"	"	
Xylenes (total)	58	1.0	"	"	"	"	"	"	
Naphthalene	0.33	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	1900	50	"	100	"	"	"	"	

Date Sampled: **03/05/19 09:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		95.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		92.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		123 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/05/19 09:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	310	50	mg/kg	1	1903047	03/05/19	03/05/19	EPA 8015M	

Date Sampled: **03/05/19 09:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		110 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/06/19 06:34

N04@14'
1903020-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/05/19 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903046	03/05/19	03/06/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	1.5	0.050	"	10	"	"	"	"	
Xylenes (total)	24	0.10	"	"	"	"	"	"	E
Naphthalene	0.15	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	450	50	"	10	"	"	"	"	

Date Sampled: **03/05/19 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		120 %	23-173	"	"	"	"	"	
Surrogate: Toluene-d8		96.7 %	20-170	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		149 %	21-167	"	"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/05/19 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	250	50	mg/kg	1	1903047	03/05/19	03/05/19	EPA 8015M	

Date Sampled: **03/05/19 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		109 %	30-150	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/06/19 06:34

B23@15'
1903020-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/05/19 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1903046	03/05/19	03/05/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Naphthalene	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **03/05/19 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		99.8 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		96.9 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.4 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/05/19 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	1903047	03/05/19	03/05/19	EPA 8015M	

Date Sampled: **03/05/19 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		103 %		30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/06/19 06:34

B24@15'
1903020-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/05/19 11:53**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903046	03/05/19	03/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/05/19 11:53**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.7 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/05/19 11:53**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903047	03/05/19	03/05/19	EPA 8015M	

Date Sampled: **03/05/19 11:53**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		103 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/06/19 06:34

N05@8'
1903020-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/05/19 11:56**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903046	03/05/19	03/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/05/19 11:56**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		99.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.9 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/05/19 11:56**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903047	03/05/19	03/05/19	EPA 8015M	

Date Sampled: **03/05/19 11:56**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		108 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/06/19 06:34

N05@11'
1903020-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/05/19 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903046	03/05/19	03/06/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	3.9	0.050	"	10	"	"	"	"	
Xylenes (total)	48	0.10	"	"	"	"	"	"	E
Naphthalene	0.18	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	810	50	"	10	"	"	"	"	

Date Sampled: **03/05/19 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		168 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		92.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		212 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/05/19 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	68	50	mg/kg	1	1903047	03/05/19	03/05/19	EPA 8015M	

Date Sampled: **03/05/19 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		103 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/06/19 06:34

N05@14'
1903020-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/05/19 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903046	03/05/19	03/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.046	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/05/19 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		100 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/05/19 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903047	03/05/19	03/05/19	EPA 8015M	

Date Sampled: **03/05/19 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		102 %	30-150		"	"	"	"	

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/06/19 06:34

B22@15'
1903020-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/05/19 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903046	03/05/19	03/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/05/19 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/05/19 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903047	03/05/19	03/06/19	EPA 8015M	

Date Sampled: **03/05/19 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		104 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/06/19 06:34

S05@8'
1903020-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/05/19 12:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.027	0.0020	mg/kg	1	1903046	03/05/19	03/06/19	EPA 8260B	
Toluene	0.0084	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.17	0.0050	"	"	"	"	"	"	
Xylenes (total)	15	0.10	"	10	"	"	"	"	
Naphthalene	0.069	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	74	50	"	"	"	"	"	"	

Date Sampled: **03/05/19 12:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		109 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		155 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/05/19 12:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	63	50	mg/kg	1	1903047	03/05/19	03/06/19	EPA 8015M	

Date Sampled: **03/05/19 12:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		106 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/06/19 06:34

S06@14'
1903020-15 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/05/19 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903046	03/05/19	03/06/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.049	0.0050	"	"	"	"	"	"	
Xylenes (total)	2.8	0.10	"	10	"	"	"	"	
Naphthalene	0.16	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	79	50	"	"	"	"	"	"	

Date Sampled: **03/05/19 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		83.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		95.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		150 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/05/19 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	200	50	mg/kg	1	1903047	03/05/19	03/05/19	EPA 8015M	

Date Sampled: **03/05/19 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		111 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/06/19 06:34

S07@14'
1903020-17 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/05/19 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1903046	03/05/19	03/05/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	0.039	0.0050		"	"	"	"	"	"	
Xylenes (total)	1.1	0.010		"	"	"	"	"	"	
Naphthalene	0.039	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **03/05/19 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		101 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		94.6 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		120 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/05/19 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	61	50		mg/kg	1	1903047	03/05/19	03/05/19	EPA 8015M	

Date Sampled: **03/05/19 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		111 %		30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/06/19 06:34

TP27@8'
1903020-18 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/05/19 13:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0044	0.0020	mg/kg	1	1903046	03/05/19	03/06/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.077	0.0050	"	"	"	"	"	"	
Xylenes (total)	1.0	0.010	"	"	"	"	"	"	
Naphthalene	0.037	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/05/19 13:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		88.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		160 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/05/19 13:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903047	03/05/19	03/05/19	EPA 8015M	

Date Sampled: **03/05/19 13:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		108 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/06/19 06:34

TP27@14'
1903020-19 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/05/19 13:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1903046	03/05/19	03/06/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	0.016	0.010		"	"	"	"	"	"	
Naphthalene	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **03/05/19 13:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<i>Surrogate: 1,2-Dichloroethane-d4</i>		86.2 %		23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		99.3 %		20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		98.6 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/05/19 13:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	1903047	03/05/19	03/05/19	EPA 8015M	

Date Sampled: **03/05/19 13:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<i>Surrogate: o-Terphenyl</i>		106 %		30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/06/19 06:34

TP12@10'
1903020-20 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/05/19 14:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903046	03/05/19	03/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/05/19 14:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/05/19 14:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903047	03/05/19	03/05/19	EPA 8015M	

Date Sampled: **03/05/19 14:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		114 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/06/19 06:34

TP12@14'
1903020-21 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/05/19 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903046	03/05/19	03/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/05/19 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		98.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/05/19 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903047	03/05/19	03/05/19	EPA 8015M	

Date Sampled: **03/05/19 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		108 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/06/19 06:34

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1903046 - EPA 5030 Soil MS

Blank (1903046-BLK1)

Prepared: 03/05/19 Analyzed: 03/06/19

Benzene	ND	0.0020	mg/kg								
Toluene	ND	0.0050	"								
Ethylbenzene	ND	0.0050	"								
Xylenes (total)	ND	0.010	"								
Naphthalene	ND	0.010	"								
Gasoline Range Hydrocarbons	ND	50	"								
Surrogate: 1,2-Dichloroethane-d4	0.0381		"	0.0400		95.2	23-173				
Surrogate: Toluene-d8	0.0399		"	0.0400		99.8	20-170				
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		97.0	21-167				

LCS (1903046-BS1)

Prepared: 03/05/19 Analyzed: 03/06/19

Benzene	0.0974	0.0020	mg/kg	0.100		97.4	70-130				
Toluene	0.104	0.0050	"	0.100		104	70-130				
Ethylbenzene	0.105	0.0050	"	0.100		105	70-130				
m,p-Xylene	0.225	0.010	"	0.200		113	70-130				
o-Xylene	0.102	0.0050	"	0.100		102	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0378		"	0.0400		94.5	23-173				
Surrogate: Toluene-d8	0.0401		"	0.0400		100	20-170				
Surrogate: 4-Bromofluorobenzene	0.0385		"	0.0400		96.2	21-167				

Matrix Spike (1903046-MS1)

Source: 1903020-01

Prepared: 03/05/19 Analyzed: 03/06/19

Benzene	0.0983	0.0020	mg/kg	0.100	ND	98.3	70-130				
Toluene	0.104	0.0050	"	0.100	ND	104	70-130				
Ethylbenzene	0.107	0.0050	"	0.100	ND	107	70-130				
m,p-Xylene	0.230	0.010	"	0.200	0.00309	113	70-130				
o-Xylene	0.103	0.0050	"	0.100	ND	103	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0386		"	0.0400		96.6	23-173				
Surrogate: Toluene-d8	0.0393		"	0.0400		98.3	20-170				
Surrogate: 4-Bromofluorobenzene	0.0395		"	0.0400		98.8	21-167				

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/06/19 06:34

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source Result	%REC		RPD		Notes
		Limit	Units			Limit	RPD	Limit	RPD	

Batch 1903046 - EPA 5030 Soil MS

Matrix Spike Dup (1903046-MSD1)

Source: 1903020-01

Prepared: 03/05/19 Analyzed: 03/06/19

Benzene	0.0961	0.0020	mg/kg	0.100	ND	96.1	70-130	2.22	30	
Toluene	0.102	0.0050	"	0.100	ND	102	70-130	1.66	30	
Ethylbenzene	0.107	0.0050	"	0.100	ND	107	70-130	0.365	30	
m,p-Xylene	0.226	0.010	"	0.200	0.00309	111	70-130	1.61	30	
o-Xylene	0.102	0.0050	"	0.100	ND	102	70-130	0.674	30	
Surrogate: 1,2-Dichloroethane-d4	0.0386		"	0.0400		96.5	23-173			
Surrogate: Toluene-d8	0.0384		"	0.0400		95.9	20-170			
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.5	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/06/19 06:34

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source Result	%REC		RPD		Notes
		Limit	Units			%REC	Limits	RPD	Limit	

Batch 1903047 - EPA 3550A

Blank (1903047-BLK1)

Prepared: 03/05/19 Analyzed: 03/06/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1903047-BS1)

Prepared: 03/05/19 Analyzed: 03/06/19

C10-C28 (DRO) 433 50 mg/kg 500 86.7 70-130

Matrix Spike (1903047-MS1)

Source: 1903020-01

Prepared: 03/05/19 Analyzed: 03/06/19

C10-C28 (DRO) 425 50 mg/kg 500 23.2 80.3 70-130

Matrix Spike Dup (1903047-MSD1)

Source: 1903020-01

Prepared: 03/05/19 Analyzed: 03/06/19

C10-C28 (DRO) 426 50 mg/kg 500 23.2 80.5 70-130 0.234 20

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/06/19 06:34

Notes and Definitions

- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 27, 2019

Ken Worthington

Apex Companies

176 Cole Blvd. Suite 250

Lakewood, CO 80101

RE: Noble - Bierig 1-26

Enclosed are the results of analyses for samples received by Summit Scientific on 03/25/19 16:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'P. Shrewsbury', written in a cursive style.

Paul Shrewsbury

President



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/27/19 06:47

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N06@8'	1903241-01	Soil	03/25/19 09:55	03/25/19 16:40
N06@11'	1903241-02	Soil	03/25/19 09:57	03/25/19 16:40
N06@15'	1903241-03	Soil	03/25/19 10:00	03/25/19 16:40
N06@18'	1903241-04	Soil	03/25/19 10:03	03/25/19 16:40
N07@8'	1903241-05	Soil	03/25/19 10:07	03/25/19 16:40
N07@11'	1903241-06	Soil	03/25/19 10:10	03/25/19 16:40
N07@16'	1903241-07	Soil	03/25/19 10:12	03/25/19 16:40
N07@19'	1903241-08	Soil	03/25/19 10:15	03/25/19 16:40
N08@8'	1903241-09	Soil	03/25/19 10:40	03/25/19 16:40
N08@11'	1903241-10	Soil	03/25/19 10:42	03/25/19 16:40
N08@14'	1903241-11	Soil	03/25/19 10:45	03/25/19 16:40
N08@20'	1903241-12	Soil	03/25/19 10:47	03/25/19 16:40
N09@8'	1903241-13	Soil	03/25/19 10:50	03/25/19 16:40
N09@11'	1903241-14	Soil	03/25/19 10:52	03/25/19 16:40
N09@15'	1903241-15	Soil	03/25/19 10:55	03/25/19 16:40
N09@20'	1903241-16	Soil	03/25/19 10:57	03/25/19 16:40
S08@8'	1903241-17	Soil	03/25/19 13:00	03/25/19 16:40
S08@14'	1903241-18	Soil	03/25/19 13:03	03/25/19 16:40
S09@8'	1903241-19	Soil	03/25/19 13:07	03/25/19 16:40
S09@14'	1903241-20	Soil	03/25/19 13:10	03/25/19 16:40
B23@15'	1903241-21	Soil	03/25/19 13:13	03/25/19 16:40
E07@8'	1903241-22	Soil	03/25/19 13:15	03/25/19 16:40
E07@14'	1903241-23	Soil	03/25/19 13:18	03/25/19 16:40
W02-2@7'	1903241-24	Soil	03/25/19 14:05	03/25/19 16:40
W02-2@14'	1903241-25	Soil	03/25/19 14:07	03/25/19 16:40
W03-2@7'	1903241-26	Soil	03/25/19 14:10	03/25/19 16:40
W03-2@14'	1903241-27	Soil	03/25/19 14:13	03/25/19 16:40

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S03-2@7'	1903241-28	Soil	03/25/19 14:16	03/25/19 16:40
S03-2@14'	1903241-29	Soil	03/25/19 14:20	03/25/19 16:40
TP26-2@7'	1903241-30	Soil	03/25/19 14:24	03/25/19 16:40
TP26-2@14'	1903241-31	Soil	03/25/19 14:28	03/25/19 16:40

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

1903241.1

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 4

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax:
Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexc.com
Project Name: Bierig 1-26
Project No.: WO#: 247039 RC# 815902161 Noble Contact: ~~David Arnold~~
Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix		Air - Canister Serial #	Other (Specify)	Analyze For:						Special Instructions	
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil			GBTEX + Naphth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD				
N06@8'	3/25/19	0955	1			✓					✓	✓							Call Ken Worthington with questions
N06@11'		0957	1			✓					✓	✓							
N06@15'		1000	1			✓					✓	✓							
N06@18'		1003	1			✓					✓	✓							
N07@8'		1007	1			✓					✓	✓							
N07@11'		1010	1			✓					✓	✓							
N07@16'		1012	1			✓					✓	✓							
N07@19'		1015	1			✓					✓	✓							
N08@8'		1040	1			✓					✓	✓							
N08@11'		1042	1			✓					✓	✓							
Relinquished by: <u>[Signature]</u>			Date/Time: 3/25/19 1640	Received by: <u>[Signature]</u>			Date/Time: 3-25-19 1640	Turn Around Time (Check)						Notes Circle applicable regulatory agency: COGCC / CDPHE Client Name: Bill to Noble Energy					
Relinquished by:			Date/Time:	Received by:			Date/Time:	Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>											
Relinquished by:			Date/Time:	Received in Lab by:			Date/Time:	Sample Integrity: Temperature Upon Receipt: <u>12.1</u> Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>											

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax:
Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexc.com
Project Name: Bierig 1-26
Project No.: WO#: 247039 RC# 815902161 Noble Contact: Harold Amodeo

Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix		Air - Canister Serial #	Other (Specify)	Analyze For:						Special Instructions	
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil			GBTEX + Naph by 8260C	DRO by 8015C	pH, EC, SAR	HOLD				
N08@14'	3/25/19	1045	1			✓					✓	✓							Call Ken Worthington with questions
N08@20'		1047	1			✓					✓	✓							
N09@8'		1050	1			✓					✓	✓							
N09@11'		1052	1			✓					✓	✓							
N09@15'		1055	1			✓					✓	✓							
N09@20'		1057	1			✓					✓	✓							
S08@8'		1300	1			✓					✓	✓							
S08@14'		1303	1			✓					✓	✓							
S09@8'		1307	1			✓					✓	✓							
S09@14'	✓	1310	1			✓					✓	✓							
Relinquished by: <u>Caitlin Thomas</u>			Date/Time: <u>3/25/19 1640</u>	Received by: <u>[Signature]</u>			Date/Time: <u>3-25-19 1640</u>	Turn Around Time (Check)						Notes Circle applicable regulatory agency: COGCC /CDPHE Client Name: Bill to Noble Energy					
Relinquished by:			Date/Time:	Received by:			Date/Time:	Same Day	<input checked="" type="checkbox"/>	72 Hours	<input type="checkbox"/>	Standard	<input type="checkbox"/>						
Relinquished by:			Date/Time:	Received in Lab by:			Date/Time:	24 Hours	<input type="checkbox"/>	48 Hours	<input type="checkbox"/>	Sample Integrity:							
Relinquished by:			Date/Time:	Received in Lab by:			Date/Time:	Temperature Upon Receipt: <u>12.1</u>	Intact: Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>							

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
 303-277-9310 ♦ 303-374-5933 Fax

Client: APEX Companies, LLC
 Address: 1746 Cole Blvd. Suite 250
 City/State/Zip: Lakewood, Colorado 80401
 Phone: 303-487-1020 Fax:
 Sampler Name: Cattlin Thomas

Project Manager: Ken Worthington 303-487-1020
 E-Mail: Ken.Worthington@apexcos.com
 Project Name: Bierig 1-26
 Project No.: WO#: 247039 RC# 81902261 Noble Contact: Field Arnold

Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix		Air - Canister Serial #	Other (Specify)	Analyze For:						Special Instructions
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil			GBTEX + Naphth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD			
B23e15'	3/25/19	1313	1			✓					✓	✓						Call Ken Worthington with questions
E07e8'		1315	1			✓					✓	✓						
E07e14'		1318	1			✓					✓	✓						
W02-2@7'		1405	1			✓					✓	✓						
W02-2@14'		1407	1			✓					✓	✓						
W03-2@7'		1410	1			✓					✓	✓						
W03-2@14'		1413	1			✓					✓	✓						
S03-2@7'		1416	1			✓					✓	✓						
S03-2@14'		1420	1			✓					✓	✓						
TP26-2@7'	✓	1424	1			✓					✓	✓						
Relinquished by: <i>Cattlin Thomas</i>		Date/Time: <u>3/25/19 1640</u>		Received by: <i>[Signature]</i>		Date/Time: <u>3-25-19 1646</u>		Turn Around Time (Check)						Notes				
Relinquished by:		Date/Time:		Received by:		Date/Time:		Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>						Circle applicable regulatory agency: <input checked="" type="checkbox"/> COGCC / <input type="checkbox"/> CDPHE				
Relinquished by:		Date/Time:		Received in Lab by:		Date/Time:		Sample Integrity: Temperature Upon Receipt: <u>12.1</u> Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						Client Name: Bill to Noble Energy				

1903241.4

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 4 of 4

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax: _____
Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexc.com
Project Name: Bierig 1-26
Project No.: WO#: 247039 RC# 815902161 Noble Contact: Harold Pappas

Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:						Special Instructions			
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	GBTEX + Naphth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD					
TP216-2@141	3/25/19	1428	1			✓			✓			✓	✓							Call Ken Worthington with questions
Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time (Check)				Notes												
<u>Caitlin Thomas</u>	<u>3/25/19 1640</u>	<u>[Signature]</u>	<u>3.25.19 1640</u>	Same Day	<input checked="" type="checkbox"/>	72 Hours	<input type="checkbox"/>	Circle applicable regulatory agency: COGCC / CDPHE Client Name: Bill to Noble Energy												
Relinquished by:	Date/Time:	Received by:	Date/Time:	24 Hours	<input type="checkbox"/>	Standard	<input type="checkbox"/>													
Relinquished by:	Date/Time:	Received in Lab by:	Date/Time:	48 Hours	<input type="checkbox"/>		<input type="checkbox"/>													
				Sample Integrity:																
				Temperature Upon Receipt: <u>12.1</u>																
				Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																

Sample Receipt Checklist

S2 Work Order 1903241

Client: APEX/CORCC Client Project ID: Bierig 1-26

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other H.D. Airbill #: _____

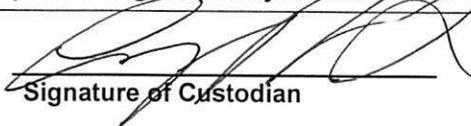
Matrix (check all that apply): Air Soil/Solid Water Other: _____
(Describe)

Temp (°C)	12.1
-----------	------

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	/			on ice
Were all samples received intact ⁽¹⁾ ?	/			
Was adequate sample volume provided ⁽¹⁾ ?	/			
If custody seals are present, are they intact ⁽¹⁾ ?			/	
Are samples with holding times due within 48 hours sample due within 48 hours present?	/			same day
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	/			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	/			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	/			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	/			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			/	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			/	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			/	
If dissolved metals are requested, were samples field filtered?			/	
<u>Additional Comments (if any):</u> 				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

UP
Custodian Printed Name or Initials


Signature of Custodian

3.25.19 1642
Date/Time



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

N06@8'
1903241-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 09:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1903305	03/25/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Naphthalene	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **03/25/19 09:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		97.4 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		93.1 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.7 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 09:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	1903308	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 09:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		113 %		30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/27/19 06:47

N06@11'
1903241-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 09:57**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903305	03/25/19	03/25/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 09:57**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		95.9 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		95.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 09:57**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903308	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 09:57**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		110 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

N06@15'
1903241-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903305	03/25/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		92.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		92.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		159 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903308	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		112 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

N06@18'
1903241-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 10:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903305	03/25/19	03/25/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 10:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		94.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 10:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903308	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 10:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		111 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

N07@8'
1903241-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 10:07**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903305	03/25/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 10:07**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		95.5 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		92.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 10:07**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903308	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 10:07**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		110 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

N07@11'
1903241-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 10:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903305	03/25/19	03/25/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 10:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		95.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 10:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903308	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 10:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		112 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

N07@16'
1903241-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 10:12**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903305	03/25/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 10:12**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		96.5 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		159 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 10:12**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	100	50	mg/kg	1	1903308	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 10:12**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		106 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

N07@19'
1903241-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 10:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903305	03/25/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 10:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		96.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 10:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903308	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 10:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		117 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

N08@8'
1903241-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 10:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903305	03/25/19	03/25/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 10:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		95.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.1 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 10:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903308	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 10:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		106 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

N08@11'
1903241-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 10:42**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903305	03/25/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 10:42**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		98.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 10:42**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903308	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 10:42**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		110 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

N08@14'
1903241-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 10:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1903305	03/25/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Naphthalene	0.019	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1600	50		"	10	"	"	"	"	E

Date Sampled: **03/25/19 10:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		107 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		91.2 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		400 %		21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 10:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	670	50		mg/kg	1	1903308	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 10:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		128 %		30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/27/19 06:47

N08@20'
1903241-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 10:47**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903305	03/25/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 10:47**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		96.1 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		107 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.9 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 10:47**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903308	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 10:47**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		103 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

N09@8'
1903241-13 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 10:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903305	03/25/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 10:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		93.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 10:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903308	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 10:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		106 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/27/19 06:47

N09@11'
1903241-14 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 10:52**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903305	03/25/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 10:52**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		91.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.9 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 10:52**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903308	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 10:52**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		106 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

N09@15'
1903241-15 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 10:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903305	03/25/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 10:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		93.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		136 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 10:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903308	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 10:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		91.9 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

N09@20'
1903241-16 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 10:57**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903305	03/25/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 10:57**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		91.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 10:57**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903308	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 10:57**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		96.0 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

S08@8'
1903241-17 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 13:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903305	03/25/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 13:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		93.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.3 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 13:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903308	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 13:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		93.3 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

S08@14'
1903241-18 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 13:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903305	03/25/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 13:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		94.5 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.1 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 13:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903308	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 13:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		114 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

S09@8'
1903241-19 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 13:07**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1903305	03/25/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	0.026	0.010		"	"	"	"	"	"	
Naphthalene	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **03/25/19 13:07**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		92.7 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 13:07**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	1903308	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 13:07**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		116 %		30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

S09@14'
1903241-20 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.025	0.0020	mg/kg	1	1903305	03/25/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.14	0.0050	"	"	"	"	"	"	
Xylenes (total)	1.4	0.010	"	"	"	"	"	"	
Naphthalene	0.077	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		94.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		137 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903308	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		96.5 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

B23@15'
1903241-21 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 13:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903306	03/25/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 13:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		90.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 13:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903309	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 13:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		87.1 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

E07@8'
1903241-22 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0035	0.0020	mg/kg	1	1903306	03/25/19	03/25/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.0070	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.037	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		83.9 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		129 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	93	50	mg/kg	1	1903309	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		102 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

E07@14'
1903241-23 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 13:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	0.062	0.0020	mg/kg	1	1903306	03/25/19	03/25/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.013	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.055	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 13:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: 1,2-Dichloroethane-d4</i>		81.4 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.8 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		99.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 13:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903309	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 13:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: o-Terphenyl</i>		90.0 %	30-150		"	"	"	"	

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

W02-2@7'
1903241-24 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0054	0.0020	mg/kg	1	1903306	03/25/19	03/25/19	EPA 8260B	
Toluene	0.0050	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.19	0.0050	"	"	"	"	"	"	
Xylenes (total)	1.5	0.010	"	"	"	"	"	"	
Naphthalene	0.076	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	490	50	"	10	"	"	"	"	

Date Sampled: **03/25/19 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		122 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		169 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903309	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		108 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

W02-2@14'
1903241-25 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 14:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.090	0.0020	mg/kg	1	1903306	03/25/19	03/25/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.031	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.36	0.010	"	"	"	"	"	"	
Naphthalene	0.012	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 14:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		83.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		131 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 14:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903309	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 14:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		125 %	30-150		"	"	"	"	

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

W03-2@7'
1903241-26 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.024	0.0020	mg/kg	1	1903306	03/25/19	03/25/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.70	0.0050	"	"	"	"	"	"	
Xylenes (total)	44	0.10	"	10	"	"	"	"	E
Naphthalene	0.75	0.10	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	880	50	"	"	"	"	"	"	E

Date Sampled: **03/25/19 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		124 %	23-173	"	"	"	"	"	
Surrogate: Toluene-d8		93.0 %	20-170	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		166 %	21-167	"	"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	130	50	mg/kg	1	1903309	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		94.8 %	30-150	"	"	"	"	"	

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

W03-2@14'
1903241-27 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 14:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.27	0.0020	mg/kg	1	1903306	03/25/19	03/25/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	1.1	0.050	"	10	"	"	"	"	
Xylenes (total)	40	0.10	"	"	"	"	"	"	E
Naphthalene	0.50	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	1100	50	"	10	"	"	"	"	E

Date Sampled: **03/25/19 14:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		224 %	23-173	"	"	"	"	"	S-02
Surrogate: Toluene-d8		79.4 %	20-170	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		1330 %	21-167	"	"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 14:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	190	50	mg/kg	1	1903309	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 14:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		93.5 %	30-150	"	"	"	"	"	

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

S03-2@7'
1903241-28 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 14:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.047	0.0020	mg/kg	1	1903306	03/25/19	03/25/19	EPA 8260B	
Toluene	0.0064	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.11	0.0050	"	"	"	"	"	"	
Xylenes (total)	2.0	0.010	"	"	"	"	"	"	
Naphthalene	0.060	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 14:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		92.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		176 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 14:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	56	50	mg/kg	1	1903309	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 14:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		97.6 %	30-150		"	"	"	"	

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

S03-2@14'
1903241-29 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.41	0.0020	mg/kg	1	1903306	03/25/19	03/25/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.41	0.0050	"	"	"	"	"	"	
Xylenes (total)	6.0	0.10	"	10	"	"	"	"	
Naphthalene	0.15	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	960	50	"	10	"	"	"	"	E

Date Sampled: **03/25/19 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		136 %	23-173	"	"	"	"	"	
Surrogate: Toluene-d8		90.7 %	20-170	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		350 %	21-167	"	"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	78	50	mg/kg	1	1903309	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		94.7 %	30-150	"	"	"	"	"	

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

TP26-2@7'
1903241-30 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 14:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.039	0.0020	mg/kg	1	1903306	03/25/19	03/25/19	EPA 8260B	
Toluene	0.032	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.25	0.0050	"	"	"	"	"	"	
Xylenes (total)	4.4	0.10	"	10	"	"	"	"	
Naphthalene	0.085	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	93	50	"	10	"	"	"	"	

Date Sampled: **03/25/19 14:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		116 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		232 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 14:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903309	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 14:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		92.4 %	30-150		"	"	"	"	

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

TP26-2@14'
1903241-31 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/25/19 14:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.057	0.0020	mg/kg	1	1903306	03/25/19	03/25/19	EPA 8260B	
Toluene	0.0068	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.41	0.0050	"	"	"	"	"	"	
Xylenes (total)	7.8	0.10	"	10	"	"	"	"	
Naphthalene	0.77	0.10	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	160	50	"	"	"	"	"	"	

Date Sampled: **03/25/19 14:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		119 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		92.4 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		132 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/25/19 14:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	96	50	mg/kg	1	1903309	03/25/19	03/26/19	EPA 8015M	

Date Sampled: **03/25/19 14:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		92.3 %	30-150		"	"	"	"	

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1903305 - EPA 5030 Soil MS

Blank (1903305-BLK1)

Prepared: 03/25/19 Analyzed: 03/26/19

Benzene	ND	0.0020	mg/kg								
Toluene	ND	0.0050	"								
Ethylbenzene	ND	0.0050	"								
Xylenes (total)	ND	0.010	"								
Naphthalene	ND	0.010	"								
Gasoline Range Hydrocarbons	ND	50	"								
Surrogate: 1,2-Dichloroethane-d4	0.0365		"	0.0400		91.2	23-173				
Surrogate: Toluene-d8	0.0407		"	0.0400		102	20-170				
Surrogate: 4-Bromofluorobenzene	0.0390		"	0.0400		97.5	21-167				

LCS (1903305-BS1)

Prepared: 03/25/19 Analyzed: 03/26/19

Benzene	0.0952	0.0020	mg/kg	0.100		95.2	70-130				
Toluene	0.101	0.0050	"	0.100		101	70-130				
Ethylbenzene	0.113	0.0050	"	0.100		113	70-130				
m,p-Xylene	0.211	0.010	"	0.200		105	70-130				
o-Xylene	0.100	0.0050	"	0.100		100	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0367		"	0.0400		91.8	23-173				
Surrogate: Toluene-d8	0.0416		"	0.0400		104	20-170				
Surrogate: 4-Bromofluorobenzene	0.0386		"	0.0400		96.4	21-167				

Matrix Spike (1903305-MS1)

Source: 1903241-01

Prepared: 03/25/19 Analyzed: 03/26/19

Benzene	0.0954	0.0020	mg/kg	0.100	ND	95.4	70-130				
Toluene	0.104	0.0050	"	0.100	ND	104	70-130				
Ethylbenzene	0.118	0.0050	"	0.100	ND	118	70-130				
m,p-Xylene	0.220	0.010	"	0.200	0.00441	108	70-130				
o-Xylene	0.107	0.0050	"	0.100	ND	107	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0395		"	0.0400		98.8	23-173				
Surrogate: Toluene-d8	0.0412		"	0.0400		103	20-170				
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.6	21-167				

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD		

Batch 1903305 - EPA 5030 Soil MS

Matrix Spike Dup (1903305-MSD1)

Source: 1903241-01

Prepared: 03/25/19 Analyzed: 03/26/19

Benzene	0.0986	0.0020	mg/kg	0.100	ND	98.6	70-130	3.25	30
Toluene	0.105	0.0050	"	0.100	ND	105	70-130	0.201	30
Ethylbenzene	0.120	0.0050	"	0.100	ND	120	70-130	1.69	30
m,p-Xylene	0.224	0.010	"	0.200	0.00441	110	70-130	1.96	30
o-Xylene	0.107	0.0050	"	0.100	ND	107	70-130	0.757	30
Surrogate: 1,2-Dichloroethane-d4	0.0405		"	0.0400		101	23-173		
Surrogate: Toluene-d8	0.0420		"	0.0400		105	20-170		
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		97.1	21-167		

Batch 1903306 - EPA 5030 Soil MS

Blank (1903306-BLK1)

Prepared: 03/25/19 Analyzed: 03/26/19

Benzene	ND	0.0020	mg/kg						
Toluene	ND	0.0050	"						
Ethylbenzene	ND	0.0050	"						
Xylenes (total)	ND	0.010	"						
Naphthalene	ND	0.010	"						
Gasoline Range Hydrocarbons	ND	50	"						
Surrogate: 1,2-Dichloroethane-d4	0.0318		"	0.0400		79.5	23-173		
Surrogate: Toluene-d8	0.0404		"	0.0400		101	20-170		
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		97.0	21-167		

LCS (1903306-BS1)

Prepared: 03/25/19 Analyzed: 03/26/19

Benzene	0.100	0.0020	mg/kg	0.100		100	70-130		
Toluene	0.106	0.0050	"	0.100		106	70-130		
Ethylbenzene	0.105	0.0050	"	0.100		105	70-130		
m,p-Xylene	0.209	0.010	"	0.200		104	70-130		
o-Xylene	0.109	0.0050	"	0.100		109	70-130		
Surrogate: 1,2-Dichloroethane-d4	0.0313		"	0.0400		78.2	23-173		
Surrogate: Toluene-d8	0.0404		"	0.0400		101	20-170		
Surrogate: 4-Bromofluorobenzene	0.0386		"	0.0400		96.4	21-167		

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1903306 - EPA 5030 Soil MS

Matrix Spike (1903306-MS1)

Source: 1903241-21

Prepared: 03/25/19 Analyzed: 03/26/19

Benzene	0.0823	0.0020	mg/kg	0.100	ND	82.3	70-130			
Toluene	0.0796	0.0050	"	0.100	ND	79.6	70-130			
Ethylbenzene	0.0862	0.0050	"	0.100	ND	86.2	70-130			
m,p-Xylene	0.246	0.010	"	0.200	0.00357	121	70-130			
o-Xylene	0.0769	0.0050	"	0.100	ND	76.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0335		"	0.0400		83.7	23-173			
Surrogate: Toluene-d8	0.0391		"	0.0400		97.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0580		"	0.0400		145	21-167			

Matrix Spike Dup (1903306-MSD1)

Source: 1903241-21

Prepared: 03/25/19 Analyzed: 03/26/19

Benzene	0.104	0.0020	mg/kg	0.100	ND	104	70-130	23.2	30	
Toluene	0.100	0.0050	"	0.100	ND	100	70-130	23.0	30	
Ethylbenzene	0.0803	0.0050	"	0.100	ND	80.3	70-130	7.03	30	
m,p-Xylene	0.246	0.010	"	0.200	0.00357	121	70-130	0.0122	30	
o-Xylene	0.0934	0.0050	"	0.100	ND	93.4	70-130	19.3	30	
Surrogate: 1,2-Dichloroethane-d4	0.0347		"	0.0400		86.7	23-173			
Surrogate: Toluene-d8	0.0395		"	0.0400		98.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0600		"	0.0400		150	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source Result	%REC		RPD		Notes
		Limit	Units			Limits	RPD	Limit		

Batch 1903308 - EPA 3550A

Blank (1903308-BLK1)										
C10-C28 (DRO)	ND	50	mg/kg							Prepared: 03/25/19 Analyzed: 03/26/19
LCS (1903308-BS1)										
C10-C28 (DRO)	629	50	mg/kg	500		126	70-130			Prepared: 03/25/19 Analyzed: 03/26/19
Matrix Spike (1903308-MS1)										
		Source: 1903241-01			Prepared: 03/25/19 Analyzed: 03/26/19					
C10-C28 (DRO)	607	50	mg/kg	500	12.8	119	70-130			
Matrix Spike Dup (1903308-MSD1)										
		Source: 1903241-01			Prepared: 03/25/19 Analyzed: 03/26/19					
C10-C28 (DRO)	655	50	mg/kg	500	12.8	128	70-130	7.59	20	

Batch 1903309 - EPA 3550A

Blank (1903309-BLK1)										
C10-C28 (DRO)	ND	50	mg/kg							Prepared: 03/25/19 Analyzed: 03/26/19
LCS (1903309-BS1)										
C10-C28 (DRO)	528	50	mg/kg	500		106	70-130			Prepared: 03/25/19 Analyzed: 03/26/19
Matrix Spike (1903309-MS1)										
		Source: 1903241-21			Prepared: 03/25/19 Analyzed: 03/26/19					
C10-C28 (DRO)	473	50	mg/kg	500	37.1	87.2	70-130			
Matrix Spike Dup (1903309-MSD1)										
		Source: 1903241-21			Prepared: 03/25/19 Analyzed: 03/26/19					
C10-C28 (DRO)	491	50	mg/kg	500	37.1	90.9	70-130	3.80	20	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:47

Notes and Definitions

- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 27, 2019

Ken Worthington

Apex Companies

176 Cole Blvd. Suite 250

Lakewood, CO 80101

RE: Noble - Bierig 1-26

Enclosed are the results of analyses for samples received by Summit Scientific on 03/26/19 16:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'P. Shrewsbury', written in a cursive style.

Paul Shrewsbury

President



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
NE10@8'	1903264-01	Soil	03/26/19 09:35	03/26/19 16:50
NE10@11'	1903264-02	Soil	03/26/19 09:37	03/26/19 16:50
NE10@16'	1903264-03	Soil	03/26/19 09:40	03/26/19 16:50
N11@8'	1903264-04	Soil	03/26/19 09:43	03/26/19 16:50
N11@11'	1903264-05	Soil	03/26/19 09:47	03/26/19 16:50
N11@16'	1903264-06	Soil	03/26/19 09:50	03/26/19 16:50
B24@19'	1903264-07	Soil	03/26/19 09:53	03/26/19 16:50
B25@19'	1903264-08	Soil	03/26/19 10:43	03/26/19 16:50
B26@19'	1903264-09	Soil	03/26/19 11:15	03/26/19 16:50
B27@19'	1903264-10	Soil	03/26/19 11:55	03/26/19 16:50
N12@11'	1903264-11	Soil	03/26/19 11:57	03/26/19 16:50
N12@16'	1903264-12	Soil	03/26/19 12:02	03/26/19 16:50
SS05	1903264-17	Soil	03/26/19 13:37	03/26/19 16:50
SS08	1903264-20	Soil	03/26/19 13:47	03/26/19 16:50
SS09	1903264-21	Soil	03/26/19 13:50	03/26/19 16:50
S10@8'	1903264-25	Soil	03/26/19 14:30	03/26/19 16:50
S10@16'	1903264-26	Soil	03/26/19 14:33	03/26/19 16:50
S11@16'	1903264-27	Soil	03/26/19 14:53	03/26/19 16:50
B28@18'	1903264-28	Soil	03/26/19 14:55	03/26/19 16:50
S12@8'	1903264-29	Soil	03/26/19 15:20	03/26/19 16:50
B29@18'	1903264-30	Soil	03/26/19 15:45	03/26/19 16:50

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

1903264.1

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
 303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 3

Client: APEX Companies, LLC
 Address: 1746 Cole Blvd. Suite 250
 City/State/Zip: Lakewood, Colorado 80401
 Phone: 303-487-1020 Fax: _____
 Sampler Name: Carlin Thomas

Project Manager: Ken Worthington 303-487-1020
 E-Mail: Ken.Worthington@apexcos.com
 Project Name: Bierig 1-20
 Project No.: WO#: 247039 RC# 815902161 Noble Contact: Harold Arnold

Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:						Special Instructions		
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	GBTEX + Naphth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD				
NE10@8'	3/26/19	0935	1			✓						✓	✓						Call Ken Worthington with questions
NE10@11'		0937	1			✓						✓	✓						
NE10@16'		0940	1			✓						✓	✓						
N11@8'		0943	1			✓						✓	✓						
N11@11'		0947	1			✓						✓	✓						
N11@16'		0950	1			✓						✓	✓						
B24@19'		0953	1			✓						✓	✓						
B25@19'		1043	1			✓						✓	✓						
B26@19'		1115	1			✓						✓	✓						
B27@19'	✓	1155	1			✓						✓	✓						
Relinquished by: <u>Carlin Thomas</u>		Date/Time: <u>3/26/19 1650</u>		Received by: <u>[Signature]</u>		Date/Time: <u>3.26.19 1600</u>		Turn Around Time (Check)			Notes								
								Same Day <input checked="" type="checkbox"/>			72 Hours <input type="checkbox"/>								
								24 Hours <input type="checkbox"/>			Standard <input type="checkbox"/>								
								48 Hours <input type="checkbox"/>			COGCC/CDPHE								
Relinquished by:		Date/Time:		Received in Lab by:		Date/Time:		Sample Integrity:			Client Name: Bill to								
								Temperature Upon Receipt: <u>19.6</u>			Noble Energy								
								Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>											

1903264.2

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 2 of 3

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax: _____
Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexcos.com
Project Name: Bierig 1-26
Project No.: WO#: 247039 RC# 81S902161 Noble Contact: Harold Arnold

Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:					Special Instructions	
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	GBTEX + Naphth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD		
NIZ@11'	3/20/19	1157	1			✓			✓			✓	✓				Call Ken Worthington with questions
NIZ@16'	3/20/19	1202	1			✓			✓			✓	✓				
SS01	3/26/19	1325	1			✓			✓					✓			
SS02		1328	1			✓			✓					✓			
SS03		1331	1			✓			✓					✓			
SS04		1334	1			✓			✓					✓			
SS05		1337	1			✓			✓			✓	✓				
SS06		1340	1			✓			✓					✓			
SS07		1343	1			✓			✓					✓			
SS08		1347	1			✓			✓			✓	✓				
Relinquished by: <u>[Signature]</u>		Date/Time: <u>3/26/19</u>	Date/Time: <u>1650</u>	Received by: <u>[Signature]</u>		Date/Time: <u>3-26-19</u>	Date/Time: <u>1650</u>	Turn Around Time (Check)					Notes				
								Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>					Circle applicable regulatory agency:				
								Sample Integrity:					<u>COGCC</u> / CDPHE				
								Temperature Upon Receipt: <u>19.6</u>					Client Name: Bill to				
								Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					Noble Energy				

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
 303-277-9310 ♦ 303-374-5933 Fax

Client: APEX Companies, LLC
 Address: 1746 Cole Blvd. Suite 250
 City/State/Zip: Lakewood, Colorado 80401
 Phone: 303-487-1020 Fax: _____
 Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
 E-Mail: Ken.Worthington@apexcos.com
 Project Name: Bierig 1-26
 Project No.: WO#: 247039 RC# 815902161 Noble Contact: Harold Arnold

Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:						Special Instructions			
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	GBTEX + Naphth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD					
SS09	3/26/19	1350	1			✓			✓			✓	✓							Call Ken Worthington with questions
SS10		1353	1			✓			✓											
SS11		1357	1			✓			✓											
SS12		1400	1			✓			✓											
S10@8'		1430	1			✓			✓			✓	✓							
S10@10'		1433	1			✓			✓			✓	✓							
S11@16'		1453	1			✓			✓			✓	✓							
B28@18'		1455	1			✓			✓			✓	✓							
S12@9'		1520	1			✓			✓			✓	✓							
B29@18'		1545	1			✓			✓			✓	✓							
Relinquished by: <u>[Signature]</u>		Date/Time: <u>3/26/19 1650</u>	Received by: <u>[Signature]</u>		Date/Time: <u>3-26-19 1650</u>	Turn Around Time (Check)			Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>						Notes					
Relinquished by:		Date/Time:	Received by:		Date/Time:	Sample Integrity:			Temperature Upon Receipt: <u>19.6</u> Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						Circle applicable regulatory agency: <input checked="" type="checkbox"/> COGCC / <input type="checkbox"/> CDPHE Client Name: Bill to Noble Energy					

Sample Receipt Checklist

S2 Work Order 1903264

Client: APEX / BOBCC Client Project ID: Bierig 1-26

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other H.D. Airbill #: _____

Matrix (check all that apply): Air Soil/Solid Water Other: _____
(Describe)

Temp (°C)	19.6
-----------	------

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	✓			
Were all samples received intact ⁽¹⁾ ?	✓			
Was adequate sample volume provided ⁽¹⁾ ?	✓			
If custody seals are present, are they intact ⁽¹⁾ ?			✓	
Are samples with holding times due within 48 hours sample due within 48 hours present?	✓			same day
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	✓			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	✓			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	✓			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	✓			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			✓	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			✓	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any): 				
(1) If NO, then contact the client before proceeding with analysis and note in case narrative.				

CP
Custodian Printed Name or Initials


Signature of Custodian

3.26.19 1652
Date/Time



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

NE10@8'
1903264-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/26/19 09:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1903328	03/26/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Naphthalene	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **03/26/19 09:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		93.0 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		92.8 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.6 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/26/19 09:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	1903329	03/26/19	03/26/19	EPA 8015M	

Date Sampled: **03/26/19 09:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		96.7 %		30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

NE10@11'
1903264-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/26/19 09:37**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903328	03/26/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/26/19 09:37**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		108 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		92.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/26/19 09:37**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903329	03/26/19	03/26/19	EPA 8015M	

Date Sampled: **03/26/19 09:37**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		104 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

NE10@16'
1903264-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/26/19 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903328	03/26/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/26/19 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		95.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/26/19 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903329	03/26/19	03/26/19	EPA 8015M	

Date Sampled: **03/26/19 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		97.3 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

N11@8'
1903264-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/26/19 09:43**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903328	03/26/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/26/19 09:43**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		97.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		95.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.1 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/26/19 09:43**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903329	03/26/19	03/26/19	EPA 8015M	

Date Sampled: **03/26/19 09:43**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		102 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

N11@11'
1903264-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/26/19 09:47**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903328	03/26/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/26/19 09:47**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		96.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/26/19 09:47**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903329	03/26/19	03/26/19	EPA 8015M	

Date Sampled: **03/26/19 09:47**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		98.2 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

N11@16'
1903264-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/26/19 09:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903328	03/26/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/26/19 09:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		95.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		92.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/26/19 09:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903329	03/26/19	03/26/19	EPA 8015M	

Date Sampled: **03/26/19 09:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		97.7 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

B24@19'
1903264-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/26/19 09:53**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903328	03/26/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/26/19 09:53**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		95.1 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		92.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.3 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/26/19 09:53**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903329	03/26/19	03/27/19	EPA 8015M	

Date Sampled: **03/26/19 09:53**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		99.8 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

B25@19'
1903264-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/26/19 10:43**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903328	03/26/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/26/19 10:43**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		95.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.7 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/26/19 10:43**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903329	03/26/19	03/26/19	EPA 8015M	

Date Sampled: **03/26/19 10:43**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		82.5 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

B26@19'
1903264-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/26/19 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903328	03/26/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/26/19 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.5 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/26/19 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903329	03/26/19	03/26/19	EPA 8015M	

Date Sampled: **03/26/19 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		92.9 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/27/19 06:39

B27@19'
1903264-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/26/19 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903328	03/26/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/26/19 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		93.1 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		92.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/26/19 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903329	03/26/19	03/26/19	EPA 8015M	

Date Sampled: **03/26/19 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		84.2 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

N12@11'
1903264-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/26/19 11:57**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903328	03/26/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/26/19 11:57**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		95.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/26/19 11:57**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903329	03/26/19	03/26/19	EPA 8015M	

Date Sampled: **03/26/19 11:57**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		89.0 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

N12@16'
1903264-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/26/19 12:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903328	03/26/19	03/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.040	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/26/19 12:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		95.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		129 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/26/19 12:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903329	03/26/19	03/26/19	EPA 8015M	

Date Sampled: **03/26/19 12:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		87.8 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

SS05
1903264-17 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/26/19 13:37**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1903328	03/26/19	03/27/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	0.39	0.010		"	"	"	"	"	"	
Naphthalene	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **03/26/19 13:37**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		101 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		91.4 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		134 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/26/19 13:37**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	80	50		mg/kg	1	1903329	03/26/19	03/26/19	EPA 8015M	

Date Sampled: **03/26/19 13:37**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		88.4 %		30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

SS08
1903264-20 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/26/19 13:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.067	0.0020	mg/kg	1	1903328	03/26/19	03/27/19	EPA 8260B	
Toluene	0.065	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.30	0.0050	"	"	"	"	"	"	
Xylenes (total)	35	0.10	"	10	"	"	"	"	E
Naphthalene	0.13	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	510	50	"	10	"	"	"	"	

Date Sampled: **03/26/19 13:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		112 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		90.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		146 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/26/19 13:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	290	50	mg/kg	1	1903329	03/26/19	03/26/19	EPA 8015M	

Date Sampled: **03/26/19 13:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		86.5 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

SS09
1903264-21 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/26/19 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.013	0.0020	mg/kg	1	1903328	03/26/19	03/27/19	EPA 8260B	
Toluene	0.010	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.17	0.0050	"	"	"	"	"	"	
Xylenes (total)	9.9	0.10	"	10	"	"	"	"	
Naphthalene	0.085	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	67	50	"	"	"	"	"	"	

Date Sampled: **03/26/19 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		91.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		142 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/26/19 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	56	50	mg/kg	1	1903329	03/26/19	03/26/19	EPA 8015M	

Date Sampled: **03/26/19 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		92.6 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

S10@8'
1903264-25 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/26/19 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.019	0.0020	mg/kg	1	1903328	03/26/19	03/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.052	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.28	0.010	"	"	"	"	"	"	
Naphthalene	0.13	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/26/19 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		110 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		156 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/26/19 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	55	50	mg/kg	1	1903329	03/26/19	03/26/19	EPA 8015M	

Date Sampled: **03/26/19 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		94.0 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

S10@16'
1903264-26 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/26/19 14:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0089	0.0020	mg/kg	1	1903328	03/26/19	03/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.014	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/26/19 14:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		86.9 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		114 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/26/19 14:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	73	50	mg/kg	1	1903329	03/26/19	03/26/19	EPA 8015M	

Date Sampled: **03/26/19 14:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		90.3 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

S11@16'
1903264-27 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/26/19 14:53**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0065	0.0020	mg/kg	1	1903328	03/26/19	03/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.13	0.0050	"	"	"	"	"	"	
Xylenes (total)	9.2	0.10	"	10	"	"	"	"	
Naphthalene	0.12	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/26/19 14:53**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173	"	"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		142 %	21-167	"	"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/26/19 14:53**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903329	03/26/19	03/26/19	EPA 8015M	

Date Sampled: **03/26/19 14:53**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		90.7 %	30-150	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

B28@18'
1903264-28 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/26/19 14:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1903328	03/26/19	03/26/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Naphthalene	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **03/26/19 14:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		100 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		94.4 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.7 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/26/19 14:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	1903329	03/26/19	03/27/19	EPA 8015M	

Date Sampled: **03/26/19 14:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		91.1 %		30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

S12@8'
1903264-29 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/26/19 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903328	03/26/19	03/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.44	0.0050	"	"	"	"	"	"	
Xylenes (total)	16	0.10	"	10	"	"	"	"	
Naphthalene	0.26	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	52	50	"	"	"	"	"	"	

Date Sampled: **03/26/19 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		122 %	23-173	"	"	"	"	"	
Surrogate: Toluene-d8		105 %	20-170	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		141 %	21-167	"	"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/26/19 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	160	50	mg/kg	1	1903329	03/26/19	03/27/19	EPA 8015M	

Date Sampled: **03/26/19 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		93.4 %	30-150	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

B29@18'
1903264-30 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/26/19 15:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903328	03/26/19	03/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/26/19 15:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		95.5 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.3 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/26/19 15:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903329	03/26/19	03/27/19	EPA 8015M	

Date Sampled: **03/26/19 15:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		93.3 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1903328 - EPA 5030 Soil MS

Blank (1903328-BLK1)

Prepared: 03/26/19 Analyzed: 03/27/19

Benzene	ND	0.0020	mg/kg								
Toluene	ND	0.0050	"								
Ethylbenzene	ND	0.0050	"								
Xylenes (total)	ND	0.010	"								
Naphthalene	ND	0.010	"								
Gasoline Range Hydrocarbons	ND	50	"								
Surrogate: 1,2-Dichloroethane-d4	0.0362		"	0.0400		90.4		23-173			
Surrogate: Toluene-d8	0.0373		"	0.0400		93.3		20-170			
Surrogate: 4-Bromofluorobenzene	0.0386		"	0.0400		96.4		21-167			

LCS (1903328-BS1)

Prepared: 03/26/19 Analyzed: 03/27/19

Benzene	0.0912	0.0020	mg/kg	0.100		91.2		70-130			
Toluene	0.0987	0.0050	"	0.100		98.7		70-130			
Ethylbenzene	0.105	0.0050	"	0.100		105		70-130			
m,p-Xylene	0.221	0.010	"	0.200		110		70-130			
o-Xylene	0.101	0.0050	"	0.100		101		70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0365		"	0.0400		91.2		23-173			
Surrogate: Toluene-d8	0.0370		"	0.0400		92.5		20-170			
Surrogate: 4-Bromofluorobenzene	0.0372		"	0.0400		93.0		21-167			

Matrix Spike (1903328-MS1)

Source: 1903264-01

Prepared: 03/26/19 Analyzed: 03/27/19

Benzene	0.0918	0.0020	mg/kg	0.100	ND	91.8		70-130			
Toluene	0.0984	0.0050	"	0.100	ND	98.4		70-130			
Ethylbenzene	0.105	0.0050	"	0.100	ND	105		70-130			
m,p-Xylene	0.219	0.010	"	0.200	ND	110		70-130			
o-Xylene	0.101	0.0050	"	0.100	ND	101		70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0386		"	0.0400		96.6		23-173			
Surrogate: Toluene-d8	0.0374		"	0.0400		93.4		20-170			
Surrogate: 4-Bromofluorobenzene	0.0376		"	0.0400		93.9		21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/27/19 06:39

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1903328 - EPA 5030 Soil MS

Matrix Spike Dup (1903328-MSD1)

Source: 1903264-01

Prepared: 03/26/19 Analyzed: 03/27/19

Benzene	0.0910	0.0020	mg/kg	0.100	ND	91.0	70-130	0.919	30	
Toluene	0.0980	0.0050	"	0.100	ND	98.0	70-130	0.367	30	
Ethylbenzene	0.106	0.0050	"	0.100	ND	106	70-130	0.912	30	
m,p-Xylene	0.220	0.010	"	0.200	ND	110	70-130	0.314	30	
o-Xylene	0.103	0.0050	"	0.100	ND	103	70-130	2.15	30	
Surrogate: 1,2-Dichloroethane-d4	0.0378		"	0.0400		94.4	23-173			
Surrogate: Toluene-d8	0.0372		"	0.0400		93.0	20-170			
Surrogate: 4-Bromofluorobenzene	0.0374		"	0.0400		93.4	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/27/19 06:39

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1903329 - EPA 3550A

Blank (1903329-BLK1)

Prepared: 03/26/19 Analyzed: 03/27/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1903329-BS1)

Prepared: 03/26/19 Analyzed: 03/27/19

C10-C28 (DRO) 565 50 mg/kg 500 113 70-130

Matrix Spike (1903329-MS1)

Source: 1903264-01

Prepared: 03/26/19 Analyzed: 03/27/19

C10-C28 (DRO) 472 50 mg/kg 500 11.0 92.2 70-130

Matrix Spike Dup (1903329-MSD1)

Source: 1903264-01

Prepared: 03/26/19 Analyzed: 03/27/19

C10-C28 (DRO) 503 50 mg/kg 500 11.0 98.4 70-130 6.34 20

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/27/19 06:39

Notes and Definitions

- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

April 03, 2019

Ken Worthington

Apex Companies

176 Cole Blvd. Suite 250

Lakewood, CO 80101

RE: Noble - Bierig 1-26

Enclosed are the results of analyses for samples received by Summit Scientific on 04/02/19 15:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'P. Shrewsbury', written in a cursive style.

Paul Shrewsbury

President



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
04/03/19 06:31

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS13	1904019-01	Soil	04/02/19 13:25	04/02/19 15:40
SS15	1904019-03	Soil	04/02/19 13:35	04/02/19 15:40
SS19	1904019-07	Soil	04/02/19 13:43	04/02/19 15:40
SS20	1904019-08	Soil	04/02/19 13:45	04/02/19 15:40
SS22	1904019-10	Soil	04/02/19 13:50	04/02/19 15:40

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

1904019.1

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 2

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax:
Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexc.com
Project Name: Bierig 1-26
Project No.: WO#: 247039 RC# 815902161 Noble Contact: ~~Mark Sample~~
Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix		Analyze For:						Special Instructions				
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	GBTEX + Naphth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD					
SS13	4/2/19	1325	1			✓						✓	✓							Call Ken Worthington with questions
SS14		1330	1			✓								✓						
SS15		1335	1			✓						✓	✓							
SS16		1337	1			✓								✓						
SS17		1339	1			✓								✓						
SS18		1341	1			✓								✓						
SS19		1343	1			✓						✓	✓							
SS20		1345	1			✓						✓	✓							
SS21		1347	1			✓								✓						
SS22	✓	1350	1			✓						✓	✓							
Relinquished by: <u>[Signature]</u> Date/Time: <u>4/2/19 1540</u>				Received by: <u>[Signature]</u> Date/Time: <u>4/2/19 16:50</u>				Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>						Notes Circle applicable regulatory agency: <u>COGCC</u> / CDPHE						
Relinquished by:				Received in Lab by:				Sample Integrity: Temperature Upon Receipt: <u>9.7</u> Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						Client Name: Bill to Noble Energy						

1904019.2

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 2 of 2

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax:
Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexcos.com
Project Name: Bierig 1-26
Project No.: WO#: 247039 RC# 815902161 Noble Contact: ~~Harold~~ Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix		Air - Canister Serial #	Other (Specify)	Analyze For:						Special Instructions	
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil			GBTEX + Naphth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD				
SS23	4/2/19	1352	1			✓													Call Ken Worthington with questions
SS24		1354	1			✓													
SS25		1356	1			✓													
SS26	✓	1359	1			✓													
Relinquished by:		Date/Time:		Received by:		Date/Time:		Turn Around Time (Check)						Notes					
<u>Patt J</u>		4/2/19 1540		<u>CD</u>		4/2/19 16:50		Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>						Circle applicable regulatory agency: <u>COGCC</u> / CDPHE					
Relinquished by:		Date/Time:		Received in Lab by:		Date/Time:		Sample Integrity:						Client Name: Bill to					
								Temperature Upon Receipt: <u>9.7</u> Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						Noble Energy					

Sample Receipt Checklist

S2 Work Order 1904019

Client: Apex Client Project ID: Bierig 1-26

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other _____ Airbill #: _____

Matrix (check all that apply): Air Soil/Solid Water Other: _____
(Describe)

Temp (°C)	9.7
-----------	-----

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the <u>same day of sampling</u> , this requirement is met provided that there is evidence that <u>cooling has begun</u> .	+			
Were all samples received intact ⁽¹⁾ ?	+			
Was adequate sample volume provided ⁽¹⁾ ?	+			
If custody seals are present, are they intact ⁽¹⁾ ?			+	
Are samples with holding times due within 48 hours sample due within 48 hours present?			+	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	+			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	+			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	+			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	+			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			+	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			+	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			+	
If dissolved metals are requested, were samples field filtered?			+	
Additional Comments (if any): 				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

CS
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

4/13/19 16:50
Date/Time



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
04/03/19 06:31

SS13
1904019-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/02/19 13:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0088	0.0020	mg/kg	1	1904032	04/02/19	04/03/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.50	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.14	0.010	"	"	"	"	"	"	
Naphthalene	0.071	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	65	50	"	"	"	"	"	"	

Date Sampled: **04/02/19 13:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		88.5 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		89.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		161 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/02/19 13:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	200	50	mg/kg	1	1904033	04/02/19	04/02/19	EPA 8015M	

Date Sampled: **04/02/19 13:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		138 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
04/03/19 06:31

SS15
1904019-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/02/19 13:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1904032	04/02/19	04/03/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	0.0062	0.0050		"	"	"	"	"	"	
Xylenes (total)	0.10	0.010		"	"	"	"	"	"	
Naphthalene	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **04/02/19 13:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		79.4 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		89.9 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.9 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/02/19 13:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	1904033	04/02/19	04/02/19	EPA 8015M	

Date Sampled: **04/02/19 13:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		118 %		30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
04/03/19 06:31

SS19
1904019-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/02/19 13:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.012	0.0020	mg/kg	1	1904032	04/02/19	04/03/19	EPA 8260B	
Toluene	0.0073	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.021	0.0050	"	"	"	"	"	"	
Xylenes (total)	1.3	0.010	"	"	"	"	"	"	
Naphthalene	0.024	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **04/02/19 13:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		79.5 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		88.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		110 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/02/19 13:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1904033	04/02/19	04/02/19	EPA 8015M	

Date Sampled: **04/02/19 13:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		124 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
04/03/19 06:31

SS20
1904019-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/02/19 13:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1904032	04/02/19	04/02/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **04/02/19 13:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		79.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		92.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.3 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/02/19 13:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1904033	04/02/19	04/02/19	EPA 8015M	

Date Sampled: **04/02/19 13:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		120 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
04/03/19 06:31

SS22
1904019-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/02/19 13:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1904032	04/02/19	04/03/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **04/02/19 13:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		79.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		92.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/02/19 13:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1904033	04/02/19	04/02/19	EPA 8015M	

Date Sampled: **04/02/19 13:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		114 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
04/03/19 06:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1904032 - EPA 5030 Soil MS

Blank (1904032-BLK1)

Prepared: 04/02/19 Analyzed: 04/03/19

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0323		"	0.0400		80.7	23-173			
Surrogate: Toluene-d8	0.0370		"	0.0400		92.5	20-170			
Surrogate: 4-Bromofluorobenzene	0.0369		"	0.0400		92.3	21-167			

LCS (1904032-BS1)

Prepared: 04/02/19 Analyzed: 04/03/19

Benzene	0.0863	0.0020	mg/kg	0.100		86.3	70-130			
Toluene	0.0939	0.0050	"	0.100		93.9	70-130			
Ethylbenzene	0.0994	0.0050	"	0.100		99.4	70-130			
m,p-Xylene	0.213	0.010	"	0.200		106	70-130			
o-Xylene	0.0980	0.0050	"	0.100		98.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0309		"	0.0400		77.3	23-173			
Surrogate: Toluene-d8	0.0364		"	0.0400		91.0	20-170			
Surrogate: 4-Bromofluorobenzene	0.0363		"	0.0400		90.8	21-167			

Matrix Spike (1904032-MS1)

Source: 1904023-02

Prepared: 04/02/19 Analyzed: 04/03/19

Benzene	0.0865	0.0020	mg/kg	0.100	ND	86.5	70-130			
Toluene	0.0956	0.0050	"	0.100	ND	95.6	70-130			
Ethylbenzene	0.111	0.0050	"	0.100	0.0110	99.7	70-130			
m,p-Xylene	0.237	0.010	"	0.200	0.0292	104	70-130			
o-Xylene	0.0984	0.0050	"	0.100	ND	98.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0321		"	0.0400		80.2	23-173			
Surrogate: Toluene-d8	0.0367		"	0.0400		91.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0457		"	0.0400		114	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 04/03/19 06:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike	Source	%REC		RPD		Notes
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1904032 - EPA 5030 Soil MS

Matrix Spike Dup (1904032-MSD1)	Source: 1904023-02			Prepared: 04/02/19		Analyzed: 04/03/19				
Benzene	0.0888	0.0020	mg/kg	0.100	ND	88.8	70-130	2.64	30	
Toluene	0.0963	0.0050	"	0.100	ND	96.3	70-130	0.813	30	
Ethylbenzene	0.108	0.0050	"	0.100	0.0110	96.8	70-130	2.66	30	
m,p-Xylene	0.234	0.010	"	0.200	0.0292	102	70-130	1.40	30	
o-Xylene	0.0990	0.0050	"	0.100	ND	99.0	70-130	0.608	30	
Surrogate: 1,2-Dichloroethane-d4	0.0335		"	0.0400		83.8	23-173			
Surrogate: Toluene-d8	0.0369		"	0.0400		92.3	20-170			
Surrogate: 4-Bromofluorobenzene	0.0416		"	0.0400		104	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 04/03/19 06:31

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1904033 - EPA 3550A

Blank (1904033-BLK1)

Prepared: 04/02/19 Analyzed: 04/03/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1904033-BS1)

Prepared: 04/02/19 Analyzed: 04/03/19

C10-C28 (DRO) 596 50 mg/kg 500 119 70-130

Matrix Spike (1904033-MS1)

Source: 1904023-02

Prepared: 04/02/19 Analyzed: 04/03/19

C10-C28 (DRO) 801 50 mg/kg 500 152 130 70-130

Matrix Spike Dup (1904033-MSD1)

Source: 1904023-02

Prepared: 04/02/19 Analyzed: 04/03/19

C10-C28 (DRO) 789 50 mg/kg 500 152 127 70-130 1.60 20

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bicrig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
04/03/19 06:31

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 28, 2019

Ken Worthington

Apex Companies

176 Cole Blvd. Suite 250

Lakewood, CO 80101

RE: Noble - Bierig 1-26

Enclosed are the results of analyses for samples received by Summit Scientific on 03/27/19 16:48. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'P. Shrewsbury', written in a cursive style.

Paul Shrewsbury

President



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/28/19 06:07

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B30@18'	1903283-01	Soil	03/27/19 09:15	03/27/19 16:48
B31@18'	1903283-02	Soil	03/27/19 11:45	03/27/19 16:48
B32@18'	1903283-03	Soil	03/27/19 13:10	03/27/19 16:48
B33@18'	1903283-04	Soil	03/27/19 13:50	03/27/19 16:48
N13@16'	1903283-05	Soil	03/27/19 14:30	03/27/19 16:48
N13@8'	1903283-06	Soil	03/27/19 14:33	03/27/19 16:48
W07@16'	1903283-07	Soil	03/27/19 14:38	03/27/19 16:48
W07@8'	1903283-08	Soil	03/27/19 14:41	03/27/19 16:48
B34@18'	1903283-09	Soil	03/27/19 14:45	03/27/19 16:48
W08@16'	1903283-10	Soil	03/27/19 14:56	03/27/19 16:48
W08@8'	1903283-11	Soil	03/27/19 14:58	03/27/19 16:48

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

19032831

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 2

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax:
Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexcos.com
Project Name: Bierig 1-26
Project No.: WO#: 247039 RC# 815902161 Noble Contact: Harold Arnold

Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix		Air - Canister Serial #	Other (Specify)	Analyze For:						Special Instructions	
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil			GBTEX + Naphth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD				
B30@18'	3/27/19	0915	1			✓					✓	✓							Call Ken Worthington with questions
B31@18'		1145	1			✓					✓	✓							
B32@18'		1310	1			✓					✓	✓							
B33@18'		1350	1			✓					✓	✓							
N13@16'		1430	1			✓					✓	✓							
N13@8'		1433	1			✓					✓	✓							
W07@16'		1438	1			✓					✓	✓							
W07@8'		1441	1			✓					✓	✓							
B34@18'		1445	1			✓					✓	✓							
W08@16'		1456	1			✓					✓	✓							
Relinquished by: <u>Caitlin Thomas</u>		Date/Time: <u>3/27/19 1648</u>	Received by: <u>[Signature]</u>		Date/Time: <u>3.27.19 1648</u>	Turn Around Time (Check)			Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>						Notes				
Relinquished by:		Date/Time:	Received by:		Date/Time:	Sample Integrity:			Temperature Upon Receipt: <u>13.6</u> Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						Circle applicable regulatory agency: <u>COGCC</u> / CDPHE Client Name: Bill to Noble Energy				

19032832

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 2 of 2

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax:
Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexcos.com
Project Name: Bierig 1-26
Project No.: WO#: 247039 RC# 815902161 Noble Contact: Harold Arnold

Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:						Special Instructions				
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	GBTEX + Naphth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD						
<u>W0808'</u>	<u>3/27/19</u>	<u>1458</u>	<u>1</u>			<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							Call Ken Worthington with questions	
Relinquished by: <u>Caitlin Thomas</u>	Date/Time: <u>3/27/19 1048</u>	Received by: <u>[Signature]</u>	Date/Time: <u>3-27-19 1645</u>	Turn Around Time (Check)				Notes													
				Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/>				Circle applicable regulatory agency:													
				24 Hours <input type="checkbox"/> Standard <input type="checkbox"/>				<u>COGCC/CDPHE</u>													
				48 Hours <input type="checkbox"/>				Client Name: Bill to Noble Energy													
Relinquished by:	Date/Time:	Received in Lab by:	Date/Time:	Sample Integrity:																	
				Temperature Upon Receipt: <u>13.6</u>																	
				Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																	

Sample Receipt Checklist

S2 Work Order 1903283

Client: APEX/COACC Client Project ID: Bierig 1-26

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other R.D. Airbill #: _____

Matrix (check all that apply): Air Soil/Solid Water Other: _____
(Describe)

Temp (°C)	<u>13.6</u>
-----------	-------------

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>on ice</u>
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>same day</u>
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

UP
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

3-27-19 1340
Date/Time



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/28/19 06:07

B30@18'
1903283-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/27/19 09:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1903331	03/27/19	03/27/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Naphthalene	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **03/27/19 09:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		91.6 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		93.0 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.6 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/27/19 09:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	1903332	"	03/27/19	EPA 8015M	

Date Sampled: **03/27/19 09:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		109 %		30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/28/19 06:07

B31@18'
1903283-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/27/19 11:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903331	03/27/19	03/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/27/19 11:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		94.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/27/19 11:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903332	"	03/27/19	EPA 8015M	

Date Sampled: **03/27/19 11:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		102 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/28/19 06:07

B32@18'
1903283-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/27/19 13:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903331	03/27/19	03/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/27/19 13:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		94.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.5 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/27/19 13:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903332	"	03/27/19	EPA 8015M	

Date Sampled: **03/27/19 13:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		103 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/28/19 06:07

B33@18'
1903283-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/27/19 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0040	0.0020	mg/kg	1	1903331	03/27/19	03/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/27/19 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		91.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		92.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/27/19 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903332	"	03/27/19	EPA 8015M	

Date Sampled: **03/27/19 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		101 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/28/19 06:07

N13@16'
1903283-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/27/19 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1903331	03/27/19	03/28/19	EPA 8260B	
Toluene	0.0066	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.016	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.23	0.010	"	"	"	"	"	"	
Naphthalene	0.017	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/27/19 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		95.5 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		89.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		133 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/27/19 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1903332	"	03/27/19	EPA 8015M	

Date Sampled: **03/27/19 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		108 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/28/19 06:07

N13@8'
1903283-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/27/19 14:33**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903331	03/27/19	03/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/27/19 14:33**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		93.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.9 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/27/19 14:33**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903332	"	03/27/19	EPA 8015M	

Date Sampled: **03/27/19 14:33**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		105 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/28/19 06:07

W07@16'
1903283-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/27/19 14:38**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903331	03/27/19	03/28/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	79	50	"	10	"	"	"	"	

Date Sampled: **03/27/19 14:38**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		92.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		147 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/27/19 14:38**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	71	50	mg/kg	1	1903332	"	03/27/19	EPA 8015M	

Date Sampled: **03/27/19 14:38**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		89.6 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/28/19 06:07

W07@8'
1903283-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/27/19 14:41**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1903331	03/27/19	03/27/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	0.0068	0.0050		"	"	"	"	"	"	
Xylenes (total)	0.13	0.010		"	"	"	"	"	"	
Naphthalene	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **03/27/19 14:41**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		96.3 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		91.4 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/27/19 14:41**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	1903332	"	03/27/19	EPA 8015M	

Date Sampled: **03/27/19 14:41**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		101 %		30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/28/19 06:07

B34@18'
1903283-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/27/19 14:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1903331	03/27/19	03/27/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/27/19 14:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		97.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.3 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/27/19 14:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1903332	"	03/27/19	EPA 8015M	

Date Sampled: **03/27/19 14:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		89.3 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/28/19 06:07

W08@16'
1903283-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/27/19 14:56**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1903331	03/27/19	03/28/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	0.079	0.0050		"	"	"	"	"	"	
Xylenes (total)	1.8	0.10		"	10	"	"	"	"	
Naphthalene	0.064	0.010		"	1	"	"	"	"	
Gasoline Range Hydrocarbons	130	50		"	10	"	"	"	"	

Date Sampled: **03/27/19 14:56**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		108 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		91.0 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		113 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/27/19 14:56**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	150	50		mg/kg	1	1903332	"	03/27/19	EPA 8015M	

Date Sampled: **03/27/19 14:56**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		98.8 %		30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/28/19 06:07

W08@8'
1903283-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/27/19 14:58**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1903331	03/27/19	03/28/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	0.051	0.0050		"	"	"	"	"	"	
Xylenes (total)	1.2	0.010		"	"	"	"	"	"	
Naphthalene	0.055	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **03/27/19 14:58**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		97.0 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		92.0 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		122 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/27/19 14:58**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	1903332	"	03/27/19	EPA 8015M	

Date Sampled: **03/27/19 14:58**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		125 %		30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/28/19 06:07

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1903331 - EPA 5030 Soil MS

Blank (1903331-BLK1)

Prepared & Analyzed: 03/27/19

Benzene	ND	0.0020	mg/kg								
Toluene	ND	0.0050	"								
Ethylbenzene	ND	0.0050	"								
Xylenes (total)	ND	0.010	"								
Naphthalene	ND	0.010	"								
Gasoline Range Hydrocarbons	ND	50	"								
Surrogate: 1,2-Dichloroethane-d4	0.0393		"	0.0400		98.2	23-173				
Surrogate: Toluene-d8	0.0392		"	0.0400		98.1	20-170				
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.8	21-167				

LCS (1903331-BS1)

Prepared & Analyzed: 03/27/19

Benzene	0.0937	0.0020	mg/kg	0.100		93.7	70-130				
Toluene	0.0950	0.0050	"	0.100		95.0	70-130				
Ethylbenzene	0.104	0.0050	"	0.100		104	70-130				
m,p-Xylene	0.197	0.010	"	0.200		98.5	70-130				
o-Xylene	0.0999	0.0050	"	0.100		99.9	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0382		"	0.0400		95.6	23-173				
Surrogate: Toluene-d8	0.0404		"	0.0400		101	20-170				
Surrogate: 4-Bromofluorobenzene	0.0390		"	0.0400		97.4	21-167				

Matrix Spike (1903331-MS1)

Source: 1903270-01

Prepared & Analyzed: 03/27/19

Benzene	0.0857	0.0020	mg/kg	0.100	ND	85.7	70-130				
Toluene	0.0888	0.0050	"	0.100	ND	88.8	70-130				
Ethylbenzene	0.0941	0.0050	"	0.100	ND	94.1	70-130				
m,p-Xylene	0.181	0.010	"	0.200	ND	90.6	70-130				
o-Xylene	0.0920	0.0050	"	0.100	ND	92.0	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0384		"	0.0400		96.0	23-173				
Surrogate: Toluene-d8	0.0408		"	0.0400		102	20-170				
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.6	21-167				

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/28/19 06:07

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1903331 - EPA 5030 Soil MS

Matrix Spike Dup (1903331-MSD1)	Source: 1903270-01			Prepared & Analyzed: 03/27/19						
Benzene	0.0872	0.0020	mg/kg	0.100	ND	87.2	70-130	1.77	30	
Toluene	0.0880	0.0050	"	0.100	ND	88.0	70-130	0.882	30	
Ethylbenzene	0.0963	0.0050	"	0.100	ND	96.3	70-130	2.24	30	
m,p-Xylene	0.182	0.010	"	0.200	ND	90.9	70-130	0.347	30	
o-Xylene	0.0926	0.0050	"	0.100	ND	92.6	70-130	0.650	30	
Surrogate: 1,2-Dichloroethane-d4	0.0395		"	0.0400		98.8	23-173			
Surrogate: Toluene-d8	0.0401		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.1	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 03/28/19 06:07

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1903332 - EPA 3550A

Blank (1903332-BLK1)

Prepared: 03/27/19 Analyzed: 03/28/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1903332-BS1)

Prepared: 03/27/19 Analyzed: 03/28/19

C10-C28 (DRO) 461 50 mg/kg 500 92.2 70-130

Matrix Spike (1903332-MS1)

Source: 1903270-01

Prepared: 03/27/19 Analyzed: 03/28/19

C10-C28 (DRO) 507 50 mg/kg 500 35.4 94.2 70-130

Matrix Spike Dup (1903332-MSD1)

Source: 1903270-01

Prepared: 03/27/19 Analyzed: 03/28/19

C10-C28 (DRO) 478 50 mg/kg 500 35.4 88.5 70-130 5.82 20

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
03/28/19 06:07

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

April 04, 2019

Ken Worthington

Apex Companies

176 Cole Blvd. Suite 250

Lakewood, CO 80101

RE: Noble - Bierig 1-26

Enclosed are the results of analyses for samples received by Summit Scientific on 04/03/19 17:58. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'P. Shrewsbury', written in a cursive style.

Paul Shrewsbury

President



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bicrig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
04/04/19 06:35

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CF03	1904042-01	Soil	04/03/19 13:30	04/03/19 17:58
CF04	1904042-02	Soil	04/03/19 13:34	04/03/19 17:58
CF05	1904042-03	Soil	04/03/19 13:38	04/03/19 17:58

Summit Scientific

1904042

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 1

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax: _____
Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexcos.com
Project Name: Bierig 1-26
Project No.: WO#: 247039 RC# 815902161 Noble Contact: Ken Worthington

Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:						Special Instructions				
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	GBTEX + Naphth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD						
CF03	4/3/19	1330	1			✓						✓	✓							Call Ken Worthington with questions	
CF04	↓	1334	1			✓						✓	✓								
CF05	↓	1338	1			✓						✓	✓								
Relinquished by: <u>Caitlin Thomas</u> Date/Time: <u>4/3/19 1428</u>				Received by: <u>[Signature]</u> Date/Time: <u>4-3-19 14:28</u>				Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>						Notes Circle applicable regulatory agency: <u>COGCC</u> / CDPHE Client Name: Bill to Noble Energy							
Relinquished by: _____ Date/Time: _____				Received by: _____ Date/Time: _____				Sample Integrity: Temperature Upon Receipt: <u>34</u> Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>													
Relinquished by: _____ Date/Time: _____				Received in Lab by: _____ Date/Time: _____																	

Sample Receipt Checklist

S2 Work Order 1904048

Client: APEX / NOBLE Client Project ID: BIERIG 1-26

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other Airbill #: _____

Matrix (check all that apply): Air Soil/Solid Water Other: _____
(Describe)

Temp (°C)	<u>3.4</u>
-----------	------------

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	X			ON ICE
Were all samples received intact ⁽¹⁾ ?	X			
Was adequate sample volume provided ⁽¹⁾ ?	X			
If custody seals are present, are they intact ⁽¹⁾ ?			X	
Are samples with holding times due within 48 hours sample due within 48 hours present?	X			SAME DAY TAT
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	X			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	X			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	X			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	X			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			X	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			X	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			X	
If dissolved metals are requested, were samples field filtered?			X	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

Muri
Custodian Printed Name or Initials

 4-3-19
Signature of Custodian

18:22
Date/Time



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 04/04/19 06:35

CF03
1904042-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/03/19 13:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1904056	04/03/19	04/03/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Naphthalene	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **04/03/19 13:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		84.7 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		93.9 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.9 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/03/19 13:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	1904057	04/03/19	04/03/19	EPA 8015M	

Date Sampled: **04/03/19 13:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		145 %		30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
04/04/19 06:35

CF04
1904042-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/03/19 13:34**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1904056	04/03/19	04/03/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **04/03/19 13:34**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		75.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		90.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.7 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/03/19 13:34**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1904057	04/03/19	04/03/19	EPA 8015M	

Date Sampled: **04/03/19 13:34**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		132 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
04/04/19 06:35

CF05
1904042-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/03/19 13:38**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1904056	04/03/19	04/03/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **04/03/19 13:38**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		75.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		91.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.7 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/03/19 13:38**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1904057	04/03/19	04/03/19	EPA 8015M	

Date Sampled: **04/03/19 13:38**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		109 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
04/04/19 06:35

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1904056 - EPA 5030 Soil MS

Blank (1904056-BLK1)

Prepared & Analyzed: 04/03/19

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0416</i>		<i>"</i>	<i>0.0400</i>		<i>104</i>		<i>23-173</i>		
<i>Surrogate: Toluene-d8</i>	<i>0.0405</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>		<i>20-170</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0389</i>		<i>"</i>	<i>0.0400</i>		<i>97.2</i>		<i>21-167</i>		

LCS (1904056-BS1)

Prepared & Analyzed: 04/03/19

Benzene	0.124	0.0020	mg/kg	0.125		99.4		70-130		
Toluene	0.141	0.0050	"	0.125		113		70-130		
Ethylbenzene	0.152	0.0050	"	0.125		122		70-130		
m,p-Xylene	0.296	0.010	"	0.250		118		70-130		
o-Xylene	0.141	0.0050	"	0.125		113		70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0463</i>		<i>"</i>	<i>0.0400</i>		<i>116</i>		<i>23-173</i>		
<i>Surrogate: Toluene-d8</i>	<i>0.0410</i>		<i>"</i>	<i>0.0400</i>		<i>102</i>		<i>20-170</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0381</i>		<i>"</i>	<i>0.0400</i>		<i>95.3</i>		<i>21-167</i>		

Matrix Spike (1904056-MS1)

Source: 1904041-01

Prepared & Analyzed: 04/03/19

Benzene	0.116	0.0020	mg/kg	0.125	ND	92.9		70-130		
Toluene	0.135	0.0050	"	0.125	ND	108		70-130		
Ethylbenzene	0.144	0.0050	"	0.125	ND	115		70-130		
m,p-Xylene	0.288	0.010	"	0.250	ND	115		70-130		
o-Xylene	0.136	0.0050	"	0.125	ND	109		70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0451</i>		<i>"</i>	<i>0.0400</i>		<i>113</i>		<i>23-173</i>		
<i>Surrogate: Toluene-d8</i>	<i>0.0398</i>		<i>"</i>	<i>0.0400</i>		<i>99.6</i>		<i>20-170</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0400</i>		<i>"</i>	<i>0.0400</i>		<i>100</i>		<i>21-167</i>		

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 04/04/19 06:35

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike	Source	%REC		RPD		Notes
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1904056 - EPA 5030 Soil MS

Matrix Spike Dup (1904056-MSD1)	Source: 1904041-01			Prepared & Analyzed: 04/03/19						
Benzene	0.124	0.0020	mg/kg	0.125	ND	99.1	70-130	6.45	30	
Toluene	0.138	0.0050	"	0.125	ND	110	70-130	2.11	30	
Ethylbenzene	0.150	0.0050	"	0.125	ND	120	70-130	4.20	30	
m,p-Xylene	0.295	0.010	"	0.250	ND	118	70-130	2.40	30	
o-Xylene	0.140	0.0050	"	0.125	ND	112	70-130	2.84	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0454</i>		<i>"</i>	<i>0.0400</i>		<i>113</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0394</i>		<i>"</i>	<i>0.0400</i>		<i>98.6</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0392</i>		<i>"</i>	<i>0.0400</i>		<i>98.0</i>	<i>21-167</i>			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 04/04/19 06:35

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1904057 - EPA 3550A

Blank (1904057-BLK1)

Prepared: 04/03/19 Analyzed: 04/04/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1904057-BS1)

Prepared: 04/03/19 Analyzed: 04/04/19

C10-C28 (DRO) 616 50 mg/kg 500 123 70-130

Matrix Spike (1904057-MS1)

Source: 1904041-01

Prepared: 04/03/19 Analyzed: 04/04/19

C10-C28 (DRO) 551 50 mg/kg 500 ND 110 70-130

Matrix Spike Dup (1904057-MSD1)

Source: 1904041-01

Prepared: 04/03/19 Analyzed: 04/04/19

C10-C28 (DRO) 602 50 mg/kg 500 ND 120 70-130 8.72 20

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bicrig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
04/04/19 06:35

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

April 08, 2019

Ken Worthington

Apex Companies

176 Cole Blvd. Suite 250

Lakewood, CO 80101

RE: Noble - Bierig 1-26

Enclosed are the results of analyses for samples received by Summit Scientific on 04/05/19 14:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'P. Shrewsbury', written in a cursive style.

Paul Shrewsbury

President



Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bicrig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
04/08/19 05:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
C11	1904080-01	Soil	04/05/19 12:30	04/05/19 14:40
C12	1904080-02	Soil	04/05/19 12:32	04/05/19 14:40
C14	1904080-04	Soil	04/05/19 12:36	04/05/19 14:40

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

1904080

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 1

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80401
Phone: 303-487-1020 Fax: _____
Sampler Name: Caitlin Thomas

Project Manager: Ken Worthington 303-487-1020
E-Mail: Ken.Worthington@apexcos.com
Project Name: Bierig 1-26
Project No.: WO#: 247039 RC# 815902161 Noble Contact: ~~Ken Worthington~~ Jacob Evans

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix		Air - Canister Serial #	Other (Specify)	Analyze For:						Special Instructions	
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil			GBTEX + Naphth by 8260C	DRO by 8015C	pH, EC, SAR	HOLD				
C11	4/5/19	1230	1			✓					✓	✓							Call Ken Worthington with questions
C12	↓	1232	1			✓					✓	✓							
C13	↓	1234	1			✓							✓						
C14	↓	1236	1			✓					✓	✓							
C15	↓	1238	1			✓							✓						
C16	↓	1240	1			✓							✓						
C17	↓	1242	1			✓							✓						
C18	↓	1244	1			✓							✓						
Relinquished by: <u>Caitlin Thomas</u> 4/5/19		Date/Time: <u>1440</u>	Received by: <u>[Signature]</u>		Date/Time: <u>4.5.19</u>	Turn Around Time (Check)		Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/>		24 Hours <input type="checkbox"/> Standard <input type="checkbox"/>		48 Hours <input type="checkbox"/>		Notes		Circle applicable regulatory agency:			
Relinquished by:		Date/Time:	Received by:		Date/Time:	Sample Integrity:		Temperature Upon Receipt: <u>6.4</u>		Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Client Name: Bill to Noble Energy		COGCC/CDPHE					

Sample Receipt Checklist

S2 Work Order 1904080

Client: APEX / Noble Client Project ID: Bering 1-26

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other H.D. Airbill #: _____

Matrix (check all that apply): Air Soil/Solid Water Other: _____
(Describe)

Temp (°C)	6.4
-----------	-----

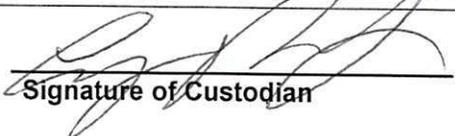
Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	/			
Were all samples received intact ⁽¹⁾ ?	/			
Was adequate sample volume provided ⁽¹⁾ ?	/			
If custody seals are present, are they intact ⁽¹⁾ ?			/	
Are samples with holding times due within 48 hours sample due within 48 hours present?	/			same day
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	/			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	/			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	/			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	/			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			/	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			/	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			/	
If dissolved metals are requested, were samples field filtered?			/	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

UP
Custodian Printed Name or Initials


Signature of Custodian

4.5.19 1449
Date/Time



Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 04/08/19 05:11

C11
1904080-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/05/19 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1904106	04/05/19	04/06/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Naphthalene	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **04/05/19 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		70.8 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		86.3 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		83.8 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/05/19 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	1904107	04/05/19	04/05/19	EPA 8015M	

Date Sampled: **04/05/19 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		102 %		30-150		"	"	"	"	

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
04/08/19 05:11

C12
1904080-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/05/19 12:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1904106	04/05/19	04/06/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **04/05/19 12:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		71.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		87.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		83.1 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/05/19 12:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1904107	04/05/19	04/05/19	EPA 8015M	

Date Sampled: **04/05/19 12:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		103 %	30-150		"	"	"	"	

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
04/08/19 05:11

C14
1904080-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/05/19 12:36**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1904106	04/05/19	04/06/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **04/05/19 12:36**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		82.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		88.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		81.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/05/19 12:36**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1904107	04/05/19	04/06/19	EPA 8015M	

Date Sampled: **04/05/19 12:36**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		105 %	30-150		"	"	"	"	

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
04/08/19 05:11

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1904106 - EPA 5030 Soil MS

Blank (1904106-BLK1)

Prepared: 04/05/19 Analyzed: 04/06/19

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0263		"	0.0400		65.8	23-173			
Surrogate: Toluene-d8	0.0342		"	0.0400		85.4	20-170			
Surrogate: 4-Bromofluorobenzene	0.0323		"	0.0400		80.7	21-167			

LCS (1904106-BS1)

Prepared: 04/05/19 Analyzed: 04/06/19

Benzene	0.0850	0.0020	mg/kg	0.100		85.0	70-130			
Toluene	0.104	0.0050	"	0.100		104	70-130			
Ethylbenzene	0.100	0.0050	"	0.100		100	70-130			
m,p-Xylene	0.232	0.010	"	0.200		116	70-130			
o-Xylene	0.103	0.0050	"	0.100		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0285		"	0.0400		71.2	23-173			
Surrogate: Toluene-d8	0.0350		"	0.0400		87.4	20-170			
Surrogate: 4-Bromofluorobenzene	0.0338		"	0.0400		84.5	21-167			

Matrix Spike (1904106-MS1)

Source: 1904078-01

Prepared: 04/05/19 Analyzed: 04/06/19

Benzene	0.0837	0.0020	mg/kg	0.100	ND	83.7	70-130			
Toluene	0.101	0.0050	"	0.100	ND	101	70-130			
Ethylbenzene	0.0965	0.0050	"	0.100	ND	96.5	70-130			
m,p-Xylene	0.219	0.010	"	0.200	ND	110	70-130			
o-Xylene	0.0999	0.0050	"	0.100	ND	99.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0287		"	0.0400		71.7	23-173			
Surrogate: Toluene-d8	0.0355		"	0.0400		88.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0336		"	0.0400		84.1	21-167			

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
04/08/19 05:11

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike	Source	%REC		RPD		Notes
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1904106 - EPA 5030 Soil MS

Matrix Spike Dup (1904106-MSD1)

Source: 1904078-01

Prepared: 04/05/19 Analyzed: 04/06/19

Benzene	0.0848	0.0020	mg/kg	0.100	ND	84.8	70-130	1.35	30	
Toluene	0.101	0.0050	"	0.100	ND	101	70-130	0.0890	30	
Ethylbenzene	0.0985	0.0050	"	0.100	ND	98.5	70-130	1.97	30	
m,p-Xylene	0.220	0.010	"	0.200	ND	110	70-130	0.150	30	
o-Xylene	0.100	0.0050	"	0.100	ND	100	70-130	0.300	30	
Surrogate: 1,2-Dichloroethane-d4	0.0298		"	0.0400		74.6	23-173			
Surrogate: Toluene-d8	0.0353		"	0.0400		88.3	20-170			
Surrogate: 4-Bromofluorobenzene	0.0335		"	0.0400		83.8	21-167			

Summit Scientific

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Apex Companies
 176 Cole Blvd. Suite 250
 Lakewood CO, 80101

Project: Noble - Bierig 1-26

Project Number: [none]
 Project Manager: Ken Worthington

Reported:
 04/08/19 05:11

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1904107 - EPA 3550A

Blank (1904107-BLK1)

Prepared & Analyzed: 04/05/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1904107-BS1)

Prepared & Analyzed: 04/05/19

C10-C28 (DRO) 568 50 mg/kg 500 114 70-130

Matrix Spike (1904107-MS1)

Source: 1904078-01

Prepared & Analyzed: 04/05/19

C10-C28 (DRO) 607 50 mg/kg 500 33.1 115 70-130

Matrix Spike Dup (1904107-MSD1)

Source: 1904078-01

Prepared & Analyzed: 04/05/19

C10-C28 (DRO) 598 50 mg/kg 500 33.1 113 70-130 1.52 20

Summit Scientific

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Apex Companies
176 Cole Blvd. Suite 250
Lakewood CO, 80101

Project: Noble - Bicrig 1-26

Project Number: [none]
Project Manager: Ken Worthington

Reported:
04/08/19 05:11

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference