

432.520.7720 PHONE 432.520.7701 FAX

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APPROVED By Olivia Yu at 9:53 am, Sep 27, 2017

September 5, 2017

Olivia Yu New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division, District 1 1625 French Drive Hobbs, NM 88240

NMOCD approves of the completed delineation for 1RP-4667. The proposed additional delineation for the areas represented by T1 and T3 is also approved. Provide scaled map of the location of additional test trenches.

Amber Groves Hobbs Field Office New Mexico State Land Office 2827 N. Dal Paso St., Suite 117 Hobbs, New Mexico 88240

Re: Soil Investigation Summary and Proposed Remediation Workplan Jaguar 18 State #002H (1RP-4667) GPS: N 32.29842° W 103.61335° Unit Letter "N", Section 18, Township 23 South, Range 33 East Lea County, New Mexico

Dear Ms. Yu and Ms. Groves,

TRC Environmental Corporation (TRC), on behalf of COG Operating, LLC (COG) has prepared this Soil Investigation Summary and Proposed Remediation Workplan (Workplan) for the Jaguar 18 State #002H Release Site (Release Site). The purpose of this Workplan is to propose remediation activities designed to advance the Jaguar 18 State #002H Release Site toward an NMOCD approved Site Closure Status. The legal description of the Release Site is Unit Letter "N", Section 18, Township 23 South, Range 33 East, in Lea County, New Mexico. The GPS coordinates for the site are N 32.29842° W 103.61335°. The subject property is administered by the New Mexico State Land Office (NMSLO). A Site Location Map and Site Map are provided as Figure 1 and Figure 2, respectively.

On March 29, 2017, COG discovered a crude oil and produced water release from a casing valve on the wellhead. The release was contained on the location on the caliche pad. The release area measured approximately 22,036 square feet. On March 30, 2017, a COG representative notified the NMOCD and NMSLO and submitted a Release Notification and Corrective Action (Form C-141) to the NMOCD on April 7, 2017. During initial response activities, the casing valve on the wellhead was properly closed. Approximately forty (40) barrels of fluid was released from the casing valve, with approximately thirty (30) barrels recovered. The Form C-141 is attached to this report.

A groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) did not identify any registered water wells in Section 18, Township 20 South, Range 35 East. A reference map utilized by the New Mexico Oil Conservation Division (NMOCD) Hobbs District Office indicates groundwater should be encountered at approximately five hundred (500) feet below ground surface (bgs). Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion.

No water wells were observed within one-thousand (1,000) feet of the Release Site. Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion.

No surface water was observed within one-thousand (1,000) feet of the release. Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion.

Based on the NMOCD Site Classification criteria, the Release Site soil remediation levels are 10 milligrams per Kilogram (mg/Kg) for benzene, 50 mg/Kg for benzene, toluene, ethylbenzene and xylenes (BTEX), and five thousand (5,000) mg/Kg for total petroleum hydrocarbons (TPH). Per NMOCD request, chloride remediation levels for the Release Site will be 600 mg/Kg.

On April 18, 2017, a Concho Representative collected forty-eight (48) delineation soil samples from the impacted area. (See attached Table 1 for a summary of laboratory results). The soil samples were submitted to Cardinal Laboratories in Hobbs, New Mexico for determination of concentrations of BTEX using Method SW 846-8021B, TPH using Method SW 846-8015M, and chloride using Method SM 4500 Cl-B. The analytical results indicated benzene and BTEX concentrations were less than the applicable laboratory Method Detection Limit (MDL) and NMOCD regulatory guidelines for the submitted soil samples. The laboratory results indicated TPH concentrations were less than the applicable laboratory MDL for all submitted soil samples, with the exception of soil samples NORTH-SURF (22 mg/Kg), T1-SURF (4,131.5 mg/Kg), and T1-1' (57.1 mg/Kg) which exhibited TPH concentrations below NMOCD regulatory guidelines. Chloride concentrations ranged from less than the laboratory MDL for soil samples NORTH-SURF and T1-1' to 7,360 mg/Kg for soil sample T5-SURF. A review of laboratory analytical results indicated chloride concentrations were above NMOCD regulatory guidelines for soil samples T1-SURF (4,930 mg/Kg), T1-4' (816 mg/Kg), T1-5' (1,490 mg/Kg), T2-SURF (4,960 mg/Kg), T2-1' (4,800 mg/Kg), T3-3' (6,480 mg/Kg), T3-4' (3,440 mg/Kg), T5-SURF (7,360 mg/Kg), T5-1' (1,230 mg/Kg), and T5-2' (736 mg/Kg).

Based on the analytical results of the soil samples collected on April 18, 2017, COG proposes the following field activities designed to remediate the Jaguar 18 State #002H Release:

- Utilizing a backhoe, excavate the area represented by soil sample T1 to approximately six (6) inches bgs. No excavation activities will be performed in the areas represented by soil samples T3 and T4, with the exception of any visibly stained areas, which will be aesthetically addressed. The areas represented by soil samples T2 and T5 will be excavated to approximately two (2) feet bgs.
- In the areas represented by soil samples T1 and T3, additional delineation trenches will be advanced and soil samples will be collected at approximately three (3) feet bgs, four (4) feet bgs,

and five (5) feet bgs and submitted to the laboratory for chloride analysis to confirm the laboratory results of the April 18, 2017 sampling event. If laboratory results indicate the chloride concentrations are above NMOCD regulatory guidelines, the non-impacted overburden will be temporarily stockpiled adjacent to the excavation and excavation activities will continue at three (3) feet bgs in the area represented by trench T3 and at four (4) feet bgs in the area represented by trench T1. The non-impacted overburden will utilized as backfill material.

- In addition, one (1) background trench will be advanced outside of the impacted area and soil samples will be collected and submitted at depths of approximately three (3) feet, four (4) feet, and five (5) feet and submitted for chloride analysis.
- On receipt of favorable analytical results (below the NMOCD regulatory guidelines referenced above), the excavation will be backfilled with non-impacted locally obtained "like" soil and the excavated impacted soil will be transported under manifest to an NMOCD approved disposal facility.
- Prepare and submit a "Remediation Summary and Site Closure Request" to the NMOCD and NMSLO.

COG is prepared to begin the activities outlined in this Proposed Remediation Workplan on NMOCD and NMSLO approval.

If you have any questions, or if additional information is required, please feel free to call me at 432-520-7720 (office) or 432-664-6699 (cell).

Thank you,

Nikki Sucen

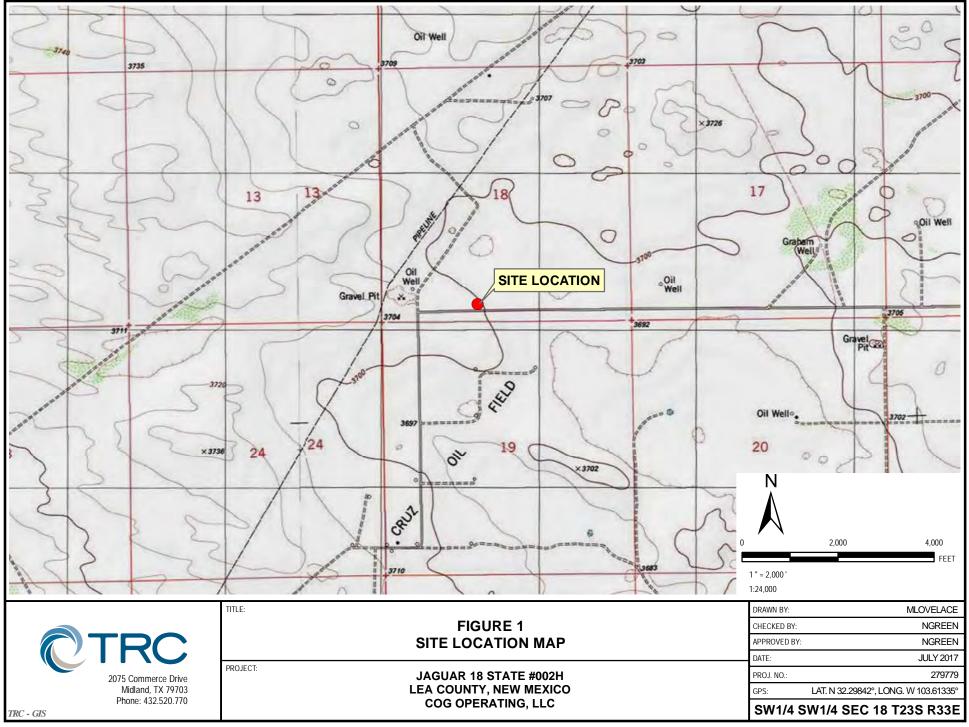
Nikki Green Project Manager TRC Environmental Corporation

Jeffrey Kindley, PG Senior Project Manager TRC Environmental Corporation

Attachments:

Figure 1 - Site Location Map Figure 2 - Site Map Table 1 - Concentrations of Benzene, BTEX, TPH and Chloride in Soil Laboratory Analytical Results Release Notification and Corrective Action (Form C-141)

cc: File



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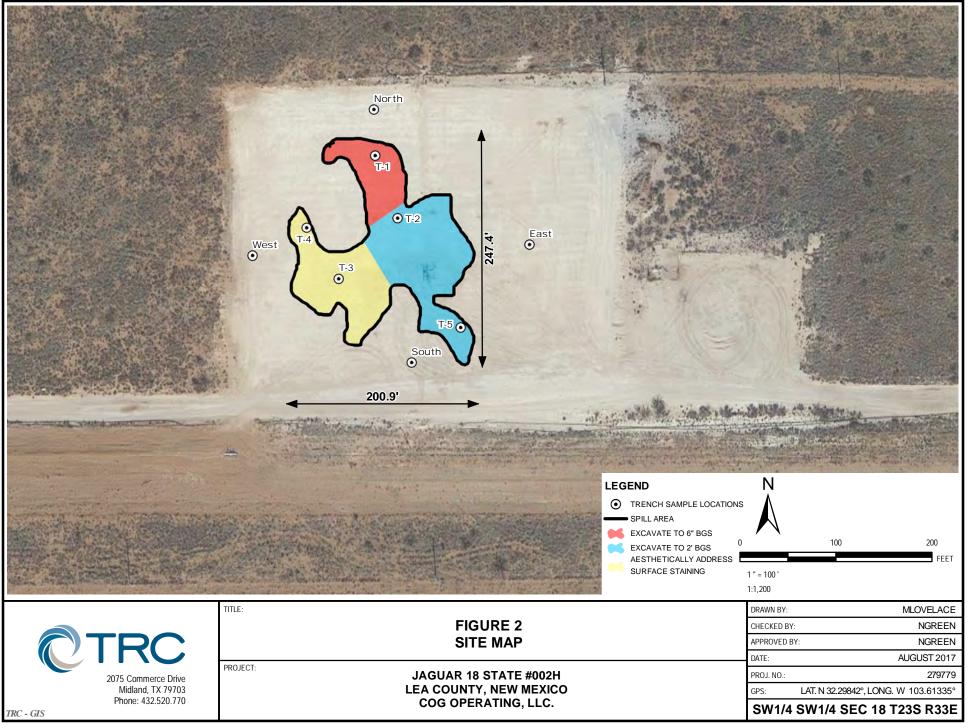


TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

COG Operating, LLC Jaguar 18 State #002H (1RP-4667) LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/Kg

| | | CON | | | METHODS: S | SW 846-8021b | | | MI | ETHOD: SW 8015 | М | SM4500Cl-B |
|---------------------------------------|----------------|----------------|---------|---------|-------------------|-------------------|---------------|---------------|---|--|--|------------|
| SAMPLE LOCATION | SAMPLE DATE | SOIL STATUS | BENZENE | TOLUENE | ETHYL- BENZENE | m, p - XYLENES | o - XYLENE | TOTAL BTEX | TPH GRO C ₆ -C ₁₀ | TPH DRO C _{>10} -C ₂₈ | ТОТАL ТРН С ₆ -С ₂₈ | CHLORIDE |
| NMOCD Site Classification Criteria | | | 10 | | | | | 50 | | | 5,000 | 600 |
| | | | | | | | | | | | | |
| T1-SURF | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | 11.5 | 4,120 | 4,131.5 | 4,930 |
| T1-1' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | 57.1 | 57.1 | <16.0 |
| T1-2' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 16.0 |
| T1-3' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 240 |
| T1-4' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 816 |
| T1-5' | 4/18/2017 | Trench | - | - | - | | - | - | - | - | - | 1,490 |
| T1-6' | 4/18/2017 | Trench | - | - | - | | - | - | - | - | - | 480 |
| T1-8' | 4/18/2017 | Trench | - | - | - | | - | - | - | - | - | 336 |
| T1-10' | 4/18/2017 | Trench | - | - | - | | - | - | - | - | - | 80.0 |
| | | | | | | | | | | | | |
| T2-SURF | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 4,960 |
| T2-1' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 4,800 |
| T2-2' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 576 |
| T2-3' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 144 |
| T2-4' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 176 |
| T2-6' | 4/18/2017 | Trench | - | - | - | | - | - | - | - | - | 48.0 |
| | | | - | | | | | | | | | |
| T3-SURF | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 64.0 |
| T3-1' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 80.0 |
| T3-2' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 112 |
| T3-3' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 6,480 |
| T3-4' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 3,440 |
| T3-6' | 4/18/2017 | Trench | - | - | - | | - | - | - | - | - | 432 |
| T3-8' | 4/18/2017 | Trench | - | - | - | | - | - | - | - | - | 176 |
| | | | | - | - | - | | | | | | |
| T4-SURF | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 560 |
| T4-1' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 560 |

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

COG Operating, LLC Jaguar 18 State #002H (1RP-4667) LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/Kg

| | | I OD | | | METHODS: 5 | SW 846-8021b | | | MI | SM4500Cl-B | | |
|---------------------------------------|----------------|----------------|---------|---------|-------------------|-------------------|---------------|---------------|--|--|--|----------|
| SAMPLE LOCATION | SAMPLE DATE | SOIL STATUS | BENZENE | TOLUENE | ETHYL- BENZENE | m, p - XYLENES | o - XYLENE | TOTAL BTEX | TPH GRO C ₆ -C ₁₀ | TPH DRO C _{>10} -C ₂₈ | ТОТА L ТРН С ₆ -С ₂₈ | CHLORIDE |
| NMOCD Site Classification Criteria | | | 10 | | | | | 50 | | | 5,000 | 600 |
| T4-2' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 544 |
| T4-3' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 32.0 |
| T4-4' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 16.0 |
| T4-6' | 4/18/2017 | Trench | - | - | - | | - | - | - | - | - | 64.0 |
| T4-8' | 4/18/2017 | Trench | - | - | - | | - | - | - | - | - | 96.0 |
| | . | - | | | | - | | | | | | |
| T5-SURF | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 7,360 |
| T5-1' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 1,230 |
| T5-2' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 736 |
| T5-3' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 64.0 |
| T5-4' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 64.0 |
| T5-6' | 4/18/2017 | Trench | - | - | - | | - | - | - | - | - | 192 |
| T5-8' | 4/18/2017 | Trench | - | - | - | | - | - | - | - | - | 160 |
| | | - | | | - | - | | - | | - | | |
| WEST-SURF | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 32.0 |
| WEST-1' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 16.0 |
| WEST-2' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 32.0 |
| | I | T | I | I | | | | | | - | T | |
| EAST-SURF | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 64.0 |
| EAST-1' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 16.0 |
| EAST-2' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 32.0 |
| | | I = | 0.0.55 | 0.0.55 | 0.0.76 | | 1.50 | 0.4.50 | 10.0 | 10.0 | 10.0 | |
| SOUTH-SURF | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | | < 0.150 | <10.0 | <10.0 | <10.0 | 224 |
| SOUTH-1' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | | < 0.150 | <10.0 | <10.0 | <10.0 | 112 |
| SOUTH-2' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 112 |
| NORTH-SURF | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | 22.0 | 22.0 | <16.0 |

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

COG Operating, LLC Jaguar 18 State #002H (1RP-4667) LEA COUNTY, NEW MEXICO

| All concentrations are reported in mg/Kg | |
|--|--|
|--|--|

| | | | | | METHODS: S | SW 846-8021b | | | METHOD: SW 8015M | | | SM4500Cl-B |
|---------------------------------------|----------------|--------|---------|---------|-------------------|-------------------|---------------|---------------|--|--|--|------------|
| SAMPLE LOCATION | SAMPLE DATE | | BENZENE | TOLUENE | ETHYL- BENZENE | m, p - XYLENES | o - XYLENE | TOTAL BTEX | TPH GRO C ₆ -C ₁₀ | TPH DRO C _{>10} -C ₂₈ | TOTAL TPH C ₆ -C ₂₈ | CHLORIDE |
| NMOCD Site Classification Criteria | | | 10 | | | | | 50 | | | 5,000 | 600 |
| NORTH-1' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 16.0 |
| NORTH-2' | 4/18/2017 | Trench | < 0.050 | < 0.050 | < 0.050 | <0. | 150 | < 0.150 | <10.0 | <10.0 | <10.0 | 16.0 |
| | | | | | | | | | | | | |



April 27, 2017

AARON LIEB

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: JAGUAR 18 STATE #002H

Enclosed are the results of analyses for samples received by the laboratory on 04/20/17 12:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

| Method EPA 552.2 | Haloacetic Acids (HAA-5) |
|------------------|------------------------------|
| Method EPA 524.2 | Total Trihalomethanes (TTHM) |
| Method EPA 524.4 | Regulated VOCs (V1, V2, V3) |

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T1 - SURFACE (H701053-01)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|---------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/22/2017 | ND | 1.94 | 96.8 | 2.00 | 0.897 | |
| Toluene* | <0.050 | 0.050 | 04/22/2017 | ND | 1.85 | 92.7 | 2.00 | 1.13 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/22/2017 | ND | 1.87 | 93.3 | 2.00 | 0.506 | |
| Total Xylenes* | <0.150 | 0.150 | 04/22/2017 | ND | 5.32 | 88.7 | 6.00 | 0.459 | |
| Total BTEX | <0.300 | 0.300 | 04/22/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 90.3 9 | % 72-148 | | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 4930 | 16.0 | 04/24/2017 | ND | 448 | 112 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | S-04 |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | 11.5 | 10.0 | 04/21/2017 | ND | 198 | 98.8 | 200 | 1.91 | |
| DRO >C10-C28 | 4120 | 10.0 | 04/21/2017 | ND | 207 | 104 | 200 | 1.74 | |
| Surrogate: 1-Chlorooctane | 94.2 \$ | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 338 9 | 34.7-15 | 7 | | | | | | |

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T1 - 1' (H701053-02)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/22/2017 | ND | 1.94 | 96.8 | 2.00 | 0.897 | |
| Toluene* | <0.050 | 0.050 | 04/22/2017 | ND | 1.85 | 92.7 | 2.00 | 1.13 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/22/2017 | ND | 1.87 | 93.3 | 2.00 | 0.506 | |
| Total Xylenes* | <0.150 | 0.150 | 04/22/2017 | ND | 5.32 | 88.7 | 6.00 | 0.459 | |
| Total BTEX | <0.300 | 0.300 | 04/22/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 94.3 | % 72-148 | | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | <16.0 | 16.0 | 04/24/2017 | ND | 448 | 112 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/21/2017 | ND | 198 | 98.8 | 200 | 1.91 | |
| DRO >C10-C28 | 57.1 | 10.0 | 04/21/2017 | ND | 207 | 104 | 200 | 1.74 | |
| Surrogate: 1-Chlorooctane | 90.9 | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 96.7 | % 34.7-15 | 7 | | | | | | |

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T1 - 2' (H701053-03)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/22/2017 | ND | 1.94 | 96.8 | 2.00 | 0.897 | |
| Toluene* | <0.050 | 0.050 | 04/22/2017 | ND | 1.85 | 92.7 | 2.00 | 1.13 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/22/2017 | ND | 1.87 | 93.3 | 2.00 | 0.506 | |
| Total Xylenes* | <0.150 | 0.150 | 04/22/2017 | ND | 5.32 | 88.7 | 6.00 | 0.459 | |
| Total BTEX | <0.300 | 0.300 | 04/22/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 98.1 9 | % 72-148 | 2 | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 16.0 | 16.0 | 04/24/2017 | ND | 448 | 112 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/21/2017 | ND | 198 | 98.8 | 200 | 1.91 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/21/2017 | ND | 207 | 104 | 200 | 1.74 | |
| Surrogate: 1-Chlorooctane | 88.1 9 | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 80.7 9 | % 34.7-15 | 7 | | | | | | |

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T1 - 3' (H701053-04)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/22/2017 | ND | 1.94 | 96.8 | 2.00 | 0.897 | |
| Toluene* | <0.050 | 0.050 | 04/22/2017 | ND | 1.85 | 92.7 | 2.00 | 1.13 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/22/2017 | ND | 1.87 | 93.3 | 2.00 | 0.506 | |
| Total Xylenes* | <0.150 | 0.150 | 04/22/2017 | ND | 5.32 | 88.7 | 6.00 | 0.459 | |
| Total BTEX | <0.300 | 0.300 | 04/22/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 96.9 9 | % 72-148 | 2 | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 240 | 16.0 | 04/24/2017 | ND | 432 | 108 | 400 | 7.14 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/21/2017 | ND | 198 | 98.8 | 200 | 1.91 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/21/2017 | ND | 207 | 104 | 200 | 1.74 | |
| Surrogate: 1-Chlorooctane | 87.7 9 | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 80.0 9 | 34.7-15 | 7 | | | | | | |

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Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T1 - 4' (H701053-05)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/22/2017 | ND | 1.94 | 96.8 | 2.00 | 0.897 | |
| Toluene* | <0.050 | 0.050 | 04/22/2017 | ND | 1.85 | 92.7 | 2.00 | 1.13 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/22/2017 | ND | 1.87 | 93.3 | 2.00 | 0.506 | |
| Total Xylenes* | <0.150 | 0.150 | 04/22/2017 | ND | 5.32 | 88.7 | 6.00 | 0.459 | |
| Total BTEX | <0.300 | 0.300 | 04/22/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 99.7 9 | % 72-148 | 2 | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 816 | 16.0 | 04/24/2017 | ND | 432 | 108 | 400 | 7.14 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/22/2017 | ND | 198 | 98.8 | 200 | 1.91 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/22/2017 | ND | 207 | 104 | 200 | 1.74 | |
| Surrogate: 1-Chlorooctane | 91.4 9 | 28.3-16 | 4 | | | | | | |
| | 84.2 9 | % 34.7-15 | | | | | | | |

Sample ID: T1 - 5' (H701053-06)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 1490 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 7.14 | |

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Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T1 - 6' (H701053-07)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 480 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 7.14 | |

Sample ID: T1 - 8' (H701053-08)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 336 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 7.14 | |

Sample ID: T1 - 10' (H701053-09)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 80.0 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 7.14 | |

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Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T2 - SURFACE (H701053-10)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/22/2017 | ND | 1.94 | 96.8 | 2.00 | 0.897 | |
| Toluene* | <0.050 | 0.050 | 04/22/2017 | ND | 1.85 | 92.7 | 2.00 | 1.13 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/22/2017 | ND | 1.87 | 93.3 | 2.00 | 0.506 | |
| Total Xylenes* | <0.150 | 0.150 | 04/22/2017 | ND | 5.32 | 88.7 | 6.00 | 0.459 | |
| Total BTEX | <0.300 | 0.300 | 04/22/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 98.4 | % 72-148 | 2 | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 4960 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 7.14 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/22/2017 | ND | 198 | 98.8 | 200 | 1.91 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/22/2017 | ND | 207 | 104 | 200 | 1.74 | |
| Surrogate: 1-Chlorooctane | 88.3 | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 82.3 | % 34.7-15 | 7 | | | | | | |

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T2 - 1' (H701053-11)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/22/2017 | ND | 1.94 | 96.8 | 2.00 | 0.897 | |
| Toluene* | <0.050 | 0.050 | 04/22/2017 | ND | 1.85 | 92.7 | 2.00 | 1.13 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/22/2017 | ND | 1.87 | 93.3 | 2.00 | 0.506 | |
| Total Xylenes* | <0.150 | 0.150 | 04/22/2017 | ND | 5.32 | 88.7 | 6.00 | 0.459 | |
| Total BTEX | <0.300 | 0.300 | 04/22/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 98.7 9 | % 72-148 | | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 4800 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 7.14 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/22/2017 | ND | 198 | 98.8 | 200 | 1.91 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/22/2017 | ND | 207 | 104 | 200 | 1.74 | |
| Surrogate: 1-Chlorooctane | 86.6 9 | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 83.7 9 | 34.7-15 | 7 | | | | | | |

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T2 - 2' (H701053-12)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|---------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.80 | 90.1 | 2.00 | 0.871 | |
| Toluene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.75 | 87.4 | 2.00 | 0.818 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.79 | 89.5 | 2.00 | 0.819 | QR-03 |
| Total Xylenes* | <0.150 | 0.150 | 04/24/2017 | ND | 5.12 | 85.3 | 6.00 | 0.650 | |
| Total BTEX | <0.300 | 0.300 | 04/24/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 99.8 9 | % 72-148 | 2 | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 576 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 7.14 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/22/2017 | ND | 198 | 98.8 | 200 | 1.91 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/22/2017 | ND | 207 | 104 | 200 | 1.74 | |
| Surrogate: 1-Chlorooctane | 94.9 \$ | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 87.8 9 | 34.7-15 | 7 | | | | | | |

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Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T2 - 3' (H701053-13)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.80 | 90.1 | 2.00 | 0.871 | |
| Toluene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.75 | 87.4 | 2.00 | 0.818 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.79 | 89.5 | 2.00 | 0.819 | |
| Total Xylenes* | <0.150 | 0.150 | 04/24/2017 | ND | 5.12 | 85.3 | 6.00 | 0.650 | |
| Total BTEX | <0.300 | 0.300 | 04/24/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 97.8 9 | % 72-148 | | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 144 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 7.14 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/22/2017 | ND | 198 | 98.8 | 200 | 1.91 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/22/2017 | ND | 207 | 104 | 200 | 1.74 | |
| Surrogate: 1-Chlorooctane | 84.0 9 | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 74.4 9 | 34.7-15 | 7 | | | | | | |

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T2 - 4' (H701053-14)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.80 | 90.1 | 2.00 | 0.871 | |
| Toluene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.75 | 87.4 | 2.00 | 0.818 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.79 | 89.5 | 2.00 | 0.819 | |
| Total Xylenes* | <0.150 | 0.150 | 04/24/2017 | ND | 5.12 | 85.3 | 6.00 | 0.650 | |
| Total BTEX | <0.300 | 0.300 | 04/24/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 99.5 % | 6 72-148 | | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 176 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 7.14 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/22/2017 | ND | 200 | 100 | 200 | 4.05 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/22/2017 | ND | 215 | 107 | 200 | 4.17 | |
| Surrogate: 1-Chlorooctane | 86.5 % | 6 28.3-16 | 4 | | | | | | |
| | | | | | | | | | |

Sample ID: T2 - 6' (H701053-15)

| Chloride, SM4500Cl-B | mg, | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 48.0 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 7.14 | |

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T3 - SURFACE (H701053-16)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.80 | 90.1 | 2.00 | 0.871 | |
| Toluene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.75 | 87.4 | 2.00 | 0.818 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.79 | 89.5 | 2.00 | 0.819 | |
| Total Xylenes* | <0.150 | 0.150 | 04/24/2017 | ND | 5.12 | 85.3 | 6.00 | 0.650 | |
| Total BTEX | <0.300 | 0.300 | 04/24/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 99. 7 | % 72-148 | 2 | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 64.0 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 7.14 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/22/2017 | ND | 200 | 100 | 200 | 4.05 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/22/2017 | ND | 215 | 107 | 200 | 4.17 | |
| Surrogate: 1-Chlorooctane | 85.1 | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 76.2 | % 34.7-15 | 7 | | | | | | |

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T3 - 1' (H701053-17)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.80 | 90.1 | 2.00 | 0.871 | |
| Toluene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.75 | 87.4 | 2.00 | 0.818 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.79 | 89.5 | 2.00 | 0.819 | |
| Total Xylenes* | <0.150 | 0.150 | 04/24/2017 | ND | 5.12 | 85.3 | 6.00 | 0.650 | |
| Total BTEX | <0.300 | 0.300 | 04/24/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 100 % | 6 72-148 | , | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 80.0 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 7.14 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/22/2017 | ND | 200 | 100 | 200 | 4.05 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/22/2017 | ND | 215 | 107 | 200 | 4.17 | |
| Surrogate: 1-Chlorooctane | 92.1 9 | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 83.8 9 | 34.7-15 | 7 | | | | | | |

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Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T3 - 2' (H701053-18)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|---------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.80 | 90.1 | 2.00 | 0.871 | |
| Toluene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.75 | 87.4 | 2.00 | 0.818 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.79 | 89.5 | 2.00 | 0.819 | |
| Total Xylenes* | <0.150 | 0.150 | 04/24/2017 | ND | 5.12 | 85.3 | 6.00 | 0.650 | |
| Total BTEX | <0.300 | 0.300 | 04/24/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 100 % | % 72-148 | 2 | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 112 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 7.14 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/22/2017 | ND | 200 | 100 | 200 | 4.05 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/22/2017 | ND | 215 | 107 | 200 | 4.17 | |
| Surrogate: 1-Chlorooctane | 85.0 \$ | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 78.2 9 | % 34.7-15 | 7 | | | | | | |

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COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T3 - 3' (H701053-19)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.80 | 90.1 | 2.00 | 0.871 | |
| Toluene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.75 | 87.4 | 2.00 | 0.818 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.79 | 89.5 | 2.00 | 0.819 | |
| Total Xylenes* | <0.150 | 0.150 | 04/24/2017 | ND | 5.12 | 85.3 | 6.00 | 0.650 | |
| Total BTEX | <0.300 | 0.300 | 04/24/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 100 9 | 6 72-148 | , | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 6480 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 7.14 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/22/2017 | ND | 200 | 100 | 200 | 4.05 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/22/2017 | ND | 215 | 107 | 200 | 4.17 | |
| Surrogate: 1-Chlorooctane | 88.9 | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 80.4 | 34.7-15 | 7 | | | | | | |

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Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T3 - 4' (H701053-20)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.80 | 90.1 | 2.00 | 0.871 | |
| Toluene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.75 | 87.4 | 2.00 | 0.818 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.79 | 89.5 | 2.00 | 0.819 | |
| Total Xylenes* | <0.150 | 0.150 | 04/24/2017 | ND | 5.12 | 85.3 | 6.00 | 0.650 | |
| Total BTEX | <0.300 | 0.300 | 04/24/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 100 % | 6 72-148 | 2 | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 3440 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 7.14 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/22/2017 | ND | 200 | 100 | 200 | 4.05 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/22/2017 | ND | 215 | 107 | 200 | 4.17 | |
| Surrogate: 1-Chlorooctane | 77.4 9 | 28.3-16 | 4 | | | | | | |
| | | | | | | | | | |

Sample ID: T3 - 6' (H701053-21)

| Chloride, SM4500Cl-B | mg, | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 432 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 7.14 | |

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Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T3 - 8' (H701053-22)

| Chloride, SM4500Cl-B | mg, | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 176 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 7.14 | |

Sample ID: T4 - SURFACE (H701053-23)

| BTEX 8021B | mg/ | 'kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.80 | 90.1 | 2.00 | 0.871 | |
| Toluene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.75 | 87.4 | 2.00 | 0.818 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.79 | 89.5 | 2.00 | 0.819 | |
| Total Xylenes* | <0.150 | 0.150 | 04/24/2017 | ND | 5.12 | 85.3 | 6.00 | 0.650 | |
| Total BTEX | <0.300 | 0.300 | 04/24/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 99.9 | % 72-148 | | | | | | | |
| Chloride, SM4500Cl-B | mg/ | 'kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 560 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 7.14 | |
| TPH 8015M | mg/ | 'kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/22/2017 | ND | 200 | 100 | 200 | 4.05 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/22/2017 | ND | 215 | 107 | 200 | 4.17 | |

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Surrogate: 1-Chlorooctadecane

Surrogate: 1-Chlorooctane

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Celeg D. Keine

82.8 %

76.7 %

28.3-164

34.7-157

Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T4 - 1' (H701053-24)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.80 | 90.1 | 2.00 | 0.871 | |
| Toluene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.75 | 87.4 | 2.00 | 0.818 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.79 | 89.5 | 2.00 | 0.819 | |
| Total Xylenes* | <0.150 | 0.150 | 04/24/2017 | ND | 5.12 | 85.3 | 6.00 | 0.650 | |
| Total BTEX | <0.300 | 0.300 | 04/24/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 99.8 9 | % 72-148 | | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 560 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | QM-07 |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/22/2017 | ND | 200 | 100 | 200 | 4.05 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/22/2017 | ND | 215 | 107 | 200 | 4.17 | |
| Surrogate: 1-Chlorooctane | 88.69 | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 86.7 9 | 34.7-15 | 7 | | | | | | |

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Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T4 - 2' (H701053-25)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.80 | 90.1 | 2.00 | 0.871 | |
| Toluene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.75 | 87.4 | 2.00 | 0.818 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.79 | 89.5 | 2.00 | 0.819 | |
| Total Xylenes* | <0.150 | 0.150 | 04/24/2017 | ND | 5.12 | 85.3 | 6.00 | 0.650 | |
| Total BTEX | <0.300 | 0.300 | 04/24/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 100 % | 6 72-148 | | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 544 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/22/2017 | ND | 200 | 100 | 200 | 4.05 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/22/2017 | ND | 215 | 107 | 200 | 4.17 | |
| Surrogate: 1-Chlorooctane | 93.3 9 | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 84.8 9 | 34.7-15 | 7 | | | | | | |

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COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T4 - 3' (H701053-26)

| BTEX 8021B | mg/ | 'kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.80 | 90.1 | 2.00 | 0.871 | |
| Toluene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.75 | 87.4 | 2.00 | 0.818 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.79 | 89.5 | 2.00 | 0.819 | |
| Total Xylenes* | <0.150 | 0.150 | 04/24/2017 | ND | 5.12 | 85.3 | 6.00 | 0.650 | |
| Total BTEX | <0.300 | 0.300 | 04/24/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 101 9 | % 72-148 | , | | | | | | |
| Chloride, SM4500Cl-B | mg/ | 'kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 32.0 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |
| TPH 8015M | mg/ | 'kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/22/2017 | ND | 200 | 100 | 200 | 4.05 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/22/2017 | ND | 215 | 107 | 200 | 4.17 | |
| Surrogate: 1-Chlorooctane | 90.5 | % 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 83.8 | % 34.7-15 | 7 | | | | | | |

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COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T4 - 4' (H701053-27)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.80 | 90.1 | 2.00 | 0.871 | |
| Toluene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.75 | 87.4 | 2.00 | 0.818 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.79 | 89.5 | 2.00 | 0.819 | |
| Total Xylenes* | <0.150 | 0.150 | 04/24/2017 | ND | 5.12 | 85.3 | 6.00 | 0.650 | |
| Total BTEX | <0.300 | 0.300 | 04/24/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 100 % | 6 72-148 | 2 | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 16.0 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/22/2017 | ND | 200 | 100 | 200 | 4.05 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/22/2017 | ND | 215 | 107 | 200 | 4.17 | |
| Surrogate: 1-Chlorooctane | 91.3 % | 28.3-16 | 4 | | | | | | |
| | | | | | | | | | |

Sample ID: T4 - 6' (H701053-28)

| Chloride, SM4500Cl-B | mg, | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 64.0 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |

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Celey D. Keene, Lab Director/Quality Manager

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COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T4 - 8' (H701053-29)

| Chloride, SM4500Cl-B | mg, | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 96.0 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |

Sample ID: T5 - SURFACE (H701053-30)

| Method Blank ND ND ND | BS 1.80 1.75 | % Recovery 90.1 87.4 | True Value QC 2.00 2.00 | RPD 0.871 | Qualifier |
|--------------------------------|--|--|--|--|--|
| ND | | | | | |
| | 1.75 | 87.4 | 2.00 | | |
| ND | | | | 0.818 | |
| | 1.79 | 89.5 | 2.00 | 0.819 | |
| ND | 5.12 | 85.3 | 6.00 | 0.650 | |
| ND | | | | | |
| | | | | | |
| Analyzed By: AC | | | | | |
| Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| ND | 432 | 108 | 400 | 0.00 | |
| By: MS | | | | | |
| Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| ND | 200 | 100 | 200 | 4.05 | |
| ND | 215 | 107 | 200 | 4.17 | |
| | ND By: AC Method Blank ND By: MS Method Blank ND | ND By: AC Method Blank BS A2 By: MS Method Blank BS ND 200 | ND By: AC Method Blank BS % Recovery ND 432 108 By: MS Method Blank BS % Recovery ND 200 100 | NDBy: ACMethod BlankBS% RecoveryTrue Value QCND432108400By: MSMethod BlankBS% RecoveryTrue Value QCND200100200 | NDBy: ACMethod BlankBS% RecoveryTrue Value QCRPDND4321084000.00By: MSMethod BlankBS% RecoveryTrue Value QCRPDND2001002004.05 |

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Surrogate: 1-Chlorooctadecane

Surrogate: 1-Chlorooctane

*=Accredited Analyte

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89.5 %

86.2 %

28.3-164

34.7-157

Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T5 - 1' (H701053-31)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.80 | 90.1 | 2.00 | 0.871 | |
| Toluene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.75 | 87.4 | 2.00 | 0.818 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.79 | 89.5 | 2.00 | 0.819 | |
| Total Xylenes* | <0.150 | 0.150 | 04/24/2017 | ND | 5.12 | 85.3 | 6.00 | 0.650 | |
| Total BTEX | <0.300 | 0.300 | 04/24/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 101 9 | 6 72-148 | , | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 1230 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/22/2017 | ND | 200 | 100 | 200 | 4.05 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/22/2017 | ND | 215 | 107 | 200 | 4.17 | |
| Surrogate: 1-Chlorooctane | 85.6 | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 81.4 | 34.7-15 | 7 | | | | | | |

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T5 - 2' (H701053-32)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.80 | 90.1 | 2.00 | 0.871 | |
| Toluene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.75 | 87.4 | 2.00 | 0.818 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.79 | 89.5 | 2.00 | 0.819 | |
| Total Xylenes* | <0.150 | 0.150 | 04/24/2017 | ND | 5.12 | 85.3 | 6.00 | 0.650 | |
| Total BTEX | <0.300 | 0.300 | 04/24/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 100 % | 6 72-148 | 2 | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 736 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/22/2017 | ND | 200 | 100 | 200 | 4.05 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/22/2017 | ND | 215 | 107 | 200 | 4.17 | |
| Surrogate: 1-Chlorooctane | 85.2 9 | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 79.4 9 | % 34.7-15 | 7 | | | | | | |

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COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T5 - 3' (H701053-33)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.80 | 90.1 | 2.00 | 0.871 | |
| Toluene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.75 | 87.4 | 2.00 | 0.818 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/24/2017 | ND | 1.79 | 89.5 | 2.00 | 0.819 | |
| Total Xylenes* | <0.150 | 0.150 | 04/24/2017 | ND | 5.12 | 85.3 | 6.00 | 0.650 | |
| Total BTEX | <0.300 | 0.300 | 04/24/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 97.4 | % 72-148 | | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 64.0 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/22/2017 | ND | 200 | 100 | 200 | 4.05 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/22/2017 | ND | 215 | 107 | 200 | 4.17 | |
| Surrogate: 1-Chlorooctane | 76.8 | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 75.7 | % 34.7-15 | 7 | | | | | | |

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COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T5 - 4' (H701053-34)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.96 | 97.8 | 2.00 | 2.29 | |
| Toluene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.1 | 2.00 | 1.74 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.0 | 2.00 | 1.25 | |
| Total Xylenes* | <0.150 | 0.150 | 04/25/2017 | ND | 5.12 | 85.3 | 6.00 | 1.34 | |
| Total BTEX | <0.300 | 0.300 | 04/25/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 99.6 9 | % 72-148 | } | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 64.0 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/22/2017 | ND | 200 | 100 | 200 | 4.05 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/22/2017 | ND | 215 | 107 | 200 | 4.17 | |
| Surrogate: 1-Chlorooctane | 76.8 9 | % 28.3-16 | 4 | | | | | | |
| | 76.9 9 | % 34.7-15 | _ | | | | | | |

Sample ID: T5 - 6' (H701053-35)

| Chloride, SM4500Cl-B | mg, | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 192 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |

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Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: T5 - 8' (H701053-36)

| Chloride, SM4500Cl-B | mg/kg | | Analyzed By: AC | | | | | | |
|----------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 160 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |

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Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

| S-04 | The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect. |
|-------|---|
| QR-03 | The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values. |
| QM-07 | The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery. |
| ND | Analyte NOT DETECTED at or above the reporting limit |
| RPD | Relative Percent Difference |
| ** | Samples not received at proper temperature of 6°C or below. |
| *** | Insufficient time to reach temperature. |
| - | Chloride by SM4500Cl-B does not require samples be received at or below 6°C |
| | Samples reported on an as received basis (wet) unless otherwise noted on report |

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager

| Project Manager: | er: Aaron Lieb | | | | | | _ | PO | ŧ | | BILL TO | | - | | 1 | A | ANALYSIS | NS, | m | REQUEST | SI | | | |
|--|---|-------------------------------|-------------------------------------|---------------------------|-----------------------|-----------|---------------------|------------------------------|--------------------|----------------------|--|--|----------|--------------------------------|----------|-----|--------------------------------|--------|-------|---------|----|---|---|---|
| Address: 240 | 2407 Pecos Avenue | | | | | | _ | Company: | pan | ~ | COG 0ne | COG Operation 11 C | - | - | | _ | _ | | | | | - | | - |
| City: Artesia | State: NM | Г | Zip | | 88210 | 10 | - | Attn: | | | Robert McNeill | cNeill | - | - | | | _ | | | | | - | | - |
| Phone #: | 575-748-1553 Fax #: | | | | | | - | Address: | ess | | 600 W Illinois | Illinois | - | - | | _ | | | | | | _ | | _ |
| Project #: | Project Owner: | en | | | | | 0 | City: | | | Midland | ā. | - | - | | _ | _ | | _ | | | - | | |
| Project Name: | Jaguar 18 State #002H | | | | | | (0 | State: TX | T I | - | Zip: 79701 | 2 | - | _ | | _ | | | - | | | _ | | |
| Project Location: | 3 | | | | | | | Phone #: | e # | (43 | (432) 221_0388 | Ø | - | _ | _ | | - | | - | | | - | | |
| Sampler Name: | Aaron Lieb | | | | | | 71 | Fax #: | T | 1.0 | | c | - | | | _ | | | - | | | - | | - |
| FOR LAB USE ONLY | | | | | MA | MATRIX | | 고 | PRESERV. | RV | SAMPLING | ING | - | | | | _ | | | _ | | - | | - |
| Lab I.D. H701053 | Sample I.D. | (G)RAB OR (C)OMP | # CONTAINERS | GROUNDWATER WASTEWATER | SOIL | OIL | SLUDGE OTHER : | ACID/BASE: | ICE / COOL | OTHER : | DATE | TIME | BTEX | ГРН | Chloride | | | | | | | | | |
| 1 | T1-SURF | | 1 | _ | | - | - | - | × | C | 4/18/17 | 10-2044 | B | < т | < C | + | + | | t | ┝ | | t | | Γ |
| 2 | T1-1' | | | - | × | - | + | | ×> | | 4/18/17 | 10.30AM | | < × | < × | + | - | | | - | 1 | | - | |
| | T1-2' | | | - | × | _ | - | | × | _ | 4/18/17 | 10-20AM | < > | < > | < > | + | + | | 1 | - | | 1 | _ | |
| R | T1-3' | | | | × | - | | | × | _ | 4/18/17 | 10:30AM | | × > | < > | + | - | | | - | | | - | |
| -0 | T1-4' | | | - | × | | | | × | _ | 4/18/17 | 10:30AM | × | × : | × > | + | + | - | | - | | | - | |
| 26 | T1-5' | | | - | × | | | | × | _ | 4/18/17 | 10:30AM | ; | ; | × > | + | + | 4 | 1 | + | | | - | |
| e - | T1-6' | | | - | × | | | | × | _ | | 10:40Am | | | × : | + | + | - | | - | | | - | |
| 20 | T1-8' | | | - | × | - | | | × | | | 12/17 10:40 Am | | | × : | + | + | | | + | | | - | |
| 2 | 11-10' | | | + | × | - | | | × | 0 | 13/17 | 10:40 pm | | | × | | | | | | | | | |
| LEASE NOTE: Liability and D malyses. All claims including the envice. In no event shall Cardin envices or successors arising on filiates or successors arising on the successors arises are successors arises are successors arises are successors are successors. | PLEASE MOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the service. In no event shall cardinal be liable for incidental or consequential damages, including whither the avent shall cardinal be liable for incidental or the explicit be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable atfiliates or successors attisting out of or related to the performance of services to how who at the initiation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries. | ny claim deemed without | arising v waived t limitation | whether unless m | based in hade in v | vriting a | d or tor nd rece | t, shall wed by use, o | be limit Cardin | ted to t sal with | the amount paid in 30 days after ts incurred by clin | very for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the a including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries and the formation of the statement of t | applicat | ě – | + | F | | | | | | | | |
| Relinguished By: | Date: Time: 4-20-17 Tips: 20 | Received By: | Received By: | d By | By: | ch clain | | dupo | n any o | of the a | bove stated reat | Phone Result: Phone Result: Fax Result: REMARKS: dneel2@concho.com rqrubbs@concho.com rqrubbs@concho.com | ult: | □ Yes □ Yes 0.com com | | Add | Add'l Phone #: Add'l Fax #: | # ne # | | | | | | |
| Sampler - UPS - Bus - Other | H. | 10 | - | Sample Conditio | Sample Condition | ondit | ion | | | | | | | | | | | | | | | | | |

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| Address: 2407 F City: Artesia | 2407 Pecos Avenue sia State: NM | | Zin 88210 | P.O. #: Company: | | COG Operating LLC | | | | | | |
|--|---|---|---|--|---|---|-----------------|---------|-------|--------------------------------|---|---|
| Priore #: | 575-748-1553 Fax #: | | | Address: | - ADDA | ROD W/ INCNEIL | _ | | _ | | _ | |
| | Project Owner: | wner: | | City: | | SIOI IN IN IOS | - | | | | _ | _ |
| Project Name: Jac | Jaguar 18 State #002H | | | State: TY | Midland | and | | | | | | |
| Project Location: | | | | 5 | 21p: 79701 | 9701 | | | | | _ | _ |
| Sampler Name: | Aaron Lieb | | | * | (432) 221-0388 | 888 | | | | | _ | _ |
| FOR LAB USE ONLY | | | | Fax #: | | | | | | | _ | _ |
| Lab I.D. | Sample I.D. | G)RAB OR (C)OMP. | ROUNDWATER VASTEWATER | THER : CID/BASE: E / COOL THER : | | LING | EX | | bride | | | |
| 10 | T2-SURF | | G W × SC OI | AC < ICE | _ | TIME | BTE | трн | Chlo | | | |
| 4 | T2-1' | | < > | × | 4/18/17 | 11:00AM | × | × | × | | + | 1 |
| 12 | T2-2' | - | < > | × | 4/18/17 | 11:00AM | × | - | × | | | |
| 13 | T2-3' | | < > | × | 4/18/17 | 11:00AM | | | - | | | |
| 14 | T2-4" | - | < × | × | 4/18/17 | 11:00AM | × | | | | | |
| 5 | T2-6' | - | < × | × | 4/18/17 | 11:00AM | × | | | | | |
| | | | × | × | 4/18/17 | 11:00AM | | | | | | |
| PLEASE NOTE: Liability and Damage analyses. All claims including those fo service. In no event shall Cardinal be I affiliates or successors arising out of or Refinquished By: | PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount pad by the client for the analyses. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business made in writing and received by Cardinal within 30 days after completion of the applica affiliates or successors arising out of an related to the performance of services hereunder by Cardinal, regardless of whether sub-relient, loss of use, or loss of profits incurred by client, its subsidiaries. Refinquished By: | ve remedy for any claim arising soever shall be deemed waived nages, including without limitab hereunder by Cardinal, regard | lenf's exclusive remedy for any claim arising whether based in contract or lort, sha cruss whatsoever shall be deemed waived unless made in writing and received to equential damages, including without limitation, business interruptions, loss of use, of services hereunder by Cardinal, regardless of whether such arises to service. | ort, shall be limited to eived by Cardinal wa | the amount paid thin 30 days after fits incurred by cli | If be limited to the amount paid by the client for the by Cardinal within 3 draw after completion of the or loss of profits incurred by client, its subsidiaries or loss of profits incurred by client, the sub- | e applicable | | | | - | |
| Relinquished By: Delivered By: (Circle One) | Date: | Received By: | ed By: | sed upon any of the | any of the above stated reat | asons or otherwise. Phone Result: Yes Fax Result: Yes REMARKS: dneel2@concho.com alieb@concho.com alieb@concho.com | ho.o | U Yes U | No | Add'l Phone #: Add'l Fax #: | | |

Page 31 of 34

| Relinguished By: | Relinquished By: | smalyes. All claims including those for notigence and any other cause whatsoever shall be deemed waived unless made in writing and rowind by Cardinal within 30 days after completion of the applicable service. In or event shall cause a ball cause a ball cause whatsoever shall be deemed waived unless made in writing and rowind by Cardinal within 30 days after completion of the applicable service. In or event shall cause a ball cause a ball cause and any other state damage, including without a material within 30 days after completion of the applicable affiliates or successors arising out of or inside to the performance of services hereunder by Cardinal repartices, loss of use of loss of profile incurred by cleart, its subadiaries, affiliates or successors arising out of or related to the performance of services hereunder by cardinal repartices of whether services here here here here here here here he | PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim anising whether based in contrast or bot shall be facility of the standard of the standar | - | 24 | 17. | 20 | 20 | 10 | 0 | 10 | Lab I.D. HTVID53 | FOR LAB USE ONLY | | Project Location: | Project Name: Jagua | Project #: | | City: Artesia | ess: | an | |
|--|-----------------------|--|--|---|---------|---------|---------|---------|---------|---------|---------|--|------------------|------------|-------------------------|-----------------------|----------------|----------------|----------------|-------------------|------------|-------------------|
| Time: Date: | | negligence and any other cause whatsoe able for incidental or consequental damag related to the performance of services here | s. Cardinal's liability and client's exc | | T3-8' | T3-6' | T3-4' | T3-3' | T3-2' | 13-1' | 13-SURF | Sample I.D. | | Aaron Lieb | | Jaguar 18 State #002H | P | 575-748-1553 F | - | 2407 Pecos Avenue | Aaron Lieb | COG Operating LLC |
| ä | | thatsoever shall be deer damages, including with ces hereunder by Cardi | lusive remedy for any c | | | | | | | | | | | | | | Project Owner: | Fax #: | State: NM | | | |
| lanaiu | Receiv | med waiw hout limita | laim arisi | | | - | | - | - | - | - | (G)RAB OR (C)OMP # CONTAINERS | | | | | ľ | | N | | | |
| Received Rv. | Received By: | ed unless made in writing and vition, business interruptions, ic diess of whether such chains in | to whether based in contract | | × | × | × | × | × | × | × | GROUNDWATER WASTEWATER SOIL OIL SLUDGE | MATRIX | | | | | | Zip 88210 | | | |
| | based upon any of the | received by Cardinal wi | tor for shall be fortant | | × | × | × | × | × | × | × | OTHER : ACID/BASE: ICE / COOL OTHER : | PRESERV | Fax #: | Phone #: (432) 221-0388 | State: TX | City: | Address: | Attn: | Company: | P.O. #: | |
| | above stated re | o the amount pa thin 30 days after offts incurred by o | | | LIPEITH | 4/18/17 | 4/18/17 | 4/18/17 | 4/18/17 | 4/18/17 | 4/18/17 | | AMPLING | | 32) 221-03 | Zip: 79701 | Midland | 600 V | Robert McNeill | COG Op | | BILL TO |
| Fax Result: Ves REMARKS: dneel2@concho.com | Phone Result: | id by the client for the or completion of the a client, its subsidiaries, | | | 11:30Am | TIME | LING | | 88 | 701 | Ind | 600 W Illinois | McNeill | COG Operating LLC | | • |
| incho | | pplicable | | | | | × | × | × | × | × | BTEX | | | | | | | | | | |
| □ Yes | Yes | | | | | | | | - | × | × | ТРН | | | | | | | | | | |
| N | | | | | × | × | × | × | × | × | × | Chloride | _ | _ | | | _ | _ | | | - | |
| Add'l Fax #: | מאאין סא | | | | | | | | | | | | _ | | _ | | | | _ | | | ANAL |
| (# | 000 4. | | | | - | - | - | - | - | - | + | | | | | | | | _ | | | ANALYSIS |
| | | | | | | - | | 1 | 1 | - | + | | | - | | - | - | | _ | | - | REQUEST |
| | | | | | | | | | | | | | | | | | | _ | - | - | | FST |
| | | | | | | | | | | | T | | | | | | | | | | | |
| | | ł | - | | - | - | + | - | - | - | + | | _ | | _ | | | _ | _ | | | |

Page 32 of 34

| | COG Operating LLC | | | | | | BILL TO | | 1 | 1 | | ANALYSIS | IS REQUEST | JEST |
|---|--|-----------------------|------------------------------------|--|-------------------------|--|---------------------------------------|--|----------|--------|----------|-------------------------------|------------|------|
| Address: 2407 Decos Avenue | 80 | | | | P.O. #: | P.O. #: | | | | | _ | _ | | _ |
| Inte | State: NM | | Zip | 88210 | Attn: | | Robert McNeill | Neill | | | | | _ | |
| Phone #: 575-748-1553 | 553 Fax #: | | | | Add | Address: | 600 W Illinois | linois | | | _ | | | |
| Project #: | Project Owner: | | | | City: | 'n | Midland | | | | _ | | - | |
| Project Name: Jaguar 18 State #002H | | | | | Stat | : TX | Zip: 79701 | z | | | | | | |
| Project Location: | | | | | Pho | one #: (43) | Phone #: (432) 221-0388 | | | | | | | |
| Sampler Name: Aaron Lieb | 96 | | | | Fax #: | #: | | | | | | | | |
| FOR LAB USE ONLY | | | | | | PRESERV. | SAMPLING | NG | | | | | | |
| | Sample I.D. | (G)RAB OR (C) | # CONTAINER | WASTEWATEF SOIL OIL SLUDGE | OTHER : | ACID/BASE: ICE / COOL OTHER : | DATE | TIME | BTEX | трн | Chloride | | | |
| 25 | T4-SURF | - | - | × | - | × | 4/18/17 | 12:15PM | × | × | × | | | |
| 24 | T4-1' | | | × | _ | × | 4/18/17 | 12:15PM | × | × | × | | | |
| 25 | T4-2' | | | × | | × | 4/18/17 | 12:15PM | × | × | × | | | |
| 26 | T4-3' | | - | × | | × | 4/18/17 | 12:15PM | × | × | × | | | |
| (le | T4-4' | | - | × | | × | 4/18/17 | 12:15PM | × | × | × | | | |
| 20 | T4-6' | | + | × | | × | 4/18/17 | 12:15PM | | | × | | - | |
| 46 | T4-8' | | | × | | × | 4/13/17 | 12:15 A | | | × | | | |
| PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whosevere visual be demonstrated without does made in writing and received by Cardinal within 30 days after completion of the applicable service. In one work that Cardinal the liability contenessment withstower within 30 days after completion of the applicable service. In one work that Cardinal write does without limitation because whose including these for ones increased by Cardinal write. | s liability and client's exclusive remedy for as and any other cause whatsoever shall be or clonat or consenuental damages inclusion | y claim a berned w | arising whether waived unless r | edy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the shall be deemed waived unless made in writing and teceived by Cardinia within 3 and ages after completion of the involution within 3 and the shares intermetion to client and the shares intermetion of the shares in the shares intermetion of the shares intermetineo of the shares intermetine | or tort, s d receive | shall be limited to ad by Cardinal wi | the amount paid thin 30 days after | amount paid by the client for the 30 days after completion of the a | applicat | × | \vdash | | - | |
| affiliates or successors arising out of or related to the Relinquished By: | e of services hereu Date: Time: | Reco | Received By: | d By: | is based | sed upon any of the above stated | above stated rea | Phone Result: Fax Result: REMARKS: | Eff. | □ Yes | N NO | Add'l Phone : Add'l Fax #: | 井 | |
| Relinquished By: | Date: 4-20-17 Time: | Reco | Received By: | d By: | 2 | | | dneel2@concho.com | onch | 10.com | | | | |

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| | 101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476 | 1, HODDS, NM 88240 FAX (575) 393-2476 | 476 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|-------------------|--|-------------|--|----------|--------------------|---------|---------|-------------------------------|------------------|--|--|--------------|---------|----------|-----|--------------------------------|------------|--------|---|---|---------|---|---|---|---|---|---|
| Company Name: | COG Operating LLC | с | | | | | - 1 | - 1 | | | | | BILL TO | | 000 | | | | ANALYSIS | X | Sis | ᇛ | õ | REQUEST | - | | | | | |
| Project Manager: | Aaron Lieb | | | | | | | | J | P.O. #: | # | | | | | | | | | | _ | | | | | = | | | _ | |
| Address: 2407 | 2407 Pecos Avenue | | | | | | | | 0 | m | Company: | ž | COG Operating LLC | ating LLC | | | | | | | | | | | | | | | | |
| City: Artesia | | State: NM | | Zip | 0 | 88 | 88210 | - | Þ | Attn: | | 10 | Robert McNeill | Neill | | | | | | | | | _ | _ | | _ | | | | |
| Phone #: | 575-748-1553 | Fax #: | | | | | | | Þ | ddn | Address: | | 600 W Illinois | llinois | | | | | | | | | | | | | | | | |
| Project #: | | Project Owner: | ä | | | | | | 0 | City: | | | Midland | | | | | | | | | | | _ | | - | | | | |
| Project Name: J | Jaguar 18 State #002H | | | | | | | | S | State: | XT | ^ | Zip: 79701 | 01 | | | | | | | | | | _ | | | | | - | |
| Project Location: | | | | | | | | | J | hon | Phone #: | (43 | (432) 221-0388 | ű | | | | | | | _ | | _ | | | - | | | _ | |
| Sampler Name: | Aaron Lieb | | | | | | | | π | Fax #: | | | | | | | | | | | _ | | _ | | | - | _ | | _ | |
| Lab I.D. | Sample I.D. | Þ. | (G)RAB OR (C)OMP. | # CONTAINERS | GROUNDWATER | WASTEWATER | SOIL OIL | OIL SLUDGE | OTHER : | | ACID/BASE: ICE / COOL OTHER : | OTHER : | DATE | TIME | BTEX | ТРН | Chloride | | | | | | | | | | | | | |
| 30 | T5-SURF | Fi | - | | | | | | | _ | | | 4/18/17 | 12:40PM | × | × | × | | | | - | | | - | | | | | | |
| 15 | T5-1' | | | | | | × | - | | | × | | 4/18/17 | 12:40PM | × | × | × | | | | - | | | - | | - | | 1 | - | |
| 22 | T5-2' | | | | | - | × | - | | - | × | | 4/18/17 | 12:40PM | × | × | × | | | | - | | | - | | - | | | | 1 |
| 22 | T5-3' | | - | | | - | × | - | - | - | × | | 4/18/17 | 12:40PM | × | × | × | | | | - | | | - | | | | | - | |
| 20 | 15-4 T5-6 | | 1 | | | - | ×× | | - | - | ×× | | 4/18/17 | 12:40PM | × | × | × × | | | | - | | | - | | | _ | | _ | |
| 210 | T5-8' | | | | | | × | | | - | × | | HIIRIN | 12:4000 | | | × | | | | _ | | | | | | | | | |
| PLEASE NOTE: Liability and (analyses. All claims including) | PLEASE NOTE: Lability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or fort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whosever shall be demed windru there so made in writing and received by Cardinal within 30 days after completion of the epipicable receives that one more than the shall be finited to the shall be demented windru there are not seen at another that after completion of the epipicable receives that one more than the shall be finited to the shall be demented windru there are not seen at an of one in other and the shall be demented within 30 days after completion of the epipicable receives that the shall be demented to the | nt's exclusive remedy for ause whatsoever shall be | any clai | m arisir d waiw | ng whe | ther ba | de in w | contra niting a | d or to | of use | all be I by Ca | miled dinal v | to the amount pai within 30 days after | In arising whether based in contract or fort, shall be limited to the amount paid by the client for the divelved unless made in writing and received by Cardinal within 30 days after completion of the sub-factor humore intermeticeness of uses or forces of motion incrured the client its subsidiaries and limitation humore intermeticeness of uses or forces of motion. | he applica | able | | | | | | | | | | | L | | L | |
| affiliates or successors arising Relinquished By: | sing out of or related to the performance By: | Date: Time: | R | dinal, regardless of whe Received By: | ved | By: | her su | ch claii | a s | used u | pon ar | ly of th | dinal, regardless of whether such claim is based upon any of the above stated re Received By: | Phone Result: Fax Result: REMARKS: | t ult | □ Yes | | 0 0 | Add'l Phone #: Add'l Fax #: | Pho Fax | # ne # | | | | | | | | | |
| Relinquished By: | | Date: 4-20-17 Time: | R | Received By: | ved | By: | Â. | 4 | 14 | 10 | 19 | 1 | | rarubbs@concho.com rarubbs@concho.com rhaskell@concho.com | ncho lcon | cho.com | 33 - | | | | | | | | | | | | | |
| Delivered By: (Circle One) Sampler - UPS - Bus - Other | le One) - Other: | 1,1° 51# | 三 () | 00 | 2 | Sample Condition Cool Intact Yes Yes | Yes [| tact | ition | | 유 | E | CHECKED BY: | | | | | | | | | | | | | | | | | |
| | | | | | ĺ | | | | N | - | | P | E | | | | | | | | | | | | | | | | | |

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April 27, 2017

AARON LIEB

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: JAGUAR 18 STATE #002H

Enclosed are the results of analyses for samples received by the laboratory on 04/20/17 11:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

| Method EPA 552.2 | Haloacetic Acids (HAA-5) |
|------------------|------------------------------|
| Method EPA 524.2 | Total Trihalomethanes (TTHM) |
| Method EPA 524.4 | Regulated VOCs (V1, V2, V3) |

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: NORTH - SURFACE (H701058-01)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.96 | 97.8 | 2.00 | 2.29 | |
| Toluene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.1 | 2.00 | 1.74 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.0 | 2.00 | 1.25 | |
| Total Xylenes* | <0.150 | 0.150 | 04/25/2017 | ND | 5.12 | 85.3 | 6.00 | 1.34 | |
| Total BTEX | <0.300 | 0.300 | 04/25/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 100 9 | % 72-148 | | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | <16.0 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/24/2017 | ND | 184 | 91.9 | 200 | 1.36 | |
| DRO >C10-C28 | 22.0 | 10.0 | 04/24/2017 | ND | 194 | 97.1 | 200 | 1.76 | |
| Surrogate: 1-Chlorooctane | 86.2 | % 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 69.9 | % 34.7-15 | 7 | | | | | | |

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: NORTH - 1' (H701058-02)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|---------|-----------------|------------|--------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.96 | 97.8 | 2.00 | 2.29 | |
| Toluene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.1 | 2.00 | 1.74 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.0 | 2.00 | 1.25 | |
| Total Xylenes* | <0.150 | 0.150 | 04/25/2017 | ND | 5.12 | 85.3 | 6.00 | 1.34 | |
| Total BTEX | <0.300 | 0.300 | 04/25/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 100 % | 6 72-148 | 2 | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 16.0 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/24/2017 | ND | 184 | 91.9 | 200 | 1.36 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/24/2017 | ND | 194 | 97.1 | 200 | 1.76 | |
| Surrogate: 1-Chlorooctane | 85.0 \$ | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 73.4 9 | % 34.7-15 | 7 | | | | | | |

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: NORTH - 2' (H701058-03)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|---------|-----------------|------------|--------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.96 | 97.8 | 2.00 | 2.29 | |
| Toluene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.1 | 2.00 | 1.74 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.0 | 2.00 | 1.25 | |
| Total Xylenes* | <0.150 | 0.150 | 04/25/2017 | ND | 5.12 | 85.3 | 6.00 | 1.34 | |
| Total BTEX | <0.300 | 0.300 | 04/25/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 99.0 \$ | % 72-148 | 2 | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 16.0 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/24/2017 | ND | 184 | 91.9 | 200 | 1.36 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/24/2017 | ND | 194 | 97.1 | 200 | 1.76 | |
| Surrogate: 1-Chlorooctane | 83.2 9 | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 63.8 9 | % 34.7-15 | 7 | | | | | | |

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: SOUTH - SURFACE (H701058-04)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.96 | 97.8 | 2.00 | 2.29 | |
| Toluene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.1 | 2.00 | 1.74 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.0 | 2.00 | 1.25 | |
| Total Xylenes* | <0.150 | 0.150 | 04/25/2017 | ND | 5.12 | 85.3 | 6.00 | 1.34 | |
| Total BTEX | <0.300 | 0.300 | 04/25/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 100 % | 6 72-148 | | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 224 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/24/2017 | ND | 184 | 91.9 | 200 | 1.36 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/24/2017 | ND | 194 | 97.1 | 200 | 1.76 | |
| Surrogate: 1-Chlorooctane | 92.2 9 | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 88.0 9 | % 34.7-15 | 7 | | | | | | |

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: SOUTH - 1' (H701058-05)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.96 | 97.8 | 2.00 | 2.29 | |
| Toluene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.1 | 2.00 | 1.74 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.0 | 2.00 | 1.25 | |
| Total Xylenes* | <0.150 | 0.150 | 04/25/2017 | ND | 5.12 | 85.3 | 6.00 | 1.34 | |
| Total BTEX | <0.300 | 0.300 | 04/25/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 101 9 | 72-148 | , | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 112 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/24/2017 | ND | 184 | 91.9 | 200 | 1.36 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/24/2017 | ND | 194 | 97.1 | 200 | 1.76 | |
| Surrogate: 1-Chlorooctane | 87.7 | % 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 82.3 | % 34.7-15 | 7 | | | | | | |

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: SOUTH - 2' (H701058-06)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.96 | 97.8 | 2.00 | 2.29 | |
| Toluene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.1 | 2.00 | 1.74 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.0 | 2.00 | 1.25 | |
| Total Xylenes* | <0.150 | 0.150 | 04/25/2017 | ND | 5.12 | 85.3 | 6.00 | 1.34 | |
| Total BTEX | <0.300 | 0.300 | 04/25/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 100 9 | % 72-148 | } | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 112 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/24/2017 | ND | 184 | 91.9 | 200 | 1.36 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/24/2017 | ND | 194 | 97.1 | 200 | 1.76 | |
| Surrogate: 1-Chlorooctane | 93.2 | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 88.7 | % 34.7-15 | 7 | | | | | | |

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: EAST - SURFACE (H701058-07)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.96 | 97.8 | 2.00 | 2.29 | |
| Toluene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.1 | 2.00 | 1.74 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.0 | 2.00 | 1.25 | |
| Total Xylenes* | <0.150 | 0.150 | 04/25/2017 | ND | 5.12 | 85.3 | 6.00 | 1.34 | |
| Total BTEX | <0.300 | 0.300 | 04/25/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 99.8 9 | % 72-148 | , | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 64.0 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/24/2017 | ND | 184 | 91.9 | 200 | 1.36 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/24/2017 | ND | 194 | 97.1 | 200 | 1.76 | |
| Surrogate: 1-Chlorooctane | 81.1 9 | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 75.79 | 34.7-15 | 7 | | | | | | |

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COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: EAST - 1' (H701058-08)

| BTEX 8021B | mg/ | /kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.96 | 97.8 | 2.00 | 2.29 | |
| Toluene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.1 | 2.00 | 1.74 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.0 | 2.00 | 1.25 | |
| Total Xylenes* | <0.150 | 0.150 | 04/25/2017 | ND | 5.12 | 85.3 | 6.00 | 1.34 | |
| Total BTEX | <0.300 | 0.300 | 04/25/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 99.3 | % 72-148 | } | | | | | | |
| Chloride, SM4500Cl-B | mg/ | /kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 16.0 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |
| TPH 8015M | mg/ | /kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/24/2017 | ND | 184 | 91.9 | 200 | 1.36 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/24/2017 | ND | 194 | 97.1 | 200 | 1.76 | |
| Surrogate: 1-Chlorooctane | 96.9 | % 28.3-16 | 4 | | | | | | |
| | | | | | | | | | |

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: EAST - 2' (H701058-09)

| BTEX 8021B | mg/ | ′kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|-----------------|--------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.96 | 97.8 | 2.00 | 2.29 | |
| Toluene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.1 | 2.00 | 1.74 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.0 | 2.00 | 1.25 | |
| Total Xylenes* | <0.150 | 0.150 | 04/25/2017 | ND | 5.12 | 85.3 | 6.00 | 1.34 | |
| Total BTEX | <0.300 | 0.300 | 04/25/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 99.6 | % 72-148 | } | | | | | | |
| Chloride, SM4500Cl-B | mg/ | ′kg | Analyzed By: AC | | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 32.0 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |
| TPH 8015M | mg/ | ′kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/24/2017 | ND | 184 | 91.9 | 200 | 1.36 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/24/2017 | ND | 194 | 97.1 | 200 | 1.76 | |
| Surrogate: 1-Chlorooctane | 97.5 | % 28.3-16 | 4 | | | | | | |
| | | | | | | | | | |

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Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: WEST - SURFACE (H701058-10)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|-----------------|--------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.96 | 97.8 | 2.00 | 2.29 | |
| Toluene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.1 | 2.00 | 1.74 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.0 | 2.00 | 1.25 | |
| Total Xylenes* | <0.150 | 0.150 | 04/25/2017 | ND | 5.12 | 85.3 | 6.00 | 1.34 | |
| Total BTEX | <0.300 | 0.300 | 04/25/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 97.8 9 | % 72-148 | | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyzed By: AC | | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 32.0 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/24/2017 | ND | 184 | 91.9 | 200 | 1.36 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/24/2017 | ND | 194 | 97.1 | 200 | 1.76 | |
| Surrogate: 1-Chlorooctane | 87.4 9 | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 81.19 | 34.7-15 | 7 | | | | | | |

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Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: WEST - 1' (H701058-11)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|---------|-----------------|-----------------|--------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.96 | 97.8 | 2.00 | 2.29 | |
| Toluene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.1 | 2.00 | 1.74 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.0 | 2.00 | 1.25 | |
| Total Xylenes* | <0.150 | 0.150 | 04/25/2017 | ND | 5.12 | 85.3 | 6.00 | 1.34 | |
| Total BTEX | <0.300 | 0.300 | 04/25/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 99.9 9 | % 72-148 | | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyzed By: AC | | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 16.0 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/24/2017 | ND | 184 | 91.9 | 200 | 1.36 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/24/2017 | ND | 194 | 97.1 | 200 | 1.76 | |
| Surrogate: 1-Chlorooctane | 91.0 \$ | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 84.9 | % 34.7-15 | | | | | | | |

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



COG OPERATING AARON LIEB P. O. BOX 1630 ARTESIA NM, 88210 Fax To: NONE

| Received: | 04/20/2017 | Sampling Date: | 04/18/2017 |
|-------------------|-----------------------|---------------------|----------------|
| Reported: | 04/27/2017 | Sampling Type: | Soil |
| Project Name: | JAGUAR 18 STATE #002H | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | NOT GIVEN | | |

Sample ID: WEST - 2' (H701058-12)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|-----------------|--------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.96 | 97.8 | 2.00 | 2.29 | |
| Toluene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.1 | 2.00 | 1.74 | |
| Ethylbenzene* | <0.050 | 0.050 | 04/25/2017 | ND | 1.80 | 90.0 | 2.00 | 1.25 | |
| Total Xylenes* | <0.150 | 0.150 | 04/25/2017 | ND | 5.12 | 85.3 | 6.00 | 1.34 | |
| Total BTEX | <0.300 | 0.300 | 04/25/2017 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 99.9 | % 72-148 | } | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyzed By: AC | | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 32.0 | 16.0 | 04/25/2017 | ND | 432 | 108 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 04/24/2017 | ND | 184 | 91.9 | 200 | 1.36 | |
| DRO >C10-C28 | <10.0 | 10.0 | 04/24/2017 | ND | 194 | 97.1 | 200 | 1.76 | |
| Surrogate: 1-Chlorooctane | 99.5 | 28.3-16 | 4 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 94.4 | 34.7-15 | 7 | | | | | | |

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Celey D. Keene, Lab Director/Quality Manager



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 recovery. |
|-------|--|
| ND | Analyte NOT DETECTED at or above the reporting limit |
| RPD | Relative Percent Difference |
| ** | Samples not received at proper temperature of 6°C or below. |
| *** | Insufficient time to reach temperature. |
| - | Chloride by SM4500Cl-B does not require samples be received at or below 6°C |
| | Samples reported on an as received basis (wet) unless otherwise noted on report |

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PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any daim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatscever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose shall be instrumed by client, its subsidiaries, affiliates or successor arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

| Company Name: | (575) 393-2326 FAX (575) 393-2476 COG Operating LLC | 4/6 | BILL TO | | | | ANALYSIS REQUEST |
|---|--|---|--|---|------------------|-----------------|--------------------------------|
| Project Manager: | Aaron Lieb | | P.O. #: | | | | |
| Address: 2407 F | 2407 Pecos Avenue | | Company: COG 0 | COG Operating LLC | _ | | |
| Inte | State: NM | Zip 88210 | Attn: Robert | Robert McNeill | _ | _ | |
| Phone #: | 575-748-1553 Fax #: | | Address: 600 | 600 W Illinois | | | |
| Project #: | Project Owner: | ă | City: Mid | Midland | | | |
| ame: | Jaguar 18 State #002H | | State: TX Zip: 79701 | 79701 | _ | | |
| Project Location: | | | Phone #: (432) 221-0388 | 0388 | | | |
| Sampler Name: | Aaron Lieb | | 1 | | _ | | |
| Lab I.D. | Sample I.D. | (G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE | OTHER : ACID/BASE: ICE / COOL OTHER : | DATE | BTEX | TPH Chloride | |
| 1 10101 | NORTH-SURF | × | | /17 1:00PM | × | - | |
| p- | NORTH-1' | × | X 4/18/17 | - | × | | |
| 6 | NORTH-2' | × | X 4/18/17 | V17 1:00PM | × | × | |
| PLEASE NOTE: Liability and I analyses. All claims including I | PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the applicable analyses. All claims including those for negligence and any other cause whatsoever includent whether thated in writing and received by Cardinal within 30 days after completion of the applicable analyses. All claims including those for negligence and any other cause whatsoever includent without limits on business intervations, loss of use, or loss of profils incurred by client, its subsidiaries, | rany claim arising whether based in contra e deemed weived unless made in writing on whond timitation | ns. loss of use, or loss of profits incur | ount paid by the client for t anys after completion of the red by client, its subsidiarie | he applicable | | |
| Relinquished By: | g out of or related to the performance of services hereunder to the constraints of the services hereunder to thereunder to thereunder to the services hereunder to the service | Received By: | aim is based upon any of the above si | Phone Result: 2 Yes Fax Result: 2 Yes REMARKS: 4 Oneel2@concho.com | ult: | O.COM | Add"I Phone #: Add"I Fax #: |
| Relinquished By: | Date: 420 - 17 Time: - 30 | Received By: | Walder | alieb@concho.com rgrubbs@concho.com rhaskell@concho.com | ncho.c | b.com | |
| Delivered By: (Circle One) Sampler - UPS - Bus - Other | | | t (Initials) | <u>)</u> : | | | |
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Page 15 of 18

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 4

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

3 of 4

| PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based is contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for mg/gence and any other cause whatsoever shall be deemed waived unless made in writing and necevoired by Cardinal within 30 days after completence on the applicable service. In no event shall Cardinal be liable for incident damages including thread in history. Incident damages of whether such claims inder the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. | PLEASE NOTE: Liability and Damages. Cardnal's liability and analyses. All claims including those for negligence and any of service. In no evaluations shall Cardinal be liable for incidental or o | PLEASE NOTE: Liability and Damagee. Cardinal's liability an analyses. All claims including those for negligence and any of | | Sampler Name: Aaron Lieb | Project Location: | Project Name: Jaguar 18 State #002H | Project #: | | Phone #: 575-748-1553 | City: Artesia | Address: 2407 Pecos Avenue | Project Manager: Aaron Lieb | Company Name: COG Operating LLC | (575) 393-2326 FAX (575) 393-2476 |
|--|--|--|---|--------------------------|-------------------------|-------------------------------------|----------------|----------------|-----------------------|----------------|----------------------------|-----------------------------|---------------------------------|--|
| client's exclusive remedy to her cause whatsoever shall meequental damages, inclue ince of services hereunder b Date: | I client's exclusive remedy fo her cause whatsoever shall insequental damages, inclus | client's exclusive remedy fo her cause whatsoever shall | 1.D. | | | т | r luject omite | Project Owner: | Fax #: | State: NM | | | C | AX (575) 393-2 |
| _ | y Cardinal Re | nouna fue | G)RAB OR (C)OMP. | | | | | ň | | | | | | 476 |
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CHECKED BY: (Initials)

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Sampler - UPS - Bus - Other: Delivered By: (Circle One)

OKM-000 K 2.0

| Company Name: | (575) 393-2326 FAX (575) 393-2470 COG Operating LLC | 410 | | 119 | BILL TO | | | | A | ANALYSIS REQUEST | IEST |
|--|--|---------------------------|--|--|--|--|------------------|-------------|----------|--------------------------------|------|
| Project Manager: | Aaron Lieb | | | P.O. #: | | | _ | _ | _ | | |
| Address: 2407 P | 2407 Pecos Avenue | | | Company: 0 | COG Operating LLC | ting LLC | | _ | _ | | |
| Te | State: NM | N | Zip 88210 | Attn: F | Robert McNeill | leill | | | _ | | |
| ē#: | 575-748-1553 Fax #: | | | Address: | 600 W Illinois | nois | | _ | _ | | |
| | Project Owner: | er: | | City: | Midland | | | | | | |
| ame: | Jaguar 18 State #002H | | | State: TX Z | Zip: 79701 | - | | _ | _ | | |
| | | | | Phone #: (432) 221-0388 | 221-0388 | | | _ | _ | | |
| Sampler Name: | Aaron Lieb | | | Fax #: | | | _ | | | | |
| FOR LAB USE OWLY | Sample I.D. | G)RAB OR (C)OMP. | # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE | OTHER : ACID/BASE: ICE / COOL OTHER : | DATE | TIME | BTEX | трн | Chloride | | |
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| 17 | WEST-2' | | × | × | 4/18/17 | 2:00PM | × | × | × | | |
| PLEASE NOTE: Liability and C analyses. All claims including t | PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the applicable analyses. All claims including those for negligence and any other cuse whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable analyses. All claims including those for negligence and any other cuse whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable analyses. | or any claim be deemed | arking whether based in contrac waived unless made in writing an limitation, business interrubions | t or tort, shall be limited to id received by Cardinal wi | the amount pathin 30 days after first incurred by the second seco | amount paid by the client for the 30 days after completion of the a nourred by client, its subaidiaries. | ne applicable | | | | |
| Relinquished By: | Arg out of or related to the performance of services hereunder : V: Date: Time: | Re Re | Received By: | n is based upon any of the | above stated re | Phone Result: Yes Fax Result: Yes REMARKS: Cheel2@concho.com | oncho | Yes Yes | I No | Add'l Phone #: Add'l Fax #: | |
| Relinquished By: | Date: U-20 · A Time: 20 | Re | Received By: | J3 | | alieb@concho.com rgrubbs@concho.com rhaskell@concho.com | ncho.c)conch | 0.com | | | |
| Delivered By: (Circle One) Sampler - UPS - Bus - Other | (Circle One) | | Sample Condition | tion CHECKED BY: | LAV. | | | | | | |

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State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

| Santa | Fe, NM 8/5 | 05 | | | | | | |
|--|---------------------|------------------------------------|------------------|-----------------|-------------------|-----------|--|--|
| Release Notificati | on and Co | rrective A | ction | | | | | |
| | OPERAT | OR | 🕅 Ini | tial Report | Fina Fina | al Report | | |
| Name of Company: COG Operating LLC OGRID# [229137 | Contact: | | Robert Mcl | | | | | |
| Address: 600 West Illinois Avenue, Midland TX 79701 | | Telephone No. 432-683-7443 | | | | | | |
| Facility Name: JAGUAR 18 STATE #002H | Facility Type | Facility Type: Well | | | | | | |
| Surface Owner: State Mineral Owne | er: | API No. 30-025-41428 | | | | | | |
| LOCATI | ON OF REL | EASE | | | | | | |
| | rth/South Line | Feet from the | East/West Line | : | County | | | |
| N 18 23S 33E 330' | South | 1980' | West | | Lea | | | |
| Latitude 32.29842 | 2 Longit | ude 103.61335 | | | | | | |
| NATUR | E OF RELI | EASE | | | | | | |
| Type of Release: | Volume of | | | me Recovered | | | | |
| Oil & Produced Water | 15bbls of C | Dil & 25bbls of Pr | oduced 10t | bls of Oil & 2 | | duced | | |
| Source of Release: | Date and H | Water our of Occurrence | P Date | and Hour of I | ater Discoverv | | | |
| Wellhead | 3/29 | 9/2017 07:00 AM | | | 07:00 AM | | | |
| Was Immediate Notice Given? | ed If YES, To | | NMOCD / Ms. | Groves - SLC |) | | | |
| By Whom? Robert Grubbs Jr | Date and H | our: | Thu 3/30/20 | 17 9:50 AM | | | | |
| Was a Watercourse Reached? | | lume Impacting th | | | | | | |
| 🗌 Yes 🛛 No | | | | | |) | | |
| If a Watercourse was Impacted, Describe Fully.* | | CEIVED | | | | | | |
| | By (| Olivia Yu a | of 8:33 an | Apr 0 | 7. 2017 | | | |
| Describe Cause of Problem and Remedial Action Taken.* | | | | ., . | , |) | | |
| The release was caused by a valve that was left half way open on the n | orth casing valve | . Close valve. | | | | | | |
| | | | | | | | | |
| Describe Area Affected and Cleanup Action Taken.* | | | | | | | | |
| This release was contained on the pad. Concho will have the spill site s | | | ontamination fro | om the release | and we will | present | | |
| a remediation work plan to the NMOCD for approval prior to any sign | ificant remediation | on work. | | | | | | |
| | | | | | | | | |
| I hereby certify that the information given above is true and complete t | | | | | | | | |
| regulations all operators are required to report and/or file certain releas public health or the environment. The acceptance of a C-141 report by | | | | | | | | |
| should their operations have failed to adequately investigate and remed | liate contaminatio | on that pose a three | at to ground wa | ter, surface wa | ater, human | health | | |
| or the environment. In addition, NMOCD acceptance of a C-141 report | | | | | | | | |
| federal, state, or local laws and/or regulations. | | 35 | | | | | | |
| | | OIL CONS | SERVATIO | N DIVISIO | | | | |
| Signature: Kalar Mar | _ | | | | | | | |
| Printed Name: Robert Grubbs Jr. | Approved by | Environmental Sp | ecialist: | ort | | | | |
| | | 4/7/2017 | | | | | | |
| Title: Senior HSE Coordinator | Approval Dat | e: 4/7/2017 | Expiratio | n Date: | | | | |
| E-mail Address: rgrubbs@concho.com | Conditions of | Approval: | | A 4419 | | | | |
| | | ached direct | ive | Attached | | | | |
| Date: April 3, 2017 Phone: 432-683-7443 * Attach Additional Sheets If Necessary | | | | | | | | |
| Anaon Additional Sheets II INCCCSSdly | 1RP-466 | 7 | | | | | | |
| | 1111-400 | ′ nOY17 | 709731177 | | | | | |

pOY1709731513

Operator/Responsible Party,

The OCD has received the form C-141 you provided on $_4/3/2017$ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number $_1R-_4667$ has been assigned. Please refer to this case number in all future correspondence.

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete <u>division-approved corrective action</u> for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District _1_ office in __Hobbs____ on or before _5/5/2017__. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

• Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

• Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

• Nominal detection limits for field and laboratory analyses must be provided.

• Composite sampling is not generally allowed.

• Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

•Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

• If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

• Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold OCD Environmental Bureau Chief 1220 South St. Francis Drive Santa Fe, New Mexico 87505 505-476-3465 jim.griswold@state.nm.us