

Incident ID	nAPP2117355493
District RP	
Facility ID	
Application ID	

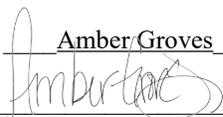
## Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

**Closure Report Attachment Checklist:** *Each of the following items must be included in the closure report.*

- A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Amber Groves Title: Remediation Coordinator  
 Signature:  Date: 9/10/2021  
 email: algroves@paalp.com Telephone: (575)200-5517

**OCD Only**

Received by: Robert Hamlet Date: 2/2/2022

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Robert Hamlet Date: 2/2/2022

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

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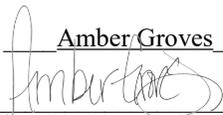
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Printed Name: Amber Groves Title: Remediation Coordinator  
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Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_



12600 WEST CO RD 91  
MIDLAND, TX 79707  
OFFICE: 432.653.4203

## **SOIL REMEDIATION ACTIVITIES REPORT AND CLOSURE REQUEST**

PLAINS PIPELINE, L.P.

COG SCREWDRIVER 24 FED COM 2H RELEASE

EDDY COUNTY, NM

NMOCD INCIDENT #: nAPP2117355493

SRS #: 2021-053

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Appendix C. Laboratory Analytical Reports

Appendix D. Photographic Documentation

September 13, 2021

New Mexico Oil Conservation Division District 2  
811 S. First Street  
Artesia, New Mexico 88210

**Re: Soil Remediation Activities Report and Closure Request**

**COG Screwdriver 24 Fed Com 2H Release**

**Unit Letter P, Section 24, Township 19S, Range 31E**

**GPS: N 32.641079°, W -103.814932°**

**Eddy County, New Mexico**

**NMOCD Incident #: nAPP2117355493**

**SRS #: 2021-053**

**1. Introduction**

Dean Companies, Inc. (Dean) is pleased to present this Soil Remediation Activities Report and Closure Request on behalf of Plains Pipeline, L.P. (Plains) to document the field soil remediation activities that were conducted at the COG Screwdriver 24 Fed Com 2 H Release site. The crude oil release occurred from a LACT unit, located approximately 28.64 miles northeast of Carlsbad, Eddy County, New Mexico in Unit Letter P, Section 24, Township 19S, and Range 31E. The GPS coordinates for the site are N 32.641079° and W -103.814932°. A "Site Location Map" is provided as Figure 1 and "Topographic Map" as Figure 2. The surface is owned by the Bureau of Land Management (BLM).

**2. Release Description and Response**

On June 19, 2021, a crude oil release occurred at the COG Screwdriver 24 Fed Com 2 H and was attributed to the failure of a steel swagelock fitting on the LACT unit. Approximately sixty-eight and two-tenths (68.2) barrels (bbls) of crude oil were released with sixty (60) bbls recovered for a net loss of eight and two-tenths (8.2) bbls of crude oil. The release was contained onsite adjacent to the LACT unit and on the producer's production pad affecting an area measuring approximately one

hundred-forty (140) feet (ft) in length by one hundred (100) ft in width to an estimated maximum depth of five (5) ft below ground surface (bgs). Overspray from the release covered the pad measuring approximately one hundred two (102) ft wide by one hundred twenty (120) ft long to a maximum depth of six inches bgs.

On June 21, 2021, Dean was assigned soil delineation, remediation, soil sampling, site restoration, and reporting activities by Plains. On June 24, 2021, Plains submitted the initial C-141 Form to the NMOCD and BLM (Appendix A).

**3. NMOCD Regulatory Limits**

NMOCD assessment and cleanup levels for hydrocarbon and produced water releases are based on depth to groundwater and follow the criteria in the revised August 2018 Title 19 Chapter 15 Part 29 New Mexico Administration Code (19.15.29 NMAC) regulations. Groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE), the New Mexico Bureau of Geology & Mineral Resources (NMBGMR), and The United States Geological Survey (USGS) were accessed to determine if any registered water wells are located near the site. One water well (CP 010640 POD1) was listed in the vicinity northeast of the site with groundwater reported at 102 feet bgs. See Appendix B for the NMOSE water well depth near site. In addition, according to the BLM, the site is located in an area of low potential karst topography. See Figure 3 “Site Location Relative to Known Regional Karst Topography”. As outlined in 19.15.29.12.B. (4) NMAC, the release does not occur in referenced sensitive areas, with the nearest water body feature being the Pecos River located approximately 26.4 miles southwest of the site. Meeting the previous criteria, the NMOCD restoration and cleanup levels for soils impacted by hydrocarbons with low karst topography are as follows:

- Chloride 20,000 mg/Kg
- TPH (Gro+Dro) 1,000 mg/Kg
- Total TPH 2,500 mg/Kg
- Benzene 10 mg/Kg
- Total BTEX 50 mg/Kg

**4. Initial Soil Assessment Activities and Sample Analysis**

On June 21, 2021, Dean Personnel conducted initial soil assessment activities at the release site. A hand auger was utilized to collect surface soil samples from the site to determine the horizontal extent of hydrocarbon and chloride impacts in the release area. Soil samples were collected from

surface to a maximum depth of four (4) inches (in) bgs. Nine (9) auger hole locations (AH-1 through AH-9) were installed adjacent to the LACT unit, and within the release area on the producer's pad, with the collected soils placed into laboratory-provided sample containers, labeled, stored on ice, and transported under proper chain-of-custody documentation to Permian Basin Environmental Labs (PBELAB) of Midland, Texas. Soil samples were analyzed for Total Petroleum Hydrocarbons (TPH) utilizing Method SW-846 8015M, for Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) utilizing Method SW-846 8021B, and Chlorides utilizing Method E300.0. See Figure 4 "Site Details and Initial Delineation Soil Sample Location Map". Benzene concentrations were above the NMOCD standards of 10 milligrams per kilogram (mg/Kg) for soil samples AH-2 @ 4" (25.8 mg/Kg), AH-5 @ 4" (24.5 mg/Kg), and AH-9 @ 4" (10.5 mg/Kg). All remaining soil samples were below the NMOCD standards of 10 mg/Kg Benzene. With the exception of soil samples AH-4 @ 4" and AH-6 @ 4", total BTEX concentrations were above the NMOCD standards of 50 mg/Kg for all soil samples ranging in concentration from 233.42 mg/Kg for AH-3 @ 4" to 685.50 mg/Kg for AH-5 @ 4". The TPH (Gro + Dro) and Total TPH were above both the NMOCD standards of 1,000 mg/Kg (Gro + Dro) and 2,500 mg/Kg for Total TPH for all soil samples analyzed. Chloride concentrations were below the NMOCD standards of 20,000 mg/Kg for all soil samples analyzed and ranged from <1.04 mg/Kg for soil sample AH-8 @ 4" to 142 mg/Kg for soil sample AH-3 @ 4". See Table 1 for initial surface soil delineation analytical results. Laboratory reports containing analytical methods, results, and chain-of-custody documents are included in Appendix C. See site photographs documenting site conditions in Appendix D.

##### **5. Soil Assessment Activities and Sample Analysis in Overspray Release Area**

On July 12, 2021, Dean Personnel conducted soil assessment activities in the overspray area at the release site. Forty-two (42), five (5) point composite surface samples, (SS-1 surface to SS-42 surface) were collected within two hundred (200) square feet of each other in the overspray area and submitted for analysis of TPH, BTEX, and Chlorides to PBELAB. See Figure 5 "Site Details and Delineation Soil Sample Overspray Location Map". Benzene and total BTEX concentrations were below the NMOCD standards of 10 mg/Kg and 50 mg/Kg respectively, for all samples collected and analyzed. Chlorides were below the NMOCD standard of 20,000 mg/Kg and ranged from 15.7 mg/Kg for soil sample SS-13 @ surface to 6,500 mg/Kg for soil sample SS-31 @ surface. Both TPH (Gro+Dro) and total TPH were below the NMOCD standards of 1,000 mg/Kg and 2,500 mg/Kg respectively, for all samples analyzed with the exception of soil sample SS-2 @ surface which had a TPH (Gro+Dro) concentration of 1,170 mg/Kg.

After further excavation in the vicinity of soil sample SS-2 on August 4, 2021, one (1) composite soil sample (SS-2 @ 6") was collected within a two hundred (200) square feet perimeter and submitted for analysis of TPH to PBELAB. The soil analytical result was below the NMOCD standards for both TPH (Gro+Dro) and total TPH with concentrations of <25.0 mg/Kg, respectively. See Table 2 for Overspray Surface Sample analytical results. Laboratory reports containing analytical methods, results, and chain-of-custody documents are included in Appendix C.

Within the source release area (See Table 1), the chlorides ranged from below detection limits to a maximum concentration of 142 mg/Kg for soil sample AH-3 @ 4'. As such, the elevated chlorides (up to 6,500 mg/Kg) found in the blowdown area (See Table 2) is believed to be from a separate source and is not likely associated with the Plain's release from the LACT unit.

## **6. Soil Remediation Activities and Confirmation Soil Sampling**

Between June 21 and August 4, 2021, Dean performed soil delineation, remediation activities, sampling and backfilling activities at the Screwdriver 24 Fed Com 2H Release site. Soil remediation commenced utilizing hand excavation of hydrocarbon impacted soils adjacent to the LACT unit and onsite piping, and a backhoe utilized on the producer's pad. Excavated soils were stockpiled on plastic at the northern edge of the pad, awaiting transportation offsite for final disposal. Final dimensions of the excavation were approximately one hundred-forty (140) ft in length by one hundred (100) ft in width to an estimated maximum depth of five (5) ft bgs. Approximately 1,075 cubic yards of soil were removed and stockpiled on plastic at the site.

On July 13, 16, and 23, 2021, after initial excavation activities, forty-nine (49) bottom hole (BH-1 through BH-49 ranging from 2' and 5' ) and sixteen (16) wall samples (WS-1 through WS-5 @ 2.5', WE-1 @ 2', 3' and 3', WE-2 @ 2', WW-1 @ 2', 3' and 5', WW-2 @ 2' and 3', WN-1 @ 3', WN-2 @ 3'), were collected as composite, five (5) point samples, within two hundred (200) square ft of each other within the pad excavation. See Figure 6 "Soil Details and Confirmation Bottom Hole Soil Sample Location Map" and Figure 7 "Site Details and Confirmation Wall Soil Sample Location Map". The samples were submitted for analysis of TPH, BTEX, and Chlorides to PBELAB. The analytical concentrations were below the NMOCD standards for Benzene, BTEX, TPH, and Chlorides. See Table 3 for confirmation soil sample results.

On July 15, 2021, after hand excavation within the LACT unit, four (4) bottom hole (LBH-1 @ 3', LBH-2 @ 3', LBH-3 @ 3', and LBH-4 @ 3') and four (4) wall samples (LWS-1 @ 3', LWE-1 @ 3', LWW-1 @ 3', and LWN-1 @ 3') were collected as composite, five (5) point samples, within two hundred (200) square ft of each other within the LACT unit. The samples were submitted for analysis

of TPH, BTEX, and Chlorides to PBE Lab. The analytical concentrations were below the NMOCD standards for Benzene, Total BTEX, and Chlorides. The TPH concentrations for all samples were below the NMOCD standards for TPH (Gro+Dro) and Total TPH, with the exception of wall soil sample LWE-1 @ 3' with concentrations of 3,546.7 mg/Kg and 4,041.7 mg/Kg, respectively. After further excavation, the east wall was resampled for TPH on July 29, 2021. The TPH analytical concentrations for the soil sample LWE-2B @ 3' were below the NMOCD standards with a result of <26.0 mg/Kg, respectively. See Table 3 for delineation sample results at LACT and producer pad.

## **7. Soils Disposition**

Between July 30 and August 4, 2021, approximately 1,076 cubic yards of hydrocarbon impacted soils were transported offsite for final disposal at Lea Land, Inc. of Carlsbad, New Mexico. The site was then backfilled with like sourced material and brought up to surface grade. Disposal manifests are available upon request.

## **8. Closure Request**

The area in the vicinity of the surface blowdown (Figure 5) was horizontally delineated to Table 1 standard of less than 50 ft to groundwater for BTEX, Chlorides and TPH, with soil samples SS-2, SS-10, SS-11, SS-27, SS-31, and SS-40. In addition, the area of excavation (Figure 7) was also horizontally delineated for BTEX, Chlorides and TPH, with soil samples WS-1, WW-2, WE-2 and WN-2 (as furthest north sample for WN-1). The site was also vertically delineated across the site for all bottom hole samples (Figure 6).

With completion of the vertical and horizontal delineation, remediation of accessible soils, and backfilling of the excavation with locally sourced non-impacted soils, Plains respectfully requests that the NMOCD consider the site for closure. A C-141 deferral is attached to the front of this report.

If you have any questions, or if additional information is required, please feel free to contact Amber Groves (email: [ALGroves@paalp.com](mailto:ALGroves@paalp.com), cell: 575.200.7717) of Plains or Steve Casanova (email: [stevecasanova@deandigs.com](mailto:stevecasanova@deandigs.com), cell: 432.557.1968) or Jeff Kindley (email: [jeffreykindley@deandigs.com](mailto:jeffreykindley@deandigs.com) cell: 432.230.0920) of Dean.

Sincerely,



**Steve Casanova**

Project Manager



**Jeffrey Kindley, PG.**

Professional Geologist

## TABLES



**Chemistry Table 1 - Initial Surface Soil Delineation**  
**Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil**  
**Plains Pipeline, L.P.**  
**COG Screwdriver 24 Fed Com 2H Release**  
**Eddy County, NM**

SAMPLE INFORMATION					METHODS: EPA SW 846-8021B, 5030					METHOD: E 300	METHODS: EPA SW 846-8015M				
SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH	SAMPLE METHOD	MATRIX	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENE (mg/kg)	Total BTEX (mg/kg)	CHLORIDES (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	GRO +DRO (mg/kg)	ORO (mg/kg)	TOTAL TPH (mg/kg)
AH-1 @ 4"	06/21/21	4"	COMP	SOIL	4.14	62.5	91.4	149	307.04	9.99	5,970	27,400	33,370	3,580	36,950
AH-2 @ 4"	06/21/21	4"	COMP	SOIL	25.8	152	171	232.8	581.60	17.8	9,030	44,900	53,930	6,390	60,320
AH-3 @ 4"	06/21/21	4"	COMP	SOIL	3.92	40.4	68.6	120.5	233.42	142	6,620	42,600	49,220	5,640	54,860
AH-4 @ 4"	06/21/21	4"	COMP	SOIL	0.162	3.03	4.25	6.24	13.68	16.1	112	1,020	1,132	170	1,302
AH-5 @ 4"	06/21/21	4"	COMP	SOIL	24.5	207	160	294	685.50	23.7	13,900	40,800	54,700	5,220	59,920
AH-6 @ 4"	06/21/21	4"	COMP	SOIL	0.148	2.50	5.06	9.17	16.88	<1.05	788	5,930	6,718	879	7,597
AH-7 @ 4"	06/21/21	4"	COMP	SOIL	8.77	78.6	96.4	155.5	339.27	31.8	5,580	33,200	38,780	4,300	43,080
AH-8 @ 4"	06/21/21	4"	COMP	SOIL	3.02	58.4	89.5	149.9	300.82	<1.04	4,820	26,700	31,520	3,760	35,280
AH-9 @ 4"	06/21/21	4"	COMP	SOIL	10.5	103	128	195.9	437.40	24.3	7,390	34,700	42,090	4,850	46,940
<b>NMOCD Recommended Remediation Action Level</b>					10	-	-	-	50	20,000	-	-	1,000	-	2,500

Exceeds NMOCD Recommended RAL



**Chemistry Table 2 - Overspray Area Confirmation Soil Sampling**  
**Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil**  
**Plains Pipeline, L.P.**  
**COG Screwdriver 24 Fed Com 2H Release**  
**Eddy County, NM**

SAMPLE INFORMATION					METHODS: EPA SW 846-8021B, 5030					METHOD: E 300	METHODS: EPA SW 846-8015M				
SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH	SAMPLE METHOD	MATRIX	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENE (mg/kg)	Total BTEX (mg/kg)	CHLORIDES (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	GRO +DRO (mg/kg)	ORO (mg/kg)	TOTAL TPH (mg/kg)
SS-1 @ Surface	07/12/21	SURF	COMP	SOIL	0.00172	0.0367	0.0239	0.03723	0.09955	72.3	<26.3	180	180	56.3	236.3
SS-2 @ Surface	07/12/21	SURF	COMP	SOIL	0.00353	0.0433	0.0153	0.0189	0.08103	162	<25.8	1,170	1,170	486	1,656
SS-2 @ 6"	08/04/21	6"	COMP	SOIL	-	-	-	-	-	-	<25.0	<25.0	<25.0	<25.0	<25.0
SS-3 @ Surface	07/12/21	SURF	COMP	SOIL	0.00134	0.0167	0.00807	0.00977	0.03588	477	<26.3	455	455	204	659
SS-4 @ Surface	07/12/21	SURF	COMP	SOIL	0.00149	0.00249	0.0025	0.01345	0.01993	607	<26.0	99.3	99.3	45.4	144.7
SS-5 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00103	0.00544	0.00237	0.00305	0.01086	158	<25.8	496	496	<25.8	496
SS-6 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00103	0.00938	0.00406	0.00594	0.01938	180	<25.8	398	398	157	555
SS-7 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00103	0.00902	0.016	0.02788	0.05290	94.4	<25.8	134	134	39.9	173.9
SS-8 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00102	0.0329	0.0287	0.04148	0.10308	582	<25.5	274	274	67.9	341.9
SS-9 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00105	<0.00105	<0.00105	<0.00211	<0.00105	261	<26.3	73.4	73.4	<26.3	73.4
SS-10 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00104	0.00685	0.0063	0.01098	0.02413	95.3	<26.0	78.3	78.3	<26.0	78.3
SS-11 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00105	<0.00105	<0.00105	<0.00211	<0.00105	547	<26.3	27	27	<26.3	27
SS-12 @ Surface	07/12/21	SURF	COMP	SOIL	0.102	0.00156	<0.00102	0.00618	0.10974	172	<25.5	154	154	<25.5	154
SS-13 @ Surface	07/12/21	SURF	COMP	SOIL	0.00676	0.0996	0.0418	0.1012	0.24936	15.7	<31.6	<31.6	<31.6	<31.6	<31.6
SS-14 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00103	0.0182	0.0167	0.0282	0.06310	62.8	<25.8	73	73	<25.8	73
SS-15 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00105	<0.00105	<0.00105	<0.00211	<0.00105	31	<26.3	196	196	75.3	271.3
SS-16 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00103	0.0189	0.0169	0.03156	0.06736	32.7	<25.8	344	344	102	446
SS-17 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00102	0.00231	0.00174	0.00265	0.00670	222	<25.5	70.2	70.2	<25.5	70.2
SS-18 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00102	0.0111	0.0104	0.02053	0.04203	108	<25.5	95.4	95.4	<25.5	95.4



**Chemistry Table 2 - Overspray Area Confirmation Soil Sampling**  
**Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil**  
**Plains Pipeline, L.P.**  
**COG Screwdriver 24 Fed Com 2H Release**  
**Eddy County, NM**

SAMPLE INFORMATION					METHODS: EPA SW 846-8021B, 5030					METHOD: E 300	METHODS: EPA SW 846-8015M				
SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH	SAMPLE METHOD	MATRIX	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENE (mg/kg)	Total BTEX (mg/kg)	CHLORIDES (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	GRO +DRO (mg/kg)	ORO (mg/kg)	TOTAL TPH (mg/kg)
SS-19 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00103	0.0435	0.0326	0.0474	0.12350	242	<25.8	246	246	63.2	309.2
SS-20 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00102	0.00750	0.00998	0.01761	0.03509	384	<25.5	102	102	32.6	134.6
SS-21 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00103	<0.00103	<0.00103	<0.00206	<0.00103	91.3	<25.8	127	127	47.8	174.8
SS-22 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00105	<0.00105	<0.00105	<0.00211	<0.00105	241	<26.3	83.3	83.3	29.3	112.6
SS-23 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00108	<0.00108	<0.00108	<0.00215	<0.00108	221	<26.9	42.7	42.7	<26.9	42.7
SS-24 @ Surface	07/12/21	SURF	COMP	SOIL	0.00140	0.0311	0.0224	0.03294	0.08784	1,490	<25.5	105	105	37	142
SS-25 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00122	0.00423	<0.00122	0.03	0.03423	62	<30.5	39.2	39.2	<30.5	39.2
SS-26 @ Surface	07/12/21	SURF	COMP	SOIL	0.00134	0.0339	0.0220	0.0303	0.08754	1,550	<25.5	178	178	38.6	216.6
SS-27 @ Surface	07/12/21	SURF	COMP	SOIL	0.00151	0.00745	0.00536	0.01629	0.03061	240	<29.4	<29.4	<29.4	<29.4	<29.4
SS-28 @ Surface	07/12/21	SURF	COMP	SOIL	0.00132	0.0313	0.0199	0.02764	0.08016	1,010	<25.3	98.3	98.3	37.4	135.7
SS-29 @ Surface	07/12/21	SURF	COMP	SOIL	0.00106	0.0313	0.0226	0.03208	0.08704	545	<25.5	70.7	70.7	<25.5	70.7
SS-30 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00103	0.0161	0.0201	0.03185	0.06805	5,780	<25.8	88.9	88.9	32.3	121.2
SS-31 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00103	0.0114	0.00616	0.00782	0.02538	6,500	<25.8	50.1	50.1	<25.8	50.1
SS-32 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00102	0.0154	0.0263	0.03914	0.08084	2,810	<25.5	51.4	51.4	<25.5	51.4
SS-33 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00102	0.0141	0.0125	0.01782	0.04442	5,180	<25.5	64.6	64.6	26.7	91.3
SS-34 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00102	0.0150	0.0230	0.03509	0.07309	662	<25.5	62.2	62.2	<25.5	62.2
SS-35 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00102	0.0114	0.0152	0.02491	0.05151	2,030	<25.5	46.4	46.4	<25.5	46.4
SS-36 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00102	0.0167	0.0268	0.03778	0.08128	4,590	<25.5	71.3	71.3	26.0	97.3
SS-37 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00101	0.0270	0.0256	0.0372	0.0898	1,660	<25.3	32.8	32.8	<25.3	32.8



**Chemistry Table 2 - Overspray Area Confirmation Soil Sampling  
 Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil  
 Plains Pipeline, L.P.  
 COG Screwdriver 24 Fed Com 2H Release  
 Eddy County, NM**

SAMPLE INFORMATION					METHODS: EPA SW 846-8021B, 5030					METHOD: E 300	METHODS: EPA SW 846-8015M				
SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH	SAMPLE METHOD	MATRIX	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENE (mg/kg)	Total BTEX (mg/kg)	CHLORIDES (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	GRO +DRO (mg/kg)	ORO (mg/kg)	TOTAL TPH (mg/kg)
SS-38 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00102	0.00856	0.00449	0.00684	0.01989	1,470	<25.5	49.7	49.7	<25.5	49.7
SS-39 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00102	0.0138	0.0107	0.01617	0.04067	3,140	<25.5	47.6	47.6	<25.5	47.6
SS-40 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00102	0.0196	0.0228	0.03299	0.07539	4,220	<25.5	35.6	35.6	<25.5	35.6
SS-41 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00102	0.0117	0.00809	0.01176	0.03155	810	<25.5	87.2	87.2	28.3	115.5
SS-42 @ Surface	07/12/21	SURF	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00208	<0.00104	567	<26.0	139	139	31.3	170.3
<b>NMOCD Recommended Remediation Action Level</b>					<b>10</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>50</b>	<b>20,000</b>	<b>-</b>	<b>-</b>	<b>1,000</b>	<b>-</b>	<b>2,500</b>

Exceeds NMOCD Recommended RAL



**Chemistry Table 3 - Confirmation Soil Sampling**  
**Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil**  
**Plains Pipeline, L.P.**  
**COG Screwdriver 24 Fed Com 2H Release**  
**Eddy County, NM**

SAMPLE INFORMATION					METHODS: EPA SW 846-8021B, 5030					METHOD: E 300	METHODS: EPA SW 846-8015M				
SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH	SAMPLE METHOD	MATRIX	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENE (mg/kg)	Total BTEX (mg/kg)	CHLORIDES (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	GRO +DRO (mg/kg)	ORO (mg/kg)	TOTAL TPH (mg/kg)
BH-1 @ 2'	07/13/21	2'	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00202	<0.00101	56.9	<25.3	<25.3	<25.3	<25.3	<25.3
BH-2 @ 3'	07/13/21	3'	COMP	SOIL	<0.00102	<0.00102	<0.00102	<0.00204	<0.00102	11.3	<25.5	<25.5	<25.5	<25.5	<25.5
BH-3 @ 3'	07/13/21	3'	COMP	SOIL	<0.00102	<0.00102	<0.00102	<0.00204	<0.00102	31.6	<25.5	27.4	27.4	<25.5	27.4
BH-4 @ 3'	07/13/21	3'	COMP	SOIL	<0.00103	<0.00103	<0.00103	<0.00206	<0.00103	20.9	<25.8	<25.8	<25.8	<25.8	<25.8
BH-5 @ 2'	07/13/21	2'	COMP	SOIL	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100	30.4	<25.0	<25.0	<25.0	<25.0	<25.0
BH-6 @ 2'	07/13/21	2'	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00208	<0.00104	12.6	<26.0	<26.0	<26.0	<26.0	<26.0
BH-7 @ 3'	07/13/21	3'	COMP	SOIL	<0.00102	<0.00102	<0.00102	<0.00204	<0.00102	5.54	<25.5	<25.5	<25.5	<25.5	<25.5
BH-8 @ 3'	07/13/21	3'	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00208	<0.00104	6.10	<26.0	<26.0	<26.0	<26.0	<26.0
BH-9 @ 2'	07/13/21	2'	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00202	<0.00101	174	<25.3	<25.3	<25.3	<25.3	<25.3
BH-10 @ 2'	07/13/21	2'	COMP	SOIL	<0.00102	<0.00102	<0.00102	<0.00204	<0.00102	7.93	<25.5	<25.5	<25.5	<25.5	<25.5
BH-11 @ 3'	07/13/21	3'	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00202	<0.00101	7.41	<25.3	146	146	<25.3	146
BH-12 @ 3'	07/13/21	3'	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00208	<0.00104	15.4	<26.0	<26.0	<26.0	<26.0	<26.0
BH-13 @ 2'	07/13/21	2'	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00202	<0.00101	88.9	<25.3	<25.3	<25.3	<25.3	<25.3
BH-14 @ 3'	07/13/21	3'	COMP	SOIL	<0.00103	<0.00103	<0.00103	<0.00206	<0.00103	21.3	<25.8	<25.8	<25.8	<25.8	<25.8
BH-15 @ 3'	07/13/21	3'	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00202	<0.00101	3.57	<25.3	<25.3	<25.3	<25.3	<25.3
BH-16 @ 3'	07/13/21	3'	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00208	<0.00104	7.64	<26.0	<26.0	<26.0	<26.0	<26.0
BH-17 @ 3'	07/13/21	3'	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00202	<0.00101	170	<25.3	26.6	26.6	<25.3	26.6
BH-18 @ 3'	07/13/21	3'	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00202	<0.00101	11.3	<25.3	<25.3	<25.3	<25.3	<25.3
BH-19 @ 3'	07/13/21	3'	COMP	SOIL	<0.00102	<0.00102	<0.00102	<0.00204	<0.00102	25.8	<25.5	173	173	<25.5	173
BH-20 @ 2'	07/13/21	2'	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00208	<0.00104	63.2	<26.0	53.6	53.6	<26.0	53.6
BH-21 @ 3'	07/13/21	3'	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00202	<0.00101	79.1	<25.3	<25.3	<25.3	<25.3	<25.3
BH-22 @ 3'	07/13/21	3'	COMP	SOIL	<0.00120	<0.00120	<0.00120	<0.00241	<0.00120	23.6	31.6	31.6	63.2	<30.1	63.2
BH-23 @ 2.5'	07/16/21	2.5'	COMP	SOIL	<0.00105	<0.00105	<0.00105	<0.00211	<0.00105	14.1	<26.3	<26.3	<26.3	<26.3	<26.3
BH-24 @ 2.5'	07/16/21	2.5'	COMP	SOIL	<0.00103	<0.00103	<0.00103	<0.00206	<0.00103	12.3	<25.8	<25.8	<25.8	<25.8	<25.8



**Chemistry Table 3 - Confirmation Soil Sampling**  
**Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil**  
**Plains Pipeline, L.P.**  
**COG Screwdriver 24 Fed Com 2H Release**  
**Eddy County, NM**

SAMPLE INFORMATION					METHODS: EPA SW 846-8021B, 5030					METHOD: E 300	METHODS: EPA SW 846-8015M				
SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH	SAMPLE METHOD	MATRIX	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENE (mg/kg)	Total BTEX (mg/kg)	CHLORIDES (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	GRO +DRO (mg/kg)	ORO (mg/kg)	TOTAL TPH (mg/kg)
BH-25 @ 3'	07/16/21	3'	COMP	SOIL	<0.00103	<0.00103	<0.00103	<0.00206	<0.00103	11.0	<25.8	<25.8	<25.8	<25.8	<25.8
BH-26 @ 5'	07/16/21	5'	COMP	SOIL	<0.00111	<0.00111	<0.00111	<0.00222	<0.00111	11.4	<27.8	93.6	93.6	<27.8	93.6
BH-27 @ 5'	07/16/21	5'	COMP	SOIL	<0.00112	<0.00112	<0.00112	<0.00225	<0.00112	16.8	<28.1	71.7	71.7	<28.1	71.7
BH-28 @ 5'	07/16/21	5'	COMP	SOIL	<0.00115	<0.00115	<0.00115	<0.00230	<0.00115	8.28	<28.7	<28.7	<28.7	<28.7	<28.7
BH-29 @ 5'	07/16/21	5'	COMP	SOIL	<0.00110	<0.00110	<0.00110	<0.00220	<0.00110	18.8	<27.5	77.6	77.6	<27.5	77.6
BH-30 @ 5'	07/16/21	5'	COMP	SOIL	<0.00110	<0.00110	<0.00110	<0.00220	<0.00110	10.7	<27.5	<27.5	<27.5	<27.5	<27.5
BH-31 @ 5'	07/16/21	5'	COMP	SOIL	<0.00106	<0.00106	<0.00106	<0.00213	<0.00106	5.57	<26.6	<26.6	<26.6	<26.6	<26.6
BH-32 @ 5'	07/16/21	5'	COMP	SOIL	<0.00112	<0.00112	<0.00112	<0.00225	<0.00112	16.0	<28.1	<28.1	<28.1	<28.1	<28.1
BH-33 @ 5'	07/16/21	5'	COMP	SOIL	<0.00114	<0.00114	<0.00114	<0.00227	<0.00114	15.5	<28.4	<28.4	<28.4	<28.4	<28.4
BH-34 @ 5'	07/16/21	5'	COMP	SOIL	<0.00112	<0.00112	<0.00112	<0.00225	<0.00112	21.8	<28.1	42.1	42.1	<28.1	42.1
BH-35 @ 5'	07/23/21	5'	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00208	<0.00104	1.32	<26.0	<26.0	<26.0	<26.0	<26.0
BH-36 @ 2'	07/23/21	2'	COMP	SOIL	<0.00116	<0.00116	<0.00116	<0.00223	<0.00116	4.60	<29.1	<29.1	<29.1	<29.1	<29.1
BH-37 @ 2'	07/23/21	2'	COMP	SOIL	<0.00119	<0.00119	<0.00119	<0.00238	<0.00119	23.3	<29.8	<29.8	<29.8	<29.8	<29.8
BH-38 @ 2'	07/23/21	2'	COMP	SOIL	<0.00115	<0.00115	<0.00115	<0.00230	<0.00115	113	<28.7	<28.7	<28.7	<28.7	<28.7
BH-39 @ 2'	07/23/21	2'	COMP	SOIL	<0.00110	<0.00110	<0.00110	<0.00220	<0.00110	119	<27.5	<27.5	<27.5	<27.5	<27.5
BH-40 @ 5'	07/23/21	5'	COMP	SOIL	<0.00106	<0.00106	<0.00106	<0.00213	<0.00106	<1.06	<26.6	<26.6	<26.6	<26.6	<26.6
BH-41 @ 2'	07/23/21	2'	COMP	SOIL	<0.00123	<0.00123	<0.00123	<0.00247	<0.00123	89.8	<30.9	<30.9	<30.9	<30.9	<30.9
BH-42 @ 2'	07/23/21	2'	COMP	SOIL	<0.00120	<0.00120	<0.00120	<0.00241	<0.00120	10.2	<30.1	<30.1	<30.1	<30.1	<30.1
BH-43 @ 2'	07/23/21	2'	COMP	SOIL	<0.00123	<0.00123	<0.00123	<0.00247	<0.00123	23.9	<30.9	<30.9	<30.9	<30.9	<30.9
BH-44 @ 2'	07/23/21	2'	COMP	SOIL	<0.00111	<0.00111	<0.00111	<0.00222	<0.00111	8.34	<27.8	<27.8	<27.8	<27.8	<27.8
BH-45 @ 2'	07/23/21	2'	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00208	<0.00104	3.00	<26.0	<26.0	<26.0	<26.0	<26.0
BH-46 @ 2'	07/23/21	2'	COMP	SOIL	<0.00106	<0.00106	<0.00106	<0.00213	<0.00106	10.0	<26.6	<26.6	<26.6	<26.6	<26.6
BH-47 @ 2'	07/23/21	2'	COMP	SOIL	<0.00118	<0.00118	<0.00118	<0.00235	<0.00118	4.33	<29.4	<29.4	<29.4	<29.4	<29.4
BH-48 @ 2'	07/23/21	2'	COMP	SOIL	<0.00103	<0.00103	<0.00103	<0.00206	<0.00103	<1.03	<25.8	<25.8	<25.8	<25.8	<25.8



**Chemistry Table 3 - Confirmation Soil Sampling**  
**Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil**  
**Plains Pipeline, L.P.**  
**COG Screwdriver 24 Fed Com 2H Release**  
**Eddy County, NM**

SAMPLE INFORMATION					METHODS: EPA SW 846-8021B, 5030					METHOD: E 300	METHODS: EPA SW 846-8015M				
SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH	SAMPLE METHOD	MATRIX	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENE (mg/kg)	Total BTEX (mg/kg)	CHLORIDES (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	GRO +DRO (mg/kg)	ORO (mg/kg)	TOTAL TPH (mg/kg)
BH-49 @ 2'	07/23/21	2'	COMP	SOIL	<0.00110	<0.00110	<0.00110	<0.00220	<0.00110	9.27	<27.5	<27.5	<27.5	<27.5	<27.5
LBH-1 @ 3'	07/15/21	3'	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00208	<0.00104	107	<26.0	<26.0	<26.0	<26.0	<26.0
LBH-2 @ 3'	07/15/21	3'	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00202	<0.00101	68.6	<25.3	811	811	170	981
LBH-3 @ 3'	07/15/21	3'	COMP	SOIL	<0.00103	<0.00103	<0.00103	<0.00206	<0.00103	89.7	<25.8	26.4	26.4	<25.8	26.4
LBH-4 @ 3'	07/15/21	3'	COMP	SOIL	<0.00103	<0.00103	<0.00103	<0.00206	<0.00103	304	<25.8	242	242	43.1	285.1
WS-1 @ 2.5'	07/16/21	2.5'	COMP	SOIL	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100	7.39	<25.0	<25.0	<25.0	<25.0	<25.0
WS-2 @ 2.5'	07/16/21	2.5'	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00202	<0.00101	62.2	<25.3	30.8	30.8	<25.3	30.8
WS-3 @ 2.5'	07/16/21	2.5'	COMP	SOIL	<0.00103	<0.00103	<0.00103	<0.00206	<0.00103	9.95	<25.8	<25.8	<25.8	<25.8	<25.8
WS-4 @ 2.5'	07/16/21	2.5'	COMP	SOIL	<0.00105	<0.00105	<0.00105	<0.00211	<0.00105	6.29	<26.3	<26.3	<26.3	<26.3	<26.3
WS-5 @ 2.5'	07/16/21	2.5'	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00208	<0.00104	8.51	<26.0	<26.0	<26.0	<26.0	<26.0
WE-1 @ 3'	07/13/21	3'	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00202	<0.00101	50.4	<25.3	<25.3	<25.3	<25.3	<25.3
WE-1 @ 3'	07/16/21	3'	COMP	SOIL	<0.00108	<0.00108	<0.00108	<0.00215	<0.00108	14.0	<26.9	<26.9	<26.9	<26.9	<26.9
WE-1 @ 2'	07/23/21	2'	COMP	SOIL	<0.00105	<0.00105	<0.00105	<0.00211	<0.00105	27.0	<26.3	88.7	88.7	32.5	121.2
WE-2 @ 2'	07/23/21	2'	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00208	<0.00104	7.33	<26.0	31.1	31.1	<26.0	31.1
WW-1 @ 3'	07/13/21	3'	COMP	SOIL	<0.00100	0.00228	0.00213	0.00408	0.00849	132	<25.0	<25.0	<25.0	<25.0	<25.0
WW-1 @ 5'	07/16/21	5'	COMP	SOIL	<0.00114	<0.00114	<0.00114	<0.00227	<0.00114	14.9	<28.4	<28.4	<28.4	<28.4	<28.4
WW-1 @ 2'	07/23/21	2'	COMP	SOIL	<0.00106	<0.00106	<0.00106	<0.00213	<0.00106	82.6	<26.6	<26.6	<26.6	<26.6	<26.6
WW-2 @ 3'	07/13/21	3'	COMP	SOIL	<0.00100	0.00101	0.0018	0.00399	0.0068	40.2	<25.0	<25.0	<25.0	<25.0	<25.0
WW-2 @ 2'	07/23/21	2'	COMP	SOIL	<0.00102	<0.00102	<0.00102	<0.00204	<0.00102	34.9	<25.5	<25.5	<25.5	<25.5	<25.5
WN-1 @ 3'	07/13/21	3'	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00202	<0.00101	31.9	<25.3	202	202	41.4	243.4
WN-2 @ 3'	07/13/21	3'	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00202	<0.00101	55.8	<25.3	38.3	38.3	<25.3	38.3
LWS-1 @ 3'	07/15/21	3'	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00208	<0.00104	103	<26.0	<26.0	<26.0	<26.0	<26.0



**Chemistry Table 3 - Confirmation Soil Sampling**  
**Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil**  
**Plains Pipeline, L.P.**  
**COG Screwdriver 24 Fed Com 2H Release**  
**Eddy County, NM**

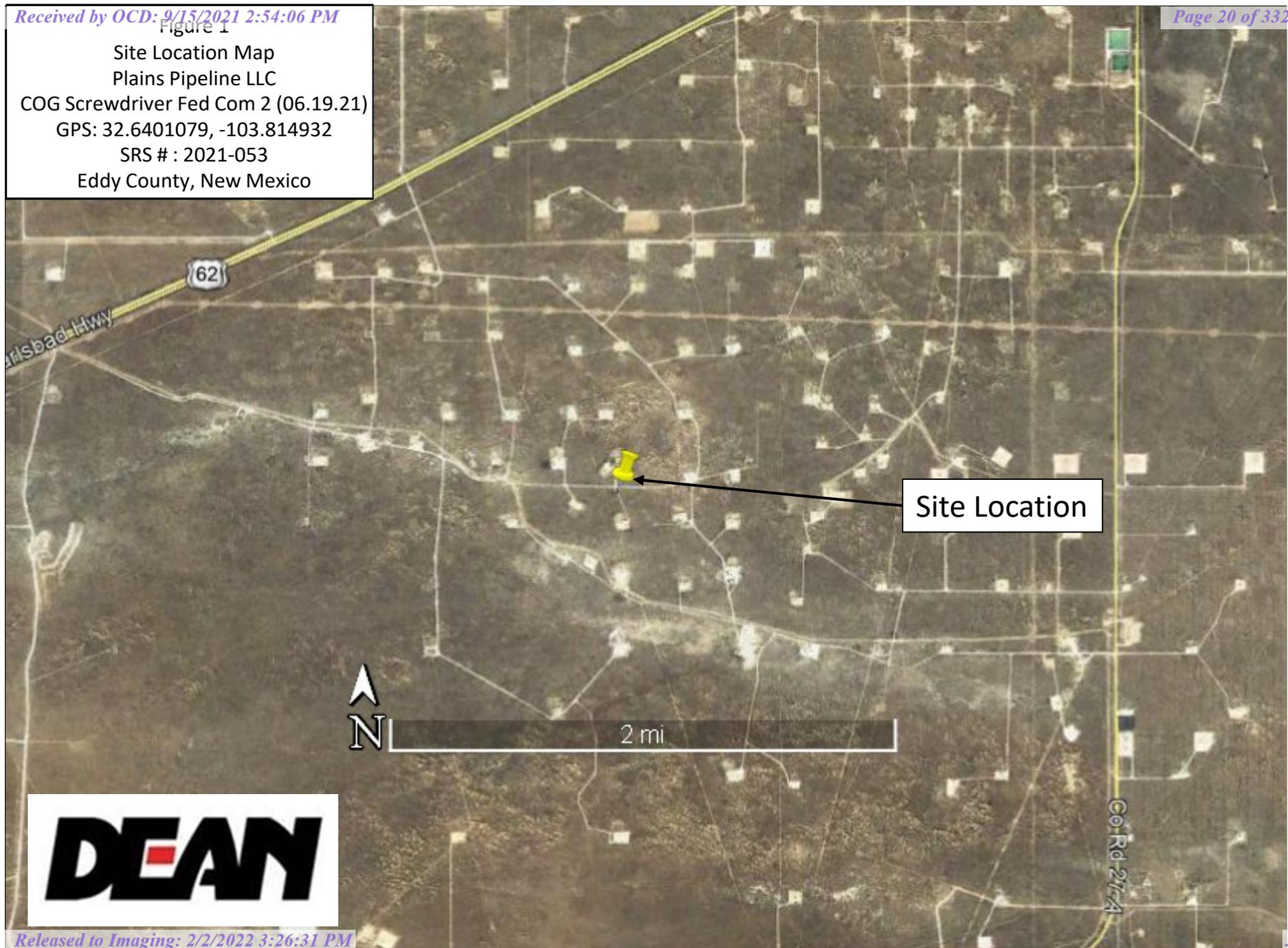
SAMPLE INFORMATION					METHODS: EPA SW 846-8021B, 5030					METHOD: E 300	METHODS: EPA SW 846-8015M				
SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH	SAMPLE METHOD	MATRIX	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENE (mg/kg)	Total BTEX (mg/kg)	CHLORIDES (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	GRO +DRO (mg/kg)	ORO (mg/kg)	TOTAL TPH (mg/kg)
LWE-1 @ 3'	07/15/21	3'	COMP	SOIL	<0.00100	0.00156	0.00212	0.00524	0.00892	105	56.7	3,490	3,546.7	495	4,041.7
LWE-2B @ 3'	07/29/21	3'	COMP	SOIL	<0.00104	0.00788	<0.00104	<0.00208	0.00788	53.4	<26.0	<26.0	<26.0	<26.0	<26.0
LWW-1 @ 3'	07/15/21	3'	COMP	SOIL	<0.00103	<0.00103	<0.00103	<0.00206	<0.00103	171	<25.8	65.3	65.3	<25.8	65.3
LWN-1 @ 3'	07/15/21	3'	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00202	<0.00101	86.2	<25.3	67.6	67.6	<25.3	67.6
<b>NMOCD Recommended Remediation Action Level</b>					10	-	-	-	50	20,000	-	-	1,000	-	2,500

Exceeds NMOCD Recommended RAL

## FIGURES

Figure 1

Site Location Map  
Plains Pipeline LLC  
COG Screwdriver Fed Com 2 (06.19.21)  
GPS: 32.6401079, -103.814932  
SRS #: 2021-053  
Eddy County, New Mexico



Topographic Map  
Plains Pipeline LLC  
COG Screwdriver Fed Com 2 (06.19.21)  
GPS: 32.6401079, -103.814932  
SRS #: 2021-053  
Eddy County, New Mexico

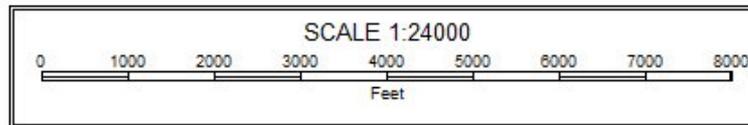
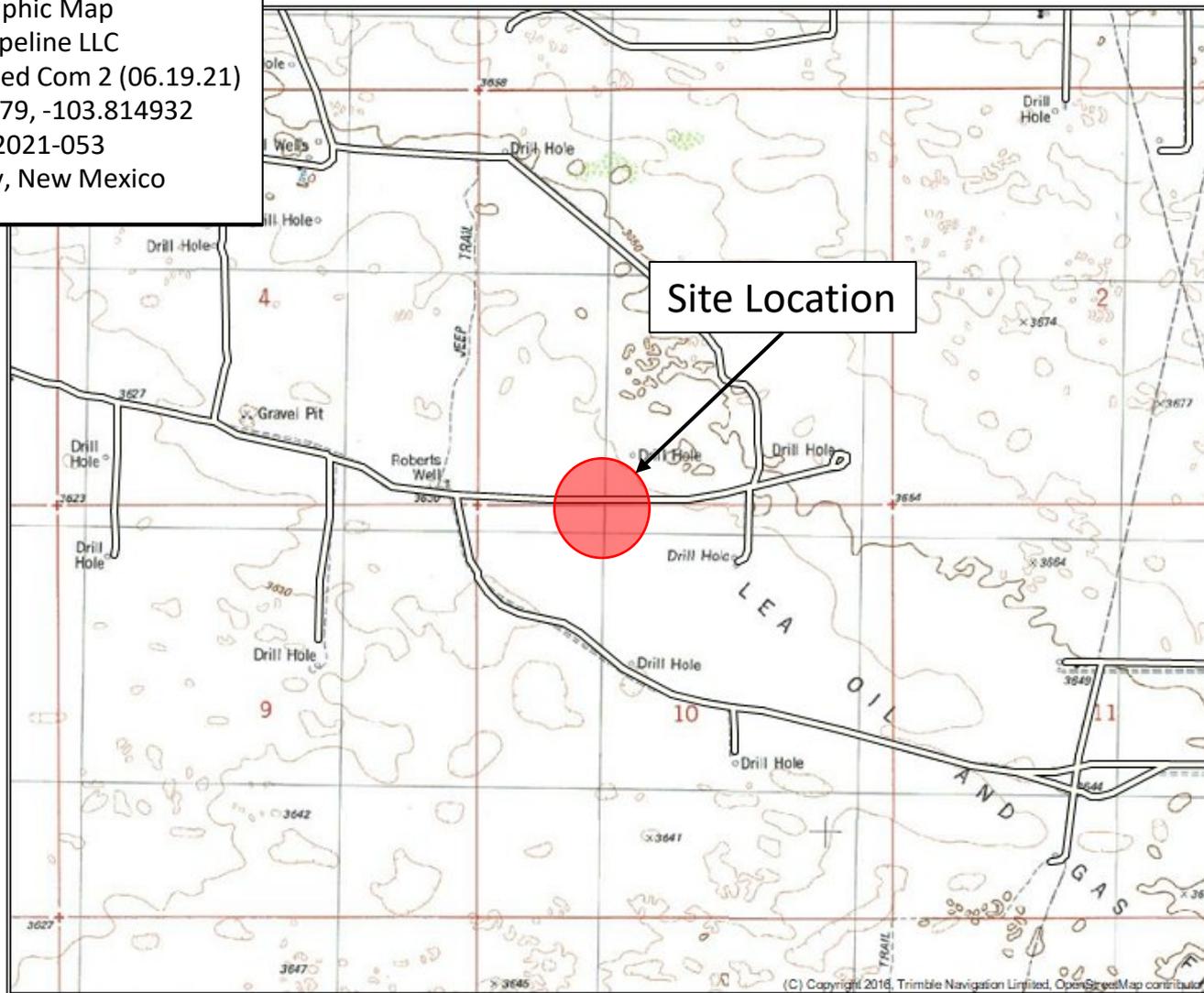


Figure 3

Site Location Relative to Known Regional  
Karst Topography Map  
Plains Pipeline LLC  
COG Screwdriver Fed Com 2 (06.19.21)  
GPS: 32.6401079, -103.814932  
SRS #: 2021-053  
Eddy County, New Mexico

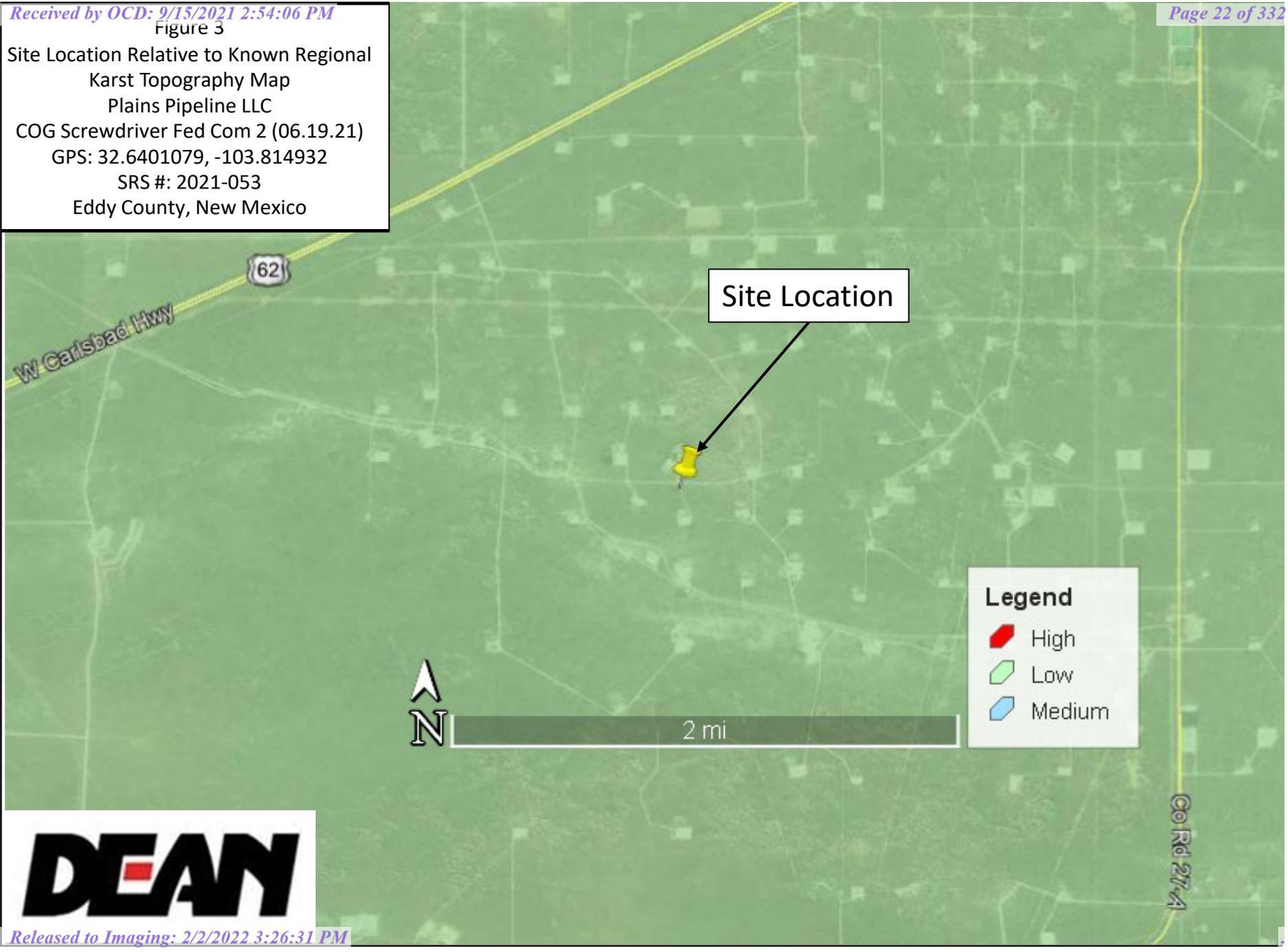


Figure 4

Site Details and Initial Delineation  
Soil Sample Location Map

Plains Pipeline LLC  
COG Screwdriver 24 Fed Com 2H 06.19.21  
SRS #: 2021-053  
GPS: 32.640918, -103.814648  
Eddy County, NM

**Legend**

Excavation Area: 

Sample Points: 

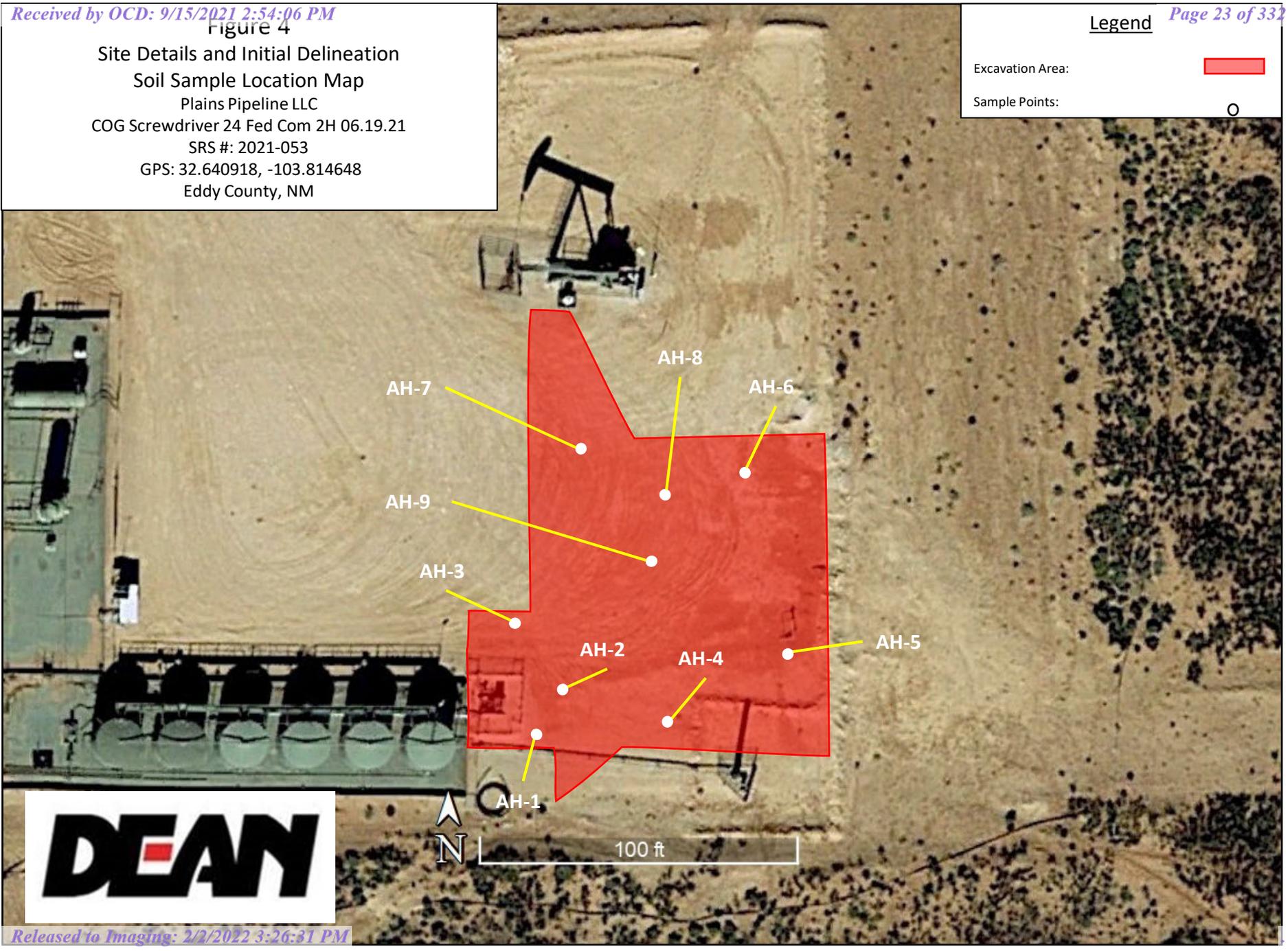


Figure 5

Site Details and Delineation Soil Sample  
 Overspray Location Map  
 Plains Pipeline LLC  
 COG Screwdriver 24 Fed Com 2H (06.19.21)  
 SRS #: 2021-053  
 GPS: 32.6401079, -103.814932  
 Eddy County, NM

**Legend**

Excavation Area: 

Surface Sample Points: 

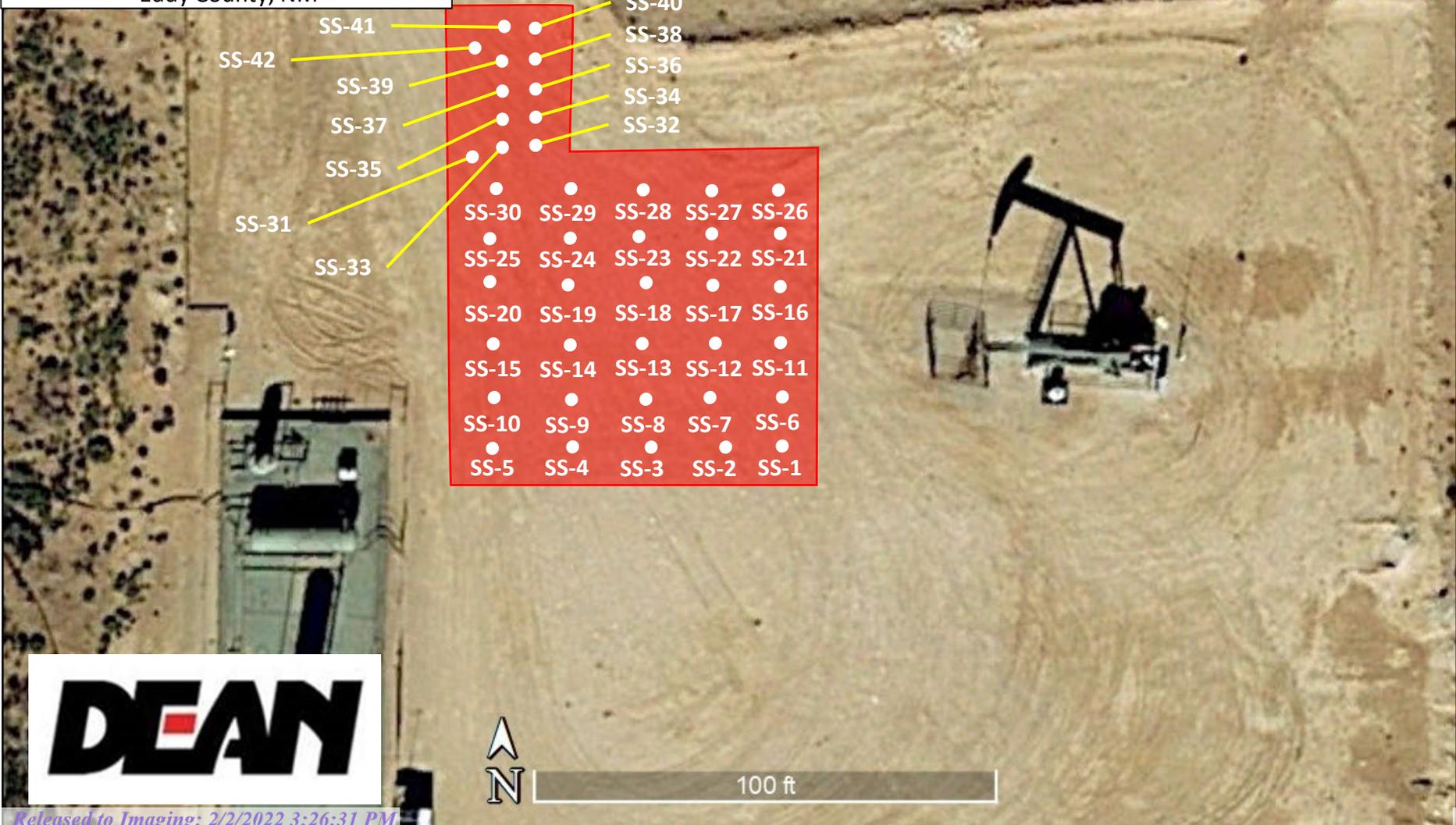


Figure 6

Site Details and Bottom Hole  
Sample Location Map

Plains Pipeline LLC  
COG Screwdriver 24 Fed Com 2H 06.19.21  
SRS #: 2021-053  
GPS: 32.640918, -103.814648  
Eddy County, NM

**Legend**

Excavation Area: 

Sample Points: 

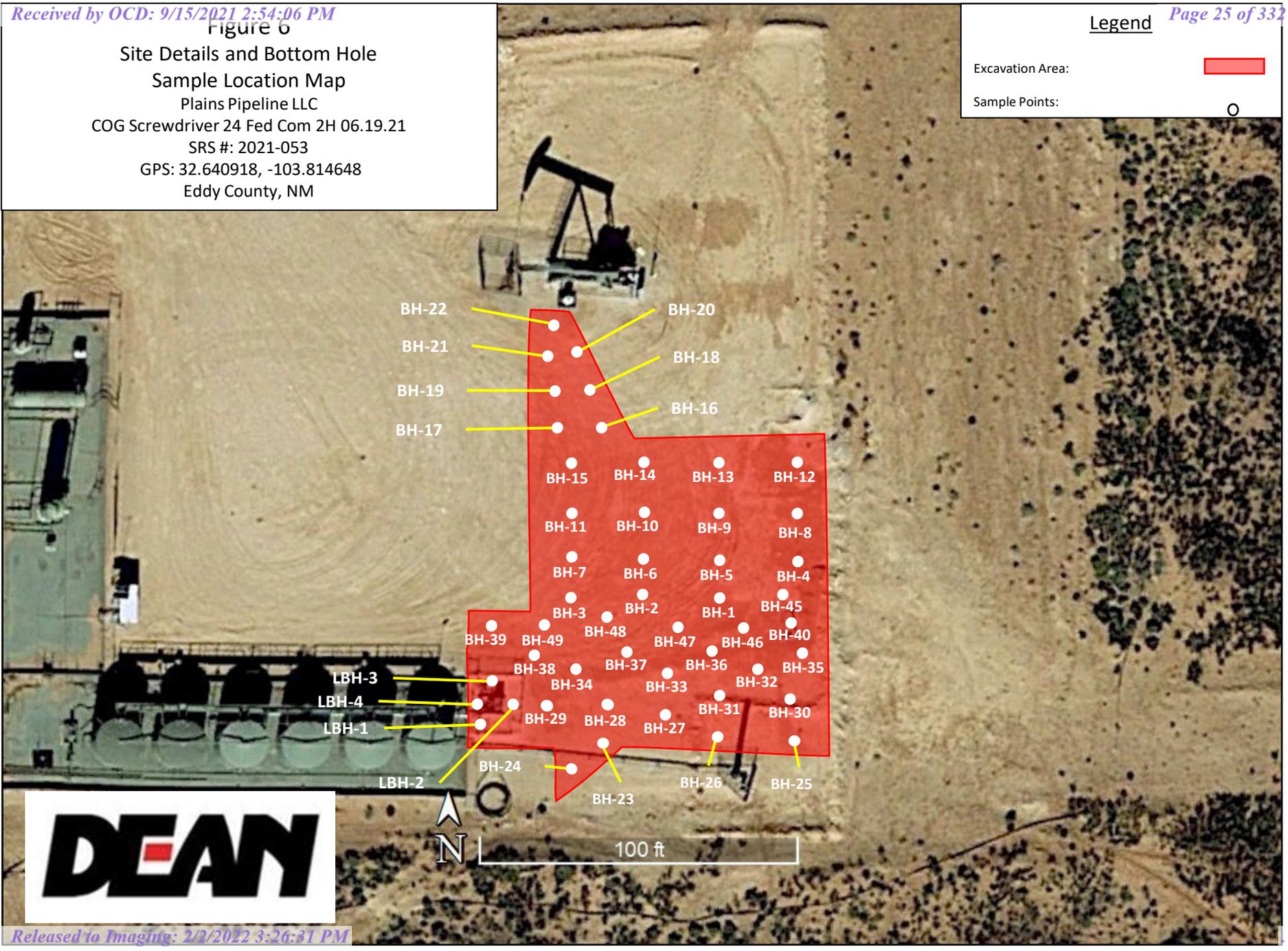


Figure 7

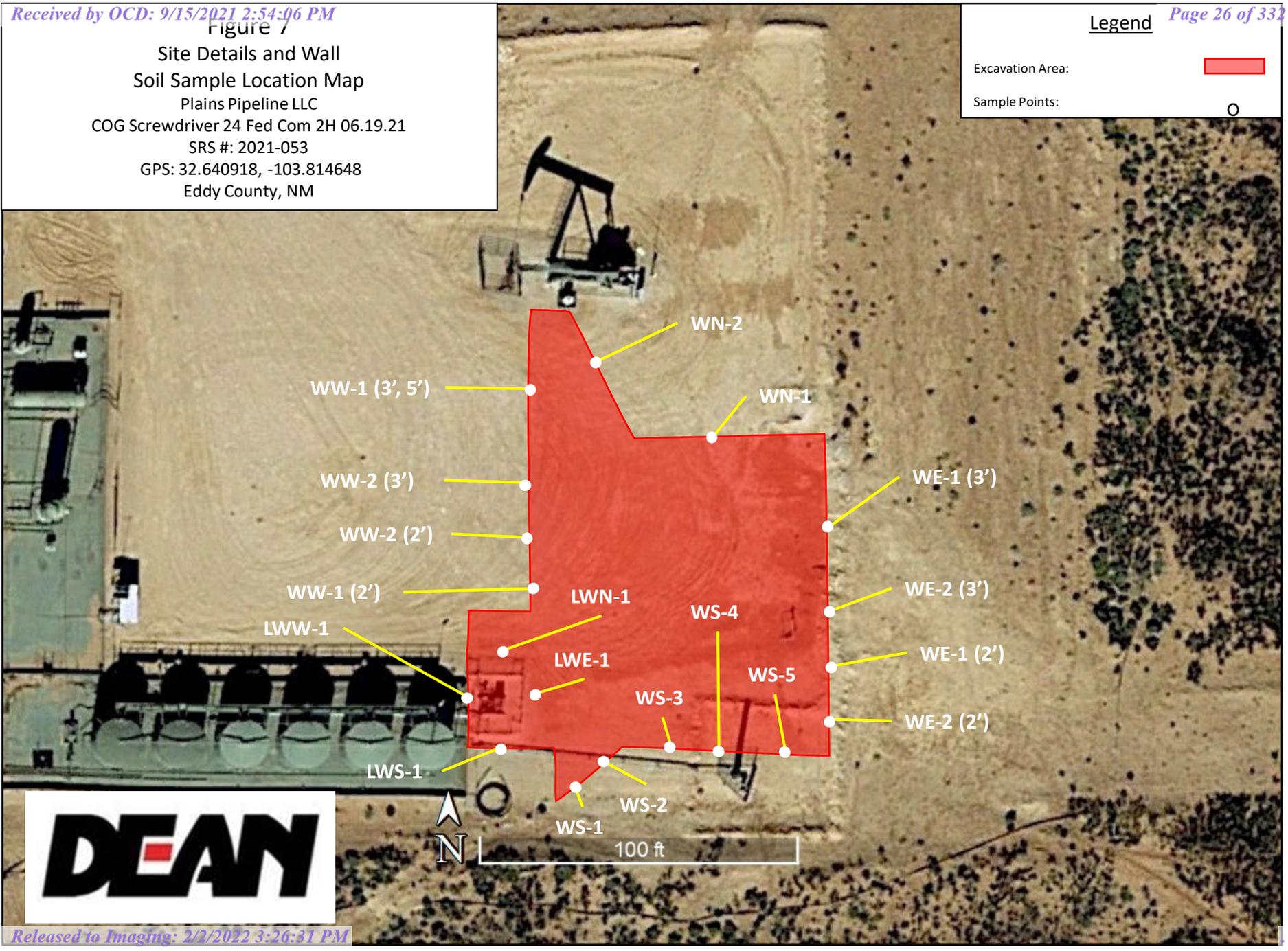
### Site Details and Wall Soil Sample Location Map

Plains Pipeline LLC  
COG Screwdriver 24 Fed Com 2H 06.19.21  
SRS #: 2021-053  
GPS: 32.640918, -103.814648  
Eddy County, NM

**Legend**

Excavation Area: 

Sample Points: 



**APPENDIX A**  
**NMOCD INITIAL C-141 FORM**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural  
Resources Department  
  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	nAPP2117355493
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party Plains Pipeline, L.P.	OGRID 713291
Contact Name Amber Groves	Contact Telephone 575-200-5517
Contact email algroves@paalp.com	Incident # (assigned by OCD)
Contact mailing address 3112 W. US Hwy 82, Lovington, NM 88260	

### Location of Release Source

Latitude 32.641079

Longitude -103.814932

(NAD 83 in decimal degrees to 5 decimal places)

Site Name Plains COG Screwdriver 24 Fed Com 2H	Site Type LACT Unit
Date Release Discovered 06/19/2021	API# (if applicable)

Unit Letter	Section	Township	Range	County
P	24	19S	31E	Eddy

Surface Owner:  State  Federal  Tribal  Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 68.2 bbls	Volume Recovered (bbls) 60 bbls
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

**Cause of Release**

Steel Swagelock fitting failure resulting in an approximate 68.2 bbl release that is all contained to COG's production pad.

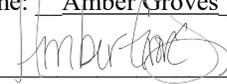
State of New Mexico  
 Oil Conservation Division

Incident ID	nAPP2117355493
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Immediate notification given via e-mail to Jim Griswold, Bradford Billings, Mike Bratcher, Cristina Eads, Robert Hamlet and Karen Collins on 6/19/2021.	

### Initial Response

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury*

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name: <u>Amber Groves</u> Title: <u>Remediation Coordinator</u> Signature: <u></u> Date: <u>06/24/2021</u> email: <u>algroves@paalp.com</u> Telephone: <u>(575)200-5517</u>
<b><u>OCD Only</u></b> Received by: <u>Ramona Marcus</u> Date: <u>6/28/2021</u>

NAPP2117355493

**Amber L Groves**

---

**From:** David Guerrero Jr  
**Sent:** Tuesday, June 22, 2021 8:27 AM  
**To:** Amber L Groves; Camille J Bryant  
**Cc:** C. Drew Engstrom; William M Gilliland, Jr.; Jose C DeLao  
**Subject:** COG Screwdriver 24 Fed Com 2H Release Amount

The release that occurred on 6/19/2021 at the Screwdriver 24 Fed Com 2H lease had a total release amount of 68.2bbls. This amount is based on the calculation of the release oil flow path measuring approximately 90ft x 50ft with an average depth of 1 inch.

Thank you,

**DAVID GUERRERO JR**  
PLAINS ALL AMERICAN  
DISTRICT MANAGER, PPN  
(432) 202-9397 | (432) 758-8002  
DGUERRERO@PAALP.COM

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**  
 811 S. First St., Artesia, NM 88210  
 Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS  
 Action 33480

**CONDITIONS**

Operator: PLAINS MARKETING L.P. 333 Clay St, Ste 1600 Houston, TX 77002	OGRID: 34053
	Action Number: 33480
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
marcus	None	6/28/2021

**APPENDIX B  
NMOSE WATER LEVELS**



# New Mexico Office of the State Engineer Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)				(NAD83 UTM in meters)			
		Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	CP 00640 POD1	2	2	19	19S	32E		612621	3613280*
<b>Driller License:</b>	882	<b>Driller Company:</b>		LARRY'S DRILLING & PUMP CO.					
<b>Driller Name:</b>	FELKINS, LARRY								
<b>Drill Start Date:</b>	02/08/1982	<b>Drill Finish Date:</b>		02/09/1982		<b>Plug Date:</b>			
<b>Log File Date:</b>	03/04/1982	<b>PCW Rcv Date:</b>		<b>Source:</b> Shallow					
<b>Pump Type:</b>		<b>Pipe Discharge Size:</b>		<b>Estimated Yield:</b>					
<b>Casing Size:</b>		<b>Depth Well:</b>		260 feet		<b>Depth Water:</b> 102 feet			

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

5/10/21 11:51 AM

POINT OF DIVERSION SUMMARY

**APPENDIX C**  
**LABORATORY ANALYTICAL REPORTS**

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



## Analytical Report

**Prepared for:**

Sylwia Reynolds  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21

Project Number: PP-21152

Location: Eddy County, NM

Lab Order Number: 1F22004



**Current Certification**

Report Date: 07/08/21

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Sylwia Reynolds

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AH-1 @ 4"	1F22004-01	Soil	06/21/21 18:30	06-22-2021 14:13
AH-2 @ 4"	1F22004-02	Soil	06/21/21 18:35	06-22-2021 14:13
AH-3 @ 4"	1F22004-03	Soil	06/21/21 18:40	06-22-2021 14:13
AH-4 @ 4"	1F22004-04	Soil	06/21/21 18:45	06-22-2021 14:13
AH-5 @ 4"	1F22004-05	Soil	06/21/21 18:50	06-22-2021 14:13
AH-6 @ 4"	1F22004-06	Soil	06/21/21 18:55	06-22-2021 14:13
AH-7 @ 4"	1F22004-07	Soil	06/21/21 19:00	06-22-2021 14:13
AH-8 @ 4"	1F22004-08	Soil	06/21/21 19:05	06-22-2021 14:13
AH-9 @ 4"	1F22004-09	Soil	06/21/21 19:10	06-22-2021 14:13

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Sylwia Reynolds

**AH-1 @ 4"**  
**1F22004-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>4.14</b>	0.515	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 11:51	EPA 8021B	
<b>Toluene</b>	<b>62.5</b>	0.515	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 11:51	EPA 8021B	
<b>Ethylbenzene</b>	<b>91.4</b>	0.515	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 11:51	EPA 8021B	
<b>Xylene (p/m)</b>	<b>100</b>	1.03	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 11:51	EPA 8021B	
<b>Xylene (o)</b>	<b>49.0</b>	0.515	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 11:51	EPA 8021B	

Surrogate: 4-Bromofluorobenzene 82.1 % 80-120 P1F2210 06/22/21 15:51 06/23/21 11:51 EPA 8021B

Surrogate: 1,4-Difluorobenzene 94.7 % 80-120 P1F2210 06/22/21 15:51 06/23/21 11:51 EPA 8021B

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>9.99</b>	1.03	mg/kg dry	1	P1F2905	06/29/21 10:26	06/29/21 16:20	EPA 300.0	
<b>% Moisture</b>	<b>3.0</b>	0.1	%	1	P1F2402	06/24/21 11:39	06/24/21 14:05	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>5970</b>	258	mg/kg dry	10	P1F2301	06/23/21 08:14	06/23/21 17:10	TPH 8015M	
<b>&gt;C12-C28</b>	<b>27400</b>	258	mg/kg dry	10	P1F2301	06/23/21 08:14	06/23/21 17:10	TPH 8015M	
<b>&gt;C28-C35</b>	<b>3580</b>	258	mg/kg dry	10	P1F2301	06/23/21 08:14	06/23/21 17:10	TPH 8015M	

Surrogate: 1-Chlorooctane 146 % 70-130 P1F2301 06/23/21 08:14 06/23/21 17:10 TPH 8015M S-GC

Surrogate: o-Terphenyl 105 % 70-130 P1F2301 06/23/21 08:14 06/23/21 17:10 TPH 8015M

**Total Petroleum Hydrocarbon C6-C35** **36900** 258 mg/kg dry 10 [CALC] 06/23/21 08:14 06/23/21 17:10 calc

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Sylwia Reynolds

**AH-2 @ 4"**  
**1F22004-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>25.8</b>	0.521	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 12:12	EPA 8021B	
<b>Toluene</b>	<b>152</b>	0.521	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 12:12	EPA 8021B	
<b>Ethylbenzene</b>	<b>171</b>	0.521	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 12:12	EPA 8021B	
<b>Xylene (p/m)</b>	<b>158</b>	1.04	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 12:12	EPA 8021B	
<b>Xylene (o)</b>	<b>74.8</b>	0.521	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 12:12	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		87.9 %	80-120		P1F2210	06/22/21 15:51	06/23/21 12:12	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		77.3 %	80-120		P1F2210	06/22/21 15:51	06/23/21 12:12	EPA 8021B	S-GC

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>17.8</b>	1.04	mg/kg dry	1	P1F2905	06/29/21 10:26	06/29/21 16:35	EPA 300.0	
<b>% Moisture</b>	<b>4.0</b>	0.1	%	1	P1F2402	06/24/21 11:39	06/24/21 14:05	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>9030</b>	260	mg/kg dry	10	P1F2301	06/23/21 08:14	06/23/21 17:33	TPH 8015M	
<b>&gt;C12-C28</b>	<b>44900</b>	260	mg/kg dry	10	P1F2301	06/23/21 08:14	06/23/21 17:33	TPH 8015M	
<b>&gt;C28-C35</b>	<b>6390</b>	260	mg/kg dry	10	P1F2301	06/23/21 08:14	06/23/21 17:33	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		169 %	70-130		P1F2301	06/23/21 08:14	06/23/21 17:33	TPH 8015M	S-GC
<i>Surrogate: o-Terphenyl</i>		93.2 %	70-130		P1F2301	06/23/21 08:14	06/23/21 17:33	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>60300</b>	260	mg/kg dry	10	[CALC]	06/23/21 08:14	06/23/21 17:33	calc	

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Sylwia Reynolds

**AH-3 @ 4"**  
**1F22004-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>3.92</b>	0.515	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 12:33	EPA 8021B	
<b>Toluene</b>	<b>40.4</b>	0.515	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 12:33	EPA 8021B	
<b>Ethylbenzene</b>	<b>68.6</b>	0.515	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 12:33	EPA 8021B	
<b>Xylene (p/m)</b>	<b>80.2</b>	1.03	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 12:33	EPA 8021B	
<b>Xylene (o)</b>	<b>40.3</b>	0.515	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 12:33	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		85.5 %	80-120		P1F2210	06/22/21 15:51	06/23/21 12:33	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		97.1 %	80-120		P1F2210	06/22/21 15:51	06/23/21 12:33	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>142</b>	1.03	mg/kg dry	1	P1F2905	06/29/21 10:26	06/29/21 16:50	EPA 300.0	
<b>% Moisture</b>	<b>3.0</b>	0.1	%	1	P1F2402	06/24/21 11:39	06/24/21 14:05	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>6620</b>	258	mg/kg dry	10	P1F2301	06/23/21 08:14	06/23/21 17:56	TPH 8015M	
<b>&gt;C12-C28</b>	<b>42600</b>	258	mg/kg dry	10	P1F2301	06/23/21 08:14	06/23/21 17:56	TPH 8015M	
<b>&gt;C28-C35</b>	<b>5640</b>	258	mg/kg dry	10	P1F2301	06/23/21 08:14	06/23/21 17:56	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		158 %	70-130		P1F2301	06/23/21 08:14	06/23/21 17:56	TPH 8015M	S-GC
<i>Surrogate: o-Terphenyl</i>		91.2 %	70-130		P1F2301	06/23/21 08:14	06/23/21 17:56	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>54900</b>	258	mg/kg dry	10	[CALC]	06/23/21 08:14	06/23/21 17:56	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Sylwia Reynolds

**AH-4 @ 4"**  
**1F22004-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.162</b>	0.0200	mg/kg dry	20	P1F2210	06/22/21 15:51	06/23/21 11:09	EPA 8021B	
<b>Toluene</b>	<b>3.03</b>	0.0200	mg/kg dry	20	P1F2210	06/22/21 15:51	06/23/21 11:09	EPA 8021B	
<b>Ethylbenzene</b>	<b>4.25</b>	0.0200	mg/kg dry	20	P1F2210	06/22/21 15:51	06/23/21 11:09	EPA 8021B	
<b>Xylene (p/m)</b>	<b>4.35</b>	0.0400	mg/kg dry	20	P1F2210	06/22/21 15:51	06/23/21 11:09	EPA 8021B	
<b>Xylene (o)</b>	<b>1.89</b>	0.0200	mg/kg dry	20	P1F2210	06/22/21 15:51	06/23/21 11:09	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		80.3 %	80-120		P1F2210	06/22/21 15:51	06/23/21 11:09	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		99.4 %	80-120		P1F2210	06/22/21 15:51	06/23/21 11:09	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>16.1</b>	1.00	mg/kg dry	1	P1F2905	06/29/21 10:26	06/29/21 17:06	EPA 300.0	
% Moisture	ND	0.1	%	1	P1F2402	06/24/21 11:39	06/24/21 14:05	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>112</b>	25.0	mg/kg dry	1	P1F2301	06/23/21 08:14	06/23/21 19:04	TPH 8015M	
<b>&gt;C12-C28</b>	<b>1020</b>	25.0	mg/kg dry	1	P1F2301	06/23/21 08:14	06/23/21 19:04	TPH 8015M	
<b>&gt;C28-C35</b>	<b>170</b>	25.0	mg/kg dry	1	P1F2301	06/23/21 08:14	06/23/21 19:04	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		91.4 %	70-130		P1F2301	06/23/21 08:14	06/23/21 19:04	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		85.1 %	70-130		P1F2301	06/23/21 08:14	06/23/21 19:04	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>1310</b>	25.0	mg/kg dry	1	[CALC]	06/23/21 08:14	06/23/21 19:04	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Sylwia Reynolds

**AH-5 @ 4"**  
**1F22004-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>24.5</b>	0.521	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 12:54	EPA 8021B	
<b>Toluene</b>	<b>207</b>	0.521	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 12:54	EPA 8021B	
<b>Ethylbenzene</b>	<b>160</b>	0.521	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 12:54	EPA 8021B	
<b>Xylene (p/m)</b>	<b>202</b>	1.04	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 12:54	EPA 8021B	
<b>Xylene (o)</b>	<b>92.0</b>	0.521	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 12:54	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		81.2 %	80-120		P1F2210	06/22/21 15:51	06/23/21 12:54	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		70.8 %	80-120		P1F2210	06/22/21 15:51	06/23/21 12:54	EPA 8021B	S-GC

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>23.7</b>	1.04	mg/kg dry	1	P1F2905	06/29/21 10:26	06/29/21 17:21	EPA 300.0	
<b>% Moisture</b>	<b>4.0</b>	0.1	%	1	P1F2402	06/24/21 11:39	06/24/21 14:05	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>13900</b>	260	mg/kg dry	10	P1F2301	06/23/21 08:14	06/23/21 19:26	TPH 8015M	
<b>&gt;C12-C28</b>	<b>40800</b>	260	mg/kg dry	10	P1F2301	06/23/21 08:14	06/23/21 19:26	TPH 8015M	
<b>&gt;C28-C35</b>	<b>5220</b>	260	mg/kg dry	10	P1F2301	06/23/21 08:14	06/23/21 19:26	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		210 %	70-130		P1F2301	06/23/21 08:14	06/23/21 19:26	TPH 8015M	S-GC
<i>Surrogate: o-Terphenyl</i>		91.0 %	70-130		P1F2301	06/23/21 08:14	06/23/21 19:26	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>60000</b>	260	mg/kg dry	10	[CALC]	06/23/21 08:14	06/23/21 19:26	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Sylwia Reynolds

**AH-6 @ 4"**  
**1F22004-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.148</b>	0.0211	mg/kg dry	20	P1F2210	06/22/21 15:51	06/22/21 21:36	EPA 8021B	
<b>Toluene</b>	<b>2.50</b>	0.0211	mg/kg dry	20	P1F2210	06/22/21 15:51	06/22/21 21:36	EPA 8021B	
<b>Ethylbenzene</b>	<b>5.06</b>	0.0211	mg/kg dry	20	P1F2210	06/22/21 15:51	06/22/21 21:36	EPA 8021B	
<b>Xylene (p/m)</b>	<b>6.07</b>	0.0421	mg/kg dry	20	P1F2210	06/22/21 15:51	06/22/21 21:36	EPA 8021B	
<b>Xylene (o)</b>	<b>3.10</b>	0.0211	mg/kg dry	20	P1F2210	06/22/21 15:51	06/22/21 21:36	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		102 %	80-120		P1F2210	06/22/21 15:51	06/22/21 21:36	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		88.8 %	80-120		P1F2210	06/22/21 15:51	06/22/21 21:36	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	ND	1.05	mg/kg dry	1	P1F2905	06/29/21 10:26	06/29/21 17:36	EPA 300.0	
% Moisture	5.0	0.1	%	1	P1F2402	06/24/21 11:39	06/24/21 14:05	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>788</b>	132	mg/kg dry	5	P1F2301	06/23/21 08:14	06/23/21 19:49	TPH 8015M	
<b>&gt;C12-C28</b>	<b>5930</b>	132	mg/kg dry	5	P1F2301	06/23/21 08:14	06/23/21 19:49	TPH 8015M	
<b>&gt;C28-C35</b>	<b>879</b>	132	mg/kg dry	5	P1F2301	06/23/21 08:14	06/23/21 19:49	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		95.6 %	70-130		P1F2301	06/23/21 08:14	06/23/21 19:49	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		98.2 %	70-130		P1F2301	06/23/21 08:14	06/23/21 19:49	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>7590</b>	132	mg/kg dry	5	[CALC]	06/23/21 08:14	06/23/21 19:49	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Sylwia Reynolds

**AH-7 @ 4"**  
**1F22004-07 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>8.77</b>	0.515	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 15:56	EPA 8021B	
<b>Toluene</b>	<b>78.6</b>	0.515	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 15:56	EPA 8021B	
<b>Ethylbenzene</b>	<b>96.4</b>	0.515	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 15:56	EPA 8021B	
<b>Xylene (p/m)</b>	<b>105</b>	1.03	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 15:56	EPA 8021B	
<b>Xylene (o)</b>	<b>50.5</b>	0.515	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 15:56	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		94.8 %		80-120	P1F2210	06/22/21 15:51	06/23/21 15:56	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		84.8 %		80-120	P1F2210	06/22/21 15:51	06/23/21 15:56	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>31.8</b>	1.03	mg/kg dry	1	P1F2905	06/29/21 10:26	06/29/21 17:52	EPA 300.0	
<b>% Moisture</b>	<b>3.0</b>	0.1	%	1	P1F2402	06/24/21 11:39	06/24/21 14:05	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>5580</b>	258	mg/kg dry	10	P1F2301	06/23/21 08:14	06/23/21 20:12	TPH 8015M	
<b>&gt;C12-C28</b>	<b>33200</b>	258	mg/kg dry	10	P1F2301	06/23/21 08:14	06/23/21 20:12	TPH 8015M	
<b>&gt;C28-C35</b>	<b>4300</b>	258	mg/kg dry	10	P1F2301	06/23/21 08:14	06/23/21 20:12	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		139 %		70-130	P1F2301	06/23/21 08:14	06/23/21 20:12	TPH 8015M	S-GC
<i>Surrogate: o-Terphenyl</i>		96.2 %		70-130	P1F2301	06/23/21 08:14	06/23/21 20:12	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>43000</b>	258	mg/kg dry	10	[CALC]	06/23/21 08:14	06/23/21 20:12	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Sylwia Reynolds

**AH-8 @ 4"**  
**1F22004-08 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>3.02</b>	0.521	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 16:17	EPA 8021B	
<b>Toluene</b>	<b>58.4</b>	0.521	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 16:17	EPA 8021B	
<b>Ethylbenzene</b>	<b>89.5</b>	0.521	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 16:17	EPA 8021B	
<b>Xylene (p/m)</b>	<b>101</b>	1.04	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 16:17	EPA 8021B	
<b>Xylene (o)</b>	<b>48.9</b>	0.521	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 16:17	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		95.5 %	80-120		P1F2210	06/22/21 15:51	06/23/21 16:17	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		83.5 %	80-120		P1F2210	06/22/21 15:51	06/23/21 16:17	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	ND	1.04	mg/kg dry	1	P1F2905	06/29/21 10:26	06/29/21 18:07	EPA 300.0	
% Moisture	4.0	0.1	%	1	P1F2402	06/24/21 11:39	06/24/21 14:05	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>4820</b>	260	mg/kg dry	10	P1F2301	06/23/21 08:14	06/23/21 20:35	TPH 8015M	
<b>&gt;C12-C28</b>	<b>26700</b>	260	mg/kg dry	10	P1F2301	06/23/21 08:14	06/23/21 20:35	TPH 8015M	
<b>&gt;C28-C35</b>	<b>3760</b>	260	mg/kg dry	10	P1F2301	06/23/21 08:14	06/23/21 20:35	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		138 %	70-130		P1F2301	06/23/21 08:14	06/23/21 20:35	TPH 8015M	S-GC
<i>Surrogate: o-Terphenyl</i>		117 %	70-130		P1F2301	06/23/21 08:14	06/23/21 20:35	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>35200</b>	260	mg/kg dry	10	[CALC]	06/23/21 08:14	06/23/21 20:35	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Sylwia Reynolds

**AH-9 @ 4"**  
**1F22004-09 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>10.5</b>	0.515	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 16:39	EPA 8021B	
<b>Toluene</b>	<b>103</b>	0.515	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 16:39	EPA 8021B	
<b>Ethylbenzene</b>	<b>128</b>	0.515	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 16:39	EPA 8021B	
<b>Xylene (p/m)</b>	<b>133</b>	1.03	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 16:39	EPA 8021B	
<b>Xylene (o)</b>	<b>62.9</b>	0.515	mg/kg dry	500	P1F2210	06/22/21 15:51	06/23/21 16:39	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		80.7 %	80-120		P1F2210	06/22/21 15:51	06/23/21 16:39	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		93.1 %	80-120		P1F2210	06/22/21 15:51	06/23/21 16:39	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>24.3</b>	1.03	mg/kg dry	1	P1F2905	06/29/21 10:26	06/29/21 18:53	EPA 300.0	
<b>% Moisture</b>	<b>3.0</b>	0.1	%	1	P1F2402	06/24/21 11:39	06/24/21 14:05	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>7390</b>	258	mg/kg dry	10	P1F2301	06/23/21 08:14	06/23/21 20:57	TPH 8015M	
<b>&gt;C12-C28</b>	<b>34700</b>	258	mg/kg dry	10	P1F2301	06/23/21 08:14	06/23/21 20:57	TPH 8015M	
<b>&gt;C28-C35</b>	<b>4850</b>	258	mg/kg dry	10	P1F2301	06/23/21 08:14	06/23/21 20:57	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		161 %	70-130		P1F2301	06/23/21 08:14	06/23/21 20:57	TPH 8015M	S-GC
<i>Surrogate: o-Terphenyl</i>		105 %	70-130		P1F2301	06/23/21 08:14	06/23/21 20:57	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>47000</b>	258	mg/kg dry	10	[CALC]	06/23/21 08:14	06/23/21 20:57	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Sylwia Reynolds

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1F2210 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P1F2210-BLK1)**

Prepared & Analyzed: 06/22/21

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	0.106		"	0.120		88.0	80-120			
Surrogate: 1,4-Difluorobenzene	0.119		"	0.120		99.1	80-120			

**LCS (P1F2210-BS1)**

Prepared & Analyzed: 06/22/21

Benzene	0.115	0.00100	mg/kg wet	0.100		115	70-130			
Toluene	0.114	0.00100	"	0.100		114	70-130			
Ethylbenzene	0.113	0.00100	"	0.100		113	70-130			
Xylene (p/m)	0.196	0.00200	"	0.200		98.2	70-130			
Xylene (o)	0.109	0.00100	"	0.100		109	70-130			
Surrogate: 4-Bromofluorobenzene	0.110		"	0.120		91.9	80-120			
Surrogate: 1,4-Difluorobenzene	0.111		"	0.120		92.9	80-120			

**LCS Dup (P1F2210-BSD1)**

Prepared & Analyzed: 06/22/21

Benzene	0.115	0.00100	mg/kg wet	0.100		115	70-130	0.348	20	
Toluene	0.112	0.00100	"	0.100		112	70-130	2.23	20	
Ethylbenzene	0.111	0.00100	"	0.100		111	70-130	2.02	20	
Xylene (p/m)	0.192	0.00200	"	0.200		96.1	70-130	2.18	20	
Xylene (o)	0.105	0.00100	"	0.100		105	70-130	2.95	20	
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.5	80-120			
Surrogate: 4-Bromofluorobenzene	0.113		"	0.120		94.2	80-120			

**Calibration Check (P1F2210-CCV1)**

Prepared & Analyzed: 06/22/21

Benzene	0.110	0.00100	mg/kg wet	0.100		110	80-120			
Toluene	0.110	0.00100	"	0.100		110	80-120			
Ethylbenzene	0.116	0.00100	"	0.100		116	80-120			
Xylene (p/m)	0.192	0.00200	"	0.200		96.1	80-120			
Xylene (o)	0.106	0.00100	"	0.100		106	80-120			
Surrogate: 1,4-Difluorobenzene	0.112		"	0.120		93.3	75-125			
Surrogate: 4-Bromofluorobenzene	0.110		"	0.120		92.0	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Sylwia Reynolds

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1F2210 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Check (P1F2210-CCV2)**

Prepared & Analyzed: 06/22/21

Benzene	0.117	0.00100	mg/kg wet	0.100		117	80-120			
Toluene	0.116	0.00100	"	0.100		116	80-120			
Ethylbenzene	0.120	0.00100	"	0.100		120	80-120			
Xylene (p/m)	0.204	0.00200	"	0.200		102	80-120			
Xylene (o)	0.114	0.00100	"	0.100		114	80-120			
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		94.8	75-125			
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		91.2	75-125			

**Calibration Check (P1F2210-CCV3)**

Prepared: 06/22/21 Analyzed: 06/23/21

Benzene	0.120	0.00100	mg/kg wet	0.100		120	80-120			
Toluene	0.118	0.00100	"	0.100		118	80-120			
Ethylbenzene	0.119	0.00100	"	0.100		119	80-120			
Xylene (p/m)	0.209	0.00200	"	0.200		105	80-120			
Xylene (o)	0.116	0.00100	"	0.100		116	80-120			
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		95.1	75-125			
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		91.0	75-125			

**Matrix Spike (P1F2210-MS1)**

Source: 1F18007-01

Prepared: 06/22/21 Analyzed: 06/23/21

Benzene	0.104	0.00103	mg/kg dry	0.103	ND	101	80-120			
Toluene	0.102	0.00103	"	0.103	ND	98.9	80-120			
Ethylbenzene	0.101	0.00103	"	0.103	ND	98.1	80-120			
Xylene (p/m)	0.174	0.00206	"	0.206	ND	84.5	80-120			
Xylene (o)	0.0930	0.00103	"	0.103	ND	90.2	80-120			
Surrogate: 1,4-Difluorobenzene	0.119		"	0.124		96.0	80-120			
Surrogate: 4-Bromofluorobenzene	0.115		"	0.124		92.8	80-120			

**Matrix Spike Dup (P1F2210-MSD1)**

Source: 1F18007-01

Prepared: 06/22/21 Analyzed: 06/23/21

Benzene	0.0998	0.00103	mg/kg dry	0.103	ND	96.8	80-120	4.48	20	
Toluene	0.0973	0.00103	"	0.103	ND	94.4	80-120	4.65	20	
Ethylbenzene	0.0971	0.00103	"	0.103	ND	94.2	80-120	4.11	20	
Xylene (p/m)	0.168	0.00206	"	0.206	ND	81.4	80-120	3.65	20	
Xylene (o)	0.0902	0.00103	"	0.103	ND	87.5	80-120	3.05	20	
Surrogate: 1,4-Difluorobenzene	0.117		"	0.124		94.9	80-120			
Surrogate: 4-Bromofluorobenzene	0.114		"	0.124		92.5	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Sylwia Reynolds

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1F2402 - *** DEFAULT PREP ***</b>										
<b>Blank (P1F2402-BLK1)</b> Prepared & Analyzed: 06/24/21										
% Moisture	ND	0.1	%							
<b>Blank (P1F2402-BLK2)</b> Prepared & Analyzed: 06/24/21										
% Moisture	ND	0.1	%							
<b>Duplicate (P1F2402-DUP1)</b> Source: 1F22004-06 Prepared & Analyzed: 06/24/21										
% Moisture	6.0	0.1	%		5.0			18.2	20	
<b>Duplicate (P1F2402-DUP2)</b> Source: 1F23003-02 Prepared & Analyzed: 06/24/21										
% Moisture	13.0	0.1	%		13.0			0.00	20	
<b>Duplicate (P1F2402-DUP3)</b> Source: 1F23010-01 Prepared & Analyzed: 06/24/21										
% Moisture	8.0	0.1	%		11.0			31.6	20	R3
<b>Duplicate (P1F2402-DUP4)</b> Source: 1F23010-16 Prepared & Analyzed: 06/24/21										
% Moisture	5.0	0.1	%		5.0			0.00	20	
<b>Duplicate (P1F2402-DUP5)</b> Source: 1F23010-31 Prepared & Analyzed: 06/24/21										
% Moisture	11.0	0.1	%		12.0			8.70	20	
<b>Duplicate (P1F2402-DUP6)</b> Source: 1F23011-03 Prepared & Analyzed: 06/24/21										
% Moisture	17.0	0.1	%		17.0			0.00	20	
<b>Duplicate (P1F2402-DUP7)</b> Source: 1F23011-18 Prepared & Analyzed: 06/24/21										
% Moisture	9.0	0.1	%		8.0			11.8	20	
<b>Duplicate (P1F2402-DUP8)</b> Source: 1F23011-28 Prepared & Analyzed: 06/24/21										
% Moisture	15.0	0.1	%		15.0			0.00	20	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Sylwia Reynolds

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1F2402 - *** DEFAULT PREP ***</b>										
<b>Duplicate (P1F2402-DUP9)</b>		<b>Source: 1F23012-03</b>			Prepared & Analyzed: 06/24/21					
% Moisture	13.0	0.1	%		16.0			20.7	20	R3
<b>Duplicate (P1F2402-DUPA)</b>		<b>Source: 1F23012-13</b>			Prepared & Analyzed: 06/24/21					
% Moisture	14.0	0.1	%		14.0			0.00	20	
<b>Batch P1F2905 - *** DEFAULT PREP ***</b>										
<b>Blank (P1F2905-BLK1)</b>					Prepared & Analyzed: 06/29/21					
Chloride	ND	1.00	mg/kg wet							
<b>LCS (P1F2905-BS1)</b>					Prepared & Analyzed: 06/29/21					
Chloride	380	1.00	mg/kg wet	400		95.0	90-110			
<b>LCS Dup (P1F2905-BSD1)</b>					Prepared & Analyzed: 06/29/21					
Chloride	380	1.00	mg/kg wet	400		94.9	90-110	0.132	20	
<b>Calibration Check (P1F2905-CCV1)</b>					Prepared & Analyzed: 06/29/21					
Chloride	18.5		mg/kg	20.0		92.6	90-110			
<b>Calibration Check (P1F2905-CCV2)</b>					Prepared & Analyzed: 06/29/21					
Chloride	18.7		mg/kg	20.0		93.5	90-110			
<b>Calibration Check (P1F2905-CCV3)</b>					Prepared & Analyzed: 06/29/21					
Chloride	18.5		mg/kg	20.0		92.7	90-110			
<b>Matrix Spike (P1F2905-MS1)</b>		<b>Source: 1F25002-55</b>			Prepared & Analyzed: 06/29/21					
Chloride	544	1.16	mg/kg dry	581	ND	93.6	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Sylwia Reynolds

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1F2905 - *** DEFAULT PREP ***</b>										
<b>Matrix Spike (P1F2905-MS2)</b>		<b>Source: 1F22004-09</b>			<b>Prepared &amp; Analyzed: 06/29/21</b>					
Chloride	574	1.03	mg/kg dry	515	24.3	107	80-120			
<b>Matrix Spike Dup (P1F2905-MSD1)</b>		<b>Source: 1F25002-55</b>			<b>Prepared &amp; Analyzed: 06/29/21</b>					
Chloride	532	1.16	mg/kg dry	581	ND	91.5	80-120	2.22	20	
<b>Matrix Spike Dup (P1F2905-MSD2)</b>		<b>Source: 1F22004-09</b>			<b>Prepared &amp; Analyzed: 06/29/21</b>					
Chloride	524	1.03	mg/kg dry	515	24.3	96.9	80-120	9.17	20	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Sylwia Reynolds

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1F2301 - TX 1005**

**Blank (P1F2301-BLK1)**

Prepared & Analyzed: 06/23/21

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	88.0		"	100		88.0	70-130			
Surrogate: o-Terphenyl	45.5		"	50.0		91.0	70-130			

**LCS (P1F2301-BS1)**

Prepared & Analyzed: 06/23/21

C6-C12	966	25.0	mg/kg wet	1000		96.6	75-125			
>C12-C28	814	25.0	"	1000		81.4	75-125			
Surrogate: 1-Chlorooctane	124		"	100		124	70-130			
Surrogate: o-Terphenyl	49.0		"	50.0		98.0	70-130			

**LCS Dup (P1F2301-BSD1)**

Prepared & Analyzed: 06/23/21

C6-C12	977	25.0	mg/kg wet	1000		97.7	75-125	1.07	20	
>C12-C28	810	25.0	"	1000		81.0	75-125	0.548	20	
Surrogate: 1-Chlorooctane	109		"	100		109	70-130			
Surrogate: o-Terphenyl	47.6		"	50.0		95.2	70-130			

**Calibration Check (P1F2301-CCV1)**

Prepared & Analyzed: 06/23/21

C6-C12	482	25.0	mg/kg wet	500		96.4	85-115			
>C12-C28	433	25.0	"	500		86.7	85-115			
Surrogate: 1-Chlorooctane	99.8		"	100		99.8	70-130			
Surrogate: o-Terphenyl	43.8		"	50.0		87.6	70-130			

**Calibration Check (P1F2301-CCV2)**

Prepared & Analyzed: 06/23/21

C6-C12	478	25.0	mg/kg wet	500		95.7	85-115			
>C12-C28	450	25.0	"	500		90.0	85-115			
Surrogate: 1-Chlorooctane	102		"	100		102	70-130			
Surrogate: o-Terphenyl	44.8		"	50.0		89.5	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Sylwia Reynolds

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1F2301 - TX 1005**

**Calibration Check (P1F2301-CCV3)**

Prepared & Analyzed: 06/23/21

C6-C12	527	25.0	mg/kg wet	500		105	85-115			
>C12-C28	446	25.0	"	500		89.2	85-115			
Surrogate: 1-Chlorooctane	111		"	100		111	70-130			
Surrogate: o-Terphenyl	48.7		"	50.0		97.4	70-130			

**Matrix Spike (P1F2301-MS1)**

Source: 1F21003-01

Prepared & Analyzed: 06/23/21

C6-C12	1010	25.3	mg/kg dry	1010	16.6	98.3	75-125			
>C12-C28	807	25.3	"	1010	30.0	76.9	75-125			
Surrogate: 1-Chlorooctane	128		"	101		127	70-130			
Surrogate: o-Terphenyl	46.3		"	50.5		91.7	70-130			

**Matrix Spike Dup (P1F2301-MSD1)**

Source: 1F21003-01

Prepared & Analyzed: 06/23/21

C6-C12	1010	25.3	mg/kg dry	1010	16.6	97.9	75-125	0.363	20	
>C12-C28	816	25.3	"	1010	30.0	77.8	75-125	1.21	20	
Surrogate: 1-Chlorooctane	128		"	101		127	70-130			
Surrogate: o-Terphenyl	46.3		"	50.5		91.7	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Sylwia Reynolds

**Notes and Definitions**

- S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
- ROI Received on Ice
- R3 The RPD exceeded the acceptance limit due to sample matrix effects.
- BULK Samples received in Bulk soil containers
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- LCS Laboratory Control Spike
- MS Matrix Spike
- Dup Duplicate

Report Approved By:  Date: 7/8/2021

Brent Barron, Laboratory Director/Technical Director

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If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP  
1400 Rankin Hwy  
Midland, Texas 79701

Phone: 432-686-7235

Project Manager:

Company Name

Sylvia Reynolds

Dean

Project Name:

Project #: PO-21152

LOG SPENDER 24 Fld Com

Company Address:

12600 West County Rd. 91

City/State/Zip:

Midland TX 79707

AEE/COST CENTER:

Telephone No:

432-230-0920

Fax No:

Sampler Signature:

*Chris F. FSN*

e-mail:

sylviareynolds@deandigs.com  
jeffkinley@deandigs.com  
kavianlongee@deanequip.com

Report Format:  Standard

TRRP

NPDES

Analyze For:

ORDER #: 1E22004

(lab use only)

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers								Matrix	TPH TX1005 EXT (TEXAS)	BTEX 8021 B	TCLP BENZENE	CHLORIDES	TCLP METALS	NORM	PAINT FILTER	TOX	RCI	pH	TPH 8015 M (NEW MEXICO)	7 Day TAT	24 hour TAT								
								Ice	HNO <sub>3</sub> 250ml Poly	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None 1L Poly	NaOH/ZnAc															DW=Drinking Water	SL=Sludge	GW = Groundwater	S=Soil/Solid	NP=Non-Potable	Specify Other		
1	AH-1 @ 4"	4"	4"	6/21/21	6:30 pm		1	X																													
2	AH-2 @ 4"	4"	4"		6:35 pm		1	X																													
3	AH-3 @ 4"	4"	4"		6:40 pm		1	X																													
4	AH-4 @ 4"	4"	4"		6:45 pm		1	X																													
5	AH-5 @ 4"	4"	4"		6:50 pm		1	X																													
6	AH-6 @ 4"	4"	4"		6:55 pm		1	X																													
7	AH-7 @ 4"	4"	4"		7:00 pm		1	X																													
8	AH-8 @ 4"	4"	4"		7:05 pm		1	X																													
9	AH-9 @ 4"	4"	4"		7:10 pm		1	X																													

Refrigorated by: *[Signature]* Date: 6/21/21 Time: 14:13 Received by: *[Signature]* Date: 6/24/21 Time: 14:13

Relinquished by: *[Signature]* Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: *[Signature]* Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Special Instructions:

Laboratory Comments:

Sample Containers intact?

VOCs Free of Headspaces?

Labels on container(s)?

Custody seals on container(s)?

Sample Hand Delivered by Sampler/Client Rep.?  
by Courier?

Temperature/Upon Receipt Adjusted: 4.85 °C Factor: 0.912

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



# Analytical Report

**Prepared for:**

Jeff Kindley  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21

Project Number: PP-21152

Location: Carlsbad, NM

Lab Order Number: 1G13006



**Current Certification**

Report Date: 07/23/21

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

## ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS-1 @ Surface	1G13006-01	Soil	07/12/21 09:41	07-13-2021 16:00
SS-2 @ Surface	1G13006-02	Soil	07/12/21 09:45	07-13-2021 16:00
SS-3 @ Surface	1G13006-03	Soil	07/12/21 09:48	07-13-2021 16:00
SS-4 @ Surface	1G13006-04	Soil	07/12/21 09:54	07-13-2021 16:00
SS-5 @ Surface	1G13006-05	Soil	07/12/21 09:58	07-13-2021 16:00
SS-6 @ Surface	1G13006-06	Soil	07/12/21 10:00	07-13-2021 16:00
SS-7 @ Surface	1G13006-07	Soil	07/12/21 10:03	07-13-2021 16:00
SS-8 @ Surface	1G13006-08	Soil	07/12/21 10:06	07-13-2021 16:00
SS-9 @ Surface	1G13006-09	Soil	07/12/21 10:10	07-13-2021 16:00
SS-10 @ Surface	1G13006-10	Soil	07/12/21 10:12	07-13-2021 16:00
SS-11 @ Surface	1G13006-11	Soil	07/12/21 10:14	07-13-2021 16:00
SS-12 @ Surface	1G13006-12	Soil	07/12/21 10:22	07-13-2021 16:00
SS-13 @ Surface	1G13006-13	Soil	07/12/21 10:29	07-13-2021 16:00
SS-14 @ Surface	1G13006-14	Soil	07/12/21 10:32	07-13-2021 16:00
SS-15 @ Surface	1G13006-15	Soil	07/12/21 10:34	07-13-2021 16:00
SS-16 @ Surface	1G13006-16	Soil	07/12/21 10:35	07-13-2021 16:00
SS-17 @ Surface	1G13006-17	Soil	07/12/21 10:38	07-13-2021 16:00
SS-18 @ Surface	1G13006-18	Soil	07/12/21 10:40	07-13-2021 16:00
SS-19 @ Surface	1G13006-19	Soil	07/12/21 10:43	07-13-2021 16:00
SS-20 @ Surface	1G13006-20	Soil	07/12/21 10:45	07-13-2021 16:00
SS-21 @ Surface	1G13006-21	Soil	07/12/21 10:47	07-13-2021 16:00
SS-22 @ Surface	1G13006-22	Soil	07/12/21 10:51	07-13-2021 16:00
SS-23 @ Surface	1G13006-23	Soil	07/12/21 10:55	07-13-2021 16:00
SS-24 @ Surface	1G13006-24	Soil	07/12/21 11:00	07-13-2021 16:00
SS-25 @ Surface	1G13006-25	Soil	07/12/21 11:53	07-13-2021 16:00
SS-26 @ Surface	1G13006-26	Soil	07/12/21 12:00	07-13-2021 16:00
SS-27 @ Surface	1G13006-27	Soil	07/12/21 12:02	07-13-2021 16:00
SS-28 @ Surface	1G13006-28	Soil	07/12/21 12:04	07-13-2021 16:00
SS-29 @ Surface	1G13006-29	Soil	07/12/21 12:06	07-13-2021 16:00
SS-30 @ Surface	1G13006-30	Soil	07/12/21 12:08	07-13-2021 16:00
SS-31 @ Surface	1G13006-31	Soil	07/12/21 12:09	07-13-2021 16:00
SS-32 @ Surface	1G13006-32	Soil	07/12/21 12:11	07-13-2021 16:00
SS-33 @ Surface	1G13006-33	Soil	07/12/21 12:13	07-13-2021 16:00
SS-34 @ Surface	1G13006-34	Soil	07/12/21 12:15	07-13-2021 16:00

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

## ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS-35 @ Surface	1G13006-35	Soil	07/12/21 12:17	07-13-2021 16:00
SS-36 @ Surface	1G13006-36	Soil	07/12/21 12:19	07-13-2021 16:00
SS-37 @ Surface	1G13006-37	Soil	07/12/21 12:23	07-13-2021 16:00
SS-38 @ Surface	1G13006-38	Soil	07/12/21 12:24	07-13-2021 16:00
SS-39 @ Surface	1G13006-39	Soil	07/12/21 12:27	07-13-2021 16:00
SS-40 @ Surface	1G13006-40	Soil	07/12/21 12:32	07-13-2021 16:00
SS-41 @ Surface	1G13006-41	Soil	07/12/21 12:34	07-13-2021 16:00
SS-42 @ Surface	1G13006-42	Soil	07/12/21 12:37	07-13-2021 16:00

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12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-1 @ Surface**  
**1G13006-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.00172</b>	0.00105	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 06:10	EPA 8021B	
<b>Toluene</b>	<b>0.0367</b>	0.00105	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 06:10	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0239</b>	0.00105	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 06:10	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0285</b>	0.00211	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 06:10	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00873</b>	0.00105	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 06:10	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		92.5 %	80-120		PIG1404	07/14/21 15:10	07/15/21 06:10	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		102 %	80-120		PIG1404	07/14/21 15:10	07/15/21 06:10	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>72.3</b>	1.05	mg/kg dry	1	PIG2013	07/20/21 16:12	07/20/21 22:32	EPA 300.0	
<b>% Moisture</b>	<b>5.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>ND</b>	26.3	mg/kg dry	1	PIG1506	07/15/21 12:18	07/17/21 13:25	TPH 8015M	
<b>&gt;C12-C28</b>	<b>180</b>	26.3	mg/kg dry	1	PIG1506	07/15/21 12:18	07/17/21 13:25	TPH 8015M	
<b>&gt;C28-C35</b>	<b>56.3</b>	26.3	mg/kg dry	1	PIG1506	07/15/21 12:18	07/17/21 13:25	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		110 %	70-130		PIG1506	07/15/21 12:18	07/17/21 13:25	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		107 %	70-130		PIG1506	07/15/21 12:18	07/17/21 13:25	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>237</b>	26.3	mg/kg dry	1	[CALC]	07/15/21 12:18	07/17/21 13:25	calc	

Permian Basin Environmental Lab, L.P.

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12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-2 @ Surface**  
**1G13006-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.00353</b>	0.00103	mg/kg dry	1	P1G1404	07/14/21 15:10	07/15/21 07:12	EPA 8021B	
<b>Toluene</b>	<b>0.0433</b>	0.00103	mg/kg dry	1	P1G1404	07/14/21 15:10	07/15/21 07:12	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0153</b>	0.00103	mg/kg dry	1	P1G1404	07/14/21 15:10	07/15/21 07:12	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0146</b>	0.00206	mg/kg dry	1	P1G1404	07/14/21 15:10	07/15/21 07:12	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00430</b>	0.00103	mg/kg dry	1	P1G1404	07/14/21 15:10	07/15/21 07:12	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		96.5 %	80-120		P1G1404	07/14/21 15:10	07/15/21 07:12	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		108 %	80-120		P1G1404	07/14/21 15:10	07/15/21 07:12	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>162</b>	1.03	mg/kg dry	1	P1G2013	07/20/21 16:12	07/20/21 23:28	EPA 300.0	
<b>% Moisture</b>	<b>3.0</b>	0.1	%	1	P1G1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>ND</b>	25.8	mg/kg dry	1	P1G1506	07/15/21 12:18	07/17/21 13:48	TPH 8015M	
<b>&gt;C12-C28</b>	<b>1170</b>	25.8	mg/kg dry	1	P1G1506	07/15/21 12:18	07/17/21 13:48	TPH 8015M	
<b>&gt;C28-C35</b>	<b>486</b>	25.8	mg/kg dry	1	P1G1506	07/15/21 12:18	07/17/21 13:48	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		107 %	70-130		P1G1506	07/15/21 12:18	07/17/21 13:48	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		120 %	70-130		P1G1506	07/15/21 12:18	07/17/21 13:48	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>1660</b>	25.8	mg/kg dry	1	[CALC]	07/15/21 12:18	07/17/21 13:48	calc	

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Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-3 @ Surface**  
**1G13006-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.00134</b>	0.00105	mg/kg dry	1	P1G1404	07/14/21 15:10	07/15/21 07:33	EPA 8021B	
<b>Toluene</b>	<b>0.0167</b>	0.00105	mg/kg dry	1	P1G1404	07/14/21 15:10	07/15/21 07:33	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.00807</b>	0.00105	mg/kg dry	1	P1G1404	07/14/21 15:10	07/15/21 07:33	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.00763</b>	0.00211	mg/kg dry	1	P1G1404	07/14/21 15:10	07/15/21 07:33	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00214</b>	0.00105	mg/kg dry	1	P1G1404	07/14/21 15:10	07/15/21 07:33	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		90.2 %	80-120		P1G1404	07/14/21 15:10	07/15/21 07:33	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		103 %	80-120		P1G1404	07/14/21 15:10	07/15/21 07:33	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>477</b>	1.05	mg/kg dry	1	P1G2013	07/20/21 16:12	07/20/21 23:46	EPA 300.0	
<b>% Moisture</b>	<b>5.0</b>	0.1	%	1	P1G1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>ND</b>	26.3	mg/kg dry	1	P1G1506	07/15/21 12:18	07/17/21 14:10	TPH 8015M	
<b>&gt;C12-C28</b>	<b>455</b>	26.3	mg/kg dry	1	P1G1506	07/15/21 12:18	07/17/21 14:10	TPH 8015M	
<b>&gt;C28-C35</b>	<b>204</b>	26.3	mg/kg dry	1	P1G1506	07/15/21 12:18	07/17/21 14:10	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		111 %	70-130		P1G1506	07/15/21 12:18	07/17/21 14:10	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		109 %	70-130		P1G1506	07/15/21 12:18	07/17/21 14:10	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>659</b>	26.3	mg/kg dry	1	[CALC]	07/15/21 12:18	07/17/21 14:10	calc	

Permian Basin Environmental Lab, L.P.

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12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-4 @ Surface**  
**1G13006-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.00149</b>	0.00104	mg/kg dry	1	P1G1404	07/14/21 15:10	07/15/21 07:54	EPA 8021B	
<b>Toluene</b>	<b>0.00249</b>	0.00104	mg/kg dry	1	P1G1404	07/14/21 15:10	07/15/21 07:54	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.00250</b>	0.00104	mg/kg dry	1	P1G1404	07/14/21 15:10	07/15/21 07:54	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.00780</b>	0.00208	mg/kg dry	1	P1G1404	07/14/21 15:10	07/15/21 07:54	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00565</b>	0.00104	mg/kg dry	1	P1G1404	07/14/21 15:10	07/15/21 07:54	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		88.5 %	80-120		P1G1404	07/14/21 15:10	07/15/21 07:54	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		102 %	80-120		P1G1404	07/14/21 15:10	07/15/21 07:54	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>607</b>	1.04	mg/kg dry	1	P1G2013	07/20/21 16:12	07/21/21 00:05	EPA 300.0	
<b>% Moisture</b>	<b>4.0</b>	0.1	%	1	P1G1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>ND</b>	26.0	mg/kg dry	1	P1G1506	07/15/21 12:18	07/17/21 14:33	TPH 8015M	
<b>&gt;C12-C28</b>	<b>99.3</b>	26.0	mg/kg dry	1	P1G1506	07/15/21 12:18	07/17/21 14:33	TPH 8015M	
<b>&gt;C28-C35</b>	<b>45.4</b>	26.0	mg/kg dry	1	P1G1506	07/15/21 12:18	07/17/21 14:33	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		109 %	70-130		P1G1506	07/15/21 12:18	07/17/21 14:33	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		108 %	70-130		P1G1506	07/15/21 12:18	07/17/21 14:33	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>145</b>	26.0	mg/kg dry	1	[CALC]	07/15/21 12:18	07/17/21 14:33	calc	

Permian Basin Environmental Lab, L.P.

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Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-5 @ Surface**  
**1G13006-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00103	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 08:15	EPA 8021B	
<b>Toluene</b>	<b>0.00544</b>	0.00103	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 08:15	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.00237</b>	0.00103	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 08:15	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.00305</b>	0.00206	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 08:15	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 08:15	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		104 %	80-120		PIG1404	07/14/21 15:10	07/15/21 08:15	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		89.2 %	80-120		PIG1404	07/14/21 15:10	07/15/21 08:15	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>158</b>	1.03	mg/kg dry	1	PIG2013	07/20/21 16:12	07/21/21 00:23	EPA 300.0	
<b>% Moisture</b>	<b>3.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.8	mg/kg dry	1	PIG1507	07/15/21 09:30	07/17/21 21:28	TPH 8015M	
<b>&gt;C12-C28</b>	<b>496</b>	25.8	mg/kg dry	1	PIG1507	07/15/21 09:30	07/17/21 21:28	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	PIG1507	07/15/21 09:30	07/17/21 21:28	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		108 %	70-130		PIG1507	07/15/21 09:30	07/17/21 21:28	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		108 %	70-130		PIG1507	07/15/21 09:30	07/17/21 21:28	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>496</b>	25.8	mg/kg dry	1	[CALC]	07/15/21 09:30	07/17/21 21:28	calc	

Permian Basin Environmental Lab, L.P.

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Dean 12600 W County Rd 91 Midland TX, 79707	Project: COG Screwdriver 24 Fed Com 2H 06.19.21 Project Number: PP-21152 Project Manager: Jeff Kindley
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**SS-6 @ Surface**  
**1G13006-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00103	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 08:36	EPA 8021B	
<b>Toluene</b>	<b>0.00938</b>	0.00103	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 08:36	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.00406</b>	0.00103	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 08:36	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.00449</b>	0.00206	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 08:36	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00145</b>	0.00103	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 08:36	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>89.2 %</i>	<i>80-120</i>			<i>PIG1404</i>	<i>07/14/21 15:10</i>	<i>07/15/21 08:36</i>	<i>EPA 8021B</i>	
<i>Surrogate: 1,4-Difluorobenzene</i>	<i>103 %</i>	<i>80-120</i>			<i>PIG1404</i>	<i>07/14/21 15:10</i>	<i>07/15/21 08:36</i>	<i>EPA 8021B</i>	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>180</b>	1.03	mg/kg dry	1	PIG2013	07/20/21 16:12	07/21/21 00:42	EPA 300.0	
<b>% Moisture</b>	<b>3.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.8	mg/kg dry	1	PIG1507	07/15/21 09:30	07/17/21 21:50	TPH 8015M	
<b>&gt;C12-C28</b>	<b>398</b>	25.8	mg/kg dry	1	PIG1507	07/15/21 09:30	07/17/21 21:50	TPH 8015M	
<b>&gt;C28-C35</b>	<b>157</b>	25.8	mg/kg dry	1	PIG1507	07/15/21 09:30	07/17/21 21:50	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>	<i>111 %</i>	<i>70-130</i>			<i>PIG1507</i>	<i>07/15/21 09:30</i>	<i>07/17/21 21:50</i>	<i>TPH 8015M</i>	
<i>Surrogate: o-Terphenyl</i>	<i>110 %</i>	<i>70-130</i>			<i>PIG1507</i>	<i>07/15/21 09:30</i>	<i>07/17/21 21:50</i>	<i>TPH 8015M</i>	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>555</b>	25.8	mg/kg dry	1	[CALC]	07/15/21 09:30	07/17/21 21:50	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-7 @ Surface**  
**1G13006-07 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00103	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 08:57	EPA 8021B	
<b>Toluene</b>	<b>0.00902</b>	0.00103	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 08:57	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0160</b>	0.00103	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 08:57	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0204</b>	0.00206	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 08:57	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00748</b>	0.00103	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 08:57	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		107 %	80-120		PIG1404	07/14/21 15:10	07/15/21 08:57	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		98.5 %	80-120		PIG1404	07/14/21 15:10	07/15/21 08:57	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>94.4</b>	1.03	mg/kg dry	1	PIG2013	07/20/21 16:12	07/21/21 01:00	EPA 300.0	
<b>% Moisture</b>	<b>3.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.8	mg/kg dry	1	PIG1507	07/15/21 09:30	07/17/21 22:12	TPH 8015M	
<b>&gt;C12-C28</b>	<b>134</b>	25.8	mg/kg dry	1	PIG1507	07/15/21 09:30	07/17/21 22:12	TPH 8015M	
<b>&gt;C28-C35</b>	<b>39.9</b>	25.8	mg/kg dry	1	PIG1507	07/15/21 09:30	07/17/21 22:12	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		116 %	70-130		PIG1507	07/15/21 09:30	07/17/21 22:12	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		115 %	70-130		PIG1507	07/15/21 09:30	07/17/21 22:12	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>174</b>	25.8	mg/kg dry	1	[CALC]	07/15/21 09:30	07/17/21 22:12	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-8 @ Surface**  
**1G13006-08 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00102	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 09:17	EPA 8021B	
<b>Toluene</b>	<b>0.0329</b>	0.00102	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 09:17	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0287</b>	0.00102	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 09:17	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0316</b>	0.00204	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 09:17	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00988</b>	0.00102	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 09:17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	108 %		80-120		PIG1404	07/14/21 15:10	07/15/21 09:17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	103 %		80-120		PIG1404	07/14/21 15:10	07/15/21 09:17	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>582</b>	5.10	mg/kg dry	5	PIG2013	07/20/21 16:12	07/21/21 01:19	EPA 300.0	
<b>% Moisture</b>	<b>2.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	PIG1507	07/15/21 09:30	07/17/21 22:34	TPH 8015M	
<b>&gt;C12-C28</b>	<b>274</b>	25.5	mg/kg dry	1	PIG1507	07/15/21 09:30	07/17/21 22:34	TPH 8015M	
<b>&gt;C28-C35</b>	<b>67.9</b>	25.5	mg/kg dry	1	PIG1507	07/15/21 09:30	07/17/21 22:34	TPH 8015M	
Surrogate: 1-Chlorooctane	108 %		70-130		PIG1507	07/15/21 09:30	07/17/21 22:34	TPH 8015M	
Surrogate: o-Terphenyl	108 %		70-130		PIG1507	07/15/21 09:30	07/17/21 22:34	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>342</b>	25.5	mg/kg dry	1	[CALC]	07/15/21 09:30	07/17/21 22:34	calc	

Permian Basin Environmental Lab, L.P.

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Dean 12600 W County Rd 91 Midland TX, 79707	Project: COG Screwdriver 24 Fed Com 2H 06.19.21 Project Number: PP-21152 Project Manager: Jeff Kindley
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**SS-9 @ Surface**  
**1G13006-09 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00105	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 09:38	EPA 8021B	
Toluene	ND	0.00105	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 09:38	EPA 8021B	
Ethylbenzene	ND	0.00105	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 09:38	EPA 8021B	
Xylene (p/m)	ND	0.00211	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 09:38	EPA 8021B	
Xylene (o)	ND	0.00105	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 09:38	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		105 %	80-120		PIG1404	07/14/21 15:10	07/15/21 09:38	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		91.1 %	80-120		PIG1404	07/14/21 15:10	07/15/21 09:38	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	261	1.05	mg/kg dry	1	PIG2013	07/20/21 16:12	07/21/21 01:37	EPA 300.0	
% Moisture	5.0	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.3	mg/kg dry	1	PIG1507	07/15/21 09:30	07/17/21 22:56	TPH 8015M	
>C12-C28	73.4	26.3	mg/kg dry	1	PIG1507	07/15/21 09:30	07/17/21 22:56	TPH 8015M	
>C28-C35	ND	26.3	mg/kg dry	1	PIG1507	07/15/21 09:30	07/17/21 22:56	TPH 8015M	
Surrogate: 1-Chlorooctane		111 %	70-130		PIG1507	07/15/21 09:30	07/17/21 22:56	TPH 8015M	
Surrogate: o-Terphenyl		110 %	70-130		PIG1507	07/15/21 09:30	07/17/21 22:56	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>73.4</b>	<b>26.3</b>	<b>mg/kg dry</b>	<b>1</b>	<b>[CALC]</b>	<b>07/15/21 09:30</b>	<b>07/17/21 22:56</b>	<b>calc</b>	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-10 @ Surface**  
**1G13006-10 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00104	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 09:59	EPA 8021B	
<b>Toluene</b>	<b>0.00685</b>	0.00104	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 09:59	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.00630</b>	0.00104	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 09:59	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.00717</b>	0.00208	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 09:59	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00381</b>	0.00104	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 09:59	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		105 %	80-120		PIG1404	07/14/21 15:10	07/15/21 09:59	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		91.2 %	80-120		PIG1404	07/14/21 15:10	07/15/21 09:59	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>95.3</b>	1.04	mg/kg dry	1	PIG2013	07/20/21 16:12	07/21/21 01:56	EPA 300.0	
<b>% Moisture</b>	<b>4.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.0	mg/kg dry	1	PIG1507	07/15/21 09:30	07/17/21 23:18	TPH 8015M	
<b>&gt;C12-C28</b>	<b>78.3</b>	26.0	mg/kg dry	1	PIG1507	07/15/21 09:30	07/17/21 23:18	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	PIG1507	07/15/21 09:30	07/17/21 23:18	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		113 %	70-130		PIG1507	07/15/21 09:30	07/17/21 23:18	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		113 %	70-130		PIG1507	07/15/21 09:30	07/17/21 23:18	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>78.3</b>	26.0	mg/kg dry	1	[CALC]	07/15/21 09:30	07/17/21 23:18	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean 12600 W County Rd 91 Midland TX, 79707	Project: COG Screwdriver 24 Fed Com 2H 06.19.21 Project Number: PP-21152 Project Manager: Jeff Kindley
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**SS-11 @ Surface**  
**1G13006-11 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00105	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 10:20	EPA 8021B	
Toluene	ND	0.00105	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 10:20	EPA 8021B	
Ethylbenzene	ND	0.00105	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 10:20	EPA 8021B	
Xylene (p/m)	ND	0.00211	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 10:20	EPA 8021B	
Xylene (o)	ND	0.00105	mg/kg dry	1	PIG1404	07/14/21 15:10	07/15/21 10:20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		104 %	80-120		PIG1404	07/14/21 15:10	07/15/21 10:20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		89.6 %	80-120		PIG1404	07/14/21 15:10	07/15/21 10:20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	547	5.26	mg/kg dry	5	PIG2108	07/21/21 11:18	07/21/21 12:49	EPA 300.0	
% Moisture	5.0	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.3	mg/kg dry	1	PIG1507	07/15/21 09:30	07/17/21 23:39	TPH 8015M	
>C12-C28	27.0	26.3	mg/kg dry	1	PIG1507	07/15/21 09:30	07/17/21 23:39	TPH 8015M	
>C28-C35	ND	26.3	mg/kg dry	1	PIG1507	07/15/21 09:30	07/17/21 23:39	TPH 8015M	
Surrogate: 1-Chlorooctane		112 %	70-130		PIG1507	07/15/21 09:30	07/17/21 23:39	TPH 8015M	
Surrogate: o-Terphenyl		111 %	70-130		PIG1507	07/15/21 09:30	07/17/21 23:39	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>27.0</b>	<b>26.3</b>	<b>mg/kg dry</b>	<b>1</b>	<b>[CALC]</b>	<b>07/15/21 09:30</b>	<b>07/17/21 23:39</b>	<b>calc</b>	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-12 @ Surface**  
**1G13006-12 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.102</b>	0.00102	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 21:18	EPA 8021B	
<b>Toluene</b>	<b>0.00156</b>	0.00102	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 21:18	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 21:18	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.00345</b>	0.00204	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 21:18	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00273</b>	0.00102	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 21:18	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		96.0 %	80-120		PIG1511	07/15/21 14:43	07/15/21 21:18	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		109 %	80-120		PIG1511	07/15/21 14:43	07/15/21 21:18	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>172</b>	1.02	mg/kg dry	1	PIG2108	07/21/21 11:18	07/21/21 13:35	EPA 300.0	
<b>% Moisture</b>	<b>2.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 00:01	TPH 8015M	
<b>&gt;C12-C28</b>	<b>154</b>	25.5	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 00:01	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 00:01	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		111 %	70-130		PIG1507	07/15/21 09:30	07/18/21 00:01	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		109 %	70-130		PIG1507	07/15/21 09:30	07/18/21 00:01	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>154</b>	25.5	mg/kg dry	1	[CALC]	07/15/21 09:30	07/18/21 00:01	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-13 @ Surface**  
**1G13006-13 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.00676</b>	0.00127	mg/kg dry	1	P1G1511	07/15/21 14:43	07/15/21 21:39	EPA 8021B	
<b>Toluene</b>	<b>0.0996</b>	0.00127	mg/kg dry	1	P1G1511	07/15/21 14:43	07/15/21 21:39	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0418</b>	0.00127	mg/kg dry	1	P1G1511	07/15/21 14:43	07/15/21 21:39	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0321</b>	0.00253	mg/kg dry	1	P1G1511	07/15/21 14:43	07/15/21 21:39	EPA 8021B	
<b>Xylene (o)</b>	<b>0.0691</b>	0.00127	mg/kg dry	1	P1G1511	07/15/21 14:43	07/15/21 21:39	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		91.6 %	80-120		P1G1511	07/15/21 14:43	07/15/21 21:39	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		103 %	80-120		P1G1511	07/15/21 14:43	07/15/21 21:39	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>15.7</b>	1.27	mg/kg dry	1	P1G2108	07/21/21 11:18	07/21/21 13:50	EPA 300.0	
<b>% Moisture</b>	<b>21.0</b>	0.1	%	1	P1G1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	31.6	mg/kg dry	1	P1G1507	07/15/21 09:30	07/18/21 00:23	TPH 8015M	
>C12-C28	ND	31.6	mg/kg dry	1	P1G1507	07/15/21 09:30	07/18/21 00:23	TPH 8015M	
>C28-C35	ND	31.6	mg/kg dry	1	P1G1507	07/15/21 09:30	07/18/21 00:23	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		109 %	70-130		P1G1507	07/15/21 09:30	07/18/21 00:23	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		108 %	70-130		P1G1507	07/15/21 09:30	07/18/21 00:23	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	31.6	mg/kg dry	1	[CALC]	07/15/21 09:30	07/18/21 00:23	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-14 @ Surface**  
**1G13006-14 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 21:59	EPA 8021B	
<b>Toluene</b>	<b>0.0182</b>	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 21:59	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0167</b>	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 21:59	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0212</b>	0.00206	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 21:59	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00700</b>	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 21:59	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		103 %	80-120		PIG1511	07/15/21 14:43	07/15/21 21:59	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		89.6 %	80-120		PIG1511	07/15/21 14:43	07/15/21 21:59	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>62.8</b>	1.03	mg/kg dry	1	PIG2108	07/21/21 11:18	07/21/21 14:05	EPA 300.0	
<b>% Moisture</b>	<b>3.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.8	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 00:45	TPH 8015M	
<b>&gt;C12-C28</b>	<b>73.0</b>	25.8	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 00:45	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 00:45	TPH 8015M	
Surrogate: 1-Chlorooctane		111 %	70-130		PIG1507	07/15/21 09:30	07/18/21 00:45	TPH 8015M	
Surrogate: o-Terphenyl		110 %	70-130		PIG1507	07/15/21 09:30	07/18/21 00:45	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>73.0</b>	25.8	mg/kg dry	1	[CALC]	07/15/21 09:30	07/18/21 00:45	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-15 @ Surface**  
**1G13006-15 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00105	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 22:20	EPA 8021B	
Toluene	ND	0.00105	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 22:20	EPA 8021B	
Ethylbenzene	ND	0.00105	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 22:20	EPA 8021B	
Xylene (p/m)	ND	0.00211	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 22:20	EPA 8021B	
Xylene (o)	ND	0.00105	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 22:20	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		102 %	80-120		PIG1511	07/15/21 14:43	07/15/21 22:20	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		87.6 %	80-120		PIG1511	07/15/21 14:43	07/15/21 22:20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>31.0</b>	1.05	mg/kg dry	1	PIG2108	07/21/21 11:18	07/21/21 14:21	EPA 300.0	
<b>% Moisture</b>	<b>5.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.3	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 01:51	TPH 8015M	
>C12-C28	<b>196</b>	26.3	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 01:51	TPH 8015M	
>C28-C35	<b>75.3</b>	26.3	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 01:51	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		111 %	70-130		PIG1507	07/15/21 09:30	07/18/21 01:51	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		109 %	70-130		PIG1507	07/15/21 09:30	07/18/21 01:51	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>272</b>	26.3	mg/kg dry	1	[CALC]	07/15/21 09:30	07/18/21 01:51	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-16 @ Surface**  
**1G13006-16 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 22:41	EPA 8021B	
<b>Toluene</b>	<b>0.0189</b>	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 22:41	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0169</b>	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 22:41	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0233</b>	0.00206	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 22:41	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00826</b>	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 22:41	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		108 %	80-120		PIG1511	07/15/21 14:43	07/15/21 22:41	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		98.1 %	80-120		PIG1511	07/15/21 14:43	07/15/21 22:41	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>32.7</b>	1.03	mg/kg dry	1	PIG2108	07/21/21 11:18	07/21/21 14:36	EPA 300.0	
<b>% Moisture</b>	<b>3.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.8	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 02:12	TPH 8015M	
<b>&gt;C12-C28</b>	<b>344</b>	25.8	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 02:12	TPH 8015M	
<b>&gt;C28-C35</b>	<b>102</b>	25.8	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 02:12	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		111 %	70-130		PIG1507	07/15/21 09:30	07/18/21 02:12	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		110 %	70-130		PIG1507	07/15/21 09:30	07/18/21 02:12	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>446</b>	25.8	mg/kg dry	1	[CALC]	07/15/21 09:30	07/18/21 02:12	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-17 @ Surface**  
**1G13006-17 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00102	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 23:01	EPA 8021B	
<b>Toluene</b>	<b>0.00231</b>	0.00102	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 23:01	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.00174</b>	0.00102	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 23:01	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.00265</b>	0.00204	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 23:01	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 23:01	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		101 %	80-120		PIG1511	07/15/21 14:43	07/15/21 23:01	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		87.2 %	80-120		PIG1511	07/15/21 14:43	07/15/21 23:01	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>222</b>	1.02	mg/kg dry	1	PIG2108	07/21/21 11:18	07/21/21 14:51	EPA 300.0	
<b>% Moisture</b>	<b>2.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 02:34	TPH 8015M	
<b>&gt;C12-C28</b>	<b>70.2</b>	25.5	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 02:34	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 02:34	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		114 %	70-130		PIG1507	07/15/21 09:30	07/18/21 02:34	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		112 %	70-130		PIG1507	07/15/21 09:30	07/18/21 02:34	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>70.2</b>	25.5	mg/kg dry	1	[CALC]	07/15/21 09:30	07/18/21 02:34	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-18 @ Surface**  
**1G13006-18 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00102	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 23:22	EPA 8021B	
<b>Toluene</b>	<b>0.0111</b>	0.00102	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 23:22	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0104</b>	0.00102	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 23:22	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0147</b>	0.00204	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 23:22	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00583</b>	0.00102	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 23:22	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		106 %	80-120		PIG1511	07/15/21 14:43	07/15/21 23:22	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		94.8 %	80-120		PIG1511	07/15/21 14:43	07/15/21 23:22	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>108</b>	1.02	mg/kg dry	1	PIG2108	07/21/21 11:18	07/21/21 15:06	EPA 300.0	
<b>% Moisture</b>	<b>2.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 02:56	TPH 8015M	
<b>&gt;C12-C28</b>	<b>95.4</b>	25.5	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 02:56	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 02:56	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		114 %	70-130		PIG1507	07/15/21 09:30	07/18/21 02:56	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		113 %	70-130		PIG1507	07/15/21 09:30	07/18/21 02:56	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>95.4</b>	25.5	mg/kg dry	1	[CALC]	07/15/21 09:30	07/18/21 02:56	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-19 @ Surface**  
**1G13006-19 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 23:43	EPA 8021B	
<b>Toluene</b>	<b>0.0435</b>	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 23:43	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0326</b>	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 23:43	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0372</b>	0.00206	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 23:43	EPA 8021B	
<b>Xylene (o)</b>	<b>0.0102</b>	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/15/21 23:43	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>91.5 %</i>	<i>80-120</i>			<i>PIG1511</i>	<i>07/15/21 14:43</i>	<i>07/15/21 23:43</i>	<i>EPA 8021B</i>	
<i>Surrogate: 1,4-Difluorobenzene</i>	<i>103 %</i>	<i>80-120</i>			<i>PIG1511</i>	<i>07/15/21 14:43</i>	<i>07/15/21 23:43</i>	<i>EPA 8021B</i>	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>242</b>	1.03	mg/kg dry	1	PIG2108	07/21/21 11:18	07/21/21 15:22	EPA 300.0	
<b>% Moisture</b>	<b>3.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.8	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 03:18	TPH 8015M	
<b>&gt;C12-C28</b>	<b>246</b>	25.8	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 03:18	TPH 8015M	
<b>&gt;C28-C35</b>	<b>63.2</b>	25.8	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 03:18	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>	<i>114 %</i>	<i>70-130</i>			<i>PIG1507</i>	<i>07/15/21 09:30</i>	<i>07/18/21 03:18</i>	<i>TPH 8015M</i>	
<i>Surrogate: o-Terphenyl</i>	<i>113 %</i>	<i>70-130</i>			<i>PIG1507</i>	<i>07/15/21 09:30</i>	<i>07/18/21 03:18</i>	<i>TPH 8015M</i>	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>309</b>	25.8	mg/kg dry	1	[CALC]	07/15/21 09:30	07/18/21 03:18	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-20 @ Surface**  
**1G13006-20 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00102	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 00:03	EPA 8021B	
<b>Toluene</b>	<b>0.00750</b>	0.00102	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 00:03	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.00998</b>	0.00102	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 00:03	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0136</b>	0.00204	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 00:03	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00401</b>	0.00102	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 00:03	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		108 %	80-120		PIG1511	07/15/21 14:43	07/16/21 00:03	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		94.5 %	80-120		PIG1511	07/15/21 14:43	07/16/21 00:03	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>384</b>	1.02	mg/kg dry	1	PIG2108	07/21/21 11:18	07/21/21 15:37	EPA 300.0	
<b>% Moisture</b>	<b>2.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 03:40	TPH 8015M	
<b>&gt;C12-C28</b>	<b>102</b>	25.5	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 03:40	TPH 8015M	
<b>&gt;C28-C35</b>	<b>32.6</b>	25.5	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 03:40	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		110 %	70-130		PIG1507	07/15/21 09:30	07/18/21 03:40	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		109 %	70-130		PIG1507	07/15/21 09:30	07/18/21 03:40	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>135</b>	25.5	mg/kg dry	1	[CALC]	07/15/21 09:30	07/18/21 03:40	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-21 @ Surface**  
**1G13006-21 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 00:24	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 00:24	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 00:24	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 00:24	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 00:24	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		86.8 %	80-120		PIG1511	07/15/21 14:43	07/16/21 00:24	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		104 %	80-120		PIG1511	07/15/21 14:43	07/16/21 00:24	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	91.3	1.03	mg/kg dry	1	PIG2108	07/21/21 11:18	07/21/21 16:23	EPA 300.0	
% Moisture	3.0	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.8	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 04:02	TPH 8015M	
>C12-C28	127	25.8	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 04:02	TPH 8015M	
>C28-C35	47.8	25.8	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 04:02	TPH 8015M	
Surrogate: 1-Chlorooctane		110 %	70-130		PIG1507	07/15/21 09:30	07/18/21 04:02	TPH 8015M	
Surrogate: o-Terphenyl		109 %	70-130		PIG1507	07/15/21 09:30	07/18/21 04:02	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>175</b>	<b>25.8</b>	<b>mg/kg dry</b>	<b>1</b>	<b>[CALC]</b>	<b>07/15/21 09:30</b>	<b>07/18/21 04:02</b>	<b>calc</b>	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-22 @ Surface**  
**1G13006-22 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00105	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 01:26	EPA 8021B	
Toluene	ND	0.00105	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 01:26	EPA 8021B	
Ethylbenzene	ND	0.00105	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 01:26	EPA 8021B	
Xylene (p/m)	ND	0.00211	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 01:26	EPA 8021B	
Xylene (o)	ND	0.00105	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 01:26	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		85.6 %	80-120		PIG1511	07/15/21 14:43	07/16/21 01:26	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		102 %	80-120		PIG1511	07/15/21 14:43	07/16/21 01:26	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	241	1.05	mg/kg dry	1	PIG2108	07/21/21 11:18	07/21/21 17:09	EPA 300.0	
% Moisture	5.0	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.3	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 04:24	TPH 8015M	
>C12-C28	83.3	26.3	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 04:24	TPH 8015M	
>C28-C35	29.3	26.3	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 04:24	TPH 8015M	
Surrogate: 1-Chlorooctane		112 %	70-130		PIG1507	07/15/21 09:30	07/18/21 04:24	TPH 8015M	
Surrogate: o-Terphenyl		111 %	70-130		PIG1507	07/15/21 09:30	07/18/21 04:24	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	113	26.3	mg/kg dry	1	[CALC]	07/15/21 09:30	07/18/21 04:24	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean 12600 W County Rd 91 Midland TX, 79707	Project: COG Screwdriver 24 Fed Com 2H 06.19.21 Project Number: PP-21152 Project Manager: Jeff Kindley
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**SS-23 @ Surface**  
**1G13006-23 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00108	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 01:47	EPA 8021B	
Toluene	ND	0.00108	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 01:47	EPA 8021B	
Ethylbenzene	ND	0.00108	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 01:47	EPA 8021B	
Xylene (p/m)	ND	0.00215	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 01:47	EPA 8021B	
Xylene (o)	ND	0.00108	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 01:47	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		88.3 %	80-120		PIG1511	07/15/21 14:43	07/16/21 01:47	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		103 %	80-120		PIG1511	07/15/21 14:43	07/16/21 01:47	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	221	1.08	mg/kg dry	1	PIG2108	07/21/21 11:18	07/21/21 17:24	EPA 300.0	
% Moisture	7.0	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.9	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 04:46	TPH 8015M	
>C12-C28	42.7	26.9	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 04:46	TPH 8015M	
>C28-C35	ND	26.9	mg/kg dry	1	PIG1507	07/15/21 09:30	07/18/21 04:46	TPH 8015M	
Surrogate: 1-Chlorooctane		113 %	70-130		PIG1507	07/15/21 09:30	07/18/21 04:46	TPH 8015M	
Surrogate: o-Terphenyl		113 %	70-130		PIG1507	07/15/21 09:30	07/18/21 04:46	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>42.7</b>	<b>26.9</b>	<b>mg/kg dry</b>	<b>1</b>	<b>[CALC]</b>	<b>07/15/21 09:30</b>	<b>07/18/21 04:46</b>	<b>calc</b>	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-24 @ Surface**  
**1G13006-24 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.00140</b>	0.00102	mg/kg dry	1	P1G1511	07/15/21 14:43	07/16/21 02:07	EPA 8021B	
<b>Toluene</b>	<b>0.0311</b>	0.00102	mg/kg dry	1	P1G1511	07/15/21 14:43	07/16/21 02:07	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0224</b>	0.00102	mg/kg dry	1	P1G1511	07/15/21 14:43	07/16/21 02:07	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0258</b>	0.00204	mg/kg dry	1	P1G1511	07/15/21 14:43	07/16/21 02:07	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00714</b>	0.00102	mg/kg dry	1	P1G1511	07/15/21 14:43	07/16/21 02:07	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		90.7 %	80-120		P1G1511	07/15/21 14:43	07/16/21 02:07	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		104 %	80-120		P1G1511	07/15/21 14:43	07/16/21 02:07	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>1490</b>	5.10	mg/kg dry	5	P1G2108	07/21/21 11:18	07/21/21 17:40	EPA 300.0	
<b>% Moisture</b>	<b>2.0</b>	0.1	%	1	P1G1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>ND</b>	25.5	mg/kg dry	1	P1G1507	07/15/21 09:30	07/18/21 05:08	TPH 8015M	
<b>&gt;C12-C28</b>	<b>105</b>	25.5	mg/kg dry	1	P1G1507	07/15/21 09:30	07/18/21 05:08	TPH 8015M	
<b>&gt;C28-C35</b>	<b>37.0</b>	25.5	mg/kg dry	1	P1G1507	07/15/21 09:30	07/18/21 05:08	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		111 %	70-130		P1G1507	07/15/21 09:30	07/18/21 05:08	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		110 %	70-130		P1G1507	07/15/21 09:30	07/18/21 05:08	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>142</b>	25.5	mg/kg dry	1	[CALC]	07/15/21 09:30	07/18/21 05:08	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-25 @ Surface**  
**1G13006-25 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00122	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 02:28	EPA 8021B	
<b>Toluene</b>	<b>0.00423</b>	0.00122	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 02:28	EPA 8021B	
Ethylbenzene	ND	0.00122	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 02:28	EPA 8021B	
Xylene (p/m)	ND	0.00244	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 02:28	EPA 8021B	
<b>Xylene (o)</b>	<b>0.0300</b>	0.00122	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 02:28	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		85.7 %	80-120		PIG1511	07/15/21 14:43	07/16/21 02:28	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		102 %	80-120		PIG1511	07/15/21 14:43	07/16/21 02:28	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>62.0</b>	1.22	mg/kg dry	1	PIG2108	07/21/21 11:18	07/21/21 17:55	EPA 300.0	
<b>% Moisture</b>	<b>18.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	30.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 08:04	TPH 8015M	
<b>&gt;C12-C28</b>	<b>39.2</b>	30.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 08:04	TPH 8015M	
>C28-C35	ND	30.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 08:04	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		108 %	70-130		PIG1508	07/15/21 09:50	07/18/21 08:04	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		107 %	70-130		PIG1508	07/15/21 09:50	07/18/21 08:04	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>39.2</b>	30.5	mg/kg dry	1	[CALC]	07/15/21 09:50	07/18/21 08:04	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-26 @ Surface**  
**1G13006-26 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.00134</b>	0.00102	mg/kg dry	1	P1G1511	07/15/21 14:43	07/16/21 02:48	EPA 8021B	
<b>Toluene</b>	<b>0.0339</b>	0.00102	mg/kg dry	1	P1G1511	07/15/21 14:43	07/16/21 02:48	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0220</b>	0.00102	mg/kg dry	1	P1G1511	07/15/21 14:43	07/16/21 02:48	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0242</b>	0.00204	mg/kg dry	1	P1G1511	07/15/21 14:43	07/16/21 02:48	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00610</b>	0.00102	mg/kg dry	1	P1G1511	07/15/21 14:43	07/16/21 02:48	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		103 %	80-120		P1G1511	07/15/21 14:43	07/16/21 02:48	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		89.3 %	80-120		P1G1511	07/15/21 14:43	07/16/21 02:48	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>1550</b>	5.10	mg/kg dry	5	P1G2108	07/21/21 11:18	07/21/21 18:10	EPA 300.0	
<b>% Moisture</b>	<b>2.0</b>	0.1	%	1	P1G1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>ND</b>	25.5	mg/kg dry	1	P1G1508	07/15/21 09:50	07/18/21 08:26	TPH 8015M	
<b>&gt;C12-C28</b>	<b>178</b>	25.5	mg/kg dry	1	P1G1508	07/15/21 09:50	07/18/21 08:26	TPH 8015M	
<b>&gt;C28-C35</b>	<b>38.6</b>	25.5	mg/kg dry	1	P1G1508	07/15/21 09:50	07/18/21 08:26	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		110 %	70-130		P1G1508	07/15/21 09:50	07/18/21 08:26	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		106 %	70-130		P1G1508	07/15/21 09:50	07/18/21 08:26	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>217</b>	25.5	mg/kg dry	1	[CALC]	07/15/21 09:50	07/18/21 08:26	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-27 @ Surface**  
**1G13006-27 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.00151</b>	0.00118	mg/kg dry	1	P1G1511	07/15/21 14:43	07/16/21 03:09	EPA 8021B	
<b>Toluene</b>	<b>0.00745</b>	0.00118	mg/kg dry	1	P1G1511	07/15/21 14:43	07/16/21 03:09	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.00536</b>	0.00118	mg/kg dry	1	P1G1511	07/15/21 14:43	07/16/21 03:09	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.00841</b>	0.00235	mg/kg dry	1	P1G1511	07/15/21 14:43	07/16/21 03:09	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00788</b>	0.00118	mg/kg dry	1	P1G1511	07/15/21 14:43	07/16/21 03:09	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		87.9 %	80-120		P1G1511	07/15/21 14:43	07/16/21 03:09	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		103 %	80-120		P1G1511	07/15/21 14:43	07/16/21 03:09	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>240</b>	1.18	mg/kg dry	1	P1G2108	07/21/21 11:18	07/21/21 18:26	EPA 300.0	
<b>% Moisture</b>	<b>15.0</b>	0.1	%	1	P1G1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	29.4	mg/kg dry	1	P1G1508	07/15/21 09:50	07/18/21 08:48	TPH 8015M	
>C12-C28	ND	29.4	mg/kg dry	1	P1G1508	07/15/21 09:50	07/18/21 08:48	TPH 8015M	
>C28-C35	ND	29.4	mg/kg dry	1	P1G1508	07/15/21 09:50	07/18/21 08:48	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		107 %	70-130		P1G1508	07/15/21 09:50	07/18/21 08:48	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		103 %	70-130		P1G1508	07/15/21 09:50	07/18/21 08:48	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	29.4	mg/kg dry	1	[CALC]	07/15/21 09:50	07/18/21 08:48	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-28 @ Surface**  
**1G13006-28 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.00132</b>	0.00101	mg/kg dry	1	P1G1511	07/15/21 14:43	07/16/21 03:29	EPA 8021B	
<b>Toluene</b>	<b>0.0313</b>	0.00101	mg/kg dry	1	P1G1511	07/15/21 14:43	07/16/21 03:29	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0199</b>	0.00101	mg/kg dry	1	P1G1511	07/15/21 14:43	07/16/21 03:29	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0211</b>	0.00202	mg/kg dry	1	P1G1511	07/15/21 14:43	07/16/21 03:29	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00654</b>	0.00101	mg/kg dry	1	P1G1511	07/15/21 14:43	07/16/21 03:29	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		105 %	80-120		P1G1511	07/15/21 14:43	07/16/21 03:29	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		90.7 %	80-120		P1G1511	07/15/21 14:43	07/16/21 03:29	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>1010</b>	1.01	mg/kg dry	1	P1G2108	07/21/21 11:18	07/21/21 18:41	EPA 300.0	
<b>% Moisture</b>	<b>1.0</b>	0.1	%	1	P1G1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>ND</b>	25.3	mg/kg dry	1	P1G1508	07/15/21 09:50	07/18/21 09:10	TPH 8015M	
<b>&gt;C12-C28</b>	<b>98.3</b>	25.3	mg/kg dry	1	P1G1508	07/15/21 09:50	07/18/21 09:10	TPH 8015M	
<b>&gt;C28-C35</b>	<b>37.4</b>	25.3	mg/kg dry	1	P1G1508	07/15/21 09:50	07/18/21 09:10	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		106 %	70-130		P1G1508	07/15/21 09:50	07/18/21 09:10	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		102 %	70-130		P1G1508	07/15/21 09:50	07/18/21 09:10	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>136</b>	25.3	mg/kg dry	1	[CALC]	07/15/21 09:50	07/18/21 09:10	calc	

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-29 @ Surface**  
**1G13006-29 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.00106</b>	0.00102	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 03:50	EPA 8021B	
<b>Toluene</b>	<b>0.0313</b>	0.00102	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 03:50	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0226</b>	0.00102	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 03:50	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0244</b>	0.00204	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 03:50	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00768</b>	0.00102	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 03:50	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		104 %	80-120		PIG1511	07/15/21 14:43	07/16/21 03:50	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		92.9 %	80-120		PIG1511	07/15/21 14:43	07/16/21 03:50	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>545</b>	1.02	mg/kg dry	1	PIG2108	07/21/21 11:18	07/21/21 18:56	EPA 300.0	
<b>% Moisture</b>	<b>2.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>ND</b>	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 09:33	TPH 8015M	
<b>&gt;C12-C28</b>	<b>70.7</b>	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 09:33	TPH 8015M	
<b>&gt;C28-C35</b>	<b>ND</b>	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 09:33	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		116 %	70-130		PIG1508	07/15/21 09:50	07/18/21 09:33	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		109 %	70-130		PIG1508	07/15/21 09:50	07/18/21 09:33	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>70.7</b>	25.5	mg/kg dry	1	[CALC]	07/15/21 09:50	07/18/21 09:33	calc	

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12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-30 @ Surface**  
**1G13006-30 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 04:11	EPA 8021B	
<b>Toluene</b>	<b>0.0161</b>	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 04:11	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0201</b>	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 04:11	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0252</b>	0.00206	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 04:11	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00665</b>	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 04:11	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		103 %	80-120		PIG1511	07/15/21 14:43	07/16/21 04:11	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		89.6 %	80-120		PIG1511	07/15/21 14:43	07/16/21 04:11	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>5780</b>	25.8	mg/kg dry	25	PIG2108	07/21/21 11:18	07/21/21 19:12	EPA 300.0	
<b>% Moisture</b>	<b>3.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.8	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 09:55	TPH 8015M	
<b>&gt;C12-C28</b>	<b>88.9</b>	25.8	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 09:55	TPH 8015M	
<b>&gt;C28-C35</b>	<b>32.3</b>	25.8	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 09:55	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		108 %	70-130		PIG1508	07/15/21 09:50	07/18/21 09:55	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		108 %	70-130		PIG1508	07/15/21 09:50	07/18/21 09:55	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>121</b>	25.8	mg/kg dry	1	[CALC]	07/15/21 09:50	07/18/21 09:55	calc	

Permian Basin Environmental Lab, L.P.

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12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-31 @ Surface**  
**1G13006-31 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 04:31	EPA 8021B	
<b>Toluene</b>	<b>0.0114</b>	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 04:31	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.00616</b>	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 04:31	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.00619</b>	0.00206	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 04:31	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00163</b>	0.00103	mg/kg dry	1	PIG1511	07/15/21 14:43	07/16/21 04:31	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		105 %	80-120		PIG1511	07/15/21 14:43	07/16/21 04:31	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		90.8 %	80-120		PIG1511	07/15/21 14:43	07/16/21 04:31	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>6500</b>	25.8	mg/kg dry	25	PIG2103	07/21/21 09:39	07/21/21 14:19	EPA 300.0	
<b>% Moisture</b>	<b>3.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.8	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 10:16	TPH 8015M	
<b>&gt;C12-C28</b>	<b>50.1</b>	25.8	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 10:16	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 10:16	TPH 8015M	
Surrogate: 1-Chlorooctane		114 %	70-130		PIG1508	07/15/21 09:50	07/18/21 10:16	TPH 8015M	
Surrogate: o-Terphenyl		113 %	70-130		PIG1508	07/15/21 09:50	07/18/21 10:16	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>50.1</b>	25.8	mg/kg dry	1	[CALC]	07/15/21 09:50	07/18/21 10:16	calc	

Permian Basin Environmental Lab, L.P.

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12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-32 @ Surface**  
**1G13006-32 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 17:42	EPA 8021B	
<b>Toluene</b>	<b>0.0154</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 17:42	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0263</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 17:42	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0293</b>	0.00204	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 17:42	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00984</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 17:42	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		106 %	80-120		PIG1609	07/16/21 14:20	07/16/21 17:42	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		94.0 %	80-120		PIG1609	07/16/21 14:20	07/16/21 17:42	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>2810</b>	10.2	mg/kg dry	10	PIG2103	07/21/21 09:39	07/21/21 14:38	EPA 300.0	
<b>% Moisture</b>	<b>2.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 10:39	TPH 8015M	
<b>&gt;C12-C28</b>	<b>51.4</b>	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 10:39	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 10:39	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		110 %	70-130		PIG1508	07/15/21 09:50	07/18/21 10:39	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		108 %	70-130		PIG1508	07/15/21 09:50	07/18/21 10:39	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>51.4</b>	25.5	mg/kg dry	1	[CALC]	07/15/21 09:50	07/18/21 10:39	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
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Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-33 @ Surface**  
**1G13006-33 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 18:04	EPA 8021B	
<b>Toluene</b>	<b>0.0141</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 18:04	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0125</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 18:04	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0141</b>	0.00204	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 18:04	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00372</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 18:04	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		108 %	80-120		PIG1609	07/16/21 14:20	07/16/21 18:04	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		97.4 %	80-120		PIG1609	07/16/21 14:20	07/16/21 18:04	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>5180</b>	10.2	mg/kg dry	10	PIG2103	07/21/21 09:39	07/21/21 14:56	EPA 300.0	
<b>% Moisture</b>	<b>2.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 11:01	TPH 8015M	
<b>&gt;C12-C28</b>	<b>64.6</b>	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 11:01	TPH 8015M	
<b>&gt;C28-C35</b>	<b>26.7</b>	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 11:01	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		110 %	70-130		PIG1508	07/15/21 09:50	07/18/21 11:01	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		111 %	70-130		PIG1508	07/15/21 09:50	07/18/21 11:01	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>91.3</b>	25.5	mg/kg dry	1	[CALC]	07/15/21 09:50	07/18/21 11:01	calc	

Permian Basin Environmental Lab, L.P.

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12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-34 @ Surface**  
**1G13006-34 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 18:25	EPA 8021B	
<b>Toluene</b>	<b>0.0150</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 18:25	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0230</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 18:25	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0265</b>	0.00204	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 18:25	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00859</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 18:25	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		108 %	80-120		PIG1609	07/16/21 14:20	07/16/21 18:25	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		99.9 %	80-120		PIG1609	07/16/21 14:20	07/16/21 18:25	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>662</b>	1.02	mg/kg dry	1	PIG2103	07/21/21 09:39	07/21/21 15:15	EPA 300.0	
<b>% Moisture</b>	<b>2.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 11:23	TPH 8015M	
<b>&gt;C12-C28</b>	<b>62.2</b>	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 11:23	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 11:23	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		109 %	70-130		PIG1508	07/15/21 09:50	07/18/21 11:23	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		107 %	70-130		PIG1508	07/15/21 09:50	07/18/21 11:23	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>62.2</b>	25.5	mg/kg dry	1	[CALC]	07/15/21 09:50	07/18/21 11:23	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-35 @ Surface**  
**1G13006-35 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 18:47	EPA 8021B	
<b>Toluene</b>	<b>0.0114</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 18:47	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0152</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 18:47	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0188</b>	0.00204	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 18:47	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00611</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 18:47	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		110 %	80-120		PIG1609	07/16/21 14:20	07/16/21 18:47	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		99.1 %	80-120		PIG1609	07/16/21 14:20	07/16/21 18:47	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>2030</b>	5.10	mg/kg dry	5	PIG2103	07/21/21 09:39	07/21/21 15:33	EPA 300.0	
<b>% Moisture</b>	<b>2.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 12:29	TPH 8015M	
<b>&gt;C12-C28</b>	<b>46.4</b>	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 12:29	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 12:29	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		108 %	70-130		PIG1508	07/15/21 09:50	07/18/21 12:29	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		106 %	70-130		PIG1508	07/15/21 09:50	07/18/21 12:29	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>46.4</b>	25.5	mg/kg dry	1	[CALC]	07/15/21 09:50	07/18/21 12:29	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-36 @ Surface**  
**1G13006-36 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 19:07	EPA 8021B	
<b>Toluene</b>	<b>0.0167</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 19:07	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0268</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 19:07	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0279</b>	0.00204	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 19:07	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00988</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 19:07	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		106 %	80-120		PIG1609	07/16/21 14:20	07/16/21 19:07	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		94.5 %	80-120		PIG1609	07/16/21 14:20	07/16/21 19:07	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>4590</b>	10.2	mg/kg dry	10	PIG2103	07/21/21 09:39	07/21/21 15:52	EPA 300.0	
<b>% Moisture</b>	<b>2.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 12:51	TPH 8015M	
<b>&gt;C12-C28</b>	<b>71.3</b>	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 12:51	TPH 8015M	
<b>&gt;C28-C35</b>	<b>26.0</b>	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 12:51	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		112 %	70-130		PIG1508	07/15/21 09:50	07/18/21 12:51	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		112 %	70-130		PIG1508	07/15/21 09:50	07/18/21 12:51	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>97.3</b>	25.5	mg/kg dry	1	[CALC]	07/15/21 09:50	07/18/21 12:51	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-37 @ Surface**  
**1G13006-37 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00101	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 19:28	EPA 8021B	
<b>Toluene</b>	<b>0.0270</b>	0.00101	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 19:28	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0256</b>	0.00101	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 19:28	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0282</b>	0.00202	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 19:28	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00900</b>	0.00101	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 19:28	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>97.4 %</i>		<i>80-120</i>		<i>PIG1609</i>	<i>07/16/21 14:20</i>	<i>07/16/21 19:28</i>	<i>EPA 8021B</i>	
<i>Surrogate: 1,4-Difluorobenzene</i>	<i>107 %</i>		<i>80-120</i>		<i>PIG1609</i>	<i>07/16/21 14:20</i>	<i>07/16/21 19:28</i>	<i>EPA 8021B</i>	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>1660</b>	5.05	mg/kg dry	5	PIG2103	07/21/21 09:39	07/21/21 16:47	EPA 300.0	
<b>% Moisture</b>	<b>1.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.3	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 13:14	TPH 8015M	
<b>&gt;C12-C28</b>	<b>32.8</b>	25.3	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 13:14	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 13:14	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>	<i>110 %</i>		<i>70-130</i>		<i>PIG1508</i>	<i>07/15/21 09:50</i>	<i>07/18/21 13:14</i>	<i>TPH 8015M</i>	
<i>Surrogate: o-Terphenyl</i>	<i>108 %</i>		<i>70-130</i>		<i>PIG1508</i>	<i>07/15/21 09:50</i>	<i>07/18/21 13:14</i>	<i>TPH 8015M</i>	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>32.8</b>	25.3	mg/kg dry	1	[CALC]	07/15/21 09:50	07/18/21 13:14	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-38 @ Surface**  
**1G13006-38 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 19:50	EPA 8021B	
<b>Toluene</b>	<b>0.00856</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 19:50	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.00449</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 19:50	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.00543</b>	0.00204	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 19:50	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00141</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 19:50	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	92.6 %		80-120		PIG1609	07/16/21 14:20	07/16/21 19:50	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	106 %		80-120		PIG1609	07/16/21 14:20	07/16/21 19:50	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>1470</b>	5.10	mg/kg dry	5	PIG2103	07/21/21 09:39	07/21/21 17:43	EPA 300.0	
<b>% Moisture</b>	<b>2.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 13:36	TPH 8015M	
<b>&gt;C12-C28</b>	<b>49.7</b>	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 13:36	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 13:36	TPH 8015M	
Surrogate: 1-Chlorooctane	114 %		70-130		PIG1508	07/15/21 09:50	07/18/21 13:36	TPH 8015M	
Surrogate: o-Terphenyl	111 %		70-130		PIG1508	07/15/21 09:50	07/18/21 13:36	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>49.7</b>	25.5	mg/kg dry	1	[CALC]	07/15/21 09:50	07/18/21 13:36	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-39 @ Surface**  
**1G13006-39 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 20:11	EPA 8021B	
<b>Toluene</b>	<b>0.0138</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 20:11	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0107</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 20:11	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0124</b>	0.00204	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 20:11	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00377</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 20:11	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	106 %		80-120		PIG1609	07/16/21 14:20	07/16/21 20:11	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	93.9 %		80-120		PIG1609	07/16/21 14:20	07/16/21 20:11	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>3140</b>	10.2	mg/kg dry	10	PIG2103	07/21/21 09:39	07/21/21 18:01	EPA 300.0	
<b>% Moisture</b>	<b>2.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 13:58	TPH 8015M	
<b>&gt;C12-C28</b>	<b>47.6</b>	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 13:58	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 13:58	TPH 8015M	
Surrogate: 1-Chlorooctane	111 %		70-130		PIG1508	07/15/21 09:50	07/18/21 13:58	TPH 8015M	
Surrogate: o-Terphenyl	107 %		70-130		PIG1508	07/15/21 09:50	07/18/21 13:58	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>47.6</b>	25.5	mg/kg dry	1	[CALC]	07/15/21 09:50	07/18/21 13:58	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-40 @ Surface**  
**1G13006-40 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 20:32	EPA 8021B	
<b>Toluene</b>	<b>0.0196</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 20:32	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0228</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 20:32	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0254</b>	0.00204	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 20:32	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00759</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 20:32	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		108 %	80-120		PIG1609	07/16/21 14:20	07/16/21 20:32	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.4 %	80-120		PIG1609	07/16/21 14:20	07/16/21 20:32	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>4220</b>	10.2	mg/kg dry	10	PIG2103	07/21/21 09:39	07/21/21 18:20	EPA 300.0	
<b>% Moisture</b>	<b>2.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 14:20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>35.6</b>	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 14:20	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 14:20	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		95.0 %	70-130		PIG1508	07/15/21 09:50	07/18/21 14:20	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		93.7 %	70-130		PIG1508	07/15/21 09:50	07/18/21 14:20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>35.6</b>	25.5	mg/kg dry	1	[CALC]	07/15/21 09:50	07/18/21 14:20	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-41 @ Surface**  
**1G13006-41 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 20:53	EPA 8021B	
<b>Toluene</b>	<b>0.0117</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 20:53	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.00809</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 20:53	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.00927</b>	0.00204	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 20:53	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00249</b>	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 20:53	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>94.0 %</i>	<i>80-120</i>			<i>PIG1609</i>	<i>07/16/21 14:20</i>	<i>07/16/21 20:53</i>	<i>EPA 8021B</i>	
<i>Surrogate: 1,4-Difluorobenzene</i>	<i>106 %</i>	<i>80-120</i>			<i>PIG1609</i>	<i>07/16/21 14:20</i>	<i>07/16/21 20:53</i>	<i>EPA 8021B</i>	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>810</b>	1.02	mg/kg dry	1	PIG2103	07/21/21 09:39	07/21/21 18:38	EPA 300.0	
<b>% Moisture</b>	<b>2.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 14:43	TPH 8015M	
<b>&gt;C12-C28</b>	<b>87.2</b>	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 14:43	TPH 8015M	
<b>&gt;C28-C35</b>	<b>28.3</b>	25.5	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 14:43	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>	<i>108 %</i>	<i>70-130</i>			<i>PIG1508</i>	<i>07/15/21 09:50</i>	<i>07/18/21 14:43</i>	<i>TPH 8015M</i>	
<i>Surrogate: o-Terphenyl</i>	<i>103 %</i>	<i>70-130</i>			<i>PIG1508</i>	<i>07/15/21 09:50</i>	<i>07/18/21 14:43</i>	<i>TPH 8015M</i>	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>115</b>	25.5	mg/kg dry	1	[CALC]	07/15/21 09:50	07/18/21 14:43	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-42 @ Surface**  
**1G13006-42 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00104	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 21:57	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 21:57	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 21:57	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 21:57	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 21:57	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		90.9 %	80-120		PIG1609	07/16/21 14:20	07/16/21 21:57	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		104 %	80-120		PIG1609	07/16/21 14:20	07/16/21 21:57	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	567	5.21	mg/kg dry	5	PIG2103	07/21/21 09:39	07/21/21 18:57	EPA 300.0	
% Moisture	4.0	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.0	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 15:05	TPH 8015M	
>C12-C28	139	26.0	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 15:05	TPH 8015M	
>C28-C35	31.3	26.0	mg/kg dry	1	PIG1508	07/15/21 09:50	07/18/21 15:05	TPH 8015M	
Surrogate: 1-Chlorooctane		107 %	70-130		PIG1508	07/15/21 09:50	07/18/21 15:05	TPH 8015M	
Surrogate: o-Terphenyl		108 %	70-130		PIG1508	07/15/21 09:50	07/18/21 15:05	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>171</b>	26.0	mg/kg dry	1	[CALC]	07/15/21 09:50	07/18/21 15:05	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch PIG1404 - \*\*\* DEFAULT PREP \*\*\***

**Blank (PIG1404-BLK1)**

Prepared: 07/14/21 Analyzed: 07/15/21

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.124		"	0.120		103	80-120			
Surrogate: 4-Bromofluorobenzene	0.108		"	0.120		90.4	80-120			

**LCS (PIG1404-BS1)**

Prepared: 07/14/21 Analyzed: 07/15/21

Benzene	0.113	0.00100	mg/kg wet	0.100		113	70-130			
Toluene	0.104	0.00100	"	0.100		104	70-130			
Ethylbenzene	0.108	0.00100	"	0.100		108	70-130			
Xylene (p/m)	0.189	0.00200	"	0.200		94.6	70-130			
Xylene (o)	0.0988	0.00100	"	0.100		98.8	70-130			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.3	80-120			
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		89.0	80-120			

**LCS Dup (PIG1404-BSD1)**

Prepared: 07/14/21 Analyzed: 07/15/21

Benzene	0.113	0.00100	mg/kg wet	0.100		113	70-130	0.708	20	
Toluene	0.103	0.00100	"	0.100		103	70-130	1.09	20	
Ethylbenzene	0.107	0.00100	"	0.100		107	70-130	0.871	20	
Xylene (p/m)	0.188	0.00200	"	0.200		93.8	70-130	0.849	20	
Xylene (o)	0.0982	0.00100	"	0.100		98.2	70-130	0.569	20	
Surrogate: 1,4-Difluorobenzene	0.119		"	0.120		98.8	80-120			
Surrogate: 4-Bromofluorobenzene	0.106		"	0.120		88.0	80-120			

**Calibration Check (PIG1404-CCV2)**

Prepared: 07/14/21 Analyzed: 07/15/21

Benzene	0.113	0.00100	mg/kg wet	0.100		113	80-120			
Toluene	0.103	0.00100	"	0.100		103	80-120			
Ethylbenzene	0.101	0.00100	"	0.100		101	80-120			
Xylene (p/m)	0.182	0.00200	"	0.200		91.0	80-120			
Xylene (o)	0.0976	0.00100	"	0.100		97.6	80-120			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.4	75-125			
Surrogate: 4-Bromofluorobenzene	0.105		"	0.120		87.4	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean	Project: COG Screwdriver 24 Fed Com 2H 06.19.21
12600 W County Rd 91	Project Number: PP-21152
Midland TX, 79707	Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G1404 - \*\*\* DEFAULT PREP \*\*\*****Calibration Check (P1G1404-CCV3)**

Prepared: 07/14/21 Analyzed: 07/15/21

Benzene	0.116	0.00100	mg/kg wet	0.100		116	80-120			
Toluene	0.103	0.00100	"	0.100		103	80-120			
Ethylbenzene	0.102	0.00100	"	0.100		102	80-120			
Xylene (p/m)	0.180	0.00200	"	0.200		89.9	80-120			
Xylene (o)	0.0974	0.00100	"	0.100		97.4	80-120			
Surrogate: 4-Bromofluorobenzene	0.108		"	0.120		89.8	75-125			
Surrogate: 1,4-Difluorobenzene	0.119		"	0.120		99.4	75-125			

**Matrix Spike (P1G1404-MS1)**

Source: 1G13006-11

Prepared: 07/14/21 Analyzed: 07/15/21

Benzene	0.100	0.00105	mg/kg dry	0.105	ND	95.0	80-120			
Toluene	0.0850	0.00105	"	0.105	ND	80.7	80-120			
Ethylbenzene	0.0767	0.00105	"	0.105	ND	72.9	80-120			QM-05
Xylene (p/m)	0.135	0.00211	"	0.211	ND	64.1	80-120			QM-05
Xylene (o)	0.0759	0.00105	"	0.105	ND	72.1	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	0.124		"	0.126		98.3	80-120			
Surrogate: 4-Bromofluorobenzene	0.112		"	0.126		88.8	80-120			

**Matrix Spike Dup (P1G1404-MSD1)**

Source: 1G13006-11

Prepared: 07/14/21 Analyzed: 07/15/21

Benzene	0.0986	0.00105	mg/kg dry	0.105	ND	93.6	80-120	1.43	20	
Toluene	0.0781	0.00105	"	0.105	ND	74.2	80-120	8.39	20	QM-05
Ethylbenzene	0.0669	0.00105	"	0.105	ND	63.5	80-120	13.7	20	QM-05
Xylene (p/m)	0.117	0.00211	"	0.211	ND	55.7	80-120	14.0	20	QM-05
Xylene (o)	0.0685	0.00105	"	0.105	ND	65.0	80-120	10.3	20	QM-05
Surrogate: 1,4-Difluorobenzene	0.126		"	0.126		99.8	80-120			
Surrogate: 4-Bromofluorobenzene	0.115		"	0.126		90.8	80-120			

**Batch P1G1511 - \*\*\* DEFAULT PREP \*\*\*****Blank (P1G1511-BLK1)**

Prepared &amp; Analyzed: 07/15/21

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.123		"	0.120		102	80-120			
Surrogate: 4-Bromofluorobenzene	0.104		"	0.120		86.7	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch PIG1511 - \*\*\* DEFAULT PREP \*\*\***

**LCS (PIG1511-BS1)**

Prepared & Analyzed: 07/15/21

Benzene	0.118	0.00100	mg/kg wet	0.100		118	70-130			
Toluene	0.113	0.00100	"	0.100		113	70-130			
Ethylbenzene	0.116	0.00100	"	0.100		116	70-130			
Xylene (p/m)	0.203	0.00200	"	0.200		102	70-130			
Xylene (o)	0.106	0.00100	"	0.100		106	70-130			
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.9	80-120			
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		89.4	80-120			

**LCS Dup (PIG1511-BS1)**

Prepared & Analyzed: 07/15/21

Benzene	0.112	0.00100	mg/kg wet	0.100		112	70-130	4.87	20	
Toluene	0.103	0.00100	"	0.100		103	70-130	9.28	20	
Ethylbenzene	0.104	0.00100	"	0.100		104	70-130	10.4	20	
Xylene (p/m)	0.185	0.00200	"	0.200		92.4	70-130	9.56	20	
Xylene (o)	0.0959	0.00100	"	0.100		95.9	70-130	9.58	20	
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		89.5	80-120			
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.7	80-120			

**Calibration Blank (PIG1511-CCB1)**

Prepared & Analyzed: 07/15/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.124		"	0.120		103	80-120			
Surrogate: 4-Bromofluorobenzene	0.106		"	0.120		88.8	80-120			

**Calibration Blank (PIG1511-CCB2)**

Prepared: 07/15/21 Analyzed: 07/16/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.125		"	0.120		104	80-120			
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		90.5	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch PIG1511 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Blank (PIG1511-CCB3)**

Prepared: 07/15/21 Analyzed: 07/16/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.126		"	0.120		105	80-120			
Surrogate: 4-Bromofluorobenzene	0.111		"	0.120		92.5	80-120			

**Calibration Check (PIG1511-CCV1)**

Prepared & Analyzed: 07/15/21

Benzene	0.120	0.00100	mg/kg wet	0.100		120	80-120			
Toluene	0.111	0.00100	"	0.100		111	80-120			
Ethylbenzene	0.111	0.00100	"	0.100		111	80-120			
Xylene (p/m)	0.194	0.00200	"	0.200		97.1	80-120			
Xylene (o)	0.104	0.00100	"	0.100		104	80-120			
Surrogate: 4-Bromofluorobenzene	0.108		"	0.120		89.7	75-125			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.9	75-125			

**Calibration Check (PIG1511-CCV2)**

Prepared: 07/15/21 Analyzed: 07/16/21

Benzene	0.118	0.00100	mg/kg wet	0.100		118	80-120			
Toluene	0.107	0.00100	"	0.100		107	80-120			
Ethylbenzene	0.106	0.00100	"	0.100		106	80-120			
Xylene (p/m)	0.189	0.00200	"	0.200		94.5	80-120			
Xylene (o)	0.101	0.00100	"	0.100		101	80-120			
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		88.8	75-125			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.6	75-125			

**Calibration Check (PIG1511-CCV3)**

Prepared: 07/15/21 Analyzed: 07/16/21

Benzene	0.107	0.00100	mg/kg wet	0.100		107	80-120			
Toluene	0.0978	0.00100	"	0.100		97.8	80-120			
Ethylbenzene	0.0961	0.00100	"	0.100		96.1	80-120			
Xylene (p/m)	0.172	0.00200	"	0.200		86.2	80-120			
Xylene (o)	0.0928	0.00100	"	0.100		92.8	80-120			
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.9	75-125			
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		89.0	75-125			

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G1511 - \*\*\* DEFAULT PREP \*\*\***

**Matrix Spike (P1G1511-MS1)**

Source: 1G13006-12

Prepared: 07/15/21 Analyzed: 07/16/21

Benzene	0.0938	0.00102	mg/kg dry	0.102	0.102	NR	80-120			QM-07
Toluene	0.0733	0.00102	"	0.102	0.00156	70.3	80-120			QM-07
Ethylbenzene	0.0635	0.00102	"	0.102	0.000602	61.7	80-120			QM-07
Xylene (p/m)	0.110	0.00204	"	0.204	0.00345	52.4	80-120			QM-07
Xylene (o)	0.0590	0.00102	"	0.102	0.00273	55.1	80-120			QM-07
Surrogate: 1,4-Difluorobenzene	0.125		"	0.122		102	80-120			
Surrogate: 4-Bromofluorobenzene	0.121		"	0.122		98.6	80-120			

**Matrix Spike Dup (P1G1511-MSD1)**

Source: 1G13006-12

Prepared: 07/15/21 Analyzed: 07/16/21

Benzene	0.0987	0.00102	mg/kg dry	0.102	0.102	NR	80-120	NR	20	QM-07
Toluene	0.0807	0.00102	"	0.102	0.00156	77.6	80-120	9.85	20	QM-07
Ethylbenzene	0.0727	0.00102	"	0.102	0.000602	70.7	80-120	13.7	20	QM-07
Xylene (p/m)	0.128	0.00204	"	0.204	0.00345	60.9	80-120	15.1	20	QM-07
Xylene (o)	0.0682	0.00102	"	0.102	0.00273	64.2	80-120	15.2	20	QM-07
Surrogate: 1,4-Difluorobenzene	0.124		"	0.122		101	80-120			
Surrogate: 4-Bromofluorobenzene	0.119		"	0.122		96.9	80-120			

**Batch P1G1609 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P1G1609-BLK1)**

Prepared & Analyzed: 07/16/21

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		90.8	80-120			
Surrogate: 1,4-Difluorobenzene	0.125		"	0.120		104	80-120			

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G1609 - \*\*\* DEFAULT PREP \*\*\***

**LCS (P1G1609-BS1)**

Prepared & Analyzed: 07/16/21

Benzene	0.119	0.00100	mg/kg wet	0.100		119	70-130			
Toluene	0.111	0.00100	"	0.100		111	70-130			
Ethylbenzene	0.111	0.00100	"	0.100		111	70-130			
Xylene (p/m)	0.196	0.00200	"	0.200		98.0	70-130			
Xylene (o)	0.104	0.00100	"	0.100		104	70-130			
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		89.4	80-120			
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.9	80-120			

**LCS Dup (P1G1609-BSD1)**

Prepared & Analyzed: 07/16/21

Benzene	0.120	0.00100	mg/kg wet	0.100		120	70-130	0.452	20	
Toluene	0.114	0.00100	"	0.100		114	70-130	2.82	20	
Ethylbenzene	0.115	0.00100	"	0.100		115	70-130	3.47	20	
Xylene (p/m)	0.202	0.00200	"	0.200		101	70-130	3.19	20	
Xylene (o)	0.107	0.00100	"	0.100		107	70-130	2.60	20	
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		89.5	80-120			
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.6	80-120			

**Calibration Blank (P1G1609-CCB1)**

Prepared & Analyzed: 07/16/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.125		"	0.120		104	80-120			
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		89.4	80-120			

**Calibration Blank (P1G1609-CCB2)**

Prepared & Analyzed: 07/16/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.113		"	0.120		94.2	80-120			
Surrogate: 1,4-Difluorobenzene	0.126		"	0.120		105	80-120			

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
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Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G1609 - \*\*\* DEFAULT PREP \*\*\***

<b>Calibration Check (P1G1609-CCV1)</b>			Prepared & Analyzed: 07/16/21							
Benzene	0.119	0.00100	mg/kg wet	0.100		119	80-120			
Toluene	0.112	0.00100	"	0.100		112	80-120			
Ethylbenzene	0.113	0.00100	"	0.100		113	80-120			
Xylene (p/m)	0.196	0.00200	"	0.200		98.2	80-120			
Xylene (o)	0.107	0.00100	"	0.100		107	80-120			
Surrogate: 4-Bromofluorobenzene	0.105		"	0.120		87.3	75-125			
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		95.3	75-125			

<b>Calibration Check (P1G1609-CCV2)</b>			Prepared & Analyzed: 07/16/21							
Benzene	0.118	0.00100	mg/kg wet	0.100		118	80-120			
Toluene	0.106	0.00100	"	0.100		106	80-120			
Ethylbenzene	0.106	0.00100	"	0.100		106	80-120			
Xylene (p/m)	0.185	0.00200	"	0.200		92.6	80-120			
Xylene (o)	0.102	0.00100	"	0.100		102	80-120			
Surrogate: 4-Bromofluorobenzene	0.106		"	0.120		88.6	75-125			
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.3	75-125			

<b>Calibration Check (P1G1609-CCV3)</b>			Prepared: 07/16/21 Analyzed: 07/17/21							
Benzene	0.119	0.00100	mg/kg wet	0.100		119	80-120			
Toluene	0.111	0.00100	"	0.100		111	80-120			
Ethylbenzene	0.109	0.00100	"	0.100		109	80-120			
Xylene (p/m)	0.192	0.00200	"	0.200		96.0	80-120			
Xylene (o)	0.105	0.00100	"	0.100		105	80-120			
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		89.6	75-125			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.9	75-125			

<b>Matrix Spike (P1G1609-MS1)</b>			Source: 1G13006-32		Prepared: 07/16/21 Analyzed: 07/17/21					
Benzene	0.0932	0.00102	mg/kg dry	0.102	ND	91.3	80-120			
Toluene	0.0788	0.00102	"	0.102	0.0154	62.1	80-120			QM-07
Ethylbenzene	0.0787	0.00102	"	0.102	0.0263	51.4	80-120			QM-07
Xylene (p/m)	0.136	0.00204	"	0.204	0.0293	52.3	80-120			QM-07
Xylene (o)	0.0719	0.00102	"	0.102	0.00984	60.8	80-120			QM-07
Surrogate: 4-Bromofluorobenzene	0.116		"	0.122		94.5	80-120			
Surrogate: 1,4-Difluorobenzene	0.124		"	0.122		102	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G1609 - \*\*\* DEFAULT PREP \*\*\***

<b>Matrix Spike Dup (P1G1609-MSD1)</b>	<b>Source: 1G13006-32</b>			<b>Prepared: 07/16/21 Analyzed: 07/17/21</b>						
Benzene	0.0923	0.00102	mg/kg dry	0.102	ND	90.5	80-120	0.880	20	
Toluene	0.0794	0.00102	"	0.102	0.0154	62.7	80-120	0.994	20	QM-07
Ethylbenzene	0.0806	0.00102	"	0.102	0.0263	53.3	80-120	3.63	20	QM-07
Xylene (p/m)	0.140	0.00204	"	0.204	0.0293	54.1	80-120	3.39	20	QM-07
Xylene (o)	0.0741	0.00102	"	0.102	0.00984	63.0	80-120	3.49	20	QM-07
Surrogate: 1,4-Difluorobenzene	0.120		"	0.122		97.6	80-120			
Surrogate: 4-Bromofluorobenzene	0.111		"	0.122		90.9	80-120			

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Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G1602 - *** DEFAULT PREP ***</b>										
<b>Blank (P1G1602-BLK1)</b> Prepared & Analyzed: 07/16/21										
% Moisture	ND	0.1	%							
<b>Blank (P1G1602-BLK2)</b> Prepared & Analyzed: 07/16/21										
% Moisture	ND	0.1	%							
<b>Blank (P1G1602-BLK3)</b> Prepared & Analyzed: 07/16/21										
% Moisture	ND	0.1	%							
<b>Blank (P1G1602-BLK4)</b> Prepared & Analyzed: 07/16/21										
% Moisture	ND	0.1	%							
<b>Blank (P1G1602-BLK5)</b> Prepared & Analyzed: 07/16/21										
% Moisture	ND	0.1	%							
<b>Blank (P1G1602-BLK6)</b> Prepared & Analyzed: 07/16/21										
% Moisture	ND	0.1	%							
<b>Blank (P1G1602-BLK7)</b> Prepared & Analyzed: 07/16/21										
% Moisture	ND	0.1	%							
<b>Duplicate (P1G1602-DUP1)</b> Source: 1G14005-10 Prepared & Analyzed: 07/16/21										
% Moisture	14.0	0.1	%		14.0			0.00	20	
<b>Duplicate (P1G1602-DUP2)</b> Source: 1G14005-20 Prepared & Analyzed: 07/16/21										
% Moisture	4.0	0.1	%		4.0			0.00	20	
<b>Duplicate (P1G1602-DUP3)</b> Source: 1G13006-03 Prepared & Analyzed: 07/16/21										
% Moisture	6.0	0.1	%		5.0			18.2	20	

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**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G1602 - *** DEFAULT PREP ***</b>										
<b>Duplicate (P1G1602-DUP4)</b>	<b>Source: 1G13006-13</b>		<b>Prepared &amp; Analyzed: 07/16/21</b>							
% Moisture	18.0	0.1	%		21.0			15.4	20	
<b>Duplicate (P1G1602-DUP5)</b>	<b>Source: 1G13006-28</b>		<b>Prepared &amp; Analyzed: 07/16/21</b>							
% Moisture	2.0	0.1	%		1.0			66.7	20	R3
<b>Duplicate (P1G1602-DUP6)</b>	<b>Source: 1G13006-38</b>		<b>Prepared &amp; Analyzed: 07/16/21</b>							
% Moisture	2.0	0.1	%		2.0			0.00	20	
<b>Duplicate (P1G1602-DUP7)</b>	<b>Source: 1G13009-06</b>		<b>Prepared &amp; Analyzed: 07/16/21</b>							
% Moisture	13.0	0.1	%		13.0			0.00	20	
<b>Duplicate (P1G1602-DUP8)</b>	<b>Source: 1G14003-08</b>		<b>Prepared &amp; Analyzed: 07/16/21</b>							
% Moisture	12.0	0.1	%		12.0			0.00	20	
<b>Duplicate (P1G1602-DUP9)</b>	<b>Source: 1G14003-23</b>		<b>Prepared &amp; Analyzed: 07/16/21</b>							
% Moisture	14.0	0.1	%		13.0			7.41	20	
<b>Duplicate (P1G1602-DUPA)</b>	<b>Source: 1G14003-33</b>		<b>Prepared &amp; Analyzed: 07/16/21</b>							
% Moisture	10.0	0.1	%		9.0			10.5	20	
<b>Duplicate (P1G1602-DUPB)</b>	<b>Source: 1G14006-14</b>		<b>Prepared &amp; Analyzed: 07/16/21</b>							
% Moisture	3.0	0.1	%		3.0			0.00	20	
<b>Duplicate (P1G1602-DUPC)</b>	<b>Source: 1G14006-24</b>		<b>Prepared &amp; Analyzed: 07/16/21</b>							
% Moisture	ND	0.1	%		ND				20	
<b>Duplicate (P1G1602-DUPD)</b>	<b>Source: 1G15008-01</b>		<b>Prepared &amp; Analyzed: 07/16/21</b>							
% Moisture	3.0	0.1	%		4.0			28.6	20	

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Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G1602 - *** DEFAULT PREP ***</b>										
<b>Duplicate (P1G1602-DUPE)</b>		<b>Source: 1G15009-09</b>			<b>Prepared &amp; Analyzed: 07/16/21</b>					
% Moisture	6.0	0.1	%		7.0			15.4	20	
<b>Batch P1G2013 - *** DEFAULT PREP ***</b>										
<b>Blank (P1G2013-BLK1)</b>		<b>Prepared &amp; Analyzed: 07/20/21</b>								
Chloride	ND	1.00	mg/kg wet							
<b>LCS (P1G2013-BS1)</b>		<b>Prepared &amp; Analyzed: 07/20/21</b>								
Chloride	422	1.00	mg/kg wet	400		105	90-110			
<b>LCS Dup (P1G2013-BSD1)</b>		<b>Prepared &amp; Analyzed: 07/20/21</b>								
Chloride	422	1.00	mg/kg wet	400		105	90-110	0.00948	20	
<b>Calibration Check (P1G2013-CCV1)</b>		<b>Prepared &amp; Analyzed: 07/20/21</b>								
Chloride	20.8		mg/kg	20.0		104	90-110			
<b>Calibration Check (P1G2013-CCV2)</b>		<b>Prepared &amp; Analyzed: 07/20/21</b>								
Chloride	20.9		mg/kg	20.0		104	90-110			
<b>Calibration Check (P1G2013-CCV3)</b>		<b>Prepared: 07/20/21 Analyzed: 07/21/21</b>								
Chloride	20.9		mg/kg	20.0		105	90-110			
<b>Matrix Spike (P1G2013-MS1)</b>		<b>Source: 1G20009-01</b>			<b>Prepared &amp; Analyzed: 07/20/21</b>					
Chloride	49600	104	mg/kg dry	10400	40100	91.1	80-120			
<b>Matrix Spike (P1G2013-MS2)</b>		<b>Source: 1G13006-01</b>			<b>Prepared &amp; Analyzed: 07/20/21</b>					
Chloride	534	1.05	mg/kg dry	526	72.3	87.7	80-120			

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**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G2013 - *** DEFAULT PREP ***</b>										
<b>Matrix Spike Dup (P1G2013-MSD1)</b>		<b>Source: 1G2009-01</b>			Prepared & Analyzed: 07/20/21					
Chloride	51900	104	mg/kg dry	10400	40100	114	80-120	4.62	20	
<b>Matrix Spike Dup (P1G2013-MSD2)</b>		<b>Source: 1G13006-01</b>			Prepared & Analyzed: 07/20/21					
Chloride	554	1.05	mg/kg dry	526	72.3	91.6	80-120	3.78	20	
<b>Batch P1G2103 - *** DEFAULT PREP ***</b>										
<b>Blank (P1G2103-BLK1)</b>					Prepared & Analyzed: 07/21/21					
Chloride	ND	1.00	mg/kg wet							
<b>LCS (P1G2103-BS1)</b>					Prepared & Analyzed: 07/21/21					
Chloride	413	1.00	mg/kg wet	400		103	90-110			
<b>LCS Dup (P1G2103-BSD1)</b>					Prepared & Analyzed: 07/21/21					
Chloride	414	1.00	mg/kg wet	400		103	90-110	0.121	20	
<b>Calibration Check (P1G2103-CCV1)</b>					Prepared & Analyzed: 07/21/21					
Chloride	20.6		mg/kg	20.0		103	90-110			
<b>Calibration Check (P1G2103-CCV2)</b>					Prepared & Analyzed: 07/21/21					
Chloride	20.5		mg/kg	20.0		102	90-110			
<b>Calibration Check (P1G2103-CCV3)</b>					Prepared & Analyzed: 07/21/21					
Chloride	20.4		mg/kg	20.0		102	90-110			
<b>Matrix Spike (P1G2103-MS1)</b>		<b>Source: 1G21003-01</b>			Prepared: 07/21/21 Analyzed: 07/22/21					
Chloride	10200	28.7	mg/kg dry	2870	6910	116	80-120			

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**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G2103 - *** DEFAULT PREP ***</b>										
<b>Matrix Spike (P1G2103-MS2)</b>		<b>Source: 1G13006-37</b>			<b>Prepared &amp; Analyzed: 07/21/21</b>					
Chloride	2220	5.05	mg/kg dry	505	1660	110	80-120			
<b>Matrix Spike Dup (P1G2103-MSD1)</b>		<b>Source: 1G21003-01</b>			<b>Prepared: 07/21/21 Analyzed: 07/22/21</b>					
Chloride	10300	28.7	mg/kg dry	2870	6910	117	80-120	0.275	20	
<b>Matrix Spike Dup (P1G2103-MSD2)</b>		<b>Source: 1G13006-37</b>			<b>Prepared &amp; Analyzed: 07/21/21</b>					
Chloride	2230	5.05	mg/kg dry	505	1660	112	80-120	0.377	20	
<b>Batch P1G2108 - *** DEFAULT PREP ***</b>										
<b>Blank (P1G2108-BLK1)</b>					<b>Prepared &amp; Analyzed: 07/21/21</b>					
Chloride	ND	1.00	mg/kg wet							
<b>LCS (P1G2108-BS1)</b>					<b>Prepared &amp; Analyzed: 07/21/21</b>					
Chloride	388	1.00	mg/kg wet	400		97.0	90-110			
<b>LCS Dup (P1G2108-BSD1)</b>					<b>Prepared &amp; Analyzed: 07/21/21</b>					
Chloride	395	1.00	mg/kg wet	400		98.7	90-110	1.75	20	
<b>Calibration Blank (P1G2108-CCB1)</b>					<b>Prepared &amp; Analyzed: 07/21/21</b>					
Chloride	0.00300		mg/kg wet							
<b>Calibration Blank (P1G2108-CCB2)</b>					<b>Prepared &amp; Analyzed: 07/21/21</b>					
Chloride	-0.00500		mg/kg wet							
<b>Calibration Check (P1G2108-CCV1)</b>					<b>Prepared &amp; Analyzed: 07/21/21</b>					
Chloride	18.3		mg/kg	20.0		91.4	90-110			

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**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G2108 - *** DEFAULT PREP ***</b>										
<b>Calibration Check (P1G2108-CCV2)</b>				Prepared & Analyzed: 07/21/21						
Chloride	18.3		mg/kg	20.0		91.5	90-110			
<b>Calibration Check (P1G2108-CCV3)</b>				Prepared & Analyzed: 07/21/21						
Chloride	18.8		mg/kg	20.0		93.8	90-110			
<b>Matrix Spike (P1G2108-MS1)</b>				<b>Source: 1G13006-11</b>		Prepared & Analyzed: 07/21/21				
Chloride	1050	5.26	mg/kg dry	1050	547	47.8	80-120			QM-05
<b>Matrix Spike (P1G2108-MS2)</b>				<b>Source: 1G13006-21</b>		Prepared & Analyzed: 07/21/21				
Chloride	677	1.03	mg/kg dry	515	91.3	114	80-120			
<b>Matrix Spike Dup (P1G2108-MSD1)</b>				<b>Source: 1G13006-11</b>		Prepared & Analyzed: 07/21/21				
Chloride	1070	5.26	mg/kg dry	1050	547	49.8	80-120	2.03	20	QM-05
<b>Matrix Spike Dup (P1G2108-MSD2)</b>				<b>Source: 1G13006-21</b>		Prepared & Analyzed: 07/21/21				
Chloride	540	1.03	mg/kg dry	515	91.3	87.0	80-120	22.6	20	QM-05

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G1506 - TX 1005**

**Blank (P1G1506-BLK1)**

Prepared: 07/15/21 Analyzed: 07/17/21

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	105		"	100		105	70-130			
Surrogate: o-Terphenyl	51.0		"	50.0		102	70-130			

**LCS (P1G1506-BS1)**

Prepared: 07/15/21 Analyzed: 07/17/21

C6-C12	1140	25.0	mg/kg wet	1000		114	75-125			
>C12-C28	1040	25.0	"	1000		104	75-125			
Surrogate: 1-Chlorooctane	112		"	100		112	70-130			
Surrogate: o-Terphenyl	59.6		"	50.0		119	70-130			

**LCS Dup (P1G1506-BSD1)**

Prepared: 07/15/21 Analyzed: 07/17/21

C6-C12	1130	25.0	mg/kg wet	1000		113	75-125	1.56	20	
>C12-C28	1050	25.0	"	1000		105	75-125	0.990	20	
Surrogate: 1-Chlorooctane	107		"	100		107	70-130			
Surrogate: o-Terphenyl	52.6		"	50.0		105	70-130			

**Calibration Check (P1G1506-CCV1)**

Prepared: 07/15/21 Analyzed: 07/17/21

C6-C12	529	25.0	mg/kg wet	500		106	85-115			
>C12-C28	569	25.0	"	500		114	85-115			
Surrogate: 1-Chlorooctane	122		"	100		122	70-130			
Surrogate: o-Terphenyl	49.5		"	50.0		99.0	70-130			

**Calibration Check (P1G1506-CCV2)**

Prepared: 07/15/21 Analyzed: 07/17/21

C6-C12	521	25.0	mg/kg wet	500		104	85-115			
>C12-C28	570	25.0	"	500		114	85-115			
Surrogate: 1-Chlorooctane	121		"	100		121	70-130			
Surrogate: o-Terphenyl	50.2		"	50.0		100	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G1506 - TX 1005**

**Calibration Check (P1G1506-CCV3)**

Prepared: 07/15/21 Analyzed: 07/17/21

C6-C12	513	25.0	mg/kg wet	500		103	85-115			
>C12-C28	553	25.0	"	500		111	85-115			
Surrogate: 1-Chlorooctane	118		"	100		118	70-130			
Surrogate: o-Terphenyl	48.5		"	50.0		96.9	70-130			

**Matrix Spike (P1G1506-MS1)**

Source: 1G13003-15

Prepared: 07/15/21 Analyzed: 07/17/21

C6-C12	1250	28.4	mg/kg dry	1140	21.6	108	75-125			
>C12-C28	1320	28.4	"	1140	25.3	114	75-125			
Surrogate: 1-Chlorooctane	113		"	114		99.8	70-130			
Surrogate: o-Terphenyl	60.2		"	56.8		106	70-130			

**Matrix Spike Dup (P1G1506-MSD1)**

Source: 1G13003-15

Prepared: 07/15/21 Analyzed: 07/17/21

C6-C12	1230	28.4	mg/kg dry	1140	21.6	106	75-125	1.62	20	
>C12-C28	1310	28.4	"	1140	25.3	113	75-125	0.586	20	
Surrogate: 1-Chlorooctane	112		"	114		98.6	70-130			
Surrogate: o-Terphenyl	58.4		"	56.8		103	70-130			

**Batch P1G1507 - TX 1005**

**Blank (P1G1507-BLK1)**

Prepared: 07/15/21 Analyzed: 07/17/21

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	99.9		"	100		99.9	70-130			
Surrogate: o-Terphenyl	49.1		"	50.0		98.2	70-130			

**LCS (P1G1507-BS1)**

Prepared: 07/15/21 Analyzed: 07/17/21

C6-C12	1150	25.0	mg/kg wet	1000		115	75-125			
>C12-C28	1040	25.0	"	1000		104	75-125			
Surrogate: 1-Chlorooctane	112		"	100		112	70-130			
Surrogate: o-Terphenyl	57.8		"	50.0		116	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G1507 - TX 1005**

**LCS Dup (P1G1507-BSD1)**

Prepared: 07/15/21 Analyzed: 07/17/21

C6-C12	1090	25.0	mg/kg wet	1000		109	75-125	5.70	20	
>C12-C28	985	25.0	"	1000		98.5	75-125	5.87	20	
Surrogate: 1-Chlorooctane	101		"	100		101	70-130			
Surrogate: o-Terphenyl	48.3		"	50.0		96.7	70-130			

**Calibration Check (P1G1507-CCV1)**

Prepared: 07/15/21 Analyzed: 07/17/21

C6-C12	517	25.0	mg/kg wet	500		103	85-115			
>C12-C28	554	25.0	"	500		111	85-115			
Surrogate: 1-Chlorooctane	118		"	100		118	70-130			
Surrogate: o-Terphenyl	49.7		"	50.0		99.3	70-130			

**Calibration Check (P1G1507-CCV2)**

Prepared: 07/15/21 Analyzed: 07/18/21

C6-C12	535	25.0	mg/kg wet	500		107	85-115			
>C12-C28	556	25.0	"	500		111	85-115			
Surrogate: 1-Chlorooctane	121		"	100		121	70-130			
Surrogate: o-Terphenyl	49.9		"	50.0		99.7	70-130			

**Matrix Spike (P1G1507-MS1)**

Source: 1G13006-24

Prepared: 07/15/21 Analyzed: 07/18/21

C6-C12	1170	25.5	mg/kg dry	1020	16.4	113	75-125			
>C12-C28	1250	25.5	"	1020	105	112	75-125			
Surrogate: 1-Chlorooctane	107		"	102		105	70-130			
Surrogate: o-Terphenyl	57.0		"	51.0		112	70-130			

**Matrix Spike Dup (P1G1507-MSD1)**

Source: 1G13006-24

Prepared: 07/15/21 Analyzed: 07/18/21

C6-C12	1170	25.5	mg/kg dry	1020	16.4	113	75-125	0.0538	20	
>C12-C28	1250	25.5	"	1020	105	112	75-125	0.186	20	
Surrogate: 1-Chlorooctane	106		"	102		104	70-130			
Surrogate: o-Terphenyl	57.3		"	51.0		112	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G1508 - TX 1005**

**Blank (P1G1508-BLK1)**

Prepared: 07/15/21 Analyzed: 07/18/21

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	105		"	100		105	70-130			
Surrogate: o-Terphenyl	52.9		"	50.0		106	70-130			

**LCS (P1G1508-BS1)**

Prepared: 07/15/21 Analyzed: 07/18/21

C6-C12	1110	25.0	mg/kg wet	1000		111	75-125			
>C12-C28	995	25.0	"	1000		99.5	75-125			
Surrogate: 1-Chlorooctane	111		"	100		111	70-130			
Surrogate: o-Terphenyl	58.1		"	50.0		116	70-130			

**LCS Dup (P1G1508-BSD1)**

Prepared: 07/15/21 Analyzed: 07/18/21

C6-C12	1110	25.0	mg/kg wet	1000		111	75-125	0.339	20	
>C12-C28	1010	25.0	"	1000		101	75-125	1.76	20	
Surrogate: 1-Chlorooctane	112		"	100		112	70-130			
Surrogate: o-Terphenyl	54.3		"	50.0		109	70-130			

**Calibration Check (P1G1508-CCV1)**

Prepared: 07/15/21 Analyzed: 07/18/21

C6-C12	565	25.0	mg/kg wet	500		113	85-115			
>C12-C28	566	25.0	"	500		113	85-115			
Surrogate: 1-Chlorooctane	109		"	100		109	70-130			
Surrogate: o-Terphenyl	54.7		"	50.0		109	70-130			

**Calibration Check (P1G1508-CCV2)**

Prepared: 07/15/21 Analyzed: 07/18/21

C6-C12	558	25.0	mg/kg wet	500		112	85-115			
>C12-C28	556	25.0	"	500		111	85-115			
Surrogate: 1-Chlorooctane	108		"	100		108	70-130			
Surrogate: o-Terphenyl	54.9		"	50.0		110	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G1508 - TX 1005**

**Matrix Spike (P1G1508-MS1)**

Source: 1G13006-42

Prepared: 07/15/21 Analyzed: 07/18/21

C6-C12	1160	26.0	mg/kg dry	1040	12.5	110	75-125			
>C12-C28	1230	26.0	"	1040	139	105	75-125			
Surrogate: 1-Chlorooctane	110		"	104		106	70-130			
Surrogate: o-Terphenyl	55.6		"	52.1		107	70-130			

**Matrix Spike Dup (P1G1508-MSD1)**

Source: 1G13006-42

Prepared: 07/15/21 Analyzed: 07/18/21

C6-C12	1160	26.0	mg/kg dry	1040	12.5	111	75-125	0.0723	20	
>C12-C28	1230	26.0	"	1040	139	104	75-125	0.301	20	
Surrogate: 1-Chlorooctane	109		"	104		105	70-130			
Surrogate: o-Terphenyl	57.8		"	52.1		111	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Notes and Definitions**

- ROI Received on Ice
- R3 The RPD exceeded the acceptance limit due to sample matrix effects.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- BULK Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- LCS Laboratory Control Spike
- MS Matrix Spike
- Dup Duplicate

Report Approved By: Brent Barron Date: 7/23/2021

Brent Barron, Laboratory Director/Technical Director

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP  
1400 Rankin Hwy  
Midland, Texas 79701

Project Manager: Jeff Kindley  
 Company Name: Dean  
 Company Address: 12800 WCR 91  
 City/State/Zip: Midland TX 79707  
 Telephone No: 432-230-0920  
 Fax No: 432-230-0920  
 Sampler Signature: *Jeff Kindley*  
 e-mail: jeffkindley@deandigs.com  
 stevecassanova@deandigs.com  
 kavianlangee@deandigs.com  
 elizabethstuart@deandigs.com

ORDER #: 1613006

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO <sub>3</sub> 250 ml Poly	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None 1L Poly	NaOH/ZnAc	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Matrix	TPH TX1005 EXT (TEXAS)	BTEX 8021 B	TCLP BENZENE	CHLORIDES	TCLP METALS	NORM	PAINT FILTER	TOX	RCI	pH	TPH 8015 M (NEW MEXICO)	7 Day TAT	24 hour TAT	
1	SS-1 @ Surface	Surf	Surf	07/12/21	941		1									Soil															
2	SS-2 @ Surface	Surf	Surf	07/12/21	945		1									Soil															
3	SS-3 @ Surface	Surf	Surf	07/12/21	948		1									Soil															
4	SS-4 @ Surface	Surf	Surf	07/12/21	954		1									Soil															
5	SS-5 @ Surface	Surf	Surf	07/12/21	958		1									Soil															
6	SS-6 @ Surface	Surf	Surf	07/12/21	1000		1									Soil															
7	SS-7 @ Surface	Surf	Surf	07/12/21	1009		1									Soil															
8	SS-8 @ Surface	Surf	Surf	07/12/21	1006		1									Soil															
9	SS-9 @ Surface	Surf	Surf	07/12/21	1010		1									Soil															
10	SS-10 @ Surface	Surf	Surf	07/12/21	1012		1									Soil															

Special Instructions:

Relinquished by: *Jeffrey Kindley* Date: *07/13/21* Time: *3:15pm*

Received by: *[Signature]* Date: *07/13/21* Time: *4:00pm*

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received by: *[Signature]* Date: *7/13/21* Time: *1:00*

Temperature Upon Receipt: *45.5* °C  
 Adjusted: *5.5* °C Factor

Laboratory Comments:  
 Sample Containers Intact?   
 VOCs Free of HeadSpace?   
 Labels on container(s)   
 Custody seals on container(s)   
 Sample Hand Delivered   
 by Courier?   
 by Sampler/Client Rep. ?   
 UPS  DHL  FedEx  Lone Star

LPD CR W



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Perrin Basin Environmental Lab, LP  
1400 Rankin Hwy  
Midland, Texas 79701

Phone: 432-686-7235

PG. 2 of 5

Project Manager: Jeff Kindley  
Company Name: Dean  
Company Address: 12600 WCR 91  
City/State/Zip: Midland TX 79707  
Telephone No: 432-230-0920  
FAX No:  
Sampler Signature: *Jeff Kindley*  
e-mail: jeffkindley@deandigs.com  
stevecasanova@deandigs.com  
kavlanlongee@deandigs.com  
elizabethhart@deandigs.com

Project Name: Perrin COG Sewerline  
Project #: PP-21152  
Project Loc: Edley & NM  
WORK ORDER #: 2021-053  
Report Format:  Standard  TRRP  NPDES  
alroves@dealp.com

(lab use only)  
ORDER #: 1G13006

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO <sub>3</sub> 250 ml Poly	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None 1L Poly	NaOH/ZnAc	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Matrix	Analyze For:	7 Day TAT	24 hour TAT
11	SS-11 @ Surface	Surf	Surf	07/12/21	1014	1	1									Soil		TPH TX1005 EXT (TEXAS)		
12	SS-12 @ Surface	Surf	Surf	07/12/21	1022	1	1									Soil		BTEX 8021 B		
13	SS-13 @ Surface	Surf	Surf	07/12/21	1029	1	1									Soil		TCLP BENZENE		
14	SS-14 @ Surface	Surf	Surf	07/12/21	1032	1	1									Soil		CHLORIDES		
15	SS-15 @ Surface	Surf	Surf	07/12/21	1034	1	2									Soil		TCLP METALS		
16	SS-16 @ Surface	Surf	Surf	07/12/21	1035	1	1									Soil		NORM		
17	SS-17 @ Surface	Surf	Surf	07/12/21	1038	1	1									Soil		PAINT FILTER		
18	SS-18 @ Surface	Surf	Surf	07/12/21	1040	1	1									Soil		TOX		
19	SS-19 @ Surface	Surf	Surf	07/12/21	1043	1	1									Soil		RCI		
20	SS-20 @ Surface	Surf	Surf	07/12/21	1045	1	1									Soil		pH		
																		TPH 8015 M (NEW MEXICO)		

Special Instructions:

Relinquished by: Jeff Kindley Date: 07/13/21 Time: 3:19 PM  
 Received by: *[Signature]* Date: 07/13/21 Time: 4:00 PM  
 Relinquished by: Jeff Kindley Date: 07/13/21 Time: 3:19 PM  
 Received by: *[Signature]* Date: 07/13/21 Time: 4:00 PM  
 Relinquished by: Jeff Kindley Date: 07/13/21 Time: 3:19 PM  
 Received by: *[Signature]* Date: 07/13/21 Time: 4:00 PM

Received by: Debra Blodgett Date: 7/13/21 Time: 16:00

Temperature Upon Receipt: 4.5.1 °C  
 Adjusted: CH 12

VOC's Free of Headspace?   
 Sample Containers Intact?   
 Laboratory Comments: *[Signature]*

Labels on container(s)   
 Custody seals on container(s)   
 Sample Hand Delivered   
 by Sampler/Client Rep. ?   
 by Courier?   
 Temperature Upon Receipt: 4.5.1 °C  
 Adjusted: CH 12

UPS  DHL  FedEx  Lone Star



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Pemian Basin Environmental Lab, LP  
1400 Rankin Hwy  
Midland, Texas 79701

Phone: 432-686-7235

PG. 3 of 5

Project Manager: Jeff Kindley  
Company Name: Dean  
Company Address: 12600 WCR 91  
City/State/Zip: Midland TX 79707  
Telephone No: 432-230-0929  
Sampler Signature: *Jeff Kindley*

Fax No:  
e-mail: jeffkindley@deandias.com  
stevecasanova@deandias.com  
kaviamlongee@deanequip.com  
elizabethstuart@deandias.com

Report Format:  Standard  TRRP  NPDES  
algroves@dealb.com

Project Name: Pemian CO2 Sequestration  
Project #: PP-21152  
Project Loc: Edy & NM  
WORK ORDER #: 2021-653

ORDER #: 1G13006

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO <sub>3</sub> 250ml Poly	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None 1L Poly	NaOH/ZnAc	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Matrix	TPH TX1005 EXT (TEXAS)	BTEX 8021 B	TCLP BENZENE	CHLORIDES	TCLP METALS	NORM	PAINT FILTER	TOX	RCI	pH	TPH 8015 M (NEW MEXICO)	7 Day TAT	24 hour TAT			
21	SS-21 @ surface	Surf	Surf	07/12/21	1047	1	1	✓								Soil		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
22	SS-22 @ surface	Surf	Surf	07/12/21	1054	1	1	✓								Soil		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
23	SS-23 @ surface	Surf	Surf	07/12/21	1055	1	1	✓								Soil		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
24	SS-24 @ surface	Surf	Surf	07/12/21	1100	1	1	✓								Soil		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
25	SS-25 @ surface	Surf	Surf	07/12/21	1153	1	1	✓								Soil		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
26	SS-26 @ surface	Surf	Surf	07/12/21	1200	1	1	✓								Soil		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
27	SS-27 @ surface	Surf	Surf	07/12/21	1202	1	1	✓								Soil		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
28	SS-28 @ surface	Surf	Surf	07/12/21	1204	1	1	✓								Soil		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
29	SS-29 @ surface	Surf	Surf	07/12/21	1206	1	1	✓								Soil		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
30	SS-30 @ surface	Surf	Surf	07/12/21	1208	1	1	✓								Soil		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Laboratory Comments:  
VOCs Free of Headspace?  
Sample Containers Intact?  
Labels on container(s)?  
Custody seals on container(s)?  
Sample Hand Delivered by Sampler/Client Rep.?  
Temperature Upon Receipt: 45.1 °C  
Adjusted: 45.1 °C Factor: 0.972

Reinquired by: Jeffrey Kindley Date: 07.13.21 Time: 3:15PM Received by: [Signature] Date: 07.13.21 Time: 4:00PM

Reinquired by: [Signature] Date: 07.13.21 Time: 16:00 Received by: [Signature] Date: 07.13.21 Time: 16:00



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP  
1400 Rankin Hwy  
Midland, Texas 79701

Phone: 432-686-7235

Project Manager: Jeff Kindley

Company Name: Dean

Company Address: 12800 WCR 91

City/State/Zip: Midland TX 79707

Telephone No: 432-230-0920

Sampler Signature: *Jeff Kindley*

e-mail: jeffkindley@deandigs.com

Fax No: stevecasanova@deandigs.com

kavilamangee@deanequip.com

gizabettstuart@deandigs.com

Preservation & # of Containers

Matrix

Report Format:  Standard  TRRP  NPDES

algroves@dealp.com

Project Name: Plains CO2 Snowdrum

Project #: PP-21152

Project Loc: ELL Co NM

WORK ORDER #: 2021-053

ORDER #: 1G13006

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO <sub>3</sub> 250, ml Poly	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None 1L Poly	NaOH/ZnAc	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Dthe	TPH TX1005 EXT (TEXAS)	BTEX 8021 B	TCLP BENZENE	CHLORIDES	TCLP METALS	NORM	PAINT FILTER	TOX	RCI	pH	TPH 8015 M (NEW MEXICO)	7 Day TAT	24 hour TAT
31	SS-31 e Surface	Surf	Surf	07/12/21	1209		1									Soil													
32	SS-32 e Surface	Surf	Surf	07/12/21	1211		1									Soil													
33	SS-33 e Surface	Surf	Surf	07/12/21	1213		1									Soil													
34	SS-34 e Surface	Surf	Surf	07/12/21	1215		1									Soil													
35	SS-35 e Surface	Surf	Surf	07/12/21	1219		1									Soil													
36	SS-36 e Surface	Surf	Surf	07/12/21	1219		1									Soil													
37	SS-37 e Surface	Surf	Surf	07/12/21	1223		1									Soil													
38	SS-38 e Surface	Surf	Surf	07/12/21	1224		1									Soil													
39	SS-39 e Surface	Surf	Surf	07/12/21	1227		1									Soil													
40	SS-40 e Surface	Surf	Surf	07/12/21	1232		1									Soil													

Special Instructions:

Laboratory Comments:  
Sample Containers Intact?  
VOC's Free of Headspace?

Reinquished by:	Date	Time	Received by:	Date	Time
Jeffrey Kindley	07/13/21	3:15 PM	<i>[Signature]</i>	07/13/21	4:00 PM
			<i>[Signature]</i>	07/13/21	16:00

Labels on container(s)?  
Custody seals on container(s)?  
Sample Hand Delivered  
by Sampler/Client Rep.?  
by Courier?  
Temperature Upon Receipt:  
Received: *4.5* °C  
Adjusted: *0.1* °C Factor



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Pernian Basin Environmental Lab, LP  
1400 Rankin Hwy  
Midland, Texas 79701

Phone: 432-686-7235

PG. 5 of 5

Project Manager: Jeff Kindley  
Dean  
Company Name  
Company Address: 12600 WCR 91  
City/State/Zip: Midland TX 79707  
Telephone No: 432-230-0920  
Sampler Signature: Jeff Kindley

Fax No:  
e-mail: jeffkindley@deandias.com  
stevecasanova@deandias.com  
kaylanlongee@deandias.com  
alizabethstuart@deandias.com

Report Format:  Standard  TRRP  NPDES  
algroves@dealp.com

Project Name: Pleaus CO6 Suedesman  
Project #: PP-21152  
Project Loc: Edy Co, NM  
WORK ORDER #: 2021-053

ORDER #: 1G13006

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO <sub>3</sub> 250 ml Poly	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None 1L Poly	NaOH/ZnAc	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Matrix	Analyze For:	7 Day TAT	24 hour TAT	
41	SS-41 @ surface	Surf	Surf	07/12/21	12:34		1	<input checked="" type="checkbox"/>													
42	SS-42 @ surface	Surf	Surf	07/12/21	12:37		1	<input checked="" type="checkbox"/>													

Special Instructions:  
Laboratory Comments:  
Sample Containers Intact?   
VOCs Free of Headspace?   
Labels on container(s)   
Custody seals on container(s)   
Custody seals on cooler(s)   
Sample Hand Delivered by Sampler/Client Rep. ?   
by Courier?   
Temperature from Receipt: 5.1 °C  
Adjusted: DTL °C Factor

Relinquished by: Jeffery Kindley  
Date: 01/13/21  
Time: 3:15 PM

Received by: [Signature]  
Date: 07/13/21  
Time: 4:00 PM

Relinquished by: [Signature]  
Date: 07/13/21  
Time: 7:15 AM

Received by: [Signature]  
Date: 7/13/21  
Time: 16:00

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



# Analytical Report

**Prepared for:**

Jeff Kindley  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21

Project Number: PP-21152

Location: Eddy County, NM

Lab Order Number: 1H05001



**Current Certification**

Report Date: 08/06/21

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS-2 @ 6"	IH05001-01	Soil	08/04/21 13:10	08-04-2021 17:00

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**SS-2 @ 6"**  
**1H05001-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.0	mg/kg wet	1	PIH0507	08/05/21 15:33	08/05/21 18:35	TPH 8015M	
>C12-C28	ND	25.0	mg/kg wet	1	PIH0507	08/05/21 15:33	08/05/21 18:35	TPH 8015M	
>C28-C35	ND	25.0	mg/kg wet	1	PIH0507	08/05/21 15:33	08/05/21 18:35	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		112 %	70-130		PIH0507	08/05/21 15:33	08/05/21 18:35	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		116 %	70-130		PIH0507	08/05/21 15:33	08/05/21 18:35	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg wet	1	[CALC]	08/05/21 15:33	08/05/21 18:35	calc	

DRAFT REPORT

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1H0507 - TX 1005</b>										
<b>Blank (P1H0507-BLK1)</b>										
Prepared & Analyzed: 08/05/21										
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	107		"	100		107	70-130			
Surrogate: o-Terphenyl	55.0		"	50.0		110	70-130			
<b>LCS (P1H0507-BS1)</b>										
Prepared & Analyzed: 08/05/21										
C6-C12	993	25.0	mg/kg wet	1000		99.3	75-125			
>C12-C28	961	25.0	"	1000		96.1	75-125			
Surrogate: 1-Chlorooctane	107		"	100		107	70-130			
Surrogate: o-Terphenyl	57.9		"	50.0		116	70-130			
<b>LCS Dup (P1H0507-BSD1)</b>										
Prepared & Analyzed: 08/05/21										
C6-C12	1020	25.0	mg/kg wet	1000		102	75-125	2.77	20	
>C12-C28	981	25.0	"	1000		98.1	75-125	2.10	20	
Surrogate: 1-Chlorooctane	110		"	100		110	70-130			
Surrogate: o-Terphenyl	57.2		"	50.0		114	70-130			
<b>Calibration Check (P1H0507-CCV1)</b>										
Prepared & Analyzed: 08/05/21										
C6-C12	474	25.0	mg/kg wet	500		94.7	85-115			
>C12-C28	511	25.0	"	500		102	85-115			
Surrogate: 1-Chlorooctane	116		"	100		116	70-130			
Surrogate: o-Terphenyl	52.8		"	50.0		106	70-130			
<b>Calibration Check (P1H0507-CCV2)</b>										
Prepared & Analyzed: 08/05/21										
C6-C12	511	25.0	mg/kg wet	500		102	85-115			
>C12-C28	550	25.0	"	500		110	85-115			
Surrogate: 1-Chlorooctane	128		"	100		128	70-130			
Surrogate: o-Terphenyl	56.4		"	50.0		113	70-130			

DRAFT REPORT

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Page 4 of 7

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1H0507 - TX 1005**

**Matrix Spike (P1H0507-MS1)**

Source: 1H05001-01

Prepared: 08/05/21 Analyzed: 08/06/21

C6-C12	1000	25.0	mg/kg wet	1000	ND	100	75-125			
>C12-C28	852	25.0	"	1000	14.6	83.7	75-125			
Surrogate: 1-Chlorooctane	103		"	100		103	70-130			
Surrogate: o-Terphenyl	56.3		"	50.0		113	70-130			

**Matrix Spike Dup (P1H0507-MSD1)**

Source: 1H05001-01

Prepared: 08/05/21 Analyzed: 08/06/21

C6-C12	1030	25.0	mg/kg wet	1000	ND	103	75-125	2.96	20	
>C12-C28	948	25.0	"	1000	14.6	93.3	75-125	10.9	20	
Surrogate: 1-Chlorooctane	105		"	100		105	70-130			
Surrogate: o-Terphenyl	54.0		"	50.0		108	70-130			

DRAFT REPORT

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Notes and Definitions**

- ROI Received on Ice
- BULK Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- LCS Laboratory Control Spike
- MS Matrix Spike
- Dup Duplicate

Report Approved By:  Date: 8/6/2021

Brent Barron, Laboratory Director/Technical Director

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If you have received this material in error, please notify us immediately at 432-686-7235.

DRAFT REPORT

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235



**CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

Permian Basin Environmental Lab, LP  
 1400 Rankin Hwy  
 Midland, Texas 79701

Phone: 432-686-7235

Project Manager: Jeff Kindley

Company Name: Dearl

Company Address: 12800 WCR 91

City/State/Zip: Midland TX 79707

Telephone No.: 432-230-0920

Sampler Signature: Omar Chavez

Fax No.: e-mail: jeffkindley@dearltd.com

keylanquise@dearltd.com  
 elizabetht@dearltd.com

Project Name: Plains Screenshot

Project #: PP-21152

Project Loc: Eddy County, NM

WORK ORDER #: 2021-053

Report Format:  Standard  TRRP  NPDES

ORDER #: 1405001

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Ice	HNO <sub>3</sub> 200 mL Poly	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub>	None 1L Poly	NaOH/ZnAc	Matrix	Analysis For:	Turnaround
1	SS-2 @ 6"	6"	6"	08/09/21	1:10		1	X								Soil	TPH TX1005 EXT (TEXAS) BTEX 8021 B TCLP BENZENE CHLORIDES TCLP METALS NORM PAINT FILTER TOX RCI pH TPH 8015 M. (NEW MEXICO)	X X
																		3 Day Turnaround
																		24 hour TAT

Requested by: Jeff Kindley  
 Date: 08/15/21  
 Time: 10:00

Received by: Omar Chavez  
 Date: 8/16/21  
 Time: 17:00

Requested by: Omar Chavez  
 Date: 8/16/21  
 Time: 17:00

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



# Analytical Report

**Prepared for:**

Jeff Kindley  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21

Project Number: PP-21152

Location: Carlsbad, NM

Lab Order Number: 1G14006



**Current Certification**

Report Date: 07/23/21

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

## ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-1 @ 2'	1G14006-01	Soil	07/13/21 09:43	07-14-2021 10:58
BH-2 @ 3'	1G14006-02	Soil	07/13/21 09:45	07-14-2021 10:58
BH-3 @ 3'	1G14006-03	Soil	07/13/21 09:47	07-14-2021 10:58
BH-4 @ 3'	1G14006-04	Soil	07/13/21 09:51	07-14-2021 10:58
BH-5 @ 2'	1G14006-05	Soil	07/13/21 09:54	07-14-2021 10:58
BH-6 @ 2'	1G14006-06	Soil	07/13/21 09:56	07-14-2021 10:58
BH-7 @ 3'	1G14006-07	Soil	07/13/21 09:59	07-14-2021 10:58
BH-8 @ 3'	1G14006-08	Soil	07/13/21 10:04	07-14-2021 10:58
BH-9 @ 2'	1G14006-09	Soil	07/13/21 10:09	07-14-2021 10:58
BH-10 @ 2'	1G14006-10	Soil	07/13/21 10:11	07-14-2021 10:58
BH-11 @ 3'	1G14006-11	Soil	07/13/21 10:14	07-14-2021 10:58
BH-12 @ 3'	1G14006-12	Soil	07/13/21 10:16	07-14-2021 10:58
BH-13 @ 2'	1G14006-13	Soil	07/13/21 10:19	07-14-2021 10:58
BH-14 @ 3'	1G14006-14	Soil	07/13/21 10:22	07-14-2021 10:58
BH-15 @ 3'	1G14006-15	Soil	07/13/21 10:29	07-14-2021 10:58
BH-16 @ 3'	1G14006-16	Soil	07/13/21 10:32	07-14-2021 10:58
BH-17 @ 3'	1G14006-17	Soil	07/13/21 10:35	07-14-2021 10:58
BH-18 @ 3'	1G14006-18	Soil	07/13/21 10:38	07-14-2021 10:58
BH-19 @ 3'	1G14006-19	Soil	07/13/21 10:40	07-14-2021 10:58
BH-20 @ 2'	1G14006-20	Soil	07/13/21 10:51	07-14-2021 10:58
BH-21 @ 3'	1G14006-21	Soil	07/13/21 10:53	07-14-2021 10:58
BH-22 @ 3'	1G14006-22	Soil	07/13/21 10:55	07-14-2021 10:58
WE-1 @ 3'	1G14006-23	Soil	07/13/21 12:11	07-14-2021 10:58
WW-1 @ 3'	1G14006-24	Soil	07/13/21 12:18	07-14-2021 10:58
WW-2 @ 3'	1G14006-25	Soil	07/13/21 12:23	07-14-2021 10:58
WN-1 @ 3'	1G14006-26	Soil	07/13/21 12:14	07-14-2021 10:58
WN-2 @ 3'	1G14006-27	Soil	07/13/21 12:16	07-14-2021 10:58

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-1 @ 2'**  
**1G14006-01 (Soil)**

Analyte	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Result	Limit							

**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00101	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 22:17	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 22:17	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 22:17	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 22:17	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 22:17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		99.0 %	80-120		PIG1609	07/16/21 14:20	07/16/21 22:17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	80-120		PIG1609	07/16/21 14:20	07/16/21 22:17	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	56.9	1.01	mg/kg dry	1	PIG2103	07/21/21 09:39	07/21/21 19:15	EPA 300.0	
% Moisture	1.0	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.3	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 17:04	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 17:04	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 17:04	TPH 8015M	
Surrogate: 1-Chlorooctane		96.1 %	70-130		PIG2008	07/20/21 12:26	07/20/21 17:04	TPH 8015M	
Surrogate: o-Terphenyl		103 %	70-130		PIG2008	07/20/21 12:26	07/20/21 17:04	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	07/20/21 12:26	07/20/21 17:04	calc	

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-2 @ 3'**  
**1G14006-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00102	mg/kg dry	1	P1G1609	07/16/21 14:20	07/16/21 22:38	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P1G1609	07/16/21 14:20	07/16/21 22:38	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P1G1609	07/16/21 14:20	07/16/21 22:38	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P1G1609	07/16/21 14:20	07/16/21 22:38	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P1G1609	07/16/21 14:20	07/16/21 22:38	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		104 %	80-120		P1G1609	07/16/21 14:20	07/16/21 22:38	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		90.7 %	80-120		P1G1609	07/16/21 14:20	07/16/21 22:38	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	11.3	1.02	mg/kg dry	1	P1G2103	07/21/21 09:39	07/21/21 19:34	EPA 300.0	
% Moisture	2.0	0.1	%	1	P1G1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 17:27	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 17:27	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 17:27	TPH 8015M	
Surrogate: 1-Chlorooctane		101 %	70-130		P1G2008	07/20/21 12:26	07/20/21 17:27	TPH 8015M	
Surrogate: o-Terphenyl		107 %	70-130		P1G2008	07/20/21 12:26	07/20/21 17:27	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	07/20/21 12:26	07/20/21 17:27	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-3 @ 3'**  
**1G14006-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 22:59	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 22:59	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 22:59	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 22:59	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	PIG1609	07/16/21 14:20	07/16/21 22:59	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		110 %	80-120		PIG1609	07/16/21 14:20	07/16/21 22:59	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		99.3 %	80-120		PIG1609	07/16/21 14:20	07/16/21 22:59	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	31.6	1.02	mg/kg dry	1	PIG2103	07/21/21 09:39	07/21/21 19:52	EPA 300.0	
% Moisture	2.0	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 17:49	TPH 8015M	
>C12-C28	27.4	25.5	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 17:49	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 17:49	TPH 8015M	
Surrogate: 1-Chlorooctane		102 %	70-130		PIG2008	07/20/21 12:26	07/20/21 17:49	TPH 8015M	
Surrogate: o-Terphenyl		109 %	70-130		PIG2008	07/20/21 12:26	07/20/21 17:49	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>27.4</b>	<b>25.5</b>	<b>mg/kg dry</b>	<b>1</b>	<b>[CALC]</b>	<b>07/20/21 12:26</b>	<b>07/20/21 17:49</b>	<b>calc</b>	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean 12600 W County Rd 91 Midland TX, 79707	Project: COG Screwdriver 24 Fed Com 2H 06.19.21 Project Number: PP-21152 Project Manager: Jeff Kindley
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**BH-4 @ 3'**  
**1G14006-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00103	mg/kg dry	1	P1G1609	07/16/21 14:20	07/16/21 23:20	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P1G1609	07/16/21 14:20	07/16/21 23:20	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P1G1609	07/16/21 14:20	07/16/21 23:20	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P1G1609	07/16/21 14:20	07/16/21 23:20	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P1G1609	07/16/21 14:20	07/16/21 23:20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		105 %	80-120		P1G1609	07/16/21 14:20	07/16/21 23:20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.1 %	80-120		P1G1609	07/16/21 14:20	07/16/21 23:20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	20.9	1.03	mg/kg dry	1	P1G2103	07/21/21 09:39	07/21/21 20:11	EPA 300.0	
% Moisture	3.0	0.1	%	1	P1G1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.8	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 18:12	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 18:12	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 18:12	TPH 8015M	
Surrogate: 1-Chlorooctane		102 %	70-130		P1G2008	07/20/21 12:26	07/20/21 18:12	TPH 8015M	
Surrogate: o-Terphenyl		108 %	70-130		P1G2008	07/20/21 12:26	07/20/21 18:12	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	07/20/21 12:26	07/20/21 18:12	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean 12600 W County Rd 91 Midland TX, 79707	Project: COG Screwdriver 24 Fed Com 2H 06.19.21 Project Number: PP-21152 Project Manager: Jeff Kindley
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**BH-5 @ 2'**  
**1G14006-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00100	mg/kg dry	1	P1G1609	07/16/21 14:20	07/16/21 23:41	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P1G1609	07/16/21 14:20	07/16/21 23:41	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P1G1609	07/16/21 14:20	07/16/21 23:41	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P1G1609	07/16/21 14:20	07/16/21 23:41	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P1G1609	07/16/21 14:20	07/16/21 23:41	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		106 %	80-120		P1G1609	07/16/21 14:20	07/16/21 23:41	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		92.0 %	80-120		P1G1609	07/16/21 14:20	07/16/21 23:41	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>30.4</b>	1.00	mg/kg dry	1	P1G2113	07/21/21 13:26	07/21/21 20:44	EPA 300.0	
% Moisture	ND	0.1	%	1	P1G1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.0	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 18:34	TPH 8015M	
>C12-C28	ND	25.0	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 18:34	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 18:34	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		101 %	70-130		P1G2008	07/20/21 12:26	07/20/21 18:34	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		107 %	70-130		P1G2008	07/20/21 12:26	07/20/21 18:34	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg dry	1	[CALC]	07/20/21 12:26	07/20/21 18:34	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-6 @ 2'**  
**1G14006-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00104	mg/kg dry	1	P1G1609	07/16/21 14:20	07/17/21 00:02	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P1G1609	07/16/21 14:20	07/17/21 00:02	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P1G1609	07/16/21 14:20	07/17/21 00:02	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P1G1609	07/16/21 14:20	07/17/21 00:02	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P1G1609	07/16/21 14:20	07/17/21 00:02	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		104 %	80-120		P1G1609	07/16/21 14:20	07/17/21 00:02	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		89.8 %	80-120		P1G1609	07/16/21 14:20	07/17/21 00:02	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	12.6	1.04	mg/kg dry	1	P1G2113	07/21/21 13:26	07/21/21 21:30	EPA 300.0	
% Moisture	4.0	0.1	%	1	P1G1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.0	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 18:57	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 18:57	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 18:57	TPH 8015M	
Surrogate: 1-Chlorooctane		101 %	70-130		P1G2008	07/20/21 12:26	07/20/21 18:57	TPH 8015M	
Surrogate: o-Terphenyl		108 %	70-130		P1G2008	07/20/21 12:26	07/20/21 18:57	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	07/20/21 12:26	07/20/21 18:57	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-7 @ 3'**  
**1G14006-07 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00102	mg/kg dry	1	P1G1609	07/16/21 14:20	07/17/21 00:23	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P1G1609	07/16/21 14:20	07/17/21 00:23	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P1G1609	07/16/21 14:20	07/17/21 00:23	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P1G1609	07/16/21 14:20	07/17/21 00:23	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P1G1609	07/16/21 14:20	07/17/21 00:23	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		104 %	80-120		P1G1609	07/16/21 14:20	07/17/21 00:23	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		87.9 %	80-120		P1G1609	07/16/21 14:20	07/17/21 00:23	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	5.54	1.02	mg/kg dry	1	P1G2113	07/21/21 13:26	07/21/21 21:45	EPA 300.0	
% Moisture	2.0	0.1	%	1	P1G1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 19:19	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 19:19	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 19:19	TPH 8015M	
Surrogate: 1-Chlorooctane		101 %	70-130		P1G2008	07/20/21 12:26	07/20/21 19:19	TPH 8015M	
Surrogate: o-Terphenyl		108 %	70-130		P1G2008	07/20/21 12:26	07/20/21 19:19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	07/20/21 12:26	07/20/21 19:19	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-8 @ 3'**  
**1G14006-08 (Soil)**

Analyte	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Result	Limit							

**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00104	mg/kg dry	1	P1G1609	07/16/21 14:20	07/17/21 00:43	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P1G1609	07/16/21 14:20	07/17/21 00:43	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P1G1609	07/16/21 14:20	07/17/21 00:43	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P1G1609	07/16/21 14:20	07/17/21 00:43	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P1G1609	07/16/21 14:20	07/17/21 00:43	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		104 %	80-120		P1G1609	07/16/21 14:20	07/17/21 00:43	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		91.1 %	80-120		P1G1609	07/16/21 14:20	07/17/21 00:43	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	6.10	1.04	mg/kg dry	1	P1G2113	07/21/21 13:26	07/21/21 22:00	EPA 300.0	
% Moisture	4.0	0.1	%	1	P1G1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.0	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 19:42	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 19:42	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 19:42	TPH 8015M	
Surrogate: 1-Chlorooctane		103 %	70-130		P1G2008	07/20/21 12:26	07/20/21 19:42	TPH 8015M	
Surrogate: o-Terphenyl		109 %	70-130		P1G2008	07/20/21 12:26	07/20/21 19:42	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	07/20/21 12:26	07/20/21 19:42	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean 12600 W County Rd 91 Midland TX, 79707	Project: COG Screwdriver 24 Fed Com 2H 06.19.21 Project Number: PP-21152 Project Manager: Jeff Kindley
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**BH-9 @ 2'**  
**1G14006-09 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00101	mg/kg dry	1	PIG1609	07/16/21 14:20	07/17/21 01:04	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	PIG1609	07/16/21 14:20	07/17/21 01:04	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	PIG1609	07/16/21 14:20	07/17/21 01:04	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	PIG1609	07/16/21 14:20	07/17/21 01:04	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	PIG1609	07/16/21 14:20	07/17/21 01:04	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		90.2 %			PIG1609	07/16/21 14:20	07/17/21 01:04	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		104 %			PIG1609	07/16/21 14:20	07/17/21 01:04	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	174	1.01	mg/kg dry	1	PIG2113	07/21/21 13:26	07/21/21 22:15	EPA 300.0	
% Moisture	1.0	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.3	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 20:04	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 20:04	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 20:04	TPH 8015M	
Surrogate: 1-Chlorooctane		102 %			PIG2008	07/20/21 12:26	07/20/21 20:04	TPH 8015M	
Surrogate: o-Terphenyl		107 %			PIG2008	07/20/21 12:26	07/20/21 20:04	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	07/20/21 12:26	07/20/21 20:04	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-10 @ 2'**  
**1G14006-10 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00102	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 03:50	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 03:50	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 03:50	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 03:50	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 03:50	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		91.8 %	80-120		PIG1610	07/16/21 14:28	07/17/21 03:50	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		105 %	80-120		PIG1610	07/16/21 14:28	07/17/21 03:50	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	7.93	1.02	mg/kg dry	1	PIG2113	07/21/21 13:26	07/21/21 22:31	EPA 300.0	
% Moisture	2.0	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 20:27	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 20:27	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 20:27	TPH 8015M	
Surrogate: 1-Chlorooctane		106 %	70-130		PIG2008	07/20/21 12:26	07/20/21 20:27	TPH 8015M	
Surrogate: o-Terphenyl		113 %	70-130		PIG2008	07/20/21 12:26	07/20/21 20:27	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	07/20/21 12:26	07/20/21 20:27	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-11 @ 3'**  
**1G14006-11 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 04:10	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 04:10	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 04:10	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 04:10	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 04:10	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		105 %	80-120		PIG1610	07/16/21 14:28	07/17/21 04:10	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		91.3 %	80-120		PIG1610	07/16/21 14:28	07/17/21 04:10	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	7.41	1.01	mg/kg dry	1	PIG2113	07/21/21 13:26	07/21/21 22:46	EPA 300.0	
% Moisture	1.0	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.3	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 21:33	TPH 8015M	
>C12-C28	146	25.3	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 21:33	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 21:33	TPH 8015M	
Surrogate: 1-Chlorooctane		102 %	70-130		PIG2008	07/20/21 12:26	07/20/21 21:33	TPH 8015M	
Surrogate: o-Terphenyl		108 %	70-130		PIG2008	07/20/21 12:26	07/20/21 21:33	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>146</b>	<b>25.3</b>	<b>mg/kg dry</b>	<b>1</b>	<b>[CALC]</b>	<b>07/20/21 12:26</b>	<b>07/20/21 21:33</b>	<b>calc</b>	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-12 @ 3'**  
**1G14006-12 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00104	mg/kg dry	1	P1G1610	07/16/21 14:28	07/17/21 04:31	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P1G1610	07/16/21 14:28	07/17/21 04:31	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P1G1610	07/16/21 14:28	07/17/21 04:31	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P1G1610	07/16/21 14:28	07/17/21 04:31	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P1G1610	07/16/21 14:28	07/17/21 04:31	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		104 %	80-120		P1G1610	07/16/21 14:28	07/17/21 04:31	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		91.0 %	80-120		P1G1610	07/16/21 14:28	07/17/21 04:31	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	15.4	1.04	mg/kg dry	1	P1G2113	07/21/21 13:26	07/21/21 23:01	EPA 300.0	
% Moisture	4.0	0.1	%	1	P1G1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.0	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 21:56	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 21:56	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 21:56	TPH 8015M	
Surrogate: 1-Chlorooctane		104 %	70-130		P1G2008	07/20/21 12:26	07/20/21 21:56	TPH 8015M	
Surrogate: o-Terphenyl		109 %	70-130		P1G2008	07/20/21 12:26	07/20/21 21:56	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	07/20/21 12:26	07/20/21 21:56	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean 12600 W County Rd 91 Midland TX, 79707	Project: COG Screwdriver 24 Fed Com 2H 06.19.21 Project Number: PP-21152 Project Manager: Jeff Kindley
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**BH-13 @ 2'**  
**1G14006-13 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00101	mg/kg dry	1	P1G1610	07/16/21 14:28	07/17/21 04:52	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P1G1610	07/16/21 14:28	07/17/21 04:52	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P1G1610	07/16/21 14:28	07/17/21 04:52	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P1G1610	07/16/21 14:28	07/17/21 04:52	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P1G1610	07/16/21 14:28	07/17/21 04:52	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		104 %	80-120		P1G1610	07/16/21 14:28	07/17/21 04:52	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		90.8 %	80-120		P1G1610	07/16/21 14:28	07/17/21 04:52	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	88.9	1.01	mg/kg dry	1	P1G2113	07/21/21 13:26	07/21/21 23:16	EPA 300.0	
% Moisture	1.0	0.1	%	1	P1G1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.3	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 22:18	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 22:18	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 22:18	TPH 8015M	
Surrogate: 1-Chlorooctane		102 %	70-130		P1G2008	07/20/21 12:26	07/20/21 22:18	TPH 8015M	
Surrogate: o-Terphenyl		108 %	70-130		P1G2008	07/20/21 12:26	07/20/21 22:18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	07/20/21 12:26	07/20/21 22:18	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-14 @ 3'**  
**1G14006-14 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00103	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 05:13	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 05:13	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 05:13	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 05:13	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 05:13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		97.8 %	80-120		PIG1610	07/16/21 14:28	07/17/21 05:13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		110 %	80-120		PIG1610	07/16/21 14:28	07/17/21 05:13	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	21.3	1.03	mg/kg dry	1	PIG2113	07/21/21 13:26	07/21/21 23:32	EPA 300.0	
% Moisture	3.0	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.8	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 22:40	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 22:40	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 22:40	TPH 8015M	
Surrogate: 1-Chlorooctane		105 %	70-130		PIG2008	07/20/21 12:26	07/20/21 22:40	TPH 8015M	
Surrogate: o-Terphenyl		111 %	70-130		PIG2008	07/20/21 12:26	07/20/21 22:40	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	07/20/21 12:26	07/20/21 22:40	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean	Project: COG Screwdriver 24 Fed Com 2H 06.19.21
12600 W County Rd 91	Project Number: PP-21152
Midland TX, 79707	Project Manager: Jeff Kindley

**BH-15 @ 3'**  
**1G14006-15 (Soil)**

Analyte	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Result	Limit							

**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 05:34	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 05:34	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 05:34	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 05:34	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 05:34	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.4 %	80-120		PIG1610	07/16/21 14:28	07/17/21 05:34	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		105 %	80-120		PIG1610	07/16/21 14:28	07/17/21 05:34	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	3.57	1.01	mg/kg dry	1	PIG2113	07/21/21 13:26	07/22/21 00:18	EPA 300.0	
% Moisture	1.0	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.3	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 23:02	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 23:02	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 23:02	TPH 8015M	
Surrogate: 1-Chlorooctane		103 %	70-130		PIG2008	07/20/21 12:26	07/20/21 23:02	TPH 8015M	
Surrogate: o-Terphenyl		109 %	70-130		PIG2008	07/20/21 12:26	07/20/21 23:02	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	07/20/21 12:26	07/20/21 23:02	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-16 @ 3'**  
**1G14006-16 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00104	mg/kg dry	1	P1G1610	07/16/21 14:28	07/17/21 05:54	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P1G1610	07/16/21 14:28	07/17/21 05:54	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P1G1610	07/16/21 14:28	07/17/21 05:54	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P1G1610	07/16/21 14:28	07/17/21 05:54	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P1G1610	07/16/21 14:28	07/17/21 05:54	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.8 %	80-120		P1G1610	07/16/21 14:28	07/17/21 05:54	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		106 %	80-120		P1G1610	07/16/21 14:28	07/17/21 05:54	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	7.64	1.04	mg/kg dry	1	P1G2113	07/21/21 13:26	07/22/21 01:03	EPA 300.0	
% Moisture	4.0	0.1	%	1	P1G1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.0	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 23:24	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 23:24	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P1G2008	07/20/21 12:26	07/20/21 23:24	TPH 8015M	
Surrogate: 1-Chlorooctane		104 %	70-130		P1G2008	07/20/21 12:26	07/20/21 23:24	TPH 8015M	
Surrogate: o-Terphenyl		111 %	70-130		P1G2008	07/20/21 12:26	07/20/21 23:24	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	07/20/21 12:26	07/20/21 23:24	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean 12600 W County Rd 91 Midland TX, 79707	Project: COG Screwdriver 24 Fed Com 2H 06.19.21 Project Number: PP-21152 Project Manager: Jeff Kindley
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**BH-17 @ 3'**  
**1G14006-17 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 06:15	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 06:15	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 06:15	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 06:15	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 06:15	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		110 %	80-120		PIG1610	07/16/21 14:28	07/17/21 06:15	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		97.8 %	80-120		PIG1610	07/16/21 14:28	07/17/21 06:15	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	170	1.01	mg/kg dry	1	PIG2113	07/21/21 13:26	07/22/21 01:19	EPA 300.0	
% Moisture	1.0	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.3	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 23:46	TPH 8015M	
>C12-C28	26.6	25.3	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 23:46	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	PIG2008	07/20/21 12:26	07/20/21 23:46	TPH 8015M	
Surrogate: 1-Chlorooctane		102 %	70-130		PIG2008	07/20/21 12:26	07/20/21 23:46	TPH 8015M	
Surrogate: o-Terphenyl		107 %	70-130		PIG2008	07/20/21 12:26	07/20/21 23:46	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>26.6</b>	<b>25.3</b>	<b>mg/kg dry</b>	<b>1</b>	<b>[CALC]</b>	<b>07/20/21 12:26</b>	<b>07/20/21 23:46</b>	<b>calc</b>	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-18 @ 3'**  
**1G14006-18 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00101	mg/kg dry	1	P1G1610	07/16/21 14:28	07/17/21 06:36	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P1G1610	07/16/21 14:28	07/17/21 06:36	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P1G1610	07/16/21 14:28	07/17/21 06:36	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P1G1610	07/16/21 14:28	07/17/21 06:36	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P1G1610	07/16/21 14:28	07/17/21 06:36	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		103 %	80-120		P1G1610	07/16/21 14:28	07/17/21 06:36	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		90.1 %	80-120		P1G1610	07/16/21 14:28	07/17/21 06:36	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	11.3	1.01	mg/kg dry	1	P1G2113	07/21/21 13:26	07/22/21 01:34	EPA 300.0	
% Moisture	1.0	0.1	%	1	P1G1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.3	mg/kg dry	1	P1G2008	07/20/21 12:26	07/21/21 00:08	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P1G2008	07/20/21 12:26	07/21/21 00:08	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P1G2008	07/20/21 12:26	07/21/21 00:08	TPH 8015M	
Surrogate: 1-Chlorooctane		104 %	70-130		P1G2008	07/20/21 12:26	07/21/21 00:08	TPH 8015M	
Surrogate: o-Terphenyl		110 %	70-130		P1G2008	07/20/21 12:26	07/21/21 00:08	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	07/20/21 12:26	07/21/21 00:08	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-19 @ 3'**  
**1G14006-19 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00102	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 06:56	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 06:56	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 06:56	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 06:56	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 06:56	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		106 %	80-120		PIG1610	07/16/21 14:28	07/17/21 06:56	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.0 %	80-120		PIG1610	07/16/21 14:28	07/17/21 06:56	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	25.8	1.02	mg/kg dry	1	PIG2113	07/21/21 13:26	07/22/21 01:49	EPA 300.0	
% Moisture	2.0	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	PIG2008	07/20/21 12:26	07/21/21 00:30	TPH 8015M	
>C12-C28	173	25.5	mg/kg dry	1	PIG2008	07/20/21 12:26	07/21/21 00:30	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	PIG2008	07/20/21 12:26	07/21/21 00:30	TPH 8015M	
Surrogate: 1-Chlorooctane		106 %	70-130		PIG2008	07/20/21 12:26	07/21/21 00:30	TPH 8015M	
Surrogate: o-Terphenyl		112 %	70-130		PIG2008	07/20/21 12:26	07/21/21 00:30	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>173</b>	<b>25.5</b>	<b>mg/kg dry</b>	<b>1</b>	<b>[CALC]</b>	<b>07/20/21 12:26</b>	<b>07/21/21 00:30</b>	<b>calc</b>	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean	Project: COG Screwdriver 24 Fed Com 2H 06.19.21
12600 W County Rd 91	Project Number: PP-21152
Midland TX, 79707	Project Manager: Jeff Kindley

**BH-20 @ 2'**  
**1G14006-20 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00104	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 07:59	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 07:59	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 07:59	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 07:59	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 07:59	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		106 %	80-120		PIG1610	07/16/21 14:28	07/17/21 07:59	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.3 %	80-120		PIG1610	07/16/21 14:28	07/17/21 07:59	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	63.2	1.04	mg/kg dry	1	PIG2113	07/21/21 13:26	07/22/21 02:04	EPA 300.0	
% Moisture	4.0	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.0	mg/kg dry	1	PIG2008	07/20/21 12:26	07/21/21 00:52	TPH 8015M	
>C12-C28	53.6	26.0	mg/kg dry	1	PIG2008	07/20/21 12:26	07/21/21 00:52	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	PIG2008	07/20/21 12:26	07/21/21 00:52	TPH 8015M	
Surrogate: 1-Chlorooctane		104 %	70-130		PIG2008	07/20/21 12:26	07/21/21 00:52	TPH 8015M	
Surrogate: o-Terphenyl		111 %	70-130		PIG2008	07/20/21 12:26	07/21/21 00:52	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>53.6</b>	<b>26.0</b>	<b>mg/kg dry</b>	<b>1</b>	<b>[CALC]</b>	<b>07/20/21 12:26</b>	<b>07/21/21 00:52</b>	<b>calc</b>	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-21 @ 3'**  
**1G14006-21 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 08:20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 08:20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 08:20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 08:20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 08:20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		91.9 %	80-120		PIG1610	07/16/21 14:28	07/17/21 08:20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		107 %	80-120		PIG1610	07/16/21 14:28	07/17/21 08:20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	79.1	1.01	mg/kg dry	1	PIG2113	07/21/21 13:26	07/22/21 02:20	EPA 300.0	
% Moisture	1.0	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.3	mg/kg dry	1	PIG2009	07/20/21 12:31	07/21/21 11:24	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	PIG2009	07/20/21 12:31	07/21/21 11:24	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	PIG2009	07/20/21 12:31	07/21/21 11:24	TPH 8015M	
Surrogate: 1-Chlorooctane		95.7 %	70-130		PIG2009	07/20/21 12:31	07/21/21 11:24	TPH 8015M	
Surrogate: o-Terphenyl		97.3 %	70-130		PIG2009	07/20/21 12:31	07/21/21 11:24	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	07/20/21 12:31	07/21/21 11:24	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-22 @ 3'**  
**1G14006-22 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00120	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 08:40	EPA 8021B	
Toluene	ND	0.00120	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 08:40	EPA 8021B	
Ethylbenzene	ND	0.00120	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 08:40	EPA 8021B	
Xylene (p/m)	ND	0.00241	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 08:40	EPA 8021B	
Xylene (o)	ND	0.00120	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 08:40	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	105 %		80-120		PIG1610	07/16/21 14:28	07/17/21 08:40	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	89.8 %		80-120		PIG1610	07/16/21 14:28	07/17/21 08:40	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	23.6	1.20	mg/kg dry	1	PIG2113	07/21/21 13:26	07/22/21 02:35	EPA 300.0	
% Moisture	17.0	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	31.6	30.1	mg/kg dry	1	PIG2009	07/20/21 12:31	07/21/21 11:47	TPH 8015M	
>C12-C28	31.6	30.1	mg/kg dry	1	PIG2009	07/20/21 12:31	07/21/21 11:47	TPH 8015M	
>C28-C35	ND	30.1	mg/kg dry	1	PIG2009	07/20/21 12:31	07/21/21 11:47	TPH 8015M	
Surrogate: 1-Chlorooctane	99.5 %		70-130		PIG2009	07/20/21 12:31	07/21/21 11:47	TPH 8015M	
Surrogate: o-Terphenyl	100 %		70-130		PIG2009	07/20/21 12:31	07/21/21 11:47	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>63.1</b>	30.1	mg/kg dry	1	[CALC]	07/20/21 12:31	07/21/21 11:47	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**WE-1 @ 3'**  
**1G14006-23 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 09:01	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 09:01	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 09:01	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 09:01	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 09:01	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	91.3 %		80-120		PIG1610	07/16/21 14:28	07/17/21 09:01	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	105 %		80-120		PIG1610	07/16/21 14:28	07/17/21 09:01	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	50.4	1.01	mg/kg dry	1	PIG2113	07/21/21 13:26	07/22/21 02:50	EPA 300.0	
% Moisture	1.0	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.3	mg/kg dry	1	PIG2009	07/20/21 12:31	07/21/21 12:09	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	PIG2009	07/20/21 12:31	07/21/21 12:09	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	PIG2009	07/20/21 12:31	07/21/21 12:09	TPH 8015M	
Surrogate: 1-Chlorooctane	101 %		70-130		PIG2009	07/20/21 12:31	07/21/21 12:09	TPH 8015M	
Surrogate: o-Terphenyl	102 %		70-130		PIG2009	07/20/21 12:31	07/21/21 12:09	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	07/20/21 12:31	07/21/21 12:09	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**WW-1 @ 3'**  
**1G14006-24 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00100	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 09:22	EPA 8021B	
<b>Toluene</b>	<b>0.00228</b>	0.00100	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 09:22	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.00213</b>	0.00100	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 09:22	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.00292</b>	0.00200	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 09:22	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00116</b>	0.00100	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 09:22	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	111 %		80-120		PIG1610	07/16/21 14:28	07/17/21 09:22	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	103 %		80-120		PIG1610	07/16/21 14:28	07/17/21 09:22	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>132</b>	1.00	mg/kg dry	1	PIG2113	07/21/21 13:26	07/22/21 03:05	EPA 300.0	
% Moisture	ND	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.0	mg/kg dry	1	PIG2009	07/20/21 12:31	07/21/21 12:31	TPH 8015M	
>C12-C28	ND	25.0	mg/kg dry	1	PIG2009	07/20/21 12:31	07/21/21 12:31	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	PIG2009	07/20/21 12:31	07/21/21 12:31	TPH 8015M	
Surrogate: 1-Chlorooctane	102 %		70-130		PIG2009	07/20/21 12:31	07/21/21 12:31	TPH 8015M	
Surrogate: o-Terphenyl	98.1 %		70-130		PIG2009	07/20/21 12:31	07/21/21 12:31	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg dry	1	[CALC]	07/20/21 12:31	07/21/21 12:31	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**WW-2 @ 3'**  
**1G14006-25 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00100	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 09:43	EPA 8021B	
<b>Toluene</b>	<b>0.00101</b>	0.00100	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 09:43	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.00180</b>	0.00100	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 09:43	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.00289</b>	0.00200	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 09:43	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00110</b>	0.00100	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 09:43	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		105 %	80-120		PIG1610	07/16/21 14:28	07/17/21 09:43	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		91.4 %	80-120		PIG1610	07/16/21 14:28	07/17/21 09:43	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>40.2</b>	1.00	mg/kg dry	1	PIG2115	07/21/21 15:34	07/22/21 04:37	EPA 300.0	
% Moisture	ND	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.0	mg/kg dry	1	PIG2009	07/20/21 12:31	07/21/21 12:53	TPH 8015M	
>C12-C28	ND	25.0	mg/kg dry	1	PIG2009	07/20/21 12:31	07/21/21 12:53	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	PIG2009	07/20/21 12:31	07/21/21 12:53	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		102 %	70-130		PIG2009	07/20/21 12:31	07/21/21 12:53	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		99.3 %	70-130		PIG2009	07/20/21 12:31	07/21/21 12:53	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg dry	1	[CALC]	07/20/21 12:31	07/21/21 12:53	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean	Project: COG Screwdriver 24 Fed Com 2H 06.19.21
12600 W County Rd 91	Project Number: PP-21152
Midland TX, 79707	Project Manager: Jeff Kindley

**WN-1 @ 3'**  
**1G14006-26 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 10:04	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 10:04	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 10:04	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 10:04	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 10:04	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		106 %	80-120		PIG1610	07/16/21 14:28	07/17/21 10:04	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		88.6 %	80-120		PIG1610	07/16/21 14:28	07/17/21 10:04	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	31.9	1.01	mg/kg dry	1	PIG2115	07/21/21 15:34	07/22/21 05:23	EPA 300.0	
% Moisture	1.0	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.3	mg/kg dry	1	PIG2009	07/20/21 12:31	07/21/21 13:15	TPH 8015M	
>C12-C28	202	25.3	mg/kg dry	1	PIG2009	07/20/21 12:31	07/21/21 13:15	TPH 8015M	
>C28-C35	41.4	25.3	mg/kg dry	1	PIG2009	07/20/21 12:31	07/21/21 13:15	TPH 8015M	
Surrogate: 1-Chlorooctane		105 %	70-130		PIG2009	07/20/21 12:31	07/21/21 13:15	TPH 8015M	
Surrogate: o-Terphenyl		104 %	70-130		PIG2009	07/20/21 12:31	07/21/21 13:15	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	244	25.3	mg/kg dry	1	[CALC]	07/20/21 12:31	07/21/21 13:15	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**WN-2 @ 3'**  
**1G14006-27 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 10:25	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 10:25	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 10:25	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 10:25	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	PIG1610	07/16/21 14:28	07/17/21 10:25	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	92.1 %		80-120		PIG1610	07/16/21 14:28	07/17/21 10:25	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	108 %		80-120		PIG1610	07/16/21 14:28	07/17/21 10:25	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	55.8	1.01	mg/kg dry	1	PIG2115	07/21/21 15:34	07/22/21 05:39	EPA 300.0	
% Moisture	1.0	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.3	mg/kg dry	1	PIG2009	07/20/21 12:31	07/21/21 13:38	TPH 8015M	
>C12-C28	38.3	25.3	mg/kg dry	1	PIG2009	07/20/21 12:31	07/21/21 13:38	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	PIG2009	07/20/21 12:31	07/21/21 13:38	TPH 8015M	
Surrogate: 1-Chlorooctane	103 %		70-130		PIG2009	07/20/21 12:31	07/21/21 13:38	TPH 8015M	
Surrogate: o-Terphenyl	104 %		70-130		PIG2009	07/20/21 12:31	07/21/21 13:38	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>38.3</b>	<b>25.3</b>	<b>mg/kg dry</b>	<b>1</b>	<b>[CALC]</b>	<b>07/20/21 12:31</b>	<b>07/21/21 13:38</b>	<b>calc</b>	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G1609 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P1G1609-BLK1)**

Prepared & Analyzed: 07/16/21

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.125		"	0.120		104	80-120			
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		90.8	80-120			

**LCS (P1G1609-BS1)**

Prepared & Analyzed: 07/16/21

Benzene	0.119	0.00100	mg/kg wet	0.100		119	70-130			
Toluene	0.111	0.00100	"	0.100		111	70-130			
Ethylbenzene	0.111	0.00100	"	0.100		111	70-130			
Xylene (p/m)	0.196	0.00200	"	0.200		98.0	70-130			
Xylene (o)	0.104	0.00100	"	0.100		104	70-130			
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		89.4	80-120			
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.9	80-120			

**LCS Dup (P1G1609-BSD1)**

Prepared & Analyzed: 07/16/21

Benzene	0.120	0.00100	mg/kg wet	0.100		120	70-130	0.452	20	
Toluene	0.114	0.00100	"	0.100		114	70-130	2.82	20	
Ethylbenzene	0.115	0.00100	"	0.100		115	70-130	3.47	20	
Xylene (p/m)	0.202	0.00200	"	0.200		101	70-130	3.19	20	
Xylene (o)	0.107	0.00100	"	0.100		107	70-130	2.60	20	
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.6	80-120			
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		89.5	80-120			

**Calibration Blank (P1G1609-CCB1)**

Prepared & Analyzed: 07/16/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.125		"	0.120		104	80-120			
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		89.4	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G1609 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Blank (P1G1609-CCB2)**

Prepared & Analyzed: 07/16/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.113		"	0.120		94.2	80-120			
Surrogate: 1,4-Difluorobenzene	0.126		"	0.120		105	80-120			

**Calibration Check (P1G1609-CCV1)**

Prepared & Analyzed: 07/16/21

Benzene	0.119	0.00100	mg/kg wet	0.100		119	80-120			
Toluene	0.112	0.00100	"	0.100		112	80-120			
Ethylbenzene	0.113	0.00100	"	0.100		113	80-120			
Xylene (p/m)	0.196	0.00200	"	0.200		98.2	80-120			
Xylene (o)	0.107	0.00100	"	0.100		107	80-120			
Surrogate: 4-Bromofluorobenzene	0.105		"	0.120		87.3	75-125			
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		95.3	75-125			

**Calibration Check (P1G1609-CCV2)**

Prepared & Analyzed: 07/16/21

Benzene	0.118	0.00100	mg/kg wet	0.100		118	80-120			
Toluene	0.106	0.00100	"	0.100		106	80-120			
Ethylbenzene	0.106	0.00100	"	0.100		106	80-120			
Xylene (p/m)	0.185	0.00200	"	0.200		92.6	80-120			
Xylene (o)	0.102	0.00100	"	0.100		102	80-120			
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.3	75-125			
Surrogate: 4-Bromofluorobenzene	0.106		"	0.120		88.6	75-125			

**Calibration Check (P1G1609-CCV3)**

Prepared: 07/16/21 Analyzed: 07/17/21

Benzene	0.119	0.00100	mg/kg wet	0.100		119	80-120			
Toluene	0.111	0.00100	"	0.100		111	80-120			
Ethylbenzene	0.109	0.00100	"	0.100		109	80-120			
Xylene (p/m)	0.192	0.00200	"	0.200		96.0	80-120			
Xylene (o)	0.105	0.00100	"	0.100		105	80-120			
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		89.6	75-125			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.9	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G1609 - \*\*\* DEFAULT PREP \*\*\***

<b>Matrix Spike (P1G1609-MS1)</b>		<b>Source: 1G13006-32</b>		Prepared: 07/16/21		Analyzed: 07/17/21				
Benzene	0.0932	0.00102	mg/kg dry	0.102	ND	91.3	80-120			
Toluene	0.0788	0.00102	"	0.102	0.0154	62.1	80-120			QM-07
Ethylbenzene	0.0787	0.00102	"	0.102	0.0263	51.4	80-120			QM-07
Xylene (p/m)	0.136	0.00204	"	0.204	0.0293	52.3	80-120			QM-07
Xylene (o)	0.0719	0.00102	"	0.102	0.00984	60.8	80-120			QM-07
Surrogate: 4-Bromofluorobenzene	0.116		"	0.122		94.5	80-120			
Surrogate: 1,4-Difluorobenzene	0.124		"	0.122		102	80-120			

<b>Matrix Spike Dup (P1G1609-MSD1)</b>		<b>Source: 1G13006-32</b>		Prepared: 07/16/21		Analyzed: 07/17/21				
Benzene	0.0923	0.00102	mg/kg dry	0.102	ND	90.5	80-120	0.880	20	
Toluene	0.0794	0.00102	"	0.102	0.0154	62.7	80-120	0.994	20	QM-07
Ethylbenzene	0.0806	0.00102	"	0.102	0.0263	53.3	80-120	3.63	20	QM-07
Xylene (p/m)	0.140	0.00204	"	0.204	0.0293	54.1	80-120	3.39	20	QM-07
Xylene (o)	0.0741	0.00102	"	0.102	0.00984	63.0	80-120	3.49	20	QM-07
Surrogate: 1,4-Difluorobenzene	0.120		"	0.122		97.6	80-120			
Surrogate: 4-Bromofluorobenzene	0.111		"	0.122		90.9	80-120			

**Batch P1G1610 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P1G1610-BLK1)</b>				Prepared: 07/16/21		Analyzed: 07/17/21				
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.123		"	0.120		103	80-120			
Surrogate: 4-Bromofluorobenzene	0.104		"	0.120		86.7	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G1610 - \*\*\* DEFAULT PREP \*\*\***

**LCS (P1G1610-BS1)**

Prepared: 07/16/21 Analyzed: 07/17/21

Benzene	0.119	0.00100	mg/kg wet	0.100		119	70-130			
Toluene	0.110	0.00100	"	0.100		110	70-130			
Ethylbenzene	0.111	0.00100	"	0.100		111	70-130			
Xylene (p/m)	0.195	0.00200	"	0.200		97.5	70-130			
Xylene (o)	0.103	0.00100	"	0.100		103	70-130			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.1	80-120			
Surrogate: 4-Bromofluorobenzene	0.106		"	0.120		88.7	80-120			

**LCS Dup (P1G1610-BSD1)**

Prepared: 07/16/21 Analyzed: 07/17/21

Benzene	0.120	0.00100	mg/kg wet	0.100		120	70-130	0.627	20	
Toluene	0.110	0.00100	"	0.100		110	70-130	0.528	20	
Ethylbenzene	0.111	0.00100	"	0.100		111	70-130	0.487	20	
Xylene (p/m)	0.196	0.00200	"	0.200		97.8	70-130	0.302	20	
Xylene (o)	0.104	0.00100	"	0.100		104	70-130	0.953	20	
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.5	80-120			
Surrogate: 4-Bromofluorobenzene	0.108		"	0.120		90.2	80-120			

**Calibration Blank (P1G1610-CCB1)**

Prepared: 07/16/21 Analyzed: 07/17/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		91.1	80-120			
Surrogate: 1,4-Difluorobenzene	0.126		"	0.120		105	80-120			

**Calibration Blank (P1G1610-CCB2)**

Prepared: 07/16/21 Analyzed: 07/17/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		90.6	80-120			
Surrogate: 1,4-Difluorobenzene	0.126		"	0.120		105	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G1610 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Check (P1G1610-CCV1)**

Prepared: 07/16/21 Analyzed: 07/17/21

Benzene	0.119	0.00100	mg/kg wet	0.100		119	80-120			
Toluene	0.111	0.00100	"	0.100		111	80-120			
Ethylbenzene	0.109	0.00100	"	0.100		109	80-120			
Xylene (p/m)	0.192	0.00200	"	0.200		96.0	80-120			
Xylene (o)	0.105	0.00100	"	0.100		105	80-120			
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		89.6	75-125			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.9	75-125			

**Calibration Check (P1G1610-CCV2)**

Prepared: 07/16/21 Analyzed: 07/17/21

Benzene	0.117	0.00100	mg/kg wet	0.100		117	80-120			
Toluene	0.104	0.00100	"	0.100		104	80-120			
Ethylbenzene	0.102	0.00100	"	0.100		102	80-120			
Xylene (p/m)	0.180	0.00200	"	0.200		89.8	80-120			
Xylene (o)	0.0983	0.00100	"	0.100		98.3	80-120			
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.6	75-125			
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		89.2	75-125			

**Calibration Check (P1G1610-CCV3)**

Prepared: 07/16/21 Analyzed: 07/17/21

Benzene	0.118	0.00100	mg/kg wet	0.100		118	80-120			
Toluene	0.104	0.00100	"	0.100		104	80-120			
Ethylbenzene	0.103	0.00100	"	0.100		103	80-120			
Xylene (p/m)	0.179	0.00200	"	0.200		89.7	80-120			
Xylene (o)	0.0992	0.00100	"	0.100		99.2	80-120			
Surrogate: 4-Bromofluorobenzene	0.108		"	0.120		90.4	75-125			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.2	75-125			

**Matrix Spike (P1G1610-MS1)**

Source: 1G14006-10

Prepared: 07/16/21 Analyzed: 07/17/21

Benzene	0.0929	0.00102	mg/kg dry	0.102	ND	91.1	80-120			
Toluene	0.0614	0.00102	"	0.102	ND	60.2	80-120			QM-07
Ethylbenzene	0.0348	0.00102	"	0.102	ND	34.1	80-120			QM-07
Xylene (p/m)	0.0885	0.00204	"	0.204	ND	43.4	80-120			QM-07
Xylene (o)	0.0747	0.00102	"	0.102	ND	73.2	80-120			QM-07
Surrogate: 4-Bromofluorobenzene	0.113		"	0.122		92.5	80-120			
Surrogate: 1,4-Difluorobenzene	0.122		"	0.122		99.3	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G1610 - \*\*\* DEFAULT PREP \*\*\***

<b>Matrix Spike Dup (P1G1610-MSD1)</b>	<b>Source: 1G14006-10</b>			<b>Prepared: 07/16/21 Analyzed: 07/17/21</b>						
Benzene	0.0911	0.00102	mg/kg dry	0.102	ND	89.3	80-120	1.93	20	
Toluene	0.0521	0.00102	"	0.102	ND	51.0	80-120	16.4	20	QM-07
Ethylbenzene	0.0225	0.00102	"	0.102	ND	22.0	80-120	43.1	20	QM-07
Xylene (p/m)	0.0446	0.00204	"	0.204	ND	21.9	80-120	66.0	20	QM-07
Xylene (o)	0.0780	0.00102	"	0.102	ND	76.4	80-120	4.36	20	QM-07
Surrogate: 1,4-Difluorobenzene	0.123		"	0.122		100	80-120			
Surrogate: 4-Bromofluorobenzene	0.111		"	0.122		90.7	80-120			

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Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control  
Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G1602 - *** DEFAULT PREP ***</b>										
<b>Blank (P1G1602-BLK1)</b>	Prepared & Analyzed: 07/16/21									
% Moisture	ND	0.1	%							
<b>Blank (P1G1602-BLK2)</b>	Prepared & Analyzed: 07/16/21									
% Moisture	ND	0.1	%							
<b>Blank (P1G1602-BLK3)</b>	Prepared & Analyzed: 07/16/21									
% Moisture	ND	0.1	%							
<b>Blank (P1G1602-BLK4)</b>	Prepared & Analyzed: 07/16/21									
% Moisture	ND	0.1	%							
<b>Blank (P1G1602-BLK5)</b>	Prepared & Analyzed: 07/16/21									
% Moisture	ND	0.1	%							
<b>Blank (P1G1602-BLK6)</b>	Prepared & Analyzed: 07/16/21									
% Moisture	ND	0.1	%							
<b>Blank (P1G1602-BLK7)</b>	Prepared & Analyzed: 07/16/21									
% Moisture	ND	0.1	%							
<b>Duplicate (P1G1602-DUP1)</b>	Source: 1G14005-10 Prepared & Analyzed: 07/16/21									
% Moisture	14.0	0.1	%		14.0			0.00	20	
<b>Duplicate (P1G1602-DUP2)</b>	Source: 1G14005-20 Prepared & Analyzed: 07/16/21									
% Moisture	4.0	0.1	%		4.0			0.00	20	
<b>Duplicate (P1G1602-DUP3)</b>	Source: 1G13006-03 Prepared & Analyzed: 07/16/21									
% Moisture	6.0	0.1	%		5.0			18.2	20	

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Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G1602 - *** DEFAULT PREP ***</b>										
<b>Duplicate (P1G1602-DUP4)</b>		<b>Source: 1G13006-13</b>			Prepared & Analyzed: 07/16/21					
% Moisture	18.0	0.1	%		21.0			15.4	20	
<b>Duplicate (P1G1602-DUP5)</b>		<b>Source: 1G13006-28</b>			Prepared & Analyzed: 07/16/21					
% Moisture	2.0	0.1	%		1.0			66.7	20	R3
<b>Duplicate (P1G1602-DUP6)</b>		<b>Source: 1G13006-38</b>			Prepared & Analyzed: 07/16/21					
% Moisture	2.0	0.1	%		2.0			0.00	20	
<b>Duplicate (P1G1602-DUP7)</b>		<b>Source: 1G13009-06</b>			Prepared & Analyzed: 07/16/21					
% Moisture	13.0	0.1	%		13.0			0.00	20	
<b>Duplicate (P1G1602-DUP8)</b>		<b>Source: 1G14003-08</b>			Prepared & Analyzed: 07/16/21					
% Moisture	12.0	0.1	%		12.0			0.00	20	
<b>Duplicate (P1G1602-DUP9)</b>		<b>Source: 1G14003-23</b>			Prepared & Analyzed: 07/16/21					
% Moisture	14.0	0.1	%		13.0			7.41	20	
<b>Duplicate (P1G1602-DUPA)</b>		<b>Source: 1G14003-33</b>			Prepared & Analyzed: 07/16/21					
% Moisture	10.0	0.1	%		9.0			10.5	20	
<b>Duplicate (P1G1602-DUPB)</b>		<b>Source: 1G14006-14</b>			Prepared & Analyzed: 07/16/21					
% Moisture	3.0	0.1	%		3.0			0.00	20	
<b>Duplicate (P1G1602-DUPC)</b>		<b>Source: 1G14006-24</b>			Prepared & Analyzed: 07/16/21					
% Moisture	ND	0.1	%		ND				20	
<b>Duplicate (P1G1602-DUPD)</b>		<b>Source: 1G15008-01</b>			Prepared & Analyzed: 07/16/21					
% Moisture	3.0	0.1	%		4.0			28.6	20	

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Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G1602 - *** DEFAULT PREP ***</b>										
<b>Duplicate (P1G1602-DUPE)</b> Source: 1G15009-09 Prepared & Analyzed: 07/16/21										
% Moisture	6.0	0.1	%		7.0			15.4	20	
<b>Batch P1G2103 - *** DEFAULT PREP ***</b>										
<b>Blank (P1G2103-BLK1)</b> Prepared & Analyzed: 07/21/21										
Chloride	ND	1.00	mg/kg wet							
<b>LCS (P1G2103-BS1)</b> Prepared & Analyzed: 07/21/21										
Chloride	413	1.00	mg/kg wet	400		103	90-110			
<b>LCS Dup (P1G2103-BSD1)</b> Prepared & Analyzed: 07/21/21										
Chloride	414	1.00	mg/kg wet	400		103	90-110	0.121	20	
<b>Calibration Check (P1G2103-CCV1)</b> Prepared & Analyzed: 07/21/21										
Chloride	20.6		mg/kg	20.0		103	90-110			
<b>Calibration Check (P1G2103-CCV2)</b> Prepared & Analyzed: 07/21/21										
Chloride	20.5		mg/kg	20.0		102	90-110			
<b>Calibration Check (P1G2103-CCV3)</b> Prepared & Analyzed: 07/21/21										
Chloride	20.4		mg/kg	20.0		102	90-110			
<b>Matrix Spike (P1G2103-MS1)</b> Source: 1G21003-01 Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	10200	28.7	mg/kg dry	2870	6910	116	80-120			
<b>Matrix Spike (P1G2103-MS2)</b> Source: 1G13006-37 Prepared & Analyzed: 07/21/21										
Chloride	2220	5.05	mg/kg dry	505	1660	110	80-120			

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Project Number: PP-21152  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
<b>Batch P1G2103 - *** DEFAULT PREP ***</b>											
<b>Matrix Spike Dup (P1G2103-MSD1)</b>		<b>Source: 1G21003-01</b>			Prepared: 07/21/21		Analyzed: 07/22/21				
Chloride	10300	28.7	mg/kg dry	2870	6910	117	80-120	0.275	20		
<b>Matrix Spike Dup (P1G2103-MSD2)</b>		<b>Source: 1G13006-37</b>			Prepared & Analyzed: 07/21/21						
Chloride	2230	5.05	mg/kg dry	505	1660	112	80-120	0.377	20		
<b>Batch P1G2113 - *** DEFAULT PREP ***</b>											
<b>Blank (P1G2113-BLK1)</b>		Prepared & Analyzed: 07/21/21									
Chloride	ND	1.00	mg/kg wet								
<b>LCS (P1G2113-BS1)</b>		Prepared & Analyzed: 07/21/21									
Chloride	391	1.00	mg/kg wet	400		97.8	90-110				
<b>LCS Dup (P1G2113-BSD1)</b>		Prepared & Analyzed: 07/21/21									
Chloride	398	1.00	mg/kg wet	400		99.4	90-110	1.57	20		
<b>Calibration Blank (P1G2113-CCB1)</b>		Prepared & Analyzed: 07/21/21									
Chloride	-0.0120		mg/kg wet								
<b>Calibration Blank (P1G2113-CCB2)</b>		Prepared: 07/21/21 Analyzed: 07/22/21									
Chloride	0.00600		mg/kg wet								
<b>Calibration Check (P1G2113-CCV1)</b>		Prepared & Analyzed: 07/21/21									
Chloride	18.8		mg/kg	20.0		93.8	90-110				
<b>Calibration Check (P1G2113-CCV2)</b>		Prepared & Analyzed: 07/21/21									
Chloride	18.3		mg/kg	20.0		91.4	90-110				

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**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G2113 - *** DEFAULT PREP ***</b>										
<b>Calibration Check (P1G2113-CCV3)</b>				Prepared: 07/21/21 Analyzed: 07/22/21						
Chloride	18.3		mg/kg	20.0		91.7	90-110			
<b>Matrix Spike (P1G2113-MS1)</b>				Source: 1G14006-05 Prepared & Analyzed: 07/21/21						
Chloride	472	1.00	mg/kg dry	500	30.4	88.3	80-120			
<b>Matrix Spike (P1G2113-MS2)</b>				Source: 1G14006-15 Prepared: 07/21/21 Analyzed: 07/22/21						
Chloride	457	1.01	mg/kg dry	505	3.57	89.8	80-120			
<b>Matrix Spike Dup (P1G2113-MSD1)</b>				Source: 1G14006-05 Prepared & Analyzed: 07/21/21						
Chloride	483	1.00	mg/kg dry	500	30.4	90.5	80-120	2.27	20	
<b>Matrix Spike Dup (P1G2113-MSD2)</b>				Source: 1G14006-15 Prepared: 07/21/21 Analyzed: 07/22/21						
Chloride	453	1.01	mg/kg dry	505	3.57	89.1	80-120	0.761	20	
<b>Batch P1G2115 - *** DEFAULT PREP ***</b>										
<b>Blank (P1G2115-BLK1)</b>				Prepared: 07/21/21 Analyzed: 07/22/21						
Chloride	ND	1.00	mg/kg wet							
<b>LCS (P1G2115-BS1)</b>				Prepared: 07/21/21 Analyzed: 07/22/21						
Chloride	389	1.00	mg/kg wet	400		97.3	90-110			
<b>LCS Dup (P1G2115-BSD1)</b>				Prepared: 07/21/21 Analyzed: 07/22/21						
Chloride	388	1.00	mg/kg wet	400		97.1	90-110	0.214	20	
<b>Calibration Blank (P1G2115-CCB1)</b>				Prepared: 07/21/21 Analyzed: 07/22/21						
Chloride	0.0110		mg/kg wet							

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Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G2115 - *** DEFAULT PREP ***</b>										
<b>Calibration Blank (P1G2115-CCB2)</b> Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	0.0330		mg/kg wet							
<b>Calibration Check (P1G2115-CCV1)</b> Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	18.3		mg/kg	20.0		91.7	90-110			
<b>Calibration Check (P1G2115-CCV2)</b> Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	18.3		mg/kg	20.0		91.5	90-110			
<b>Calibration Check (P1G2115-CCV3)</b> Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	18.4		mg/kg	20.0		91.9	90-110			
<b>Matrix Spike (P1G2115-MS1)</b> Source: 1G14006-25 Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	490	1.00	mg/kg dry	500	40.2	90.0	80-120			
<b>Matrix Spike (P1G2115-MS2)</b> Source: 1G16006-08 Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	705	1.03	mg/kg dry	515	304	77.8	80-120			QM-05
<b>Matrix Spike Dup (P1G2115-MSD1)</b> Source: 1G14006-25 Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	485	1.00	mg/kg dry	500	40.2	89.0	80-120	1.00	20	
<b>Matrix Spike Dup (P1G2115-MSD2)</b> Source: 1G16006-08 Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	699	1.03	mg/kg dry	515	304	76.6	80-120	0.891	20	QM-05

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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G2008 - TX 1005</b>										
<b>Blank (P1G2008-BLK1)</b>										
Prepared & Analyzed: 07/20/21										
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	91.7		"	100		91.7	70-130			
Surrogate: o-Terphenyl	48.5		"	50.0		96.9	70-130			
<b>LCS (P1G2008-BS1)</b>										
Prepared & Analyzed: 07/20/21										
C6-C12	1050	25.0	mg/kg wet	1000		105	75-125			
>C12-C28	813	25.0	"	1000		81.3	75-125			
Surrogate: 1-Chlorooctane	117		"	100		117	70-130			
Surrogate: o-Terphenyl	53.6		"	50.0		107	70-130			
<b>LCS Dup (P1G2008-BSD1)</b>										
Prepared & Analyzed: 07/20/21										
C6-C12	1050	25.0	mg/kg wet	1000		105	75-125	0.114	20	
>C12-C28	824	25.0	"	1000		82.4	75-125	1.39	20	
Surrogate: 1-Chlorooctane	113		"	100		113	70-130			
Surrogate: o-Terphenyl	48.6		"	50.0		97.1	70-130			
<b>Calibration Check (P1G2008-CCV1)</b>										
Prepared & Analyzed: 07/20/21										
C6-C12	500	25.0	mg/kg wet	500		99.9	85-115			
>C12-C28	443	25.0	"	500		88.6	85-115			
Surrogate: 1-Chlorooctane	106		"	100		106	70-130			
Surrogate: o-Terphenyl	50.1		"	50.0		100	70-130			
<b>Calibration Check (P1G2008-CCV2)</b>										
Prepared & Analyzed: 07/20/21										
C6-C12	513	25.0	mg/kg wet	500		103	85-115			
>C12-C28	461	25.0	"	500		92.3	85-115			
Surrogate: 1-Chlorooctane	108		"	100		108	70-130			
Surrogate: o-Terphenyl	51.2		"	50.0		102	70-130			

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Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2008 - TX 1005****Calibration Check (P1G2008-CCV3)**

Prepared: 07/20/21 Analyzed: 07/21/21

C6-C12	535	25.0	mg/kg wet	500		107	85-115			
>C12-C28	483	25.0	"	500		96.6	85-115			
Surrogate: 1-Chlorooctane	113		"	100		113	70-130			
Surrogate: o-Terphenyl	52.8		"	50.0		106	70-130			

**Matrix Spike (P1G2008-MS1)**

Source: 1G14006-20

Prepared: 07/20/21 Analyzed: 07/21/21

C6-C12	1220	26.0	mg/kg dry	1040	12.7	116	75-125			
>C12-C28	948	26.0	"	1040	53.6	85.8	75-125			
Surrogate: 1-Chlorooctane	102		"	104		97.8	70-130			
Surrogate: o-Terphenyl	58.4		"	52.1		112	70-130			

**Matrix Spike Dup (P1G2008-MSD1)**

Source: 1G14006-20

Prepared: 07/20/21 Analyzed: 07/21/21

C6-C12	1220	26.0	mg/kg dry	1040	12.7	116	75-125	0.0198	20	
>C12-C28	951	26.0	"	1040	53.6	86.1	75-125	0.330	20	
Surrogate: 1-Chlorooctane	102		"	104		98.0	70-130			
Surrogate: o-Terphenyl	58.0		"	52.1		111	70-130			

**Batch P1G2009 - TX 1005****Blank (P1G2009-BLK1)**

Prepared: 07/20/21 Analyzed: 07/21/21

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	99.4		"	100		99.4	70-130			
Surrogate: o-Terphenyl	50.3		"	50.0		101	70-130			

**LCS (P1G2009-BS1)**

Prepared: 07/20/21 Analyzed: 07/21/21

C6-C12	1050	25.0	mg/kg wet	1000		105	75-125			
>C12-C28	992	25.0	"	1000		99.2	75-125			
Surrogate: 1-Chlorooctane	102		"	100		102	70-130			
Surrogate: o-Terphenyl	52.8		"	50.0		106	70-130			

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

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

**Batch P1G2009 - TX 1005****LCS Dup (P1G2009-BSD1)**

Prepared: 07/20/21 Analyzed: 07/21/21

C6-C12	1070	25.0	mg/kg wet	1000		107	75-125	1.17	20	
>C12-C28	992	25.0	"	1000		99.2	75-125	0.0544	20	
Surrogate: 1-Chlorooctane	103		"	100		103	70-130			
Surrogate: o-Terphenyl	50.9		"	50.0		102	70-130			

**Calibration Check (P1G2009-CCV1)**

Prepared: 07/20/21 Analyzed: 07/21/21

C6-C12	509	25.0	mg/kg wet	500		102	85-115			
>C12-C28	554	25.0	"	500		111	85-115			
Surrogate: 1-Chlorooctane	116		"	100		116	70-130			
Surrogate: o-Terphenyl	53.3		"	50.0		107	70-130			

**Calibration Check (P1G2009-CCV2)**

Prepared: 07/20/21 Analyzed: 07/21/21

C6-C12	488	25.0	mg/kg wet	500		97.7	85-115			
>C12-C28	526	25.0	"	500		105	85-115			
Surrogate: 1-Chlorooctane	113		"	100		113	70-130			
Surrogate: o-Terphenyl	50.3		"	50.0		101	70-130			

**Matrix Spike (P1G2009-MS1)**

Source: 1G15013-15

Prepared: 07/20/21 Analyzed: 07/21/21

C6-C12	1140	27.5	mg/kg dry	1100	16.6	102	75-125			
>C12-C28	1060	27.5	"	1100	11.6	95.1	75-125			
Surrogate: 1-Chlorooctane	109		"	110		98.8	70-130			
Surrogate: o-Terphenyl	53.3		"	54.9		96.9	70-130			

**Matrix Spike Dup (P1G2009-MSD1)**

Source: 1G15013-15

Prepared: 07/20/21 Analyzed: 07/21/21

C6-C12	1120	27.5	mg/kg dry	1100	16.6	101	75-125	1.22	20	
>C12-C28	1050	27.5	"	1100	11.6	94.6	75-125	0.509	20	
Surrogate: 1-Chlorooctane	108		"	110		98.0	70-130			
Surrogate: o-Terphenyl	53.1		"	54.9		96.6	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Page 44 of 49

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Notes and Definitions**

- ROI Received on Ice
- R3 The RPD exceeded the acceptance limit due to sample matrix effects.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- BULK Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- LCS Laboratory Control Spike
- MS Matrix Spike
- Dup Duplicate

Report Approved By:  Date: 7/23/2021

Brent Barron, Laboratory Director/Technical Director

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.





CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Perman Basin Environmental Lab, LP  
1400 Rankin Hwy  
Midland, Texas 79701

Phone: 432-686-7235

Project Manager: Jeff Kindley

Company Name: Dean

Company Address: 12600 WCR 91

City/State/Zip: Midland TX 79707

Telephone No: 432-230-0920

Sampler Signature: *Agged*

Fax No: e-mail: jeffkindley@deandigs.com

Report Format:  Standard  TRRP  NPDES

algroves@daalb.com

Project Name: Pans COG Screw driven

Project #: PR-21152

Project Loc: Eddy Co, NM

WORK ORDER #: 2021-053

ORDER #: 1G14006

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO <sub>3</sub> 250 ml Poly	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None 1L Poly	NaOH/ZNAc	Matrix	Analyze For:	7 Day TAT	24 hour TAT
11	BH-11 e	3 Ft	3 Ft	07/13/21	1014		1									Soil	TPH TX1005 EXT (TEXAS)		
12	BH-12 e	3 Ft	3 Ft	07/13/21	1016		1									Soil	BTEX 8021 B		
13	BH-13 e	2 Ft	2 Ft	07/13/21	1019		1									Soil	TCLP BENZENE		
14	BH-14 e	3 Ft	3 Ft	07/13/21	1022		1									Soil	CHLORIDES		
15	BH-15 e	3 Ft	3 Ft	07/13/21	1029		1									Soil	TCLP METALS		
16	BH-16 e	3 Ft	3 Ft	07/13/21	1032		1									Soil	NORM		
17	BH-17 e	3 Ft	3 Ft	07/13/21	1035		1									Soil	PAINT FILTER		
18	BH-18 e	3 Ft	3 Ft	07/13/21	1038		1									Soil	TOX		
19	BH-19 e	3 Ft	3 Ft	07/13/21	1040		1									Soil	RCI		
20	BH-20 e	2 Ft	2 Ft	07/13/21	1051		1									Soil	pH		

Special Instructions:

Relinquished by: *[Signature]* Date: 7/14/21 Time: 10:58 AM

Received by: *[Signature]* Date: 7/14/21 Time: 10:58 AM

Relinquished by: *[Signature]* Date: 7/14/21 Time: 10:58 AM

Received by: *[Signature]* Date: 7/14/21 Time: 10:58 AM

Temperature Adjusted: *CE+1*

by Courier? *Y* by Sampler/Client Rep? *Y*

UPS *Y* DHL *Y* FedEx *Y* Lorie Star *Y*

Labels on container(s) *Y*

Custom seals on container(s) *Y*

Custody seals on cooler(s) *Y*

Sample Hand Delivered *Y*

Temperature upon Receipt: *CE+1*

Adjusted: *CE+1*



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP  
1400 Rankin Hwy  
Midland, Texas 79701

Phone: 432-686-7235

Project Manager: Jeff Kindley  
Company Name: Dean  
Company Address: 12600 WCR 91  
City/State/Zip: Midland TX 79707  
Telephone No: 432-230-0920  
Sampler Signature: *Angel*  
e-mail: jeffkindley@deandigs.com  
stevecasanova@deandigs.com  
kavianloneee@deandequlp.com  
elizabethstuart@deandigs.com

Project Name: Plains CO6  
Project #: PP-21152  
Project Loc: *Edly 6, NM*  
WORK ORDER #: 2021-053  
Report Format:  Standard  TRRP  NPDES  
aigroves@paalp.com

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO <sub>3</sub> 250, ml Poly	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None 1L Poly	NaOH/ZnAc	Matrix	Analyze For:	7 Day TAT	24 hour TAT
21	GH-21 @ 3 FT	3 FT	3 FT	07/13/21	10:53	1 V	1 V									Soil	TPH TX1005 EXT (TEXAS)	✓	✓
22	GH-22 @ 3 FT	3 FT	3 FT	07/13/21	10:55	1 V	1 V									Soil	BTEX 8021 B	✓	✓
23	WE-1 @ 3 FT	3 FT	3 FT	07/13/21	12:11	1 V	1 V									Soil	TCLP BENZENE	✓	✓
24	WW-1 @ 3 FT	3 FT	3 FT	07/13/21	12:18	1 V	1 V									Soil	CHLORIDES	✓	✓
25	WW-2 @ 3 FT	3 FT	3 FT	07/13/21	12:23	1 V	1 V									Soil	TCLP METALS	✓	✓
26	WN-1 @ 3 FT	3 FT	3 FT	07/13/21	12:14	1 V	1 V									Soil	NORM	✓	✓
27	WN-2 @ 3 FT	3 FT	3 FT	07/13/21	12:16	1 V	1 V									Soil	PAINT FILTER	✓	✓
																	TOX	✓	✓
																	RCI	✓	✓
																	PH	✓	✓
																	TPH 8015 M (NEW MEXICO)	✓	✓

Relinquished by: *[Signature]* Date: 7/14/21 Time: 10:58 AM  
Requested by: *[Signature]* Date: *[Blank]* Time: *[Blank]*  
Relinquished by: *[Blank]* Date: *[Blank]* Time: *[Blank]*

Received by: *[Signature]* Date: 7/14/21 Time: 10:58  
Requested by: *[Signature]* Date: *[Blank]* Time: *[Blank]*

Received by: *[Signature]* Date: 7/14/21 Time: 10:58  
Requested by: *[Signature]* Date: *[Blank]* Time: *[Blank]*

Special Instructions:

Laboratory Comments:  
Sample Containers intact  
VOCs Free of Headspace?  
Labels on container(s)  
Custody seals on container(s)  
Gustody seals on cooler(s)  
Sample Hand Delivered  
by Sampler/Client Rep.?  
by Courier?  
Temperature Upon Receipt: *0* °C  
Adjusted: *0* °C Factor

Labels on container(s)  
Custody seals on container(s)  
Gustody seals on cooler(s)  
Sample Hand Delivered  
by Sampler/Client Rep.?  
by Courier?  
Temperature Upon Receipt: *0* °C  
Adjusted: *0* °C Factor

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



# Analytical Report

**Prepared for:**

Jeff Kindley  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21

Project Number: PP-21152

Location: Carlsbad, NM

Lab Order Number: 1G19004



**Current Certification**

Report Date: 07/23/21

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

## ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-23 @ 2.5'	1G19004-01	Soil	07/16/21 10:01	07-19-2021 10:45
BH-24 @ 2.5'	1G19004-02	Soil	07/16/21 10:03	07-19-2021 10:45
BH-25 @ 3'	1G19004-03	Soil	07/16/21 10:22	07-19-2021 10:45
BH-26 @ 5'	1G19004-04	Soil	07/16/21 10:24	07-19-2021 10:45
BH-27 @ 5'	1G19004-05	Soil	07/16/21 10:25	07-19-2021 10:45
BH-28 @ 5'	1G19004-06	Soil	07/16/21 10:27	07-19-2021 10:45
BH-29 @ 5'	1G19004-07	Soil	07/16/21 10:29	07-19-2021 10:45
BH-30 @ 5'	1G19004-08	Soil	07/16/21 10:34	07-19-2021 10:45
BH-31 @ 5'	1G19004-09	Soil	07/16/21 10:35	07-19-2021 10:45
BH-32 @ 5'	1G19004-10	Soil	07/16/21 10:37	07-19-2021 10:45
BH-33 @ 5'	1G19004-11	Soil	07/16/21 10:39	07-19-2021 10:45
BH-34 @ 5'	1G19004-12	Soil	07/16/21 10:41	07-19-2021 10:45
WS-1 @ 2.5'	1G19004-13	Soil	07/16/21 10:55	07-19-2021 10:45
WS-2 @ 2.5'	1G19004-14	Soil	07/16/21 10:38	07-19-2021 10:45
WS-3 @ 2.5'	1G19004-15	Soil	07/16/21 11:01	07-19-2021 10:45
WS-4 @ 2.5'	1G19004-16	Soil	07/16/21 11:03	07-19-2021 10:45
WS-5 @ 2.5'	1G19004-17	Soil	07/16/21 11:06	07-19-2021 10:45
WE-1 @ 3'	1G19004-18	Soil	07/16/21 11:08	07-19-2021 10:45
WW-1 @ 5'	1G19004-19	Soil	07/16/21 10:17	07-19-2021 10:45

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-23 @ 2.5'**  
**1G19004-01 (Soil)**

Analyte	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Result	Limit							

**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00105	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 19:32	EPA 8021B	
Toluene	ND	0.00105	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 19:32	EPA 8021B	
Ethylbenzene	ND	0.00105	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 19:32	EPA 8021B	
Xylene (p/m)	ND	0.00211	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 19:32	EPA 8021B	
Xylene (o)	ND	0.00105	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 19:32	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		96.5 %	80-120		P1G2003	07/20/21 09:57	07/20/21 19:32	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	80-120		P1G2003	07/20/21 09:57	07/20/21 19:32	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	14.1	1.05	mg/kg dry	1	P1G2115	07/21/21 15:34	07/22/21 08:58	EPA 300.0	
% Moisture	5.0	0.1	%	1	P1G2114	07/21/21 13:29	07/21/21 13:43	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.3	mg/kg dry	1	P1G2107	07/21/21 10:00	07/22/21 03:36	TPH 8015M	
>C12-C28	ND	26.3	mg/kg dry	1	P1G2107	07/21/21 10:00	07/22/21 03:36	TPH 8015M	
>C28-C35	ND	26.3	mg/kg dry	1	P1G2107	07/21/21 10:00	07/22/21 03:36	TPH 8015M	
Surrogate: 1-Chlorooctane		113 %	70-130		P1G2107	07/21/21 10:00	07/22/21 03:36	TPH 8015M	
Surrogate: o-Terphenyl		116 %	70-130		P1G2107	07/21/21 10:00	07/22/21 03:36	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.3	mg/kg dry	1	[CALC]	07/21/21 10:00	07/22/21 03:36	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-24 @ 2.5'**  
**1G19004-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00103	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 19:53	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 19:53	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 19:53	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 19:53	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 19:53	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		110 %	80-120		P1G2003	07/20/21 09:57	07/20/21 19:53	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		99.2 %	80-120		P1G2003	07/20/21 09:57	07/20/21 19:53	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	12.3	1.03	mg/kg dry	1	P1G2115	07/21/21 15:34	07/22/21 09:13	EPA 300.0	
% Moisture	3.0	0.1	%	1	P1G2114	07/21/21 13:29	07/21/21 13:43	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.8	mg/kg dry	1	P1G2107	07/21/21 10:00	07/22/21 03:58	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P1G2107	07/21/21 10:00	07/22/21 03:58	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P1G2107	07/21/21 10:00	07/22/21 03:58	TPH 8015M	
Surrogate: 1-Chlorooctane		112 %	70-130		P1G2107	07/21/21 10:00	07/22/21 03:58	TPH 8015M	
Surrogate: o-Terphenyl		116 %	70-130		P1G2107	07/21/21 10:00	07/22/21 03:58	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	07/21/21 10:00	07/22/21 03:58	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-25 @ 3'**  
**1G19004-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00103	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 20:14	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 20:14	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 20:14	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 20:14	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 20:14	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		93.2 %	80-120		P1G2003	07/20/21 09:57	07/20/21 20:14	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		105 %	80-120		P1G2003	07/20/21 09:57	07/20/21 20:14	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	11.0	1.03	mg/kg dry	1	P1G2115	07/21/21 15:34	07/22/21 09:29	EPA 300.0	
% Moisture	3.0	0.1	%	1	P1G2114	07/21/21 13:29	07/21/21 13:43	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.8	mg/kg dry	1	P1G2107	07/21/21 10:00	07/22/21 04:20	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P1G2107	07/21/21 10:00	07/22/21 04:20	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P1G2107	07/21/21 10:00	07/22/21 04:20	TPH 8015M	
Surrogate: 1-Chlorooctane		108 %	70-130		P1G2107	07/21/21 10:00	07/22/21 04:20	TPH 8015M	
Surrogate: o-Terphenyl		111 %	70-130		P1G2107	07/21/21 10:00	07/22/21 04:20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	07/21/21 10:00	07/22/21 04:20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-26 @ 5'**  
**1G19004-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00111	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 20:35	EPA 8021B	
Toluene	ND	0.00111	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 20:35	EPA 8021B	
Ethylbenzene	ND	0.00111	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 20:35	EPA 8021B	
Xylene (p/m)	ND	0.00222	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 20:35	EPA 8021B	
Xylene (o)	ND	0.00111	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 20:35	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		106 %	80-120		PIG2003	07/20/21 09:57	07/20/21 20:35	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		93.4 %	80-120		PIG2003	07/20/21 09:57	07/20/21 20:35	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	11.4	1.11	mg/kg dry	1	PIG2115	07/21/21 15:34	07/22/21 09:44	EPA 300.0	
% Moisture	10.0	0.1	%	1	PIG2114	07/21/21 13:29	07/21/21 13:43	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	27.8	mg/kg dry	1	PIG2107	07/21/21 10:00	07/22/21 04:42	TPH 8015M	
>C12-C28	93.6	27.8	mg/kg dry	1	PIG2107	07/21/21 10:00	07/22/21 04:42	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	PIG2107	07/21/21 10:00	07/22/21 04:42	TPH 8015M	
Surrogate: 1-Chlorooctane		113 %	70-130		PIG2107	07/21/21 10:00	07/22/21 04:42	TPH 8015M	
Surrogate: o-Terphenyl		115 %	70-130		PIG2107	07/21/21 10:00	07/22/21 04:42	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>93.6</b>	<b>27.8</b>	<b>mg/kg dry</b>	<b>1</b>	<b>[CALC]</b>	<b>07/21/21 10:00</b>	<b>07/22/21 04:42</b>	<b>calc</b>	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-27 @ 5'**  
**1G19004-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00112	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 20:56	EPA 8021B	
Toluene	ND	0.00112	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 20:56	EPA 8021B	
Ethylbenzene	ND	0.00112	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 20:56	EPA 8021B	
Xylene (p/m)	ND	0.00225	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 20:56	EPA 8021B	
Xylene (o)	ND	0.00112	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 20:56	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	80-120		PIG2003	07/20/21 09:57	07/20/21 20:56	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		97.5 %	80-120		PIG2003	07/20/21 09:57	07/20/21 20:56	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	16.8	1.12	mg/kg dry	1	PIG2115	07/21/21 15:34	07/22/21 09:59	EPA 300.0	
% Moisture	11.0	0.1	%	1	PIG2114	07/21/21 13:29	07/21/21 13:43	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	28.1	mg/kg dry	1	PIG2107	07/21/21 10:00	07/22/21 05:04	TPH 8015M	
>C12-C28	71.7	28.1	mg/kg dry	1	PIG2107	07/21/21 10:00	07/22/21 05:04	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	PIG2107	07/21/21 10:00	07/22/21 05:04	TPH 8015M	
Surrogate: 1-Chlorooctane		113 %	70-130		PIG2107	07/21/21 10:00	07/22/21 05:04	TPH 8015M	
Surrogate: o-Terphenyl		115 %	70-130		PIG2107	07/21/21 10:00	07/22/21 05:04	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>71.7</b>	<b>28.1</b>	<b>mg/kg dry</b>	<b>1</b>	<b>[CALC]</b>	<b>07/21/21 10:00</b>	<b>07/22/21 05:04</b>	<b>calc</b>	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean	Project: COG Screwdriver 24 Fed Com 2H 06.19.21
12600 W County Rd 91	Project Number: PP-21152
Midland TX, 79707	Project Manager: Jeff Kindley

**BH-28 @ 5'**  
**1G19004-06 (Soil)**

Analyte	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Result	Limit							

**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00115	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 21:17	EPA 8021B	
Toluene	ND	0.00115	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 21:17	EPA 8021B	
Ethylbenzene	ND	0.00115	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 21:17	EPA 8021B	
Xylene (p/m)	ND	0.00230	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 21:17	EPA 8021B	
Xylene (o)	ND	0.00115	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 21:17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		110 %	80-120		P1G2003	07/20/21 09:57	07/20/21 21:17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		98.4 %	80-120		P1G2003	07/20/21 09:57	07/20/21 21:17	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	8.28	1.15	mg/kg dry	1	P1G2115	07/21/21 15:34	07/22/21 10:24	EPA 300.0	
% Moisture	13.0	0.1	%	1	P1G2114	07/21/21 13:29	07/21/21 13:43	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	28.7	mg/kg dry	1	P1G2107	07/21/21 10:00	07/22/21 05:26	TPH 8015M	
>C12-C28	ND	28.7	mg/kg dry	1	P1G2107	07/21/21 10:00	07/22/21 05:26	TPH 8015M	
>C28-C35	ND	28.7	mg/kg dry	1	P1G2107	07/21/21 10:00	07/22/21 05:26	TPH 8015M	
Surrogate: 1-Chlorooctane		110 %	70-130		P1G2107	07/21/21 10:00	07/22/21 05:26	TPH 8015M	
Surrogate: o-Terphenyl		110 %	70-130		P1G2107	07/21/21 10:00	07/22/21 05:26	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.7	mg/kg dry	1	[CALC]	07/21/21 10:00	07/22/21 05:26	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-29 @ 5'**  
**1G19004-07 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00110	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 00:02	EPA 8021B	
Toluene	ND	0.00110	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 00:02	EPA 8021B	
Ethylbenzene	ND	0.00110	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 00:02	EPA 8021B	
Xylene (p/m)	ND	0.00220	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 00:02	EPA 8021B	
Xylene (o)	ND	0.00110	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 00:02	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		111 %	80-120		P1G2004	07/20/21 10:03	07/21/21 00:02	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		96.6 %	80-120		P1G2004	07/20/21 10:03	07/21/21 00:02	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	18.8	1.10	mg/kg dry	1	P1G2115	07/21/21 15:34	07/22/21 10:40	EPA 300.0	
% Moisture	9.0	0.1	%	1	P1G2114	07/21/21 13:29	07/21/21 13:43	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	27.5	mg/kg dry	1	P1G2107	07/21/21 10:00	07/22/21 05:48	TPH 8015M	
>C12-C28	77.6	27.5	mg/kg dry	1	P1G2107	07/21/21 10:00	07/22/21 05:48	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P1G2107	07/21/21 10:00	07/22/21 05:48	TPH 8015M	
Surrogate: 1-Chlorooctane		108 %	70-130		P1G2107	07/21/21 10:00	07/22/21 05:48	TPH 8015M	
Surrogate: o-Terphenyl		110 %	70-130		P1G2107	07/21/21 10:00	07/22/21 05:48	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>77.6</b>	<b>27.5</b>	<b>mg/kg dry</b>	<b>1</b>	<b>[CALC]</b>	<b>07/21/21 10:00</b>	<b>07/22/21 05:48</b>	<b>calc</b>	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-30 @ 5'**  
**1G19004-08 (Soil)**

Analyte	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Result	Limit							

**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00110	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 00:22	EPA 8021B	
Toluene	ND	0.00110	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 00:22	EPA 8021B	
Ethylbenzene	ND	0.00110	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 00:22	EPA 8021B	
Xylene (p/m)	ND	0.00220	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 00:22	EPA 8021B	
Xylene (o)	ND	0.00110	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 00:22	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		106 %	80-120		P1G2004	07/20/21 10:03	07/21/21 00:22	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		91.0 %	80-120		P1G2004	07/20/21 10:03	07/21/21 00:22	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	10.7	1.10	mg/kg dry	1	P1G2115	07/21/21 15:34	07/22/21 10:55	EPA 300.0	
% Moisture	9.0	0.1	%	1	P1G2114	07/21/21 13:29	07/21/21 13:43	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	27.5	mg/kg dry	1	P1G2111	07/21/21 12:00	07/22/21 00:11	TPH 8015M	
>C12-C28	ND	27.5	mg/kg dry	1	P1G2111	07/21/21 12:00	07/22/21 00:11	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P1G2111	07/21/21 12:00	07/22/21 00:11	TPH 8015M	
Surrogate: 1-Chlorooctane		101 %	70-130		P1G2111	07/21/21 12:00	07/22/21 00:11	TPH 8015M	
Surrogate: o-Terphenyl		109 %	70-130		P1G2111	07/21/21 12:00	07/22/21 00:11	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.5	mg/kg dry	1	[CALC]	07/21/21 12:00	07/22/21 00:11	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-31 @ 5'**  
**1G19004-09 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00106	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 00:43	EPA 8021B	
Toluene	ND	0.00106	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 00:43	EPA 8021B	
Ethylbenzene	ND	0.00106	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 00:43	EPA 8021B	
Xylene (p/m)	ND	0.00213	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 00:43	EPA 8021B	
Xylene (o)	ND	0.00106	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 00:43	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		93.5 %	80-120		P1G2004	07/20/21 10:03	07/21/21 00:43	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		106 %	80-120		P1G2004	07/20/21 10:03	07/21/21 00:43	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	5.57	1.06	mg/kg dry	1	P1G2115	07/21/21 15:34	07/22/21 11:10	EPA 300.0	
% Moisture	6.0	0.1	%	1	P1G2114	07/21/21 13:29	07/21/21 13:43	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.6	mg/kg dry	1	P1G2111	07/21/21 12:00	07/22/21 00:33	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P1G2111	07/21/21 12:00	07/22/21 00:33	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P1G2111	07/21/21 12:00	07/22/21 00:33	TPH 8015M	
Surrogate: 1-Chlorooctane		113 %	70-130		P1G2111	07/21/21 12:00	07/22/21 00:33	TPH 8015M	
Surrogate: o-Terphenyl		123 %	70-130		P1G2111	07/21/21 12:00	07/22/21 00:33	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	07/21/21 12:00	07/22/21 00:33	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-32 @ 5'**  
**1G19004-10 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00112	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 01:03	EPA 8021B	
Toluene	ND	0.00112	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 01:03	EPA 8021B	
Ethylbenzene	ND	0.00112	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 01:03	EPA 8021B	
Xylene (p/m)	ND	0.00225	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 01:03	EPA 8021B	
Xylene (o)	ND	0.00112	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 01:03	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		111 %	80-120		PIG2004	07/20/21 10:03	07/21/21 01:03	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		97.5 %	80-120		PIG2004	07/20/21 10:03	07/21/21 01:03	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	16.0	1.12	mg/kg dry	1	PIG2204	07/22/21 09:31	07/22/21 22:16	EPA 300.0	
% Moisture	11.0	0.1	%	1	PIG2114	07/21/21 13:29	07/21/21 13:43	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	28.1	mg/kg dry	1	PIG2111	07/21/21 12:00	07/22/21 00:54	TPH 8015M	
>C12-C28	ND	28.1	mg/kg dry	1	PIG2111	07/21/21 12:00	07/22/21 00:54	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	PIG2111	07/21/21 12:00	07/22/21 00:54	TPH 8015M	
Surrogate: 1-Chlorooctane		105 %	70-130		PIG2111	07/21/21 12:00	07/22/21 00:54	TPH 8015M	
Surrogate: o-Terphenyl		113 %	70-130		PIG2111	07/21/21 12:00	07/22/21 00:54	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.1	mg/kg dry	1	[CALC]	07/21/21 12:00	07/22/21 00:54	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-33 @ 5'**  
**1G19004-11 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00114	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 01:24	EPA 8021B	
Toluene	ND	0.00114	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 01:24	EPA 8021B	
Ethylbenzene	ND	0.00114	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 01:24	EPA 8021B	
Xylene (p/m)	ND	0.00227	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 01:24	EPA 8021B	
Xylene (o)	ND	0.00114	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 01:24	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		110 %	80-120		PIG2004	07/20/21 10:03	07/21/21 01:24	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		99.5 %	80-120		PIG2004	07/20/21 10:03	07/21/21 01:24	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	15.5	1.14	mg/kg dry	1	PIG2204	07/22/21 09:31	07/23/21 12:38	EPA 300.0	
% Moisture	12.0	0.1	%	1	PIG2114	07/21/21 13:29	07/21/21 13:43	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	28.4	mg/kg dry	1	PIG2111	07/21/21 12:00	07/22/21 01:16	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	1	PIG2111	07/21/21 12:00	07/22/21 01:16	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	PIG2111	07/21/21 12:00	07/22/21 01:16	TPH 8015M	
Surrogate: 1-Chlorooctane		100 %	70-130		PIG2111	07/21/21 12:00	07/22/21 01:16	TPH 8015M	
Surrogate: o-Terphenyl		108 %	70-130		PIG2111	07/21/21 12:00	07/22/21 01:16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	07/21/21 12:00	07/22/21 01:16	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BH-34 @ 5'**  
**1G19004-12 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00112	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 01:44	EPA 8021B	
Toluene	ND	0.00112	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 01:44	EPA 8021B	
Ethylbenzene	ND	0.00112	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 01:44	EPA 8021B	
Xylene (p/m)	ND	0.00225	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 01:44	EPA 8021B	
Xylene (o)	ND	0.00112	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 01:44	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	80-120		PIG2004	07/20/21 10:03	07/21/21 01:44	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		94.9 %	80-120		PIG2004	07/20/21 10:03	07/21/21 01:44	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	21.8	1.12	mg/kg dry	1	PIG2204	07/22/21 09:31	07/22/21 22:47	EPA 300.0	
% Moisture	11.0	0.1	%	1	PIG2114	07/21/21 13:29	07/21/21 13:43	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	28.1	mg/kg dry	1	PIG2111	07/21/21 12:00	07/22/21 01:38	TPH 8015M	
>C12-C28	42.1	28.1	mg/kg dry	1	PIG2111	07/21/21 12:00	07/22/21 01:38	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	PIG2111	07/21/21 12:00	07/22/21 01:38	TPH 8015M	
Surrogate: 1-Chlorooctane		107 %	70-130		PIG2111	07/21/21 12:00	07/22/21 01:38	TPH 8015M	
Surrogate: o-Terphenyl		116 %	70-130		PIG2111	07/21/21 12:00	07/22/21 01:38	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>42.1</b>	28.1	mg/kg dry	1	[CALC]	07/21/21 12:00	07/22/21 01:38	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**WS-1 @ 2.5'**  
**1G19004-13 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00100	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 02:05	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 02:05	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 02:05	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 02:05	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 02:05	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	80-120		PIG2004	07/20/21 10:03	07/21/21 02:05	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		95.0 %	80-120		PIG2004	07/20/21 10:03	07/21/21 02:05	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	7.39	1.00	mg/kg dry	1	PIG2204	07/22/21 09:31	07/22/21 23:02	EPA 300.0	
% Moisture	ND	0.1	%	1	PIG2114	07/21/21 13:29	07/21/21 13:43	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.0	mg/kg dry	1	PIG2111	07/21/21 12:00	07/22/21 02:00	TPH 8015M	
>C12-C28	ND	25.0	mg/kg dry	1	PIG2111	07/21/21 12:00	07/22/21 02:00	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	PIG2111	07/21/21 12:00	07/22/21 02:00	TPH 8015M	
Surrogate: 1-Chlorooctane		104 %	70-130		PIG2111	07/21/21 12:00	07/22/21 02:00	TPH 8015M	
Surrogate: o-Terphenyl		111 %	70-130		PIG2111	07/21/21 12:00	07/22/21 02:00	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg dry	1	[CALC]	07/21/21 12:00	07/22/21 02:00	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean	Project: COG Screwdriver 24 Fed Com 2H 06.19.21
12600 W County Rd 91	Project Number: PP-21152
Midland TX, 79707	Project Manager: Jeff Kindley

**WS-2 @ 2.5'**  
**1G19004-14 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00101	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 02:25	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 02:25	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 02:25	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 02:25	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 02:25	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	80-120		P1G2004	07/20/21 10:03	07/21/21 02:25	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		98.9 %	80-120		P1G2004	07/20/21 10:03	07/21/21 02:25	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	62.2	1.01	mg/kg dry	1	P1G2204	07/22/21 09:31	07/22/21 23:18	EPA 300.0	
% Moisture	1.0	0.1	%	1	P1G2114	07/21/21 13:29	07/21/21 13:43	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.3	mg/kg dry	1	P1G2111	07/21/21 12:00	07/22/21 02:22	TPH 8015M	
>C12-C28	30.8	25.3	mg/kg dry	1	P1G2111	07/21/21 12:00	07/22/21 02:22	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P1G2111	07/21/21 12:00	07/22/21 02:22	TPH 8015M	
Surrogate: 1-Chlorooctane		102 %	70-130		P1G2111	07/21/21 12:00	07/22/21 02:22	TPH 8015M	
Surrogate: o-Terphenyl		109 %	70-130		P1G2111	07/21/21 12:00	07/22/21 02:22	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>30.8</b>	25.3	mg/kg dry	1	[CALC]	07/21/21 12:00	07/22/21 02:22	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**WS-3 @ 2.5'**  
**1G19004-15 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00103	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 02:46	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 02:46	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 02:46	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 02:46	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 02:46	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		108 %	80-120		PIG2004	07/20/21 10:03	07/21/21 02:46	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		94.3 %	80-120		PIG2004	07/20/21 10:03	07/21/21 02:46	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	9.95	1.03	mg/kg dry	1	PIG2204	07/22/21 09:31	07/22/21 23:33	EPA 300.0	
% Moisture	3.0	0.1	%	1	PIG2114	07/21/21 13:29	07/21/21 13:43	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.8	mg/kg dry	1	PIG2111	07/21/21 12:00	07/22/21 02:44	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	PIG2111	07/21/21 12:00	07/22/21 02:44	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	PIG2111	07/21/21 12:00	07/22/21 02:44	TPH 8015M	
Surrogate: 1-Chlorooctane		105 %	70-130		PIG2111	07/21/21 12:00	07/22/21 02:44	TPH 8015M	
Surrogate: o-Terphenyl		114 %	70-130		PIG2111	07/21/21 12:00	07/22/21 02:44	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	07/21/21 12:00	07/22/21 02:44	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**WS-4 @ 2.5'**  
**1G19004-16 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00105	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 03:07	EPA 8021B	
Toluene	ND	0.00105	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 03:07	EPA 8021B	
Ethylbenzene	ND	0.00105	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 03:07	EPA 8021B	
Xylene (p/m)	ND	0.00211	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 03:07	EPA 8021B	
Xylene (o)	ND	0.00105	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 03:07	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		95.0 %	80-120		PIG2004	07/20/21 10:03	07/21/21 03:07	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		108 %	80-120		PIG2004	07/20/21 10:03	07/21/21 03:07	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	6.29	1.05	mg/kg dry	1	PIG2204	07/22/21 09:31	07/22/21 23:48	EPA 300.0	
% Moisture	5.0	0.1	%	1	PIG2114	07/21/21 13:29	07/21/21 13:43	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.3	mg/kg dry	1	PIG2111	07/21/21 12:00	07/22/21 03:06	TPH 8015M	
>C12-C28	ND	26.3	mg/kg dry	1	PIG2111	07/21/21 12:00	07/22/21 03:06	TPH 8015M	
>C28-C35	ND	26.3	mg/kg dry	1	PIG2111	07/21/21 12:00	07/22/21 03:06	TPH 8015M	
Surrogate: 1-Chlorooctane		105 %	70-130		PIG2111	07/21/21 12:00	07/22/21 03:06	TPH 8015M	
Surrogate: o-Terphenyl		113 %	70-130		PIG2111	07/21/21 12:00	07/22/21 03:06	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.3	mg/kg dry	1	[CALC]	07/21/21 12:00	07/22/21 03:06	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**WS-5 @ 2.5'**  
**1G19004-17 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00104	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 04:08	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 04:08	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 04:08	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 04:08	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 04:08	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		106 %	80-120		P1G2004	07/20/21 10:03	07/21/21 04:08	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		93.1 %	80-120		P1G2004	07/20/21 10:03	07/21/21 04:08	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	8.51	1.04	mg/kg dry	1	P1G2204	07/22/21 09:31	07/23/21 00:04	EPA 300.0	
% Moisture	4.0	0.1	%	1	P1G2114	07/21/21 13:29	07/21/21 13:43	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.0	mg/kg dry	1	P1G2111	07/21/21 12:00	07/22/21 03:28	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P1G2111	07/21/21 12:00	07/22/21 03:28	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P1G2111	07/21/21 12:00	07/22/21 03:28	TPH 8015M	
Surrogate: 1-Chlorooctane		103 %	70-130		P1G2111	07/21/21 12:00	07/22/21 03:28	TPH 8015M	
Surrogate: o-Terphenyl		112 %	70-130		P1G2111	07/21/21 12:00	07/22/21 03:28	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	07/21/21 12:00	07/22/21 03:28	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean 12600 W County Rd 91 Midland TX, 79707	Project: COG Screwdriver 24 Fed Com 2H 06.19.21 Project Number: PP-21152 Project Manager: Jeff Kindley
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**WE-1 @ 3'**  
**1G19004-18 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00108	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 04:29	EPA 8021B	
Toluene	ND	0.00108	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 04:29	EPA 8021B	
Ethylbenzene	ND	0.00108	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 04:29	EPA 8021B	
Xylene (p/m)	ND	0.00215	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 04:29	EPA 8021B	
Xylene (o)	ND	0.00108	mg/kg dry	1	PIG2004	07/20/21 10:03	07/21/21 04:29	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		96.7 %	80-120		PIG2004	07/20/21 10:03	07/21/21 04:29	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	80-120		PIG2004	07/20/21 10:03	07/21/21 04:29	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	14.0	1.08	mg/kg dry	1	PIG2204	07/22/21 09:31	07/23/21 00:19	EPA 300.0	
% Moisture	7.0	0.1	%	1	PIG2114	07/21/21 13:29	07/21/21 13:43	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.9	mg/kg dry	1	PIG2111	07/21/21 12:00	07/22/21 04:35	TPH 8015M	
>C12-C28	ND	26.9	mg/kg dry	1	PIG2111	07/21/21 12:00	07/22/21 04:35	TPH 8015M	
>C28-C35	ND	26.9	mg/kg dry	1	PIG2111	07/21/21 12:00	07/22/21 04:35	TPH 8015M	
Surrogate: 1-Chlorooctane		105 %	70-130		PIG2111	07/21/21 12:00	07/22/21 04:35	TPH 8015M	
Surrogate: o-Terphenyl		113 %	70-130		PIG2111	07/21/21 12:00	07/22/21 04:35	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.9	mg/kg dry	1	[CALC]	07/21/21 12:00	07/22/21 04:35	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**WW-1 @ 5'**  
**1G19004-19 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00114	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 04:50	EPA 8021B	
Toluene	ND	0.00114	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 04:50	EPA 8021B	
Ethylbenzene	ND	0.00114	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 04:50	EPA 8021B	
Xylene (p/m)	ND	0.00227	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 04:50	EPA 8021B	
Xylene (o)	ND	0.00114	mg/kg dry	1	P1G2004	07/20/21 10:03	07/21/21 04:50	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		106 %	80-120		P1G2004	07/20/21 10:03	07/21/21 04:50	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.2 %	80-120		P1G2004	07/20/21 10:03	07/21/21 04:50	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	14.9	1.14	mg/kg dry	1	P1G2204	07/22/21 09:31	07/23/21 01:05	EPA 300.0	
% Moisture	12.0	0.1	%	1	P1G2114	07/21/21 13:29	07/21/21 13:43	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	28.4	mg/kg dry	1	P1G2111	07/21/21 12:00	07/22/21 04:57	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	1	P1G2111	07/21/21 12:00	07/22/21 04:57	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P1G2111	07/21/21 12:00	07/22/21 04:57	TPH 8015M	
Surrogate: 1-Chlorooctane		105 %	70-130		P1G2111	07/21/21 12:00	07/22/21 04:57	TPH 8015M	
Surrogate: o-Terphenyl		113 %	70-130		P1G2111	07/21/21 12:00	07/22/21 04:57	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	07/21/21 12:00	07/22/21 04:57	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2003 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P1G2003-BLK1)**

Prepared & Analyzed: 07/20/21

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	0.113		"	0.120		94.4	80-120			
Surrogate: 1,4-Difluorobenzene	0.127		"	0.120		106	80-120			

**LCS (P1G2003-BS1)**

Prepared & Analyzed: 07/20/21

Benzene	0.119	0.00100	mg/kg wet	0.100		119	70-130			
Toluene	0.114	0.00100	"	0.100		114	70-130			
Ethylbenzene	0.115	0.00100	"	0.100		115	70-130			
Xylene (p/m)	0.204	0.00200	"	0.200		102	70-130			
Xylene (o)	0.107	0.00100	"	0.100		107	70-130			
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		90.6	80-120			
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		95.0	80-120			

**LCS Dup (P1G2003-BSD1)**

Prepared & Analyzed: 07/20/21

Benzene	0.120	0.00100	mg/kg wet	0.100		120	70-130	0.259	20	
Toluene	0.116	0.00100	"	0.100		116	70-130	1.85	20	
Ethylbenzene	0.118	0.00100	"	0.100		118	70-130	2.45	20	
Xylene (p/m)	0.210	0.00200	"	0.200		105	70-130	2.64	20	
Xylene (o)	0.109	0.00100	"	0.100		109	70-130	1.44	20	
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		94.6	80-120			
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		90.5	80-120			

**Calibration Blank (P1G2003-CCB1)**

Prepared & Analyzed: 07/20/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.127		"	0.120		106	80-120			
Surrogate: 4-Bromofluorobenzene	0.115		"	0.120		95.7	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2003 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Blank (P1G2003-CCB2)**

Prepared & Analyzed: 07/20/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.127		"	0.120		106	80-120			
Surrogate: 4-Bromofluorobenzene	0.112		"	0.120		93.0	80-120			

**Calibration Blank (P1G2003-CCB3)**

Prepared & Analyzed: 07/20/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.119		"	0.120		98.8	80-120			
Surrogate: 1,4-Difluorobenzene	0.132		"	0.120		110	80-120			

**Calibration Check (P1G2003-CCV1)**

Prepared & Analyzed: 07/20/21

Benzene	0.119	0.00100	mg/kg wet	0.100		119	80-120			
Toluene	0.112	0.00100	"	0.100		112	80-120			
Ethylbenzene	0.114	0.00100	"	0.100		114	80-120			
Xylene (p/m)	0.202	0.00200	"	0.200		101	80-120			
Xylene (o)	0.106	0.00100	"	0.100		106	80-120			
Surrogate: 4-Bromofluorobenzene	0.115		"	0.120		95.6	75-125			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.2	75-125			

**Calibration Check (P1G2003-CCV2)**

Prepared & Analyzed: 07/20/21

Benzene	0.120	0.00100	mg/kg wet	0.100		120	80-120			
Toluene	0.111	0.00100	"	0.100		111	80-120			
Ethylbenzene	0.109	0.00100	"	0.100		109	80-120			
Xylene (p/m)	0.191	0.00200	"	0.200		95.7	80-120			
Xylene (o)	0.104	0.00100	"	0.100		104	80-120			
Surrogate: 4-Bromofluorobenzene	0.112		"	0.120		93.1	75-125			
Surrogate: 1,4-Difluorobenzene	0.119		"	0.120		98.9	75-125			

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2003 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Check (P1G2003-CCV3)**

Prepared & Analyzed: 07/20/21

Benzene	0.118	0.00100	mg/kg wet	0.100		118	80-120			
Toluene	0.106	0.00100	"	0.100		106	80-120			
Ethylbenzene	0.104	0.00100	"	0.100		104	80-120			
Xylene (p/m)	0.185	0.00200	"	0.200		92.4	80-120			
Xylene (o)	0.0999	0.00100	"	0.100		99.9	80-120			
Surrogate: 4-Bromofluorobenzene	0.105		"	0.120		87.9	75-125			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.1	75-125			

**Matrix Spike (P1G2003-MS1)**

Source: 1G16004-23

Prepared & Analyzed: 07/20/21

Benzene	0.0971	0.00101	mg/kg dry	0.101	ND	96.1	80-120			
Toluene	0.0847	0.00101	"	0.101	ND	83.9	80-120			
Ethylbenzene	0.0834	0.00101	"	0.101	ND	82.6	80-120			
Xylene (p/m)	0.147	0.00202	"	0.202	ND	72.9	80-120			QM-07
Xylene (o)	0.0762	0.00101	"	0.101	ND	75.4	80-120			QM-07
Surrogate: 1,4-Difluorobenzene	0.118		"	0.121		97.4	80-120			
Surrogate: 4-Bromofluorobenzene	0.111		"	0.121		91.7	80-120			

**Matrix Spike Dup (P1G2003-MSD1)**

Source: 1G16004-23

Prepared & Analyzed: 07/20/21

Benzene	0.107	0.00101	mg/kg dry	0.101	ND	106	80-120	9.80	20	
Toluene	0.0938	0.00101	"	0.101	ND	92.8	80-120	10.1	20	
Ethylbenzene	0.0934	0.00101	"	0.101	ND	92.5	80-120	11.3	20	
Xylene (p/m)	0.165	0.00202	"	0.202	ND	81.6	80-120	11.3	20	
Xylene (o)	0.0847	0.00101	"	0.101	ND	83.9	80-120	10.6	20	
Surrogate: 4-Bromofluorobenzene	0.116		"	0.121		95.4	80-120			
Surrogate: 1,4-Difluorobenzene	0.121		"	0.121		100	80-120			

**Batch P1G2004 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P1G2004-BLK1)**

Prepared & Analyzed: 07/20/21

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	0.112		"	0.120		93.2	80-120			
Surrogate: 1,4-Difluorobenzene	0.127		"	0.120		106	80-120			

Permian Basin Environmental Lab, L.P.

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Dean  
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Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2004 - \*\*\* DEFAULT PREP \*\*\***

**LCS (P1G2004-BS1)**

Prepared & Analyzed: 07/20/21

Benzene	0.119	0.00100	mg/kg wet	0.100		119	70-130			
Toluene	0.107	0.00100	"	0.100		107	70-130			
Ethylbenzene	0.108	0.00100	"	0.100		108	70-130			
Xylene (p/m)	0.190	0.00200	"	0.200		95.2	70-130			
Xylene (o)	0.100	0.00100	"	0.100		100	70-130			
Surrogate: 4-Bromofluorobenzene	0.106		"	0.120		88.5	80-120			
Surrogate: 1,4-Difluorobenzene	0.115		"	0.120		96.0	80-120			

**LCS Dup (P1G2004-BSD1)**

Prepared & Analyzed: 07/20/21

Benzene	0.116	0.00100	mg/kg wet	0.100		116	70-130	2.44	20	
Toluene	0.101	0.00100	"	0.100		101	70-130	6.25	20	
Ethylbenzene	0.101	0.00100	"	0.100		101	70-130	7.02	20	
Xylene (p/m)	0.178	0.00200	"	0.200		89.2	70-130	6.45	20	
Xylene (o)	0.0927	0.00100	"	0.100		92.7	70-130	8.01	20	
Surrogate: 4-Bromofluorobenzene	0.106		"	0.120		88.2	80-120			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.8	80-120			

**Calibration Blank (P1G2004-CCB1)**

Prepared & Analyzed: 07/20/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.119		"	0.120		98.8	80-120			
Surrogate: 1,4-Difluorobenzene	0.132		"	0.120		110	80-120			

**Calibration Blank (P1G2004-CCB2)**

Prepared: 07/20/21 Analyzed: 07/21/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.129		"	0.120		107	80-120			
Surrogate: 4-Bromofluorobenzene	0.112		"	0.120		93.6	80-120			

Permian Basin Environmental Lab, L.P.

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Dean  
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Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2004 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Check (P1G2004-CCV1)**

Prepared & Analyzed: 07/20/21

Benzene	0.118	0.00100	mg/kg wet	0.100		118	80-120			
Toluene	0.106	0.00100	"	0.100		106	80-120			
Ethylbenzene	0.104	0.00100	"	0.100		104	80-120			
Xylene (p/m)	0.185	0.00200	"	0.200		92.4	80-120			
Xylene (o)	0.0999	0.00100	"	0.100		99.9	80-120			
Surrogate: 4-Bromofluorobenzene	0.105		"	0.120		87.9	75-125			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.1	75-125			

**Calibration Check (P1G2004-CCV2)**

Prepared: 07/20/21 Analyzed: 07/21/21

Benzene	0.120	0.00100	mg/kg wet	0.100		120	80-120			
Toluene	0.112	0.00100	"	0.100		112	80-120			
Ethylbenzene	0.110	0.00100	"	0.100		110	80-120			
Xylene (p/m)	0.195	0.00200	"	0.200		97.7	80-120			
Xylene (o)	0.106	0.00100	"	0.100		106	80-120			
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		90.5	75-125			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.2	75-125			

**Calibration Check (P1G2004-CCV3)**

Prepared: 07/20/21 Analyzed: 07/21/21

Benzene	0.120	0.00100	mg/kg wet	0.100		120	80-120			
Toluene	0.110	0.00100	"	0.100		110	80-120			
Ethylbenzene	0.107	0.00100	"	0.100		107	80-120			
Xylene (p/m)	0.188	0.00200	"	0.200		93.8	80-120			
Xylene (o)	0.102	0.00100	"	0.100		102	80-120			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.3	75-125			
Surrogate: 4-Bromofluorobenzene	0.108		"	0.120		89.8	75-125			

**Matrix Spike (P1G2004-MS1)**

Source: 1G19004-07

Prepared: 07/20/21 Analyzed: 07/21/21

Benzene	0.117	0.00110	mg/kg dry	0.110	ND	106	80-120			
Toluene	0.0770	0.00110	"	0.110	ND	70.0	80-120			QM-07
Ethylbenzene	0.0219	0.00110	"	0.110	ND	20.0	80-120			QM-07
Xylene (p/m)	0.0790	0.00220	"	0.220	ND	36.0	80-120			QM-07
Xylene (o)	0.0833	0.00110	"	0.110	ND	75.8	80-120			QM-07
Surrogate: 1,4-Difluorobenzene	0.138		"	0.132		105	80-120			
Surrogate: 4-Bromofluorobenzene	0.133		"	0.132		101	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2004 - \*\*\* DEFAULT PREP \*\*\***

<b>Matrix Spike Dup (P1G2004-MSD1)</b>	<b>Source: 1G19004-07</b>			<b>Prepared: 07/20/21 Analyzed: 07/21/21</b>						
Benzene	0.114	0.00110	mg/kg dry	0.110	ND	103	80-120	2.96	20	
Toluene	0.0727	0.00110	"	0.110	ND	66.2	80-120	5.71	20	QM-07
Ethylbenzene	0.0106	0.00110	"	0.110	ND	9.64	80-120	69.7	20	QM-07, R2
Xylene (p/m)	0.108	0.00220	"	0.220	ND	49.1	80-120	30.9	20	QM-07, R2
Xylene (o)	0.0866	0.00110	"	0.110	ND	78.8	80-120	3.87	20	QM-07
Surrogate: 4-Bromofluorobenzene	0.133		"	0.132		101	80-120			
Surrogate: 1,4-Difluorobenzene	0.138		"	0.132		105	80-120			

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Dean  
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Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G2114 - *** DEFAULT PREP ***</b>										
<b>Blank (P1G2114-BLK1)</b>	Prepared & Analyzed: 07/21/21									
% Moisture	ND	0.1	%							
<b>Blank (P1G2114-BLK2)</b>	Prepared & Analyzed: 07/21/21									
% Moisture	ND	0.1	%							
<b>Blank (P1G2114-BLK3)</b>	Prepared & Analyzed: 07/21/21									
% Moisture	ND	0.1	%							
<b>Blank (P1G2114-BLK4)</b>	Prepared & Analyzed: 07/21/21									
% Moisture	ND	0.1	%							
<b>Duplicate (P1G2114-DUP1)</b>	Source: 1G19012-10 Prepared & Analyzed: 07/21/21									
% Moisture	12.0	0.1	%		12.0			0.00	20	
<b>Duplicate (P1G2114-DUP2)</b>	Source: 1G19001-12 Prepared & Analyzed: 07/21/21									
% Moisture	2.0	0.1	%		2.0			0.00	20	
<b>Duplicate (P1G2114-DUP3)</b>	Source: 1G19002-05 Prepared & Analyzed: 07/21/21									
% Moisture	5.0	0.1	%		5.0			0.00	20	
<b>Duplicate (P1G2114-DUP4)</b>	Source: 1G19004-09 Prepared & Analyzed: 07/21/21									
% Moisture	7.0	0.1	%		6.0			15.4	20	
<b>Duplicate (P1G2114-DUP5)</b>	Source: 1G19008-02 Prepared & Analyzed: 07/21/21									
% Moisture	ND	0.1	%		1.0			200	20	R3
<b>Duplicate (P1G2114-DUP6)</b>	Source: 1G20009-01 Prepared & Analyzed: 07/21/21									
% Moisture	3.0	0.1	%		4.0			28.6	20	R3

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G2115 - *** DEFAULT PREP ***</b>										
<b>Blank (P1G2115-BLK1)</b> Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	ND	1.00	mg/kg wet							
<b>LCS (P1G2115-BS1)</b> Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	389	1.00	mg/kg wet	400		97.3	90-110			
<b>LCS Dup (P1G2115-BSD1)</b> Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	388	1.00	mg/kg wet	400		97.1	90-110	0.214	20	
<b>Calibration Blank (P1G2115-CCB1)</b> Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	0.0110		mg/kg wet							
<b>Calibration Blank (P1G2115-CCB2)</b> Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	0.0330		mg/kg wet							
<b>Calibration Check (P1G2115-CCV1)</b> Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	18.3		mg/kg	20.0		91.7	90-110			
<b>Calibration Check (P1G2115-CCV2)</b> Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	18.3		mg/kg	20.0		91.5	90-110			
<b>Calibration Check (P1G2115-CCV3)</b> Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	18.4		mg/kg	20.0		91.9	90-110			
<b>Matrix Spike (P1G2115-MS1)</b> Source: 1G14006-25 Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	490	1.00	mg/kg dry	500	40.2	90.0	80-120			
<b>Matrix Spike (P1G2115-MS2)</b> Source: 1G16006-08 Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	705	1.03	mg/kg dry	515	304	77.8	80-120			QM-05

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2115 - \*\*\* DEFAULT PREP \*\*\***

**Matrix Spike Dup (P1G2115-MSD1)** Source: 1G14006-25 Prepared: 07/21/21 Analyzed: 07/22/21

Chloride	485	1.00	mg/kg dry	500	40.2	89.0	80-120	1.00	20	
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**Matrix Spike Dup (P1G2115-MSD2)** Source: 1G16006-08 Prepared: 07/21/21 Analyzed: 07/22/21

Chloride	699	1.03	mg/kg dry	515	304	76.6	80-120	0.891	20	QM-05
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**Batch P1G2204 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P1G2204-BLK1)** Prepared & Analyzed: 07/22/21

Chloride	ND	1.00	mg/kg wet							
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**LCS (P1G2204-BS1)** Prepared & Analyzed: 07/22/21

Chloride	412	1.00	mg/kg wet	400		103	90-110			
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**LCS Dup (P1G2204-BSD1)** Prepared & Analyzed: 07/22/21

Chloride	414	1.00	mg/kg wet	400		103	90-110	0.487	20	
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**Calibration Check (P1G2204-CCV1)** Prepared & Analyzed: 07/22/21

Chloride	19.5		mg/kg	20.0		97.3	90-110			
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**Calibration Check (P1G2204-CCV2)** Prepared: 07/22/21 Analyzed: 07/23/21

Chloride	19.5		mg/kg	20.0		97.5	90-110			
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**Matrix Spike (P1G2204-MS1)** Source: 1G13007-01 Prepared & Analyzed: 07/22/21

Chloride	578	1.10	mg/kg dry	549	124	82.7	80-120			
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**Matrix Spike (P1G2204-MS2)** Source: 1G19004-19 Prepared: 07/22/21 Analyzed: 07/23/21

Chloride	541	1.14	mg/kg dry	568	14.9	92.5	80-120			
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Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2204 - \*\*\* DEFAULT PREP \*\*\***

<b>Matrix Spike Dup (P1G2204-MSD1)</b>	<b>Source: 1G13007-01</b>			Prepared & Analyzed: 07/22/21						
Chloride	556	1.10	mg/kg dry	549	124	78.6	80-120	4.00	20	QM-05

<b>Matrix Spike Dup (P1G2204-MSD2)</b>	<b>Source: 1G19004-19</b>			Prepared: 07/22/21 Analyzed: 07/23/21						
Chloride	531	1.14	mg/kg dry	568	14.9	90.9	80-120	1.76	20	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2107 - TX 1005**

**Blank (P1G2107-BLK1)**

Prepared & Analyzed: 07/21/21

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	95.9		"	100		95.9	70-130			
Surrogate: o-Terphenyl	48.2		"	50.0		96.4	70-130			

**LCS (P1G2107-BS1)**

Prepared & Analyzed: 07/21/21

C6-C12	1130	25.0	mg/kg wet	1000		113	75-125			
>C12-C28	1050	25.0	"	1000		105	75-125			
Surrogate: 1-Chlorooctane	105		"	100		105	70-130			
Surrogate: o-Terphenyl	50.8		"	50.0		102	70-130			

**LCS Dup (P1G2107-BSD1)**

Prepared & Analyzed: 07/21/21

C6-C12	1110	25.0	mg/kg wet	1000		111	75-125	1.23	20	
>C12-C28	1040	25.0	"	1000		104	75-125	1.36	20	
Surrogate: 1-Chlorooctane	104		"	100		104	70-130			
Surrogate: o-Terphenyl	50.2		"	50.0		100	70-130			

**Calibration Check (P1G2107-CCV1)**

Prepared & Analyzed: 07/21/21

C6-C12	511	25.0	mg/kg wet	500		102	85-115			
>C12-C28	549	25.0	"	500		110	85-115			
Surrogate: 1-Chlorooctane	118		"	100		118	70-130			
Surrogate: o-Terphenyl	49.9		"	50.0		99.7	70-130			

**Calibration Check (P1G2107-CCV2)**

Prepared: 07/21/21 Analyzed: 07/22/21

C6-C12	534	25.0	mg/kg wet	500		107	85-115			
>C12-C28	560	25.0	"	500		112	85-115			
Surrogate: 1-Chlorooctane	123		"	100		123	70-130			
Surrogate: o-Terphenyl	51.3		"	50.0		103	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2107 - TX 1005****Calibration Check (P1G2107-CCV3)**

Prepared: 07/21/21 Analyzed: 07/22/21

C6-C12	518	25.0	mg/kg wet	500		104	85-115			
>C12-C28	565	25.0	"	500		113	85-115			
Surrogate: 1-Chlorooctane	121		"	100		121	70-130			
Surrogate: o-Terphenyl	50.6		"	50.0		101	70-130			

**Matrix Spike (P1G2107-MS1)**

Source: 1G19004-07

Prepared: 07/21/21 Analyzed: 07/22/21

C6-C12	1170	27.5	mg/kg dry	1100	15.7	105	75-125			
>C12-C28	1130	27.5	"	1100	77.6	95.3	75-125			
Surrogate: 1-Chlorooctane	112		"	110		102	70-130			
Surrogate: o-Terphenyl	56.5		"	54.9		103	70-130			

**Matrix Spike Dup (P1G2107-MSD1)**

Source: 1G19004-07

Prepared: 07/21/21 Analyzed: 07/22/21

C6-C12	1200	27.5	mg/kg dry	1100	15.7	108	75-125	2.90	20	
>C12-C28	1160	27.5	"	1100	77.6	98.2	75-125	2.94	20	
Surrogate: 1-Chlorooctane	116		"	110		106	70-130			
Surrogate: o-Terphenyl	63.0		"	54.9		115	70-130			

**Batch P1G2111 - TX 1005****Blank (P1G2111-BLK1)**

Prepared &amp; Analyzed: 07/21/21

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	90.2		"	100		90.2	70-130			
Surrogate: o-Terphenyl	47.4		"	50.0		94.8	70-130			

**LCS (P1G2111-BS1)**

Prepared &amp; Analyzed: 07/21/21

C6-C12	1130	25.0	mg/kg wet	1000		113	75-125			
>C12-C28	907	25.0	"	1000		90.7	75-125			
Surrogate: 1-Chlorooctane	97.7		"	100		97.7	70-130			
Surrogate: o-Terphenyl	53.6		"	50.0		107	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G2111 - TX 1005</b>										
<b>LCS Dup (P1G2111-BSD1)</b>										
Prepared & Analyzed: 07/21/21										
C6-C12	1140	25.0	mg/kg wet	1000		114	75-125	1.45	20	
>C12-C28	920	25.0	"	1000		92.0	75-125	1.49	20	
Surrogate: 1-Chlorooctane	98.2		"	100		98.2	70-130			
Surrogate: o-Terphenyl	54.3		"	50.0		109	70-130			
<b>Calibration Check (P1G2111-CCV1)</b>										
Prepared & Analyzed: 07/21/21										
C6-C12	518	25.0	mg/kg wet	500		104	85-115			
>C12-C28	469	25.0	"	500		93.9	85-115			
Surrogate: 1-Chlorooctane	110		"	100		110	70-130			
Surrogate: o-Terphenyl	50.1		"	50.0		100	70-130			
<b>Calibration Check (P1G2111-CCV2)</b>										
Prepared: 07/21/21 Analyzed: 07/22/21										
C6-C12	522	25.0	mg/kg wet	500		104	85-115			
>C12-C28	490	25.0	"	500		98.0	85-115			
Surrogate: 1-Chlorooctane	113		"	100		113	70-130			
Surrogate: o-Terphenyl	50.1		"	50.0		100	70-130			
<b>Calibration Check (P1G2111-CCV3)</b>										
Prepared: 07/21/21 Analyzed: 07/22/21										
C6-C12	505	25.0	mg/kg wet	500		101	85-115			
>C12-C28	468	25.0	"	500		93.5	85-115			
Surrogate: 1-Chlorooctane	109		"	100		109	70-130			
Surrogate: o-Terphenyl	48.4		"	50.0		96.7	70-130			
<b>Matrix Spike (P1G2111-MS1)</b>										
Source: 1G19004-08 Prepared: 07/21/21 Analyzed: 07/22/21										
C6-C12	1090	27.5	mg/kg dry	1100	14.0	98.2	75-125			
>C12-C28	908	27.5	"	1100	15.6	81.2	75-125			
Surrogate: 1-Chlorooctane	140		"	110		127	70-130			
Surrogate: o-Terphenyl	56.9		"	54.9		104	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2111 - TX 1005**

**Matrix Spike Dup (P1G2111-MSD1)**

**Source: 1G19004-08**

Prepared: 07/21/21

Analyzed: 07/22/21

C6-C12	1100	27.5	mg/kg dry	1100	14.0	98.9	75-125	0.726	20	
>C12-C28	925	27.5	"	1100	15.6	82.7	75-125	1.81	20	
Surrogate: 1-Chlorooctane	141		"	110		128	70-130			
Surrogate: o-Terphenyl	57.2		"	54.9		104	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Notes and Definitions**

- ROI Received on Ice
- R3 The RPD exceeded the acceptance limit due to sample matrix effects.
- R2 The RPD exceeded the acceptance limit.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- BULK Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- LCS Laboratory Control Spike
- MS Matrix Spike
- Dup Duplicate

Report Approved By: Brent Barron Date: 7/23/2021

Brent Barron, Laboratory Director/Technical Director

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

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If you have received this material in error, please notify us immediately at 432-686-7235.



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP  
1400 Rankin Hwy  
Midland, Texas 79701

Phone: 432-686-7235

Project Manager: Jeff Kindley

Company Name: Dean

Project Name: Plains COG Screwdriver

Project #: PP-21152

Company Address: 12600 West County Rd. 91

Project Loc: Eddy County, New Mexico

City/State/Zip: Midland TX 79707

WORK ORDER #: 2021-053

A/E/ COST CENTER:

Telephone No: 432-230-0920

Report Format: X Standard

TRRP

NPDES

Sampler Signature: *Angel*

e-mail:

jeffkindley@deandigs.com  
stevacasanova@deandigs.com  
kayanlongee@deanequip.com  
elizabethstuart@deandigs.com

AL Groves@paalp.com

Analyze For:

(lab use only)

ORDER #: 1619004

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO <sub>3</sub> 250,ml Poly	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None 1L Poly	NaOH/ZnAc	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	TPH TX1005 EXT (TEXAS)	BTEX 8021 B	TCLP BENZENE	CHLORIDES	TCLP METALS	NORM	PAINT FILTER	TOX	RCI	pH	TPH 8015 M (NEW MEXICO)	7 Day TAT	24 hour TAT
1	BH-23 @ 2,5 FT	2,5 FT	2,5 FT	07/16/21	1001		1									Soil													
2	BH-24 @ 2,5 FT	2,5 FT	2,5 FT	07/16/21	1003		1									Soil													
3	BH-25 @ 3 FT	3 FT	3 FT	07/16/21	1022		1									Soil													
4	BH-26 @ 5 FT	5 FT	5 FT	07/16/21	1024		1									Soil													
5	BH-27 @ 5 FT	5 FT	5 FT	07/16/21	1025		1									Soil													
6	BH-28 @ 5 FT	5 FT	5 FT	07/16/21	1029		1									Soil													
7	BH-29 @ 5 FT	5 FT	5 FT	07/16/21	1029		1									Soil													
8	BH-30 @ 5 FT	5 FT	5 FT	07/16/21	1034		1									Soil													
9	BH-31 @ 5 FT	5 FT	5 FT	07/16/21	1035		1									Soil													
10	BH-32 @ 5 FT	5 FT	5 FT	07/16/21	1037		1									Soil													

Special Instructions:

Relinquished by: *Shawn Kindley* Date: 07/19/21 Time: 1045 Received by: *Steve Redwine* Date: 7/19/21 Time: 0145

Relinquished by: *Shawn Kindley* Date: 07/19/21 Time: 1045 Received by: *Steve Redwine* Date: 7/19/21 Time: 0145

Relinquished by: *Shawn Kindley* Date: 07/19/21 Time: 1045 Received by: *Steve Redwine* Date: 7/19/21 Time: 0145

Relinquished by: *Shawn Kindley* Date: 07/19/21 Time: 1045 Received by: *Steve Redwine* Date: 7/19/21 Time: 0145

Laboratory Comments: *Sample Containers Intact?*

VOCs Free of Headspace? *Y*

Labels on container(s) *Y*

Custody seals on container(s) *Y*

Custody seals on cooler(s) *Y*

Sample Hand Delivered *Y*

Temperature Upon Receipt: *5.0*

Advised: *5.0*



**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



# Analytical Report

**Prepared for:**

Jeff Kindley  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: COG Screwdriver Release

Project Number: PP-21116

Location: Eddy County, NM

Lab Order Number: 1G26012



**Current Certification**

Report Date: 07/29/21

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

## ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-35 @ 5'	1G26012-01	Soil	07/23/21 10:34	07-26-2021 10:35
BH-36 @ 2'	1G26012-02	Soil	07/23/21 10:36	07-26-2021 10:35
BH-37 @ 2'	1G26012-03	Soil	07/23/21 10:38	07-26-2021 10:35
BH-38 @ 2'	1G26012-04	Soil	07/23/21 10:42	07-26-2021 10:35
BH-39 @ 2'	1G26012-05	Soil	07/23/21 10:44	07-26-2021 10:35
BH-40 @ 5'	1G26012-06	Soil	07/23/21 10:45	07-26-2021 10:35
BH-41 @ 2'	1G26012-07	Soil	07/23/21 10:47	07-26-2021 10:35
BH-42 @ 2'	1G26012-08	Soil	07/23/21 10:44	07-26-2021 10:35
BH-43 @ 2'	1G26012-09	Soil	07/23/21 10:51	07-26-2021 10:35
BH-44 @ 2'	1G26012-10	Soil	07/23/21 10:54	07-26-2021 10:35
BH-45 @ 2'	1G26012-11	Soil	07/23/21 10:56	07-26-2021 10:35
BH-46 @ 2'	1G26012-12	Soil	07/23/21 10:57	07-26-2021 10:35
BH-47 @ 2'	1G26012-13	Soil	07/23/21 10:59	07-26-2021 10:35
BH-48 @ 2'	1G26012-14	Soil	07/23/21 11:02	07-26-2021 10:35
BH-49 @ 2'	1G26012-15	Soil	07/23/21 11:04	07-26-2021 10:35
WE-1 @ 2'	1G26012-16	Soil	07/23/21 11:10	07-26-2021 10:35
WE-2 @ 2'	1G26012-17	Soil	07/23/21 11:12	07-26-2021 10:35
WW-1 @ 2'	1G26012-18	Soil	07/23/21 11:05	07-26-2021 10:35
WW-2 @ 2'	1G26012-19	Soil	07/23/21 11:08	07-26-2021 10:35

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**BH-35 @ 5'**  
**1G26012-01 (Soil)**

Analyte	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Result	Limit							

**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00104	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 16:33	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 16:33	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 16:33	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 16:33	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 16:33	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		98.6 %	80-120		P1G2602	07/26/21 12:38	07/26/21 16:33	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		99.5 %	80-120		P1G2602	07/26/21 12:38	07/26/21 16:33	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	1.32	1.04	mg/kg dry	1	P1G2609	07/26/21 16:44	07/26/21 23:14	EPA 300.0	
% Moisture	4.0	0.1	%	1	P1G2712	07/27/21 16:37	07/27/21 16:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.0	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 17:29	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 17:29	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 17:29	TPH 8015M	
Surrogate: 1-Chlorooctane		89.7 %	70-130		P1G2605	07/26/21 14:56	07/26/21 17:29	TPH 8015M	
Surrogate: o-Terphenyl		98.5 %	70-130		P1G2605	07/26/21 14:56	07/26/21 17:29	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	07/26/21 14:56	07/26/21 17:29	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**BH-36 @ 2'**  
**1G26012-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00116	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 16:54	EPA 8021B	
Toluene	ND	0.00116	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 16:54	EPA 8021B	
Ethylbenzene	ND	0.00116	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 16:54	EPA 8021B	
Xylene (p/m)	ND	0.00233	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 16:54	EPA 8021B	
Xylene (o)	ND	0.00116	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 16:54	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		101 %	80-120		P1G2602	07/26/21 12:38	07/26/21 16:54	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		100 %	80-120		P1G2602	07/26/21 12:38	07/26/21 16:54	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	4.60	1.16	mg/kg dry	1	P1G2609	07/26/21 16:44	07/27/21 08:04	EPA 300.0	
% Moisture	14.0	0.1	%	1	P1G2712	07/27/21 16:37	07/27/21 16:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	29.1	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 17:52	TPH 8015M	
>C12-C28	ND	29.1	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 17:52	TPH 8015M	
>C28-C35	ND	29.1	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 17:52	TPH 8015M	
Surrogate: 1-Chlorooctane		98.7 %	70-130		P1G2605	07/26/21 14:56	07/26/21 17:52	TPH 8015M	
Surrogate: o-Terphenyl		103 %	70-130		P1G2605	07/26/21 14:56	07/26/21 17:52	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	29.1	mg/kg dry	1	[CALC]	07/26/21 14:56	07/26/21 17:52	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**BH-37 @ 2'**  
**1G26012-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00119	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 17:15	EPA 8021B	
Toluene	ND	0.00119	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 17:15	EPA 8021B	
Ethylbenzene	ND	0.00119	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 17:15	EPA 8021B	
Xylene (p/m)	ND	0.00238	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 17:15	EPA 8021B	
Xylene (o)	ND	0.00119	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 17:15	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		101 %	80-120		P1G2602	07/26/21 12:38	07/26/21 17:15	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		100 %	80-120		P1G2602	07/26/21 12:38	07/26/21 17:15	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	23.3	1.19	mg/kg dry	1	P1G2609	07/26/21 16:44	07/27/21 08:19	EPA 300.0	
% Moisture	16.0	0.1	%	1	P1G2712	07/27/21 16:37	07/27/21 16:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	29.8	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 18:14	TPH 8015M	
>C12-C28	ND	29.8	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 18:14	TPH 8015M	
>C28-C35	ND	29.8	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 18:14	TPH 8015M	
Surrogate: 1-Chlorooctane		103 %	70-130		P1G2605	07/26/21 14:56	07/26/21 18:14	TPH 8015M	
Surrogate: o-Terphenyl		107 %	70-130		P1G2605	07/26/21 14:56	07/26/21 18:14	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	29.8	mg/kg dry	1	[CALC]	07/26/21 14:56	07/26/21 18:14	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**BH-38 @ 2'**  
**1G26012-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00115	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 17:37	EPA 8021B	
Toluene	ND	0.00115	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 17:37	EPA 8021B	
Ethylbenzene	ND	0.00115	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 17:37	EPA 8021B	
Xylene (p/m)	ND	0.00230	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 17:37	EPA 8021B	
Xylene (o)	ND	0.00115	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 17:37	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		101 %	80-120		P1G2602	07/26/21 12:38	07/26/21 17:37	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		101 %	80-120		P1G2602	07/26/21 12:38	07/26/21 17:37	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	113	1.15	mg/kg dry	1	P1G2609	07/26/21 16:44	07/27/21 08:34	EPA 300.0	
% Moisture	13.0	0.1	%	1	P1G2712	07/27/21 16:37	07/27/21 16:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	28.7	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 18:37	TPH 8015M	
>C12-C28	ND	28.7	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 18:37	TPH 8015M	
>C28-C35	ND	28.7	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 18:37	TPH 8015M	
Surrogate: 1-Chlorooctane		99.3 %	70-130		P1G2605	07/26/21 14:56	07/26/21 18:37	TPH 8015M	
Surrogate: o-Terphenyl		103 %	70-130		P1G2605	07/26/21 14:56	07/26/21 18:37	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.7	mg/kg dry	1	[CALC]	07/26/21 14:56	07/26/21 18:37	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**BH-39 @ 2'**  
**1G26012-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00110	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 17:58	EPA 8021B	
Toluene	ND	0.00110	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 17:58	EPA 8021B	
Ethylbenzene	ND	0.00110	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 17:58	EPA 8021B	
Xylene (p/m)	ND	0.00220	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 17:58	EPA 8021B	
Xylene (o)	ND	0.00110	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 17:58	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		104 %	80-120		P1G2602	07/26/21 12:38	07/26/21 17:58	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		105 %	80-120		P1G2602	07/26/21 12:38	07/26/21 17:58	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	119	1.10	mg/kg dry	1	P1G2609	07/26/21 16:44	07/27/21 08:50	EPA 300.0	
% Moisture	9.0	0.1	%	1	P1G2712	07/27/21 16:37	07/27/21 16:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	27.5	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 19:00	TPH 8015M	
>C12-C28	ND	27.5	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 19:00	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 19:00	TPH 8015M	
Surrogate: 1-Chlorooctane		100 %	70-130		P1G2605	07/26/21 14:56	07/26/21 19:00	TPH 8015M	
Surrogate: o-Terphenyl		105 %	70-130		P1G2605	07/26/21 14:56	07/26/21 19:00	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.5	mg/kg dry	1	[CALC]	07/26/21 14:56	07/26/21 19:00	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**BH-40 @ 5'**  
**1G26012-06 (Soil)**

Analyte	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Result	Limit							

**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00106	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 18:19	EPA 8021B	
Toluene	ND	0.00106	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 18:19	EPA 8021B	
Ethylbenzene	ND	0.00106	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 18:19	EPA 8021B	
Xylene (p/m)	ND	0.00213	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 18:19	EPA 8021B	
Xylene (o)	ND	0.00106	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 18:19	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		106 %	80-120		P1G2602	07/26/21 12:38	07/26/21 18:19	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		106 %	80-120		P1G2602	07/26/21 12:38	07/26/21 18:19	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	ND	1.06	mg/kg dry	1	P1G2609	07/26/21 16:44	07/27/21 09:05	EPA 300.0	
% Moisture	6.0	0.1	%	1	P1G2712	07/27/21 16:37	07/27/21 16:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.6	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 19:23	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 19:23	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 19:23	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		103 %	70-130		P1G2605	07/26/21 14:56	07/26/21 19:23	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		107 %	70-130		P1G2605	07/26/21 14:56	07/26/21 19:23	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	07/26/21 14:56	07/26/21 19:23	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**BH-41 @ 2'**  
**1G26012-07 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00123	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 18:41	EPA 8021B	
Toluene	ND	0.00123	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 18:41	EPA 8021B	
Ethylbenzene	ND	0.00123	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 18:41	EPA 8021B	
Xylene (p/m)	ND	0.00247	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 18:41	EPA 8021B	
Xylene (o)	ND	0.00123	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 18:41	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		101 %	80-120		P1G2602	07/26/21 12:38	07/26/21 18:41	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		99.8 %	80-120		P1G2602	07/26/21 12:38	07/26/21 18:41	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	89.8	1.23	mg/kg dry	1	P1G2608	07/26/21 16:42	07/26/21 19:16	EPA 300.0	
% Moisture	19.0	0.1	%	1	P1G2712	07/27/21 16:37	07/27/21 16:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	30.9	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 19:46	TPH 8015M	
>C12-C28	ND	30.9	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 19:46	TPH 8015M	
>C28-C35	ND	30.9	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 19:46	TPH 8015M	
Surrogate: 1-Chlorooctane		103 %	70-130		P1G2605	07/26/21 14:56	07/26/21 19:46	TPH 8015M	
Surrogate: o-Terphenyl		106 %	70-130		P1G2605	07/26/21 14:56	07/26/21 19:46	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	30.9	mg/kg dry	1	[CALC]	07/26/21 14:56	07/26/21 19:46	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean	Project: COG Screwdriver Release
12600 W County Rd 91	Project Number: PP-21116
Midland TX, 79707	Project Manager: Jeff Kindley

**BH-42 @ 2'**  
**1G26012-08 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00120	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 19:02	EPA 8021B	
Toluene	ND	0.00120	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 19:02	EPA 8021B	
Ethylbenzene	ND	0.00120	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 19:02	EPA 8021B	
Xylene (p/m)	ND	0.00241	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 19:02	EPA 8021B	
Xylene (o)	ND	0.00120	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 19:02	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		107 %	80-120		P1G2602	07/26/21 12:38	07/26/21 19:02	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		108 %	80-120		P1G2602	07/26/21 12:38	07/26/21 19:02	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>10.2</b>	1.20	mg/kg dry	1	P1G2608	07/26/21 16:42	07/26/21 19:34	EPA 300.0	
<b>% Moisture</b>	<b>17.0</b>	0.1	%	1	P1G2712	07/27/21 16:37	07/27/21 16:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	30.1	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 20:08	TPH 8015M	
>C12-C28	ND	30.1	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 20:08	TPH 8015M	
>C28-C35	ND	30.1	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 20:08	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		105 %	70-130		P1G2605	07/26/21 14:56	07/26/21 20:08	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		108 %	70-130		P1G2605	07/26/21 14:56	07/26/21 20:08	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	30.1	mg/kg dry	1	[CALC]	07/26/21 14:56	07/26/21 20:08	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**BH-43 @ 2'**  
**1G26012-09 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00123	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 19:23	EPA 8021B	
Toluene	ND	0.00123	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 19:23	EPA 8021B	
Ethylbenzene	ND	0.00123	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 19:23	EPA 8021B	
Xylene (p/m)	ND	0.00247	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 19:23	EPA 8021B	
Xylene (o)	ND	0.00123	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 19:23	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		100 %	80-120		P1G2602	07/26/21 12:38	07/26/21 19:23	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		102 %	80-120		P1G2602	07/26/21 12:38	07/26/21 19:23	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	23.9	1.23	mg/kg dry	1	P1G2608	07/26/21 16:42	07/26/21 19:53	EPA 300.0	
% Moisture	19.0	0.1	%	1	P1G2712	07/27/21 16:37	07/27/21 16:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	30.9	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 20:31	TPH 8015M	
>C12-C28	ND	30.9	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 20:31	TPH 8015M	
>C28-C35	ND	30.9	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 20:31	TPH 8015M	
Surrogate: 1-Chlorooctane		104 %	70-130		P1G2605	07/26/21 14:56	07/26/21 20:31	TPH 8015M	
Surrogate: o-Terphenyl		106 %	70-130		P1G2605	07/26/21 14:56	07/26/21 20:31	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	30.9	mg/kg dry	1	[CALC]	07/26/21 14:56	07/26/21 20:31	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**BH-44 @ 2'**  
**1G26012-10 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00111	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 19:45	EPA 8021B	
Toluene	ND	0.00111	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 19:45	EPA 8021B	
Ethylbenzene	ND	0.00111	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 19:45	EPA 8021B	
Xylene (p/m)	ND	0.00222	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 19:45	EPA 8021B	
Xylene (o)	ND	0.00111	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 19:45	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	105 %		80-120		P1G2602	07/26/21 12:38	07/26/21 19:45	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	103 %		80-120		P1G2602	07/26/21 12:38	07/26/21 19:45	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	8.34	1.11	mg/kg dry	1	P1G2608	07/26/21 16:42	07/26/21 20:11	EPA 300.0	
% Moisture	10.0	0.1	%	1	P1G2712	07/27/21 16:37	07/27/21 16:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	27.8	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 20:54	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 20:54	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 20:54	TPH 8015M	
Surrogate: 1-Chlorooctane	105 %		70-130		P1G2605	07/26/21 14:56	07/26/21 20:54	TPH 8015M	
Surrogate: o-Terphenyl	108 %		70-130		P1G2605	07/26/21 14:56	07/26/21 20:54	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	07/26/21 14:56	07/26/21 20:54	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**BH-45 @ 2'**  
**1G26012-11 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00104	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 20:48	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 20:48	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 20:48	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 20:48	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 20:48	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		105 %	80-120		P1G2602	07/26/21 12:38	07/26/21 20:48	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		103 %	80-120		P1G2602	07/26/21 12:38	07/26/21 20:48	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	3.00	1.04	mg/kg dry	1	P1G2608	07/26/21 16:42	07/26/21 20:30	EPA 300.0	
% Moisture	4.0	0.1	%	1	P1G2712	07/27/21 16:37	07/27/21 16:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.0	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 22:01	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 22:01	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 22:01	TPH 8015M	
Surrogate: 1-Chlorooctane		108 %	70-130		P1G2605	07/26/21 14:56	07/26/21 22:01	TPH 8015M	
Surrogate: o-Terphenyl		113 %	70-130		P1G2605	07/26/21 14:56	07/26/21 22:01	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	07/26/21 14:56	07/26/21 22:01	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**BH-46 @ 2'**  
**1G26012-12 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00106	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 21:09	EPA 8021B	
Toluene	ND	0.00106	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 21:09	EPA 8021B	
Ethylbenzene	ND	0.00106	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 21:09	EPA 8021B	
Xylene (p/m)	ND	0.00213	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 21:09	EPA 8021B	
Xylene (o)	ND	0.00106	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 21:09	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		103 %	80-120		P1G2602	07/26/21 12:38	07/26/21 21:09	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		99.1 %	80-120		P1G2602	07/26/21 12:38	07/26/21 21:09	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	10.0	1.06	mg/kg dry	1	P1G2608	07/26/21 16:42	07/26/21 20:48	EPA 300.0	
% Moisture	6.0	0.1	%	1	P1G2712	07/27/21 16:37	07/27/21 16:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.6	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 22:23	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 22:23	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 22:23	TPH 8015M	
Surrogate: 1-Chlorooctane		106 %	70-130		P1G2605	07/26/21 14:56	07/26/21 22:23	TPH 8015M	
Surrogate: o-Terphenyl		110 %	70-130		P1G2605	07/26/21 14:56	07/26/21 22:23	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	07/26/21 14:56	07/26/21 22:23	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**BH-47 @ 2'**  
**1G26012-13 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00118	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 21:30	EPA 8021B	
Toluene	ND	0.00118	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 21:30	EPA 8021B	
Ethylbenzene	ND	0.00118	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 21:30	EPA 8021B	
Xylene (p/m)	ND	0.00235	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 21:30	EPA 8021B	
Xylene (o)	ND	0.00118	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 21:30	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		98.8 %	80-120		P1G2602	07/26/21 12:38	07/26/21 21:30	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		103 %	80-120		P1G2602	07/26/21 12:38	07/26/21 21:30	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	4.33	1.18	mg/kg dry	1	P1G2608	07/26/21 16:42	07/26/21 21:07	EPA 300.0	
% Moisture	15.0	0.1	%	1	P1G2712	07/27/21 16:37	07/27/21 16:56	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	29.4	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 22:46	TPH 8015M	
>C12-C28	ND	29.4	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 22:46	TPH 8015M	
>C28-C35	ND	29.4	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 22:46	TPH 8015M	
Surrogate: 1-Chlorooctane		109 %	70-130		P1G2605	07/26/21 14:56	07/26/21 22:46	TPH 8015M	
Surrogate: o-Terphenyl		111 %	70-130		P1G2605	07/26/21 14:56	07/26/21 22:46	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	29.4	mg/kg dry	1	[CALC]	07/26/21 14:56	07/26/21 22:46	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**BH-48 @ 2'**  
**1G26012-14 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00103	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 21:51	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 21:51	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 21:51	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 21:51	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 21:51	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		107 %	80-120		P1G2602	07/26/21 12:38	07/26/21 21:51	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		103 %	80-120		P1G2602	07/26/21 12:38	07/26/21 21:51	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	ND	1.03	mg/kg dry	1	P1G2608	07/26/21 16:42	07/26/21 21:25	EPA 300.0	
% Moisture	3.0	0.1	%	1	P1G2901	07/29/21 11:08	07/29/21 11:29	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.8	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 23:08	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 23:08	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 23:08	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		109 %	70-130		P1G2605	07/26/21 14:56	07/26/21 23:08	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		112 %	70-130		P1G2605	07/26/21 14:56	07/26/21 23:08	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	07/26/21 14:56	07/26/21 23:08	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**BH-49 @ 2'**  
**1G26012-15 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00110	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 22:12	EPA 8021B	
Toluene	ND	0.00110	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 22:12	EPA 8021B	
Ethylbenzene	ND	0.00110	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 22:12	EPA 8021B	
Xylene (p/m)	ND	0.00220	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 22:12	EPA 8021B	
Xylene (o)	ND	0.00110	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 22:12	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		98.1 %	80-120		P1G2602	07/26/21 12:38	07/26/21 22:12	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		104 %	80-120		P1G2602	07/26/21 12:38	07/26/21 22:12	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	9.27	1.10	mg/kg dry	1	P1G2608	07/26/21 16:42	07/26/21 21:44	EPA 300.0	
% Moisture	9.0	0.1	%	1	P1G2901	07/29/21 11:08	07/29/21 11:29	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	27.5	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 23:30	TPH 8015M	
>C12-C28	ND	27.5	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 23:30	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 23:30	TPH 8015M	
Surrogate: 1-Chlorooctane		111 %	70-130		P1G2605	07/26/21 14:56	07/26/21 23:30	TPH 8015M	
Surrogate: o-Terphenyl		118 %	70-130		P1G2605	07/26/21 14:56	07/26/21 23:30	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.5	mg/kg dry	1	[CALC]	07/26/21 14:56	07/26/21 23:30	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**WE-1 @ 2'**  
**1G26012-16 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00105	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 22:33	EPA 8021B	
Toluene	ND	0.00105	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 22:33	EPA 8021B	
Ethylbenzene	ND	0.00105	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 22:33	EPA 8021B	
Xylene (p/m)	ND	0.00211	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 22:33	EPA 8021B	
Xylene (o)	ND	0.00105	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 22:33	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		103 %	80-120		P1G2602	07/26/21 12:38	07/26/21 22:33	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		97.2 %	80-120		P1G2602	07/26/21 12:38	07/26/21 22:33	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	27.0	1.05	mg/kg dry	1	P1G2608	07/26/21 16:42	07/26/21 22:39	EPA 300.0	
% Moisture	5.0	0.1	%	1	P1G2901	07/29/21 11:08	07/29/21 11:29	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.3	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 23:53	TPH 8015M	
>C12-C28	88.7	26.3	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 23:53	TPH 8015M	
>C28-C35	32.5	26.3	mg/kg dry	1	P1G2605	07/26/21 14:56	07/26/21 23:53	TPH 8015M	
Surrogate: 1-Chlorooctane		105 %	70-130		P1G2605	07/26/21 14:56	07/26/21 23:53	TPH 8015M	
Surrogate: o-Terphenyl		109 %	70-130		P1G2605	07/26/21 14:56	07/26/21 23:53	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	121	26.3	mg/kg dry	1	[CALC]	07/26/21 14:56	07/26/21 23:53	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean	Project: COG Screwdriver Release
12600 W County Rd 91	Project Number: PP-21116
Midland TX, 79707	Project Manager: Jeff Kindley

**WE-2 @ 2'**  
**1G26012-17 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00104	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 22:54	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 22:54	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 22:54	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 22:54	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 22:54	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		105 %	80-120		P1G2602	07/26/21 12:38	07/26/21 22:54	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		99.0 %	80-120		P1G2602	07/26/21 12:38	07/26/21 22:54	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	7.33	1.04	mg/kg dry	1	P1G2608	07/26/21 16:42	07/26/21 23:35	EPA 300.0	
% Moisture	4.0	0.1	%	1	P1G2901	07/29/21 11:08	07/29/21 11:29	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.0	mg/kg dry	1	P1G2605	07/26/21 14:56	07/27/21 00:15	TPH 8015M	
>C12-C28	31.1	26.0	mg/kg dry	1	P1G2605	07/26/21 14:56	07/27/21 00:15	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P1G2605	07/26/21 14:56	07/27/21 00:15	TPH 8015M	
Surrogate: 1-Chlorooctane		110 %	70-130		P1G2605	07/26/21 14:56	07/27/21 00:15	TPH 8015M	
Surrogate: o-Terphenyl		118 %	70-130		P1G2605	07/26/21 14:56	07/27/21 00:15	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>31.1</b>	26.0	mg/kg dry	1	[CALC]	07/26/21 14:56	07/27/21 00:15	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean	Project: COG Screwdriver Release
12600 W County Rd 91	Project Number: PP-21116
Midland TX, 79707	Project Manager: Jeff Kindley

**WW-1 @ 2'**  
**1G26012-18 (Soil)**

Analyte	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Result	Limit							

**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00106	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 23:14	EPA 8021B	
Toluene	ND	0.00106	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 23:14	EPA 8021B	
Ethylbenzene	ND	0.00106	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 23:14	EPA 8021B	
Xylene (p/m)	ND	0.00213	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 23:14	EPA 8021B	
Xylene (o)	ND	0.00106	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 23:14	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		107 %	80-120		P1G2602	07/26/21 12:38	07/26/21 23:14	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		104 %	80-120		P1G2602	07/26/21 12:38	07/26/21 23:14	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	82.6	1.06	mg/kg dry	1	P1G2608	07/26/21 16:42	07/26/21 23:54	EPA 300.0	
% Moisture	6.0	0.1	%	1	P1G2901	07/29/21 11:08	07/29/21 11:29	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.6	mg/kg dry	1	P1G2605	07/26/21 14:56	07/27/21 00:37	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P1G2605	07/26/21 14:56	07/27/21 00:37	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P1G2605	07/26/21 14:56	07/27/21 00:37	TPH 8015M	
Surrogate: 1-Chlorooctane		108 %	70-130		P1G2605	07/26/21 14:56	07/27/21 00:37	TPH 8015M	
Surrogate: o-Terphenyl		115 %	70-130		P1G2605	07/26/21 14:56	07/27/21 00:37	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	07/26/21 14:56	07/27/21 00:37	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean 12600 W County Rd 91 Midland TX, 79707	Project: COG Screwdriver Release Project Number: PP-21116 Project Manager: Jeff Kindley
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**WW-2 @ 2'**  
**1G26012-19 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00102	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 23:35	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 23:35	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 23:35	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 23:35	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P1G2602	07/26/21 12:38	07/26/21 23:35	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		103 %	80-120		P1G2602	07/26/21 12:38	07/26/21 23:35	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		97.0 %	80-120		P1G2602	07/26/21 12:38	07/26/21 23:35	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	34.9	1.02	mg/kg dry	1	P1G2608	07/26/21 16:42	07/27/21 00:12	EPA 300.0	
% Moisture	2.0	0.1	%	1	P1G2901	07/29/21 11:08	07/29/21 11:29	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	P1G2605	07/26/21 14:56	07/27/21 00:59	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P1G2605	07/26/21 14:56	07/27/21 00:59	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P1G2605	07/26/21 14:56	07/27/21 00:59	TPH 8015M	
Surrogate: 1-Chlorooctane		109 %	70-130		P1G2605	07/26/21 14:56	07/27/21 00:59	TPH 8015M	
Surrogate: o-Terphenyl		115 %	70-130		P1G2605	07/26/21 14:56	07/27/21 00:59	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	07/26/21 14:56	07/27/21 00:59	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2602 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P1G2602-BLK1)**

Prepared & Analyzed: 07/26/21

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	0.117		"	0.120		97.7	80-120			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.8	80-120			

**LCS (P1G2602-BS1)**

Prepared & Analyzed: 07/26/21

Benzene	0.0862	0.00100	mg/kg wet	0.100		86.2	70-130			
Toluene	0.102	0.00100	"	0.100		102	70-130			
Ethylbenzene	0.106	0.00100	"	0.100		106	70-130			
Xylene (p/m)	0.218	0.00200	"	0.200		109	70-130			
Xylene (o)	0.107	0.00100	"	0.100		107	70-130			
Surrogate: 1,4-Difluorobenzene	0.111		"	0.120		92.6	80-120			
Surrogate: 4-Bromofluorobenzene	0.120		"	0.120		100	80-120			

**LCS Dup (P1G2602-BSD1)**

Prepared & Analyzed: 07/26/21

Benzene	0.0857	0.00100	mg/kg wet	0.100		85.7	70-130	0.628	20	
Toluene	0.101	0.00100	"	0.100		101	70-130	1.16	20	
Ethylbenzene	0.105	0.00100	"	0.100		105	70-130	1.11	20	
Xylene (p/m)	0.217	0.00200	"	0.200		108	70-130	0.713	20	
Xylene (o)	0.106	0.00100	"	0.100		106	70-130	0.714	20	
Surrogate: 4-Bromofluorobenzene	0.120		"	0.120		99.6	80-120			
Surrogate: 1,4-Difluorobenzene	0.111		"	0.120		92.7	80-120			

**Calibration Blank (P1G2602-CCB1)**

Prepared & Analyzed: 07/26/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.116		"	0.120		96.9	80-120			
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		97.0	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2602 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Blank (P1G2602-CCB2)**

Prepared & Analyzed: 07/26/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.120		"	0.120		99.9	80-120			
Surrogate: 4-Bromofluorobenzene	0.116		"	0.120		96.3	80-120			

**Calibration Blank (P1G2602-CCB3)**

Prepared: 07/26/21 Analyzed: 07/27/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.118		"	0.120		98.7	80-120			
Surrogate: 1,4-Difluorobenzene	0.125		"	0.120		104	80-120			

**Calibration Check (P1G2602-CCV1)**

Prepared & Analyzed: 07/26/21

Benzene	0.0882	0.00100	mg/kg wet	0.100		88.2	80-120			
Toluene	0.0974	0.00100	"	0.100		97.4	80-120			
Ethylbenzene	0.102	0.00100	"	0.100		102	80-120			
Xylene (p/m)	0.206	0.00200	"	0.200		103	80-120			
Xylene (o)	0.100	0.00100	"	0.100		100	80-120			
Surrogate: 1,4-Difluorobenzene	0.113		"	0.120		93.9	75-125			
Surrogate: 4-Bromofluorobenzene	0.126		"	0.120		105	75-125			

**Calibration Check (P1G2602-CCV2)**

Prepared & Analyzed: 07/26/21

Benzene	0.0895	0.00100	mg/kg wet	0.100		89.5	80-120			
Toluene	0.0940	0.00100	"	0.100		94.0	80-120			
Ethylbenzene	0.0976	0.00100	"	0.100		97.6	80-120			
Xylene (p/m)	0.195	0.00200	"	0.200		97.6	80-120			
Xylene (o)	0.0976	0.00100	"	0.100		97.6	80-120			
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		94.9	75-125			
Surrogate: 4-Bromofluorobenzene	0.118		"	0.120		98.3	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2602 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Check (P1G2602-CCV3)**

Prepared: 07/26/21 Analyzed: 07/27/21

Benzene	0.0919	0.00100	mg/kg wet	0.100		91.9	80-120			
Toluene	0.0958	0.00100	"	0.100		95.8	80-120			
Ethylbenzene	0.0952	0.00100	"	0.100		95.2	80-120			
Xylene (p/m)	0.197	0.00200	"	0.200		98.6	80-120			
Xylene (o)	0.0993	0.00100	"	0.100		99.3	80-120			
Surrogate: 4-Bromofluorobenzene	0.114		"	0.120		95.0	75-125			
Surrogate: 1,4-Difluorobenzene	0.119		"	0.120		98.9	75-125			

**Matrix Spike (P1G2602-MS1)**

Source: 1G26012-01

Prepared: 07/26/21 Analyzed: 07/27/21

Benzene	0.0612	0.00104	mg/kg dry	0.104	ND	58.8	80-120			QM-07
Toluene	0.0574	0.00104	"	0.104	ND	55.1	80-120			QM-07
Ethylbenzene	0.0471	0.00104	"	0.104	ND	45.2	80-120			QM-07
Xylene (p/m)	0.0880	0.00208	"	0.208	ND	42.2	80-120			QM-07
Xylene (o)	0.0440	0.00104	"	0.104	ND	42.3	80-120			QM-07
Surrogate: 1,4-Difluorobenzene	0.129		"	0.125		104	80-120			
Surrogate: 4-Bromofluorobenzene	0.123		"	0.125		98.1	80-120			

**Matrix Spike Dup (P1G2602-MSD1)**

Source: 1G26012-01

Prepared: 07/26/21 Analyzed: 07/27/21

Benzene	0.0621	0.00104	mg/kg dry	0.104	ND	59.6	80-120	1.37	20	QM-07
Toluene	0.0583	0.00104	"	0.104	ND	55.9	80-120	1.53	20	QM-07
Ethylbenzene	0.0479	0.00104	"	0.104	ND	46.0	80-120	1.75	20	QM-07
Xylene (p/m)	0.0877	0.00208	"	0.208	ND	42.1	80-120	0.320	20	QM-07
Xylene (o)	0.0448	0.00104	"	0.104	ND	43.0	80-120	1.64	20	QM-07
Surrogate: 4-Bromofluorobenzene	0.117		"	0.125		93.4	80-120			
Surrogate: 1,4-Difluorobenzene	0.128		"	0.125		102	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G2608 - *** DEFAULT PREP ***</b>										
<b>Blank (P1G2608-BLK1)</b> Prepared & Analyzed: 07/26/21										
Chloride	ND	1.00	mg/kg wet							
<b>LCS (P1G2608-BS1)</b> Prepared & Analyzed: 07/26/21										
Chloride	438	1.00	mg/kg wet	400		109	90-110			
<b>LCS Dup (P1G2608-BSD1)</b> Prepared & Analyzed: 07/26/21										
Chloride	440	1.00	mg/kg wet	400		110	90-110	0.520	20	
<b>Calibration Blank (P1G2608-CCB1)</b> Prepared & Analyzed: 07/26/21										
Chloride	-0.280		mg/kg wet							
<b>Calibration Blank (P1G2608-CCB2)</b> Prepared & Analyzed: 07/26/21										
Chloride	-0.203		mg/kg wet							
<b>Calibration Check (P1G2608-CCV1)</b> Prepared & Analyzed: 07/26/21										
Chloride	19.9		mg/kg	20.0		99.7	90-110			
<b>Calibration Check (P1G2608-CCV2)</b> Prepared & Analyzed: 07/26/21										
Chloride	20.0		mg/kg	20.0		100	90-110			
<b>Calibration Check (P1G2608-CCV3)</b> Prepared: 07/26/21 Analyzed: 07/27/21										
Chloride	19.9		mg/kg	20.0		99.6	90-110			
<b>Matrix Spike (P1G2608-MS1)</b> Source: 1G26015-01 Prepared & Analyzed: 07/26/21										
Chloride	459	1.00	mg/kg dry	500	12.1	89.3	80-120			
<b>Matrix Spike (P1G2608-MS2)</b> Source: 1G26012-16 Prepared & Analyzed: 07/26/21										
Chloride	538	1.05	mg/kg dry	526	27.0	97.1	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
<b>Batch P1G2608 - *** DEFAULT PREP ***</b>											
<b>Matrix Spike Dup (P1G2608-MSD1)</b>		<b>Source: 1G26015-01</b>			Prepared & Analyzed: 07/26/21						
Chloride	456	1.00	mg/kg dry	500	12.1	88.8	80-120	0.533	20		
<b>Matrix Spike Dup (P1G2608-MSD2)</b>		<b>Source: 1G26012-16</b>			Prepared & Analyzed: 07/26/21						
Chloride	484	1.05	mg/kg dry	526	27.0	86.8	80-120	10.6	20		
<b>Batch P1G2609 - *** DEFAULT PREP ***</b>											
<b>Blank (P1G2609-BLK1)</b>		Prepared & Analyzed: 07/26/21									
Chloride	ND	1.00	mg/kg wet								
<b>LCS (P1G2609-BS1)</b>		Prepared & Analyzed: 07/26/21									
Chloride	414	1.00	mg/kg wet	400		104	90-110				
<b>LCS Dup (P1G2609-BSD1)</b>		Prepared & Analyzed: 07/26/21									
Chloride	413	1.00	mg/kg wet	400		103	90-110	0.309	20		
<b>Calibration Blank (P1G2609-CCB1)</b>		Prepared & Analyzed: 07/26/21									
Chloride	-0.0330		mg/kg wet								
<b>Calibration Check (P1G2609-CCV1)</b>		Prepared & Analyzed: 07/26/21									
Chloride	19.9		mg/kg	20.0		99.6	90-110				
<b>Calibration Check (P1G2609-CCV2)</b>		Prepared & Analyzed: 07/26/21									
Chloride	19.9		mg/kg	20.0		99.6	90-110				
<b>Calibration Check (P1G2609-CCV3)</b>		Prepared: 07/26/21 Analyzed: 07/27/21									
Chloride	20.2		mg/kg	20.0		101	90-110				

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2609 - \*\*\* DEFAULT PREP \*\*\***

<b>Matrix Spike (P1G2609-MS1)</b>		<b>Source: 1G23008-01</b>			<b>Prepared &amp; Analyzed: 07/26/21</b>					
Chloride	1350	5.15	mg/kg dry	515	815	104	80-120			
<b>Matrix Spike (P1G2609-MS2)</b>		<b>Source: 1G23009-08</b>			<b>Prepared &amp; Analyzed: 07/26/21</b>					
Chloride	2620	10.3	mg/kg dry	1030	1530	106	80-120			
<b>Matrix Spike Dup (P1G2609-MSD1)</b>		<b>Source: 1G23008-01</b>			<b>Prepared &amp; Analyzed: 07/26/21</b>					
Chloride	1360	5.15	mg/kg dry	515	815	106	80-120	0.741	20	
<b>Matrix Spike Dup (P1G2609-MSD2)</b>		<b>Source: 1G23009-08</b>			<b>Prepared &amp; Analyzed: 07/26/21</b>					
Chloride	2600	10.3	mg/kg dry	1030	1530	104	80-120	0.849	20	

**Batch P1G2712 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P1G2712-BLK1)</b>					<b>Prepared &amp; Analyzed: 07/27/21</b>					
% Moisture	ND	0.1	%							
<b>Blank (P1G2712-BLK2)</b>					<b>Prepared &amp; Analyzed: 07/27/21</b>					
% Moisture	ND	0.1	%							
<b>Blank (P1G2712-BLK3)</b>					<b>Prepared &amp; Analyzed: 07/27/21</b>					
% Moisture	ND	0.1	%							
<b>Blank (P1G2712-BLK4)</b>					<b>Prepared &amp; Analyzed: 07/27/21</b>					
% Moisture	1.0	0.1	%							
<b>Blank (P1G2712-BLK5)</b>					<b>Prepared &amp; Analyzed: 07/27/21</b>					
% Moisture	ND	0.1	%							

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G2712 - *** DEFAULT PREP ***</b>										
<b>Blank (P1G2712-BLK6)</b>										Prepared & Analyzed: 07/27/21
% Moisture	1.0	0.1	%							
<b>Duplicate (P1G2712-DUP1)</b>		<b>Source: 1G23010-19</b>								Prepared & Analyzed: 07/27/21
% Moisture	27.0	0.1	%		24.0			11.8	20	
<b>Duplicate (P1G2712-DUP2)</b>		<b>Source: 1G23010-09</b>								Prepared & Analyzed: 07/27/21
% Moisture	3.0	0.1	%		20.0			148	20	
<b>Duplicate (P1G2712-DUP3)</b>		<b>Source: 1G23011-07</b>								Prepared & Analyzed: 07/27/21
% Moisture	10.0	0.1	%		10.0			0.00	20	
<b>Duplicate (P1G2712-DUP4)</b>		<b>Source: 1G23013-01</b>								Prepared & Analyzed: 07/27/21
% Moisture	15.0	0.1	%		15.0			0.00	20	
<b>Duplicate (P1G2712-DUP5)</b>		<b>Source: 1G23013-16</b>								Prepared & Analyzed: 07/27/21
% Moisture	17.0	0.1	%		16.0			6.06	20	
<b>Duplicate (P1G2712-DUP6)</b>		<b>Source: 1G23013-26</b>								Prepared & Analyzed: 07/27/21
% Moisture	15.0	0.1	%		16.0			6.45	20	
<b>Duplicate (P1G2712-DUP7)</b>		<b>Source: 1G23014-04</b>								Prepared & Analyzed: 07/27/21
% Moisture	12.0	0.1	%		12.0			0.00	20	
<b>Duplicate (P1G2712-DUP8)</b>		<b>Source: 1G23017-03</b>								Prepared & Analyzed: 07/27/21
% Moisture	2.0	0.1	%		2.0			0.00	20	
<b>Duplicate (P1G2712-DUP9)</b>		<b>Source: 1G23020-01</b>								Prepared & Analyzed: 07/27/21
% Moisture	ND	0.1	%		ND				20	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control  
Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2712 - \*\*\* DEFAULT PREP \*\*\***

<b>Duplicate (P1G2712-DUPA)</b>	<b>Source: 1G26004-02</b>		Prepared & Analyzed: 07/27/21							
% Moisture	12.0	0.1	%		13.0			8.00	20	
<b>Duplicate (P1G2712-DUPB)</b>	<b>Source: 1G26008-05</b>		Prepared & Analyzed: 07/27/21							
% Moisture	8.0	0.1	%		7.0			13.3	20	
<b>Duplicate (P1G2712-DUPC)</b>	<b>Source: 1G26012-08</b>		Prepared & Analyzed: 07/27/21							
% Moisture	18.0	0.1	%		17.0			5.71	20	

**Batch P1G2901 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P1G2901-BLK1)</b>			Prepared & Analyzed: 07/29/21							
% Moisture	ND	0.1	%							
<b>Blank (P1G2901-BLK2)</b>			Prepared & Analyzed: 07/29/21							
% Moisture	ND	0.1	%							
<b>Blank (P1G2901-BLK3)</b>			Prepared & Analyzed: 07/29/21							
% Moisture	ND	0.1	%							
<b>Blank (P1G2901-BLK4)</b>			Prepared & Analyzed: 07/29/21							
% Moisture	ND	0.1	%							
<b>Blank (P1G2901-BLK5)</b>			Prepared & Analyzed: 07/29/21							
% Moisture	ND	0.1	%							
<b>Blank (P1G2901-BLK6)</b>			Prepared & Analyzed: 07/29/21							
% Moisture	ND	0.1	%							

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G2901 - *** DEFAULT PREP ***</b>										
<b>Duplicate (P1G2901-DUP1)</b>	<b>Source: 1G28001-10</b>			<b>Prepared &amp; Analyzed: 07/29/21</b>						
% Moisture	16.0	0.1	%		16.0			0.00	20	
<b>Duplicate (P1G2901-DUP2)</b>	<b>Source: 1G28002-03</b>			<b>Prepared &amp; Analyzed: 07/29/21</b>						
% Moisture	18.0	0.1	%		17.0			5.71	20	
<b>Duplicate (P1G2901-DUP3)</b>	<b>Source: 1G28002-18</b>			<b>Prepared &amp; Analyzed: 07/29/21</b>						
% Moisture	13.0	0.1	%		13.0			0.00	20	
<b>Duplicate (P1G2901-DUP4)</b>	<b>Source: 1G28002-28</b>			<b>Prepared &amp; Analyzed: 07/29/21</b>						
% Moisture	14.0	0.1	%		14.0			0.00	20	
<b>Duplicate (P1G2901-DUP6)</b>	<b>Source: 1G23016-04</b>			<b>Prepared &amp; Analyzed: 07/29/21</b>						
% Moisture	28.0	0.1	%		26.0			7.41	20	
<b>Duplicate (P1G2901-DUP7)</b>	<b>Source: 1G26010-07</b>			<b>Prepared &amp; Analyzed: 07/29/21</b>						
% Moisture	7.0	0.1	%		7.0			0.00	20	
<b>Duplicate (P1G2901-DUP8)</b>	<b>Source: 1G26011-09</b>			<b>Prepared &amp; Analyzed: 07/29/21</b>						
% Moisture	7.0	0.1	%		6.0			15.4	20	
<b>Duplicate (P1G2901-DUP9)</b>	<b>Source: 1G26018-13</b>			<b>Prepared &amp; Analyzed: 07/29/21</b>						
% Moisture	7.0	0.1	%		6.0			15.4	20	
<b>Duplicate (P1G2901-DUPA)</b>	<b>Source: 1G28012-02</b>			<b>Prepared &amp; Analyzed: 07/29/21</b>						
% Moisture	6.0	0.1	%		6.0			0.00	20	
<b>Duplicate (P1G2901-DUPB)</b>	<b>Source: 1G26013-07</b>			<b>Prepared &amp; Analyzed: 07/29/21</b>						
% Moisture	5.0	0.1	%		4.0			22.2	20	R3

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control  
Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2901 - \*\*\* DEFAULT PREP \*\*\***

**Duplicate (P1G2901-DUPC)**

**Source: 1G26013-17**

Prepared & Analyzed: 07/29/21

% Moisture	7.0	0.1	%		7.0			0.00	20	
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Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G2605 - TX 1005</b>										
<b>Blank (P1G2605-BLK1)</b>										
Prepared & Analyzed: 07/26/21										
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	97.0		"	100		97.0	70-130			
Surrogate: o-Terphenyl	51.1		"	50.0		102	70-130			
<b>LCS (P1G2605-BS1)</b>										
Prepared & Analyzed: 07/26/21										
C6-C12	984	25.0	mg/kg wet	1000		98.4	75-125			
>C12-C28	950	25.0	"	1000		95.0	75-125			
Surrogate: 1-Chlorooctane	127		"	100		127	70-130			
Surrogate: o-Terphenyl	55.4		"	50.0		111	70-130			
<b>LCS Dup (P1G2605-BSD1)</b>										
Prepared & Analyzed: 07/26/21										
C6-C12	993	25.0	mg/kg wet	1000		99.3	75-125	0.910	20	
>C12-C28	934	25.0	"	1000		93.4	75-125	1.68	20	
Surrogate: 1-Chlorooctane	96.9		"	100		96.9	70-130			
Surrogate: o-Terphenyl	49.9		"	50.0		99.7	70-130			
<b>Calibration Check (P1G2605-CCV1)</b>										
Prepared & Analyzed: 07/26/21										
C6-C12	483	25.0	mg/kg wet	500		96.7	85-115			
>C12-C28	526	25.0	"	500		105	85-115			
Surrogate: 1-Chlorooctane	119		"	100		119	70-130			
Surrogate: o-Terphenyl	54.8		"	50.0		110	70-130			
<b>Calibration Check (P1G2605-CCV2)</b>										
Prepared & Analyzed: 07/26/21										
C6-C12	463	25.0	mg/kg wet	500		92.6	85-115			
>C12-C28	510	25.0	"	500		102	85-115			
Surrogate: 1-Chlorooctane	114		"	100		114	70-130			
Surrogate: o-Terphenyl	51.7		"	50.0		103	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2605 - TX 1005**

**Calibration Check (P1G2605-CCV3)**

Prepared: 07/26/21 Analyzed: 07/27/21

C6-C12	512	25.0	mg/kg wet	500		102	85-115			
>C12-C28	547	25.0	"	500		109	85-115			
Surrogate: 1-Chlorooctane	126		"	100		126	70-130			
Surrogate: o-Terphenyl	58.8		"	50.0		118	70-130			

**Matrix Spike (P1G2605-MS1)**

Source: 1G26012-19

Prepared: 07/26/21 Analyzed: 07/27/21

C6-C12	1110	25.5	mg/kg dry	1020	10.8	108	75-125			
>C12-C28	1030	25.5	"	1020	10.6	99.9	75-125			
Surrogate: 1-Chlorooctane	107		"	102		104	70-130			
Surrogate: o-Terphenyl	53.3		"	51.0		104	70-130			

**Matrix Spike Dup (P1G2605-MSD1)**

Source: 1G26012-19

Prepared: 07/26/21 Analyzed: 07/27/21

C6-C12	1120	25.5	mg/kg dry	1020	10.8	108	75-125	0.572	20	
>C12-C28	1050	25.5	"	1020	10.6	102	75-125	2.28	20	
Surrogate: 1-Chlorooctane	107		"	102		105	70-130			
Surrogate: o-Terphenyl	55.8		"	51.0		109	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Page 33 of 37

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**Notes and Definitions**

- ROI Received on Ice
- R3 The RPD exceeded the acceptance limit due to sample matrix effects.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- BULK Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- LCS Laboratory Control Spike
- MS Matrix Spike
- Dup Duplicate

Report Approved By:  Date: 7/29/2021

Brent Barron, Laboratory Director/Technical Director

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If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley





**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



# Analytical Report Rev. 1

**Prepared for:**

Jeff Kindley  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21

Project Number: PP-21152

Location: Carlsbad, NM

Lab Order Number: 1G16006



**Current Certification**

Report Date: 07/29/21

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LWS-1 @ 3'	1G16006-01	Soil	07/15/21 12:25	07-16-2021 11:57
LWE-1 @ 3'	1G16006-02	Soil	07/15/21 12:20	07-16-2021 11:57
LWW-1 @ 3'	1G16006-03	Soil	07/15/21 12:30	07-16-2021 11:57
LWN-1 @ 3'	1G16006-04	Soil	07/15/21 12:16	07-16-2021 11:57
LBH-1 @ 3'	1G16006-05	Soil	07/15/21 12:23	07-16-2021 11:57
LBH-2 @ 3'	1G16006-06	Soil	07/15/21 12:18	07-16-2021 11:57
LBH-3 @ 3'	1G16006-07	Soil	07/15/21 12:14	07-16-2021 11:57
LBH-4 @ 3'	1G16006-08	Soil	07/15/21 12:28	07-16-2021 11:57

This revised report reflects the reanalysis of sample LBH-2 @ 3'.

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**LWS-1 @ 3'**  
**1G16006-01 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00104	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 16:03	EPA 8021B
Toluene	ND	0.00104	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 16:03	EPA 8021B
Ethylbenzene	ND	0.00104	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 16:03	EPA 8021B
Xylene (p/m)	ND	0.00208	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 16:03	EPA 8021B
Xylene (o)	ND	0.00104	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 16:03	EPA 8021B
Surrogate: 4-Bromofluorobenzene	95.3 %	80-120			PIG2003	07/20/21 09:57	07/20/21 16:03	EPA 8021B
Surrogate: 1,4-Difluorobenzene	108 %	80-120			PIG2003	07/20/21 09:57	07/20/21 16:03	EPA 8021B

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	103	1.04	mg/kg dry	1	PIG2115	07/21/21 15:34	07/22/21 05:54	EPA 300.0
% Moisture	4.0	0.1	%	1	PIG2007	07/20/21 11:35	07/20/21 11:37	ASTM D2216

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.0	mg/kg dry	1	PIG2107	07/21/21 10:00	07/21/21 22:09	TPH 8015M
>C12-C28	ND	26.0	mg/kg dry	1	PIG2107	07/21/21 10:00	07/21/21 22:09	TPH 8015M
>C28-C35	ND	26.0	mg/kg dry	1	PIG2107	07/21/21 10:00	07/21/21 22:09	TPH 8015M
Surrogate: 1-Chlorooctane	112 %	70-130			PIG2107	07/21/21 10:00	07/21/21 22:09	TPH 8015M
Surrogate: o-Terphenyl	114 %	70-130			PIG2107	07/21/21 10:00	07/21/21 22:09	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	07/21/21 10:00	07/21/21 22:09	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean 12600 W County Rd 91 Midland TX, 79707	Project: COG Screwdriver 24 Fed Com 2H 06.19.21 Project Number: PP-21152 Project Manager: Jeff Kindley
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**LWE-1 @ 3'**  
**1G16006-02 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00100	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 16:24	EPA 8021B
<b>Toluene</b>	<b>0.00156</b>	0.00100	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 16:24	EPA 8021B
<b>Ethylbenzene</b>	<b>0.00212</b>	0.00100	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 16:24	EPA 8021B
<b>Xylene (p/m)</b>	<b>0.00352</b>	0.00200	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 16:24	EPA 8021B
<b>Xylene (o)</b>	<b>0.00172</b>	0.00100	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 16:24	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>	<i>110 %</i>	<i>80-120</i>			<i>PIG2003</i>	<i>07/20/21 09:57</i>	<i>07/20/21 16:24</i>	<i>EPA 8021B</i>
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>99.4 %</i>	<i>80-120</i>			<i>PIG2003</i>	<i>07/20/21 09:57</i>	<i>07/20/21 16:24</i>	<i>EPA 8021B</i>

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>105</b>	1.00	mg/kg dry	1	PIG2115	07/21/21 15:34	07/22/21 06:10	EPA 300.0
% Moisture	ND	0.1	%	1	PIG2007	07/20/21 11:35	07/20/21 11:37	ASTM D2216

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>56.7</b>	25.0	mg/kg dry	1	PIG2107	07/21/21 10:00	07/21/21 22:31	TPH 8015M
<b>&gt;C12-C28</b>	<b>3490</b>	25.0	mg/kg dry	1	PIG2107	07/21/21 10:00	07/21/21 22:31	TPH 8015M
<b>&gt;C28-C35</b>	<b>495</b>	25.0	mg/kg dry	1	PIG2107	07/21/21 10:00	07/21/21 22:31	TPH 8015M
<i>Surrogate: 1-Chlorooctane</i>	<i>112 %</i>	<i>70-130</i>			<i>PIG2107</i>	<i>07/21/21 10:00</i>	<i>07/21/21 22:31</i>	<i>TPH 8015M</i>
<i>Surrogate: o-Terphenyl</i>	<i>105 %</i>	<i>70-130</i>			<i>PIG2107</i>	<i>07/21/21 10:00</i>	<i>07/21/21 22:31</i>	<i>TPH 8015M</i>
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>4050</b>	25.0	mg/kg dry	1	[CALC]	07/21/21 10:00	07/21/21 22:31	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**LWW-1 @ 3'**  
**1G16006-03 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00103	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 16:45	EPA 8021B
Toluene	ND	0.00103	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 16:45	EPA 8021B
Ethylbenzene	ND	0.00103	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 16:45	EPA 8021B
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 16:45	EPA 8021B
Xylene (o)	ND	0.00103	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 16:45	EPA 8021B
Surrogate: 4-Bromofluorobenzene	95.2 %	80-120			P1G2003	07/20/21 09:57	07/20/21 16:45	EPA 8021B
Surrogate: 1,4-Difluorobenzene	106 %	80-120			P1G2003	07/20/21 09:57	07/20/21 16:45	EPA 8021B

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	171	1.03	mg/kg dry	1	P1G2115	07/21/21 15:34	07/22/21 06:25	EPA 300.0
% Moisture	3.0	0.1	%	1	P1G2007	07/20/21 11:35	07/20/21 11:37	ASTM D2216

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.8	mg/kg dry	1	P1G2107	07/21/21 10:00	07/21/21 22:53	TPH 8015M
>C12-C28	65.3	25.8	mg/kg dry	1	P1G2107	07/21/21 10:00	07/21/21 22:53	TPH 8015M
>C28-C35	ND	25.8	mg/kg dry	1	P1G2107	07/21/21 10:00	07/21/21 22:53	TPH 8015M
Surrogate: 1-Chlorooctane	110 %	70-130			P1G2107	07/21/21 10:00	07/21/21 22:53	TPH 8015M
Surrogate: o-Terphenyl	109 %	70-130			P1G2107	07/21/21 10:00	07/21/21 22:53	TPH 8015M
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>65.3</b>	<b>25.8</b>	<b>mg/kg dry</b>	<b>1</b>	<b>[CALC]</b>	<b>07/21/21 10:00</b>	<b>07/21/21 22:53</b>	<b>calc</b>

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean	Project: COG Screwdriver 24 Fed Com 2H 06.19.21
12600 W County Rd 91	Project Number: PP-21152
Midland TX, 79707	Project Manager: Jeff Kindley

**LWN-1 @ 3'**  
**1G16006-04 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00101	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 17:06	EPA 8021B
Toluene	ND	0.00101	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 17:06	EPA 8021B
Ethylbenzene	ND	0.00101	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 17:06	EPA 8021B
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 17:06	EPA 8021B
Xylene (o)	ND	0.00101	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 17:06	EPA 8021B
Surrogate: 1,4-Difluorobenzene	109 %	80-120			P1G2003	07/20/21 09:57	07/20/21 17:06	EPA 8021B
Surrogate: 4-Bromofluorobenzene	96.7 %	80-120			P1G2003	07/20/21 09:57	07/20/21 17:06	EPA 8021B

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	86.2	1.01	mg/kg dry	1	P1G2115	07/21/21 15:34	07/22/21 06:40	EPA 300.0
% Moisture	1.0	0.1	%	1	P1G2007	07/20/21 11:35	07/20/21 11:37	ASTM D2216

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.3	mg/kg dry	1	P1G2107	07/21/21 10:00	07/21/21 23:15	TPH 8015M
>C12-C28	67.6	25.3	mg/kg dry	1	P1G2107	07/21/21 10:00	07/21/21 23:15	TPH 8015M
>C28-C35	ND	25.3	mg/kg dry	1	P1G2107	07/21/21 10:00	07/21/21 23:15	TPH 8015M
Surrogate: 1-Chlorooctane	114 %	70-130			P1G2107	07/21/21 10:00	07/21/21 23:15	TPH 8015M
Surrogate: o-Terphenyl	111 %	70-130			P1G2107	07/21/21 10:00	07/21/21 23:15	TPH 8015M
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>67.6</b>	<b>25.3</b>	<b>mg/kg dry</b>	<b>1</b>	<b>[CALC]</b>	<b>07/21/21 10:00</b>	<b>07/21/21 23:15</b>	<b>calc</b>

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**LBH-1 @ 3'**  
**1G16006-05 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00104	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 18:09	EPA 8021B
Toluene	ND	0.00104	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 18:09	EPA 8021B
Ethylbenzene	ND	0.00104	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 18:09	EPA 8021B
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 18:09	EPA 8021B
Xylene (o)	ND	0.00104	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 18:09	EPA 8021B
Surrogate: 4-Bromofluorobenzene	99.4 %		80-120		P1G2003	07/20/21 09:57	07/20/21 18:09	EPA 8021B
Surrogate: 1,4-Difluorobenzene	111 %		80-120		P1G2003	07/20/21 09:57	07/20/21 18:09	EPA 8021B

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	107	1.04	mg/kg dry	1	P1G2115	07/21/21 15:34	07/22/21 06:56	EPA 300.0
% Moisture	4.0	0.1	%	1	P1G2007	07/20/21 11:35	07/20/21 11:37	ASTM D2216

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.0	mg/kg dry	1	P1G2107	07/21/21 10:00	07/21/21 23:36	TPH 8015M
>C12-C28	ND	26.0	mg/kg dry	1	P1G2107	07/21/21 10:00	07/21/21 23:36	TPH 8015M
>C28-C35	ND	26.0	mg/kg dry	1	P1G2107	07/21/21 10:00	07/21/21 23:36	TPH 8015M
Surrogate: 1-Chlorooctane	112 %		70-130		P1G2107	07/21/21 10:00	07/21/21 23:36	TPH 8015M
Surrogate: o-Terphenyl	112 %		70-130		P1G2107	07/21/21 10:00	07/21/21 23:36	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	07/21/21 10:00	07/21/21 23:36	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**LBH-2 @ 3'**  
**1G16006-06 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00101	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 18:29	EPA 8021B
Toluene	ND	0.00101	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 18:29	EPA 8021B
Ethylbenzene	ND	0.00101	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 18:29	EPA 8021B
Xylene (p/m)	ND	0.00202	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 18:29	EPA 8021B
Xylene (o)	ND	0.00101	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 18:29	EPA 8021B
Surrogate: 1,4-Difluorobenzene	109 %		80-120		PIG2003	07/20/21 09:57	07/20/21 18:29	EPA 8021B
Surrogate: 4-Bromofluorobenzene	95.3 %		80-120		PIG2003	07/20/21 09:57	07/20/21 18:29	EPA 8021B

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	68.6	1.01	mg/kg dry	1	PIG2115	07/21/21 15:34	07/22/21 07:11	EPA 300.0
% Moisture	1.0	0.1	%	1	PIG2007	07/20/21 11:35	07/20/21 11:37	ASTM D2216

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.3	mg/kg dry	1	PIG2107	07/21/21 10:00	07/21/21 23:58	TPH 8015M
>C12-C28	811	25.3	mg/kg dry	1	PIG2107	07/21/21 10:00	07/21/21 23:58	TPH 8015M
>C28-C35	170	25.3	mg/kg dry	1	PIG2107	07/21/21 10:00	07/21/21 23:58	TPH 8015M
Surrogate: 1-Chlorooctane	89.1 %		70-130		PIG2107	07/21/21 10:00	07/21/21 23:58	TPH 8015M
Surrogate: o-Terphenyl	89.8 %		70-130		PIG2107	07/21/21 10:00	07/21/21 23:58	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	981	25.3	mg/kg dry	1	[CALC]	07/21/21 10:00	07/21/21 23:58	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Page 8 of 20

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**LBH-3 @ 3'**  
**1G16006-07 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00103	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 18:50	EPA 8021B
Toluene	ND	0.00103	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 18:50	EPA 8021B
Ethylbenzene	ND	0.00103	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 18:50	EPA 8021B
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 18:50	EPA 8021B
Xylene (o)	ND	0.00103	mg/kg dry	1	P1G2003	07/20/21 09:57	07/20/21 18:50	EPA 8021B
Surrogate: 1,4-Difluorobenzene		112 %	80-120		P1G2003	07/20/21 09:57	07/20/21 18:50	EPA 8021B
Surrogate: 4-Bromofluorobenzene		101 %	80-120		P1G2003	07/20/21 09:57	07/20/21 18:50	EPA 8021B

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	89.7	1.03	mg/kg dry	1	P1G2115	07/21/21 15:34	07/22/21 07:26	EPA 300.0
% Moisture	3.0	0.1	%	1	P1G2007	07/20/21 11:35	07/20/21 11:37	ASTM D2216

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.8	mg/kg dry	1	P1G2107	07/21/21 10:00	07/22/21 00:20	TPH 8015M
>C12-C28	26.4	25.8	mg/kg dry	1	P1G2107	07/21/21 10:00	07/22/21 00:20	TPH 8015M
>C28-C35	ND	25.8	mg/kg dry	1	P1G2107	07/21/21 10:00	07/22/21 00:20	TPH 8015M
Surrogate: 1-Chlorooctane		115 %	70-130		P1G2107	07/21/21 10:00	07/22/21 00:20	TPH 8015M
Surrogate: o-Terphenyl		111 %	70-130		P1G2107	07/21/21 10:00	07/22/21 00:20	TPH 8015M
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>26.4</b>	<b>25.8</b>	<b>mg/kg dry</b>	<b>1</b>	<b>[CALC]</b>	<b>07/21/21 10:00</b>	<b>07/22/21 00:20</b>	<b>calc</b>

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean	Project: COG Screwdriver 24 Fed Com 2H 06.19.21
12600 W County Rd 91	Project Number: PP-21152
Midland TX, 79707	Project Manager: Jeff Kindley

**LBH-4 @ 3'**  
**1G16006-08 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00103	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 19:11	EPA 8021B
Toluene	ND	0.00103	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 19:11	EPA 8021B
Ethylbenzene	ND	0.00103	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 19:11	EPA 8021B
Xylene (p/m)	ND	0.00206	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 19:11	EPA 8021B
Xylene (o)	ND	0.00103	mg/kg dry	1	PIG2003	07/20/21 09:57	07/20/21 19:11	EPA 8021B
Surrogate: 1,4-Difluorobenzene	106 %		80-120		PIG2003	07/20/21 09:57	07/20/21 19:11	EPA 8021B
Surrogate: 4-Bromofluorobenzene	94.9 %		80-120		PIG2003	07/20/21 09:57	07/20/21 19:11	EPA 8021B

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	304	1.03	mg/kg dry	1	PIG2115	07/21/21 15:34	07/22/21 08:12	EPA 300.0
% Moisture	3.0	0.1	%	1	PIG2007	07/20/21 11:35	07/20/21 11:37	ASTM D2216

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.8	mg/kg dry	1	PIG2107	07/21/21 10:00	07/22/21 00:42	TPH 8015M
>C12-C28	242	25.8	mg/kg dry	1	PIG2107	07/21/21 10:00	07/22/21 00:42	TPH 8015M
>C28-C35	43.1	25.8	mg/kg dry	1	PIG2107	07/21/21 10:00	07/22/21 00:42	TPH 8015M
Surrogate: 1-Chlorooctane	109 %		70-130		PIG2107	07/21/21 10:00	07/22/21 00:42	TPH 8015M
Surrogate: o-Terphenyl	110 %		70-130		PIG2107	07/21/21 10:00	07/22/21 00:42	TPH 8015M
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>285</b>	<b>25.8</b>	<b>mg/kg dry</b>	<b>1</b>	<b>[CALC]</b>	<b>07/21/21 10:00</b>	<b>07/22/21 00:42</b>	<b>calc</b>

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2003 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P1G2003-BLK1)**

Prepared & Analyzed: 07/20/21

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.127		"	0.120		106	80-120			
Surrogate: 4-Bromofluorobenzene	0.113		"	0.120		94.4	80-120			

**LCS (P1G2003-BS1)**

Prepared & Analyzed: 07/20/21

Benzene	0.119	0.00100	mg/kg wet	0.100		119	70-130			
Toluene	0.114	0.00100	"	0.100		114	70-130			
Ethylbenzene	0.115	0.00100	"	0.100		115	70-130			
Xylene (p/m)	0.204	0.00200	"	0.200		102	70-130			
Xylene (o)	0.107	0.00100	"	0.100		107	70-130			
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		95.0	80-120			
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		90.6	80-120			

**LCS Dup (P1G2003-BSD1)**

Prepared & Analyzed: 07/20/21

Benzene	0.120	0.00100	mg/kg wet	0.100		120	70-130	0.259	20	
Toluene	0.116	0.00100	"	0.100		116	70-130	1.85	20	
Ethylbenzene	0.118	0.00100	"	0.100		118	70-130	2.45	20	
Xylene (p/m)	0.210	0.00200	"	0.200		105	70-130	2.64	20	
Xylene (o)	0.109	0.00100	"	0.100		109	70-130	1.44	20	
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		94.6	80-120			
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		90.5	80-120			

**Calibration Blank (P1G2003-CCB1)**

Prepared & Analyzed: 07/20/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.127		"	0.120		106	80-120			
Surrogate: 4-Bromofluorobenzene	0.115		"	0.120		95.7	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2003 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Blank (P1G2003-CCB2)**

Prepared & Analyzed: 07/20/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.127		"	0.120		106	80-120			
Surrogate: 4-Bromofluorobenzene	0.112		"	0.120		93.0	80-120			

**Calibration Blank (P1G2003-CCB3)**

Prepared & Analyzed: 07/20/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.132		"	0.120		110	80-120			
Surrogate: 4-Bromofluorobenzene	0.119		"	0.120		98.8	80-120			

**Calibration Check (P1G2003-CCV1)**

Prepared & Analyzed: 07/20/21

Benzene	0.119	0.00100	mg/kg wet	0.100		119	80-120			
Toluene	0.112	0.00100	"	0.100		112	80-120			
Ethylbenzene	0.114	0.00100	"	0.100		114	80-120			
Xylene (p/m)	0.202	0.00200	"	0.200		101	80-120			
Xylene (o)	0.106	0.00100	"	0.100		106	80-120			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.2	75-125			
Surrogate: 4-Bromofluorobenzene	0.115		"	0.120		95.6	75-125			

**Calibration Check (P1G2003-CCV2)**

Prepared & Analyzed: 07/20/21

Benzene	0.120	0.00100	mg/kg wet	0.100		120	80-120			
Toluene	0.111	0.00100	"	0.100		111	80-120			
Ethylbenzene	0.109	0.00100	"	0.100		109	80-120			
Xylene (p/m)	0.191	0.00200	"	0.200		95.7	80-120			
Xylene (o)	0.104	0.00100	"	0.100		104	80-120			
Surrogate: 1,4-Difluorobenzene	0.119		"	0.120		98.9	75-125			
Surrogate: 4-Bromofluorobenzene	0.112		"	0.120		93.1	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2003 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Check (P1G2003-CCV3)**

Prepared & Analyzed: 07/20/21

Benzene	0.118	0.00100	mg/kg wet	0.100		118	80-120			
Toluene	0.106	0.00100	"	0.100		106	80-120			
Ethylbenzene	0.104	0.00100	"	0.100		104	80-120			
Xylene (p/m)	0.185	0.00200	"	0.200		92.4	80-120			
Xylene (o)	0.0999	0.00100	"	0.100		99.9	80-120			
Surrogate: 4-Bromofluorobenzene	0.105		"	0.120		87.9	75-125			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.1	75-125			

**Matrix Spike (P1G2003-MS1)**

Source: 1G16004-23

Prepared & Analyzed: 07/20/21

Benzene	0.0971	0.00101	mg/kg dry	0.101	ND	96.1	80-120			
Toluene	0.0847	0.00101	"	0.101	ND	83.9	80-120			
Ethylbenzene	0.0834	0.00101	"	0.101	ND	82.6	80-120			
Xylene (p/m)	0.147	0.00202	"	0.202	ND	72.9	80-120			QM-07
Xylene (o)	0.0762	0.00101	"	0.101	ND	75.4	80-120			QM-07
Surrogate: 1,4-Difluorobenzene	0.118		"	0.121		97.4	80-120			
Surrogate: 4-Bromofluorobenzene	0.111		"	0.121		91.7	80-120			

**Matrix Spike Dup (P1G2003-MSD1)**

Source: 1G16004-23

Prepared & Analyzed: 07/20/21

Benzene	0.107	0.00101	mg/kg dry	0.101	ND	106	80-120	9.80	20	
Toluene	0.0938	0.00101	"	0.101	ND	92.8	80-120	10.1	20	
Ethylbenzene	0.0934	0.00101	"	0.101	ND	92.5	80-120	11.3	20	
Xylene (p/m)	0.165	0.00202	"	0.202	ND	81.6	80-120	11.3	20	
Xylene (o)	0.0847	0.00101	"	0.101	ND	83.9	80-120	10.6	20	
Surrogate: 1,4-Difluorobenzene	0.121		"	0.121		100	80-120			
Surrogate: 4-Bromofluorobenzene	0.116		"	0.121		95.4	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2007 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P1G2007-BLK1)</b>				Prepared & Analyzed: 07/20/21						
% Moisture	ND	0.1	%							
<b>Blank (P1G2007-BLK2)</b>				Prepared & Analyzed: 07/20/21						
% Moisture	ND	0.1	%							
<b>Duplicate (P1G2007-DUP1)</b>				Source: 1G16004-07		Prepared & Analyzed: 07/20/21				
% Moisture	3.0	0.1	%		3.0			0.00	20	
<b>Duplicate (P1G2007-DUP2)</b>				Source: 1G16004-17		Prepared & Analyzed: 07/20/21				
% Moisture	1.0	0.1	%		2.0			66.7	20	
<b>Duplicate (P1G2007-DUP3)</b>				Source: 1G16006-04		Prepared & Analyzed: 07/20/21				
% Moisture	1.0	0.1	%		1.0			0.00	20	
<b>Duplicate (P1G2007-DUP4)</b>				Source: 1G19001-05		Prepared & Analyzed: 07/20/21				
% Moisture	3.0	0.1	%		3.0			0.00	20	

**Batch P1G2115 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P1G2115-BLK1)</b>				Prepared: 07/21/21 Analyzed: 07/22/21						
Chloride	ND	1.00	mg/kg wet							
<b>LCS (P1G2115-BS1)</b>				Prepared: 07/21/21 Analyzed: 07/22/21						
Chloride	389	1.00	mg/kg wet	400		97.3	90-110			
<b>LCS Dup (P1G2115-BSD1)</b>				Prepared: 07/21/21 Analyzed: 07/22/21						
Chloride	388	1.00	mg/kg wet	400		97.1	90-110	0.214	20	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G2115 - *** DEFAULT PREP ***</b>										
<b>Calibration Blank (P1G2115-CCB1)</b> Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	0.0110		mg/kg wet							
<b>Calibration Blank (P1G2115-CCB2)</b> Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	0.0330		mg/kg wet							
<b>Calibration Check (P1G2115-CCV1)</b> Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	18.3		mg/kg	20.0		91.7	90-110			
<b>Calibration Check (P1G2115-CCV2)</b> Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	18.3		mg/kg	20.0		91.5	90-110			
<b>Calibration Check (P1G2115-CCV3)</b> Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	18.4		mg/kg	20.0		91.9	90-110			
<b>Matrix Spike (P1G2115-MS1)</b> Source: 1G14006-25 Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	490	1.00	mg/kg dry	500	40.2	90.0	80-120			
<b>Matrix Spike (P1G2115-MS2)</b> Source: 1G16006-08 Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	705	1.03	mg/kg dry	515	304	77.8	80-120			QM-05
<b>Matrix Spike Dup (P1G2115-MSD1)</b> Source: 1G14006-25 Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	485	1.00	mg/kg dry	500	40.2	89.0	80-120	1.00	20	
<b>Matrix Spike Dup (P1G2115-MSD2)</b> Source: 1G16006-08 Prepared: 07/21/21 Analyzed: 07/22/21										
Chloride	699	1.03	mg/kg dry	515	304	76.6	80-120	0.891	20	QM-05

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2107 - TX 1005**

**Blank (P1G2107-BLK1)**

Prepared & Analyzed: 07/21/21

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	95.9		"	100		95.9	70-130			
Surrogate: o-Terphenyl	48.2		"	50.0		96.4	70-130			

**LCS (P1G2107-BS1)**

Prepared & Analyzed: 07/21/21

C6-C12	1130	25.0	mg/kg wet	1000		113	75-125			
>C12-C28	1050	25.0	"	1000		105	75-125			
Surrogate: 1-Chlorooctane	105		"	100		105	70-130			
Surrogate: o-Terphenyl	50.8		"	50.0		102	70-130			

**LCS Dup (P1G2107-BSD1)**

Prepared & Analyzed: 07/21/21

C6-C12	1110	25.0	mg/kg wet	1000		111	75-125	1.23	20	
>C12-C28	1040	25.0	"	1000		104	75-125	1.36	20	
Surrogate: 1-Chlorooctane	104		"	100		104	70-130			
Surrogate: o-Terphenyl	50.2		"	50.0		100	70-130			

**Calibration Check (P1G2107-CCV1)**

Prepared & Analyzed: 07/21/21

C6-C12	511	25.0	mg/kg wet	500		102	85-115			
>C12-C28	549	25.0	"	500		110	85-115			
Surrogate: 1-Chlorooctane	118		"	100		118	70-130			
Surrogate: o-Terphenyl	49.9		"	50.0		99.7	70-130			

**Calibration Check (P1G2107-CCV2)**

Prepared: 07/21/21 Analyzed: 07/22/21

C6-C12	534	25.0	mg/kg wet	500		107	85-115			
>C12-C28	560	25.0	"	500		112	85-115			
Surrogate: 1-Chlorooctane	123		"	100		123	70-130			
Surrogate: o-Terphenyl	51.3		"	50.0		103	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2107 - TX 1005**

**Calibration Check (P1G2107-CCV3)**

Prepared: 07/21/21 Analyzed: 07/22/21

C6-C12	518	25.0	mg/kg wet	500		104	85-115			
>C12-C28	565	25.0	"	500		113	85-115			
Surrogate: 1-Chlorooctane	121		"	100		121	70-130			
Surrogate: o-Terphenyl	50.6		"	50.0		101	70-130			

**Matrix Spike (P1G2107-MS1)**

Source: 1G19004-07

Prepared: 07/21/21 Analyzed: 07/22/21

C6-C12	1170	27.5	mg/kg dry	1100	15.7	105	75-125			
>C12-C28	1130	27.5	"	1100	77.6	95.3	75-125			
Surrogate: 1-Chlorooctane	112		"	110		102	70-130			
Surrogate: o-Terphenyl	56.5		"	54.9		103	70-130			

**Matrix Spike Dup (P1G2107-MSD1)**

Source: 1G19004-07

Prepared: 07/21/21 Analyzed: 07/22/21

C6-C12	1200	27.5	mg/kg dry	1100	15.7	108	75-125	2.90	20	
>C12-C28	1160	27.5	"	1100	77.6	98.2	75-125	2.94	20	
Surrogate: 1-Chlorooctane	116		"	110		106	70-130			
Surrogate: o-Terphenyl	63.0		"	54.9		115	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Notes and Definitions**

- ROI Received on Ice
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- BULK Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- LCS Laboratory Control Spike
- MS Matrix Spike
- Dup Duplicate

Report Approved By:  Date: 7/29/2021

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP  
1400 Rankin Hwy  
Midland, Texas 79701

Phone: 432-686-7235

PG. of

Project Manager: Jeff Kindley

Company Name: Dean

Company Address: 12600 West County Rd. 91

City/State/Zip: Midland TX 79707

Telephone No: 432-230-0920

Sampler Signature: *Angel*

Fax No:

e-mail:

jeffkindley@deandigs.com  
stevacasanova@deandigs.com  
kaylanlongee@deanequip.com  
elizabethstuart@deandigs.com

Project Name: Plains COG Screwdriver

Project #: PP-21152

Project Loc: Eddy County, New Mexico

WORK ORDER #: 2021-053

AFE/ COST CENTER:

Report Format:  Standard  TRRP  NPDES  
ALGroves@paalp.com

ORDER #: 1616006

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO <sub>3</sub> 250ml Poly	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None 1L Poly	NaOH/ZnAc	Matrix	Analyze For:	7 Day TAT	24 hour TAT
1	LWS-1 e 3Ft	3Ft	3Ft	07/15/21	12:25		1	✓								Soil	TPH TX1005 EXT (TEXAS)	✓	✓
2	LWE-1 e 3Ft	3Ft	3Ft	07/15/21	12:20		1	✓								Soil	BTEX 8021 B	✓	✓
3	LWW-1 e 4Ft	4Ft	4Ft	07/15/21	12:30		1	✓								Soil	TCLP BENZENE	✓	✓
4	LWN-1 e 3Ft	3Ft	3Ft	07/15/21	12:16		1	✓								Soil	CHLORIDES	✓	✓
5	LWH-1 e 3Ft	3Ft	3Ft	07/15/21	12:23		1	✓								Soil	TCLP METALS	✓	✓
6	LWH-2 e 3Ft	3Ft	3Ft	07/15/21	12:18		1	✓								Soil	NORM	✓	✓
7	LWH-3 e 3Ft	3Ft	3Ft	07/15/21	12:14		1	✓								Soil	PAINT FILTER	✓	✓
8	LWH-4 e 3Ft	3Ft	3Ft	07/15/21	12:28		1	✓								Soil	TOX	✓	✓
																	pH	✓	✓
																	TPH 8015 M (NEW MEXICO)	✓	✓

Special Instructions:

Relinquished by: *Rodriguez-Bella* Date: 7/16 Time: 12:00 Received by: *[Signature]* Date: 7/16/21 Time: 11:59

Relinquished by: *Rodriguez-Bella* Date: 7/16 Time: 12:00 Received by: *[Signature]* Date: 7/16/21 Time: 11:59

Relinquished by: *[Signature]* Date: 7/16 Time: 12:00 Received by: *[Signature]* Date: 7/16/21 Time: 11:59

Laboratory Comments:

Sample Containers Intact? N

VOCs Free of Headspace? N

Labels on containers? N

Custody seals on container(s)? N

Custody seals on cooler(s)? N

Sample Hand Delivered by Sampler/Client Rep.? N

Temperature Upon Receipt? N

Temperature Adjusted? N

UPS? N

DHL? N

FedEx? N

Lone Star? N

20 + 1.0 3.0 CFV

*LTB CK WJ*

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



# Analytical Report

**Prepared for:**

Jeff Kindley  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: COG Screwdriver Release

Project Number: PP-21116

Location: Eddy County, NM

Lab Order Number: 1G30010



**Current Certification**

Report Date: 08/02/21

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LWE-2-B @ 3'	1G30010-01	Soil	07/29/21 00:00	07-30-2021 11:30

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**LWE-2-B @ 3'**  
**1G30010-01 (Soil)**

Analyte	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Result	Limit							

**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00104	mg/kg dry	1	PIG3004	07/30/21 09:48	07/30/21 15:51	EPA 8021B
<b>Toluene</b>	<b>0.00788</b>	0.00104	mg/kg dry	1	PIG3004	07/30/21 09:48	07/30/21 15:51	EPA 8021B
Ethylbenzene	ND	0.00104	mg/kg dry	1	PIG3004	07/30/21 09:48	07/30/21 15:51	EPA 8021B
Xylene (p/m)	ND	0.00208	mg/kg dry	1	PIG3004	07/30/21 09:48	07/30/21 15:51	EPA 8021B
Xylene (o)	ND	0.00104	mg/kg dry	1	PIG3004	07/30/21 09:48	07/30/21 15:51	EPA 8021B
Surrogate: 4-Bromofluorobenzene	100 %		80-120		PIG3004	07/30/21 09:48	07/30/21 15:51	EPA 8021B
Surrogate: 1,4-Difluorobenzene	112 %		80-120		PIG3004	07/30/21 09:48	07/30/21 15:51	EPA 8021B

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>53.4</b>	1.04	mg/kg dry	1	PIG3008	07/30/21 12:52	07/31/21 08:42	EPA 300.0
<b>% Moisture</b>	<b>4.0</b>	0.1	%	1	PIG3101	07/31/21 13:30	07/31/21 14:20	ASTM D2216

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.0	mg/kg dry	1	PIG3006	07/30/21 13:00	07/30/21 15:30	TPH 8015M
>C12-C28	ND	26.0	mg/kg dry	1	PIG3006	07/30/21 13:00	07/30/21 15:30	TPH 8015M
>C28-C35	ND	26.0	mg/kg dry	1	PIG3006	07/30/21 13:00	07/30/21 15:30	TPH 8015M
Surrogate: 1-Chlorooctane	112 %		70-130		PIG3006	07/30/21 13:00	07/30/21 15:30	TPH 8015M
Surrogate: o-Terphenyl	117 %		70-130		PIG3006	07/30/21 13:00	07/30/21 15:30	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	07/30/21 13:00	07/30/21 15:30	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G3004 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P1G3004-BLK1)**

Prepared & Analyzed: 07/30/21

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.130		"	0.120		108	80-120			
Surrogate: 4-Bromofluorobenzene	0.116		"	0.120		96.5	80-120			

**LCS (P1G3004-BS1)**

Prepared & Analyzed: 07/30/21

Benzene	0.105	0.00100	mg/kg wet	0.100		105	70-130			
Toluene	0.103	0.00100	"	0.100		103	70-130			
Ethylbenzene	0.0987	0.00100	"	0.100		98.7	70-130			
Xylene (p/m)	0.210	0.00200	"	0.200		105	70-130			
Xylene (o)	0.0905	0.00100	"	0.100		90.5	70-130			
Surrogate: 4-Bromofluorobenzene	0.113		"	0.120		94.1	80-120			
Surrogate: 1,4-Difluorobenzene	0.120		"	0.120		99.8	80-120			

**LCS Dup (P1G3004-BSD1)**

Prepared & Analyzed: 07/30/21

Benzene	0.0957	0.00100	mg/kg wet	0.100		95.7	70-130	9.47	20	
Toluene	0.0914	0.00100	"	0.100		91.4	70-130	11.8	20	
Ethylbenzene	0.0903	0.00100	"	0.100		90.3	70-130	8.87	20	
Xylene (p/m)	0.191	0.00200	"	0.200		95.5	70-130	9.61	20	
Xylene (o)	0.0819	0.00100	"	0.100		81.9	70-130	9.91	20	
Surrogate: 1,4-Difluorobenzene	0.120		"	0.120		99.9	80-120			
Surrogate: 4-Bromofluorobenzene	0.111		"	0.120		92.6	80-120			

**Calibration Blank (P1G3004-CCB1)**

Prepared & Analyzed: 07/30/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.130		"	0.120		109	80-120			
Surrogate: 4-Bromofluorobenzene	0.117		"	0.120		97.2	80-120			

Permian Basin Environmental Lab, L.P.

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Dean  
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Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G3004 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Blank (P1G3004-CCB2)**

Prepared & Analyzed: 07/30/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.132		"	0.120		110	80-120			
Surrogate: 4-Bromofluorobenzene	0.119		"	0.120		99.1	80-120			

**Calibration Blank (P1G3004-CCB3)**

Prepared: 07/30/21 Analyzed: 07/31/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.129		"	0.120		107	80-120			
Surrogate: 4-Bromofluorobenzene	0.114		"	0.120		95.2	80-120			

**Calibration Check (P1G3004-CCV1)**

Prepared & Analyzed: 07/30/21

Benzene	0.0998	0.00100	mg/kg wet	0.100		99.8	80-120			
Toluene	0.0946	0.00100	"	0.100		94.6	80-120			
Ethylbenzene	0.0965	0.00100	"	0.100		96.5	80-120			
Xylene (p/m)	0.194	0.00200	"	0.200		97.2	80-120			
Xylene (o)	0.0849	0.00100	"	0.100		84.9	80-120			
Surrogate: 4-Bromofluorobenzene	0.110		"	0.120		91.9	75-125			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.1	75-125			

**Calibration Check (P1G3004-CCV2)**

Prepared & Analyzed: 07/30/21

Benzene	0.106	0.00100	mg/kg wet	0.100		106	80-120			
Toluene	0.102	0.00100	"	0.100		102	80-120			
Ethylbenzene	0.0990	0.00100	"	0.100		99.0	80-120			
Xylene (p/m)	0.204	0.00200	"	0.200		102	80-120			
Xylene (o)	0.0929	0.00100	"	0.100		92.9	80-120			
Surrogate: 4-Bromofluorobenzene	0.118		"	0.120		98.4	75-125			
Surrogate: 1,4-Difluorobenzene	0.122		"	0.120		102	75-125			

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G3004 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Check (P1G3004-CCV3)**

Prepared: 07/30/21 Analyzed: 07/31/21

Benzene	0.103	0.00100	mg/kg wet	0.100		103	80-120			
Toluene	0.100	0.00100	"	0.100		100	80-120			
Ethylbenzene	0.0950	0.00100	"	0.100		95.0	80-120			
Xylene (p/m)	0.202	0.00200	"	0.200		101	80-120			
Xylene (o)	0.0930	0.00100	"	0.100		93.0	80-120			
Surrogate: 4-Bromofluorobenzene	0.112		"	0.120		93.4	75-125			
Surrogate: 1,4-Difluorobenzene	0.122		"	0.120		102	75-125			

**Matrix Spike (P1G3004-MS1)**

Source: 1G29005-02

Prepared: 07/30/21 Analyzed: 07/31/21

Benzene	0.0807	0.00100	mg/kg dry	0.100	ND	80.7	80-120			
Toluene	0.0774	0.00100	"	0.100	0.00312	74.3	80-120			QM-07
Ethylbenzene	0.0744	0.00100	"	0.100	ND	74.4	80-120			QM-07
Xylene (p/m)	0.162	0.00200	"	0.200	ND	80.8	80-120			
Xylene (o)	0.0714	0.00100	"	0.100	ND	71.4	80-120			QM-07
Surrogate: 1,4-Difluorobenzene	0.126		"	0.120		105	80-120			
Surrogate: 4-Bromofluorobenzene	0.116		"	0.120		97.0	80-120			

**Matrix Spike Dup (P1G3004-MSD1)**

Source: 1G29005-02

Prepared: 07/30/21 Analyzed: 07/31/21

Benzene	0.0817	0.00100	mg/kg dry	0.100	ND	81.7	80-120	1.21	20	
Toluene	0.0767	0.00100	"	0.100	0.00312	73.6	80-120	0.960	20	QM-07
Ethylbenzene	0.0749	0.00100	"	0.100	ND	74.9	80-120	0.630	20	QM-07
Xylene (p/m)	0.158	0.00200	"	0.200	ND	79.0	80-120	2.33	20	QM-07
Xylene (o)	0.0724	0.00100	"	0.100	ND	72.4	80-120	1.41	20	QM-07
Surrogate: 1,4-Difluorobenzene	0.123		"	0.120		103	80-120			
Surrogate: 4-Bromofluorobenzene	0.117		"	0.120		97.4	80-120			

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G3008 - *** DEFAULT PREP ***</b>										
<b>Blank (P1G3008-BLK1)</b> Prepared: 07/30/21 Analyzed: 07/31/21										
Chloride	ND	1.00	mg/kg wet							
<b>LCS (P1G3008-BS1)</b> Prepared: 07/30/21 Analyzed: 07/31/21										
Chloride	404	1.00	mg/kg wet	400		101	90-110			
<b>LCS Dup (P1G3008-BSD1)</b> Prepared: 07/30/21 Analyzed: 07/31/21										
Chloride	405	1.00	mg/kg wet	400		101	90-110	0.361	20	
<b>Calibration Blank (P1G3008-CCB1)</b> Prepared: 07/30/21 Analyzed: 07/31/21										
Chloride	-0.0260		mg/kg wet							
<b>Calibration Blank (P1G3008-CCB2)</b> Prepared: 07/30/21 Analyzed: 07/31/21										
Chloride	0.0110		mg/kg wet							
<b>Calibration Check (P1G3008-CCV1)</b> Prepared: 07/30/21 Analyzed: 07/31/21										
Chloride	99.8		mg/kg	20.0		499	90-110			S-08
<b>Calibration Check (P1G3008-CCV2)</b> Prepared: 07/30/21 Analyzed: 07/31/21										
Chloride	19.5		mg/kg	20.0		97.3	90-110			
<b>Calibration Check (P1G3008-CCV3)</b> Prepared: 07/30/21 Analyzed: 07/31/21										
Chloride	19.0		mg/kg	20.0		95.2	90-110			
<b>Matrix Spike (P1G3008-MS1)</b> Source: 1G30001-09 Prepared: 07/30/21 Analyzed: 07/31/21										
Chloride	9150	26.6	mg/kg dry	2660	6550	97.8	80-120			
<b>Matrix Spike (P1G3008-MS2)</b> Source: 1G22002-02 Prepared: 07/30/21 Analyzed: 07/31/21										
Chloride	8030	27.2	mg/kg dry	2720	5480	93.9	80-120			

Permian Basin Environmental Lab, L.P.

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12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G3008 - *** DEFAULT PREP ***</b>										
<b>Matrix Spike Dup (P1G3008-MSD1)</b>		<b>Source: 1G30001-09</b>			Prepared: 07/30/21		Analyzed: 07/31/21			
Chloride	9080	26.6	mg/kg dry	2660	6550	95.3	80-120	0.735	20	
<b>Matrix Spike Dup (P1G3008-MSD2)</b>		<b>Source: 1G22002-02</b>			Prepared: 07/30/21		Analyzed: 07/31/21			
Chloride	7870	27.2	mg/kg dry	2720	5480	88.1	80-120	1.99	20	
<b>Batch P1G3101 - *** DEFAULT PREP ***</b>										
<b>Blank (P1G3101-BLK1)</b>					Prepared & Analyzed: 07/31/21					
% Moisture	ND	0.1	%							
<b>Blank (P1G3101-BLK2)</b>					Prepared & Analyzed: 07/31/21					
% Moisture	ND	0.1	%							
<b>Blank (P1G3101-BLK3)</b>					Prepared & Analyzed: 07/31/21					
% Moisture	ND	0.1	%							
<b>Blank (P1G3101-BLK4)</b>					Prepared & Analyzed: 07/31/21					
% Moisture	ND	0.1	%							
<b>Blank (P1G3101-BLK5)</b>					Prepared & Analyzed: 07/31/21					
% Moisture	ND	0.1	%							
<b>Duplicate (P1G3101-DUP1)</b>		<b>Source: 1G30001-10</b>			Prepared & Analyzed: 07/31/21					
% Moisture	4.0	0.1	%		4.0			0.00	20	
<b>Duplicate (P1G3101-DUP2)</b>		<b>Source: 1G27002-30</b>			Prepared & Analyzed: 07/31/21					
% Moisture	14.0	0.1	%		14.0			0.00	20	

Permian Basin Environmental Lab, L.P.

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Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control  
Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G3101 - *** DEFAULT PREP ***</b>										
<b>Duplicate (P1G3101-DUP3)</b>		<b>Source: 1G27002-40</b>			Prepared & Analyzed: 07/31/21					
% Moisture	16.0	0.1	%		14.0			13.3	20	
<b>Duplicate (P1G3101-DUP4)</b>		<b>Source: 1G27002-55</b>			Prepared & Analyzed: 07/31/21					
% Moisture	16.0	0.1	%		15.0			6.45	20	
<b>Duplicate (P1G3101-DUP5)</b>		<b>Source: 1G27002-65</b>			Prepared & Analyzed: 07/31/21					
% Moisture	19.0	0.1	%		20.0			5.13	20	
<b>Duplicate (P1G3101-DUP6)</b>		<b>Source: 1G27002-80</b>			Prepared & Analyzed: 07/31/21					
% Moisture	18.0	0.1	%		18.0			0.00	20	
<b>Duplicate (P1G3101-DUP7)</b>		<b>Source: 1G27002-90</b>			Prepared & Analyzed: 07/31/21					
% Moisture	16.0	0.1	%		17.0			6.06	20	

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G3006 - TX 1005**

**Calibration Check (P1G3006-CCV3)**

Prepared & Analyzed: 07/30/21

C6-C12	506	25.0	mg/kg wet	500		101	85-115			
>C12-C28	550	25.0	"	500		110	85-115			
Surrogate: 1-Chlorooctane	129		"	100		129	70-130			
Surrogate: o-Terphenyl	57.6		"	50.0		115	70-130			

**Matrix Spike (P1G3006-MS1)**

Source: 1G30009-13

Prepared & Analyzed: 07/30/21

C6-C12	961	26.9	mg/kg dry	1080	16.1	87.9	75-125			
>C12-C28	902	26.9	"	1080	143	70.6	75-125			QM-05
Surrogate: 1-Chlorooctane	136		"	108		127	70-130			
Surrogate: o-Terphenyl	49.7		"	53.8		92.4	70-130			

**Matrix Spike Dup (P1G3006-MSD1)**

Source: 1G30009-13

Prepared & Analyzed: 07/30/21

C6-C12	934	26.9	mg/kg dry	1080	16.1	85.4	75-125	2.92	20	
>C12-C28	902	26.9	"	1080	143	70.6	75-125	0.00566	20	QM-05
Surrogate: 1-Chlorooctane	138		"	108		128	70-130			
Surrogate: o-Terphenyl	47.1		"	53.8		87.6	70-130			

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

**Notes and Definitions**

- S-08 Value outside Laboratory historical or method prescribed QC limits.
- ROI Received on Ice
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- BULK Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- LCS Laboratory Control Spike
- MS Matrix Spike
- Dup Duplicate

Report Approved By:  Date: 8/2/2021

Brent Barron, Laboratory Director/Technical Director

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver Release  
Project Number: PP-21116  
Project Manager: Jeff Kindley

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP  
 1400 Rankin Hwy  
 Midland, Texas 79701

Phone: 432-686-7235

Project Manager: Jeff Kindley

Company Name: Dean

Company Address: 12600 WCR 91

City/State/Zip: Midland TX 79707

Telephone No: 432-230-0920

Sampler Signature: Joe Belloc

Fax No:

e-mail:

jeffkindley@deandigs.com  
 stevecasanova@deandigs.com  
 kaylanlongee@deanequip.com  
 elizabethstuart@deandigs.com

Project Name: COG Screwdriver

Project #: PR-21116

Project Loc: Eddy County, New Mexico

WORK ORDER #: 2021-053

Report Format:  Standard  TRRP  NPDES

algovos@psalp.com

ORDER #: 1630010

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO <sub>3</sub> 250ml Poly	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None 1L Poly	NaOH/ZnAc	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Matrix	Analyze For:	3 Day Turnaround	24 hour TAT
	LWE-2-B @ 3'	3'	3'	07/29/21	0:00		1	X								Soil		TPH TX1005 EXT (TEXAS)	X	X
																		BTEX 8021 B	X	X
																		TCLP BENZENE	X	X
																		CHLORIDES	X	X
																		TCLP METALS	X	X
																		NORM	X	X
																		PAINT FILTER	X	X
																		TOX	X	X
																		RCI	X	X
																		PH	X	X
																		TPH 8015 M (NEW MEXICO)	X	X

Special Instructions: 1 Day Turnaround

Relinquished by: *Jeff Kindley* Date: 07/30/21 Time: 11:30

Received by: *Joe Belloc* Date: 7/30/21 Time: 11:30

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Laboratory Comments:

Sample Containers Intact?

VOGs Free of HeadSpace?

Labels on container(s)

Custom seals on container(s)

Custody seals on cooler(s)

Sample Hand Delivered by Sampler/Client Rep?

Temperature upon Receipt: 49.9 °C

Adjusted: 5.9 °C Factor

by Courier?  UPS  DHL  FedEx  Lone Star

LPR W - CLERK

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



# Analytical Report

**Prepared for:**

Jeff Kindley  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21

Project Number: PP-21152

Location: Eddy Co., NM

Lab Order Number: 1G13007



**Current Certification**

Report Date: 07/23/21

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WC-1	1G13007-01	Soil	07/12/21 08:45	07-13-2021 16:19

TCLP Benzene, TCLP Metals, and RCI analysis were subcontracted to ALS Houston. Their report is attached after the Chain of Custody. Their TCEQ TNI certification number can be found here:

[https://www.tceq.texas.gov/assets/public/compliance/compliance\\_support/qa/labs/als\\_svcs\\_houston.pdf](https://www.tceq.texas.gov/assets/public/compliance/compliance_support/qa/labs/als_svcs_houston.pdf)

NORM analysis were subcontracted to ARS International, Port Allen LA. Their report is attached to the email due to an incompatibility with our LIMS Reporting module.

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**WC-1**  
**1G13007-01 (Soil)**

Analyte	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Result	Limit							

**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>124</b>	1.10	mg/kg dry	1	PIG2204	07/22/21 09:31	07/22/21 21:30	EPA 300.0	
Reactive Cyanide	ND	100	ppm	1	PIG2201	07/21/21 15:30	07/21/21 15:30	SW846 9010B	SUB-13
Ignitability by Flashpoint	> 212		°F	1	PIG2201	07/19/21 16:23	07/19/21 16:23	ASTM D93-80	SUB-13
<b>pH</b>	<b>8.40</b>	0.10	pH Units	1	PIG2201	07/19/21 16:23	07/19/21 16:23	EPA 9045B	SUB-13
<b>% Moisture</b>	<b>9.0</b>	0.1	%	1	PIG1602	07/16/21 11:31	07/16/21 11:56	ASTM D2216	
Reactive Sulfide	ND	100	ppm	1	PIG2201	07/21/21 14:00	07/21/21 14:00	SW846 9030B	SUB-13
<b>Temperature</b>	<b>23.1</b>		°C	1	PIG2201	07/19/21 16:23	07/19/21 16:23	EPA 170.1	SUB-13

**Naturally Occuring Radioactive Material (N.O.R.M.)**

Radium 226	ND	1.65	pCi/g	1	PIG2110	07/15/21 13:14	07/16/21 07:51	EPA 901.1	SUB-13
Radium 228	ND	0.31	pCi/g	1	PIG2110	07/15/21 13:14	07/16/21 07:51	EPA 901.1	SUB-13
Lead 210	ND	1.42	pCi/g	1	PIG2110	07/15/21 13:14	07/16/21 07:51	EPA 901.1	SUB-13
<b>Total Gamma</b>	<b>8.11</b>		pCi/g	1	PIG2110	07/15/21 13:14	07/16/21 07:51	EPA 901.1	SUB-13
<b>Lead 210 Analysis Error</b>	<b>1.08</b>		+/- 2 Sigma	1	PIG2110	07/15/21 13:14	07/16/21 07:51	EPA 901.1	SUB-13
<b>Radium 226 Analysis Error</b>	<b>1.31</b>		+/- 2 Sigma	1	PIG2110	07/15/21 13:14	07/16/21 07:51	EPA 901.1	SUB-13
<b>Radium 228 Analysis Error</b>	<b>0.28</b>		+/- 2 Sigma	1	PIG2110	07/15/21 13:14	07/16/21 07:51	EPA 901.1	SUB-13

**TCLP Metals 1311 by EPA / Standard Methods**

Mercury	ND	0.000200	mg/L	1	PIG2201	07/16/21 10:00	07/16/20 14:00	EPA 7470A	SUB-13
Chromium	ND	0.0500	mg/L	1	PIG2201	07/16/21 10:00	07/20/21 15:25	EPA 6020A	SUB-13
Arsenic	ND	0.0500	mg/L	1	PIG2201	07/16/21 10:00	07/20/21 15:25	EPA 6020A	SUB-13
Selenium	ND	0.0500	mg/L	1	PIG2201	07/16/21 10:00	07/20/21 15:25	EPA 6020A	SUB-13
Silver	ND	0.0500	mg/L	1	PIG2201	07/16/21 10:00	07/20/21 15:25	EPA 6020A	SUB-13
Cadmium	ND	0.0500	mg/L	1	PIG2201	07/16/21 10:00	07/20/21 15:25	EPA 6020A	SUB-13
<b>Barium</b>	<b>1.10</b>	0.200	mg/L	1	PIG2201	07/16/21 10:00	07/20/21 15:25	EPA 6020A	SUB-13
Lead	ND	0.0500	mg/L	1	PIG2201	07/16/21 10:00	07/20/21 15:25	EPA 6020A	SUB-13

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**WC-1**  
**1G13007-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**TCLP Volatile Organic Compounds by EPA Method 1311/8260B**

Benzene	ND	100	ug/l	1	PIG2201	07/16/21 10:00	07/20/21 19:16	EPA 8260B	SUB-13
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>5470</b>	275	mg/kg dry	10	PIG1508	07/15/21 09:50	07/18/21 15:28	TPH 8015M	
<b>&gt;C12-C28</b>	<b>26000</b>	275	mg/kg dry	10	PIG1508	07/15/21 09:50	07/18/21 15:28	TPH 8015M	
<b>&gt;C28-C35</b>	<b>3910</b>	275	mg/kg dry	10	PIG1508	07/15/21 09:50	07/18/21 15:28	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>	<i>154 %</i>		<i>70-130</i>		<i>PIG1508</i>	<i>07/15/21 09:50</i>	<i>07/18/21 15:28</i>	<i>TPH 8015M</i>	<i>S-GC</i>
<i>Surrogate: o-Terphenyl</i>	<i>116 %</i>		<i>70-130</i>		<i>PIG1508</i>	<i>07/15/21 09:50</i>	<i>07/18/21 15:28</i>	<i>TPH 8015M</i>	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>35300</b>	275	mg/kg dry	10	[CALC]	07/15/21 09:50	07/18/21 15:28	calc	

**Physical Parameters by APHA/ASTM/EPA Methods**

Free Liquid	PASS		N/A	1	PIG2109	07/14/21 08:00	07/14/21 08:15	EPA 9095	
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Permian Basin Environmental Lab, L.P.

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Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G1602 - *** DEFAULT PREP ***</b>										
<b>Blank (P1G1602-BLK1)</b>										Prepared & Analyzed: 07/16/21
% Moisture	ND	0.1	%							
<b>Blank (P1G1602-BLK2)</b>										Prepared & Analyzed: 07/16/21
% Moisture	ND	0.1	%							
<b>Blank (P1G1602-BLK3)</b>										Prepared & Analyzed: 07/16/21
% Moisture	ND	0.1	%							
<b>Blank (P1G1602-BLK4)</b>										Prepared & Analyzed: 07/16/21
% Moisture	ND	0.1	%							
<b>Blank (P1G1602-BLK5)</b>										Prepared & Analyzed: 07/16/21
% Moisture	ND	0.1	%							
<b>Blank (P1G1602-BLK6)</b>										Prepared & Analyzed: 07/16/21
% Moisture	ND	0.1	%							
<b>Blank (P1G1602-BLK7)</b>										Prepared & Analyzed: 07/16/21
% Moisture	ND	0.1	%							
<b>Duplicate (P1G1602-DUP1)</b>										Source: 1G14005-10 Prepared & Analyzed: 07/16/21
% Moisture	14.0	0.1	%		14.0			0.00	20	
<b>Duplicate (P1G1602-DUP2)</b>										Source: 1G14005-20 Prepared & Analyzed: 07/16/21
% Moisture	4.0	0.1	%		4.0			0.00	20	
<b>Duplicate (P1G1602-DUP3)</b>										Source: 1G13006-03 Prepared & Analyzed: 07/16/21
% Moisture	6.0	0.1	%		5.0			18.2	20	

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Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1G1602 - *** DEFAULT PREP ***</b>										
<b>Duplicate (P1G1602-DUP4)</b>	<b>Source: 1G13006-13</b>		Prepared & Analyzed: 07/16/21							
% Moisture	18.0	0.1	%		21.0			15.4	20	
<b>Duplicate (P1G1602-DUP5)</b>	<b>Source: 1G13006-28</b>		Prepared & Analyzed: 07/16/21							
% Moisture	2.0	0.1	%		1.0			66.7	20	R3
<b>Duplicate (P1G1602-DUP6)</b>	<b>Source: 1G13006-38</b>		Prepared & Analyzed: 07/16/21							
% Moisture	2.0	0.1	%		2.0			0.00	20	
<b>Duplicate (P1G1602-DUP7)</b>	<b>Source: 1G13009-06</b>		Prepared & Analyzed: 07/16/21							
% Moisture	13.0	0.1	%		13.0			0.00	20	
<b>Duplicate (P1G1602-DUP8)</b>	<b>Source: 1G14003-08</b>		Prepared & Analyzed: 07/16/21							
% Moisture	12.0	0.1	%		12.0			0.00	20	
<b>Duplicate (P1G1602-DUP9)</b>	<b>Source: 1G14003-23</b>		Prepared & Analyzed: 07/16/21							
% Moisture	14.0	0.1	%		13.0			7.41	20	
<b>Duplicate (P1G1602-DUPA)</b>	<b>Source: 1G14003-33</b>		Prepared & Analyzed: 07/16/21							
% Moisture	10.0	0.1	%		9.0			10.5	20	
<b>Duplicate (P1G1602-DUPB)</b>	<b>Source: 1G14006-14</b>		Prepared & Analyzed: 07/16/21							
% Moisture	3.0	0.1	%		3.0			0.00	20	
<b>Duplicate (P1G1602-DUPC)</b>	<b>Source: 1G14006-24</b>		Prepared & Analyzed: 07/16/21							
% Moisture	ND	0.1	%		ND				20	
<b>Duplicate (P1G1602-DUPD)</b>	<b>Source: 1G15008-01</b>		Prepared & Analyzed: 07/16/21							
% Moisture	3.0	0.1	%		4.0			28.6	20	

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Midland TX, 79707

Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G1602 - \*\*\* DEFAULT PREP \*\*\***

<b>Duplicate (P1G1602-DUPE)</b>		<b>Source: 1G15009-09</b>			Prepared & Analyzed: 07/16/21					
% Moisture	6.0	0.1	%		7.0			15.4	20	

**Batch P1G2204 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P1G2204-BLK1)</b>		Prepared & Analyzed: 07/22/21								
Chloride	ND	1.00	mg/kg wet							

<b>LCS (P1G2204-BS1)</b>		Prepared & Analyzed: 07/22/21								
Chloride	412	1.00	mg/kg wet	400		103	90-110			

<b>LCS Dup (P1G2204-BSD1)</b>		Prepared & Analyzed: 07/22/21								
Chloride	414	1.00	mg/kg wet	400		103	90-110	0.487	20	

<b>Calibration Check (P1G2204-CCV1)</b>		Prepared & Analyzed: 07/22/21								
Chloride	19.5		mg/kg	20.0		97.3	90-110			

<b>Calibration Check (P1G2204-CCV2)</b>		Prepared: 07/22/21 Analyzed: 07/23/21								
Chloride	19.5		mg/kg	20.0		97.5	90-110			

<b>Matrix Spike (P1G2204-MS1)</b>		<b>Source: 1G13007-01</b>			Prepared & Analyzed: 07/22/21					
Chloride	578	1.10	mg/kg dry	549	124	82.7	80-120			

<b>Matrix Spike (P1G2204-MS2)</b>		<b>Source: 1G19004-19</b>			Prepared: 07/22/21 Analyzed: 07/23/21					
Chloride	541	1.14	mg/kg dry	568	14.9	92.5	80-120			

<b>Matrix Spike Dup (P1G2204-MSD1)</b>		<b>Source: 1G13007-01</b>			Prepared & Analyzed: 07/22/21					
Chloride	556	1.10	mg/kg dry	549	124	78.6	80-120	4.00	20	QM-05

Permian Basin Environmental Lab, L.P.

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Dean  
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Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2204 - \*\*\* DEFAULT PREP \*\*\***

**Matrix Spike Dup (P1G2204-MSD2)**

**Source: 1G19004-19**

Prepared: 07/22/21 Analyzed: 07/23/21

Chloride	531	1.14	mg/kg dry	568	14.9	90.9	80-120	1.76	20	
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Dean  
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Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G1508 - TX 1005**

**Blank (P1G1508-BLK1)**

Prepared: 07/15/21 Analyzed: 07/18/21

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	105		"	100		105	70-130			
Surrogate: o-Terphenyl	52.9		"	50.0		106	70-130			

**LCS (P1G1508-BS1)**

Prepared: 07/15/21 Analyzed: 07/18/21

C6-C12	1110	25.0	mg/kg wet	1000		111	75-125			
>C12-C28	995	25.0	"	1000		99.5	75-125			
Surrogate: 1-Chlorooctane	111		"	100		111	70-130			
Surrogate: o-Terphenyl	58.1		"	50.0		116	70-130			

**LCS Dup (P1G1508-BS1)**

Prepared: 07/15/21 Analyzed: 07/18/21

C6-C12	1110	25.0	mg/kg wet	1000		111	75-125	0.339	20	
>C12-C28	1010	25.0	"	1000		101	75-125	1.76	20	
Surrogate: 1-Chlorooctane	112		"	100		112	70-130			
Surrogate: o-Terphenyl	54.3		"	50.0		109	70-130			

**Calibration Check (P1G1508-CCV1)**

Prepared: 07/15/21 Analyzed: 07/18/21

C6-C12	565	25.0	mg/kg wet	500		113	85-115			
>C12-C28	566	25.0	"	500		113	85-115			
Surrogate: 1-Chlorooctane	109		"	100		109	70-130			
Surrogate: o-Terphenyl	54.7		"	50.0		109	70-130			

**Calibration Check (P1G1508-CCV2)**

Prepared: 07/15/21 Analyzed: 07/18/21

C6-C12	558	25.0	mg/kg wet	500		112	85-115			
>C12-C28	556	25.0	"	500		111	85-115			
Surrogate: 1-Chlorooctane	108		"	100		108	70-130			
Surrogate: o-Terphenyl	54.9		"	50.0		110	70-130			

Permian Basin Environmental Lab, L.P.

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Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G1508 - TX 1005**

**Matrix Spike (P1G1508-MS1)**

Source: 1G13006-42

Prepared: 07/15/21 Analyzed: 07/18/21

C6-C12	1160	26.0	mg/kg dry	1040	12.5	110	75-125			
>C12-C28	1230	26.0	"	1040	139	105	75-125			
Surrogate: 1-Chlorooctane	110		"	104		106	70-130			
Surrogate: o-Terphenyl	55.6		"	52.1		107	70-130			

**Matrix Spike Dup (P1G1508-MSD1)**

Source: 1G13006-42

Prepared: 07/15/21 Analyzed: 07/18/21

C6-C12	1160	26.0	mg/kg dry	1040	12.5	111	75-125	0.0723	20	
>C12-C28	1230	26.0	"	1040	139	104	75-125	0.301	20	
Surrogate: 1-Chlorooctane	109		"	104		105	70-130			
Surrogate: o-Terphenyl	57.8		"	52.1		111	70-130			

Permian Basin Environmental Lab, L.P.

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Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
 Project Number: PP-21152  
 Project Manager: Jeff Kindley

**Physical Parameters by APHA/ASTM/EPA Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1G2109 - \*\*\* DEFAULT PREP \*\*\***

**Duplicate (P1G2109-DUP1)**

**Source: 1G13007-01**

Prepared & Analyzed: 07/14/21

Free Liquid	PASS		N/A		PASS				200	
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Permian Basin Environmental Lab, L.P.

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Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

**Notes and Definitions**

- SUB-13 Subcontract of analyte/analysis to ALS Houston.
- S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
- ROI Received on Ice
- R3 The RPD exceeded the acceptance limit due to sample matrix effects.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- BULK Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- LCS Laboratory Control Spike
- MS Matrix Spike
- Dup Duplicate

Report Approved By:  Date: 7/23/2021

Brent Barron, Laboratory Director/Technical Director

Dean  
12600 W County Rd 91  
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Project: COG Screwdriver 24 Fed Com 2H 06.19.21  
Project Number: PP-21152  
Project Manager: Jeff Kindley

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If you have received this material in error, please notify us immediately at 432-686-7235.





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July 21, 2021

Brent Barron  
Permian Basin Environmental Lab, LP  
10014 SCR 1213  
Midland, TX 79706

Work Order: **HS21070778**

Laboratory Results for: **1G13007**

Dear Brent Barron,

ALS Environmental received 1 sample(s) on Jul 15, 2021 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL  
Bernadette A. Fini  
Project Manager

**ALS Houston, US**

Date: 21-Jul-21

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 1G13007  
**Work Order:** HS21070778

**SAMPLE SUMMARY**

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Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21070778-01	1G13007-01	Soil		12-Jul-2021 08:45	15-Jul-2021 09:25	<input type="checkbox"/>

ALS Houston, US

Date: 21-Jul-21

Client: Permian Basin Environmental Lab, LP  
Project: 1G13007  
Work Order: HS21070778

CASE NARRATIVE

**Work Order Comments**

- Sample received outside method holding time for pH. pH is an immediate test. Sample results are flagged with an "H" qualifier. The temperature at the time of pH is reported. Please note that all pH results are already normalized to a temperature of 25 °C.

**GCMS Volatiles by Method SW8260**

Batch ID: 167991

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

**Metals by Method SW1311/6020**

Batch ID: 168113

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

**Metals by Method SW7470A**

Batch ID: 168106

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

**WetChemistry by Method SW7.3.3.2**

Batch ID: R387904

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

**WetChemistry by Method SW7.3.4.2**

Batch ID: R387906

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

**WetChemistry by Method SW9045D**

Batch ID: R387726

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

**WetChemistry by Method ASTM D92-12b**

Batch ID: R387580

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

## ALS Houston, US

Date: 21-Jul-21

Client: Permian Basin Environmental Lab, LP  
 Project: 1G13007  
 Sample ID: 1G13007-01  
 Collection Date: 12-Jul-2021 08:45

**ANALYTICAL REPORT**  
 WorkOrder:HS21070778  
 Lab ID:HS21070778-01  
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>TCLP VOLATILES</b>		<b>Method:SW8260</b>		Leache:SW1311 / 16-Jul-2021	Prep:SW1311 / 16-Jul-2021	Analyst: PC
Benzene	ND		0.10	mg/L	20	20-Jul-2021 19:16
Surr: 1,2-Dichloroethane-d4	103		70-126	%REC	20	20-Jul-2021 19:16
Surr: 4-Bromofluorobenzene	98.8		82-124	%REC	20	20-Jul-2021 19:16
Surr: Dibromofluoromethane	99.0		77-123	%REC	20	20-Jul-2021 19:16
Surr: Toluene-d8	101		82-127	%REC	20	20-Jul-2021 19:16
<b>TCLP METALS BY SW6020A</b>		<b>Method:SW1311/6020</b>		Leache:SW1311 / 16-Jul-2021	Prep:SW3010A / 20-Jul-2021	Analyst: JHD
Arsenic	ND		0.0500	mg/L	1	20-Jul-2021 15:25
Barium	1.10		0.200	mg/L	1	20-Jul-2021 15:25
Cadmium	ND		0.0500	mg/L	1	20-Jul-2021 15:25
Chromium	ND		0.0500	mg/L	1	20-Jul-2021 15:25
Lead	ND		0.0500	mg/L	1	20-Jul-2021 15:25
Selenium	ND		0.0500	mg/L	1	20-Jul-2021 15:25
Silver	ND		0.0500	mg/L	1	20-Jul-2021 15:25
<b>TCLP MERCURY BY SW7470A</b>		<b>Method:SW7470A</b>		Leache:SW1311 / 16-Jul-2021	Prep:SW7470A / 20-Jul-2021	Analyst: MSC
Mercury	ND		0.000200	mg/L	1	20-Jul-2021 14:00
<b>FLASH POINT BY CLEVELAND OPEN CUP ASTM D92-12B</b>		<b>Method:ASTM D92-12b</b>				Analyst: TH
Flash Point	> 212	n	50.0	°F	1	16-Jul-2021 10:30
<b>REACTIVE CYANIDE</b>		<b>Method:SW7.3.3.2</b>				Analyst: KVL
Reactive Cyanide	ND	n	100	mg/Kg	1	21-Jul-2021 15:30
<b>REACTIVE SULFIDE</b>		<b>Method:SW7.3.4.2</b>				Analyst: KVL
Reactive Sulfide	ND	n	100	mg/Kg	1	21-Jul-2021 14:00
<b>PH SOIL BY SW9045D</b>		<b>Method:SW9045D</b>				Analyst: JW
pH	8.40	H	0.100	pH Units	1	19-Jul-2021 16:23
Temp Deg C @pH	23.1	H	0	°C	1	19-Jul-2021 16:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 21-Jul-21

**Weight / Prep Log**

**Client:** Permian Basin Environmental Lab, LP

**Project:** 1G13007

**WorkOrder:** HS21070778

<b>Batch ID:</b> 167991	<b>Start Date:</b> 15 Jul 2021 17:00	<b>End Date:</b> 16 Jul 2021 10:00
<b>Method:</b> TCLP ZHE (VOL EXTRACTION)	<b>Prep Code:</b> 1311ZHE	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS21070778-01		25 (g)	500 (mL)	20	4-oz glass, Neat

<b>Batch ID:</b> 167992	<b>Start Date:</b> 15 Jul 2021 17:00	<b>End Date:</b> 16 Jul 2021 10:00
<b>Method:</b> TCLP MERCURY EXTRACTION BY SW1311	<b>Prep Code:</b> 1311LHG EXT	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS21070778-01		100 (grams)	2000 (mL)	20	4-oz glass, Neat

<b>Batch ID:</b> 167993	<b>Start Date:</b> 15 Jul 2021 17:00	<b>End Date:</b> 16 Jul 2021 10:00
<b>Method:</b> TCLP METALS EXTRACTION BY SW1311	<b>Prep Code:</b> 1311LM EXT	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS21070778-01		100 (grams)	2000 (mL)	20	4-oz glass, Neat

<b>Batch ID:</b> 168106	<b>Start Date:</b> 20 Jul 2021 08:30	<b>End Date:</b> 20 Jul 2021 11:30
<b>Method:</b> MERCURY TCLP PREP BY SW7470A	<b>Prep Code:</b> 1311_HGPR	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS21070778-01		10 (mL)	10 (mL)	1	4-oz glass, Neat

<b>Batch ID:</b> 168113	<b>Start Date:</b> 20 Jul 2021 10:00	<b>End Date:</b> 20 Jul 2021 14:30
<b>Method:</b> TCLP LEACHATE DIGESTION BY SW3010A	<b>Prep Code:</b> 3010A_TCLP	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS21070778-01		1 (mL)	10 (mL)	10	4-oz glass, Neat

ALS Houston, US

Date: 21-Jul-21

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 1G13007  
**WorkOrder:** HS21070778

**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
<b>Batch ID:</b> 167991 ( 0 )		<b>Test Name :</b> TCLP VOLATILES			<b>Matrix:</b> Soil	
HS21070778-01	1G13007-01	12 Jul 2021 08:45	16 Jul 2021 11:28	16 Jul 2021 13:28	20 Jul 2021 19:16	20
<b>Batch ID:</b> 168106 ( 0 )		<b>Test Name :</b> TCLP MERCURY BY SW7470A			<b>Matrix:</b> Soil	
HS21070778-01	1G13007-01	12 Jul 2021 08:45	16 Jul 2021 10:00	20 Jul 2021 11:30	20 Jul 2021 14:00	1
<b>Batch ID:</b> 168113 ( 0 )		<b>Test Name :</b> TCLP METALS BY SW6020A			<b>Matrix:</b> Soil	
HS21070778-01	1G13007-01	12 Jul 2021 08:45	16 Jul 2021 10:00	20 Jul 2021 13:00	20 Jul 2021 15:25	1
<b>Batch ID:</b> R387580 ( 0 )		<b>Test Name :</b> FLASH POINT BY CLEVELAND OPEN CUP ASTM D92-12B			<b>Matrix:</b> Soil	
HS21070778-01	1G13007-01	12 Jul 2021 08:45			16 Jul 2021 10:30	1
<b>Batch ID:</b> R387726 ( 0 )		<b>Test Name :</b> PH SOIL BY SW9045D			<b>Matrix:</b> Soil	
HS21070778-01	1G13007-01	12 Jul 2021 08:45			19 Jul 2021 16:23	1
<b>Batch ID:</b> R387904 ( 0 )		<b>Test Name :</b> REACTIVE CYANIDE			<b>Matrix:</b> Soil	
HS21070778-01	1G13007-01	12 Jul 2021 08:45			21 Jul 2021 15:30	1
<b>Batch ID:</b> R387906 ( 0 )		<b>Test Name :</b> REACTIVE SULFIDE			<b>Matrix:</b> Soil	
HS21070778-01	1G13007-01	12 Jul 2021 08:45			21 Jul 2021 14:00	1

**ALS Houston, US**

Date: 21-Jul-21

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 1G13007  
**WorkOrder:** HS21070778

**QC BATCH REPORT**

<b>Batch ID:</b> 168106 ( 0 )	<b>Instrument:</b> HG03	<b>Method:</b> TCLP MERCURY BY SW7470A
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<b>MBLK</b>	Sample ID: <b>MBLKT2-168106</b>	Units: <b>mg/L</b>	Analysis Date: <b>20-Jul-2021 13:42</b>							
Client ID:	Run ID: <b>HG03_387781</b>	SeqNo: <b>6190406</b>	PrepDate: <b>20-Jul-2021</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury ND 0.000200

<b>MBLK</b>	Sample ID: <b>MBLKT4-168106</b>	Units: <b>mg/L</b>	Analysis Date: <b>20-Jul-2021 15:29</b>							
Client ID:	Run ID: <b>HG03_387781</b>	SeqNo: <b>6190519</b>	PrepDate: <b>20-Jul-2021</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury ND 0.000200

<b>MBLK</b>	Sample ID: <b>MBLKT3-168106</b>	Units: <b>mg/L</b>	Analysis Date: <b>20-Jul-2021 14:13</b>							
Client ID:	Run ID: <b>HG03_387781</b>	SeqNo: <b>6190418</b>	PrepDate: <b>20-Jul-2021</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury ND 0.000200

<b>MBLK</b>	Sample ID: <b>MBLKT1-168106</b>	Units: <b>mg/L</b>	Analysis Date: <b>20-Jul-2021 13:40</b>							
Client ID:	Run ID: <b>HG03_387781</b>	SeqNo: <b>6190405</b>	PrepDate: <b>20-Jul-2021</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury ND 0.000200

<b>MBLK</b>	Sample ID: <b>MBLK-168106</b>	Units: <b>mg/L</b>	Analysis Date: <b>20-Jul-2021 13:31</b>							
Client ID:	Run ID: <b>HG03_387781</b>	SeqNo: <b>6190402</b>	PrepDate: <b>20-Jul-2021</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury ND 0.000200

<b>LCS</b>	Sample ID: <b>LCS-168106</b>	Units: <b>mg/L</b>	Analysis Date: <b>20-Jul-2021 13:45</b>							
Client ID:	Run ID: <b>HG03_387781</b>	SeqNo: <b>6190407</b>	PrepDate: <b>20-Jul-2021</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury 0.00522 0.000200 0.005 0 104 80 - 120

**ALS Houston, US**

Date: 21-Jul-21

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 1G13007  
**WorkOrder:** HS21070778

**QC BATCH REPORT**

Batch ID: 168106 ( 0 )		Instrument: HG03		Method: TCLP MERCURY BY SW7470A						
<b>MS</b>	Sample ID: <b>HS21070764-01MS</b>				Units: <b>mg/L</b>	Analysis Date: <b>20-Jul-2021 13:51</b>				
Client ID:		Run ID: <b>HG03_387781</b>		SeqNo: <b>6190409</b>	PrepDate: <b>20-Jul-2021</b>	DF: <b>1</b>				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
Mercury	0.00517	0.000200	0.005	0.000012	103	75 - 125				
<b>MSD</b>	Sample ID: <b>HS21070764-01MSD</b>				Units: <b>mg/L</b>	Analysis Date: <b>20-Jul-2021 13:53</b>				
Client ID:		Run ID: <b>HG03_387781</b>		SeqNo: <b>6190410</b>	PrepDate: <b>20-Jul-2021</b>	DF: <b>1</b>				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
Mercury	0.00531	0.000200	0.005	0.000012	106	75 - 125	0.00517	2.67	20	

The following samples were analyzed in this batch: HS21070778-01

**ALS Houston, US**

Date: 21-Jul-21

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 1G13007  
**WorkOrder:** HS21070778

**QC BATCH REPORT**

<b>Batch ID:</b> 168113 ( 0 )	<b>Instrument:</b> ICPMS06	<b>Method:</b> TCLP METALS BY SW6020A
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<b>MBLK</b>	Sample ID: <b>MBLKT2-168113</b>	Units: <b>mg/L</b>	Analysis Date: <b>20-Jul-2021 14:53</b>							
Client ID:	Run ID: <b>ICPMS06_387805</b>	SeqNo: <b>6190722</b>	PrepDate: <b>20-Jul-2021</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Arsenic	ND	0.0500								
Barium	ND	0.200								
Cadmium	ND	0.0500								
Chromium	ND	0.0500								
Lead	ND	0.0500								
Selenium	ND	0.0500								
Silver	ND	0.0500								

<b>MBLK</b>	Sample ID: <b>MBLKT3-168113</b>	Units: <b>mg/L</b>	Analysis Date: <b>20-Jul-2021 14:55</b>							
Client ID:	Run ID: <b>ICPMS06_387805</b>	SeqNo: <b>6190723</b>	PrepDate: <b>20-Jul-2021</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Arsenic	ND	0.0500								
Barium	ND	0.200								
Cadmium	ND	0.0500								
Chromium	ND	0.0500								
Lead	ND	0.0500								
Selenium	ND	0.0500								
Silver	ND	0.0500								

<b>MBLK</b>	Sample ID: <b>MBLKT1-168113</b>	Units: <b>mg/L</b>	Analysis Date: <b>20-Jul-2021 14:51</b>							
Client ID:	Run ID: <b>ICPMS06_387805</b>	SeqNo: <b>6190721</b>	PrepDate: <b>20-Jul-2021</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Arsenic	ND	0.0500								
Barium	ND	0.200								
Cadmium	ND	0.0500								
Chromium	ND	0.0500								
Lead	ND	0.0500								
Selenium	ND	0.0500								
Silver	ND	0.0500								

ALS Houston, US

Date: 21-Jul-21

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 1G13007  
**WorkOrder:** HS21070778

**QC BATCH REPORT**

<b>Batch ID:</b> 168113 ( 0 )	<b>Instrument:</b> ICPMS06	<b>Method:</b> TCLP METALS BY SW6020A
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<b>MBLK</b>		Sample ID: <b>MBLK-168113</b>		Units: <b>mg/L</b>		Analysis Date: <b>20-Jul-2021 14:49</b>			
Client ID:		Run ID: <b>ICPMS06_387805</b>		SeqNo: <b>6190720</b>		PrepDate: <b>20-Jul-2021</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Arsenic	ND	0.00500							
Barium	ND	0.0200							
Cadmium	ND	0.00500							
Chromium	ND	0.00500							
Lead	ND	0.00500							
Selenium	ND	0.00500							
Silver	ND	0.00500							

<b>LCS</b>		Sample ID: <b>LCS-168113</b>		Units: <b>mg/L</b>		Analysis Date: <b>20-Jul-2021 14:57</b>			
Client ID:		Run ID: <b>ICPMS06_387805</b>		SeqNo: <b>6190724</b>		PrepDate: <b>20-Jul-2021</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Arsenic	0.04747	0.00500	0.05	0	94.9	80 - 120			
Barium	0.047	0.0200	0.05	0	94.0	80 - 120			
Cadmium	0.05008	0.00500	0.05	0	100	80 - 120			
Chromium	0.04729	0.00500	0.05	0	94.6	80 - 120			
Lead	0.04709	0.00500	0.05	0	94.2	80 - 120			
Selenium	0.05042	0.00500	0.05	0	101	80 - 120			
Silver	0.04901	0.00500	0.05	0	98.0	80 - 120			

<b>MS</b>		Sample ID: <b>HS21070780-01MS</b>		Units: <b>mg/L</b>		Analysis Date: <b>20-Jul-2021 15:03</b>			
Client ID:		Run ID: <b>ICPMS06_387805</b>		SeqNo: <b>6190727</b>		PrepDate: <b>20-Jul-2021</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Arsenic	0.4619	0.0500	0.5	0.00447	91.5	80 - 120			
Barium	1.186	0.200	0.5	0.7289	91.4	80 - 120			
Cadmium	0.4757	0.0500	0.5	0.00933	93.3	80 - 120			
Chromium	0.4503	0.0500	0.5	0.00429	89.2	80 - 120			
Lead	0.4556	0.0500	0.5	0.00589	89.9	80 - 120			
Selenium	0.4816	0.0500	0.5	-0.0005	96.4	80 - 120			
Silver	0.4477	0.0500	0.5	-0.00016	89.6	80 - 120			

**ALS Houston, US**

Date: 21-Jul-21

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 1G13007  
**WorkOrder:** HS21070778

**QC BATCH REPORT**

<b>Batch ID:</b> 168113 ( 0 )	<b>Instrument:</b> ICPMS06	<b>Method:</b> TCLP METALS BY SW6020A
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<b>MSD</b>		Sample ID: <b>HS21070780-01MSD</b>			Units: <b>mg/L</b>		Analysis Date: <b>20-Jul-2021 15:05</b>			
Client ID:		Run ID: <b>ICPMS06_387805</b>			SeqNo: <b>6190728</b>		PrepDate: <b>20-Jul-2021</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.4677	0.0500	0.5	0.00447	92.6	80 - 120	0.4619	1.24	20	
Barium	1.181	0.200	0.5	0.7289	90.3	80 - 120	1.186	0.452	20	
Cadmium	0.4795	0.0500	0.5	0.00933	94.0	80 - 120	0.4757	0.798	20	
Chromium	0.4537	0.0500	0.5	0.00429	89.9	80 - 120	0.4503	0.765	20	
Lead	0.4536	0.0500	0.5	0.00589	89.5	80 - 120	0.4556	0.444	20	
Selenium	0.4744	0.0500	0.5	-0.0005	95.0	80 - 120	0.4816	1.51	20	
Silver	0.4509	0.0500	0.5	-0.00016	90.2	80 - 120	0.4477	0.717	20	

<b>PDS</b>		Sample ID: <b>HS21070780-01PDS</b>			Units: <b>mg/L</b>		Analysis Date: <b>20-Jul-2021 15:07</b>			
Client ID:		Run ID: <b>ICPMS06_387805</b>			SeqNo: <b>6190729</b>		PrepDate: <b>20-Jul-2021</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	1.088	0.0500	1	0.00447	108	75 - 125				
Barium	1.799	0.200	1	0.7289	107	75 - 125				
Cadmium	1.096	0.0500	1	0.00933	109	75 - 125				
Chromium	1.066	0.0500	1	0.00429	106	75 - 125				
Lead	1.082	0.0500	1	0.00589	108	75 - 125				
Selenium	1.152	0.0500	1	-0.0005	115	75 - 125				
Silver	1.012	0.0500	1	-0.00016	101	75 - 125				

<b>SD</b>		Sample ID: <b>HS21070780-01SD</b>			Units: <b>mg/L</b>		Analysis Date: <b>20-Jul-2021 15:01</b>			
Client ID:		Run ID: <b>ICPMS06_387805</b>			SeqNo: <b>6190726</b>		PrepDate: <b>20-Jul-2021</b>		DF: <b>5</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Arsenic	ND	0.250					0.00447	0	10	
Barium	0.734	1.00					0.7289	0	10	J
Cadmium	ND	0.250					0.00933	0	10	
Chromium	ND	0.250					0.00429	0	10	
Lead	ND	0.250					0.00589	0	10	
Selenium	ND	0.250					-0.0005	0	10	
Silver	ND	0.250					-0.00016	0	10	

The following samples were analyzed in this batch: HS21070778-01

**ALS Houston, US**

Date: 21-Jul-21

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 1G13007  
**WorkOrder:** HS21070778

**QC BATCH REPORT**

**Batch ID:** 167991 ( 0 )      **Instrument:** VOA9      **Method:** TCLP VOLATILES

**MBLK**      Sample ID: **MBLK-167991**      Units: **ug/L**      Analysis Date: **20-Jul-2021 18:55**  
 Client ID:      Run ID: **VOA9\_387880**      SeqNo: **6192438**      PrepDate: **16-Jul-2021**      DF: **20**  
 Analyte      Result      PQL      SPK Val      SPK Ref Value      %REC      Control Limit      RPD Ref Value      %RPD      RPD Limit Qual

Benzene	ND	100								
Surr: 1,2-Dichloroethane-d4	1052	100	1000	0	105	70 - 130				
Surr: 4-Bromofluorobenzene	987.4	100	1000	0	98.7	82 - 115				
Surr: Dibromofluoromethane	1010	100	1000	0	101	73 - 126				
Surr: Toluene-d8	994.9	100	1000	0	99.5	81 - 120				

**LCS**      Sample ID: **VLCSW-167991**      Units: **ug/L**      Analysis Date: **20-Jul-2021 11:28**  
 Client ID:      Run ID: **VOA9\_387880**      SeqNo: **6192434**      PrepDate:      DF: **1**  
 Analyte      Result      PQL      SPK Val      SPK Ref Value      %REC      Control Limit      RPD Ref Value      %RPD      RPD Limit Qual

Benzene	19.37	5.0	20	0	96.9	74 - 120				
Surr: 1,2-Dichloroethane-d4	49.62	5.0	50	0	99.2	70 - 130				
Surr: 4-Bromofluorobenzene	50.72	5.0	50	0	101	82 - 115				
Surr: Dibromofluoromethane	49.78	5.0	50	0	99.6	73 - 126				
Surr: Toluene-d8	50.58	5.0	50	0	101	81 - 120				

**MS**      Sample ID: **HS21070878-05MS**      Units: **ug/L**      Analysis Date: **20-Jul-2021 14:40**  
 Client ID:      Run ID: **VOA9\_387880**      SeqNo: **6192437**      PrepDate:      DF: **1**  
 Analyte      Result      PQL      SPK Val      SPK Ref Value      %REC      Control Limit      RPD Ref Value      %RPD      RPD Limit Qual

Benzene	13.828	5.0	20	0	107	70 - 127				
Surr: 1,2-Dichloroethane-d4	50	5.0	50	0	100.0	70 - 126				
Surr: 4-Bromofluorobenzene	50.73	5.0	50	0	101	82 - 124				
Surr: Dibromofluoromethane	49.94	5.0	50	0	99.9	77 - 123				
Surr: Toluene-d8	50.56	5.0	50	0	101	82 - 127				

The following samples were analyzed in this batch:

ALS Houston, US

Date: 21-Jul-21

Client: Permian Basin Environmental Lab, LP  
Project: 1G13007  
WorkOrder: HS21070778

QC BATCH REPORT

Batch ID: R387580 ( 0 )		Instrument: WetChem_HS		Method: FLASH POINT BY CLEVELAND OPEN CUP ASTM D92-12B						
DUP	Sample ID: HS21070614-02DUP	Units: °F		Analysis Date: 16-Jul-2021 10:30						
Client ID:	Run ID: WetChem_HS_387580	SeqNo: 6185770		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Flash Point	> 212	50.0					0	0	30	
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The following samples were analyzed in this batch: HS21070778-01

ALS Houston, US

Date: 21-Jul-21

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 1G13007  
**WorkOrder:** HS21070778

**QC BATCH REPORT**

<b>Batch ID:</b> R387726 ( 0 )		<b>Instrument:</b> WetChem_HS		<b>Method:</b> PH SOIL BY SW9045D					
<b>DUP</b>	Sample ID: <b>HS21070686-01DUP</b>	Units: <b>pH Units</b>			Analysis Date: <b>19-Jul-2021 16:23</b>				
Client ID:	Run ID: <b>WetChem_HS_387726</b>	SeqNo: <b>6188731</b>	PrepDate:	DF: <b>1</b>					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

pH	6.88	0.100					6.85	0.437	10
Temp Deg C @pH	23.8	0					23.7	0.421	10

The following samples were analyzed in this batch: HS21070778-01

**ALS Houston, US**

Date: 21-Jul-21

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 1G13007  
**WorkOrder:** HS21070778

**QC BATCH REPORT**

Batch ID: R387904 ( 0 )		Instrument: UV-2450		Method: REACTIVE CYANIDE						
<b>MBLK</b>	Sample ID: <b>MBLK-R387904</b>	Units: <b>mg/Kg</b>		Analysis Date: <b>21-Jul-2021 15:30</b>						
Client ID:	Run ID: <b>UV-2450_387904</b>	SeqNo: <b>6193076</b>		PrepDate:			DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Reactive Cyanide	ND	100								
<b>LCS</b>	Sample ID: <b>LCS-R387904</b>	Units: <b>mg/Kg</b>		Analysis Date: <b>21-Jul-2021 15:30</b>						
Client ID:	Run ID: <b>UV-2450_387904</b>	SeqNo: <b>6193075</b>		PrepDate:			DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Reactive Cyanide	0.67	100	10	0	6.70	5 - 100			J	
<b>MS</b>	Sample ID: <b>HS21070732-01MS</b>	Units: <b>mg/Kg</b>		Analysis Date: <b>21-Jul-2021 15:30</b>						
Client ID:	Run ID: <b>UV-2450_387904</b>	SeqNo: <b>6193077</b>		PrepDate:			DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Reactive Cyanide	0.6	100	10	0	6.00	5 - 100			J	

The following samples were analyzed in this batch: HS21070778-01

**ALS Houston, US**

Date: 21-Jul-21

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 1G13007  
**WorkOrder:** HS21070778

**QC BATCH REPORT**

Batch ID: R387906 ( 0 )		Instrument: WetChem_HS		Method: REACTIVE SULFIDE						
<b>MBLK</b>	Sample ID: <b>MBLK-R387906</b>	Units: <b>mg/Kg</b>			Analysis Date: <b>21-Jul-2021 14:00</b>					
Client ID:	Run ID: <b>WetChem_HS_387906</b>	SeqNo: <b>6193097</b>		PrepDate:			DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Reactive Sulfide	ND	100								
<b>LCS</b>	Sample ID: <b>LCS-R387906</b>	Units: <b>mg/Kg</b>			Analysis Date: <b>21-Jul-2021 14:00</b>					
Client ID:	Run ID: <b>WetChem_HS_387906</b>	SeqNo: <b>6193096</b>		PrepDate:			DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Reactive Sulfide	60	100	100	0	60.0	20 - 120			J	
<b>MS</b>	Sample ID: <b>HS21070732-01MS</b>	Units: <b>mg/Kg</b>			Analysis Date: <b>21-Jul-2021 14:00</b>					
Client ID:	Run ID: <b>WetChem_HS_387906</b>	SeqNo: <b>6193098</b>		PrepDate:			DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Reactive Sulfide	64	100	100	0	64.0	20 - 120			J	

The following samples were analyzed in this batch: HS21070778-01

**ALS Houston, US**

Date: 21-Jul-21

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 1G13007  
**WorkOrder:** HS21070778

**QUALIFIERS,  
ACRONYMS, UNITS**

<b>Qualifier</b>	<b>Description</b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

<b>Acronym</b>	<b>Description</b>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<b>Unit Reported</b>	<b>Description</b>
Date	
mg/L	Milligrams per Liter

**ALS Houston, US**

Date: 21-Jul-21

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**CERTIFICATIONS, ACCREDITATIONS & LICENSES**

<b>Agency</b>	<b>Number</b>	<b>Expire Date</b>
Arkansas	21-022-0	26-Mar-2022
Dept of Defense	PJLA L20-507-R2	22-Dec-2021
Florida	E87611-33	30-Jun-2022
Illinois	2000322021-7	09-May-2022
Kansas	E-10352 2020-2021	31-Jul-2021
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2021-2022	30-Jun-2022
North Carolina	624-2021	31-Dec-2021
Oklahoma	2020-165	31-Aug-2021
Texas	T104704231-21-27	30-Apr-2022
Utah	TX026932021-10	31-Jul-2021

**ALS Houston, US**

Date: 21-Jul-21

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 1G13007  
**Work Order:** HS21070778

**SAMPLE TRACKING**

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Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS21070778-01	1G13007-01	Login	7/15/2021 3:11:43 PM	BAF	SPA217

ALS Houston, US

Date: 21-Jul-21

Sample Receipt Checklist

Work Order ID: HS21070778

Date/Time Received: 15-Jul-2021 09:25

Client Name: Permian Basin Lab

Received by: Paresh M. Giga

Completed By: /S/ Bernadette A. Fini	15-Jul-2021 15:16	Reviewed by: /S/ Bernadette A. Fini	15-Jul-2021 16:24
eSignature	Date/Time	eSignature	Date/Time

Matrices: oil

Carrier name: FedEx Standard Overnight

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present
- Custody seals intact on sample bottles? Yes  No  Not Present
- VOA/TX1005/TX1006 Solids in hermetically sealed vials? Yes  No  Not Present
- Chain of custody present? Yes  No  1 Page(s)
- Chain of custody signed when relinquished and received? Yes  No
- Samplers name present on COC? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Container/Temp Blank temperature in compliance? Yes  No

Temperature(s)/Thermometer(s):	2.4/2.4 uc/c	IR 31
Cooler(s)/Kit(s):	red	
Date/Time sample(s) sent to storage:	7-15-21 15:30	

- Water - VOA vials have zero headspace? Yes  No  No VOA vials submitted
- Water - pH acceptable upon receipt? Yes  No  N/A
- pH adjusted? Yes  No  N/A

pH adjusted by:

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:



*Red* JUL 15 2021

ORIGIN ID:MAFA (432) 686-7235  
BRENT BARROW  
PBE LAB  
CONFIDENTIAL PRCNG-DONOT SHARE  
1400 RANKIN HWY  
MIDLAND, TX 79701  
UNITED STATES US

SHIP DATE: 14JUL21  
ACTWGT: 11.30 LB  
CAD: 6994483/SSF2202  
DIMS: 10x13x8 IN  
BILL THIRD PARTY

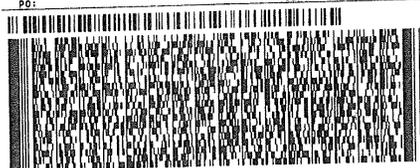
TO **SAMPLE RECEIVING**  
**ALS - HOUSTON**  
**10450 STANCLIFF RD** *Red*

**HOUSTON TX 77099**

(281) 630-5618  
TRK#  
PO:

REF:

DEPT:



**FedEx**  
Express



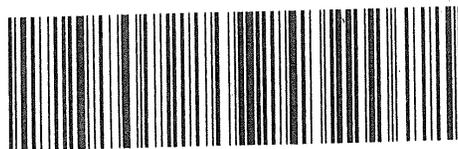
TRK# 8161 1358 5864  
0200

THU - 15 JUL 4:30P  
STANDARD OVERNIGHT

**AB SGRA**

AHS  
77099

TX-US IAH



**APPENDIX D**  
**PHOTOGRAPHIC DOCUMENTATION**

**Photograph No 1.**

Date: July 7, 2021

Direction: East

Description: View of initial release and the excavation area.



**Photograph No 2.**

Date: July 8, 2021

Direction: Southwest

Description: View of initial excavation area on pad.



**Photograph No 3.**

Date: July 12, 2021

Direction: West

Description: View of overspray area.



**Photograph No 4.**

Date: July 15, 2021

Direction: East

Description: View of excavation around launchers.



**Photograph No 5.**

Date: July 20, 2021

Direction: Northeast

Description: View of stockpiled soils.



**Photograph No 6.**

Date: July 15, 2021

Direction: East

Description: View of excavation around launchers.



**Photograph No 7.**

Date: August 4, 2021

Direction: West

Description: View of completed backfill of site.



**Photograph No 8.**

Date: August 4, 2021

Direction: Northwest

Description: View of completed backfill around LACT unit.



**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
 811 S. First St., Artesia, NM 88210  
 Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 49219

**CONDITIONS**

Operator: PLAINS MARKETING L.P. 333 Clay St, Ste 1600 Houston, TX 77002	OGRID: 34053
	Action Number: 49219
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2117355493 PLAINS COG SCREWDRIVER 24 FED COM 2H #2, thank you. This closure is approved.	2/2/2022