Site Characterization Report and Remediation Workplan

June 8, 2021

Langlie Jal Unit #024 Produced Water Release
NAPP2109236046

Prepared For:

BXP Operating, LLC
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Table of Contents

TABLES

FIGURES

APPENDICES

1.0 Introduction

Crain Environmental (CE), on behalf of BXP Operating, LLC (BXP), has prepared this *Site Characterization Report and Remediation Workplan* for the produced water release at Langlie Jal Unit #024 (Site), located approximately 3.5 miles north of Jal, in Lea County, New Mexico. The global positioning system (GPS) coordinates for the Release Site are 32.168347, -103.182394. The property surface rights are privately owned. The location of the Release Site is depicted on Figure 1.

2.0 Background

On April 1, 2021, a leak was discovered by New Mexico Oil Conservation Division (NMOCD) personnel on an old and worn 2" trunk line, that resulted in a release of approximately 60 barrels (bbls) of produced water. Immediately following discovery of the release, the area was secured, valves were shut in, a vacuum truck was dispatched to the release, and the line was repaired.

The released produced water flowed on the ground approximately 240 feet east from the release point. Land use in the Site vicinity is primarily oil and gas production activity and cattle grazing. Approximately 15 bbls of free-standing produced water was recovered and hauled to an NMOCD approved disposal facility. Approximately 300 cubic yards (cy) of affected soil was excavated by a backhoe and stockpiled on plastic pending characterization.

The release was discovered by the NMOCD on April 1, 2021, and the NMOCD Form C-141 (Release Notification Report) was submitted on April 2, 2021. A copy of the NMOCD Form C-141 is provided in Appendix A. The C-141 was approved by the NMOCD on April 26, 2021, and the Site was given an NMOCD Tracking Number of NAPP2109236046. Produced water surface impacts at the Site cover approximately 23,660 square feet. The release point and the surface extent of the produced water release are depicted on Figure 2.

This *Site Characterization Report and Remediation Workplan* is due within 90 days of discovering the release (i.e., by June 30, 2021) in accordance with 19.15.29.11 New Mexico Administrative Code (NMAC).

3.0 NMOCD Closure Criteria

Cleanup standards for produced water spills are provided in 19.15.29 NMAC. The cleanup standards (described in the rule as "Closure Criteria") are based primarily on depth to groundwater but are also based on other criteria. Three different Closure Criteria are provided in the rule. The most stringent apply to sites where groundwater is found within 50 feet of the ground surface or if the release occurred within one of the following areas:

- Within 300 feet of any continuously flowing watercourse or any other significant watercourse.
- Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary highwater mark).
- Within 300 feet from an occupied permanent residence, school, hospital, institution or church.

- Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes.
- Within 1,000 feet of any fresh water well or spring.
- Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended.
- Within 300 feet of a wetland.
- Within the area overlying a subsurface mine.
- Within an unstable area such as a karst formation.
- Within a 100-year floodplain.

CE reviewed available information to determine the Closure Criteria for the Site. The findings of this evaluation are summarized below.

3.1 Groundwater Evaluation

Review of the New Mexico Office of the State Engineer (NMOSE) records indicated there are no water wells located within 0.5 mile of the Site. The NMOSE records did provide a depth to groundwater measurement of 660 feet below ground surface (bgs) at one well (CP 00754 POD 1) located approximately 0.63 mile southeast of the Site. Well CP 00754 POD 1 was drilled to a total depth of 4,900 feet on December 7, 1990. Four additional wells were identified within one mile of the site; however, depth to groundwater information was not provided for those wells. All wells located within approximately one mile from the Site are listed in the table below. Figure 3 provides a ½ mile radius circle around the Site, and no water wells are shown within that radius. Based on the water well data available in NMOSE records, it is estimated that depth to groundwater at the Site is approximately 660 feet bgs.

Nearby Water Wells

Well ID	Location from Release Site	Year Installed	Use	Well Depth and Depth to Water (feet bgs)
CP 00493 POD 1	Approx. 0.67 mile to the northeast	1971	NA	500 / NA
CP 00494 POD 1	Approx. 0.70 mile to the northwest	1971	NA	500 / NA
CP 00507	Approx. 0.58 mile to the southwest	1973	NA	4,900 / NA
CP 00517 POD 1	Approx. 0.73 mile to the southwest	1973	NA	4,900 / NA
CP 00754 POD 1	Approx. 0.63 mile to the southeast	1990	NA	4,900 / 660

Note: NA = not available

3.2 Surface Features and Other Development

CE reviewed recent aerial photographs, topographic maps, the NMOSE Point of Discharge (POD) GIS website, and information available from the Lea County, New Mexico Central Appraisal District website. As shown on Figure 3, the Site is **not** located:

- Within 300 feet of any continuously flowing watercourse or any other significant watercourse.

- No continuously flowing watercourses (rivers, streams, arroyos, etc.) are apparent within 300 feet of the Site in the topographic map (Figure 3).

- Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary highwater mark).
  - The topographic map (Figure 3) indicates there is not a lakebed, sinkhole or playa lake located within 200 feet of the Site.
- Within 300 feet from an occupied permanent residence, school, hospital, institution or church.
  - The Site Location Map (Figure 1) and information available from the Lea County, New Mexico Central Appraisal District do not show or list any permanent residence, school, hospital, institution or church located within 300 feet of the Site.
- Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes.
  - No wells or springs located within 500 feet of the Site appear in any of the NMOSE records reviewed by CE.
- Within 1,000 feet of any fresh water well or spring.
  - No fresh water wells or springs located within 1,000 feet of the Site appear in any of the records reviewed by CE.
- Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended.
  - Based on the property and other records review by CE, the Site is not located in incorporated municipal boundaries or within a defined municipal fresh water well field.
- Within the area overlying a subsurface mine
  - Based on the property and other records reviewed by CE, the Site is not located within an area overlying a subsurface mine.

3.3 Wetlands, Floodplain, and Karst Geology

A review of the United States Fish and Wildlife Service (USFWS) wetlands map indicated the Site is not located within 300 feet of a wetland. The New Mexico Bureau of Land Management (BLM) karst potential map indicates the Site is located within a “low karst potential” area. Finally, review of the Federal Emergency Management Act (FEMA) floodplain map indicates the release at the Site is located outside of a 100-year floodplain. Figures 4 and 5 depict the FEMA floodplain information and the karst potential data, respectively.

3.4 Closure Criteria Currently Assumed Applicable to the Site

The Closure Criteria applicable to the Site will be based on the estimated depth to groundwater at the Release Site, which dictates the least stringent regulatory guidelines typically associated with groundwater depths of greater than 100 feet bgs. A summary of the Closure Criteria is provided in the table below and in Table 1.

NMOCD Closure Criteria

Constituent of Concern		Closure Criteria Based on Depth to Groundwater (mg/kg)		
		≤ 50 feet bgs	51 feet to 100 feet bgs	> 100 feet bgs
Chloride (EPA 300)		600	10,000	20,000
TPH (EPA 8015M)	GRO + DRO + MRO	100	2,500	2,500
	GRO + DRO	NA	1,000	1,000
Total BTEX (EPA 8021 or 8260)		50	50	50
Benzene (EPA 8021 or 8260)		10	10	10

Notes: NA = not applicable
bgs = below ground surface
mg/kg = milligrams per kilogram
GRO = gasoline range organics
DRO = diesel range organics
MRO = motor oil range organics
TPH = total petroleum hydrocarbons
BTEX = benzene, toluene, ethylbenzene, and total xylenes
Green highlighted cells denote applicable Closure Criteria.

4.0 Site Assessment/Characterization Results

As per 19.15.29.11 NMAC, a Site Characterization Report will have the components described in Sections 4.1 through 4.5 of this document.

4.1 Site Map

As required by 19.15.29.11 NMAC, a scaled diagram showing significant Site infrastructure, sample point locations, and known subsurface features such as utilities is provided as Figure 2.

4.2 Depth to Groundwater

As discussed in Section 3.1, the exact depth to groundwater beneath the Site is unknown. During investigation activities, a maximum depth of 6 feet bgs was reached, at which groundwater was not encountered. A review of the NMOSE water well records indicates that groundwater was measured at a depth of 660 feet at the nearest well with water data available (CP 00754 POD 1), located approximately 0.63 mile southeast of the Site.

4.3 Wellhead Protection Area

The 0.5-mile wellhead protection area is shown on Figure 3. No known water wells are located within 0.5 mile of the Site. There were no other water sources, springs, or other sources of fresh water extraction identified within 0.5-mile of the Site.

4.4 Distance to Nearest Significant Watercourse

The horizontal distance to the nearest significant watercourse as defined in Subsection P of 19.15.17.7 NMAC is greater than 0.5-mile from the Site.

4.5 Summary of May 2021 Analytical Results

On May 8, 2021, hand auger borings were installed by Aspen Grow, LLC at 10 locations along the release path, 2 locations within the stockpiled soil, and 4 locations outside the perimeter of the release path to collect soil samples. Depths were determined by visual evidence of chloride impacted soil and ranged from surface to 6 feet bgs.

Soil samples were placed in clean glass sample jars, properly labeled, immediately placed on ice and shipped to Hall Environmental Analysis Laboratory, Inc. (Hall) in Albuquerque, New Mexico under proper chain-of-custody control. All samples were analyzed for chlorides by EPA Method 300, and select samples were analyzed for total petroleum hydrocarbons (TPH) by Environmental Protection Agency (EPA) SW-846 Method 8015 Modified, and for benzene, toluene, ethylbenzene and xylenes (collectively referred to as BTEX) by EPA SW-846 Method 8021B.

Table 1 provides a summary of the laboratory results, and Figure 2 shows the sample locations and chloride results. As TPH and BTEX concentrations were reported below the NMOCD closure in all samples except sample SP4 at 0-1' bgs (188 mg/kg TPH), TPH and BTEX concentrations are not included on Figure 2. Photographs of the release area are provided in Appendix B. The laboratory report and chain-of-custody documentation is provided in Appendix C.

Referring to Table 1, concentrations of BTEX were reported below the test method detection limits in all samples. Concentrations of TPH in soil exceeded Closure Criteria at only one sample point nearest the release point (SP4) at a depth of 0-to-1-foot bgs. Chloride concentrations exceeded the Closure Criteria at each sample location within the release path (SP1 through SP10), from each sample within the stockpile (SP11 and SP12), and from two samples collected outside of the release path (SP NW and SP SE). Soils with TPH and chloride exceedances will be addressed in accordance with the Remediation Workplan discussed in Section 5.0.

4.6 Laboratory Analytical Data Quality Assurance/Quality Control Results

Data reported in Lab Order 2105424 generated by Hall in Albuquerque, New Mexico, was reviewed to ensure that reported analytical results met data quality objectives. It was determined by quality control data associated with analytical results that reported concentrations of target analytes are defensible and that measurement data reliability is within the expected limits of sampling and analytical error. All analytical results are usable for characterization of soil at the Site. The laboratory analytical results are provided as Appendix C.

5.0 Proposed Remediation Workplan

5.1 Proposed Remedial Activities

Benzene and BTEX concentrations were reported below the test method detection limits in all samples. A TPH concentration above the Closure Criteria was only reported in one sample (SP4) and chloride concentrations that exceed the Closure Criteria were reported in samples SP1 through SP12, SP NW and SP SE.

BXP proposes to enlist the services of Aspen Grow LLC (Aspen Grow) to apply probiotic compounds to the affected area. Aspen Grow's approach is to remediate and restore the contaminated soils to a healthy productive condition by rebuilding the biological health of the soil. This can be accomplished through an application of products that contain bio stimulants, organic acids, biologically produced enzymes and chelating agents which stimulate the natural beneficial microorganisms. By restoring the population and proper ratio of beneficial micro and macro-organisms, soils can be revitalized back to being healthy and productive. To achieve this goal, Aspen Grow will plan on a gradual process of application to the affected area to minimize the erosion and runoff of the product. This topical application process will contain the spill to the current area to prevent any expansion of the spill area.

The site will be treated for twelve (12) weeks with fresh water and bio-products that will nourish the soil system by suppling special humic acids, minerals and nutrients that promote the growth of natural aerobic microbes while improving the soil's structure and natural fertility. Aspen Grow will re-test the site after the initial application period to get analysis of the condition of the soil and to see if any additional application is needed. Appendix D provides a copy of Aspen Grow's Remediation Plan and product information.

Final confirmation samples will be collected from the base and sidewalls of the excavation to confirm that soil exhibiting chloride concentrations above NMOCD Closure Criteria have been remediated. Due to the large footprint of the Release Site, BXP requests a variance from the one soil sample per 200 square foot requirement for confirmation sampling. BXP requests composite confirmation sample collection be performed for each 1,000 square feet of excavation floor and each 200 linear feet of excavation sidewall. As initial BTEX concentrations were below the test method detection limits and TPH was only detected at one sample location, each confirmation sample will be analyzed only for chlorides by EPA Method 300. Pursuant to 19.15.29.12(D) NMAC, confirmation samples will consist of five-point composite samples, and discrete grab samples will be collected from any wet or discolored areas. Confirmation samples will also be collected from the treated stockpiled soil. If the laboratory reports chloride concentrations of the stockpiled soil less than 600 mg/kg, the stockpiled soil will be used to backfill the excavated areas. Pursuant to 19.15.29.13 NMAC, the impacted surface areas will be restored to pre-release conditions. Surface grading will be performed to near original conditions and contoured to prevent erosion and ponding, promote stability, and preserve storm water flow patterns.

BXP requests a remediation schedule of 150 days from the date of NMOCD approval of this Remediation Workplan to complete the proposed remediation activities and submit a *Remediation Summary and Closure Report* for NMOCD approval, pending the results of the confirmation samples. The closure report will summarize remedial activities and confirmation sampling results, and will include the final Form C-141.

6.0 Distribution

Copy 1: Mike Bratcher
New Mexico Energy, Minerals, and Natural Resources Department
Oil Conservation Division, District 2
811 S. First Street
Artesia, New Mexico 88210

Copy 2: Merch Merchant
BXP Operating, LLC
1515 Calle Sur, Suite 174
Hobbs, New Mexico 88240

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TABLE

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
BXP OPERATING, LLC
LANGLIE JAL UNIT #024 PRODUCED WATER RELEASE
NMOCD TRACKING NO.: NAPP2109236046

Sample ID	Sample Date	Sample Depth (feet bgs)	Soil Status	TPH (GRO)	TPH (DRO)	TPH (MRO)	Total TPH	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	Chloride
				milligrams per kilogram (mg/kg)									
NMOCD Closure Criteria (<4 feet bgs)				**-**		**-**	**100**	**10**	**-**	**-**	**-**	**50**	**600**
NMOCD Closure Criteria (>4 feet bgs)				**1,000**		**-**	**2,500**	**10**	**-**	**-**	**-**	**50**	**20,000**
SP1 0'-1'	05/08/21	0-1	In-Situ	<49	<9.8	<49	<49	<0.025	<0.049	<0.049	<0.099	<0.099	**4,600**
SP1 1'-2'	05/08/21	1-2	In-Situ	-	-	-	-	-	-	-	-	-	**1,100**
SP2 0'-1'	05/08/21	0-1	In-Situ	<4.9	<9.7	<48	<48	-	-	-	-	-	**4,800**
SP2 1'-2'	05/08/21	1-2	In-Situ	-	-	-	-	-	-	-	-	-	**5,700**
SP3 0'-1'	05/08/21	0-1	In-Situ	<5.0	<9.7	<48	<48	<0.025	<0.050	<0.050	<0.10	<0.10	**8,100**
SP3 1'-2'	05/08/21	1-2	In-Situ	-	-	-	-	-	-	-	-	-	**5,000**
SP3 2'-3'	05/08/21	2-3	In-Situ	-	-	-	-	-	-	-	-	-	**5,400**
SP3 3'-4'	05/08/21	3-4	In-Situ	-	-	-	-	-	-	-	-	-	**5,900**
SP4 0'-1'	05/08/21	0-1	In-Situ	<4.9	**95**	**93**	**188**	-	-	-	-	-	**12,000**
SP4 1'-2'	05/08/21	1-2	In-Situ	-	**-**	**-**	**-**	-	-	-	-	-	**6,300**
SP4 2'-3'	05/08/21	2-3	In-Situ	-	**-**	**-**	**-**	-	-	-	-	-	**4,200**
SP4 3'-4'	05/08/21	3-4	In-Situ	-	**-**	**-**	**-**	-	-	-	-	-	**4,400**
SP5 0'-1'	05/08/21	0-1	In-Situ	<4.9	**17**	<50	**17**	<0.025	<0.049	<0.049	<0.098	<0.098	**11,000**
SP5 1'-2'	05/08/21	1-2	In-Situ	-	**-**	-	**-**	-	-	-	-	-	**5,600**
SP6 0'-1'	05/08/21	0-1	In-Situ	<5.0	**29**	<47	**29**	-	-	-	-	-	**7,900**
SP6 1'-2'	05/08/21	1-2	In-Situ	-	**-**	-	**-**	-	-	-	-	-	**7,200**
SP6 2'-3'	05/08/21	2-3	In-Situ	-	**-**	-	**-**	-	-	-	-	-	**5,700**
SP7 0'-1'	05/08/21	0-1	In-Situ	<4.8	<9.6	<48	<48	-	-	-	-	-	**5,400**
SP7 1'-2'	05/08/21	1-2	In-Situ	-	-	-	-	-	-	-	-	-	**5,600**
SP7 2'-3'	05/08/21	2-3	In-Situ	-	-	-	-	-	-	-	-	-	**5,200**
SP7 3'-4'	05/08/21	3-4	In-Situ	-	-	-	-	-	-	-	-	-	**4,300**
SP7 4'-5'	05/08/21	4-5	In-Situ	-	-	-	-	-	-	-	-	-	**4,700**

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				milligrams per kilogram (mg/kg)									
NMOCD Closure Criteria (<4 feet bgs)				**-**		**-**	**100**	**10**	**-**	**-**	**-**	**50**	**600**
NMOCD Closure Criteria (>4 feet bgs)				**1,000**		**-**	**2,500**	**10**	**-**	**-**	**-**	**50**	**20,000**
SP8 0'-1'	05/08/21	0-1	In-Situ	<5.0	**9.9**	<49	**9.9**	-	-	-	-	-	**5,300**
SP8 1'-2'	05/08/21	1-2	In-Situ	-	-	-	-	-	-	-	-	-	**6,000**
SP8 2'-3'	05/08/21	2-3	In-Situ	-	-	-	-	-	-	-	-	-	**4,800**
SP8 3'-4'	05/08/21	3-4	In-Situ	-	-	-	-	-	-	-	-	-	**4,800**
SP8 4'-5'	05/08/21	4-5	In-Situ	-	-	-	-	-	-	-	-	-	**4,500**
SP8 5'-6'	05/08/21	5-6	In-Situ	-	-	-	-	-	-	-	-	-	**4,600**
SP9 0'-1'	05/08/21	0-1	In-Situ	<4.9	<8.9	<45	<45	-	-	-	-	-	**4,000**
SP9 1'-2'	05/08/21	1-2	In-Situ	-	-	-	-	-	-	-	-	-	**3,500**
SP9 2'-3'	05/08/21	2-3	In-Situ	-	-	-	-	-	-	-	-	-	**3,400**
SP9 3'-4'	05/08/21	3-4	In-Situ	-	-	-	-	-	-	-	-	-	**3,400**
SP9 4'-5'	05/08/21	4-5	In-Situ	-	-	-	-	-	-	-	-	-	**3,600**
SP10 0'-1'	05/08/21	0-1	In-Situ	<4.9	<9.7	<48	<48	-	-	-	-	-	**11,000**
SP10 1'-2'	05/08/21	1-2	In-Situ	-	-	-	-	-	-	-	-	-	**6,100**
SP10 2'-3'	05/08/21	2-3	In-Situ	-	-	-	-	-	-	-	-	-	**5,800**
SP10 3'-4'	05/08/21	3-4	In-Situ	-	-	-	-	-	-	-	-	-	**5,400**
SP10 4'-5'	05/08/21	4-5	In-Situ	-	-	-	-	-	-	-	-	-	**5,000**
SP10 5'-6'	05/08/21	5-6	In-Situ	-	-	-	-	-	-	-	-	-	**5,100**
SP11 0'-1'	05/08/21	0-1	In-Situ	<5.0	**22**	<46	**22**	-	-	-	-	-	**24,000**
SP11 1'-2'	05/08/21	1-2	In-Situ	-	-	-	-	-	-	-	-	-	**20,000**
SP11 2'-3'	05/08/21	2-3	In-Situ	-	-	-	-	-	-	-	-	-	**23,000**
SP11 3'-4'	05/08/21	3-4	In-Situ	-	-	-	-	-	-	-	-	-	**10,000**
SP11 4'-5'	05/08/21	4-5	In-Situ	-	-	-	-	-	-	-	-	-	**15,000**
SP11 5'-6'	05/08/21	5-6	In-Situ	-	-	-	-	-	-	-	-	-	**11,000**
SP12 0'-1'	05/08/21	0-1	In-Situ	-	**-**	-	**-**	<0.023	<0.046	<0.046	<0.092	<0.092	**12,000**
SP12 1'-2'	05/08/21	1-2	In-Situ	-	-	-	-	-	-	-	-	-	**11,000**
SP12 2'-3'	05/08/21	2-3	In-Situ	-	-	-	-	-	-	-	-	-	**6,800**
SP12 3'-4'	05/08/21	3-4	In-Situ	-	-	-	-	-	-	-	-	-	**9,200**

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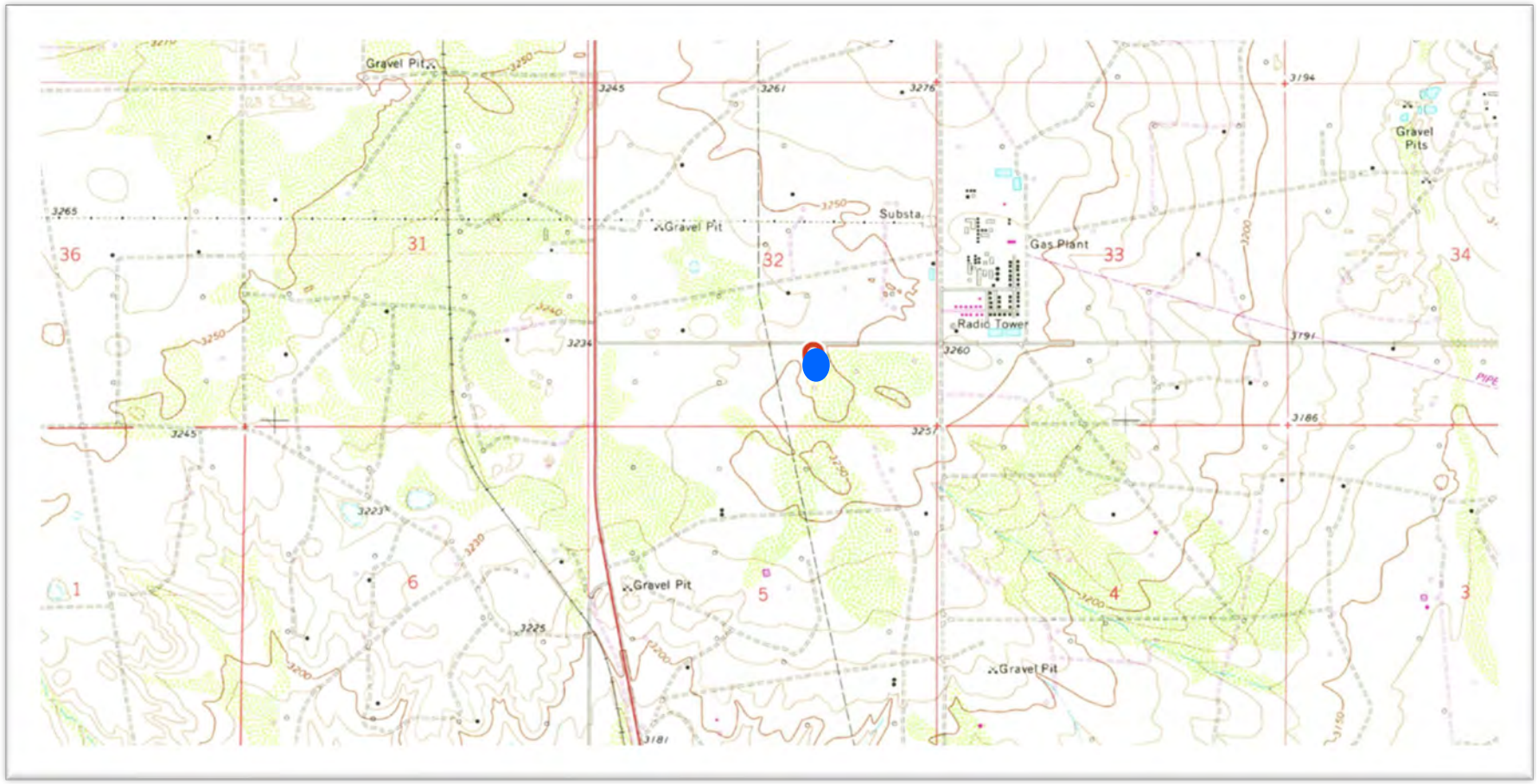
				milligrams per kilogram (mg/kg)									
NMOCD Closure Criteria (<4 feet bgs)				**-**		**-**	**100**	**10**	**-**	**-**	**-**	**50**	**600**
NMOCD Closure Criteria (>4 feet bgs)				**1,000**		**-**	**2,500**	**10**	**-**	**-**	**-**	**50**	**20,000**
SP12 4'-5'	05/08/21	4-5	In-Situ	-	-	-	-	-	-	-	-	-	**5,500**
SP12 5'-6'	05/08/21	5-6	In-Situ	-	-	-	-	-	-	-	-	-	**6,500**
SP NW 0'-1'	05/08/21	0-1	In-Situ	-	**-**	-	**-**	<0.024	<0.049	<0.049	<0.098	<0.098	**4,500**
SP NW 1'-2'	05/08/21	1-2	In-Situ	-	-	-	-	-	-	-	-	-	**2,600**
SP NW 2'-3'	05/08/21	2-3	In-Situ	-	-	-	-	-	-	-	-	-	**2,200**
SP NW 3'-4'	05/08/21	3-4	In-Situ	-	-	-	-	-	-	-	-	-	**2,000**
SP NE 0'-1'	05/08/21	0-1	In-Situ	<4.8	<8.9	<45	<45	-	-	-	-	-	**80**
SP NE 1'-2'	05/08/21	1-2	In-Situ	-	-	-	-	-	-	-	-	-	**77**
SP NE 2'-3'	05/08/21	2-3	In-Situ	-	-	-	-	-	-	-	-	-	**190**
SP SE 0'-1'	05/08/21	0-1	In-Situ	<5.0	<9.5	<48	<48	-	-	-	-	-	**5,200**
SP SE 1'-2'	05/08/21	1-2	In-Situ	-	-	-	-	-	-	-	-	-	**4,900**
SP SE 2'-3'	05/08/21	2-3	In-Situ	-	-	-	-	-	-	-	-	-	**4,500**
SP SE 3'-4'	05/08/21	3-4	In-Situ	-	-	-	-	-	-	-	-	-	**4,400**
SP SE 4'-5'	05/08/21	4-5	In-Situ	-	-	-	-	-	-	-	-	-	**4,200**
SP SE 5'-6'	05/08/21	5-6	In-Situ	-	-	-	-	-	-	-	-	-	**4,700**
SP SW 0'-1'	05/08/21	0-1	In-Situ	<4.9	<9.5	<47	<47	-	-	-	-	-	<60
SP SW 1'-2'	05/08/21	1-2	In-Situ	-	-	-	-	-	-	-	-	-	<60
SP SW 2'-3'	05/08/21	2-3	In-Situ	-	-	-	-	-	-	-	-	-	<60

Notes:

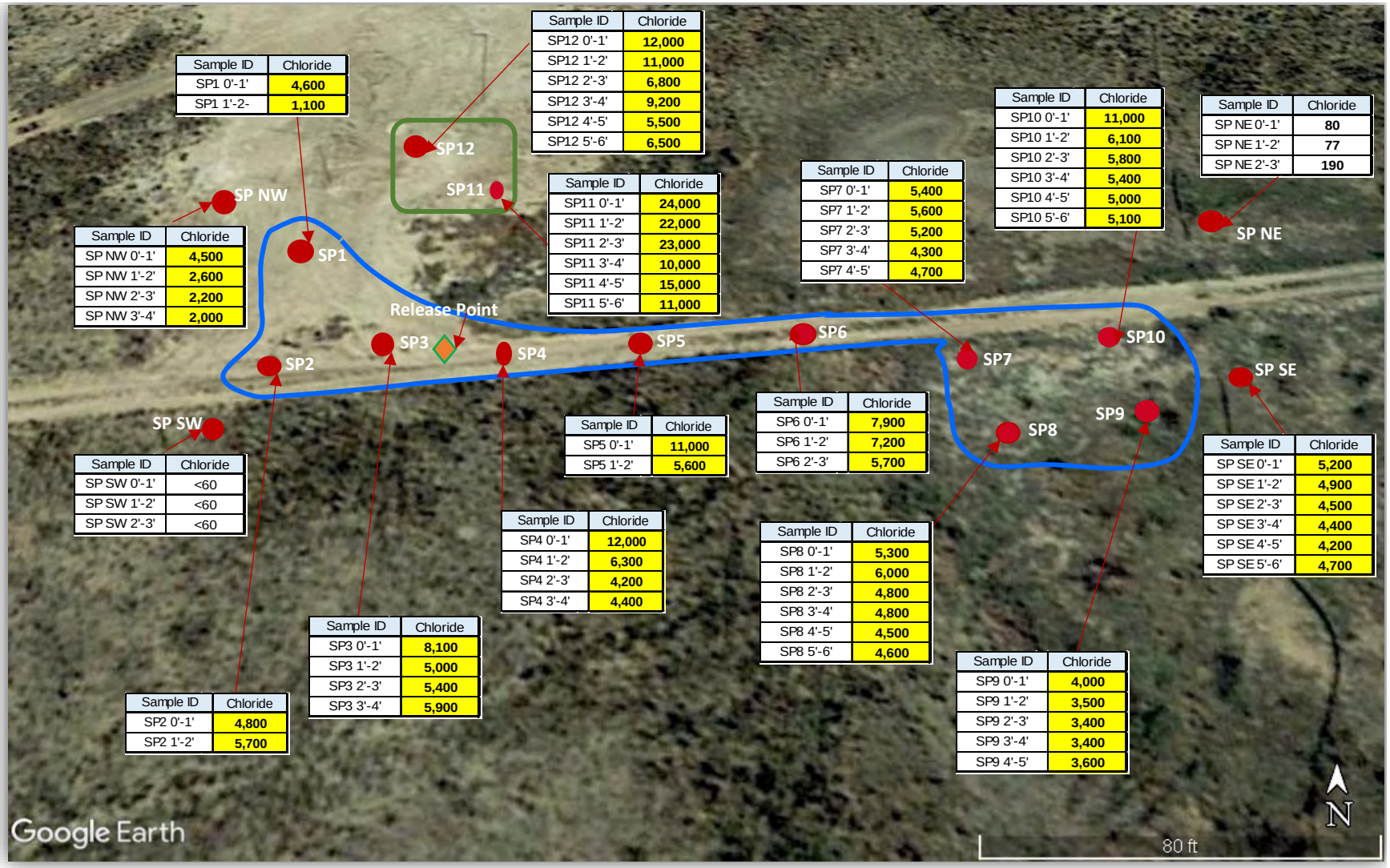
1. GRO: Gasoline Range Organics
2. DRO: Diesel Range Organics
3. MRO: Motor Oil Range Organics
4. -: No NMOCD Closure Criteria established.
5. Bold and highlighting indicates the COC was detected above the NMOCD Closure Criteria.
6. < indicates the COC was below the appropriate laboratory method/sample detection limit
7. Yellow highlighting indicates the COC concentration exceeds the NMOCD Closure Criteria

Grain Environmental

FIGURES



LEGEND: Site Location Base Map from GAIA GPS	N W E S	**Figure 1** Site Location Map BXP Operating, LLC Langlie Jal Unit # 024 Lea County, New Mexico	Drafted by: CC | Checked by: CC Draft: May 31, 2021 GPS: 32.168347° -103.182394°



LEGEND:

Release Path

Release Point

Sample Location With Depth (below ground surface) and Chloride Concentrations (mg/kg)

Stockpiled Soil

Note: Sample Locations provided by Aspen Grow, LLC

Figure 2

Soil Sample Analtical Results Map

May 8, 2021

BXP Operating, LLC

Langlie Jal Unit # 024

Lea County, New Mexico

Drafted by: CC | Checked by: CC

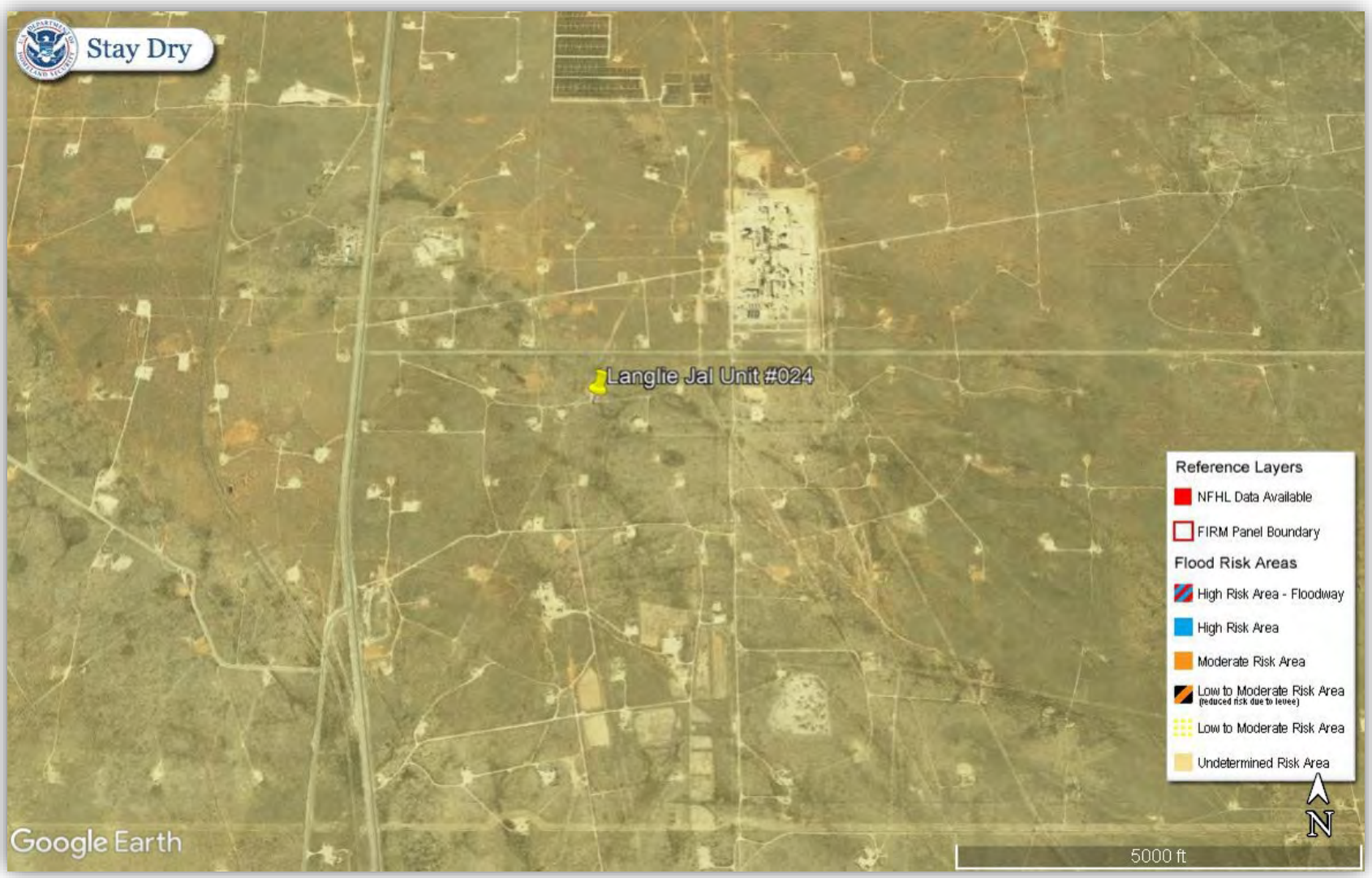
Draft: June 2, 2021

GPS: 32.168347° -103.182394°

Base Map from Google Earth

Grain Environmental

LEGEND: Site and Water Well Locations 1/2 Mile Radius Base Map from Google Earth	**Figure 3** Wellhead Protection Area Map BXP Operating, LLC Langlie Jal Unit # 024 Lea County, New Mexico	Drafted by: CC | Checked by: CC Draft: June 2, 2021 GPS: 32.168347° -103.182394°	Grain Environmental



LEGEND: Site Location Base Map from Google Earth and FEMA StayDry	**Figure 4** FEMA Floodplain Map BXP Operating, LLC Langlie Jal Unit # 024 Lea County, New Mexico	Drafted by: CC | Checked by: CC Draft: June 2, 2021 GPS: 32.168347° -103.182394°

LEGEND:

Site Location

Low Karst Potential

Medium Karst Potential

High Karst Potential

Base Map from Google Earth and WHYMAP

Figure 5

Karst Potential Map

BXP Operating, LLC

Langlie Jal Unit # 024

Lea County, New Mexico

Drafted by: CC | Checked by: CC

Draft: June 2, 2021

GPS: 32.168347° -103.182394°

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Appendix A: Release Notification and Corrective Action Form (NMOCD Form C-141)

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	NAPP2109236046
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party BXP Operating, LLC	OGRID 329487
Contact Name M. Y. Merchant	Contact Telephone 575-492-1236
Contact email mymerch@penrocoil.com	Incident # *(assigned by OCD)*
Contact mailing address 1515 Calle Sur, Suite 174 Hobbs, NM 88241	

Location of Release Source

Latitude 32.168347 Longitude - 103.182394
(NAD 83 in decimal degrees to 5 decimal places)

Site Name LANGLIE JAL UNIT #024	Site Type Injection Well
Date Release Discovered 4/1/2021	API# *(if applicable)* 30-025-24479

Unit Letter	Section	Township	Range	County
O	32	24S	37E	LEA

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name: Mr. Pearce*)

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls) 0	Volume Recovered (bbls) 0
☒ Produced Water	Volume Released (bbls) 60	Volume Recovered (bbls) 15
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls) 0	Volume Recovered (bbls) 0
☐ Natural Gas	Volume Released (Mcf) 0	Volume Recovered (Mcf) 0
☐ Other (describe)	Volume/Weight Released (provide units) 0	Volume/Weight Recovered (provide units) 0

Cause of Release
Old and worn 2" trunk line. Leak discovered and pumper shut valves and secured leak within 5min. Called for vacuum truck and backhoe, leak estimated produced water released about 60bbl. Estimate water recovered was 15bbl, hauled to LJU water tank for disposal. Backhoe is in the process of removing contaminated soil and placing it on 30ml plastic.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2109236046
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? More than 5bbl release.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, Buddy and Gary Robinson OCDNM compliance officer discovered the leak while MIT testing. Leak discovered 4/1/2021.	

Initial Response

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

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:
Test for BTex, TPH, & Chlorides w/independent contractor. Plan to dig and remove contaminated dirt to approved disposal. Replace w/clean dirt.

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: M. Y. Merchant Title: Production Supervisor

Signature: [signature] Date: 4/2/2021

email: mymerch@penrocoil.com Telephone: 575-492-1236

OCD Only

Received by: Ramona Marcus Date: 4/26/2021

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2109236046
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	660 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☐ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2109236046
District RP	
Facility ID	
Application ID	

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: M. Y. Merchant Title: Production Supervisor

Signature: Cynthia K. Clair as agent for BXP Operating, LLC Date: 6/8/21

email: mymerch@penrocoil.com Telephone: (575) 492-1236

OCD Only

Received by: _____ Date: _____

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2109236046
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

☒ Detailed description of proposed remediation technique
☒ Scaled sitemap with GPS coordinates showing delineation points
☒ Estimated volume of material to be remediated
☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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: M.Y. Merchant Title: Production Manger

Signature: Cynthia K. Crain as agent for BXP Operating, LLC Date: 6/8/21

email: mymerch@penrocoil.com Telephone: (575) 492-1236

OCD Only

Received by: Chad Hensley Date: 08/10/2021

☐ Approved ☒ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Chad Hensley Date: 08/10/2021

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Appendix B: Photographic Documentation

APPENDIX B

Photo 1: View to NW of release point (5/22/21).

Photo 2: View to SE at south release path (5/22/21).

Photo 3: View to NE at south release path (5/22/21).

Photo 4: View of stockpiled soil (5/24/21).

Photographs Taken By:	Page No.	Client:	Site Name & Address:	
Kevin Freeman	1 of 1	BXP Operating, LLC	Langlie Jal Unit #024 Lea County, New Mexico	Crain Environmental

Grain Environmental

Appendix C: Laboratory Analytical Reports

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

May 19, 2021

Merch Merchant
BXP Operating LLC
11757 Katy Freeway Ste 475
Houston, TX 77079
TEL: (281) 848-3696
FAX

RE: Langlie Jal Unit 24 OrderNo.: 2105424

Dear Merch Merchant:

Hall Environmental Analysis Laboratory received 68 sample(s) on 5/11/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP1 0'-1'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-001 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/12/2021 8:37:25 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/12/2021 8:37:25 PM
Surr: DNOP	130	70-130		%Rec	1	5/12/2021 8:37:25 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/12/2021 6:28:56 PM
Surr: BFB	90.0	70-130		%Rec	1	5/12/2021 6:28:56 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	5/12/2021 6:28:56 PM
Toluene	ND	0.049		mg/Kg	1	5/12/2021 6:28:56 PM
Ethylbenzene	ND	0.049		mg/Kg	1	5/12/2021 6:28:56 PM
Xylenes, Total	ND	0.099		mg/Kg	1	5/12/2021 6:28:56 PM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	5/12/2021 6:28:56 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	4600	150		mg/Kg	50	5/15/2021 8:18:18 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP1 1'-2'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-002 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	1100	60		mg/Kg	20	5/13/2021 5:04:50 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP2 0'-1'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-003 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/12/2021 8:47:20 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/12/2021 8:47:20 PM
Surr: DNOP	135	70-130	S	%Rec	1	5/12/2021 8:47:20 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/12/2021 6:52:24 PM
Surr: BFB	90.6	70-130		%Rec	1	5/12/2021 6:52:24 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	4800	150		mg/Kg	50	5/15/2021 8:30:42 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP2 1'-2'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-004 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	5700	300		mg/Kg	100	5/15/2021 8:43:06 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP3 0'-1'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-005 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/12/2021 11:47:48 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/12/2021 11:47:48 PM
Surr: DNOP	95.9	70-130		%Rec	1	5/12/2021 11:47:48 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/12/2021 7:15:50 PM
Surr: BFB	92.6	70-130		%Rec	1	5/12/2021 7:15:50 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	5/12/2021 7:15:50 PM
Toluene	ND	0.050		mg/Kg	1	5/12/2021 7:15:50 PM
Ethylbenzene	ND	0.050		mg/Kg	1	5/12/2021 7:15:50 PM
Xylenes, Total	ND	0.10		mg/Kg	1	5/12/2021 7:15:50 PM
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	5/12/2021 7:15:50 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	8100	300		mg/Kg	100	5/16/2021 8:04:33 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP3 1'-2'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-006 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	5000	300		mg/Kg	100	5/17/2021 11:18:18 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Project: Langlie Jal Unit 24
Lab ID: 2105424-007 **Matrix:** SOIL

Client Sample ID: SP3 2'-3'
Collection Date: 5/8/2021
Received Date: 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	5400	300		mg/Kg	100	5/16/2021 8:29:24 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP3 3'-4'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-008 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	5900	300		mg/Kg	100	5/16/2021 8:41:48 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP4 0'-1'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-009 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	95	9.8		mg/Kg	1	5/12/2021 11:28:00 PM
Motor Oil Range Organics (MRO)	93	49		mg/Kg	1	5/12/2021 11:28:00 PM
Surr: DNOP	105	70-130		%Rec	1	5/12/2021 11:28:00 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/12/2021 7:39:32 PM
Surr: BFB	87.8	70-130		%Rec	1	5/12/2021 7:39:32 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	12000	600		mg/Kg	200	5/16/2021 8:54:13 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP4 1'-2'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-010 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	6300	300		mg/Kg	100	5/16/2021 9:31:27 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP4 2'-3'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-011 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	4200	150		mg/Kg	50	5/16/2021 9:43:52 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP4 3'-4'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-012 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	4400	150		mg/Kg	50	5/16/2021 9:56:17 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Project: Langlie Jal Unit 24
Lab ID: 2105424-013 **Matrix:** SOIL

Client Sample ID: SP5 0'-1'
Collection Date: 5/8/2021
Received Date: 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	17	10		mg/Kg	1	5/13/2021 3:21:05 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/13/2021 3:21:05 PM
Surr: DNOP	105	70-130		%Rec	1	5/13/2021 3:21:05 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/12/2021 8:03:21 PM
Surr: BFB	91.9	70-130		%Rec	1	5/12/2021 8:03:21 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	5/12/2021 8:03:21 PM
Toluene	ND	0.049		mg/Kg	1	5/12/2021 8:03:21 PM
Ethylbenzene	ND	0.049		mg/Kg	1	5/12/2021 8:03:21 PM
Xylenes, Total	ND	0.098		mg/Kg	1	5/12/2021 8:03:21 PM
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	5/12/2021 8:03:21 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	11000	600		mg/Kg	200	5/16/2021 10:08:42 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Project: Langlie Jal Unit 24
Lab ID: 2105424-014 **Matrix:** SOIL

Client Sample ID: SP5 1'-2'
Collection Date: 5/8/2021
Received Date: 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	5600	300		mg/Kg	100	5/16/2021 10:21:07 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP6 0'-1'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-015 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	29	9.4		mg/Kg	1	5/13/2021 12:46:53 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/13/2021 12:46:53 AM
Surr: DNOP	117	70-130		%Rec	1	5/13/2021 12:46:53 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/12/2021 8:26:42 PM
Surr: BFB	89.6	70-130		%Rec	1	5/12/2021 8:26:42 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	7900	300		mg/Kg	100	5/16/2021 10:33:31 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP6 1'-2'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-016 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	7200	300		mg/Kg	100	5/16/2021 10:45:55 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP6 2'-3'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-017 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	5700	300		mg/Kg	100	5/16/2021 10:58:20 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP7 0'-1'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-019 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/12/2021 8:57:16 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/12/2021 8:57:16 PM
Surr: DNOP	95.2	70-130		%Rec	1	5/12/2021 8:57:16 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/12/2021 8:50:08 PM
Surr: BFB	91.9	70-130		%Rec	1	5/12/2021 8:50:08 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	5400	150		mg/Kg	50	5/16/2021 11:10:45 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP7 1'-2'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-020 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	5600	300		mg/Kg	100	5/16/2021 11:23:10 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP7 2'-3'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-021 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	5200	150		mg/Kg	50	5/17/2021 12:00:23 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP7 3'-4'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-022 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	4300	300		mg/Kg	100	5/14/2021 8:52:09 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Project: Langlie Jal Unit 24
Lab ID: 2105424-023 **Matrix:** SOIL

Client Sample ID: SP7 4'-5'
Collection Date: 5/8/2021
Received Date: 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	4700	300		mg/Kg	100	5/14/2021 9:04:31 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP8 0'-1'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-024 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	9.9	9.9		mg/Kg	1	5/13/2021 10:20:57 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/13/2021 10:20:57 AM
Surr: DNOP	101	70-130		%Rec	1	5/13/2021 10:20:57 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/12/2021 9:13:28 PM
Surr: BFB	92.2	70-130		%Rec	1	5/12/2021 9:13:28 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	5300	300		mg/Kg	100	5/14/2021 9:16:52 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Project: Langlie Jal Unit 24
Lab ID: 2105424-025 **Matrix:** SOIL

Client Sample ID: SP8 1'-2'
Collection Date: 5/8/2021
Received Date: 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	6000	300		mg/Kg	100	5/14/2021 9:29:12 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP8 2'-3'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-026 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	4800	300		mg/Kg	100	5/14/2021 9:41:34 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP8 3'-4'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-027 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	4800	300		mg/Kg	100	5/14/2021 9:53:55 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP8 4'-5'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-028 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	4500	300		mg/Kg	100	5/14/2021 10:06:18 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP8 5'-6'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-029 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	4600	300		mg/Kg	100	5/14/2021 10:18:40 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP9 0'-1'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-030 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	5/13/2021 10:49:51 AM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	5/13/2021 10:49:51 AM
Surr: DNOP	100	70-130		%Rec	1	5/13/2021 10:49:51 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/12/2021 9:36:54 PM
Surr: BFB	92.6	70-130		%Rec	1	5/12/2021 9:36:54 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	4000	300		mg/Kg	100	5/14/2021 10:55:43 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP9 1'-2'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-031 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	3500	300		mg/Kg	100	5/14/2021 11:08:03 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP9 2'-3'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-032 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	3400	300		mg/Kg	100	5/14/2021 11:20:23 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP9 3'-4'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-033 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	3400	300		mg/Kg	100	5/14/2021 11:32:44 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP9 4'-5'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-034 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	3600	300		mg/Kg	100	5/14/2021 11:45:05 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP10 0'-1'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-035 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/13/2021 10:59:30 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/13/2021 10:59:30 AM
Surr: DNOP	103	70-130		%Rec	1	5/13/2021 10:59:30 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/12/2021 10:00:34 PM
Surr: BFB	91.3	70-130		%Rec	1	5/12/2021 10:00:34 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	11000	300		mg/Kg	100	5/14/2021 11:57:26 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP10 1'-2'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-036 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	6100	300		mg/Kg	100	5/14/2021 12:09:46 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP10 2'-3'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-037 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	5800	300		mg/Kg	100	5/14/2021 12:22:07 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP10 3'-4'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-038 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	5400	300		mg/Kg	100	5/14/2021 12:34:28 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP10 4'-5'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-039 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	5000	300		mg/Kg	100	5/14/2021 12:46:49 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP10 5'-6'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-040 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	5100	300		mg/Kg	100	5/14/2021 1:23:50 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP11 0'-1'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-041 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	22	9.1		mg/Kg	1	5/13/2021 11:09:11 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/13/2021 11:09:11 AM
Surr: DNOP	114	70-130		%Rec	1	5/13/2021 11:09:11 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/12/2021 11:11:49 PM
Surr: BFB	89.0	70-130		%Rec	1	5/12/2021 11:11:49 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	24000	1500		mg/Kg	500	5/17/2021 12:12:47 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP11 1'-2'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-042 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	20000	600		mg/Kg	200	5/17/2021 12:25:11 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP11 2'-3'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-043 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	23000	600		mg/Kg	200	5/17/2021 12:37:36 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP11 3'-4'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-044 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	10000	300		mg/Kg	100	5/14/2021 3:59:15 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP11 4'-5'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-045 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	15000	600		mg/Kg	200	5/17/2021 12:50:02 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP11 5'-6'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-046 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	11000	300		mg/Kg	100	5/14/2021 4:48:46 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP12 0'-1'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-047 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	5/12/2021 11:35:28 PM
Toluene	ND	0.046		mg/Kg	1	5/12/2021 11:35:28 PM
Ethylbenzene	ND	0.046		mg/Kg	1	5/12/2021 11:35:28 PM
Xylenes, Total	ND	0.092		mg/Kg	1	5/12/2021 11:35:28 PM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	5/12/2021 11:35:28 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	12000	300		mg/Kg	100	5/14/2021 5:25:50 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP12 1'-2'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-048 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	11000	300		mg/Kg	100	5/14/2021 5:38:11 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP12 2'-3'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-049 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	6800	300		mg/Kg	100	5/14/2021 5:50:34 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP12 3'-4'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-050 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	9200	300		mg/Kg	100	5/14/2021 6:27:40 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP12 4'-5'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-051 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	5500	300		mg/Kg	100	5/14/2021 6:40:01 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP12 5'-6'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-052 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	6500	300		mg/Kg	100	5/14/2021 6:52:21 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP NW 0'-1'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-053 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	5/12/2021 11:59:04 PM
Toluene	ND	0.049		mg/Kg	1	5/12/2021 11:59:04 PM
Ethylbenzene	ND	0.049		mg/Kg	1	5/12/2021 11:59:04 PM
Xylenes, Total	ND	0.098		mg/Kg	1	5/12/2021 11:59:04 PM
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	5/12/2021 11:59:04 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	4500	300		mg/Kg	100	5/14/2021 7:04:42 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP NW 1'-2'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-054 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	2600	300		mg/Kg	100	5/14/2021 7:17:03 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP NW 2'-3'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-055 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	2200	300		mg/Kg	100	5/14/2021 7:29:23 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP NW 3'-4'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-056 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	2000	300		mg/Kg	100	5/14/2021 7:41:44 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP NE 0'-1'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-057 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	5/13/2021 1:46:28 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	5/13/2021 1:46:28 PM
Surr: DNOP	128	70-130		%Rec	1	5/13/2021 1:46:28 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/13/2021 12:22:42 AM
Surr: BFB	90.5	70-130		%Rec	1	5/13/2021 12:22:42 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	80	60		mg/Kg	20	5/18/2021 10:42:16 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP NE 1'-2'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-058 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	77	60		mg/Kg	20	5/18/2021 10:54:41 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP NE 2'-3'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-059 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	190	60		mg/Kg	20	5/18/2021 11:07:05 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP SE 0'-1'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-060 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/13/2021 11:18:53 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/13/2021 11:18:53 AM
Surr: DNOP	104	70-130		%Rec	1	5/13/2021 11:18:53 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/12/2021 3:52:00 PM
Surr: BFB	89.6	70-130		%Rec	1	5/12/2021 3:52:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	5200	300		mg/Kg	100	5/14/2021 8:55:51 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP SE 1'-2'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-061 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	4900	300		mg/Kg	100	5/14/2021 9:08:12 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Project: Langlie Jal Unit 24
Lab ID: 2105424-062 **Matrix:** SOIL

Client Sample ID: SP SE 2'-3'
Collection Date: 5/8/2021
Received Date: 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	4500	300		mg/Kg	100	5/14/2021 8:49:41 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP SE 3'-4'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-063 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	4400	300		mg/Kg	100	5/14/2021 9:02:06 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP SE 4'-5'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-064 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	4200	300		mg/Kg	100	5/14/2021 9:14:30 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP SE 5'-6'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-065 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	4700	300		mg/Kg	100	5/14/2021 10:37:17 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP SW 0'-1'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-066 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/13/2021 11:28:34 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/13/2021 11:28:34 AM
Surr: DNOP	93.6	70-130		%Rec	1	5/13/2021 11:28:34 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/12/2021 4:52:00 PM
Surr: BFB	88.2	70-130		%Rec	1	5/12/2021 4:52:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/17/2021 1:02:26 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP SW 1'-2'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-067 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/17/2021 1:14:52 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105424**
Date Reported: **5/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BXP Operating LLC
Client Sample ID: SP SW 2'-3'
Project: Langlie Jal Unit 24
Collection Date: 5/8/2021
Lab ID: 2105424-068 **Matrix:** SOIL **Received Date:** 5/11/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/17/2021 1:27:16 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2105424**
19-May-21

Client: BXP Operating LLC
Project: Langlie Jal Unit 24

Sample ID: **MB-59998**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **59998**	RunNo: **77382**							
Prep Date: **5/13/2021**	Analysis Date: **5/13/2021**	SeqNo: **2745670**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-59998**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **59998**	RunNo: **77382**							
Prep Date: **5/13/2021**	Analysis Date: **5/13/2021**	SeqNo: **2745671**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.8	90	110			

Sample ID: **MB-60009**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **60009**	RunNo: **77382**							
Prep Date: **5/13/2021**	Analysis Date: **5/13/2021**	SeqNo: **2745704**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-60009**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **60009**	RunNo: **77382**							
Prep Date: **5/13/2021**	Analysis Date: **5/13/2021**	SeqNo: **2745705**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.7	90	110			

Sample ID: **MB-60033**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **60033**	RunNo: **77389**							
Prep Date: **5/14/2021**	Analysis Date: **5/14/2021**	SeqNo: **2747110**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-60033**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **60033**	RunNo: **77389**							
Prep Date: **5/14/2021**	Analysis Date: **5/14/2021**	SeqNo: **2747111**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.6	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2105424**

19-May-21

Client: BXP Operating LLC

Project: Langlie Jal Unit 24

Sample ID: **MB-60024**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **60024**	RunNo: **77416**							
Prep Date: **5/13/2021**	Analysis Date: **5/14/2021**	SeqNo: **2747306**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-60024**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **60024**	RunNo: **77416**							
Prep Date: **5/13/2021**	Analysis Date: **5/14/2021**	SeqNo: **2747307**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.3	90	110			

Sample ID: **MB-60025**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **60025**	RunNo: **77416**							
Prep Date: **5/13/2021**	Analysis Date: **5/14/2021**	SeqNo: **2747336**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-60025**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **60025**	RunNo: **77416**							
Prep Date: **5/13/2021**	Analysis Date: **5/14/2021**	SeqNo: **2747337**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.5	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2105424**
19-May-21

Client: BXP Operating LLC
Project: Langlie Jal Unit 24

Sample ID: **MB-59953** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **59953** RunNo: **77332**
Prep Date: **5/11/2021** Analysis Date: **5/12/2021** SeqNo: **2744546** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		111	70	130			

Sample ID: **LCS-59953** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **59953** RunNo: **77332**
Prep Date: **5/11/2021** Analysis Date: **5/12/2021** SeqNo: **2744572** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	106	68.9	141			
Surr: DNOP	4.9		5.000		98.2	70	130			

Sample ID: **2105424-024AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SP8 0'-1'** Batch ID: **59984** RunNo: **77357**
Prep Date: **5/12/2021** Analysis Date: **5/13/2021** SeqNo: **2745328** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	59	9.8	49.02	9.904	100	15	184			
Surr: DNOP	5.2		4.902		106	70	130			

Sample ID: **2105424-024AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SP8 0'-1'** Batch ID: **59984** RunNo: **77357**
Prep Date: **5/12/2021** Analysis Date: **5/13/2021** SeqNo: **2745329** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	9.8	49.07	9.904	95.0	15	184	4.46	23.9	
Surr: DNOP	5.1		4.907		105	70	130	0	0	

Sample ID: **LCS-59984** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **59984** RunNo: **77357**
Prep Date: **5/12/2021** Analysis Date: **5/13/2021** SeqNo: **2745349** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	115	68.9	141			
Surr: DNOP	5.9		5.000		117	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2105424**
19-May-21

Client: BXP Operating LLC
Project: Langlie Jal Unit 24

Sample ID: **MB-59984** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **59984** RunNo: **77357**
Prep Date: **5/12/2021** Analysis Date: **5/13/2021** SeqNo: **2745350** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.2		10.00		92.3	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2105424**
19-May-21

Client: BXP Operating LLC
Project: Langlie Jal Unit 24

Sample ID: **mb-59937**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **59937**	RunNo: **77321**
Prep Date: **5/11/2021**	Analysis Date: **5/12/2021**	SeqNo: **2744159** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1000		92.0	70	130			

Sample ID: **lcs-59937**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **59937**	RunNo: **77321**
Prep Date: **5/11/2021**	Analysis Date: **5/12/2021**	SeqNo: **2744160** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	102	78.6	131			
Surr: BFB	1000		1000		102	70	130			

Sample ID: **LCS-59943**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **59943**	RunNo: **77325**
Prep Date: **5/11/2021**	Analysis Date: **5/12/2021**	SeqNo: **2744974** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.4	78.6	131			
Surr: BFB	990		1000		99.5	70	130			

Sample ID: **MB-59943**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **59943**	RunNo: **77325**
Prep Date: **5/11/2021**	Analysis Date: **5/12/2021**	SeqNo: **2744975** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	840		1000		84.2	70	130			

Sample ID: **2105424-060ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SP SE 0'-1'**	Batch ID: **59943**	RunNo: **77325**
Prep Date: **5/11/2021**	Analysis Date: **5/12/2021**	SeqNo: **2744977** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.7	23.43	0	103	61.3	114			
Surr: BFB	960		937.2		102	70	130			

Sample ID: **2105424-060amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SP SE 0'-1'**	Batch ID: **59943**	RunNo: **77325**
Prep Date: **5/11/2021**	Analysis Date: **5/12/2021**	SeqNo: **2744978** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2105424**
19-May-21

Client: BXP Operating LLC
Project: Langlie Jal Unit 24

Sample ID: **2105424-060amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SP SE 0'-1'** Batch ID: **59943** RunNo: **77325**
Prep Date: **5/11/2021** Analysis Date: **5/12/2021** SeqNo: **2744978** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.9	24.49	0	110	61.3	114	10.6	20	
Surr: BFB	1100		979.4		108	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2105424**
19-May-21

Client: BXP Operating LLC
Project: Langlie Jal Unit 24

Sample ID: **mb-59937**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **59937**	RunNo: **77321**
Prep Date: **5/11/2021**	Analysis Date: **5/12/2021**	SeqNo: **2744193** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	70	130			

Sample ID: **LCS-59937**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **59937**	RunNo: **77321**
Prep Date: **5/11/2021**	Analysis Date: **5/12/2021**	SeqNo: **2744194** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.0	0.10	1.000	0	100	80	120			
Benzene	1.0	0.025	1.000	0	99.5	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	70	130			

Sample ID: **LCS-59943**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **59943**	RunNo: **77325**
Prep Date: **5/11/2021**	Analysis Date: **5/12/2021**	SeqNo: **2744998** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.87		1.000		87.0	70	130			

Sample ID: **MB-59943**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **59943**	RunNo: **77325**
Prep Date: **5/11/2021**	Analysis Date: **5/12/2021**	SeqNo: **2744999** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.82		1.000		82.0	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: **BXP Operating LLC** Work Order Number: **2105424** RcptNo: **1**

Received By: **Juan Rojas** **5/11/2021 7:30:00 AM** Juan Rojas

Completed By: **Sean Livingston** **5/11/2021 8:15:04 AM** Sean Livingston

Reviewed By: JR 5/11/21

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	JTO
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 5/11/21 (<2 or >12 unless noted)

Adjusted?

Checked by:

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.6	Good				
2	1.3	Good				

Chain-of-Custody Record

Client: BXP operating LLC

Mailing Address: 11757 Katy Freeway Ste. 475 Houston, TX 77079

Phone #: 281-848-3696

email or Fax#: mymerch@penroc oil.com

QA/QC Package: Cindy.crain@gmail.com

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 day

☑ Standard ☐ Rush

Project Name: Langlie JAL Unit #24

Project #:

Project Manager: Merch Merchant

K.freeman@aspengrow.us

Sampler: Kevin Freeman

On Ice: ☐ Yes ☐ No

# of Coolers: 2

Cooler Temp(including CF): 0.8-0.2=0.6 (°C) 1.5-0.2=1.3

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2105424	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
5/8/21	PM	soil	Sp1 0'-1'	TAR		001	X	X					X			
			1'-2'			002										
			Sp2 0'-1'			003		X								
			1'-2'			004										
			Sp3 0'-1'			005	X	X								
			1'-2'			006										
			2'-3'			007										
			3'-4'			008										
			Sp4 0'-1'			009		X								
			1'-2'			010										
			3'-3'			011										
			3'-4'			012										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
5/8/21	1pm	Kevin Freeman				
5/10/21	1910				5/8/21	1910
			counter		5/11/21	7:30

Remarks: If TPH Readings ABOVE 2500 mg/kg run next sample
If BTEX Reading ABOVE 50 mg/kg run next sample

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: BSP Operating LLC
11757 Katy Freeway
Mailing Address: Ste 1475
Houston, Tx 77079
Phone #: 281-848-3696
email or Fax#: mmerch@eurocoil.com
Cindy.ram@gmail.com
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: 3day
☐ Standard ☐ Rush
Project Name: Langlie JAL 24
Project #:
Project Manager: Mark Merchant
K.freeman@aspengroup.us
Sampler: Kevin Treen
On Ice: ☐ Yes ☐ No
# of Coolers: 2
Cooler Temp (including CF): 0.3 - 0.2 = 0.1 (°C)
1.5 - 0.2 = 1.3

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
5/8/21	PM	Soil	SP5 0'-1'	JAR		013	X	X					X			
			1'-2'			014		X								
			SP6 0'-1'			015		X								
			1'-2'			016										
			2'-3'			017										
			3'-4'			018										
			SP7 0'-1'			019		X								
			1'-2'			020										
			2'-3'			021										
			3'-4'			022										
			4'-5'			023										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
5/8/21	PM	Kevin Treen			5/8/21	1900
5/10/21	1900			Courier	5/11/21	7:30

Remarks: see notes

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: BXP Operating, LLC
11757 Katy Freeway, Ste 1475
Houston, TX 77079
Phone #: 281-848-3696
email or Fax#: mymerch@pancocoil.com
QA/QC Package: chay.garcia@gmail.com
☐ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: 5 day
☑ Standard ☐ Rush
Project Name: Langlie JAL #24
Project #:
Project Manager: Mark Merchant
kfreeman@aspengarrow.us
Sampler: Ken Freeman
On Ice: ☐ Yes ☐ No
# of Coolers: 2
Cooler Temp(including CF): 0.3+0.2=0.5 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. (1F-0.2-1.3)	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
5/8/21	8m	soil	Sp 8 0'-1'	JAR		024		X					X			
			1'-2'			025										
			2'-3'			026										
			3'-4'			027										
			4'-5'			028										
			5'-6'			029										
			Sp 9 0-1			030		X								
			1-2			031										
			2-3			032										
			3-4			033										
			4-5			034										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
5/8/21	pm	Ken Freeman			5/8/21	1900
5/12/21	1900			Courier	5/11/21	7:30

Remarks: see notes

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: BXP Operating LLC
11757 Katy Freeway ste 475
Houston TX 77079
Phone #: 281-248-3696
email or Fax#: mymerch@pennoil.com
QA/QC Package: Cindy.crain@gmail.com
☐ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: 5 day
☑ Standard ☐ Rush
Project Name: Langlie Jal #24
Project #:
Project Manager: Mark Merchant
K.freeman@aspengrow.as
Sampler: Kevin Freeman
On Ice: ☑ Yes ☐ No
# of Coolers: 2
Cooler Temp(including CF): 0.8-0.2=0.6 (°C)
1.5-0.2=1.3

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
5/8/21	pm	soil	Sp 10 0-1	Jar		035		X					✓			
			1-2			036										
			2-3			037										
			3-4			038										
			4-5			039										
			5-6			040										
			Sp 11 0-1			041		X								
			1-2			042										
			2-3			043										
			3-4			044										
			4-5			045										
↓	↓	↓	5-6			046							✓			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
5/8/21	pm	Kevin Freeman			5/8/21	1900
5/10/21	1200			courier	5/11/21	230

Remarks: see notes

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: BLP Operating LLC
11757 Katy Freeway
Mailing Address: Ste 475
281-848-3696 Houston, TX 77079
Phone #: mymerch@peoresources.com
email or Fax#: cindy.crain@gmail.com
QA/QC Package: K.freeman@aspenpa.us
☐ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: 5 day
☑ Standard ☐ Rush
Project Name: Langlie JAL unit 24
Project #: Meroa
Project Manager: Merch Merchant
Sampler: Ken Freeman
On Ice: ☑ Yes ☐ No
# of Coolers: 2
Cooler Temp(including CF): 0.5-0.2=0.3 (1.5-0.2=1.3)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
5/3/21	pm	soil	SP12 0-1	JAR		047	X						X			
			1-2			048										
			2-3			049										
			3-4			050										
			4-5			051										
			5-6			052										
			SP8 NW 0-1			053	X						X			
			1-2			054										
			2-3			055										
			3-4			056										

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
5/7/21	PM	Ken Freeman	[illegible]		5/8/21	1900
5/8/21	1900	[illegible]	[illegible]	courier	5/11/21	7:30

Remarks: see notes

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: BYP Operating

11757 Katy Freeway

Mailing Address: Ste 475

Houston, TX 77079

Phone #: 281-548-3696

email or Fax#: mu merch@ pen rocoil.com

QA/QC Package: Cindy.Crain@gmail.com

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other ________

☐ EDD (Type) ________

Turn-Around Time: ☑ Standard 5 day ☐ Rush ________

Project Name: Langlie Jal. 24

Project #:

Project Manager: Mark Merchant

K. Freeman @ asplegroup.us

Sampler: K. Free

On Ice: ☑ Yes ☐ No

# of Coolers: 2

Cooler Temp(including CF): 0.8-0.2=0.6 (°C) 1.5-0.2=1.3

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	(Cl), F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)						
5/8/21	PM	soil	Sp NE 0-1	Jar.		057		X					X									
↓	↓	↓	1-2	↓		058							↓									
			2-3			059							↓									
			Sp SE 0-1			060		X					X									
			1-2			061							↓									
			2-3			062																
			3-4			063																
			4-5			064																
			5-6			065							↓									
			Sp SW 0-1			066		X					X									
			1-2			067							↓									
↓	↓	↓	2-3	↓		068							↓									

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
5/8/21	PM	Kim Freeman	[signature]		5/8/21	1900
5/10/21	1900	[signature]	[signature]	courier	5/11/21	7:30

Remarks: See notes

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Appendix D: Aspen Grow LLC Remediation Plan and Product Information

To: **BXP OPERATING LLC**

May 23, 2021

1515 Calle Sur, Suite 174

Hobbs, New Mexico 88241

(575) 492-1236

Re: Langlie Jal Unit #024 Lease Spill Site located in Section 32, Township 24S R37E in Lea County, New Mexico.

PLAN TO REMEDIATE:

Aspen Grow, an Oil and Chloride remediation company is working with the lease owners, BXP and Crain Environmental regarding the spill at the Langlie Jal Unit #024 Lease Spill Site located in Section 32, Township 24S R37E in Lea County, New Mexico (Lat 32.1683467, Lon -103.182394). The Form C-141 dated 4/2/2021 states the cause of the leak to be from a 2" buried trunk line just off the pad of the Langlie Jal Unit #24 in Lea County, New Mexico. The leak was discovered by the pumper, he closed the valves and secured the leak. The pumper called the vacuum truck and for a backhoe to help contain the leak and run off. The leak produced an estimated 60 BBL. of produced water, an estimated 15 BBL was recovered and hauled to LJU water tank for disposal. The backhoe was used to remove the contaminated soil from the leak source area.

The soil was placed nearby to be treated by Aspen Grow LLC with a probiotic to help return the soil back to the original composition. The pipeline ditch where the leak occurred was left open so Aspen Grow could apply the probiotic soil stimulant to the contaminated area around the buried pipeline. The produced water run down a lease road and into a pasture area. This area will be treated for contamination by Aspen Grow. The entire area where the release occurred, ran or appeared was sampled for Chlorides, Btex and TPH in 16 different locations with 4 of the locations in outlying areas, outside the contamination zone estimated. Two outlying samples were analyzed to be contaminated, so the contamination area will be expanded to a larger area.

Aspen Grow's approach is to remediate and restore the contaminated soils to a healthy productive condition by rebuilding the biological health of the soil. This can be accomplished through an application of products that contain bio stimulants, organic acids, biologically produced enzymes and chelating agents which stimulate the natural beneficial microorganisms in the soil. This is accomplished by restoring the population and proper ratio of beneficial micro and macro-organisms, soils can be revitalized back to being healthy and productive. To achieve this goal, Aspen Grow will plan on a gradual process of application to the contaminated sites to minimize the erosion and runoff of the product. This topical application process will contain the spill to the current area to prevent any expansion of the spill area. The site will be treated for ten (10) weeks with fresh water and bio-products that will nourish the soil system by suppling special humic acids, minerals and nutrients that promote the growth of natural aerobic microbes while improving the soil's structure and natural fertility. Aspen Grow will re-test the site after the initial application period to get analysis of the condition of the soil and to see if any additional application is needed. Our goal is to return the soil to as near original condition as possible with minimal erosion or damage to the top soil and to meet or exceed the requirements set by the OCD Office.

The lease owners and Aspen Grow will forward our initial lab analysis, sketch of contaminated area to the OCD office for Remediation Plan Approval. Submission of the initial lab test results with the sketch map showing the contaminated areas of the location marking the contamination that will need to be addressed. Upon final treatment and final analysis lab readings, that meet or exceed the OCD approval levels, a requested closure report will be submitted for review.

Location: Langlie Jal Unit #024 Lease Spill Site located in Section 32, Township 24S R37E in Lea County, New Mexico.

Work Preformed:

Aspen Grow LLC discussed with a lease owner regarding the spill site to assess, sample and measure the contaminated spill area. An onsite inspection will determine the cause of the TPH and produced water to spill. Aspen Grow will travel to the spill site location to measure the entire spill site and to mark the sample points and the contaminated areas with marker flags. The spill site will be sketched to show the sample points and the overall area of the contamination.

Aspen Grow representatives have taken pre-treatment soil samples inside the contaminated site, twelve locations (12) and (4) four samples outside the contaminated area, one on each side of the contamination area, North, South, East and West of the spill site (4 sample locations). The samples will be taken in Chain of Custody (COC) jars and placed on ice. Contaminated Soil Samples were submitted to Hall Environmental Lab for analysis, the results are attached.

Upon approval of the Plan of Action to Remediate from the OCD and the Lease Owners. Aspen Grow will proceed with the application of pro-biotics product to start the process of re-mediation. Please respond with any question, concerns or comments to either or both parties below:

Aspen Grow LLC
P.O. Box 2177
Boerne, Texas 78006
(936) 615-2088 (Don Holt -Cell)
(210) 213-0397 (Kevin Freeman -Cell)

	Initials	Date
Prepared By		
Approved By		

* Latitude 32.169045
* Longitude -103.192091

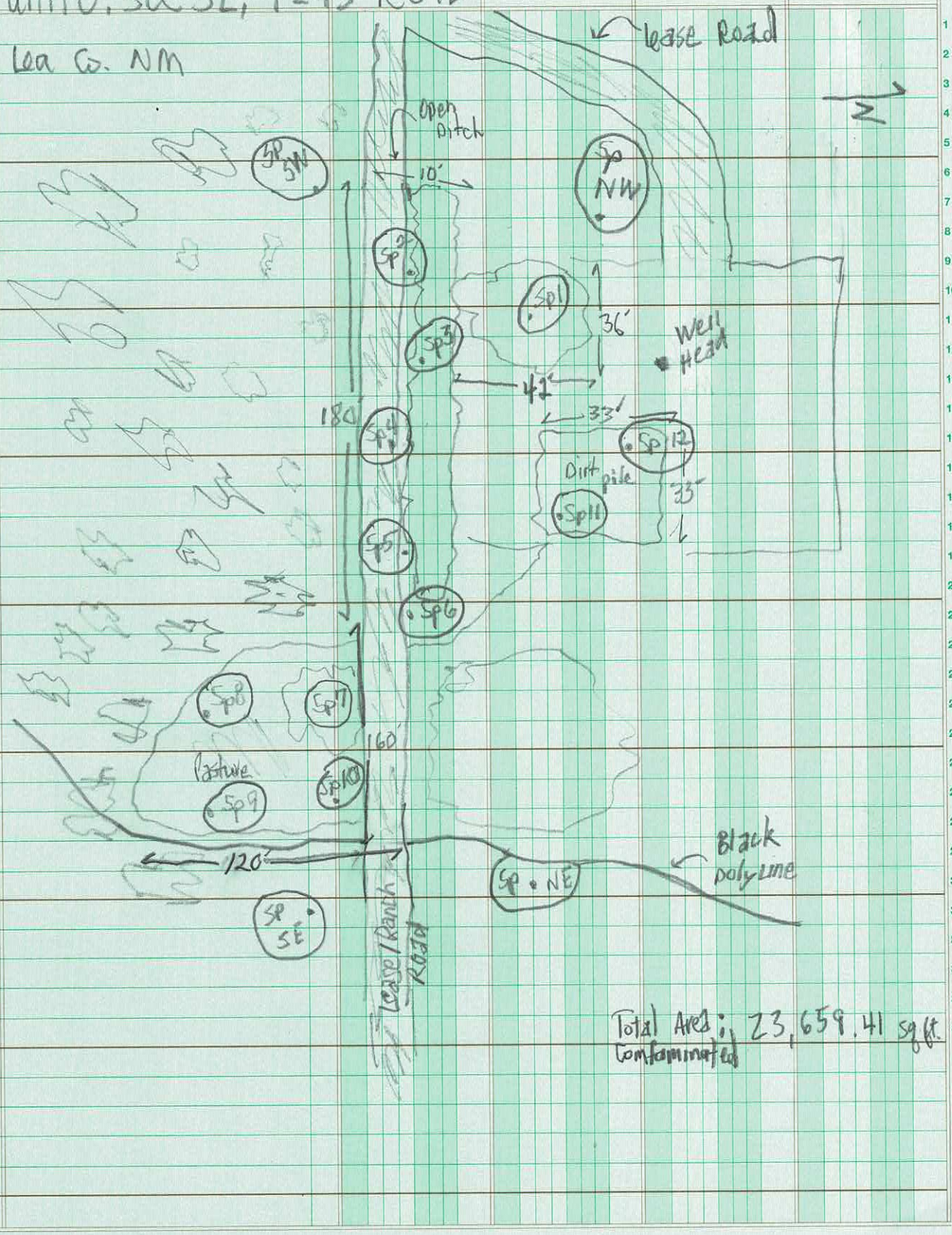
BKP OPERATING LLC

Longlie JAL Unit #24

API # 30-025-24479

Unit O, Sec 32, T24S R37E

Lea Co. NM



Total Area: 23,659.41 sq ft
Contaminated

Aspen Grow LLC.
3001 West Loop 250 N.
Ste. C 105-166
Midland, Texas 79705
210-213-0397
936-615-2088

Bioremediation of Soils Contaminated with Saline Rich Water and Petroleum Hydrocarbons

With the production of oil comes the possibility of accidental spills resulting from ruptured delivery lines or blowouts. The damage to surrounding environments can be devastating and require extensive remediation efforts and time to restore the affected land. The problems generated from such a discharge can include oil contamination and/or salt damage to vegetation and wildlife. Remediation efforts to correct such problems have had limited success. However, probiotic technology (the use of complex organic materials) has been applied to affected areas that initiate microbial degradation of petroleum products and neutralize harmful salt conditions. Salt damage has inhibited the growth of vegetation and degradation of oil contaminants because of high osmotic conditions in the area influenced by the spill. Therefore, salt is often the true culprit responsible for damage to the impacted soil.

Probiotic compounds such as fulvic and humic acids are capable of buffering salts and other reactive metals in the soil that inhibit growth. The buffering actions are predicated on the relationships between the soil particles and the organic compounds. In order to "tie-up" the salts and other metals, a complex organic molecule is required. This organic molecule will bind with the soil particle, but can only do so if there is a metal present between it and the soil fragment surface. Cation exchange capacity is increased in the soil with the addition of the organic complexes, enabling the increased release of valuable nutrients for vegetative and microbial use. The nutrients released from the soil and/or organic materials may be exchanged for harmful salts and/or metals. The salts appear to remain inert or are buffered, and eventually may leach out of the soil. The salts may also be involved in other less harmful chemical processes that occur naturally in the soil. With the salts buffered in the affected oil spill areas, vegetation and microbial forms can function normally. However, other environmental factors (i.e. moisture, temperature, oxygen, etc.) must also be sufficiently present for effective remediation.

Our approach to remediating and restoring contaminated soils to a healthy productive condition is to begin rebuilding the biological health of the soil. This can be accomplished through the application of products rich in beneficial microorganisms, bio-stimulants, organic acids, biologically produced enzymes and chelating agents. By restoring the population and proper ratio of beneficial micro and macro-organisms, even the most contaminated soil can be revitalized to a healthy, productive environment; one suitable even for farming crops.

Chemically induced changes to soil through the use of lime and salt-based fertilizers are only temporary changes. Changes in soil chemistry and fertility resulting from the biological activity within the soil are longer lasting and generally require a disruption in environmental conditions to cause a significant change once established.

Salts and Chlorides Remediation

The remediation of salts and chlorides is not a process of consumption but rather a process of binding, buffering, immobilization, detoxification, filtering, or conversion into a non-toxic soil mineral. This is accomplished in a variety of both cationic and anionic processes and reactions. The following information will provide some additional information that will assist in how some of these processes occur and a foundation on what these potential contaminants do in soil. Impact of Salt/Chloride on Soil There are three major impacts on soil and plants when salt water spills occur.

- Soil particles are dispersed which destroys aggregation
- Osmotic potential reduces the plants ability to up take water
- Ionic balance of the soil solution is impacted reducing nutrient absorption

1. Impact of sodium on soil and plants.
    a. The Na+ ion of sodium chloride causes the dispersion of the soil. Due to the large number of Na+ ions available, the Na+ ions are able to exchange with a sufficient number of the Ca++ and Mg++ ions. The Na+ ion is a large ion therefore weakening the normal soil aggregate stability. The major impact of a salt water spill is the destruction of the soil aggregates by dispersion. Dispersion will occur when more than 15% of the cation exchange capacity sites on clays are occupied by sodium ions and when the total EC in the soil solution is low. The potential dispersion of a soil can be determined by the exchangeable sodium percentage (ESP). Soil dispersion results in:
    b. • Loss of soil structure • Loss of pore structure • Reduced air and water movement • Reduced bioactivity • Reduced nutrient transfer • Increased water run-off and erosion of soil due to the major impact of the Na+ ion in the soil root zone, the remediation process is focused on restoring the soil aggregation. When the soil aggregation is restored the secondary impact due to osmotic pressure will also be reduced. In the remediation process it is very important to treat the soil as soon as possible. Rain on the spill site before gypsum is added will increase the rate of soil dispersion. As the salt (NaCl) concentration in the water solution increases, the change in osmotic potential makes the roots work harder to take in water. The amount of water intake by a plant will directly affect plant growth. As rain fall events occur salt in the water solution will be diluted. In most cases the first year rain fall (12-14 inches of rain) will significantly reduce the salt concentration in the soil solution.
2. Impact of chloride on soil and plants Depending on the chloride concentration in the spill event, direct chloride toxicity can occur at high levels of Cl- ions. Sensitivity to the Cl– ion will depend on the plant species. The Cl– ion in the soil water solution is usually flushed below the root zone by the first year of rain fall. The Cl– ion, due to its negative charge, moves rapidly out of the root zone through the negatively charged soil aggregates. Chloride concentration does not have a direct impact on soil structure except for being one of the ions which increases the osmotic potential in the soil solution. The term “chloride” does not refer to any specific compound but is a category of substances that are either present in the soil or groundwater or are added to drilling muds or hydro-fracturing fluids to facilitate development of a gas/oil well. The most common chlorides of interest include sodium chloride, calcium chloride, magnesium chloride, ammonium chloride, potassium chloride, and barium chloride. Therefore, the remediation of “Chlorides” may encompass a variety

of compounds that can respond differently to treatments due to a variety of variables and conditions. It is also known that within any remediation of salts and chlorides that a variety of charges and reactions are required since Cations migrate to negative charges and anions migrate to positive charges. Therefore, multiple charges of treatment products will be required to react appropriately with the different charges of the various components in the soil and water.

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 30960

CONDITIONS

Operator:	OGRID:
BXP Operating, LLC P.O. Box 7227 Dallas, TX 75209	329487
	Action Number: 30960
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	The OCD denies BXP request for an 60 day extension on closure. Closure date is set 11/12/2021.	8/10/2021
chensley	The OCD request that composite confirmation sample collection be no greater than 500 square feet.	8/10/2021
chensley	When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided. If evidence of depth to groundwater within a ½ mile radius of the site cannot be provided, impacted soils will need to meet Table 1 Closure Criteria for ground water at a depth of 50 feet or less.	8/10/2021