Kerr-McGee Oil & Gas Onshore LP

Topsoil Protection Plan

Parsnip Fed Well Pad and Facility
NW ¼, SW ¼, Sec 20, T1N, R66W

Weld County, Colorado

Revised January 2025

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APPENDICES

1.0 INTRODUCTION

Kerr-McGee Oil & Gas Onshore LP (KMOG) has developed this site-specific Topsoil Protection Plan to establish proper planning and management of soil during oil and gas location construction, and subsequent surface reclamation of the disturbed area(s).) All topsoil management shall be in accordance with the Colorado Energy and Carbon Management Commission (ECMC) Series 1000 Reclamation Rules *1001.a, 1002.b and 1002.c* requirements.

2.0 SITE DESCRIPTION

Operator	Kerr-McGee Oil & Gas Onshore LP
Project / Site Name:	Parsnip Fed Well Pad and Facility
Location:	Sec 20, T1N, R66W, Weld County, Colorado
Total Area of Project:	12.34 acres
Topsoil Depth	Approximately 6”
Estimated Topsoil Salvaged	8,587 Cubic Yards
Estimated Topsoil Stored for Final Rec	6,700 Cubic Yards
Description of Existing Vegetation:	Existing vegetation on the subject property is abandoned agriculture, primary use is range land / pastureland.
Soil Type(s):	1 – Altvan loam, 0 to 1 percent slopes, HSG: B 21 – Dacono clay loam, 0 to 1 percent slopes, HSG: C 75 – Vona sandy loam, 0 to 1 percent slopes, HSG: A
Operator ID:	47120
Reclamation Manager Contact:	Drew Stormo, HSE Advisor Kerr McGee Oil & Gas Onshore LP Office: (970) 336-3802

3.0 SITE INVESTIGATION

National Resources Conservation Service (NRCS) soil survey data has been reviewed to determine sampling intervals and locations to identify topsoil depths, texture, and fertility for development of grading plans, topsoil management, interim reclamation plans, and for final reclamation after plugging and abandonment. Topsoil depth pit excavations and photo reports shall occur twice within each soil map unit within the disturbance area, with additional pits determined by size of unit, topography, land use change or distinct visual surface changes. A minimum of the first 6 inches of depth will be included for analysis on rangeland even if less than 6 inches of topsoil is identified during pre-construction site survey. Refer to Appendices A, B, C, and D for site-specific sampling information.

4.0 PROPOSED SEQUENCE OF MAJOR ACTIVITIES

4.1. Topsoil Removal

Depth of each soil horizon will vary with individual soil units, and determination of depth and proper removal will be monitored during construction by physical characteristics of color, density, and texture change of soil, and as determined during Site Investigation. Topsoil may not be removed during wet soil moisture conditions, as field determined considering soil texture.

4.2. Subsoil Horizon Separation

Lower soil horizons will be stockpiled separately from topsoil where it can be used for contouring during reclamation and preserved in order of original state. Distinctly visible soil horizons or soil types shall be stockpiled separately (i.e., gravel or shale layers). Under no circumstances shall subsoil be mixed with topsoil, nor placed on top of the dedicated topsoil stockpile(s).

4.3. Stockpile Storage and Stabilization

Best management practices will be implemented for all topsoil stockpiles stored on site to mitigate erosion, compaction, and contamination, and to maintain soil microbial activity for later use during re-distribution and reclamation activities. Stabilization will be timed to occur immediately following stockpiling efforts during the construction phase, as practicable, and as ground conditions allow.

4.4. Recontouring and Compaction Relief

The first material to backfill will be from excavated subsoil materials, and compacted to avoid subsidence, but not restrictive to root growth of plants. The stockpiled soil horizons will be replaced in order and graded with the adjacent undisturbed land. Ripping/subsoiling will be required prior to topsoil redistribution if soil is overly compacted from vehicle or equipment traffic.

4.5. Topsoil Redistribution

The stockpiled topsoil will be redistributed uniformly and to minimize compaction of soil. Topsoil may not be redistributed during wet soil moisture conditions. Topsoil should be leveled with the adjacent, undisturbed land to match surrounding topography. Special consideration will apply to redistribution and grading of irrigable land to replace designated ditches and channels and ensure uniform coverage by flood irrigation water.

5.0 TOPSOIL STORAGE REQUIREMENTS

5.1. Calculations

Stored topsoil amounts to facilitate subsequent or final reclamation shall be calculated based off areas remaining for production operations and integrated as part of the reclamation area per ECMC Rule 1003. Total salvageable topsoil is calculated by converting disturbed acreage into square feet, multiplying by the depth of topsoil identified during a pre-construction environmental survey, and converting square feet to cubic yards.

5.2. Interim Reclamation

Placement and distribution will be determined by disturbance area boundaries, surface owner input, land use, and topography.

5.3. Topsoil Protection

Stored topsoil shall be protected from erosion and to maintain soil microbial activity and establish vegetative cover. Management practices include proper design of stockpile depth and contour, seeding, stabilizing with mulch or similar biodegradable product, track walking, perimeter control(s) or any combination. Seeding will occur by broadcast or drill, and will be dependent on mix, soil type, topography, and area of coverage. Seeding will occur during the appropriate season and timed to capitalize on soil

moisture to not compromise germination and establishment. Weeds on stockpiles shall be controlled as to prevent production of weed seed and/or enough biomass that would interfere with redistribution of soil or cause onsite debris.

5.4. Signage and Identification

Stored topsoil locations will be documented per ECMC Rule 407. Form 45, Location Construction Report. Signage identifying topsoil shall be installed, where feasible, based on land use.

6.0 STORMWATER CONTROLS/BMPS FOR TOPSOIL STOCKPILE

Erosion, degradation, sedimentation and topsoil loss from stormwater and snowmelt will be managed by a combination of control measures and best management practices, per phase, and as detailed below.

6.1 Construction Phase

- *Ditch and berm* shall be installed around the perimeter of the location, and subsequently around all topsoil stockpiles, to intercept and divert stormwater run-on/run-off and sediment from precipitation and melt events.
- *Track packing* all topsoil stockpiles will occur to prevent erosion from stormwater and wind, as well as provide temporary stabilization.
- *Seeding and crimped straw mulch* will be applied to prevent erosion and soil loss from stormwater and wind.
- *Vegetation establishment* through seeding efforts will promote soil health and maintain carbon exchange.
- *Weed control* will occur seasonally and as needed to hinder the spread of weeds throughout the topsoil stockpile(s) and help native grass establishment.

6.2 Drilling Phase

- *Ditch and berm* shall be installed around the perimeter of the location, and subsequently around all topsoil stockpiles, to intercept and divert stormwater run-on/run-off and sediment from precipitation and melt events.
- *Track packing* all topsoil stockpiles will occur to prevent erosion from stormwater and wind, as well as provide temporary stabilization.
- *Seeding and crimped straw mulch* will be applied to prevent erosion and soil loss from stormwater and wind.
- *Vegetation establishment* through seeding efforts will promote soil health and maintain carbon exchange.
- *Weed control* will occur seasonally and as needed to hinder the spread of weeds throughout the topsoil stockpile(s) and help native grass establishment.

6.3 Production Phase

- *Vegetation establishment* through seeding efforts will promote soil health and maintain carbon exchange.
- *Weed control* will occur seasonally and as needed to hinder the spread of weeds throughout the topsoil stockpile(s) and help native grass establishment.

Refer to the Site Plan (Appendix D) for additional information on control measures.

7.0 INSPECTION AND MAINTENANCE PROCEDURES

7.1. Inspections

Post-construction stormwater inspections will be conducted in accordance with the ECMC Rules 1002.f and 1003.e, to document the status of the location, maintenance needs, effectiveness of stormwater control measures, to evaluate pollution sources, to document reclamation / final stabilization progress and necessary weed control. Inspections will be managed by the Reclamation Contact and conducted by their designated representative(s). Inspection forms will document current conditions, including evidence of or potential for off-site erosion, weed control, additional control measures that are needed, or repair and maintenance issues.

Findings, inspection records and site maps are documented electronically and available within 24 hours of any inspection.

7.2. Maintenance

For maintenance items discovered, proposed repairs or upgrades to stormwater control measures to ensure topsoil protections will be documented and coordinated with production crews. Timeline for completion of maintenance items is a priority and will depend on scope; but in all cases, shall not be completed until field conditions allow for safe access, and utility clearance has been confirmed for items requiring ground disturbance / earthwork.

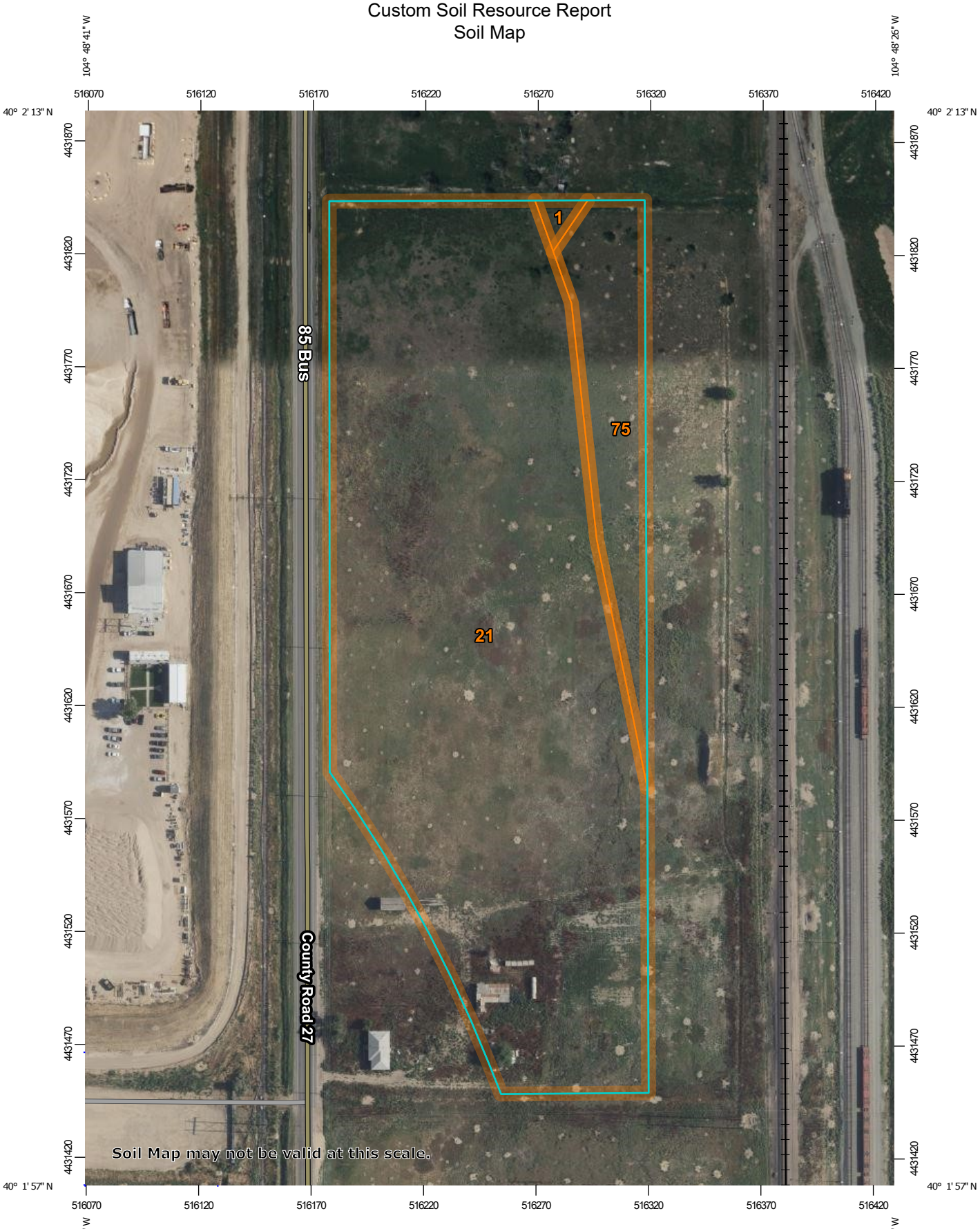
8.0 SUMMARY OF SITE-SPECIFIC TOPSOIL MANAGEMENT PRACTICES FOR CONSTRUCTION, PRODUCTION, AND FINAL RECLAMATION PHASES:

8.1. Topsoil will be managed during construction by a combination of site-specific erosion and sediment control measures including:

- **8.1.1.** A temporary Diversion Ditch & Berm (DD) around the entire location to manage run-on and run-off.
- **8.1.2.** Short term management of topsoil will include track packing to prevent wind and water erosion.
- **8.1.3.** Long term management will include seeding with a native seed mix and crimping straw mulch for erosion control and water retention.
- **8.1.4.** Vegetation establishment on stockpiles and weed control will reduce erosion as well as maintain microbial activity.
- **8.1.5.** During the construction phase topsoil will be stockpiled ~8’ tall along at a 3 to 1 slope along the southern portion of the well pad to minimize erosion potential.
- **8.1.6.** Topsoil managed during interim and production phases will be maintained with BMPs including seeding with a native seed mix and crimped straw mulch and weed monitoring / management.
- **8.1.7.** Long-term topsoil stockpile berms will be placed along the eastern and southern perimeter of the well pad ~3’ tall at a 4 to 1 slope to reduce erosion and maintain microbial activity for an extended time.
- **8.1.8.** Inspections will review all control measures / BMPs implemented, their status, and whether repair, replacement, or addition is needed, including weed maintenance when necessary. Maintenance and repair will be completed as soon as practicable, immediately in most cases.

APPENDIX A
NRCS SOIL SURVEY DATA AND SAMPLING LOCATIONS

Custom Soil Resource Report
Soil Map



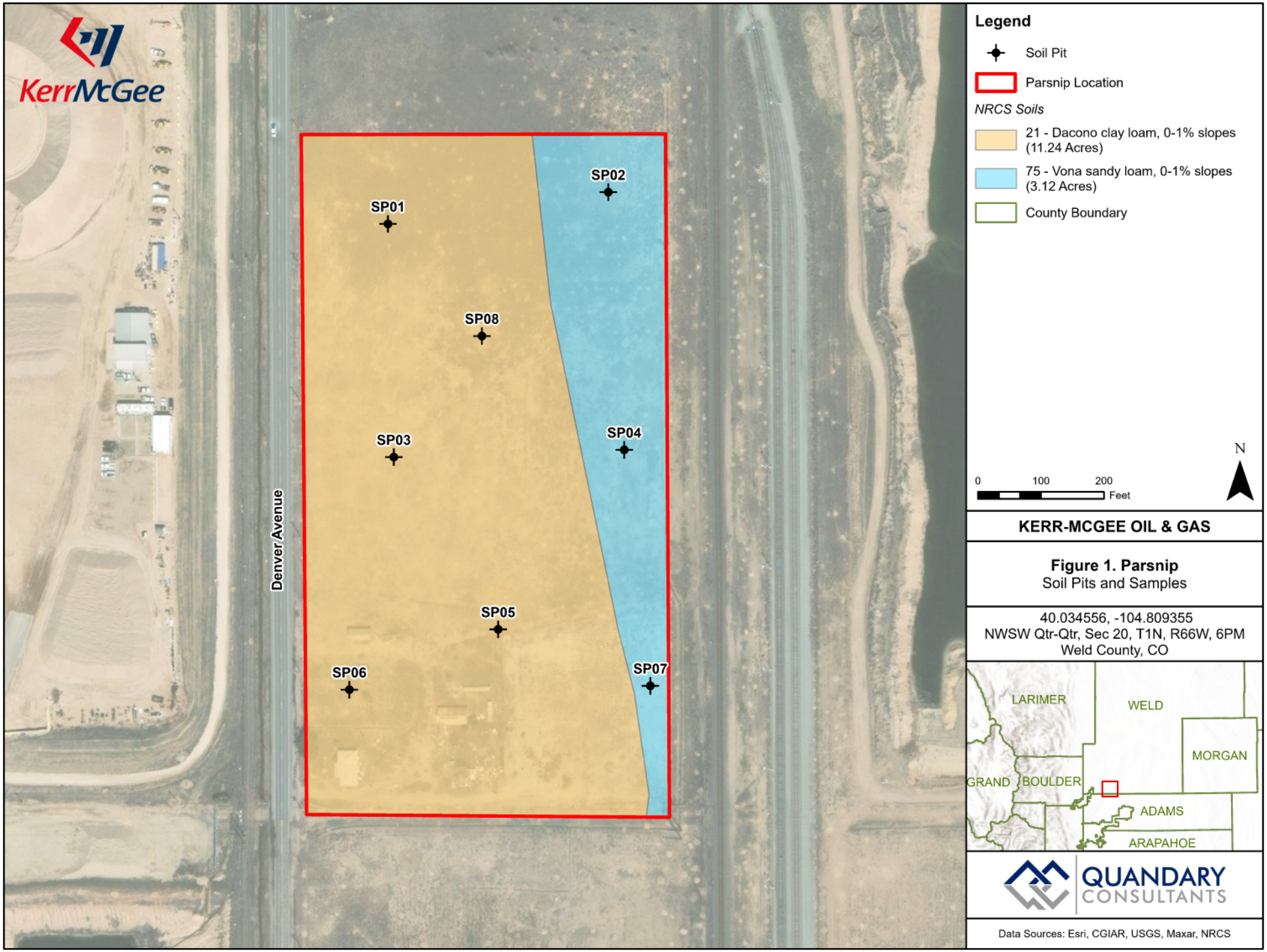
Map Scale: 1:2,320 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 30 60 120 180

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84


KerrMcGee
SP01
SP02
SP03
SP04
SP05
SP06
SP07
SP08
Denver Avenue
Legend
Soil Pit
Parsnip Location
NRCS Soils
21 - Dacono clay loam, 0-1% slopes (11.24 Acres)
75 - Vona sandy loam, 0-1% slopes (3.12 Acres)
County Boundary
N
0
100
200
Feet
KERR-MCGEE OIL & GAS
Figure 1. Parsnip
Soil Pits and Samples
40.034556, -104.809355
NWSW Qtr-Qtr, Sec 20, T1N, R66W, 6PM
Weld County, CO
LARIMER
WELD
MORGAN
GRAND
BOULDER
ADAMS
ARAPAHOE
QUANDARY CONSULTANTS
Data Sources: Esri, CGIAR, USGS, Maxar, NRCS

APPENDIX B
TOPSOIL DEPTH PHOTOLOG

Please note that the soils evaluated at the Parsnip Location have been disturbed by past activities.

Soil Pit (SP01) Delineation Photo Pit Depth 18”

Soil Sample ID	Color	Texture	Horizon	
SP-01				
0-6"	10YR 3/3	Silty clay with gravel	A	Topsoil
6-12"	10YR 3/4	Silty clay with gravel	B	Topsoil
12-18"	10YR 3/3	Silty clay with gravel	B	Topsoil
>18"		Silty clay more gravel	B/C	

Soil Pit (SP02) Delineation Photo Pit Depth 18”

Soil Sample ID	Color	Texture	Horizon	
SP-02				
0-6"	10YR 3/4	Sandy Loam	A	Topsoil
6-12"	10YR 3/4	Loamy Sand	B	Topsoil
12-18"	10YR 3/4	Loamy Sand	B	Topsoil
>18"		Sandy loam with gravel	C	

Soil Pit (SP03) Delineation Photo Pit Depth 18”

Soil Sample ID	Color	Texture	Horizon	
SP-03				
0-6"	10YR 3/3	Silty clay	A	Topsoil
6-12"	10YR 3/4	Silty clay	B	Topsoil
12-18"	10YR 3/4	Clay with gravel	C	
>18"				

Soil Pit (SP04) Delineation Photo Pit Depth 18”

Soil Sample ID	Color	Texture	Horizon	
SP-04				
0-6"	10 YR 3/4	Sandy loam	A	Topsoil
6-12"	10 YR 3/4	Sandy clay loam	B	Topsoil
12-18"	10 YR 3/4	Sandy clay loam	B	Topsoil
>18"		Sandy clay loam some gravel	C	

Soil Pit (SS05) Delineation Photo Pit Depth 18”

Soil Sample ID	Color	Texture	Horizon	
SP-05				
0-6"	10YR 4/3	Clayey sand	A	Topsoil
6-12"	10YR 3/3	Sandy clay loam	B	Topsoil
12-18"	10YR 3/3	Sandy clay	B	
>18"		More clay	C	

Soil Pit (SS06) Delineation Photo Pit Depth 18”

Soil Sample ID	Color	Texture	Horizon	
SP-06				
0-6"	10YR 3/3	Sandy clay loam	A	Topsoil
6-12"	10 YR 3/4	Sandy clay loam	B	Topsoil
12-18"	10YR 4/3	Sandy clay loam	B	Topsoil
>18"		Sandy clay loam with gravel	C	

Soil Pit (SS07) Delineation Photo Pit Depth 18”

Soil Sample ID	Color	Texture	Horizon	
SP-07				
0-6"	10YR 3/3	Sandy clay with gravel	Possible Fill	
6-12"	10YR 3/3	Sandy clay with gravel and plastic	Possible Fill	
12-16"	10YR 3/3	Sandy clay with gravel and plastic	Possible Fill	

Soil Pit (SS08) Delineation Photo Pit Depth 18”

Soil Sample ID	Color	Texture	Horizon	
SP-08				
0-6"	10 YR 3/4	Silty clay	A	Topsoil
6-12"	10 YR 3/4	Silty clay	A/B	Topsoil
12-18"	10 YR 3/4	Silty clay with gravel	C	

APPENDIX C
SOIL ANALYSIS

REPORT NUMBER
24-288-0288
COMPLETED DATE
Oct 25, 2024
ACCOUNT
66095
RECEIVED DATE
Oct 11, 2024

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TODAY'S DATE
Oct 25, 2024

Quandary Consultants, LLC
4480 GARFIELD STREET
Denver CO 80216

IDENTIFICATION
OCCIDENTAL PETICO PEZUU
PARSNIP

SOIL ANALYSIS REPORT

NEUTRAL AMMONIUM ACETATE (EXCHANGEABLE)

LAB NUMBER *438*	SAMPLE IDENTIFICATION	ORGANIC MATTER L.O.I. percent	RATE	PHOSPHORUS P_1 (WEAK BRAY) 1:7 ppm	RATE	PHOSPHORUS P_2 (STRONG BRAY) 1:7 ppm	RATE	OLSEN BICARBONATE P ppm	RATE	POTASSIUM K ppm	RATE	MAGNESIUM Mg ppm	RATE	CALCIUM Ca ppm	RATE	SODIUM Na ppm	RATE	pH SOIL pH 1:1	BUFFER INDEX	CATION EXCHANGE CAPACITY C.E.C. meq/100g	PERCENT BASE SATURATION (COMPUTED) % K	% Mg	% Ca	% H	% Na
15309	SP-01	1.5	VL	87	VH	135	VH			562	VH	298	VH	1912	H			7.3		13.5	10.7	18.4	70.9	0.0	
15310	SP-01	1.3	VL	75	VH	127	VH			382	VH	315	VH	2095	H			7.4		14.1	6.9	18.6	74.5	0.0	
15311	SP-01	1.5	VL	77	VH	144	VH			270	VH	319	VH	2144	H			7.6		14.1	4.9	18.9	76.2	0.0	
15312	SP-02	1.0	VL	47	VH	119	VH			251	VH	151	VH	1022	H			7.3		7.0	9.2	18.0	72.8	0.0	
15313	SP-02	0.7	VL	50	VH	115	VH			208	VH	174	VH	1112	H			7.4		7.5	7.1	19.3	73.6	0.0	
15314	SP-02	0.5	VL	41	VH	114	VH			136	H	180	VH	1116	H			7.3		7.4	4.7	20.3	75.0	0.0	
15315	SP-03	1.9	L	60	VH	128	VH			424	VH	414	VH	2300	H			7.3		16.0	6.8	21.6	71.6	0.0	
15316	SP-03	1.4	VL	59	VH	136	VH			399	VH	445	VH	2513	H			7.4		17.3	5.9	21.4	72.7	0.0	
15317	SP-03	1.4	VL	59	VH	123	VH			303	VH	439	VH	2510	H			7.5		17.0	4.6	21.5	73.9	0.0	
15318	SP-04	1.0	VL	53	VH	122	VH			379	VH	286	VH	2576	H			8.1		16.2	6.0	14.7	79.3	0.0	

LAB NUMBER *438*	NITRATE-N (FIA) SURFACE ppm	SURFACE lbs/A	SURFACE depth (in)	SUBSOIL 1 ppm	SUBSOIL 1 lbs/A	SUBSOIL 1 depth (in)	SUBSOIL 2 ppm	SUBSOIL 2 lbs/A	SUBSOIL 2 depth (in)	Total lbs/A	SULFUR S ICAP ppm	RATE	ZINC Zn DTPA ppm	RATE	MANGANESE Mn DTPA ppm	RATE	IRON Fe DTPA ppm	RATE	COPPER Cu DTPA ppm	RATE	BORON B SORB. DTPA ppm	RATE	EXCESS LIME RATE	SOLUBLE SALTS 1:1 mmhos/cm	RATE	
15309	23	41	0-6							41	8	L	4.3	H	9	M	20	H	2.4	VH	0.7	L		0.4	L	
15310	9	16	6-12							16	7	L	4.5	H	6	L	17	H	2.9	VH	0.8	M		0.3	L	
15311	6	11	12-18							11	8	L	4.6	H	8	L	34	VH	3.0	VH	0.9	M		0.2	L	
15312	11	20	0-6							20	6	VL	2.8	M	6	L	15	M	1.1	M	0.3	VL		0.1	L	
15313	5	9	6-12							9	5	VL	2.4	M	4	VL	12	M	1.1	M	0.3	VL		0.1	L	
15314	3	14	12-28							14	4	VL	2.4	M	4	VL	12	M	1.3	H	0.3	VL		0.1	L	
15315	12	22	0-6							22	7	L	3.7	H	8	L	18	H	2.7	VH	0.7	L		0.3	L	
15316	11	20	6-12							20	6	VL	4.2	H	10	M	21	H	3.2	VH	0.9	M		0.3	L	
15317	6	11	12-18							11	7	L	4.0	H	11	M	21	H	3.1	VH	1.0	M		0.3	L	
15318	18	32	0-6							32	8	L	2.8	M	5	L	13	M	1.8	H	0.8	M		0.3	L	

** Insufficient Sample for the tests requested.*

REV.10/17

The above analytical results apply only to the sample(s) submitted. Samples are retained a maximum of 30 days.

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LAB NUMBER *438*	SAMPLE IDENTIFICATION	ORGANIC MATTER L.O.I.		PHOSPHORUS P1 (WEAK BRAY) 1:7		PHOSPHORUS P2 (STRONG BRAY) 1:7		OLSEN BICARBONATE P		NEUTRAL AMMONIUM ACETATE (EXCHANGEABLE) POTASSIUM K		MAGNESIUM Mg		CALCIUM Ca		SODIUM Na		pH SOIL pH 1:1	pH BUFFER INDEX	CATION EXCHANGE CAPACITY C.E.C.	PERCENT BASE SATURATION (COMPUTED) % K	% Mg	% Ca	% H	% Na
		percent	RATE	ppm	RATE	ppm	RATE	ppm	RATE	ppm	RATE	ppm	RATE	ppm	RATE	ppm	RATE			meq/100g					
15319	SP-04	0.9	VL	45	VH	128	VH			289	VH	319	VH	2790	H			8.1		17.3	4.3	15.4	80.3	0.0	
*15320	SP-04	1.0	VL	46	VH	118	VH			328	VH	419	VH	2987	H			8.0		19.3	4.4	18.1	77.5	0.0	
15321	SP-05	2.1	L	124	VH	152	VH			784	VH	293	VH	1720	M			6.9		13.1	15.3	18.6	66.1	0.0	
15322	SP-05	1.7	L	139	VH	140	VH			763	VH	290	VH	1900	H			6.9		13.9	14.1	17.4	68.5	0.0	
15323	SP-05	1.8	L	138	VH	145	VH			640	VH	250	VH	1673	H			7.0		12.1	13.6	17.2	69.2	0.0	
15324	SP-06	2.8	M	106	VH	129	VH			687	VH	374	VH	2211	H			7.3		15.9	11.1	19.6	69.3	0.0	
15325	SP-06	1.7	L	92	VH	144	VH			531	VH	377	VH	2242	H			7.5		15.7	8.7	20.0	71.3	0.0	
15326	SP-06	1.4	VL	79	VH	145	VH			481	VH	404	VH	2390	H			7.6		16.6	7.4	20.3	72.3	0.0	
15328	SP-07	1.4	VL	2	VL	11	L	22	H	573	VH	128	L	3876	VH			8.7		21.9	6.7	4.9	88.4	0.0	
15329	SP-07	1.3	VL	3	VL	16	L	29	VH	516	VH	137	L	3619	VH			8.6		20.6	6.4	5.5	88.1	0.0	

LAB NUMBER *438*	NITRATE-N (FIA) SURFACE ppm	SURFACE lbs/A	SURFACE depth (in)	SUBSOIL 1 ppm	SUBSOIL 1 lbs/A	SUBSOIL 1 depth (in)	SUBSOIL 2 ppm	SUBSOIL 2 lbs/A	SUBSOIL 2 depth (in)	Total lbs/A	SULFUR S ICAP ppm	SULFUR RATE	ZINC Zn DTPA ppm	ZINC RATE	MANGANESE Mn DTPA ppm	MANGANESE RATE	IRON Fe DTPA ppm	IRON RATE	COPPER Cu DTPA ppm	COPPER RATE	BORON B SORB. DTPA ppm	BORON RATE	EXCESS LIME RATE	SOLUBLE SALTS 1:1 mmhos/cm	SOLUBLE SALTS RATE
15319	15	27	6-12							27	7	L	2.5	M	3	VL	15	M	1.7	H	0.7	L		0.3	L
15320	8	14	12-18							14	7	L	2.7	M	4	VL	18	H	2.0	VH	0.8	M		0.3	L
15321	25	45	0-6							45	9	L	8.3	VH	11	M	28	VH	2.7	VH	0.9	M		0.4	L
15322	15	27	6-12							27	8	L	12.2	VH	9	M	27	VH	3.0	VH	0.9	M		0.3	L
15323	8	14	12-18							14	6	VL	10.1	VH	7	L	35	VH	2.9	VH	0.9	M		0.2	L
15324	24	43	0-6							43	9	L	6.6	VH	9	M	25	VH	2.8	VH	1.1	M		0.5	L
15325	11	20	6-12							20	8	L	5.5	H	7	L	27	VH	3.4	VH	1.1	M		0.3	L
15326	10	18	12-18							18	7	L	6.0	VH	7	L	25	VH	3.4	VH	1.3	H		0.3	L
15328	8	14	0-6							14	90	VH	2.5	M	4	VL	18	H	1.7	H	1.4	H		0.4	L
15329	7	13	6-12							13	88	VH	2.8	M	3	VL	20	H	1.9	VH	1.7	H		0.5	L

** Insufficient Sample for the tests requested.*

REV.10/17

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Denver CO 80216

SOIL ANALYSIS REPORT

LAB NUMBER *438*	SAMPLE IDENTIFICATION	ORGANIC MATTER L.O.I. percent	RATE	PHOSPHORUS P1 (WEAK BRAY) 1:7 ppm	RATE	PHOSPHORUS P2 (STRONG BRAY) 1:7 ppm	RATE	OLSEN BICARBONATE P ppm	RATE	NEUTRAL AMMONIUM ACETATE (EXCHANGEABLE) POTASSIUM K ppm	RATE	MAGNESIUM Mg ppm	RATE	CALCIUM Ca ppm	RATE	SODIUM Na ppm	RATE	pH SOIL pH 1:1	BUFFER INDEX	CATION EXCHANGE CAPACITY C.E.C. meq/100g	PERCENT BASE SATURATION (COMPUTED) % K	% Mg	% Ca	% H	% Na
15330	SP-07	1.1	VL	33	VH	114	VH			554	VH	198	M	3074	VH			8.1		18.4	7.7	9.0	83.3	0.0	
15331	SP-08	1.3	VL	68	VH	148	VH			385	VH	317	VH	2104	H			7.0		14.1	7.0	18.7	74.3	0.0	
15332	SP-08	1.2	VL	66	VH	138	VH			280	VH	324	VH	2053	H			7.1		13.7	5.2	19.7	75.1	0.0	
15333	SP-08	1.3	VL	73	VH	137	VH			327	VH	315	VH	2009	H			7.1		13.5	6.2	19.4	74.4	0.0	

LAB NUMBER *438*	NITRATE-N (FIA) SURFACE ppm	SURFACE lbs/A	SURFACE depth (in)	SUBSOIL 1 ppm	SUBSOIL 1 lbs/A	SUBSOIL 1 depth (in)	SUBSOIL 2 ppm	SUBSOIL 2 lbs/A	SUBSOIL 2 depth (in)	Total lbs/A	SULFUR S ICAP ppm	RATE	ZINC Zn DTPA ppm	RATE	MANGANESE Mn DTPA ppm	RATE	IRON Fe DTPA ppm	RATE	COPPER Cu DTPA ppm	RATE	BORON B SORB. DTPA ppm	RATE	EXCESS LIME RATE	SOLUBLE SALTS 1:1 mmhos/cm	RATE
15330	7	13	12-18							13	51	VH	3.5	H	5	L	24	H	2.0	VH	1.2	M		0.3	L
15331	10	18	0-6							18	8	L	5.4	H	6	L	20	H	3.1	VH	0.8	M		0.3	L
15332	8	14	6-12							14	6	VL	5.3	H	5	L	20	H	3.1	VH	0.8	M		0.2	L
15333	10	18	12-18							18	6	VL	5.5	H	6	L	19	H	3.0	VH	0.8	M		0.3	L

** Insufficient Sample for the tests requested.*

REV.10/17

The above analytical results apply only to the sample(s) submitted. Samples are retained a maximum of 30 days.

REPORT NUMBER
24-288-0288
COMPLETED DATE
Oct 25, 2024
ACCOUNT
66095
RECEIVED DATE
Oct 11, 2024

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TODAY'S DATE
Oct 25, 2024

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4480 GARFIELD STREET
Denver CO 80216

IDENTIFICATION
OCCIDENTAL PETICO PEZUU
PARSNIP

ADDITIONAL SOIL ANALYSIS

Labnum *438*	Sample ID	Chloride CaNO3 ppm	Ammonia Nitrogen KCl extract ppm	Exchangable Sodium % Calculation
15309	SP-01 *Depth: 0-6*	8	2	0.02
15310	SP-01 *Depth: 6-12*	4	3	0.04
15311	SP-01 *Depth: 12-18*	6	3	0.09
15312	SP-02 *Depth: 0-6*	6	2	0.02
15313	SP-02 *Depth: 6-12*	4	2	0.02
15314	SP-02 *Depth: 12-28*	3	2	0.04
15315	SP-03 *Depth: 0-6*	9	4	0.04
15316	SP-03 *Depth: 6-12*	15	4	0.09
15317	SP-03 *Depth: 12-18*	5	4	0.15
15318	SP-04 *Depth: 0-6*	10	2	0.02

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ADDITIONAL SOIL ANALYSIS

Labnum *438*	Sample ID	Chloride CaNO3 ppm	Ammonia Nitrogen KCl extract ppm	Exchangable Sodium % Calculation
15319	SP-04 *Depth: 6-12*	5	2	0.04
15320	SP-04 *Depth: 12-18*	4	3	0.04
15321	SP-05 *Depth: 0-6*	17	4	0.04
15322	SP-05 *Depth: 6-12*	11	3	0.06
15323	SP-05 *Depth: 12-18*	8	3	0.06
15324	SP-06 *Depth: 0-6*	14	5	0.02
15325	SP-06 *Depth: 6-12*	6	3	0.04
15326	SP-06 *Depth: 12-18*	5	3	0.11
15328	SP-07 *Depth: 0-6*	11	3	0.06
15329	SP-07 *Depth: 6-12*	11	2	0.06

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ADDITIONAL SOIL ANALYSIS

Labnum *438*	Sample ID	Chloride CaNO3 ppm	Ammonia Nitrogen KCl extract ppm	Exchangable Sodium % Calculation
15330	SP-07 *Depth: 12-18*	11	1	0.15
15331	SP-08 *Depth: 0-6*	14	3	0.04
15332	SP-08 *Depth: 6-12*	6	2	0.09
15333	SP-08 *Depth: 12-18*	9	4	0.06

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SODIUM ADSORPTION RATIO REPORT

Method Lab Number	Sample Id	CALCULATED Sodium Adsorption Ratio	SATURATED PASTE EXTRACTION Sodium (Water Soluble) mg/L	Magnesium (Water Soluble) mg/L	Calcium (Water Soluble) mg/L
43815309	SP-01	0.1	3	11	52
43815310	SP-01	0.2	5	8	40
43815311	SP-01	0.4	10	9	45
43815312	SP-02	0.1	3	10	48
43815313	SP-02	0.1	3	6	28
43815314	SP-02	0.2	5	7	31
43815315	SP-03	0.2	8	15	67
43815316	SP-03	0.4	14	13	59
43815317	SP-03	0.7	19	8	39
43815318	SP-04	0.1	4	13	84

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SODIUM ADSORPTION RATIO REPORT

Method Lab Number	Sample Id	CALCULATED Sodium Adsorption Ratio	SATURATED PASTE EXTRACTION Sodium (Water Soluble) mg/L	Magnesium (Water Soluble) mg/L	Calcium (Water Soluble) mg/L
43815319	SP-04	0.2	6	10	62
43815320	SP-04	0.2	8	11	59
43815321	SP-05	0.2	6	18	75
43815322	SP-05	0.3	7	10	48
43815323	SP-05	0.3	9	7	34
43815324	SP-06	0.1	5	16	73
43815325	SP-06	0.2	7	10	45
43815326	SP-06	0.5	12	8	39
43815328	SP-07	0.3	11	6	131
43815329	SP-07	0.3	14	7	127

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SODIUM ADSORPTION RATIO REPORT

Method Lab Number	Sample Id	CALCULATED Sodium Adsorption Ratio Units	SATURATED PASTE EXTRACTION Sodium (Water Soluble) mg/L	Magnesium (Water Soluble) mg/L	Calcium (Water Soluble) mg/L
43815330	SP-07	0.7	23	8	62
43815331	SP-08	0.2	7	11	54
43815332	SP-08	0.4	11	10	48
43815333	SP-08	0.3	9	9	43

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Free Calcium Carbonate Report

Laboratory Number	Sample ID	Level Found
43815309	SP-01	0.09 %
43815310	SP-01	0.52 %
43815311	SP-01	0.14 %
43815312	SP-02	0.24 %
43815313	SP-02	0.68 %
43815314	SP-02	0.26 %
43815315	SP-03	0.53 %

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Free Calcium Carbonate Report

Laboratory Number	Sample ID	Level Found
43815316	SP-03	0.04 %
43815317	SP-03	0.14 %
43815318	SP-04	0.90 %
43815319	SP-04	0.85 %
43815321	SP-05	0.45 %
43815322	SP-05	0.95 %
43815323	SP-05	0.33 %

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Free Calcium Carbonate Report

Laboratory Number	Sample ID	Level Found
43815324	SP-06	1.10 %
43815325	SP-06	3.19 %
43815326	SP-06	7.25 %
43815328	SP-07	8.20 %
43815329	SP-07	6.13 %
43815330	SP-07	0.42 %
43815331	SP-08	0.50 %

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Free Calcium Carbonate Report

Laboratory Number	Sample ID	Level Found
43815332	SP-08	0.27 %
43815333	SP-08	0.33 %

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SOIL TEXTURE REPORT

Lab Number	Sample Identification	SAND	SILT	CLAY	SOIL TYPE
43815309	SP-01	44%	30%	26%	LOAM
43815310	SP-01	42%	30%	28%	CLAY LOAM
43815311	SP-01	42%	30%	28%	CLAY LOAM
43815312	SP-02	76%	12%	12%	SANDY LOAM
43815313	SP-02	78%	10%	12%	SANDY LOAM
43815314	SP-02	76%	12%	12%	SANDY LOAM
43815315	SP-03	38%	30%	32%	CLAY LOAM
43815316	SP-03	40%	28%	32%	CLAY LOAM
43815317	SP-03	38%	28%	34%	CLAY LOAM
43815318	SP-04	58%	20%	22%	SANDY CLAY LOAM

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SOIL TEXTURE REPORT

Lab Number	Sample Identification	SAND	SILT	CLAY	SOIL TYPE
43815319	SP-04	56%	22%	22%	SANDY CLAY LOAM
43815320	SP-04	56%	18%	26%	SANDY CLAY LOAM
43815321	SP-05	48%	28%	24%	SANDY CLAY LOAM
43815322	SP-05	46%	28%	26%	SANDY CLAY LOAM
43815323	SP-05	46%	30%	24%	LOAM
43815324	SP-06	42%	32%	26%	LOAM
43815325	SP-06	42%	28%	30%	CLAY LOAM
43815326	SP-06	44%	26%	30%	CLAY LOAM
43815328	SP-07	58%	24%	18%	SANDY LOAM
43815329	SP-07	54%	26%	20%	SANDY CLAY LOAM

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SOIL TEXTURE REPORT

Lab Number	Sample Identification	SAND	SILT	CLAY	SOIL TYPE
43815330	SP-07	52%	26%	22%	SANDY CLAY LOAM
43815331	SP-08	48%	26%	26%	SANDY CLAY LOAM
43815332	SP-08	48%	26%	26%	SANDY CLAY LOAM
43815333	SP-08	46%	28%	26%	SANDY CLAY LOAM

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APPENDIX D
SITE PLAN

TOPSOIL STOCKPILE PLACEMENT EXHIBIT

PARSNIP FED HZ

NW1/4 SW1/4 SECTION 20, TOWNSHIP 1 NORTH, RANGE 66 WEST, 6TH P.M., WELD COUNTY, COLORADO

LEGEND

- PROPOSED OIL & GAS LOCATION
- PROPOSED WELL PAD
- PROPOSED FACILITY PAD
- TOPSOIL STOCKPILE

609 CONSULTING, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Sabertin Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

DATE SURVEYED:	9/18/24
DATE:	10/23/24
DRAFTER:	JAC
REVISED:	

DATA SOURCES:
- AERIAL COURTESY OF NEARMAP.

PREPARED FOR:
Kerr-McGee Oil & Gas Onshore LP

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