



Kerr-McGee Oil & Gas Onshore LP

Topsoil Protection Plan

**East Street 14-22HZ Well Pad and Facility
SW $\frac{1}{4}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 22, T3N, R63W**

Weld County, Colorado

March, 2023

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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 Colorado Oil and Gas Conservation Commission (COGCC) 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: | East Street 14-22HZ Well Pad and Facility |
| Location: | Sec 22 T3N, R35W, Weld County, Colorado |
| Total Area of Project: | 16.60 acres |
| Topsoil Depth | Approximately 6" |
| Estimated Topsoil Salvaged | 5,520 Cubic Yards |
| Estimated Topsoil Stored for Final Rec | 1,832 Cubic Yards |
| Description of Existing Vegetation: | Existing vegetation on the subject property is native grasses and forbs interspersed with undesirable vegetation, primary use is grazed rangeland. |
| Soil Type(s): | 69 – Valent Sand, 0 to 3 percent slopes. HSG A |
| Operator ID: | 47120 |
| Reclamation Manager Contact: | Austin Lee – HSE Advisor Occidental Petroleum Corporation Office: (970) 515-1058 |

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 removed topsoil stockpile

4.3. Topsoil Protection

If topsoil will be stockpiled for extended periods of time, it shall be protected from degradation due to erosion, compaction, and contamination, and to maintain soil microbial activity, using best management practices such as stabilization with mulch, seeding, track walking, perimeter control or a combination of BMPs. 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. Signage shall be installed to identify topsoil stockpiles to facilitate subsequent reclamation and indicate to personnel that the area may not be disturbed by drilling and completion operations.

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 interim reclamation area per Rule 1003.

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, using a combination of best management practices, such as proper design of stockpile depth and contour, stabilizing with mulch, seeding, track walking, perimeter control, establishment of vegetation and weed control.

5.4. Signage and Identification

Stored topsoil locations will be documented per 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 COGCC 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.

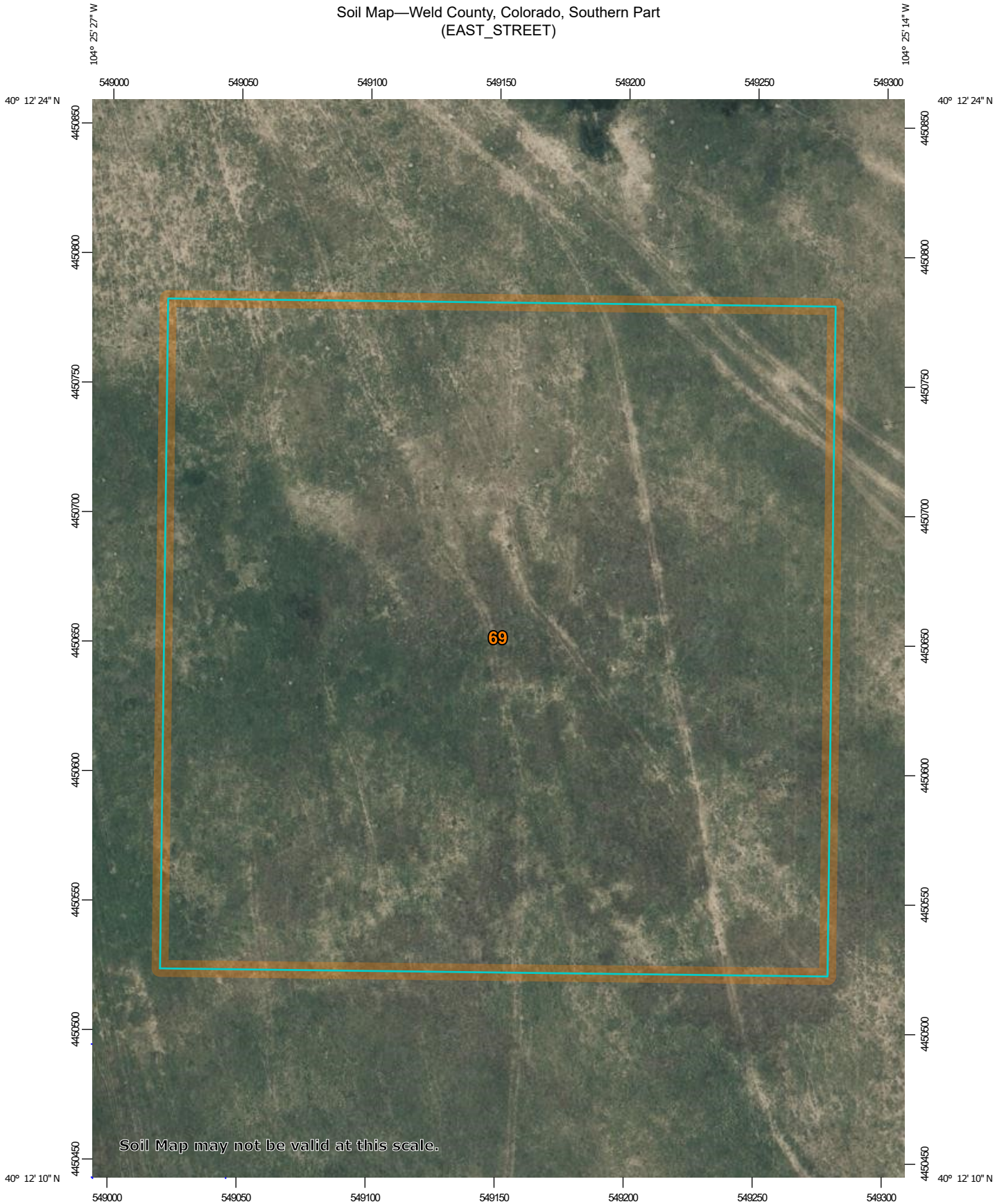
Findings, inspection records and site maps are documented electronically and available within 24 hours of any inspection.

7.2. Maintenance

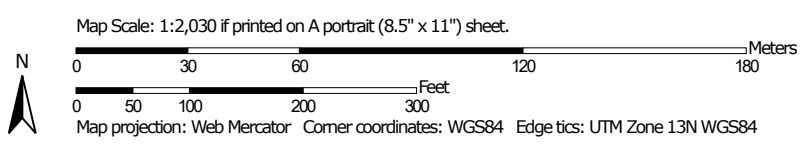
For maintenance items discovered, proposed repairs or upgrades to stormwater control measures to ensure topsoil protections will be documented and coordinated with production crews. Timeline for completion of maintenance items is a priority and will depend on scope; but in all cases, shall not be completed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

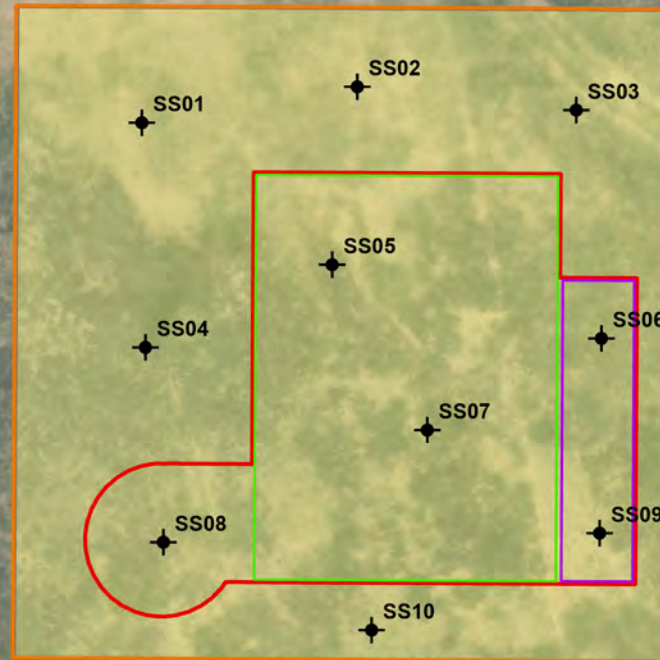
APPENDIX A
NRCS SOIL SURVEY DATA AND SAMPLING LOCATIONS

Soil Map—Weld County, Colorado, Southern Part
(EAST_STREET)



Soil Map may not be valid at this scale.





Legend

East Street

Oil & Gas Location

Working Pad Surface

Facility Pad

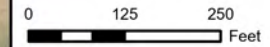
Well Pad

NRCS Soils

(Map Unit Symbol - Map Unit Name)

69 - Valent sand, 0-3% slopes

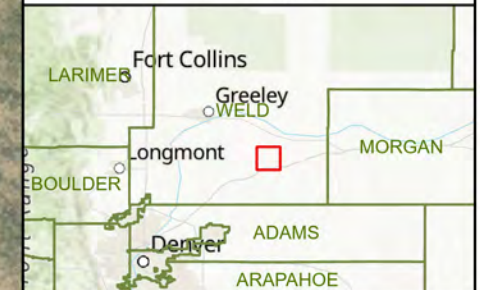
Soil Pit



KERR-MCGEE OIL & GAS

**East Street OGD
Rule 304.c.(14) Topsoil Protection Plan
Soil Pit Location Map**

Disturbance Area: 16.60 Acres
40.204834, -104.422469
SWSE Qtr-Qtr, Sec 22, T3N, R63W, 6PM
Weld County, CO



Data Sources: Esri, CGIAR, USGS, Maxar, NRCS

APPENDIX B
TOPSOIL DEPTH PHOTOLOG

INTRODUCTION

Per Colorado Oil and Gas Conservation Commission (COGCC) Rule 304.c.(14), a Topsoil Protection Plan (TPP) is required for every Form 2A, Oil & Gas Location Assessment Series consistent with the requirements of Rule 1002.c – the protection of soils disturbed by oil and gas operations.

Quandary Consultants, LLC (Quandary) conducted soil sampling on March 9, 2023 for the Kerr-McGee Oil & Gas Onshore L.P. (KMOG) proposed East Street 14-22HZ Oil & Gas Location. The soil fertility and characteristic evaluations included in this document are intended to supplement the TPP, pursuant with the Rule 304.c.(14) TPP Guidance.

SOIL SAMPLING LOG

Table 1. Soil Sample 01 (SS01) soil characteristics sampled March 9, 2023. No discernible soil horizons could be identified within 1 to 18 inches.

| Sample Name (Soil Horizon) | Soil Horizon Delineation Depth (Inches) | Texture | Munsell Color |
|---------------------------------------|--|----------------|----------------------|
| SS01 (A-C) | >18 | Sandy loam | 5YR 5/3 |

Photo 1. SS01.



Table 2. Soil Sample 02 (SS02) soil characteristics sampled March 9, 2023. No discernible soil horizons could be identified within 1 to 18 inches.

| Sample Name (Soil Horizon) | Soil Horizon Delineation Depth (Inches) | Texture | Munsell Color |
|-------------------------------|--|-----------|---------------|
| SS02 (A-C) | >18 | Fine sand | 5YR 5/3 |

Photo 2. SS02.



Table 3. Soil Sample 03 (SS03) soil characteristics sampled March 9, 2023. No discernible soil horizons could be identified within 1 to 18 inches.

| Sample Name (Soil Horizon) | Soil Horizon Delineation Depth (Inches) | Texture | Munsell Color |
|-------------------------------|--|------------|---------------|
| SS03 (A-C) | >18 | Sandy loam | 5YR 6/3 |

Photo 3. SS03.



Table 4. Soil Sample 04 (SS04) soil characteristics sampled March 9, 2023. No discernible soil horizons could be identified within 1 to 18 inches.

| Sample Name (Soil Horizon) | Soil Horizon Delineation Depth (Inches) | Texture | Munsell Color |
|-------------------------------|--|------------|---------------|
| SS04 (A-C) | >18 | Sandy loam | 5YR 5/3 |

Photo 4. SS04.



Table 5. Soil Sample 05 (SS05) soil characteristics sampled March 9, 2023. No discernible soil horizons could be identified within 1 to 18 inches.

| Sample Name (Soil Horizon) | Soil Horizon Delineation Depth (Inches) | Texture | Munsell Color |
|-------------------------------|--|------------|---------------|
| SS05 (A-C) | >18 | Sandy loam | 5YR 5/3 |

Photo 5. SS05.



Table 6. Soil Sample 06 (SS06) soil characteristics sampled March 9, 2023. No discernible soil horizons could be identified within 1 to 18 inches.

| Sample Name (Soil Horizon) | Soil Horizon Delineation Depth (Inches) | Texture | Munsell Color |
|-------------------------------|--|------------|---------------|
| SS06 (A-C) | >18 | Sandy loam | 5YR 5/3 |

Photo 6. SS06.



Table 7. Soil Sample 07 (SS07) soil characteristics sampled March 9, 2023. No discernible soil horizons could be identified within 1 to 18 inches.

| Sample Name (Soil Horizon) | Soil Horizon Delineation Depth (Inches) | Texture | Munsell Color |
|-------------------------------|--|------------|---------------|
| SS07 (A-C) | >18 | Sandy loam | 5YR 5/3 |

Photo 7. SS07.



Table 8. Soil Sample 08 (SS08) soil characteristics sampled March 9, 2023. No discernible soil horizons could be identified within 1 to 18 inches.

| Sample Name (Soil Horizon) | Soil Horizon Delineation Depth (Inches) | Texture | Munsell Color |
|-------------------------------|--|------------|---------------|
| SS08 (A-C) | >18 | Sandy loam | 5YR 6/3 |

Photo 8. SS08.



Table 9. Soil Sample 09 (SS09) soil characteristics sampled March 9, 2023. No discernible soil horizons could be identified within 1 to 18 inches.

| Sample Name (Soil Horizon) | Soil Horizon Delineation Depth (Inches) | Texture | Munsell Color |
|-------------------------------|--|------------|---------------|
| SS09 (A-C) | >18 | Sandy loam | 5YR 5/3 |

Photo 9. SS09.



Table 10. Soil Sample 10 (SS10) soil characteristics sampled March 9, 2023. No discernible soil horizons could be identified within 1 to 18 inches.

| Sample Name (Soil Horizon) | Soil Horizon Delineation Depth (Inches) | Texture | Munsell Color |
|-------------------------------|--|------------|---------------|
| SS10 (A-C) | >18 | Sandy loam | 5YR 5/3 |

Photo 10. SS10.



APPENDIX C
SOIL ANALYSIS

REPORT NUMBER

23-072-0075

COMPLETED DATE
Mar 30, 2023

RECEIVED DATE
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Quandary Consultants, LLC
Clara Jenck
4480 GARFIELD STREET
Denver CO 80216

IDENTIFICATION
EAST STREET TPP

SOIL ANALYSIS REPORT

| LAB NUMBER | SAMPLE IDENTIFICATION | ORGANIC MATTER L.O.I. percent RATE | PHOSPHORUS | | | | | NEUTRAL AMMONIUM ACETATE (EXCHANGEABLE) | | | | pH | | CATION EXCHANGE CAPACITY C.E.C. meq/100g | PERCENT BASE SATURATION (COMPUTED) | | | | | | |
|------------|-----------------------|------------------------------------|--------------------------------|------|----------------------------------|------|---------------------|---|-------|------|-----|------|-----|--|------------------------------------|--------------|------|------|------|-----|------|
| | | | P ₁ (WEAK BRAY) 1:7 | | P ₂ (STRONG BRAY) 1:7 | | OLSEN BICARBONATE P | K | Mg | | Ca | | Na | | SOIL pH 1:1 | BUFFER INDEX | % K | % Mg | % Ca | % H | % Na |
| | | | ppm | RATE | ppm | RATE | | | ppm | RATE | ppm | RATE | | | | | | | | | |
| *411* | | | | | | | | | | | | | | | | | | | | | |
| 98227 | SS04 | 0.2 VL | 11 L | 18 L | | | 97 VH | 51 H | 344 H | | | 7.1 | | 2.4 | 10.4 | 17.7 | 71.9 | 0.0 | | | |
| 98228 | SS04 | 0.2 VL | 13 L | 16 L | | | 136 VH | 56 M | 396 H | | | 6.8 | | 2.8 | 12.5 | 16.7 | 70.8 | 0.0 | | | |
| 98229 | SS05 | 0.2 VL | 13 L | 18 L | | | 107 VH | 51 H | 363 H | | | 6.8 | | 2.5 | 11.0 | 17.0 | 72.0 | 0.0 | | | |
| 98230 | SS05 | 0.4 VL | 11 L | 13 L | | | 67 VH | 44 H | 307 H | | | 6.7 | | 2.1 | 8.2 | 17.5 | 74.3 | 0.0 | | | |
| 98231 | SS05 | 0.3 VL | 12 L | 21 M | | | 66 H | 43 M | 300 H | | | 6.6 | 7.0 | 2.1 | 8.1 | 17.1 | 71.4 | 3.4 | | | |
| 98232 | SS06 | 0.2 VL | 16 M | 25 M | | | 102 VH | 44 H | 375 H | | | 6.9 | | 2.5 | 10.5 | 14.7 | 74.8 | 0.0 | | | |
| 98233 | SS06 | 0.1 VL | 16 M | 21 M | | | 70 VH | 45 H | 352 H | | | 6.9 | | 2.3 | 7.8 | 16.3 | 75.9 | 0.0 | | | |
| 98234 | SS06 | 0.3 VL | 14 L | 16 L | | | 66 H | 39 M | 322 H | | | 7.1 | | 2.1 | 8.1 | 15.5 | 76.4 | 0.0 | | | |
| 98235 | SS07 | 0.4 VL | 12 L | 22 M | | | 95 VH | 47 H | 329 H | | | 6.6 | 7.0 | 2.4 | 10.1 | 16.3 | 68.5 | 5.1 | | | |
| 98236 | SS07 | 0.5 VL | 14 L | 20 M | | | 128 VH | 53 M | 358 M | | | 6.6 | 7.0 | 2.8 | 11.7 | 15.8 | 63.9 | 8.6 | | | |

| LAB NUMBER | NITRATE-N (FIA) | | | | | | | | | | SULFUR S ICAP | | ZINC Zn DTPA | | MANGANESE Mn DTPA | | IRON Fe DTPA | | COPPER Cu DTPA | | BORON B SORB. DTPA | | EXCESS LIME RATE | SOLUBLE SALTS 1:1 | | |
|------------|-----------------|-------|------------|-----------|-------|------------|-----------|-------|------------|----|---------------|--------|--------------|-------|-------------------|--------|--------------|--------|----------------|--------|--------------------|-----|------------------|-------------------|----------|------|
| | SURFACE | | | SUBSOIL 1 | | | SUBSOIL 2 | | | | Total lbs/A | ppm | RATE | ppm | RATE | ppm | RATE | ppm | RATE | ppm | RATE | ppm | | RATE | mmhos/cm | RATE |
| | ppm | lbs/A | depth (in) | ppm | lbs/A | depth (in) | ppm | lbs/A | depth (in) | | | | | | | | | | | | | | | | | |
| *411* | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 98227 | 4 | 7 | 6-12 | | | | | | | 7 | 2 VL | 0.1 VL | 2 VL | 8 L | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | | 0.1 | L | | |
| 98228 | 7 | 13 | 12-18 | | | | | | | 13 | 4 VL | 0.1 VL | 3 VL | 11 M | 0.3 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | | 0.1 | L | | |
| 98229 | 7 | 13 | 0-6 | | | | | | | 13 | 3 VL | 0.2 VL | 2 VL | 9 L | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | | 0.1 | L | | |
| 98230 | 5 | 9 | 6-12 | | | | | | | 9 | 2 VL | 0.1 VL | 2 VL | 10 L | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | | 0.1 | L | | |
| 98231 | 5 | 9 | 12-18 | | | | | | | 9 | 2 VL | 0.2 VL | 2 VL | 30 VH | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | | 0.1 | L | | |
| 98232 | 8 | 14 | 0-6 | | | | | | | 14 | 3 VL | 0.3 VL | 2 VL | 9 L | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | | 0.1 | L | | |
| 98233 | 6 | 11 | 6-12 | | | | | | | 11 | 4 VL | 0.1 VL | 2 VL | 8 L | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | | 0.1 | L | | |
| 98234 | 4 | 7 | 12-18 | | | | | | | 7 | 2 VL | 0.1 VL | 2 VL | 13 M | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | | 0.1 | L | | |
| 98235 | 6 | 11 | 0-6 | | | | | | | 11 | 3 VL | 0.2 VL | 2 VL | 9 L | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | | 0.1 | L | | |
| 98236 | 6 | 11 | 6-12 | | | | | | | 11 | 3 VL | 0.1 VL | 2 VL | 10 L | 0.2 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | 0.1 VL | | 0.1 | L | | |

Free CaCO3 came back as non-detect on all samples.

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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Mar 30, 2023

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4480 GARFIELD STREET
Denver CO 80216**

IDENTIFICATION
EAST STREET TPP

ADDITIONAL SOIL ANALYSIS

| Labnum *411* | Sample ID | Chloride CaNO3 ppm | Ammonia Nitrogen KCl extract ppm | Exchangable Sodium % Calculation |
|-----------------|-----------------------------|--------------------------|---|--|
| 98217 | SS01 <i>Depth: 0-6</i> | 2 | 5 | 0.02 |
| 98218 | SS01 <i>Depth: 6-12</i> | 2 | 4 | 0.02 |
| 98219 | SS01 <i>Depth: 12-18</i> | 2 | 4 | 0.02 |
| 98220 | SS02 <i>Depth: 0-6</i> | 2 | 5 | 0.02 |
| 98221 | SS02 <i>Depth: 6-12</i> | 3 | 4 | 0.04 |
| 98222 | SS02 <i>Depth: 12-18</i> | 2 | 5 | 0.04 |
| 98223 | SS03 <i>Depth: 0-6</i> | 2 | 4 | 0.02 |
| 98224 | SS03 <i>Depth: 6-12</i> | 2 | 4 | 0.04 |
| 98225 | SS03 <i>Depth: 12-18</i> | 2 | 4 | 0.02 |
| 98226 | SS04 <i>Depth: 0-6</i> | 5 | 5 | 0.02 |

Free CaCO3 came back as non-detect on all samples.

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4480 GARFIELD STREET
Denver CO 80216**

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EAST STREET TPP

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| Labnum *411* | Sample ID | Chloride CaNO3 ppm | Ammonia Nitrogen KCl extract ppm | Exchangable Sodium % Calculation |
|-----------------|-----------------------------|--------------------------|---|--|
| 98227 | SS04 <i>Depth: 6-12</i> | 3 | 5 | 0.02 |
| 98228 | SS04 <i>Depth: 12-18</i> | 4 | 5 | 0.02 |
| 98229 | SS05 <i>Depth: 0-6</i> | 3 | 5 | 0.02 |
| 98230 | SS05 <i>Depth: 6-12</i> | 3 | 4 | 0.04 |
| 98231 | SS05 <i>Depth: 12-18</i> | 3 | 5 | 0.02 |
| 98232 | SS06 <i>Depth: 0-6</i> | 2 | 4 | 0.02 |
| 98233 | SS06 <i>Depth: 6-12</i> | 2 | 4 | 0.02 |
| 98234 | SS06 <i>Depth: 12-18</i> | 2 | 4 | 0.02 |
| 98235 | SS07 <i>Depth: 0-6</i> | 3 | 4 | 0.02 |
| 98236 | SS07 <i>Depth: 6-12</i> | 5 | 5 | 0.02 |

Free CaCO3 came back as non-detect on all samples.

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TODAY'S DATE

Mar 30, 2023

**Quandary Consultants, LLC
Clara Jenck
4480 GARFIELD STREET
Denver CO 80216**

IDENTIFICATION
EAST STREET TPP

ADDITIONAL SOIL ANALYSIS

| Labnum *411* | Sample ID | Chloride CaNO3 ppm | Ammonia Nitrogen KCl extract ppm | Exchangable Sodium % Calculation |
|-----------------|-----------------------------|--------------------------|---|--|
| 98237 | SS07 <i>Depth: 12-18</i> | 3 | 4 | 0.04 |
| 98238 | SS08 <i>Depth: 0-6</i> | 3 | 4 | 0.02 |
| 98239 | SS08 <i>Depth: 6-12</i> | 3 | 4 | 0.02 |
| 98240 | SS08 <i>Depth: 12-18</i> | 3 | 5 | 0.02 |
| 98242 | SS09 <i>Depth: 0-6</i> | 4 | 4 | 0.02 |
| 98243 | SS09 <i>Depth: 6-12</i> | 3 | 4 | 0.04 |
| 98244 | SS09 <i>Depth: 12-18</i> | 2 | 4 | 0.04 |
| 98245 | SS10 <i>Depth: 0-6</i> | 4 | 4 | 0.02 |
| 98246 | SS10 <i>Depth: 6-12</i> | 4 | 4 | 0.02 |
| 98247 | SS10 <i>Depth: 12-18</i> | 3 | 4 | 0.02 |

Free CaCO3 came back as non-detect on all samples.

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

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REPORT NUMBER

23-072-0075

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IDENTIFICATION
 EAST STREET TPP

SODIUM ADSORPTION RATIO REPORT

| Method Lab Number Units | Sample Id | CALCULATED Sodium Adsorption Ratio | SATURATED PASTE EXTRACTION Sodium (Water Soluble) mg/L | Magnesium (Water Soluble) mg/L | Calcium (Water Soluble) mg/L |
|----------------------------------|--------------|--|---|--------------------------------------|------------------------------------|
| 41198217SS01 | | 0.1 | 3 | 7 | 30 |
| 41198218SS01 | | 0.1 | 3 | 7 | 27 |
| 41198219SS01 | | 0.1 | 2 | 5 | 20 |
| 41198220SS02 | | 0.1 | 2 | 3 | 11 |
| 41198221SS02 | | 0.2 | 2 | 2 | 8 |
| 41198222SS02 | | 0.2 | 2 | 3 | 12 |
| 41198223SS03 | | 0.1 | 2 | 4 | 20 |
| 41198224SS03 | | 0.2 | 2 | 3 | 14 |
| 41198225SS03 | | 0.1 | 2 | 2 | 10 |
| 41198226SS04 | | 0.1 | 3 | 9 | 34 |

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|----------------------------------|--------------|--|---|--------------------------------------|------------------------------------|
| 41198227 | SS04 | 0.1 | 2 | 4 | 19 |
| 41198228 | SS04 | 0.1 | 3 | 5 | 25 |
| 41198229 | SS05 | 0.1 | 3 | 5 | 21 |
| 41198230 | SS05 | 0.2 | 3 | 4 | 18 |
| 41198231 | SS05 | 0.1 | 2 | 4 | 20 |
| 41198232 | SS06 | 0.1 | 2 | 4 | 23 |
| 41198233 | SS06 | 0.1 | 1 | 4 | 20 |
| 41198234 | SS06 | 0.1 | 2 | 4 | 18 |
| 41198235 | SS07 | 0.1 | 2 | 5 | 22 |
| 41198236 | SS07 | 0.1 | 2 | 5 | 23 |

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| Method Lab Number Units | Sample Id | CALCULATED Sodium Adsorption Ratio | SATURATED PASTE EXTRACTION Sodium (Water Soluble) mg/L | Magnesium (Water Soluble) mg/L | Calcium (Water Soluble) mg/L |
|----------------------------------|--------------|--|---|--------------------------------------|------------------------------------|
| 41198237 | SS07 | 0.2 | 3 | 4 | 17 |
| 41198238 | SS08 | 0.1 | 2 | 5 | 22 |
| 41198239 | SS08 | 0.1 | 1 | 4 | 19 |
| 41198240 | SS08 | 0.1 | 1 | 3 | 17 |
| 41198242 | SS09 | 0.1 | 2 | 3 | 13 |
| 41198243 | SS09 | 0.2 | 2 | 3 | 11 |
| 41198244 | SS09 | 0.2 | 2 | 2 | 9 |
| 41198245 | SS10 | 0.1 | 3 | 5 | 22 |
| 41198246 | SS10 | 0.1 | 2 | 4 | 16 |
| 41198247 | SS10 | 0.1 | 2 | 4 | 16 |

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**IDENTIFICATION
 EAST STREET TPP**

SOIL TEXTURE REPORT

| Lab Number | Sample Identification | SAND | SILT | CLAY | SOIL TYPE |
|------------|-----------------------|------|------|------|-----------|
| 41198217 | SS01 | 94% | 2% | 4% | SAND |
| 41198218 | SS01 | 94% | 2% | 4% | SAND |
| 41198219 | SS01 | 94% | 2% | 4% | SAND |
| 41198220 | SS02 | 94% | 2% | 4% | SAND |
| 41198221 | SS02 | 94% | 2% | 4% | SAND |
| 41198222 | SS02 | 94% | 2% | 4% | SAND |
| 41198223 | SS03 | 94% | 2% | 4% | SAND |
| 41198224 | SS03 | 94% | 2% | 4% | SAND |
| 41198225 | SS03 | 94% | 2% | 4% | SAND |
| 41198226 | SS04 | 90% | 4% | 6% | SAND |

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SOIL TEXTURE REPORT

| Lab Number | Sample Identification | SAND | SILT | CLAY | SOIL TYPE |
|------------|-----------------------|------|------|------|-----------|
| 41198227 | SS04 | 94% | 2% | 4% | SAND |
| 41198228 | SS04 | 92% | 2% | 6% | SAND |
| 41198229 | SS05 | 94% | 2% | 4% | SAND |
| 41198230 | SS05 | 90% | 4% | 6% | SAND |
| 41198231 | SS05 | 94% | 2% | 4% | SAND |
| 41198232 | SS06 | 92% | 2% | 6% | SAND |
| 41198233 | SS06 | 94% | 2% | 4% | SAND |
| 41198234 | SS06 | 94% | 2% | 4% | SAND |
| 41198235 | SS07 | 94% | 2% | 4% | SAND |
| 41198236 | SS07 | 92% | 2% | 6% | SAND |

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| Lab Number | Sample Identification | SAND | SILT | CLAY | SOIL TYPE |
|------------|-----------------------|------|------|------|-----------|
| 41198237 | SS07 | 94% | 2% | 4% | SAND |
| 41198238 | SS08 | 92% | 2% | 6% | SAND |
| 41198239 | SS08 | 92% | 2% | 6% | SAND |
| 41198240 | SS08 | 94% | 2% | 4% | SAND |
| 41198242 | SS09 | 92% | 2% | 6% | SAND |
| 41198243 | SS09 | 94% | 2% | 4% | SAND |
| 41198244 | SS09 | 94% | 2% | 4% | SAND |
| 41198245 | SS10 | 94% | 2% | 4% | SAND |
| 41198246 | SS10 | 94% | 2% | 4% | SAND |
| 41198247 | SS10 | 94% | 2% | 4% | SAND |

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

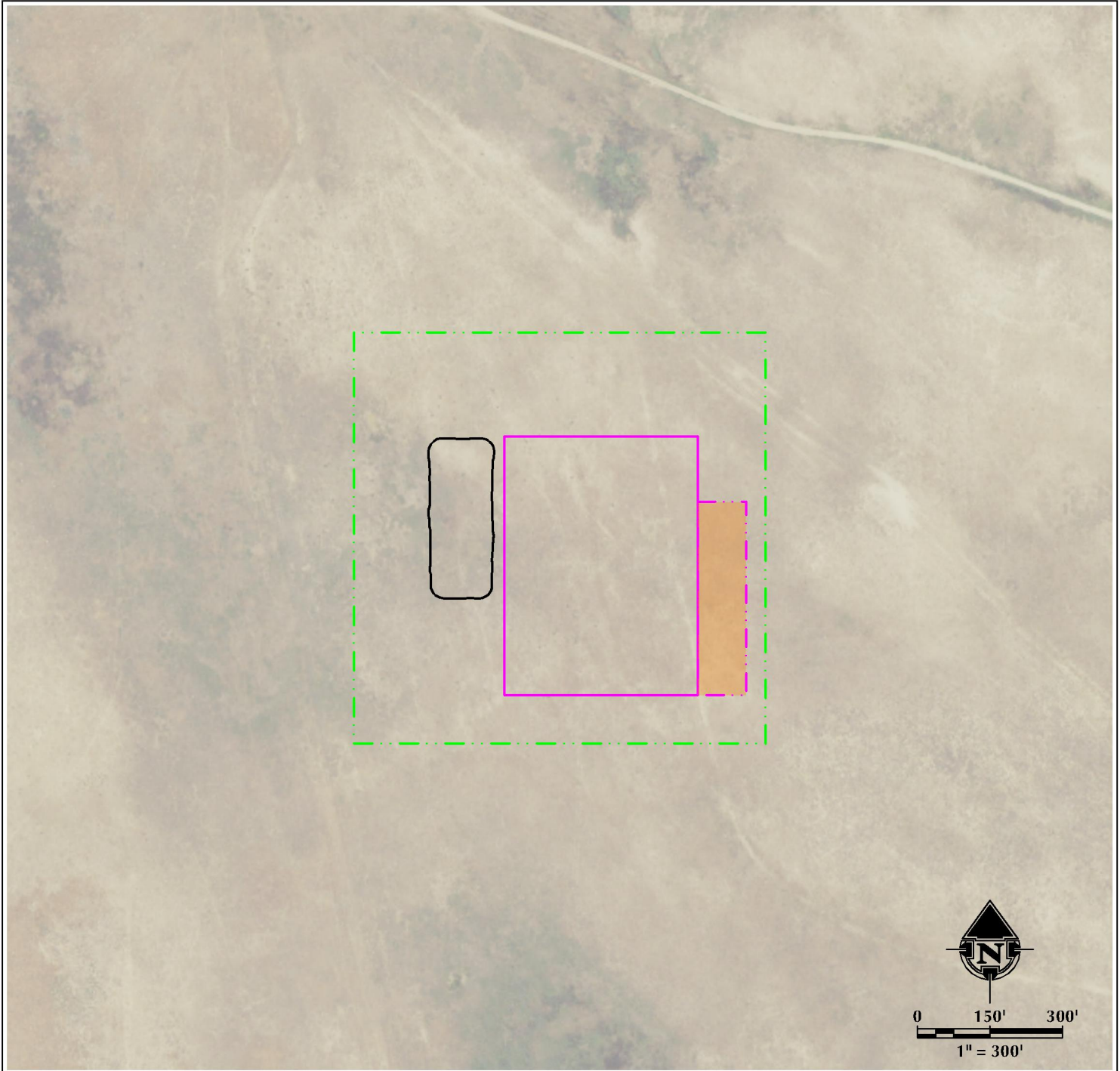
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APPENDIX D
SITE PLAN





TOPSOIL STOCKPILE PLACEMENT EXHIBIT

EAST STREET 14-22HZ

SW1/4 SE1/4 & SE1/4 SW1/4 SECTION 22, TOWNSHIP 3 NORTH, RANGE 63 WEST, 6TH P.M., WELD COUNTY, COLORADO



LEGEND

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

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609 CONSULTING, LLC
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6706 North Franklin Avenue
Loveland, Colorado 80538
Phone: 970-776-4331

SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone: 307-674-0609

DATE SURVEYED: 2/14/23
DATE: 3/22/23
DRAFTER: CWB
REVISED:

DATA SOURCES:
- AERIAL COURTESY OF NAIP

PREPARED FOR:

Kerr-McGee Oil & Gas Onshore LP

APPENDIX E
SUMMARY OF SITE-SPECIFIC BMPs FOR TOPSOIL MANAGEMENT AND PROTECTION

THE PURPOSE OF THIS SECTION IS FOR USE BY COGCC DURING PLAN REVIEW AND APPLICATION AT TIME OF FIELD VERIFICATION:

Topsoil will be managed during construction by a combination of site-specific erosion and sediment control measures including: a temporary diversion ditch & berm around the entire location to manage run-on and run-off; short term management of topsoil will include track packing to prevent wind and water erosion, long term management includes seeding with a native seed mix and crimping straw mulch for erosion control and water retention; vegetation establishment on stockpiles and weed control will reduce erosion as well as maintain microbial activity; during the construction phase topsoil will be stockpiled ~5 feet tall and with a 6:1 slope west of the well pad to minimize erosion potential. Topsoil managed during interim and production phases will be maintained with BMPs including seeding with a native seed mix and crimped straw mulch; weed monitoring; the long-term topsoil stockpile will be ~3 feet tall at a 4:1 slope to maintain microbial activity for an extended time on the western and southern edge of the well pad. Inspections will review all control measures / BMPs implemented, their status, and whether repair or replacement is needed, including weed maintenance when necessary. Maintenance and repair will be completed as soon as practicable, immediately in most cases.