



**Kerr-McGee Oil & Gas Onshore LP**

**Topsoil Protection Plan**

**Labrisa 11-35HZ Well Pad and Facility  
E ½, SW ¼, Sec 35, T2N, R65W**

**Weld County, Colorado**

**September, 2022**

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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:                   | Labrisa 11-35HZ Well Pad and Facility   |
| Location:                              | Sec 35, T2N, R65W, Weld County, Colorado  |
| Total Area of Project:                 | 13.45 acres   |
| Topsoil Depth                          | Approximately 12"   |
| Estimated Topsoil Salvaged             | 13,173 Cubic Yards  |
| Estimated Topsoil Stored for Final Rec | 6,579 Cubic Yards   |
| Description of Existing Vegetation:    | Existing vegetation on the subject property is a mixture of native grasses and forbs, primary use is rangeland. |
| Soil Type(s):                          | 49 – Osgood sand, 0 to 3 percent slopes. HSG: A<br>70 – Vona loamy sand, 3 to 9 percent slopes. HSG: A          |
| Operator ID:                           | 47120   |
| Reclamation Manager Contact:           | Austin Lee – HSE Advisor<br>Occidental Petroleum Corporation<br>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.

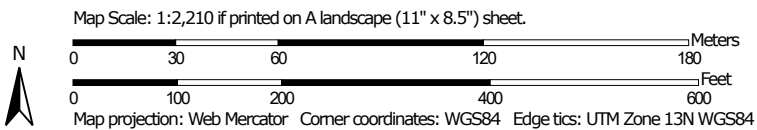
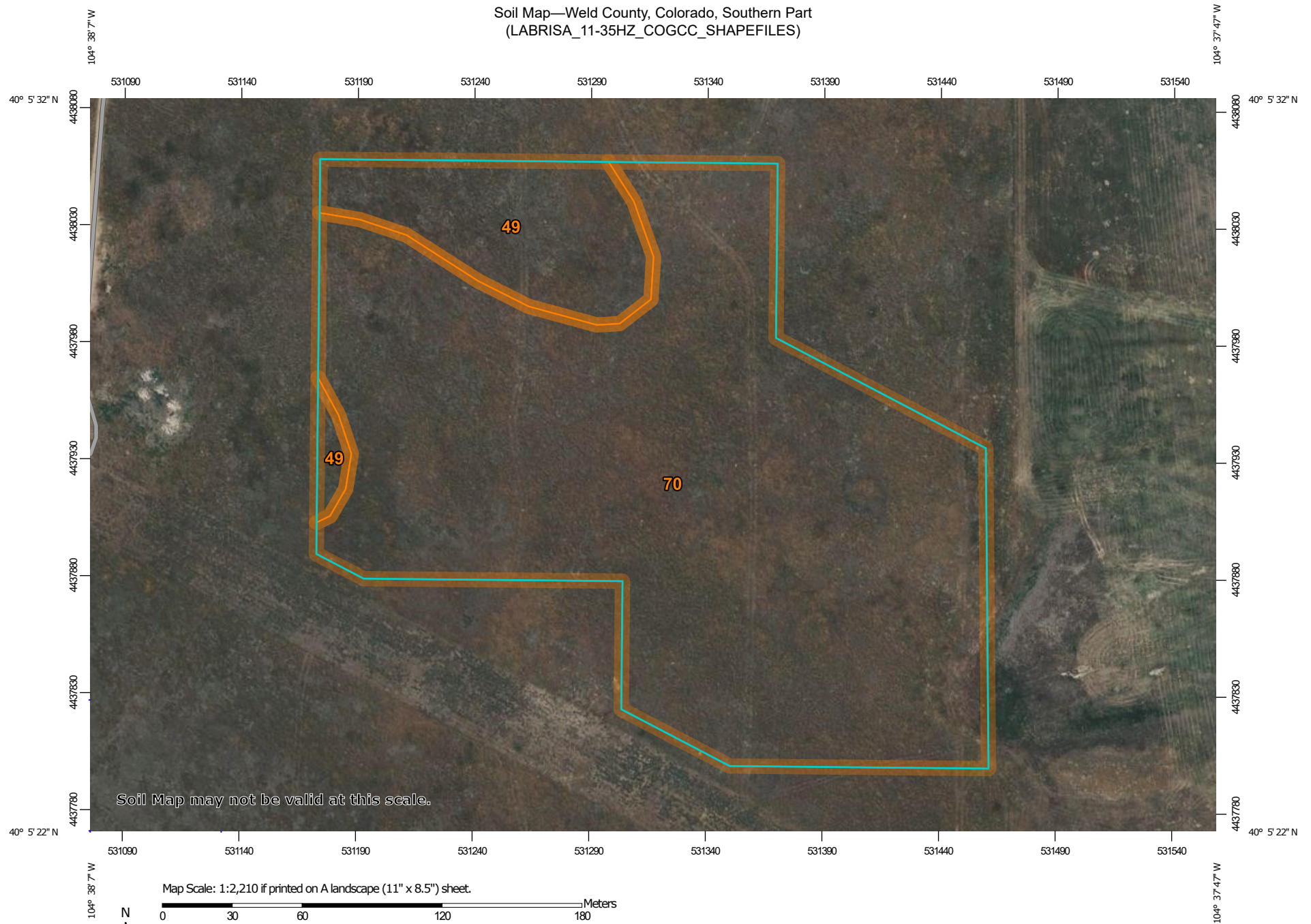
Findings, inspection records and site maps are documented electronically and available within 24 hours of any inspection.

### **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  
(LABRISA\_11-35HZ\_COGCC\_SHAPEFILES)

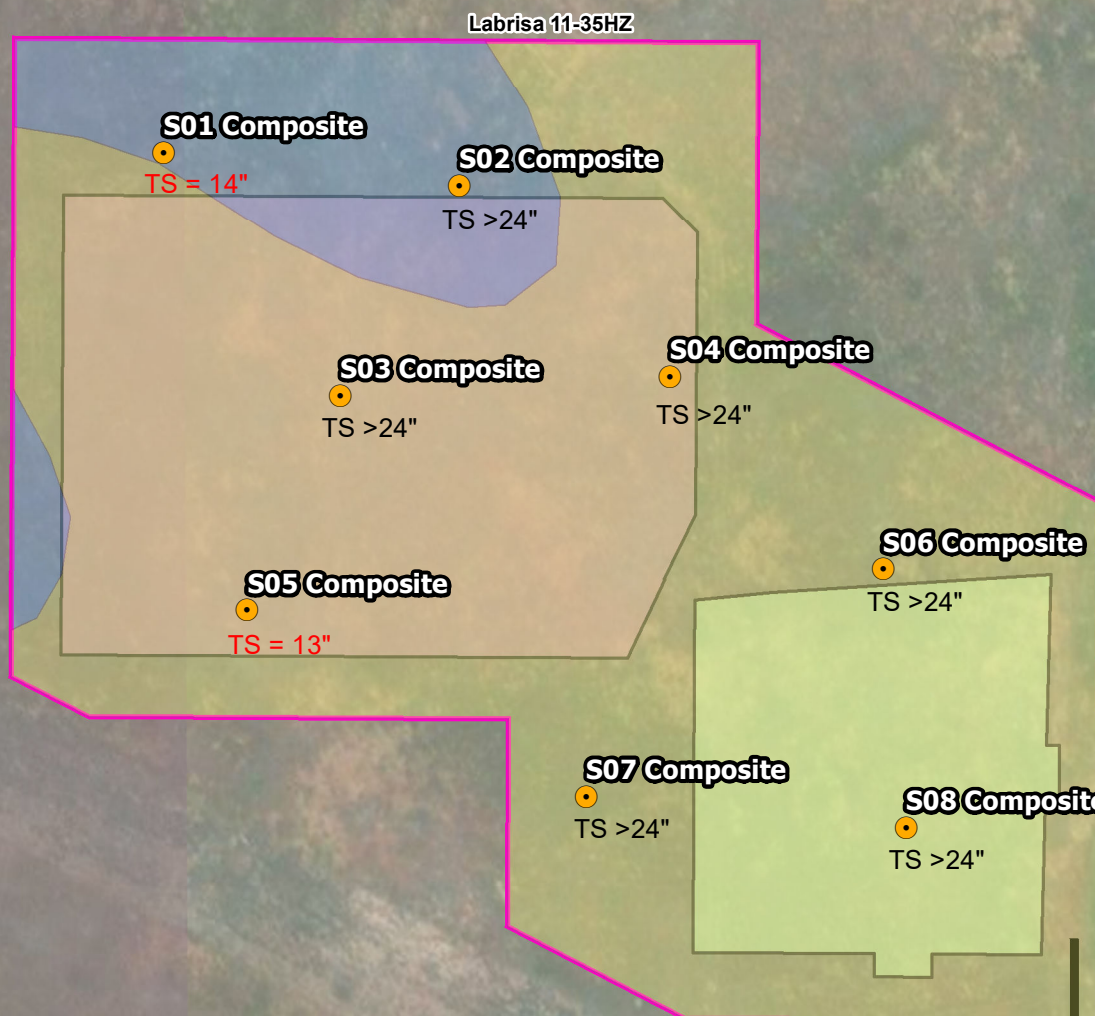






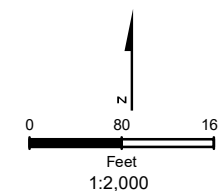
## Labrisa 11-35HZ

### Soil Sampling Locations



#### Legend

- Topsoil Depth Investigation and Soil Sample Locations
- Proposed Location (13.45 acres)
- Well Pad Surface (5.0 acres)
- Facility Pad Surface (2.3 acres)
- Access Road
- Osgood sand, 0 to 3 percent slopes
- Valent sand, 3 to 9 percent slopes



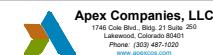
Inspector: KD, JE  
Inspection Date: 9/16/2022

#### Site Characteristics

**Legal Location:**  
NESW, SESW, SWSE Sec 35, T2N R65W  
**County:** Weld  
**Topography:** 0 to 9% slopes  
**Run-Off Risk:** Low  
**Total Disturbed Area:** 13.45 acres

*Feature symbols not to scale*

| REVISED   | BY  | COMMENT               |
|-----------|-----|-----------------------|
| 9/22/2022 | KJD | Natural Resources Map |



**APPENDIX B**  
**TOPSOIL DEPTH PHOTOLOG**





Photograph 1. Topsoil depth pit (S01); showing transition to orange, more compact soil at approximately 14 inches. Soil sandy throughout pit.



Photograph 2. Topsoil depth pit (S02); depth greater than 2 feet. Soil sandy throughout pit, with no change in color or texture.





Photograph 3. Topsoil depth pit (S03); depth greater than 2 feet. Soil sandy throughout pit, with no change in color or texture.



Photograph 4. Topsoil depth pit (S04); depth greater than 2 feet. Soil sandy throughout pit with, no change in color or texture.





Photograph 5. Topsoil depth pit (S05); showing transition to orange, more compact soil at approximately 13 inches. Soil sandy throughout pit.



Photograph 6. Topsoil depth pit (S06); depth greater than 2 feet. Soil sandy throughout pit with, no change in color or texture.





Photograph 7. Topsoil depth pit (S07); depth greater than 2 feet. Soil sandy throughout pit, with no change in color or texture.



Photograph 8. Topsoil depth pit (S08); depth greater than 2 feet. Soil sandy throughout pit, with no change in color or texture.

**APPENDIX C**  
**SOIL ANALYSIS**



REPORT NUMBER

**22-262-0211 v2**

COMPLETED DATE

**Sep 21, 2022**

ACCOUNT

**60210**

RECEIVED DATE

**Sep 19, 2022**

13611 B Street • Omaha, Nebraska 68144-3693 • (402) 334-7770

www.midwestlabs.com

**PAGE 1/1**

TODAY'S DATE

**Sep 21, 2022**

**APEX COMPANIES**  
**Ted Alfred**  
**6666 S Sheridan Rd**  
**Tulsa OK 74133**

IDENTIFICATION

**PO 066.1608.01 PRE0042****LABRISA 11-35HZ****SOIL ANALYSIS REPORT**

| LAB<br>NUMBER | SAMPLE<br>IDENTIFICATION | ORGANIC<br>MATTER<br>L.O. I. | PHOSPHORUS                              |   |                           | NEUTRAL AMMONIUM ACETATE(EXCHANGEABLE) |        |      |       |                   |                 |        |         | pH   |     | CATION<br>EXCHANGE<br>CAPACITY<br>C.E.C. | PERCENT BASE SATURATION (COMPUTED) |          |         |      |     |     |
|---------------|--------------------------|------------------------------|---|---|---------------------------|--|--------|------|-------|-------------------|-----------------|--------|---------|------|-----|--|------------------------------------|----------|---------|------|-----|-----|
|               |                          |                              | P <sub>1</sub><br>(WEAK<br>BRAY)<br>1:7 | P <sub>2</sub><br>(STRONG<br>BRAY)<br>1:7 | OLSEN<br>BICARBONATE<br>P | K                                      | Mg     | Ca   | Na    | SOIL<br>pH<br>1:1 | BUFFER<br>INDEX | %<br>K | %<br>Mg |      |     |  | %<br>Ca                            | %<br>H   | %<br>Na |      |     |     |
|               |                          |                              | percent                                 | RATE                                      | ppm                       | RATE                                   | ppm    | RATE | ppm   | RATE              | ppm             | RATE   | ppm     | RATE | ppm |  | RATE                               | meq/100g |         |      |     |     |
| *400*         |                          |                              |   |   |                           |  |        |      |       |                   |                 |        |         |      |     |  |                                    |          |         |      |     |     |
| 11421         | S01 COMPOS               | 0.9 VL                       | 21 M                                    | 41 H                                      |                           |  | 156 VH |      | 96 VH |                   | 570 M           |        | 9       |      | 6.5 | 6.9                                      | 4.4                                | 9.1      | 18.2    | 64.8 | 7.0 | 0.9 |
| 11422         | S02 COMPOS               | 0.5 VL                       | 14 L                                    | 37 M                                      |                           |  | 152 VH |      | 68 H  |                   | 439 H           |        | 8       |      | 6.7 |  | 3.2                                | 12.2     | 17.7    | 69.0 | 0.0 | 1.1 |
| 11423         | S03 COMPOS               | 0.3 VL                       | 14 L                                    | 32 M                                      |                           |  | 106 VH |      | 62 H  |                   | 396 H           |        | 9       |      | 6.7 |  | 2.8                                | 9.7      | 18.5    | 70.4 | 0.0 | 1.4 |
| 11424         | S04 COMPOS               | 0.4 VL                       | 18 M                                    | 40 H                                      |                           |  | 131 VH |      | 58 H  |                   | 408 H           |        | 9       |      | 6.8 |  | 2.9                                | 11.6     | 16.7    | 70.4 | 0.0 | 1.3 |
| 11425         | S05 COMPOS               | 0.6 VL                       | 14 L                                    | 41 H                                      |                           |  | 212 VH |      | 84 H  |                   | 568 M           |        | 8       |      | 6.5 | 6.9                                      | 4.4                                | 12.4     | 15.9    | 64.5 | 6.4 | 0.8 |
| 11426         | S06 COMPOS               | 0.2 VL                       | 15 M                                    | 32 M                                      |                           |  | 116 VH |      | 57 H  |                   | 415 H           |        | 10      |      | 7.0 |  | 2.9                                | 10.3     | 16.4    | 71.8 | 0.0 | 1.5 |
| 11428         | S07 COMPOS               | 0.2 VL                       | 15 M                                    | 38 M                                      |                           |  | 158 VH |      | 72 H  |                   | 487 H           |        | 8       |      | 6.9 |  | 3.5                                | 11.6     | 17.1    | 70.3 | 0.0 | 1.0 |
| 11429         | S08 COMPOS               | 0.5 VL                       | 14 L                                    | 34 M                                      |                           |  | 127 VH |      | 57 H  |                   | 417 M           |        | 8       |      | 6.4 | 6.9                                      | 3.2                                | 10.2     | 14.8    | 65.2 | 8.7 | 1.1 |

| LAB<br>NUMBER | NITRATE-N (FIA) |       |               |           |       |               |           |       |               |                | SULFUR<br>S<br>ICAP |    | ZINC<br>Zn<br>DTPA |    | MANGANESE<br>Mn<br>DTPA |    | IRON<br>Fe<br>DTPA |   | COPPER<br>Cu<br>DTPA |    | BORON<br>B<br>SORB. DTPA |    | EXCESS<br>LIME<br>RATE | SOLUBLE<br>SALTS<br>1:1<br>mmhos/<br>cm |   |  |
|---------------|-----------------|-------|---------------|-----------|-------|---------------|-----------|-------|---------------|----------------|---------------------|----|--------------------|----|-------------------------|----|--------------------|---|----------------------|----|--------------------------|----|------------------------|---|---|--|
|               | SURFACE         |       |               | SUBSOIL 1 |       |               | SUBSOIL 2 |       |               | Total<br>lbs/A |                     |    |                    |    |                         |    |                    |   |                      |    |                          |    |                        |   |   |  |
|               | ppm             | lbs/A | depth<br>(in) | ppm       | lbs/A | depth<br>(in) | ppm       | lbs/A | depth<br>(in) |                |                     |    |                    |    |                         |    |                    |   |                      |    |                          |    |                        |   |   |  |
| *400*         |                 |       |               |           |       |               |           |       |               |                |                     |    |                    |    |                         |    |                    |   |                      |    |                          |    |                        |   |   |  |
| 11421         | 11              | 46    | 0-14          |           |       |               |           |       |               | 46             | 4                   | VL | 0.4                | VL | 2                       | VL | 16                 | M | 0.3                  | VL | 0.1                      | VL | L                      | 0.1                                     | L |  |
| 11422         | 4               | 29    | 0-24          |           |       |               |           |       |               | 29             | 3                   | VL | 0.1                | VL | 1                       | VL | 12                 | M | 0.2                  | VL | 0.1                      | VL | L                      | 0.1                                     | L |  |
| 11423         | 3               | 22    | 0-24          |           |       |               |           |       |               | 22             | 4                   | VL | 0.1                | VL | 1                       | VL | 9                  | L | 0.2                  | VL | 0.1                      | VL | L                      | 0.1                                     | L |  |
| 11424         | 4               | 29    | 0-24          |           |       |               |           |       |               | 29             | 4                   | VL | 0.2                | VL | 2                       | VL | 9                  | L | 0.2                  | VL | 0.1                      | VL | L                      | 0.1                                     | L |  |
| 11425         | 9               | 35    | 0-13          |           |       |               |           |       |               | 35             | 5                   | VL | 0.3                | VL | 2                       | VL | 14                 | M | 0.2                  | VL | 0.1                      | VL | L                      | 0.1                                     | L |  |
| 11426         | 3               | 22    | 0-24          |           |       |               |           |       |               | 22             | 5                   | VL | 0.2                | VL | 1                       | VL | 11                 | M | 0.2                  | VL | 0.1                      | VL | L                      | 0.1                                     | L |  |
| 11428         | 2               | 14    | 0-24          |           |       |               |           |       |               | 14             | 5                   | VL | 0.3                | VL | 3                       | VL | 15                 | M | 0.4                  | L  | 0.2                      | VL | L                      | 0.1                                     | L |  |
| 11429         | 3               | 22    | 0-24          |           |       |               |           |       |               | 22             | 6                   | VL | 0.2                | VL | 2                       | VL | 16                 | M | 0.2                  | VL | 0.1                      | VL | L                      | 0.1                                     | L |  |

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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**APEX COMPANIES**  
**Ted Alfred**  
**6666 S Sheridan Rd**  
**Tulsa OK 74133**

**REPORT OF ANALYSIS**

For: (60210) APEX COMPANIES  
 LABRISA 11-35 HZ  
 COLORADO  
 066.1608.01 PRE0042

| Analysis                     | Level Found                 | Units | Reporting | Method                           | Analyst-        | Verified-       |
|------------------------------|-----------------------------|-------|-----------|----------------------------------|-----------------|-----------------|
|                              | As Received                 |       | Limit     |                                  | Date            | Date            |
| Sample ID: <b>S01 COMPOS</b> | Lab Number: <b>70178852</b> |       |           |                                  |                 |                 |
| Organic Matter               | 0.4                         | %     | 0.1       | ASA #9 WALKLEY-BLACK TITRATION * | jed2-2022/09/22 | tat9-2022/09/22 |
| Sample ID: <b>S02 COMPOS</b> | Lab Number: <b>70178853</b> |       |           |                                  |                 |                 |
| Organic Matter               | 0.3                         | %     | 0.1       | ASA #9 WALKLEY-BLACK TITRATION * | jed2-2022/09/22 | tat9-2022/09/22 |
| Sample ID: <b>S03 COMPOS</b> | Lab Number: <b>70178854</b> |       |           |                                  |                 |                 |
| Organic Matter               | 0.2                         | %     | 0.1       | ASA #9 WALKLEY-BLACK TITRATION * | jed2-2022/09/22 | tat9-2022/09/22 |
| Sample ID: <b>S04 COMPOS</b> | Lab Number: <b>70178855</b> |       |           |                                  |                 |                 |
| Organic Matter               | 0.3                         | %     | 0.1       | ASA #9 WALKLEY-BLACK TITRATION * | jed2-2022/09/22 | tat9-2022/09/22 |
| Sample ID: <b>S05 COMPOS</b> | Lab Number: <b>70178856</b> |       |           |                                  |                 |                 |
| Organic Matter               | 0.6                         | %     | 0.1       | ASA #9 WALKLEY-BLACK TITRATION * | jed2-2022/09/22 | tat9-2022/09/22 |
| Sample ID: <b>S06 COMPOS</b> | Lab Number: <b>70178857</b> |       |           |                                  |                 |                 |
| Organic Matter               | 0.2                         | %     | 0.1       | ASA #9 WALKLEY-BLACK TITRATION * | jed2-2022/09/22 | tat9-2022/09/22 |
| Sample ID: <b>S07 COMPOS</b> | Lab Number: <b>70178858</b> |       |           |                                  |                 |                 |
| Organic Matter               | 0.3                         | %     | 0.1       | ASA #9 WALKLEY-BLACK TITRATION * | jed2-2022/09/22 | tat9-2022/09/22 |
| Sample ID: <b>S08 COMPOS</b> | Lab Number: <b>70178859</b> |       |           |                                  |                 |                 |
| Organic Matter               | 0.2                         | %     | 0.1       | ASA #9 WALKLEY-BLACK TITRATION * | jed2-2022/09/22 | tat9-2022/09/22 |

The result(s) issued on this report only reflect the analysis of the sample(s) submitted.

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Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Greg Everett  
Project Number: 066.1608.01 PRE0042  
Project: Labrisa 11-35Hz

S01

9/16/2022 9:21:00AM

| Analyte | Result | Reporting | Units | Dilution | Batch | Analyst | Prepared | Analyzed | Notes |
|---------|--------|-----------|-------|----------|-------|---------|----------|----------|-------|
|         |        | Limit     |       |          |       |         |          |          |       |

Origins Laboratory, Inc.  
Y209360-01 (Soil)

## Boron (DTPA Sorbitol)

|       |        |        |       |   |         |     |            |            |  |
|-------|--------|--------|-------|---|---------|-----|------------|------------|--|
| Boron | 0.0367 | 0.0996 | mg/kg | 1 | B211904 | CJM | 09/19/2022 | 09/20/2022 |  |
|-------|--------|--------|-------|---|---------|-----|------------|------------|--|

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Greg Everett  
Project Number: 066.1608.01 PRE0042  
Project: Labrisa 11-35Hz

S02

9/16/2022 9:45:00AM

| Analyte | Result | Reporting | Units | Dilution | Batch | Analyst | Prepared | Analyzed | Notes |
|---------|--------|-----------|-------|----------|-------|---------|----------|----------|-------|
|         |        | Limit     |       |          |       |         |          |          |       |

Origins Laboratory, Inc.  
Y209360-02 (Soil)

## Boron (DTPA Sorbitol)

|       |        |        |       |   |         |     |            |            |  |
|-------|--------|--------|-------|---|---------|-----|------------|------------|--|
| Boron | 0.0335 | 0.0990 | mg/kg | 1 | B211904 | CJM | 09/19/2022 | 09/20/2022 |  |
|-------|--------|--------|-------|---|---------|-----|------------|------------|--|

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Greg Everett  
Project Number: 066.1608.01 PRE0042  
Project: Labrisa 11-35Hz

S03

9/16/2022 10:15:00AM

| Analyte | Result | Reporting | Units | Dilution | Batch | Analyst | Prepared | Analyzed | Notes |
|---------|--------|-----------|-------|----------|-------|---------|----------|----------|-------|
|         |        | Limit     |       |          |       |         |          |          |       |

Origins Laboratory, Inc.  
Y209360-03 (Soil)

## Boron (DTPA Sorbitol)

|       |        |        |       |   |         |     |            |            |  |
|-------|--------|--------|-------|---|---------|-----|------------|------------|--|
| Boron | 0.0204 | 0.0999 | mg/kg | 1 | B211904 | CJM | 09/19/2022 | 09/20/2022 |  |
|-------|--------|--------|-------|---|---------|-----|------------|------------|--|

Origins Laboratory, Inc.



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Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Greg Everett  
Project Number: 066.1608.01 PRE0042  
Project: Labrisa 11-35Hz

S04

9/16/2022 10:34:00AM

| Analyte | Result | Reporting | Units | Dilution | Batch | Analyst | Prepared | Analyzed | Notes |
|---------|--------|-----------|-------|----------|-------|---------|----------|----------|-------|
|         |        | Limit     |       |          |       |         |          |          |       |

Origins Laboratory, Inc.  
Y209360-04 (Soil)

## Boron (DTPA Sorbitol)

|       |        |       |       |   |         |     |            |            |  |
|-------|--------|-------|-------|---|---------|-----|------------|------------|--|
| Boron | 0.0310 | 0.101 | mg/kg | 1 | B211904 | CJM | 09/19/2022 | 09/20/2022 |  |
|-------|--------|-------|-------|---|---------|-----|------------|------------|--|

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4150 Darley Avenue, Suite 1  
Boulder CO 80305

Greg Everett  
Project Number: 066.1608.01 PRE0042  
Project: Labrisa 11-35Hz

S05

9/16/2022 11:01:00AM

| Analyte | Result | Reporting | Units | Dilution | Batch | Analyst | Prepared | Analyzed | Notes |
|---------|--------|-----------|-------|----------|-------|---------|----------|----------|-------|
|         |        | Limit     |       |          |       |         |          |          |       |

Origins Laboratory, Inc.  
Y209360-05 (Soil)

## Boron (DTPA Sorbitol)

|       |        |        |       |   |         |     |            |            |  |
|-------|--------|--------|-------|---|---------|-----|------------|------------|--|
| Boron | 0.0322 | 0.0982 | mg/kg | 1 | B211904 | CJM | 09/19/2022 | 09/20/2022 |  |
|-------|--------|--------|-------|---|---------|-----|------------|------------|--|

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Apex Companies, LLC  
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Boulder CO 80305

Greg Everett  
Project Number: 066.1608.01 PRE0042  
Project: Labrisa 11-35Hz

S06

9/16/2022 11:22:00AM

| Analyte | Result | Reporting | Units | Dilution | Batch | Analyst | Prepared | Analyzed | Notes |
|---------|--------|-----------|-------|----------|-------|---------|----------|----------|-------|
|         |        | Limit     |       |          |       |         |          |          |       |

Origins Laboratory, Inc.  
Y209360-06 (Soil)

## Boron (DTPA Sorbitol)

|       |        |       |       |   |         |     |            |            |  |
|-------|--------|-------|-------|---|---------|-----|------------|------------|--|
| Boron | 0.0205 | 0.101 | mg/kg | 1 | B211904 | CJM | 09/19/2022 | 09/20/2022 |  |
|-------|--------|-------|-------|---|---------|-----|------------|------------|--|

Origins Laboratory, Inc.



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Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Greg Everett  
Project Number: 066.1608.01 PRE0042  
Project: Labrisa 11-35Hz

S07

9/16/2022 11:39:00AM

| Analyte | Result | Reporting | Units | Dilution | Batch | Analyst | Prepared | Analyzed | Notes |
|---------|--------|-----------|-------|----------|-------|---------|----------|----------|-------|
|         |        | Limit     |       |          |       |         |          |          |       |

Origins Laboratory, Inc.  
Y209360-07 (Soil)

## Boron (DTPA Sorbitol)

|       |        |       |       |   |         |     |            |            |  |
|-------|--------|-------|-------|---|---------|-----|------------|------------|--|
| Boron | 0.0287 | 0.100 | mg/kg | 1 | B211904 | CJM | 09/19/2022 | 09/20/2022 |  |
|-------|--------|-------|-------|---|---------|-----|------------|------------|--|

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Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Greg Everett  
Project Number: 066.1608.01 PRE0042  
Project: Labrisa 11-35Hz

S08

9/16/2022 11:58:00AM

| Analyte | Result | Reporting | Units | Dilution | Batch | Analyst | Prepared | Analyzed | Notes |
|---------|--------|-----------|-------|----------|-------|---------|----------|----------|-------|
|         |        | Limit     |       |          |       |         |          |          |       |

Origins Laboratory, Inc.  
Y209360-08 (Soil)

## Boron (DTPA Sorbitol)

|       |        |       |       |   |         |     |            |            |  |
|-------|--------|-------|-------|---|---------|-----|------------|------------|--|
| Boron | 0.0358 | 0.100 | mg/kg | 1 | B211904 | CJM | 09/19/2022 | 09/20/2022 |  |
|-------|--------|-------|-------|---|---------|-----|------------|------------|--|

Origins Laboratory, Inc.



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Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Greg Everett  
Project Number: 066.1608.01 PRE0042  
Project: Labrisa 11-35Hz

## Classical Chemistry Parameters - Quality Control Origins Laboratory, Inc.

| Analyte                                    | Result | Reporting Limit | Units | Spike Level | Source Result   | %REC | %REC Limits | RPD  | RPD Limit | Notes |
|--|--------|-----------------|-------|-------------|---|------|-------------|------|-----------|-------|
| <b>Batch B2I1904 - Default Prep Metals</b> |        |                 |       |             |   |      |             |      |           |       |
| <b>Blank (B2I1904-BLK1)</b>                |        |                 |       |             | Prepared: 09/19/2022 Analyzed: 09/20/2022                       |      |             |      |           |       |
| Boron                                      | ND     | 0.100           | mg/kg |             |   |      |             |      |           | U     |
| <b>Duplicate (B2I1904-DUP1)</b>            |        |                 |       |             | Source: Y209345-01<br>Prepared: 09/19/2022 Analyzed: 09/20/2022 |      |             |      |           |       |
| Boron                                      | 0.287  | 0.100           | mg/kg |             | 0.380   |      |             | 28.0 | 50        |       |

Origins Laboratory, Inc.



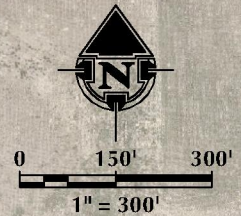
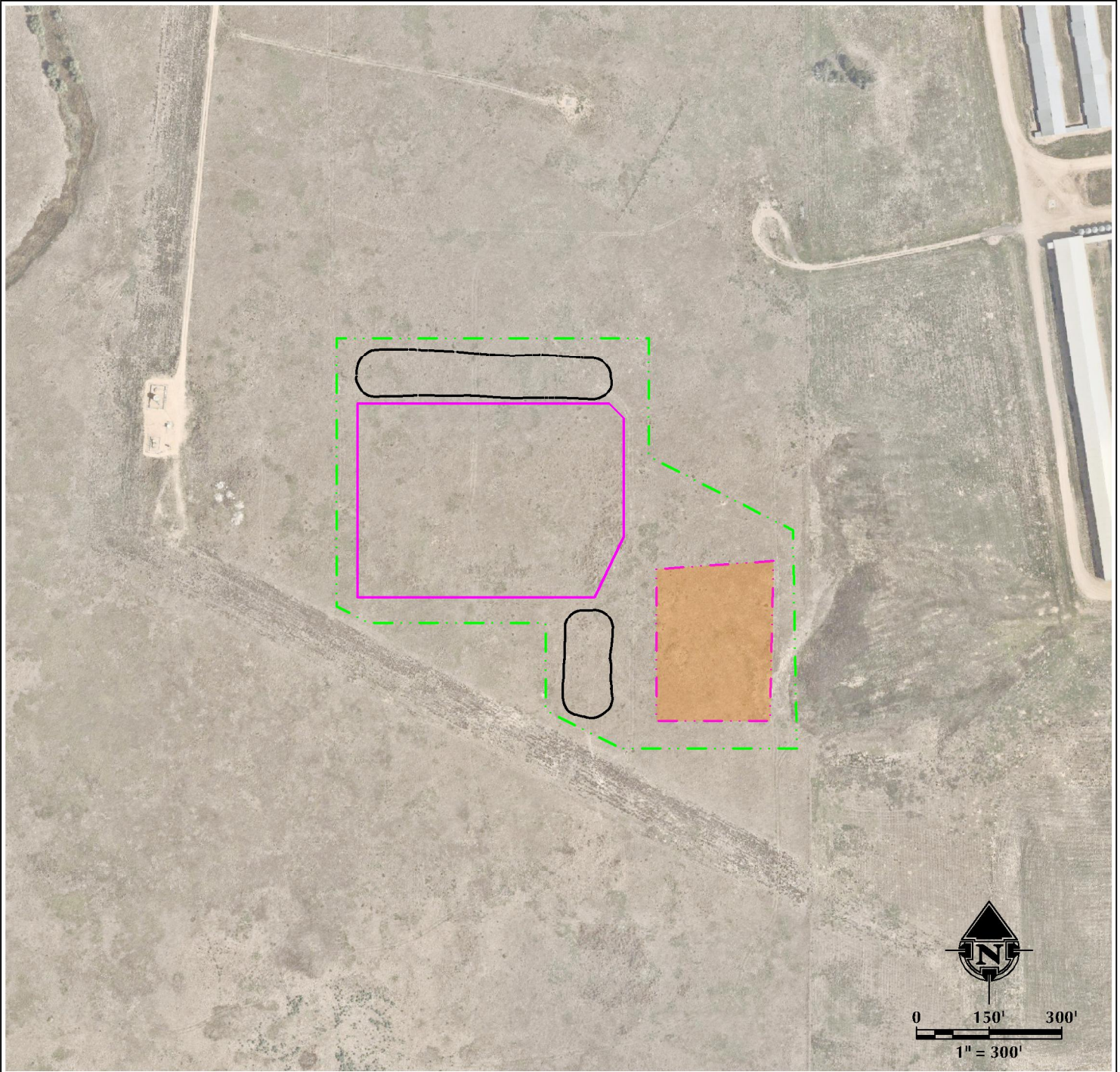
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**APPENDIX D**  
**SITE PLAN**

# TOPSOIL STOCKPILE PLACEMENT EXHIBIT

## LABRISA 11-35HZ

E1/2 SW1/4 SECTION 35, TOWNSHIP 2 NORTH, RANGE 65 WEST, 6TH P.M., WELD COUNTY, COLORADO



### LEGEND

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



**CONSULTING, LLC**  
LOVELAND OFFICE  
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: 7/25/22  
DATE: 8/12/22  
DRAFTER: HJL  
REVISED:

DATA SOURCES:  
- AERIAL COURTESY OF NEARMAP

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 ~8 feet tall and with 5:1 slope 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 during phase 1 will be ~5 feet tall at a 4:1 slope to maintain microbial activity for an extended time. 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.