

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT

| <b>APPLICATION FOR PERMIT TO DRILL</b>   |           |                  |   |         |  | 1. WELL NAME and NUMBER<br>HORSEHEAD POINT FEE 3525-14-1H  |          |          |       |        |
|--|-----------|------------------|---|---------|--|--|----------|----------|-------|--------|
| 2. TYPE OF WORK<br>DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/> |           |                  |   |         |  | 3. FIELD OR WILDCAT<br>WILDCAT   |          |          |       |        |
| 4. TYPE OF WELL<br>Oil Well      Coalbed Methane Well: NO  |           |                  |   |         |  | 5. UNIT or COMMUNITIZATION AGREEMENT NAME  |          |          |       |        |
| 6. NAME OF OPERATOR<br>ANADARKO E&P ONSHORE, LLC   |           |                  |   |         |  | 7. OPERATOR PHONE<br>720 929-6300  |          |          |       |        |
| 8. ADDRESS OF OPERATOR<br>P.O. Box 173779, Denver, CO, 80217   |           |                  |   |         |  | 9. OPERATOR E-MAIL<br>julie.jacobson@anadarko.com  |          |          |       |        |
| 10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) FEE   |           |                  | 11. MINERAL OWNERSHIP<br>FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>    |         |  | 12. SURFACE OWNERSHIP<br>FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/> |          |          |       |        |
| 13. NAME OF SURFACE OWNER (if box 12 = 'fee')<br>Phillip C. Crowley Trust  |           |                  |   |         |  | 14. SURFACE OWNER PHONE (if box 12 = 'fee')<br>970-759-2153  |          |          |       |        |
| 15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')<br>P.O. Box 700, Cortez, CO 81321   |           |                  |   |         |  | 16. SURFACE OWNER E-MAIL (if box 12 = 'fee')   |          |          |       |        |
| 17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')   |           |                  | 18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS<br>YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/> |         |  | 19. SLANT<br>VERTICAL <input type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input checked="" type="checkbox"/>                               |          |          |       |        |
| 20. LOCATION OF WELL   |           | FOOTAGES         |   | QTR-QTR | SECTION  | TOWNSHIP   | RANGE    | MERIDIAN |       |        |
| LOCATION AT SURFACE  |           | 605 FSL 1889 FEL |   | SWSE    | 14   | 35.0 S   | 25.0 E   | S        |       |        |
| Top of Uppermost Producing Zone  |           | 660 FNL 1890 FEL |   | NWNE    | 14   | 35.0 S   | 25.0 E   | S        |       |        |
| At Total Depth   |           | 660 FNL 1890 FEL |   | NWNE    | 14   | 35.0 S   | 25.0 E   | S        |       |        |
| 21. COUNTY<br>SAN JUAN   |           |                  | 22. DISTANCE TO NEAREST LEASE LINE (Feet)<br>660  |         |  | 23. NUMBER OF ACRES IN DRILLING UNIT<br>320  |          |          |       |        |
|  |           |                  | 25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)<br>2685   |         |  | 26. PROPOSED DEPTH<br>MD: 9443 TVD: 5679   |          |          |       |        |
| 27. ELEVATION - GROUND LEVEL<br>6686   |           |                  | 28. BOND NUMBER<br>22013542   |         |  | 29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE<br>Municipal   |          |          |       |        |
| <b>Hole, Casing, and Cement Information</b>  |           |                  |   |         |  |  |          |          |       |        |
| String   | Hole Size | Casing Size      | Length  | Weight  | Grade & Thread   | Max Mud Wt.  | Cement   | Sacks    | Yield | Weight |
| SURF   | 13.5      | 9.625            | 0 - 2000  | 36.0    | J-55 LT&C  | 8.4  | Type III | 620      | 2.21  | 12.5   |
|  |           |                  |   |         |  |  | Type III | 260      | 1.55  | 14.3   |
| I1   | 8.75      | 7                | 0 - 6006  | 29.0    | HCP-110 LT&C   | 10.0   | Class G  | 490      | 1.52  | 12.5   |
|  |           |                  |   |         |  |  | Class G  | 160      | 1.15  | 15.8   |
| PROD   | 6         | 4.5              | 5106 - 9443   | 15.1    | HCP-110 LT&C   | 10.0   | Class G  | 340      | 1.52  | 13.5   |
| <b>ATTACHMENTS</b>   |           |                  |   |         |  |  |          |          |       |        |
| <b>VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES</b>  |           |                  |   |         |  |  |          |          |       |        |
| <input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER   |           |                  |   |         | <input checked="" type="checkbox"/> COMPLETE DRILLING PLAN                 |  |          |          |       |        |
| <input checked="" type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)  |           |                  |   |         | <input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER |  |          |          |       |        |
| <input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)   |           |                  |   |         | <input checked="" type="checkbox"/> TOPOGRAPHICAL MAP                      |  |          |          |       |        |
| NAME Gina Becker   |           |                  | TITLE Regulatory Analyst II   |         |  | PHONE 720 929-6086   |          |          |       |        |
| SIGNATURE  |           |                  | DATE 05/24/2013   |         |  | EMAIL gina.becker@anadarko.com   |          |          |       |        |
| API NUMBER ASSIGNED<br>43037500620000  |           |                  | APPROVAL  |         |  | <br>Permit Manager  |          |          |       |        |

**ANADARKO E&P ONSHORE, LLC****HORSEHEAD POINT FEE 3525-14-1H**


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Surface: 605 FSL / 1889 FWL SWSE  
 BHL: 660 FNL / 1890 FEL NWNE

Section 14 T35S R25E

San Juan County, Utah  
 Mineral Lease: Fee

**ONSHORE ORDER NO. 1**

**DRILLING PROGRAM**

1. & 2. **Estimated Tops of Important Geologic Markers:**  
**Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:**

| Formation     | TVD     |             |
|---------------|---------|-------------|
| Dakota        | Surface |             |
| Morrison      | 125     | Water       |
| Entrada       | 913     |             |
| Navajo        | 1103    | Water       |
| Chinle        | 1888    |             |
| Honaker Trail | 4316    | Gas & Water |
| Ismay         | 5545    | Oil/Gas     |
| Gothic        | 5679    | Oil/Gas     |
| TVD =         | 5679    |             |
| TD =          | 9443    |             |

Please refer to the attached Drilling Program and Geological Information for the Pilot Hole information

3. **Pressure Control Equipment** (Schematic Attached)

The BOP is detailed on the the following tab. This BOP will be connected to a 5M choke panel with 2 chokes, one being remotley actuable. We will have a diverter on our surface holes. The BOPE will be NU after we set the surface string. All flows will be treated as a gas flow. We will shut-in, record pressures, set up a kill schedule & perform a weight-and-wait method to kill the well. After we have pumped the KWM around we will shut back in, record pressures, once pressures are zero, we will clear the floor, open the BOP and do a flow check.

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program and Geological Information

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program and Geological Information

6. **Evaluation Program:**

Please refer to the attached Drilling Program and Geological Information

7. **Abnormal Conditions:**

Please refer to the attached Drilling Program and Geological Information

8. **Anticipated Starting Dates:**

Drilling is planned to commence immediately upon approval of this application.

9. **Variances:**

None

10. **Other Information:**

Please refer to the attached Drilling Program and Geological Information

Anadarko will use a Co-Flex hose line, a flexible pipe, instead of a hard steel pipe for the kill line. This will run from the BOP to the choke manifold, and will reduce the amount of time required to rig up for the re-entry work on the well.

Please see attached Drilling Program for specifications on the Co-Flex hose.

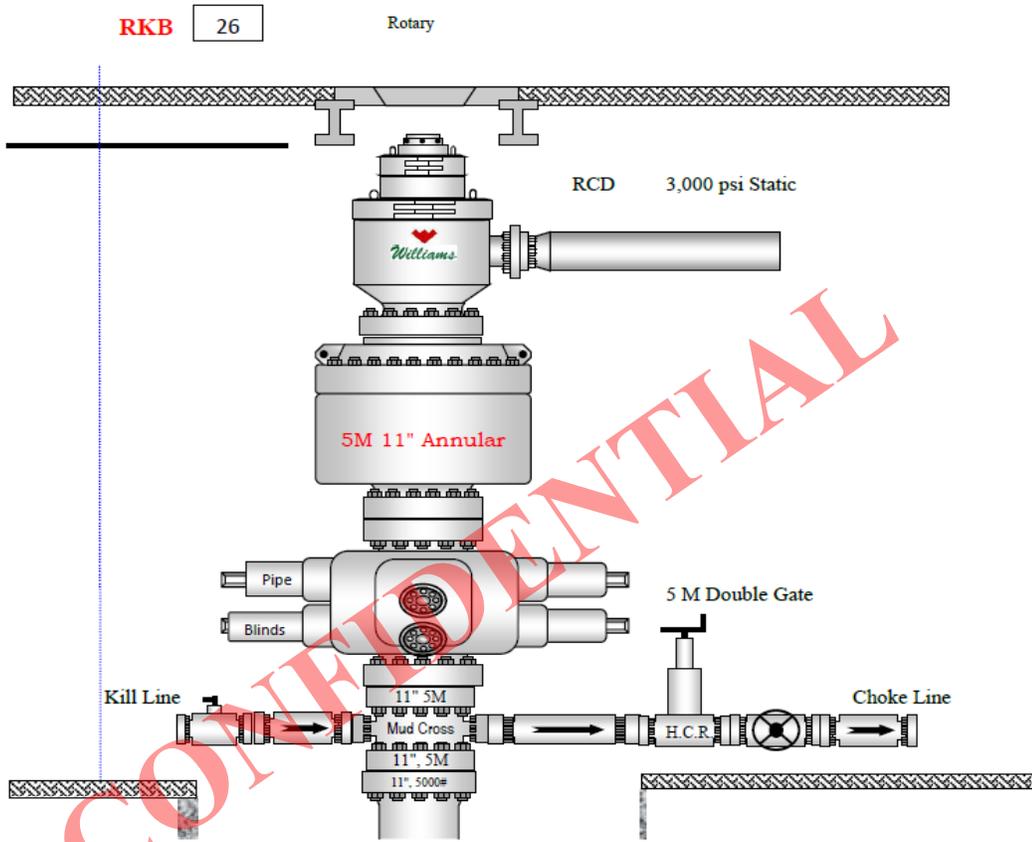
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### DRILLING PROGRAM AND GEOLOGICAL INFORMATION

|                        |                                |                             |          |                  |             |   |
|------------------------|--------------------------------|-----------------------------|----------|------------------|-------------|---|
| PROSPECT/FIELD         | Wildcat (Rockies)              | COUNTY                      | San Juan | GROUND ELEVATION | GR 6,686'   | Source of drilling program: Danny Showers |
| OPERATOR               | ANADARKO                       | STATE                       | UT       | RIG HT. 26.0' KB | KB ± 6,712' | Source of geological tops: Ben Kessel     |
| LEASE & WELL NO.       | Horsehead Point Fee 3525-14-1H | FORM @ TD (HORIZONTAL HOLE) |          | Gothic Shale     |             |   |
| FORM @ TD (PILOT HOLE) | Akah                           |                             |          |                  |             |   |
| Initial Target Line    | 5679.1 @ 0° VS w/ 90           |                             |          |                  |             |   |

| WELLBORE                 |        | Based on 6,712' KB  |                     |                      |                          | LOGGING PROGRAM:  |         |                             |  |              |   |               |               |       |                     |  |  |
|--------------------------|--------|---|---------------------|----------------------|--------------------------|---|---------|-----------------------------|--|--------------|---|---------------|---------------|-------|---------------------|--|--|
|                          |        | GEOLOGICAL TOPS:  |                     |                      |                          | Interval  |         | LWD & Mud Logging Requested |  |              | Open Hole Logging Program                       |               |               |       |                     |  |  |
|                          |        | Formation   | MD                  | TVD                  | Comments                 | Surf Csg -KOP   |         | Mud Logging                 |  |              |   |               |               |       |                     |  |  |
|                          |        | Ismay   | 5,606'              | 5,545'               | Possible Pay (Oil/Gas)   |   |         |                             |  |              |   |               |               |       |                     |  |  |
|                          |        | Gothic  | 6,006'              | 5,679'               | HZ Target Zone (Oil/Gas) |   |         |                             |  |              |   |               |               |       |                     |  |  |
|                          |        | Akah  | Pilot Hole TD       | 5,832'               | Pilot Hole TD            | KOP - LP  |         | Gamma Ray + Mud Logging     |  |              |   |               |               |       |                     |  |  |
| 9 5/8" CASING DEPTH      |        |   |                     |                      |                          | HZ Lateral  |         | Gamma Ray + Mud Logging     |  |              | None  |               |               |       |                     |  |  |
| MD:                      | 2,000' |   |                     |                      |                          | Pilot hole  |         | Gamma Ray + Mud Logging     |  |              | Minimum of a Triple Combo (GR/Res/Dens/Neutron) |               |               |       |                     |  |  |
| TVD:                     | 2,000' |   |                     |                      |                          | Special Request   |         | Core 287' Total             |  |              | 5545' - 5832'                                   |               |               |       |                     |  |  |
| 7" CEMENT TOP            |        |   |                     |                      |                          |   |         |                             |  |              |   |               |               |       |                     |  |  |
| MD:                      | 1,500' |   |                     |                      |                          | POTENTIAL DRILLING PROBLEMS:  |         |                             |  |              |   |               |               |       |                     |  |  |
| TVD:                     | 1,500' |   |                     |                      |                          | Cutler and Honaker Trail are known to be highly reactive.   |         |                             |  |              |   |               |               |       |                     |  |  |
| Target Center Line       |        | 5679.1 @ 0° VS w/ 90  |                     |                      |                          | DEVIATION:  |         |                             |  |              |   |               |               |       |                     |  |  |
| Target Window +/-        |        | 15 Foot Above or below TCL  |                     |                      |                          | Plan to build curve with 10 deg/100' constant DLS to land into the the horizontal target zone, and drill about 3437' of horizontal lateral. |         |                             |  |              |   |               |               |       |                     |  |  |
| Proposed TD (Horizontal) |        | 9,443'  | 5,679'              | NA                   |                          |   |         |                             |  |              |   |               |               |       |                     |  |  |
|                          |        | MUD PROGRAM:  |                     |                      |                          |   |         |                             | Remarks  |              |   |               |               |       |                     |  |  |
|                          |        | Mud Type  | Interval            | Corresponding Depths |                          | Weight  | Vis     | WL                          |  |              |   |               |               |       |                     |  |  |
|                          |        | WBM   | Surface Hole        | 0 - 2000             |                          | 8.4   | 26      | NC                          | Mud additives are detailed in the final drilling program |              |   |               |               |       |                     |  |  |
|                          |        | WBM   | Pilot Hole (If app) | 2000 - 5832          |                          | 8.5 - 10.0  | 26-40   | NC                          | Mud additives are detailed in the final drilling program |              |   |               |               |       |                     |  |  |
|                          |        | WBM   | To KOP              | 2000 - 5106          |                          | 8.5 - 9.5   | 26-40   | <10                         | Mud additives are detailed in the final drilling program |              |   |               |               |       |                     |  |  |
|                          |        | WBM   | Curve               | 5106 - 6006          |                          | 8.5 - 10.0  | 26 - 50 | <10                         | Mud additives are detailed in the final drilling program |              |   |               |               |       |                     |  |  |
| KOP                      |        | WBM   | Lateral             | 6006 - 9443          |                          | 8.5 - 10.0  | 26 - 50 | <10                         | Mud additives are detailed in the final drilling program |              |   |               |               |       |                     |  |  |
| TVD/MD:                  | 5,106' | CASING & CEMENT PROGRAM:  |                     |                      |                          |   |         |                             |  |              |   |               |               |       |                     |  |  |
|                          |        | Size  | Wt (ppf)            | Grade                | Thread                   | Hole  | Top     | Bottom                      | Cement:  | Ft           | Sx  | Density (ppg) | Yield (cf/sk) | GPS   | Type                |  |  |
| Surface Casing:          |        | 9.625"  | 36.0                | J-55                 | LTC                      | 13.5"   | 0'      | 2,000'                      | Lead   | 1,400'       | ±620 sx   | 12.5          | 2.21          | 12.66 | Type III            |  |  |
|                          |        |   |                     |                      |                          |   |         | Tail                        |  | 600'         | ±260 sx   | 14.3          | 1.55          | 7.68  | Type III            |  |  |
| 7" INTERMEDIATE DEPTH    |        | Lead Cmt Additives 3% Calcium Chloride, 2% Silicate, 10% Gel, 1/2 lb/sk Flocele         |                     |                      |                          |   |         |                             |  |              |   |               |               |       |                     |  |  |
| MD:                      | 6,006' | Tail Cmt Additives 2% Calcium Chloride, 0.25 lbs/sk Flocele                             |                     |                      |                          |   |         |                             |  |              |   |               |               |       |                     |  |  |
| TVD:                     | 5,679' |   |                     |                      |                          |   |         |                             |  |              |   |               |               |       |                     |  |  |
| Intermediate Casing:     |        | 7.000"  | 29.0                | HCP-110              | LTC/DQX                  | 8.75"   | 0'      | 6,006'                      | Lead   | 3,606'       | ±490 sx   | 12.5          | 1.52          | 8.04  | Class G + Additives |  |  |
|                          |        |   |                     |                      |                          |   |         | Tail                        |  | 900'         | ±160 sx   | 15.8          | 1.15          | 4.94  | Class G + Additives |  |  |
| 4 1/2" LINER TOP / TOC   |        | Lead Cmt Additives 0.25 lb/sk Kwik Seal, 0.125 lb/sk Poly-E-Flake                       |                     |                      |                          |   |         |                             |  |              |   |               |               |       |                     |  |  |
| MD:                      | 5,106' | Tail Cmt Additives 0.3% HR-601 Retarder, 0.25 lb/sk Kwik Seal, 0.125 lb/sk Poly-E-Flake |                     |                      |                          |   |         |                             |  |              |   |               |               |       |                     |  |  |
| TVD:                     | 5,106' |   |                     |                      |                          |   |         |                             |  |              |   |               |               |       |                     |  |  |
| Production Csg:          |        | 4.500"  | 15.1                | HCP-110              | DQX                      | 6."   | 5,106'  | 9,443'                      | Lead   | 4,337'       | ±340 sx   | 13.5          | 1.52          | 8.04  | Class G + Additives |  |  |
| 4 1/2" LINER DEPTH       |        | Lead Cmt Additives 0.25 lb/sk Kwik Seal, 0.125 lb/sk Poly-E-Flake                       |                     |                      |                          |   |         |                             |  |              |   |               |               |       |                     |  |  |
| MD:                      | 9,443' | Tail Cmt Additives 0.3% HR-601 Retarder, 0.25 lb/sk Kwik Seal, 0.125 lb/sk Poly-E-Flake |                     |                      |                          |   |         |                             |  |              |   |               |               |       |                     |  |  |
| TVD:                     | 5,679' |   |                     |                      |                          |   |         |                             |  |              |   |               |               |       |                     |  |  |
|                          |        | TOE / 4 1/2" LINER SETTING DEPTH:   |                     |                      |                          |   |         |                             |  |              |   |               |               |       |                     |  |  |
|                          |        |   |                     |                      |                          |   |         |                             |  | MD:          | 9,443'  |               |               | TVD:  | 5,679'              |  |  |
|                          |        | LATERAL LENGTH  |                     |                      |                          |   |         |                             |  |              |   |               |               |       |                     |  |  |
|                          |        | MD: 3,437'  |                     |                      |                          |   |         |                             |  |              |   |               |               |       |                     |  |  |
| PILOT HOLE:              |        | BOTTOM HOLE PRESSURE  |                     |                      |                          |   |         |                             |  |              |   |               |               |       |                     |  |  |
| MD:                      | 5,832' | Formation:  |                     | Section              |                          | 2,726 psi @   |         | 5,679'                      |  | or Gradient: |   | 0.48 psi/ft   |               |       |                     |  |  |
| TVD:                     | 5,832' |   |                     |                      |                          | psi @   |         |                             |  | or Gradient: |   | psi/ft        |               |       |                     |  |  |
| Prepared by:             |        | Date: 05/24/13  |                     |                      |                          |   |         |                             |  |              |   |               |               |       |                     |  |  |
|                          |        | Doc: Well Draft Drilling Diagram.xls  |                     |                      |                          |   |         |                             |  |              |   |               |               |       |                     |  |  |

**EXHIBIT A**  
**HORSEHEAD POINT FEE 3525-14-1H**



**SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK**



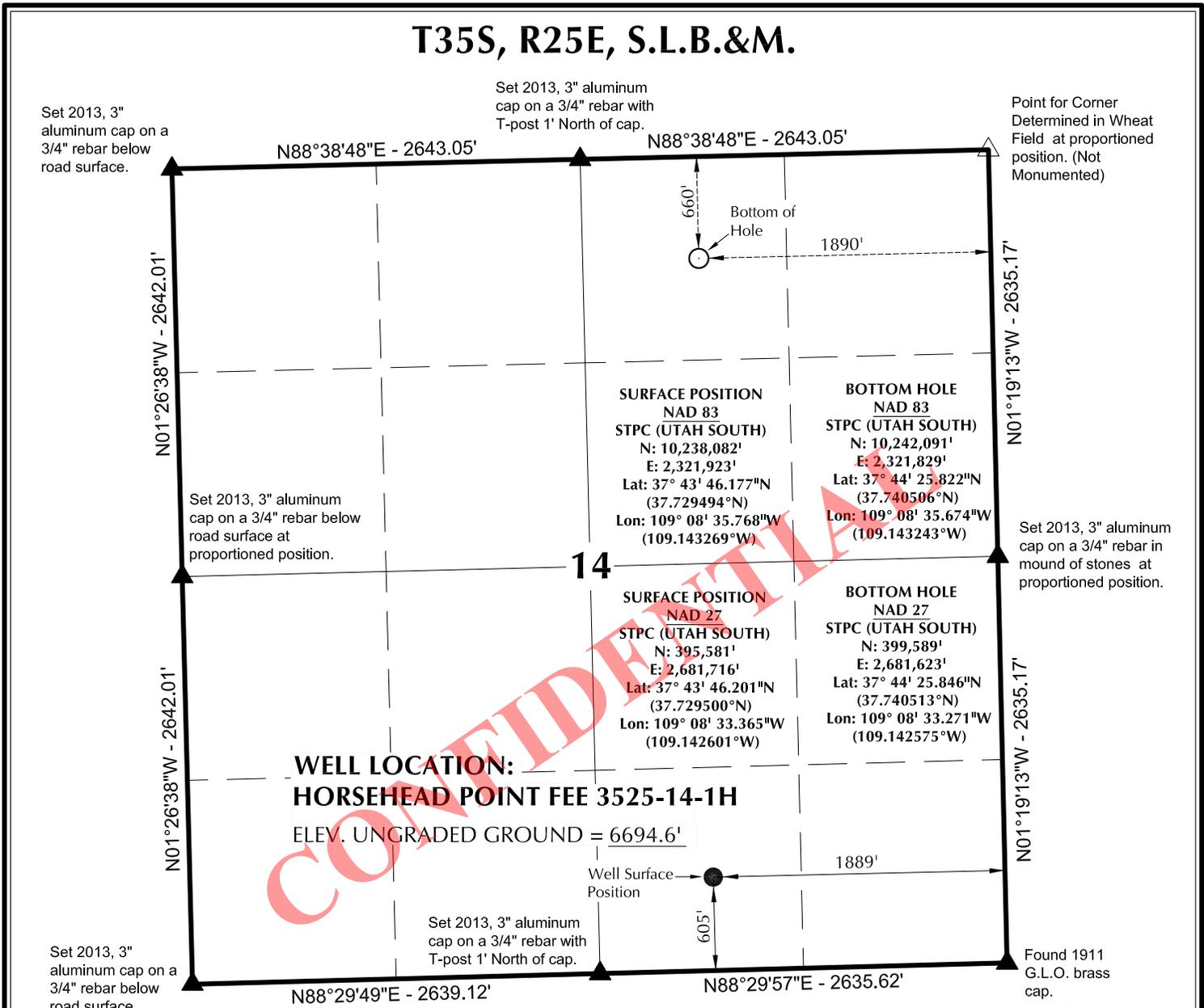
**QUALITY DOCUMENT**

**PHOENIX RUBBER  
 INDUSTRIAL LTD.**

H-6728 Szeged, Budapesti út 10. Hungary • H-6701 Szeged P.O.Box: 152 • Phone: (3662) 566-737, Fax: (3662) 566-738  
 The Court of Csongrád County as Registry Court, Registry Court reg.No.: Cg.06-09-002502

| QUALITY CONTROL<br>INSPECTION AND TEST CERTIFICATE  |                          |           |  | CERT. N°: 930 |  |
|---|--------------------------|-----------|--|---------------|--|
| PURCHASER: Phoenix Beattie Co.  |                          |           | P.O. N°: 000671  |               |  |
| PHOENIX ORDER N°: 337079  | HOSE TYPE: 3" ID         |           | Choke and Kill Hose  |               |  |
| HOSE SERIAL N°: 46305   | NOMINAL / ACTUAL LENGTH: |           | 6,10 m   |               |  |
| W.P. 68,96 MPa 10000 psi  | T.P. 103,4 MPa 15000 psi | Duration: | 60   | min.          |  |
| Pressure test with water at ambient temperature   |                          |           |  |               |  |
| See attachment. (1 page)  |                          |           |  |               |  |
| <b>CONFIDENTIAL</b>   |                          |           |  |               |  |
| ↑ 10 mm = 10 Min.   |                          |           |  |               |  |
| → 10 mm = 16 MPa  |                          |           |  |               |  |
| COUPLINGS   |                          |           |  |               |  |
| Type  | Serial N°                |           | Quality  | Heat N°       |  |
| 3" coupling with<br>4 1/16" Flange end  | 1818                     | 1817      | AISI 4130  | 93412         |  |
|   |                          |           | AISI 4130  | 59534         |  |
| API Spec 16 C<br>Temperature rate: "B"  |                          |           |  |               |  |
| All metal parts are flawless  |                          |           |  |               |  |
| WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT. |                          |           |  |               |  |
| Date:<br>07. April. 2006  | Inspector                |           | Quality Control<br>PHOENIX RUBBER<br>Industrial Ltd.<br>Hose Inspection and<br>Evaluation Dept. <i>J. Schain</i> |               |  |

# T35S, R25E, S.L.B.&M.



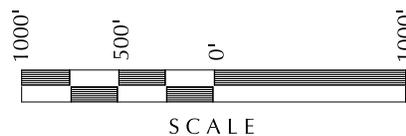
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**WELL LOCATION:  
HORSEHEAD POINT FEE 3525-14-1H**

ELEV. UNGRADED GROUND = 6694.6'

**NOTES:**

- ▲ = Section Corner Located
- △ = Section Corner Located (Not Monumented)
- 1. Well footages are measured at right angles to the Section Lines.
- 2. The Bottom of hole bears N01°20'11"W 4009.90' from the Surface Position.
- 3. Elevations Based on NAVD 88 (GEOID12A)
- 4. Basis of Bearings Derived From Utah Coordinate System 1983 South Zone Unless Otherwise Noted.
- 5. All Measured Distances Are Grid, U.S. Survey Foot. Combined Scale Factor: 0.99963153



**SURVEYOR'S CERTIFICATE**

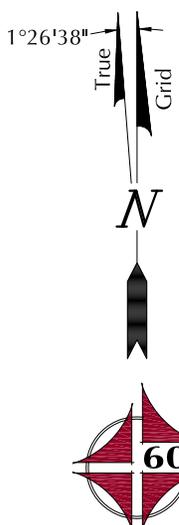
THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

No. 6028691  
5-7-2013  
**JOHN R. LAUGH**  
PROFESSIONAL LAND SURVEYOR  
REGISTRATION No. 6028691  
STATE OF UTAH

**Anadarko E&P Onshore, LLC**  
1099 18th Street - Denver, Colorado 80202

**WELL PAD - HORSEHEAD POINT FEE 3525-140**

**HORSEHEAD POINT FEE 3525-14-1H  
WELL PLAT**  
**660' FNL, 1890' FEL (Bottom Hole)**  
**NW ¼ NE ¼ OF SECTION 14, T35S, R25E,  
S.L.B.&M., SAN JUAN COUNTY, UTAH.**



**CONSULTING, LLC**  
2155 North Main Street  
Sheridan, WY 82801  
Phone 307-674-0609  
Fax 307-674-0182

**TIMBERLINE**

ENGINEERING & LAND SURVEYING, INC.  
209 NORTH 300 WEST - VERNAL, UTAH 84078

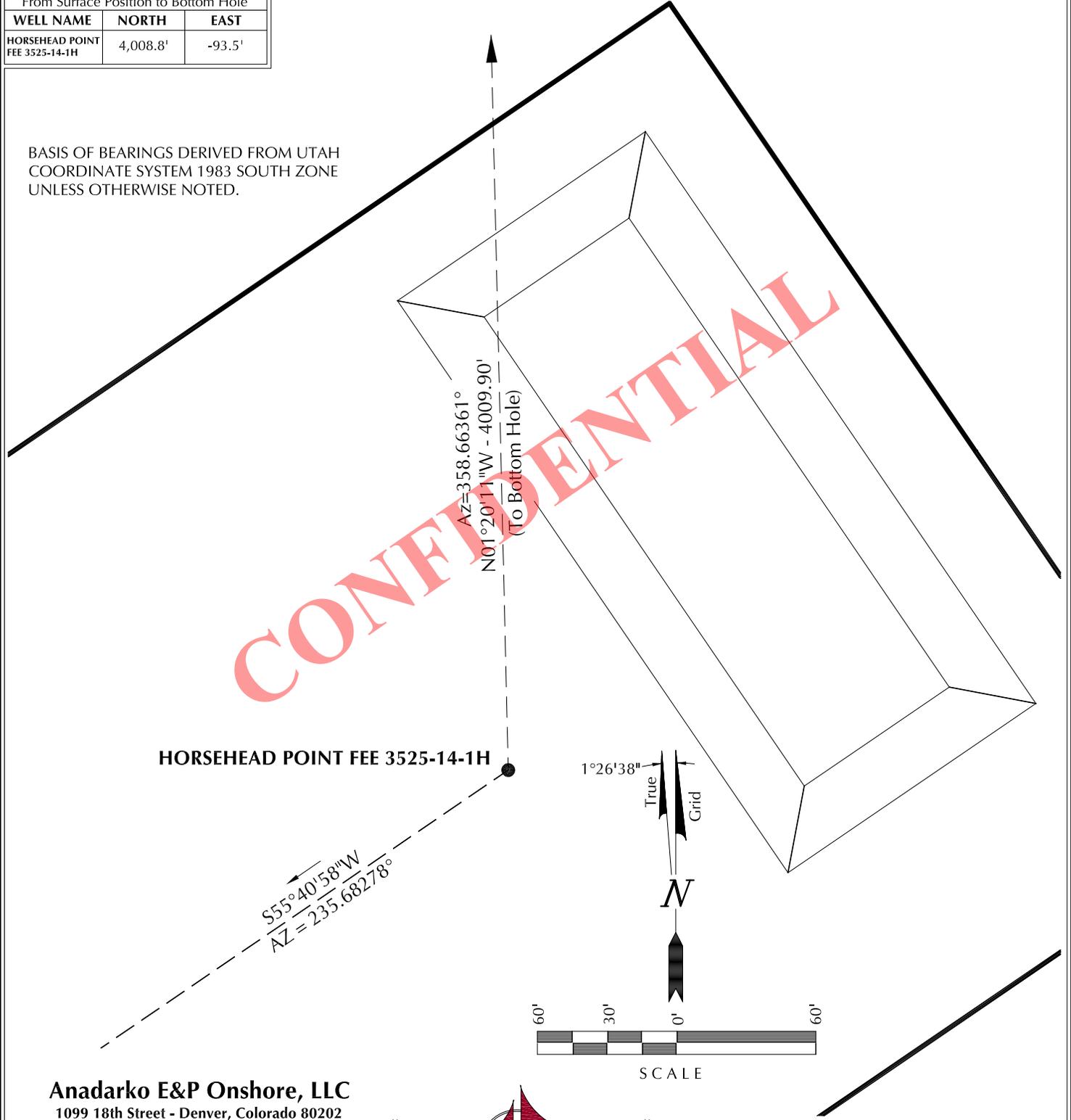
(435) 789-1365

|                           |                                     |                       |
|---------------------------|-------------------------------------|-----------------------|
| DATE SURVEYED:<br>4-15-13 | SURVEYED BY: A.F.                   | SHEET NO:<br><b>1</b> |
| DATE DRAWN:<br>4-25-13    | DRAWN BY: M.W.W.                    |                       |
| SCALE: 1" = 1000'         | Date Last Revised:<br>5-6-13 M.W.W. | 1 OF 11               |

| WELL NAME                      | SURFACE POSITION              |                                 |                               |                                 |                       | BOTTOM HOLE                   |                                 |                               |                                 |                       |
|--------------------------------|-------------------------------|---------------------------------|-------------------------------|---------------------------------|-----------------------|-------------------------------|---------------------------------|-------------------------------|---------------------------------|-----------------------|
|                                | NAD83                         |                                 | NAD27                         |                                 | FOOTAGES              | NAD83                         |                                 | NAD27                         |                                 | FOOTAGES              |
|                                | LATITUDE                      | LONGITUDE                       | LATITUDE                      | LONGITUDE                       |                       | LATITUDE                      | LONGITUDE                       | LATITUDE                      | LONGITUDE                       |                       |
| HORSEHEAD POINT FEE 3525-14-1H | 37°43'46.177"N<br>37.729494°N | 109°08'35.768"W<br>109.143269°W | 37°43'46.201"N<br>37.729500°N | 109°08'33.365"W<br>109.142601°W | 605' FSL<br>1889' FEL | 37°44'25.822"N<br>37.740506°N | 109°08'35.674"W<br>109.143243°W | 37°44'25.846"N<br>37.740513°N | 109°08'33.271"W<br>109.142575°W | 660' FNL<br>1890' FEL |

| RELATIVE COORDINATES                 |          |        |
|--------------------------------------|----------|--------|
| From Surface Position to Bottom Hole |          |        |
| WELL NAME                            | NORTH    | EAST   |
| HORSEHEAD POINT FEE 3525-14-1H       | 4,008.8' | -93.5' |

BASIS OF BEARINGS DERIVED FROM UTAH COORDINATE SYSTEM 1983 SOUTH ZONE UNLESS OTHERWISE NOTED.



**Anadarko E&P Onshore, LLC**  
1099 18th Street - Denver, Colorado 80202

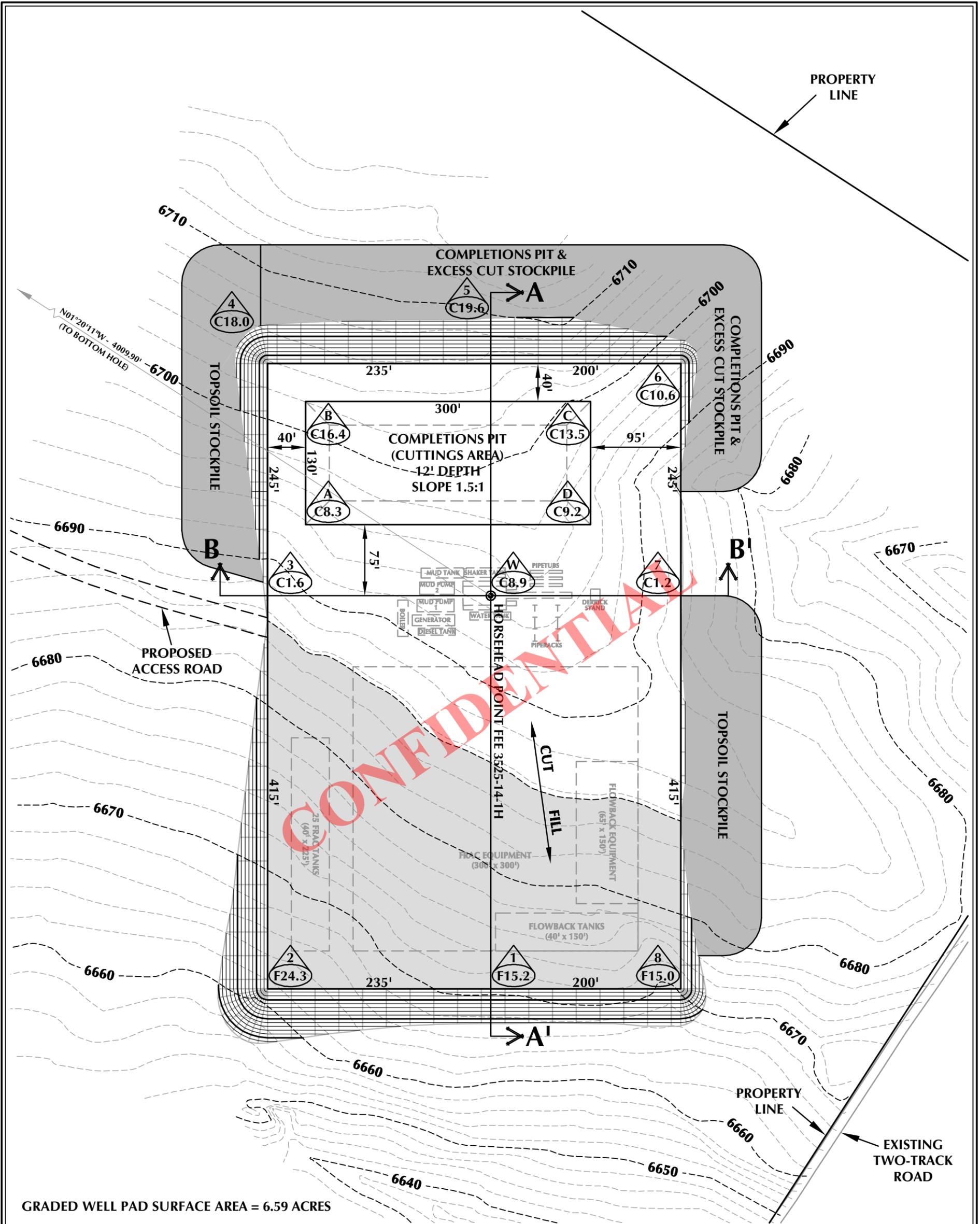
WELL PAD - HORSEHEAD POINT FEE 3525-140

**WELL PAD INTERFERENCE PLAT**  
WELL - HORSEHEAD POINT FEE 3525-14-1H  
LOCATED IN SECTION 14, T35S, R25E,  
S.L.B.&M., SAN JUAN COUNTY, UTAH.

**609**  
**CONSULTING, LLC**  
2155 North Main Street  
Sheridan, WY 82801  
Phone 307-674-0609  
Fax 307-674-0182

**TIMBERLINE** (435) 789-1365  
ENGINEERING & LAND SURVEYING, INC.  
209 NORTH 300 WEST - VERNAL, UTAH 84078

|                           |                                     |                       |
|---------------------------|-------------------------------------|-----------------------|
| DATE SURVEYED:<br>4-15-13 | SURVEYED BY: A.F.                   | SHEET NO:<br><b>2</b> |
| DATE DRAWN:<br>4-25-13    | DRAWN BY: M.W.W.                    |                       |
| SCALE: 1" = 60'           | Date Last Revised:<br>5-6-13 M.W.W. | 2 OF 11               |



GRADED WELL PAD SURFACE AREA = 6.59 ACRES

**WELL PAD - HORSEHEAD POINT FEE 3525-140 DESIGN SUMMARY**

EXISTING GRADE @ CENTER OF WELL PAD = 6694.6'  
 FINISHED GRADE ELEVATION = 6685.7'  
 CUT SLOPES = 2:1  
 FILL SLOPES = 2:1  
 TOTAL WELL PAD AREA = 7.97 ACRES  
 TOTAL DISTURBANCE AREA = 10.49 ACRES  
 SHRINKAGE FACTOR = 1.10  
 SWELL FACTOR = 1.00

**WELL PAD QUANTITIES**  
 TOTAL CUT FOR WELL PAD = 55,660 C.Y.  
 TOTAL FILL FOR WELL PAD = 54,527 C.Y.  
 TOPSOIL @ 12" DEPTH = 12,857 C.Y.  
 EXCESS MATERIAL = 1,133 C.Y.

**COMPLETIONS PIT QUANTITIES**  
 TOTAL CUT FOR COMPLETIONS PIT +/- 14,090 C.Y.  
 COMPLETIONS PIT CAPACITY (2' OF FREEBOARD) +/- 54,310 BARRELS

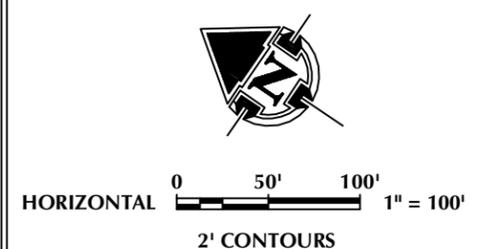
**Anadarko E&P Onshore LLC**  
 1099 18th Street - Denver, Colorado 80202



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 2155 North Main Street  
 Sheridan, WY 82801  
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**TIMBERLINE ENGINEERING & LAND SURVEYING, INC.**  
 209 NORTH 300 WEST - VERNAL, UTAH 84078  
 (435) 789-1365

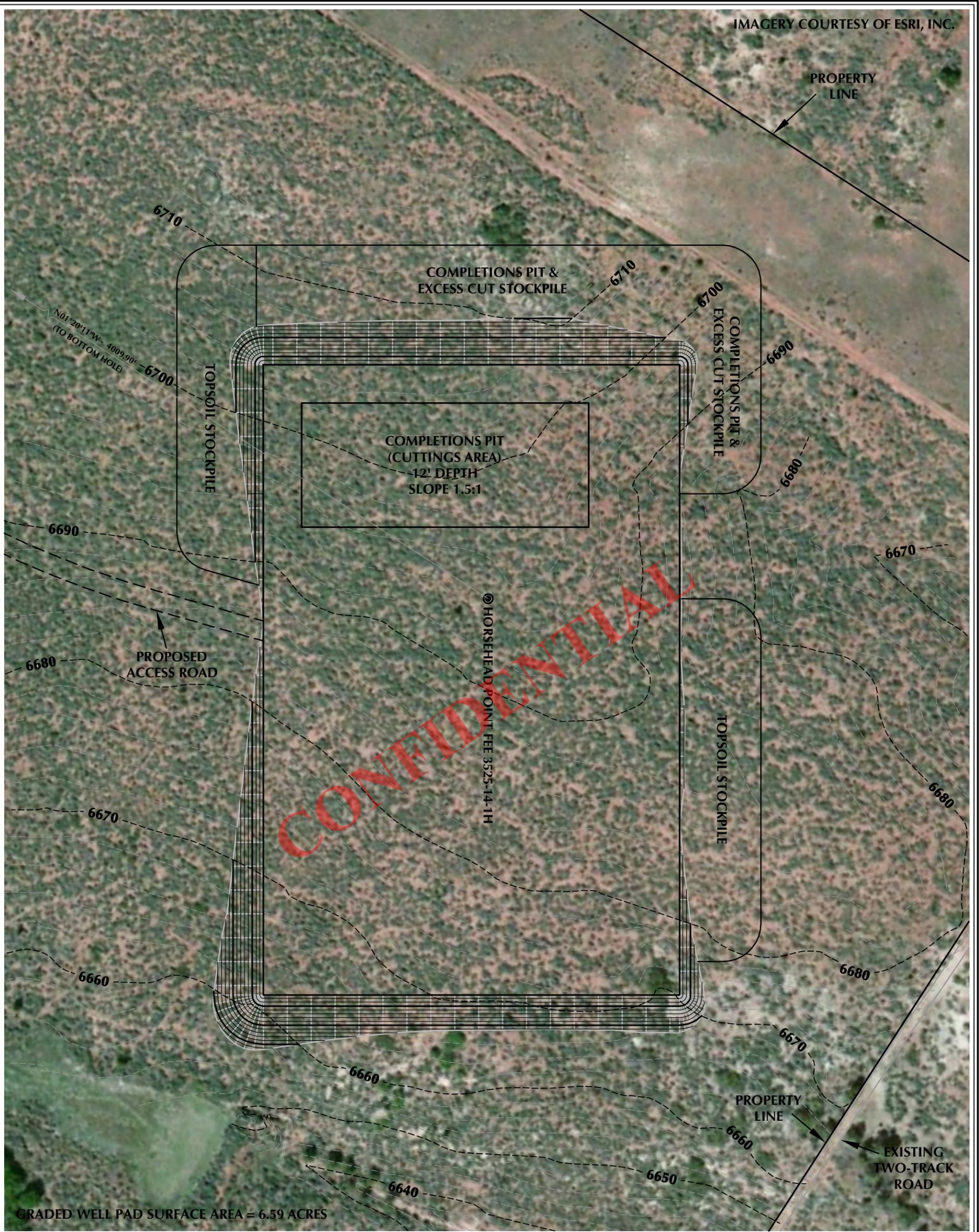
- WELL PAD LEGEND**
- EXISTING WELL LOCATION
  - PROPOSED WELL LOCATION
  - PROPOSED BOTTOM HOLE LOCATION
  - EXISTING CONTOURS (2' INTERVAL)
  - PROPOSED CONTOURS (2' INTERVAL)
  - PPL - PROPOSED PIPELINE
  - EPL - EXISTING PIPELINE



WELL PAD - HORSEHEAD POINT FEE 3525-140

WELL PAD - LOCATION LAYOUT  
 HORSEHEAD POINT FEE 3525-14-1H  
 LOCATED IN SECTION 14, T35S, R25E,  
 S.L.B.&M., SAN JUAN COUNTY, UTAH

SCALE: 1"=100' DATE: 4/26/13 SHEET NO: 3 OF 11  
 REVISED: JID 5/7/13



**WELL PAD - HORSEHEAD POINT FEE 3525-140 DESIGN SUMMARY**

EXISTING GRADE @ CENTER OF WELL PAD = 6694.6'  
 FINISHED GRADE ELEVATION = 6685.7'  
 CUT SLOPES = 2:1  
 FILL SLOPES = 2:1  
 TOTAL WELL PAD AREA = 7.97 ACRES  
 TOTAL DISTURBANCE AREA = 10.49 ACRES  
 SHRINKAGE FACTOR = 1.10  
 SWELL FACTOR = 1.00

**Anadarko E&P Onshore LLC**  
 1099 18th Street - Denver, Colorado 80202

WELL PAD - HORSEHEAD POINT FEE 3525-140

WELL PAD - LOCATION LAYOUT  
 HORSEHEAD POINT FEE 3525-14-1H  
 LOCATED IN SECTION 14, T35S, R25E,  
 S.L.B.&M., SAN JUAN COUNTY, UTAH



CONSULTING, LLC  
 2155 North Main Street  
 Sheridan, WY 82801  
 Phone 307-674-0609  
 Fax 307-674-0182

**WELL PAD QUANTITIES**

TOTAL CUT FOR WELL PAD = 55,660 C.Y.  
 TOTAL FILL FOR WELL PAD = 54,527 C.Y.  
 TOPSOIL @ 12" DEPTH = 12,857 C.Y.  
 EXCESS MATERIAL = 1,133 C.Y.

**COMPLETIONS PIT QUANTITIES**

TOTAL CUT FOR COMPLETIONS PIT  
 +/- 14,090 C.Y.  
 COMPLETIONS PIT CAPACITY  
 (2' OF FREEBOARD)  
 +/- 54,310 BARRELS

**WELL PAD LEGEND**

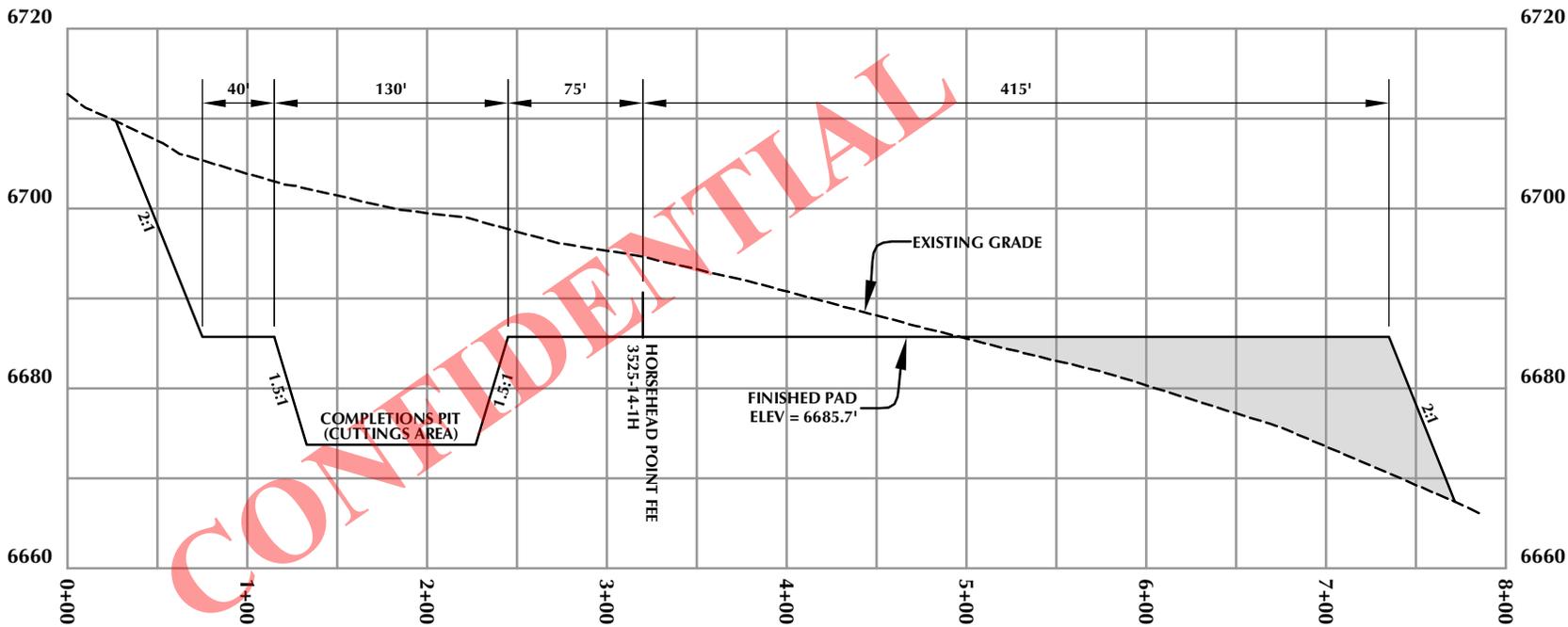
- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL
- PROPOSED PIPELINE
- EPL
- EXISTING PIPELINE



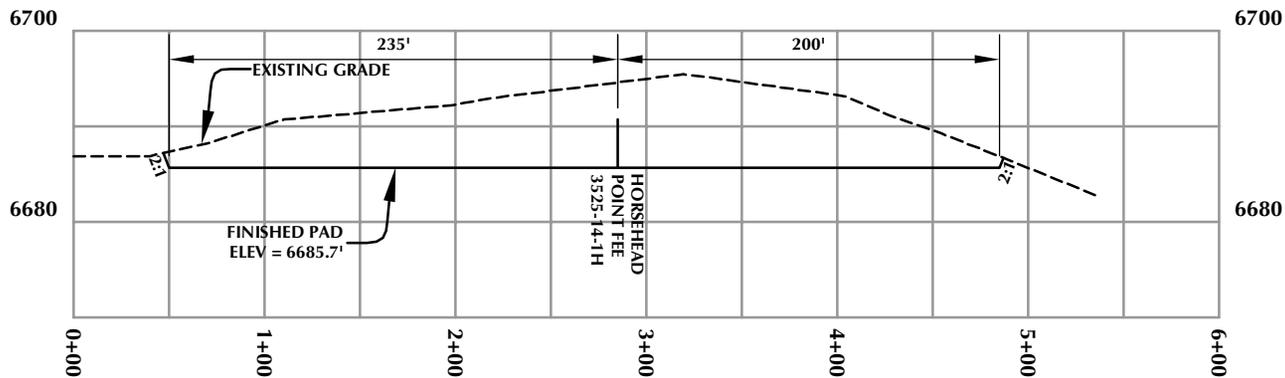
HORIZONTAL 0 50' 100' 1" = 100'  
 2' CONTOURS

SCALE: 1"=100' DATE: 4/26/13 SHEET NO: 4  
 REVISED: JID 5/7/13 4 OF 11

K:\ANADARKO\2013\_30\_PRR\ADOCK\MPA\_WELLS\DWG\HORSEHEAD POINT FEE 3525-14-1H.dwg, 5/7/2013 2:37:37 PM, jacob



**CROSS SECTION A-A'**



**CROSS SECTION B-B'**

**Anadarko E&P Onshore LLC**  
1099 18th Street - Denver, Colorado 80202

WELL PAD - HORSEHEAD POINT FEE 3525-14O

WELL PAD - CROSS SECTIONS  
HORSEHEAD POINT FEE 3525-14-1H  
LOCATED IN SECTION 14, T35S, R25E,  
S.L.B.&M., SAN JUAN COUNTY, UTAH



CONSULTING, LLC  
2155 North Main Street  
Sheridan, WY 82801  
Phone 307-674-0609  
Fax 307-674-0182

**TIMBERLINE**  
ENGINEERING & LAND SURVEYING, INC.  
209 NORTH 300 WEST - VERNAL, UTAH 84078

(435) 789-1365



SCALE: 1"=100'

DATE: 4/26/13

SHEET NO:

REVISED:

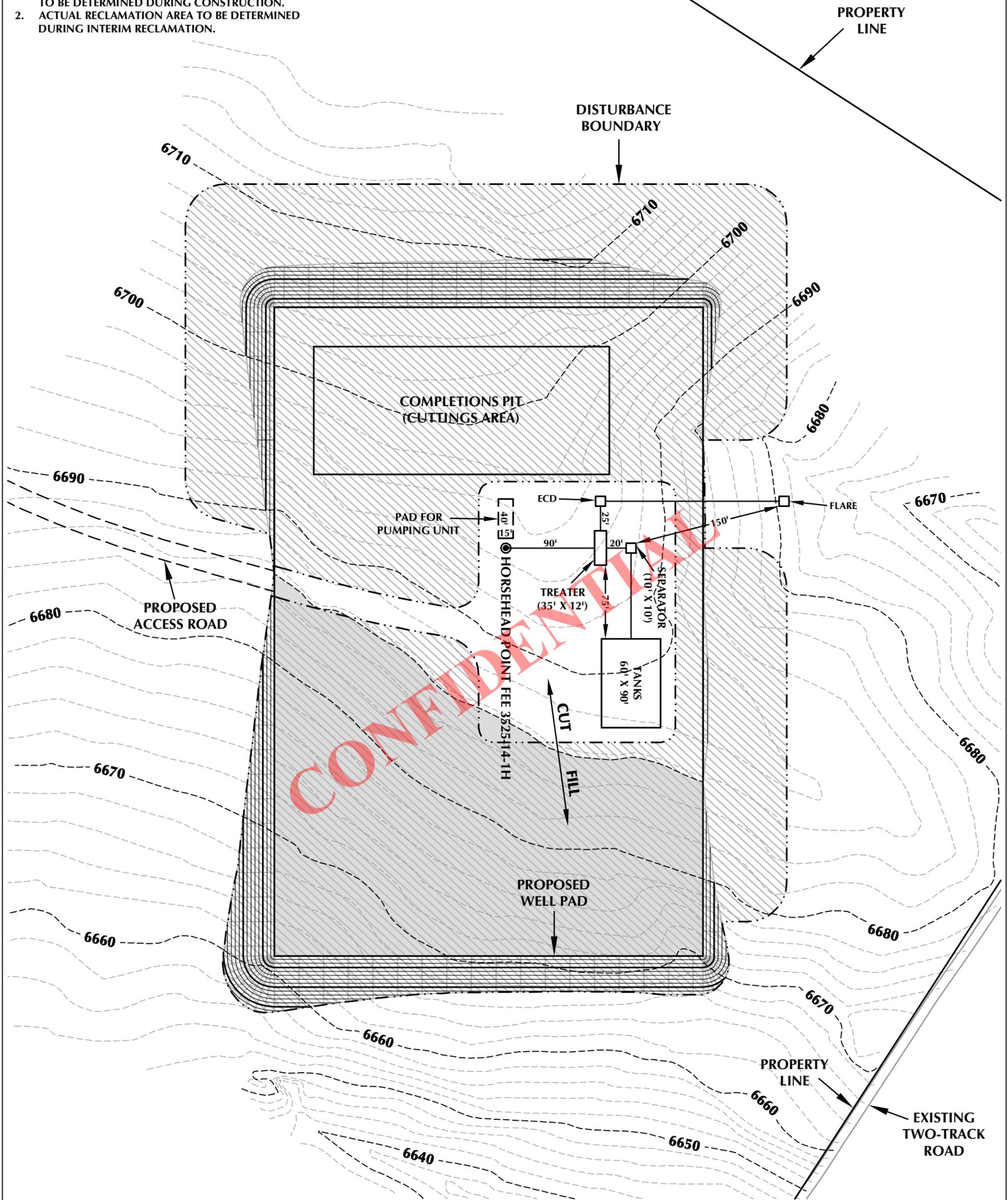
**5**

5 OF 11

K:\ANADARKO\2013\2013\_30 PARADOX NAPA WELLS\DWGS\HORSEHEAD POINT FEE 3525-14-1H.dwg, 4/29/2013 1:55:09 PM, jacob

**PLEASE NOTE:**

1. LOCATIONS OF PROPOSED FACILITIES AND PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.
2. ACTUAL RECLAMATION AREA TO BE DETERMINED DURING INTERIM RECLAMATION.



**WELL PAD - HORSEHEAD POINT FEE 3525-140 RECLAMATION DESIGN SUMMARY**

TOTAL DISTURBANCE AREA = 10.49 ACRES  
 RECLAMATION AREA = 9.12 ACRES  
 TOTAL WELL PAD AREA AFTER RECLAMATION = 1.37 ACRES

**Anadarko E&P Onshore LLC**  
 1099 18th Street - Denver, Colorado 80202

WELL PAD - HORSEHEAD POINT FEE 3525-140

WELL PAD - RECLAMATION LAYOUT  
 HORSEHEAD POINT FEE 3525-14-1H  
 LOCATED IN SECTION 14, T35S, R25E,  
 S.L.B.&M., SAN JUAN COUNTY, UTAH

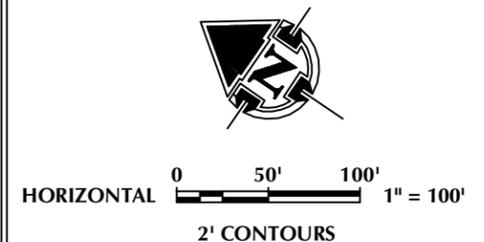


CONSULTING, LLC  
 2155 North Main Street  
 Sheridan, WY 82801  
 Phone 307-674-0609  
 Fax 307-674-0182

**TIMBERLINE**  
 ENGINEERING & LAND SURVEYING, INC.  
 209 NORTH 300 WEST - VERNAL, UTAH 84078

(435) 789-1365

| WELL PAD LEGEND |                                 |
|-----------------|---------------------------------|
|                 | EXISTING WELL LOCATION          |
|                 | PROPOSED WELL LOCATION          |
|                 | EXISTING CONTOURS (2' INTERVAL) |
|                 | PROPOSED CONTOURS (2' INTERVAL) |
|                 | PROPOSED PIPELINE               |
|                 | EXISTING PIPELINE               |
|                 | RECLAMATION AREA                |



|                |               |           |
|----------------|---------------|-----------|
| SCALE: 1"=100' | DATE: 4/26/13 | SHEET NO: |
| REVISED:       |               | <b>6</b>  |

K:\ANADARKO\2013\_30\_PARADOCK\_MPA\_WELLS\DWG\HORSEHEAD POINT FEE 3525-14-1H.dwg, 4/29/2013 1:55:20 PM, jacob



PHOTO VIEW: FROM LOCATION STAKE TO CORNER #1

CAMERA ANGLE: SOUTHWESTERLY



PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: SOUTHWESTERLY

**Anadarko E&P Onshore, LLC**  
 1099 18th Street - Denver, Colorado 80202

WELL PAD - HORSEHEAD POINT FEE 3525-140

**LOCATION PHOTOS**  
**HORSEHEAD POINT FEE 3525-14-1H**  
 LOCATED IN SECTION 14, T35S, R25E,  
 S.L.B.&M., SAN JUAN COUNTY, UTAH.

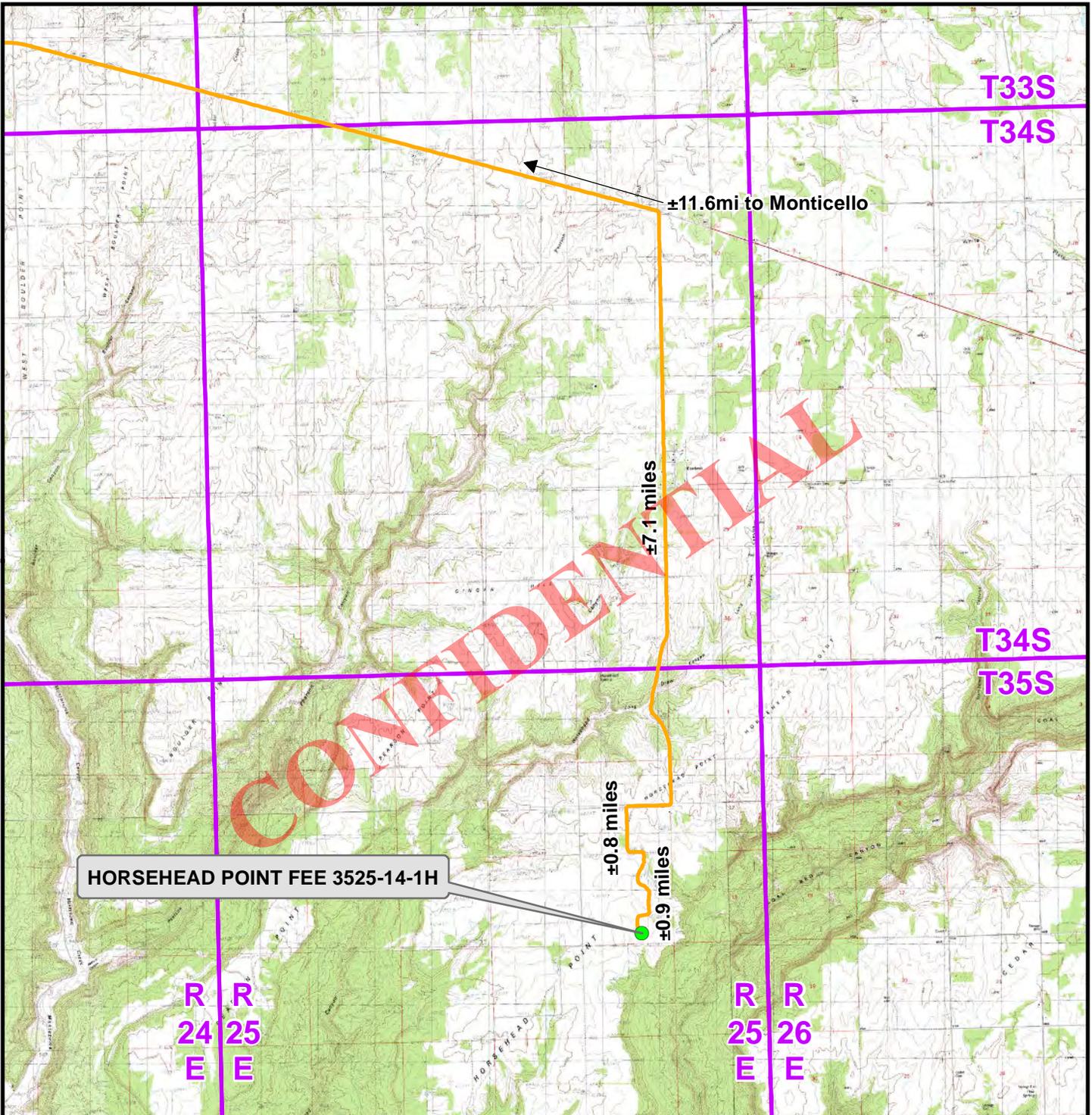


**CONSULTING, LLC**  
 2155 North Main Street  
 Sheridan, WY 82801  
 Phone 307-674-0609  
 Fax 307-674-0182

**TIMBERLINE** (435) 789-1365  
 ENGINEERING & LAND SURVEYING, INC.  
 209 NORTH 300 WEST - VERNAL, UTAH 84078

|                               |                       |                                  |
|-------------------------------|-----------------------|----------------------------------|
| DATE PHOTOS TAKEN:<br>4-15-13 | PHOTOS TAKEN BY: A.F. | SHEET NO:<br><b>7</b><br>7 OF 11 |
| DATE DRAWN:<br>4-25-13        | DRAWN BY: M.W.W.      |                                  |
| Date Last Revised:            |                       |                                  |

K:\ANADARKO\2013\2013\_30\_PARADOX\_NAPA\_WELLS\GIS\Maps\_ABCDE\HORSEHEAD POINT FEE 3525-14-1H\HORSEHEAD POINT FEE 3525-14-1H\_A.mxd4/29/2013 2:02:01 PM



HORSEHEAD POINT FEE 3525-14-1H

**Legend**

- Proposed Well Location
- Access Route - Proposed

WELL PAD - HORSEHEAD POINT FEE 3525-140

**TOPO A**  
**HORSEHEAD POINT FEE 3525-14-1H**  
 LOCATED IN SECTION 14, T35S, R25E,  
 S.L.B.&M., SAN JUAN COUNTY, UTAH

**Anadarko E&P**  
**Onshore LLC**  
 1099 18th Street  
 Denver, Colorado 80202



**CONSULTING, LLC**  
 2155 North Main Street  
 Sheridan, Wyoming 82801  
 Phone 307-674-0609  
 Fax 307-674-0182



SCALE: 1:100,000

NAD83 USP South

SHEET NO:

DRAWN: TL

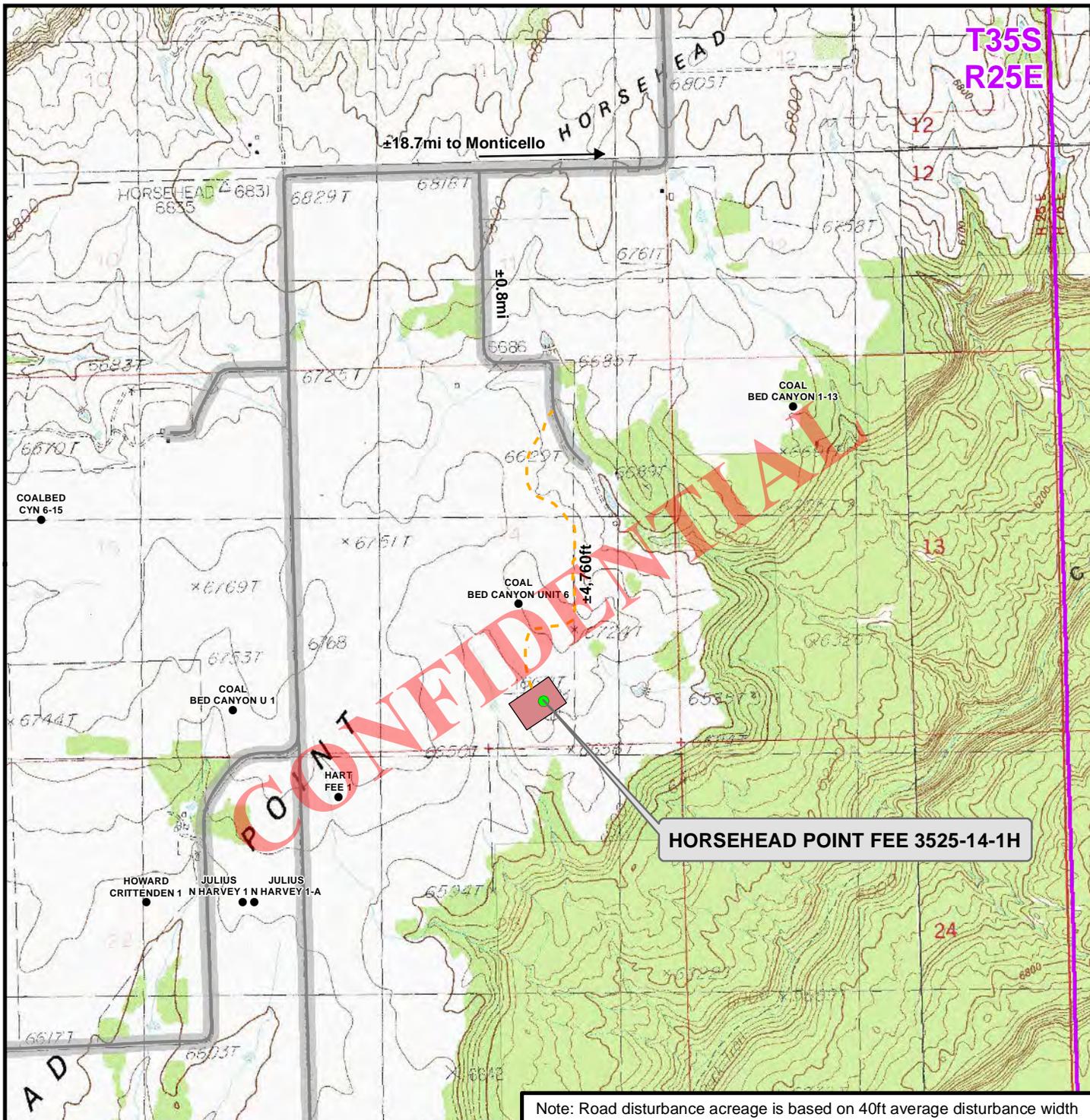
DATE: 26 Apr 2013

**8**

REVISED:

DATE:

8 OF 11



Note: Road disturbance acreage is based on 40ft average disturbance width

Total Proposed Road Length: ±4,760ft  
 Total Proposed Road Disturbance: ±4.371 acres

**Legend**

- Well - Proposed
- Well - Existing
- Well Pad
- Road - Proposed
- Road - Existing
- County Road
- Culvert/LWC - Proposed
- Bureau of Land Management
- Indian Reservation
- State
- Private

WELL PAD - HORSEHEAD POINT FEE 3525-140

**TOPO B**  
**HORSEHEAD POINT FEE 3525-14-1H**  
 LOCATED IN SECTION 14, T35S, R25E,  
 S.L.B.&M., SAN JUAN COUNTY, UTAH

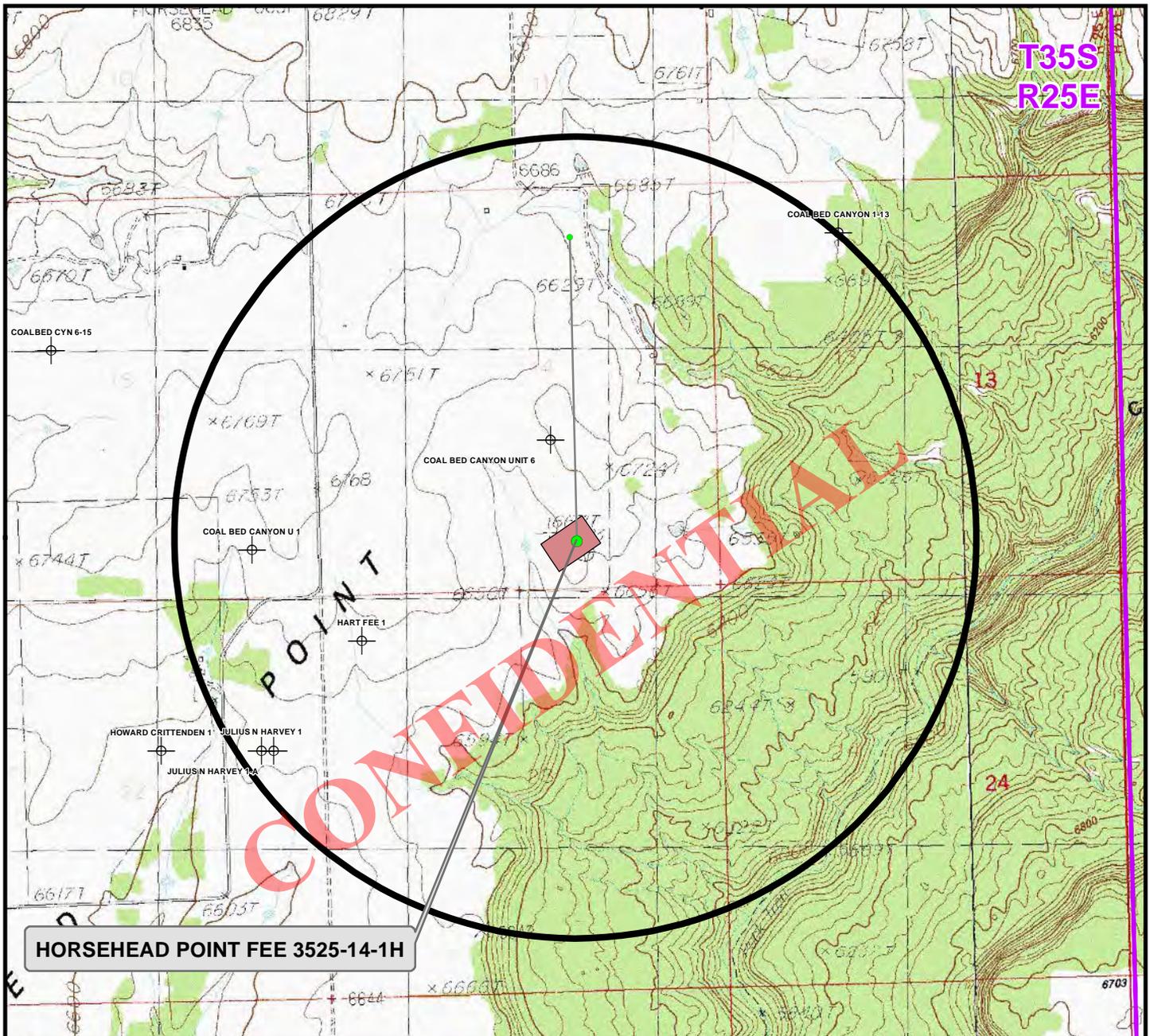
**Anadarko E&P**  
**Onshore LLC**  
 1099 18th Street  
 Denver, Colorado 80202



**CONSULTING, LLC**  
 2155 North Main Street  
 Sheridan, Wyoming 82801  
 Phone 307-674-0609  
 Fax 307-674-0182

|                     |                   |                     |
|---------------------|-------------------|---------------------|
| SCALE: 1" = 2,000ft | NAD83 USP South   | <b>9</b><br>9 OF 11 |
| DRAWN: TL           | DATE: 26 Apr 2013 |                     |
| REVISED:            | DATE:             |                     |

K:\ANADARKO\2013\2013\_30\_PARADOX\_NAPA\_WELLS\GIS\Maps\_ABC\HORSEHEAD POINT FEE 3525-14-1H\_Horsehead Point Fee 3525-14-1H.mxd/29/2013 2:02:19 PM



**HORSEHEAD POINT FEE 3525-14-1H**

Well locations derived from Utah Division of Oil, Gas and Mining (UDOGM) (oilgas.ogm.utah.gov). The estimated distances from proposed bore locations to the nearest existing bore locations are based on UDOGM data.

| Proposed Well                  | Nearest Well Bore      | Footage  |
|--------------------------------|------------------------|----------|
| HORSEHEAD POINT FEE 3525-14-1H | COAL BED CANYON UNIT 6 | ±2,685ft |

**Legend**

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Well - 1 Mile Radius
- ☀ Producing
- ☀ Active
- ☺ Spudded
- ⊕ APD Approved
- New Permit
- ⊖ Temporarily-Abandoned
- ⊗ Location Abandoned
- ⊕ Plugged and Abandoned
- ⊖ Shut-In

WELL PAD - HORSEHEAD POINT FEE 3525-140

**TOPO C  
HORSEHEAD POINT FEE 3525-14-1H  
LOCATED IN SECTION 14, T35S, R25E,  
S.L.B.&M., SAN JUAN COUNTY, UTAH**

**Anadarko E&P  
Onshore LLC**  
1099 18th Street  
Denver, Colorado 80202



**CONSULTING, LLC**  
2155 North Main Street  
Sheridan, Wyoming 82801  
Phone 307-674-0609  
Fax 307-674-0182



|                     |                   |                       |
|---------------------|-------------------|-----------------------|
| SCALE: 1" = 2,000ft | NAD83 USP South   | <b>10</b><br>10 OF 11 |
| DRAWN: TL           | DATE: 26 Apr 2013 |                       |
| REVISED: TL         | DATE: 7 May 2013  |                       |

K:\ANADARKO\2013\2013\_30\_PARADOX\_NAPA\_WELLS\GIS\Maps\_ABCDE\HORSEHEAD POINT FEE 3525-14-1H\HORSEHEAD POINT FEE 3525-14-1H\_C.mxd/7/2013 2:29:32 PM

**ANADARKO E&P ONSHORE LLC  
WELL PAD – HORSEHEAD POINT FEE 3525-14O  
WELL – HORSEHEAD POINT FEE 3525-14-1H  
LOCATED IN SECTION 14  
T35S, R25E, S.L.B.&M.**

From the intersection of North Main Street and East Center Street in Monticello, Utah, proceed in an easterly direction along East Center Street, which becomes U.S. Highway 491, approximately 11.6 miles to the intersection of Eastland Road (County Road 312) to the south. Exit right and proceed in a southerly, then westerly direction along Eastland Road approximately 7.1 miles to the intersection of Richardson Road (County Road 354) to the south. Exit left and proceed in a southerly, then southeasterly direction along Richardson Road approximately 0.8 miles to the proposed access road to the southwest. Exit right and follow the road flags in a southwesterly, then southerly direction approximately 4,760 feet to the proposed well location.

Total distance from Monticello, Utah to the proposed Horsehead Point Fee 3525-14O well pad is approximately 20.4 miles in a southeasterly direction.

**CONFIDENTIAL**



Site: HORSEHEAD POINT FEE 3525-14-1H  
 Well: HORSEHEAD POINT FEE 3525-14-1H  
 Wellbore: HORIZONTAL  
 Design: PLAN #2 HORIZONTAL



**WELL DETAILS: HORSEHEAD POINT FEE 3525-14-1H**

GL 6686 & KB 26 @ 6712.00ft (ASSUMED)

| +N/-S | +E/-W | Northing    | Easting    | Latitude   | Longitude    |
|-------|-------|-------------|------------|------------|--------------|
| 0.00  | 0.00  | 13704769.21 | 2177433.89 | 37.7295000 | -109.1426010 |

**DESIGN TARGET DETAILS**

| Name                      | TVD     | +N/-S   | +E/-W | Northing    | Easting    | Latitude   | Longitude    | Shape |
|---------------------------|---------|---------|-------|-------------|------------|------------|--------------|-------|
| PBHL                      | 5679.40 | 4009.96 | 7.51  | 13708778.52 | 2177361.84 | 37.7405130 | -109.1425750 | Point |
| - plan hits target center |         |         |       |             |            |            |              |       |

**SECTION DETAILS**

| MD      | Inc   | Azi  | TVD     | +N/-S   | +E/-W | Dleg  | TFace | VSect        |
|---------|-------|------|---------|---------|-------|-------|-------|--------------|
| 5106.44 | 0.00  | 0.00 | 5106.44 | 0.00    | 0.00  | 0.00  | 0.00  | 0.00         |
| 6006.44 | 90.00 | 0.11 | 5679.40 | 572.96  | 1.07  | 10.00 | 0.11  | 572.96       |
| 9443.45 | 90.00 | 0.11 | 5679.40 | 4009.96 | 7.51  | 0.00  | 0.00  | 4009.97 PBHL |

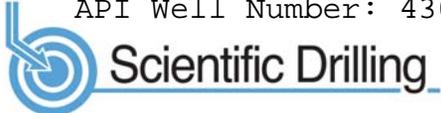
Geodetic System: Universal Transverse Mercator (US Survey Feet)  
 Datum: NAD 1927 (NADCON CONUS)  
 Ellipsoid: Clarke 1866  
 Zone: Zone 12N (114 W to 108 W)  
 Location: SECTION 12 T35S R25E  
 System Datum: Mean Sea Level

**CASING DETAILS**

| TVD     | MD      | Name   | Size  |
|---------|---------|--------|-------|
| 2000.00 | 2000.00 | 9 /58" | 9.625 |
| 5679.40 | 6006.44 | 7"     | 7.000 |

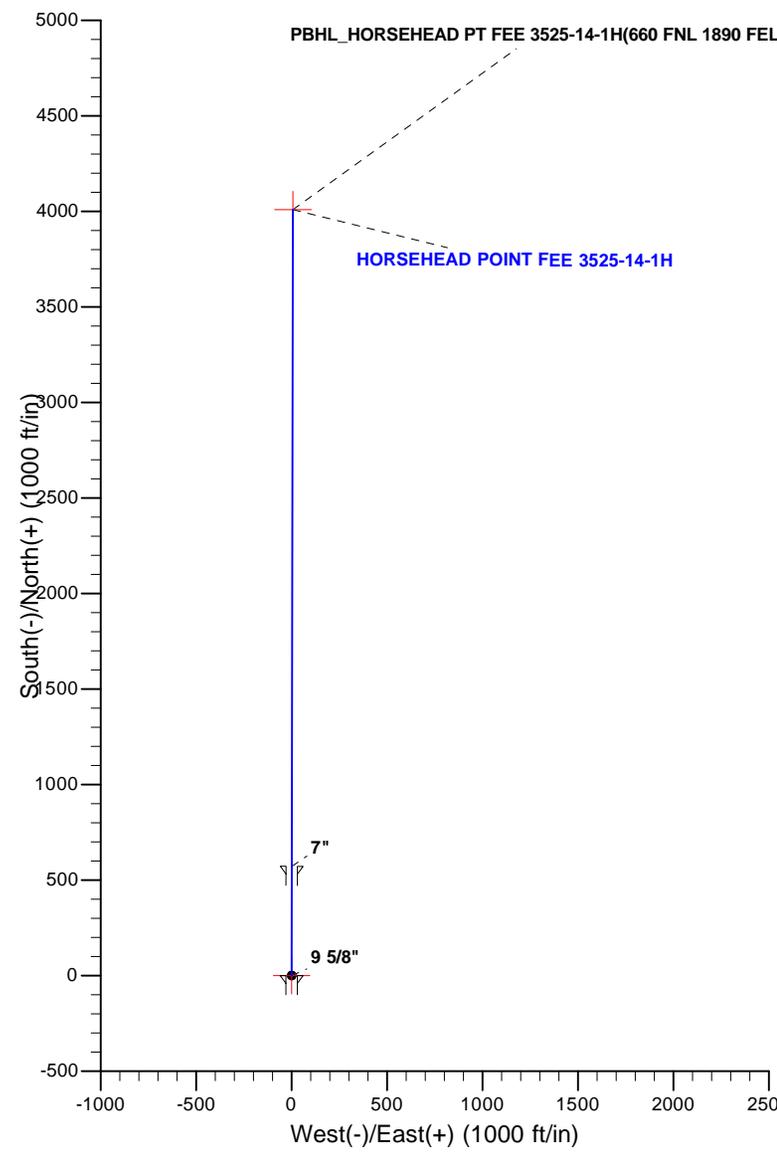
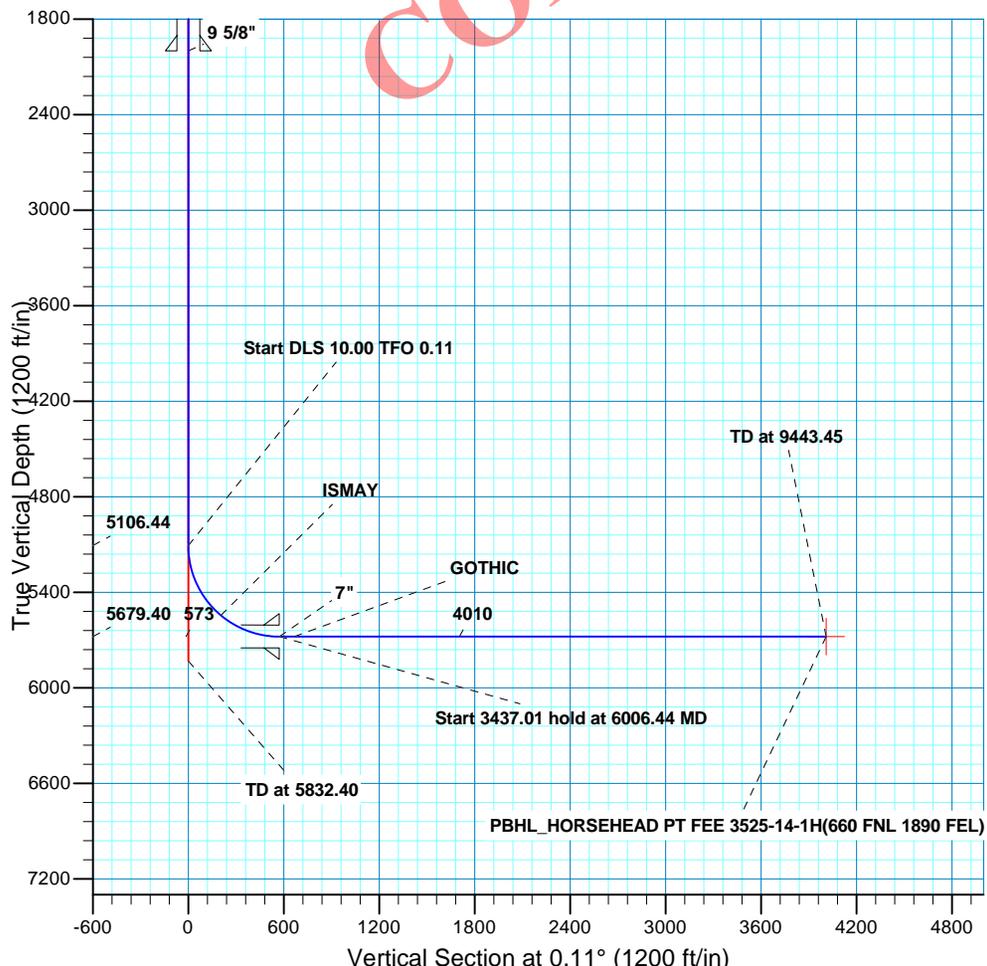
**FORMATION TOP DETAILS**

| TVDPATH | MDPATH  | FORMATION |
|---------|---------|-----------|
| 5545.40 | 5606.52 | ISMAY     |
| 5679.40 | 6006.44 | GOTHIC    |



| WELL DETAILS: HORSEHEAD POINT FEE 3525-14-1H |         |           |             |            |                |              |             |        |  |
|--|---------|-----------|-------------|------------|----------------|--------------|-------------|--------|--|
| GL 6686 & KB 26 @ 6712.00ft (ASSUMED)        |         |           |             |            |                |              |             |        |  |
|  | +N/-S   | +E/-W     | Northing    | Easting    | Latitude       | Longitude    |             |        |  |
|  | 0.00    | 0.00      | 13704769.21 | 2177433.89 | 37.7295000     | -109.1426010 |             |        |  |
| SECTION DETAILS                              |         |           |             |            |                |              |             |        |  |
| MD   | Inc     | Azi       | TVD         | +N/-S      | +E/-W          | Dleg         | TFace       | V Sect | Target   |
| 5106.44                                      | 0.00    | 0.00      | 5106.44     | 0.00       | 0.00           | 0.00         | 0.00        | 0.00   |  |
| 6006.44                                      | 90.00   | 0.11      | 5679.40     | 572.96     | 1.07           | 10.00        | 0.11        | 572.96 |  |
| 9443.45                                      | 90.00   | 0.11      | 5679.40     | 4009.96    | 7.51           | 0.00         | 0.004009.97 |        | PBHL_HORSEHEAD PT FEE 3525-14-1H(660 FNL 1890 FEL) |
| FORMATION TOP DETAILS                        |         |           |             |            | CASING DETAILS |              |             |        |  |
| TVDPath                                      | MDPath  | Formation | DipAngle    | DipDirInc  | TVD            | MD           | Name        | Size   |  |
| 5545.40                                      | 5606.52 | ISMAY     | 0.00        | 50.01      | 2000.00        | 2000.00      | 9 5/8"      | 9.625  |  |
| 5679.40                                      | 6006.44 | GOTHIC    | 0.00        | 90.00      | 5679.40        | 6006.44      | 7"          | 7.000  |  |

CONFIDENTIAL





# Scientific Drilling

## US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

HORSEHEAD POINT FEE 3525-14-1H

HORSEHEAD POINT FEE 3525-14-1H

PILOT

Plan: PILOT

## Standard Planning Report

24 May, 2013

**CONFIDENTIAL**





|                  |                                    |                                     |                                       |
|------------------|------------------------------------|-------------------------------------|---------------------------------------|
| <b>Database:</b> | EDM5000-RobertS-Local              | <b>Local Co-ordinate Reference:</b> | Well HORSEHEAD POINT FEE 3525-14-1H   |
| <b>Company:</b>  | US ROCKIES REGION PLANNING         | <b>TVD Reference:</b>               | GL 6686 & KB 26 @ 6712.00ft (ASSUMED) |
| <b>Project:</b>  | UTAH - UTM (feet), NAD27, Zone 12N | <b>MD Reference:</b>                | GL 6686 & KB 26 @ 6712.00ft (ASSUMED) |
| <b>Site:</b>     | HORSEHEAD POINT FEE 3525-14-1H     | <b>North Reference:</b>             | True                                  |
| <b>Well:</b>     | HORSEHEAD POINT FEE 3525-14-1H     | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Wellbore:</b> | PILOT                              |                                     |                                       |
| <b>Design:</b>   | PILOT                              |                                     |                                       |

|                    |  |                      |                |
|--------------------|--|----------------------|----------------|
| <b>Project</b>     | UTAH - UTM (feet), NAD27, Zone 12N             |                      |                |
| <b>Map System:</b> | Universal Transverse Mercator (US Survey Feet) | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | NAD 1927 (NADCON CONUS)                        |                      |                |
| <b>Map Zone:</b>   | Zone 12N (114 W to 108 W)                      |                      |                |

|                              |  |                     |                   |                          |              |
|------------------------------|--|---------------------|-------------------|--------------------------|--------------|
| <b>Site</b>                  | HORSEHEAD POINT FEE 3525-14-1H, SECTION 12 T35S R25E |                     |                   |                          |              |
| <b>Site Position:</b>        | <b>Northing:</b>                                     | 13,704,769.21 usft  | <b>Latitude:</b>  | 37.7295000               |              |
| <b>From:</b>                 | Lat/Long   | <b>Easting:</b>     | 2,177,433.89 usft | <b>Longitude:</b>        | -109.1426010 |
| <b>Position Uncertainty:</b> | 0.00 ft  | <b>Slot Radius:</b> | 13.200 in         | <b>Grid Convergence:</b> | 1.14 °       |

|                             |  |         |                            |                    |                      |              |
|-----------------------------|--|---------|----------------------------|--------------------|----------------------|--------------|
| <b>Well</b>                 | HORSEHEAD POINT FEE 3525-14-1H, 605' FSL 1889' FEL |         |                            |                    |                      |              |
| <b>Well Position</b>        | <b>+N/-S</b>                                       | 0.00 ft | <b>Northing:</b>           | 13,704,769.21 usft | <b>Latitude:</b>     | 37.7295000   |
|                             | <b>+E/-W</b>                                       | 0.00 ft | <b>Easting:</b>            | 2,177,433.89 usft  | <b>Longitude:</b>    | -109.1426010 |
| <b>Position Uncertainty</b> |  | 0.00 ft | <b>Wellhead Elevation:</b> |                    | <b>Ground Level:</b> | 6,324.00 ft  |

|                  |                   |                    |                    |                  |                       |
|------------------|-------------------|--------------------|--------------------|------------------|-----------------------|
| <b>Wellbore</b>  | PILOT             |                    |                    |                  |                       |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination</b> | <b>Dip Angle</b> | <b>Field Strength</b> |
|                  | IGRF2010          | 2012/09/19         | (°)                | (°)              | (nT)                  |
|                  |                   |                    | 10.44              | 64.01            | 50,980                |

|                          |                         |              |                      |                  |
|--------------------------|-------------------------|--------------|----------------------|------------------|
| <b>Design</b>            | PILOT                   |              |                      |                  |
| <b>Audit Notes:</b>      |                         |              |                      |                  |
| <b>Version:</b>          | <b>Phase:</b>           | PLAN         | <b>Tie On Depth:</b> | 0.00             |
| <b>Vertical Section:</b> | <b>Depth From (TVD)</b> | <b>+N/-S</b> | <b>+E/-W</b>         | <b>Direction</b> |
|                          | (ft)                    | (ft)         | (ft)                 | (°)              |
|                          | 0.00                    | 0.00         | 0.00                 | 0.00             |

| <b>Plan Sections</b> |                 |             |                     |            |            |                       |                      |                     |         |                 |
|----------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|----------------------|---------------------|---------|-----------------|
| Measured Depth (ft)  | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target          |
| 0.00                 | 0.00            | 0.00        | 0.00                | 0.00       | 0.00       | 0.00                  | 0.00                 | 0.00                | 0.00    |                 |
| 5,832.40             | 0.00            | 0.00        | 5,832.40            | 0.00       | 0.00       | 0.00                  | 0.00                 | 0.00                | 0.00    | PBHL_ HORSEHEAD |



|                  |                                    |                                     |                                       |
|------------------|------------------------------------|-------------------------------------|---------------------------------------|
| <b>Database:</b> | EDM5000-RobertS-Local              | <b>Local Co-ordinate Reference:</b> | Well HORSEHEAD POINT FEE 3525-14-1H   |
| <b>Company:</b>  | US ROCKIES REGION PLANNING         | <b>TVD Reference:</b>               | GL 6686 & KB 26 @ 6712.00ft (ASSUMED) |
| <b>Project:</b>  | UTAH - UTM (feet), NAD27, Zone 12N | <b>MD Reference:</b>                | GL 6686 & KB 26 @ 6712.00ft (ASSUMED) |
| <b>Site:</b>     | HORSEHEAD POINT FEE 3525-14-1H     | <b>North Reference:</b>             | True                                  |
| <b>Well:</b>     | HORSEHEAD POINT FEE 3525-14-1H     | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Wellbore:</b> | PILOT                              |                                     |                                       |
| <b>Design:</b>   | PILOT                              |                                     |                                       |

| Planned Survey   |                 |             |                     |            |            |                       |                       |                      |                     |      |
|--|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|------|
| Measured Depth (ft)  | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |      |
| 0.00   | 0.00            | 0.00        | 0.00                | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                | 0.00 |
| 500.00   | 0.00            | 0.00        | 500.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                | 0.00 |
| 1,000.00   | 0.00            | 0.00        | 1,000.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                | 0.00 |
| 1,500.00   | 0.00            | 0.00        | 1,500.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                | 0.00 |
| 2,000.00   | 0.00            | 0.00        | 2,000.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                | 0.00 |
| <b>9 5/8"</b>  |                 |             |                     |            |            |                       |                       |                      |                     |      |
| 2,500.00   | 0.00            | 0.00        | 2,500.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                | 0.00 |
| 3,000.00   | 0.00            | 0.00        | 3,000.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                | 0.00 |
| 3,500.00   | 0.00            | 0.00        | 3,500.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                | 0.00 |
| 4,000.00   | 0.00            | 0.00        | 4,000.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                | 0.00 |
| 4,500.00   | 0.00            | 0.00        | 4,500.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                | 0.00 |
| 5,000.00   | 0.00            | 0.00        | 5,000.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                | 0.00 |
| 5,500.00   | 0.00            | 0.00        | 5,500.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                | 0.00 |
| 5,545.40   | 0.00            | 0.00        | 5,545.40            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                | 0.00 |
| <b>ISMAY</b>   |                 |             |                     |            |            |                       |                       |                      |                     |      |
| 5,679.40   | 0.00            | 0.00        | 5,679.40            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                | 0.00 |
| <b>GOTHIC</b>  |                 |             |                     |            |            |                       |                       |                      |                     |      |
| 5,832.40   | 0.00            | 0.00        | 5,832.40            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                | 0.00 |
| <b>TD at 5832.40 - AKAH - PBHL_ HORSEHEAD POINT FEE 3525-14-1H PILOT</b> |                 |             |                     |            |            |                       |                       |                      |                     |      |

| Design Targets   |               |              |          |            |            |                 |                |            |              |
|--|---------------|--------------|----------|------------|------------|-----------------|----------------|------------|--------------|
| Target Name  | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (usft) | Easting (usft) | Latitude   | Longitude    |
| PBHL_ HORSEHEAD P<br>- hit/miss target<br>- Shape<br>- Point | 0.00          | 0.00         | 5,832.40 | 0.00       | 0.00       | 13,704,769.21   | 2,177,433.89   | 37.7295000 | -109.1426010 |

| Casing Points       |                     |        |                      |                    |  |
|---------------------|---------------------|--------|----------------------|--------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name   | Casing Diameter (in) | Hole Diameter (in) |  |
| 2,000.00            | 2,000.00            | 9 5/8" | 9.625                | 12.250             |  |

| Formations          |                     |        |           |         |                   |
|---------------------|---------------------|--------|-----------|---------|-------------------|
| Measured Depth (ft) | Vertical Depth (ft) | Name   | Lithology | Dip (°) | Dip Direction (°) |
| 5,545.40            | 5,545.40            | ISMAY  |           | 0.00    |                   |
| 5,679.40            | 5,679.40            | GOTHIC |           | 0.00    |                   |
| 5,832.40            | 5,832.40            | AKAH   |           | 0.00    |                   |

| Plan Annotations    |                     |            |            |               |  |
|---------------------|---------------------|------------|------------|---------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Comment       |  |
| 5,832.40            | 5,832.40            | 0.00       | 0.00       | TD at 5832.40 |  |



# Scientific Drilling

## US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

HORSEHEAD POINT FEE 3525-14-1H

HORSEHEAD POINT FEE 3525-14-1H

HORIZONTAL

Plan: PLAN #2 HORIZONTAL

## Standard Planning Report

24 May, 2013

CONFIDENTIAL





|                  |                                    |                                     |                                       |
|------------------|------------------------------------|-------------------------------------|---------------------------------------|
| <b>Database:</b> | EDM5000-RobertS-Local              | <b>Local Co-ordinate Reference:</b> | Well HORSEHEAD POINT FEE 3525-14-1H   |
| <b>Company:</b>  | US ROCKIES REGION PLANNING         | <b>TVD Reference:</b>               | GL 6686 & KB 26 @ 6712.00ft (ASSUMED) |
| <b>Project:</b>  | UTAH - UTM (feet), NAD27, Zone 12N | <b>MD Reference:</b>                | GL 6686 & KB 26 @ 6712.00ft (ASSUMED) |
| <b>Site:</b>     | HORSEHEAD POINT FEE 3525-14-1H     | <b>North Reference:</b>             | True                                  |
| <b>Well:</b>     | HORSEHEAD POINT FEE 3525-14-1H     | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Wellbore:</b> | HORIZONTAL                         |                                     |                                       |
| <b>Design:</b>   | PLAN #2 HORIZONTAL                 |                                     |                                       |

|                    |  |                      |                |
|--------------------|--|----------------------|----------------|
| <b>Project</b>     | UTAH - UTM (feet), NAD27, Zone 12N             |                      |                |
| <b>Map System:</b> | Universal Transverse Mercator (US Survey Feet) | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | NAD 1927 (NADCON CONUS)                        |                      |                |
| <b>Map Zone:</b>   | Zone 12N (114 W to 108 W)                      |                      |                |

|                              |  |                     |                   |                          |              |
|------------------------------|--|---------------------|-------------------|--------------------------|--------------|
| <b>Site</b>                  | HORSEHEAD POINT FEE 3525-14-1H, SECTION 12 T35S R25E |                     |                   |                          |              |
| <b>Site Position:</b>        | <b>Northing:</b>                                     | 13,704,769.21 usft  | <b>Latitude:</b>  | 37.7295000               |              |
| <b>From:</b>                 | Lat/Long   | <b>Easting:</b>     | 2,177,433.89 usft | <b>Longitude:</b>        | -109.1426010 |
| <b>Position Uncertainty:</b> | 0.00 ft  | <b>Slot Radius:</b> | 13.200 in         | <b>Grid Convergence:</b> | 1.14 °       |

|                             |  |         |                            |                    |                      |              |
|-----------------------------|--|---------|----------------------------|--------------------|----------------------|--------------|
| <b>Well</b>                 | HORSEHEAD POINT FEE 3525-14-1H, 605' FSL 1889' FEL |         |                            |                    |                      |              |
| <b>Well Position</b>        | <b>+N/-S</b>                                       | 0.00 ft | <b>Northing:</b>           | 13,704,769.21 usft | <b>Latitude:</b>     | 37.7295000   |
|                             | <b>+E/-W</b>                                       | 0.00 ft | <b>Easting:</b>            | 2,177,433.89 usft  | <b>Longitude:</b>    | -109.1426010 |
| <b>Position Uncertainty</b> |  | 0.00 ft | <b>Wellhead Elevation:</b> |                    | <b>Ground Level:</b> | 6,324.00 ft  |

|                  |                   |                    |                    |                  |                       |
|------------------|-------------------|--------------------|--------------------|------------------|-----------------------|
| <b>Wellbore</b>  | HORIZONTAL        |                    |                    |                  |                       |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination</b> | <b>Dip Angle</b> | <b>Field Strength</b> |
|                  | IGRF2010          | 2012/09/19         | (°)                | (°)              | (nT)                  |
|                  |                   |                    | 10.44              | 64.01            | 50,980                |

|                          |                         |              |                      |                  |
|--------------------------|-------------------------|--------------|----------------------|------------------|
| <b>Design</b>            | PLAN #2 HORIZONTAL      |              |                      |                  |
| <b>Audit Notes:</b>      |                         |              |                      |                  |
| <b>Version:</b>          | <b>Phase:</b>           | PLAN         | <b>Tie On Depth:</b> | 5,106.44         |
| <b>Vertical Section:</b> | <b>Depth From (TVD)</b> | <b>+N/-S</b> | <b>+E/-W</b>         | <b>Direction</b> |
|                          | (ft)                    | (ft)         | (ft)                 | (°)              |
|                          | 0.00                    | 0.00         | 0.00                 | 0.11             |

| <b>Plan Sections</b> |                 |             |                     |            |            |                       |                      |                     |         |                |
|----------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|----------------------|---------------------|---------|----------------|
| Measured Depth (ft)  | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target         |
| 5,106.44             | 0.00            | 0.00        | 5,106.44            | 0.00       | 0.00       | 0.00                  | 0.00                 | 0.00                | 0.00    |                |
| 6,006.44             | 90.00           | 0.11        | 5,679.40            | 572.96     | 1.07       | 10.00                 | 10.00                | 0.01                | 0.11    |                |
| 9,443.45             | 90.00           | 0.11        | 5,679.40            | 4,009.96   | 7.51       | 0.00                  | 0.00                 | 0.00                | 0.00    | PBHL_HORSEHEAD |



|                  |                                    |                                     |                                       |
|------------------|------------------------------------|-------------------------------------|---------------------------------------|
| <b>Database:</b> | EDM5000-RobertS-Local              | <b>Local Co-ordinate Reference:</b> | Well HORSEHEAD POINT FEE 3525-14-1H   |
| <b>Company:</b>  | US ROCKIES REGION PLANNING         | <b>TVD Reference:</b>               | GL 6686 & KB 26 @ 6712.00ft (ASSUMED) |
| <b>Project:</b>  | UTAH - UTM (feet), NAD27, Zone 12N | <b>MD Reference:</b>                | GL 6686 & KB 26 @ 6712.00ft (ASSUMED) |
| <b>Site:</b>     | HORSEHEAD POINT FEE 3525-14-1H     | <b>North Reference:</b>             | True                                  |
| <b>Well:</b>     | HORSEHEAD POINT FEE 3525-14-1H     | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Wellbore:</b> | HORIZONTAL                         |                                     |                                       |
| <b>Design:</b>   | PLAN #2 HORIZONTAL                 |                                     |                                       |

| Planned Survey  |                 |             |                     |            |            |                       |                       |                      |                     |      |
|---|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|------|
| Measured Depth (ft)   | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |      |
| 5,106.44  | 0.00            | 0.00        | 5,106.44            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                | 0.00 |
| <b>Start DLS 10.00 TFO 0.11</b>   |                 |             |                     |            |            |                       |                       |                      |                     |      |
| 5,500.00  | 39.36           | 0.11        | 5,469.77            | 129.93     | 0.24       | 129.93                | 10.00                 | 10.00                | 10.00               | 0.00 |
| 5,606.52  | 50.01           | 0.11        | 5,545.40            | 204.73     | 0.38       | 204.73                | 10.00                 | 10.00                | 10.00               | 0.00 |
| <b>ISMAY</b>  |                 |             |                     |            |            |                       |                       |                      |                     |      |
| 6,000.00  | 89.36           | 0.11        | 5,679.36            | 566.52     | 1.06       | 566.52                | 10.00                 | 10.00                | 10.00               | 0.00 |
| 6,006.44  | 90.00           | 0.11        | 5,679.40            | 572.96     | 1.07       | 572.96                | 10.00                 | 10.00                | 10.00               | 0.00 |
| <b>Start 3437.01 hold at 6006.44 MD - GOTHIC - 7"</b>                     |                 |             |                     |            |            |                       |                       |                      |                     |      |
| 6,500.00  | 90.00           | 0.11        | 5,679.40            | 1,066.52   | 2.00       | 1,066.52              | 0.00                  | 0.00                 | 0.00                | 0.00 |
| 7,000.00  | 90.00           | 0.11        | 5,679.40            | 1,566.52   | 2.94       | 1,566.52              | 0.00                  | 0.00                 | 0.00                | 0.00 |
| 7,500.00  | 90.00           | 0.11        | 5,679.40            | 2,066.51   | 3.87       | 2,066.52              | 0.00                  | 0.00                 | 0.00                | 0.00 |
| 8,000.00  | 90.00           | 0.11        | 5,679.40            | 2,566.51   | 4.81       | 2,566.52              | 0.00                  | 0.00                 | 0.00                | 0.00 |
| 8,500.00  | 90.00           | 0.11        | 5,679.40            | 3,066.51   | 5.75       | 3,066.52              | 0.00                  | 0.00                 | 0.00                | 0.00 |
| 9,000.00  | 90.00           | 0.11        | 5,679.40            | 3,566.51   | 6.68       | 3,566.52              | 0.00                  | 0.00                 | 0.00                | 0.00 |
| 9,443.45  | 90.00           | 0.11        | 5,679.40            | 4,009.96   | 7.51       | 4,009.97              | 0.00                  | 0.00                 | 0.00                | 0.00 |
| <b>TD at 9443.45 - PBHL_HORSEHEAD PT FEE 3525-14-1H(660 FNL 1890 FEL)</b> |                 |             |                     |            |            |                       |                       |                      |                     |      |

| Design Targets            |               |              |          |            |            |                 |                |            |              |  |
|---------------------------|---------------|--------------|----------|------------|------------|-----------------|----------------|------------|--------------|--|
| Target Name               | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (usft) | Easting (usft) | Latitude   | Longitude    |  |
| PBHL_HORSEHEAD P1         | 0.00          | 0.00         | 5,679.40 | 4,009.96   | 7.51       | 13,708,778.52   | 2,177,361.84   | 37.7405130 | -109.1425750 |  |
| - hit/miss target         |               |              |          |            |            |                 |                |            |              |  |
| - Shape                   |               |              |          |            |            |                 |                |            |              |  |
| - plan hits target center |               |              |          |            |            |                 |                |            |              |  |
| - Point                   |               |              |          |            |            |                 |                |            |              |  |

| Casing Points       |                     |        |                      |                    |  |  |
|---------------------|---------------------|--------|----------------------|--------------------|--|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name   | Casing Diameter (in) | Hole Diameter (in) |  |  |
| 2,000.00            | 2,000.00            | 9 5/8" | 9.625                | 12.250             |  |  |
| 6,006.44            | 5,679.40            | 7"     | 7.000                | 7.500              |  |  |

| Formations          |                     |        |           |         |                   |  |
|---------------------|---------------------|--------|-----------|---------|-------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name   | Lithology | Dip (°) | Dip Direction (°) |  |
| 5,606.52            | 5,545.40            | ISMAY  |           | 0.00    |                   |  |
| 6,006.44            | 5,679.40            | GOTHIC |           | 0.00    |                   |  |

| Plan Annotations    |                     |            |            |                                  |  |
|---------------------|---------------------|------------|------------|----------------------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Comment                          |  |
| 5,106.44            | 5,106.44            | 0.00       | 0.00       | Start DLS 10.00 TFO 0.11         |  |
| 6,006.44            | 5,679.40            | 572.96     | 1.07       | Start 3437.01 hold at 6006.44 MD |  |
| 9,443.45            | 5,679.40            | 4,009.96   | 7.51       | TD at 9443.45                    |  |

## AFFIDAVIT OF SURFACE USE AGREEMENT

I, Michael P. Coder, Land Manager for Anadarko Petroleum Corporation, do hereby state the following:

Anadarko E&P Onshore LLC has entered into a Surface Use Agreement with C. Dwayne Crowley, as Trustee of the Phillip C. Crowley Trust made on June 18, 2010, of P. O. Box 700, Cortez, Colorado 81321-0700.

This Surface Use Agreement remains in force and was entered into effective February 12, 2013, covering the following lands in San Juan County, Utah:

Township 35 South, Range 25 East, SLM  
Section 14: W/2E/2, E/2W/2  
containing 320.00 acres, more or less

Executed this 20<sup>th</sup> day of MAY, 2013

Michael P. Coder  
Michael P. Coder  
Anadarko Petroleum Corporation

*jmh*

## **Anadarko E&P Onshore, LLC**

### **Surface Use Plan of Operations**

HORSEHEAD POINT FEE 3525-14-1H

Surface: 605 FSL / 1889 FWL SWSE

BHL: 660 FNL / 1890 FEL NWNE

#### **A. Existing Roads:**

Existing roads consist of county and improved/unimproved access roads (two-tracks). In accordance with Onshore Order #1, Anadarko E&P Onshore, LLC (Anadarko) will, in accordance with BMPs, improve or maintain existing roads in a condition that is the same as or better than before operations began. No new disturbance will be created with these activities.

The existing roads will be maintained in a safe and usable condition. Maintenance for existing roads will continue until final abandonment and reclamation of well pads and/or other facilities, as applicable. Road maintenance will include, but is not limited to, blading, ditching, and/or culvert installation and cleanout. To ensure safe operating conditions, gravel surfacing will be performed where excessive rutting or erosion may occur. Dust control will be performed as necessary to ensure safe operating conditions.

#### **B. Location of Existing and/or Proposed Facilities:**

Should the well prove productive, production facilities will be installed on the disturbed portion of each well pad. A berm will be constructed completely around production components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will generally be constructed of compacted subsoil or corrugated metal, and will hold the capacity of the largest tank and have sufficient freeboard to accommodate a 25 year rainfall event. This includes pumping units. Gas that may be produced will be flared on location. A production facility layout is provided as part of a project-specific APD.

Anadarko will place a 30 millimeter thick impermeable liner under the rig. A single felt liner will also be installed under the impermeable liner for padding. The liner will be approximately 200' by 200', and should cover the entire rig, mud tanks, fuel tanks and any other equipment needed during the drilling operations.

#### **C. Pits for Drilling and Completions:**

Anadarko will use a closed loop mud drilling system that will require one pit and one storage area to be constructed on the drilling pad. The storage area will be used to contain only the de-watered drill cuttings and will be lined and reclaimed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit is lined with felt and 30

mil liner and will be used for the well drilled on the pad. All four sides of the completions pit will be fenced in according to standard pit fencing procedures. Netting will be installed over all pits.

Anadarko will use a closed loop mud system and will rent an oil based mud from Anchor and will be returning the oil based mud that is left at the end of the well to Anchor. Anadarko will utilize drip pans, catch pans, and secondary containment on the well site. Upon completions of the re-entry, Anadarko will either treat and bury the cuttings in a pit on the well pad, or collect the cuttings in boxes to have hauled off to a land farm in Altamont for disposal.

**D. Location and Types of Water Supply:**

Water for drilling and completion operations will be obtained from the city of Dove Creek, Colorado and/or from the city of Monticello, Utah. Water will be hauled to location over the existing access roads. No water well is to be drilled on this lease.

**E. Methods for Handling Waste:**

All wastes subject to regulation will be handled in compliance with applicable laws to minimize the potential for leaks or spills to the environment. Anadarko also maintains a Spill Control and Countermeasure Plan, which includes notification requirements, including the BLM, for all reportable spills of oil, produced liquids, and hazardous materials.

Any accidental release, such as a leak or spill in excess of the reportable quantity, as established by 40 CFR Part 117.3, will be reported as per the requirements of CERCLA, Section 102 B. If a release involves petroleum hydrocarbons or produced liquids, Anadarko will comply with the notification requirements of NTL-3A. Drill cuttings and/or drilling fluids will be contained in the reserve/frac pit. Cuttings will be buried in pit(s) upon closure.

Pits will be constructed to minimize the accumulation of surface precipitation runoff into the pit (via appropriate placement of subsoil storage areas and/or construction of berms, ditches, etc.). Should unexpected liquid petroleum hydrocarbons (crude oil or condensate) be encountered during drilling, completions or well testing, liquid petroleum hydrocarbons will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a reserve/completion pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by the BLM. Should timely removal not be feasible, the pit will be netted as soon as practical. Similarly, hydrocarbon removal will take place prior to the closure of the pit, unless authorization is provided for disposal via alternate pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with an impermeable liner. The liner will be a synthetic material 30 mil or thicker. The bottom and side walls of the pit will be void of any sharp rocks that could puncture the liner. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. After evaporation and when dry, the reserve pit liners will be cut off, ripped and/or folded back (as

safety considerations allow) as near to the mud surface as possible and buried on location or hauled to a landfill prior to backfilling the pit with a minimum of five feet of soil material.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after one year from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift.

For the protection of livestock and wildlife, all open pits (excluding flare pits) will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet. Siphons, catchments, and absorbent pads will be installed to keep hydrocarbons produced by the drilling rig or other equipment on location from entering the reserve pit. Hydrocarbons, contaminated pads, and/or soils will be disposed of in accordance with state and federal requirements.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

#### **F. Materials Management**

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Hazardous materials may be contained in some grease or lubricants, solvents, acids, paint, and herbicides, among others as defined above. Anadarko maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances that are used during the course of construction, drilling, completion, and production operations for this project. The transport, use, storage and handling of hazardous materials will follow procedures specified by federal and state regulations. Transportation of hazardous materials to the well location is regulated by the Department of Transportation (DOT) under 49 CFR, Parts 171-180. DOT regulations pertain to the packing, container handling, labeling, vehicle placarding, and other safety aspects.

Potentially hazardous materials used in the development or operation of wells will be kept in limited quantities on well sites and at the production facilities for short periods of time. Chemicals meeting the

criteria for being an acutely hazardous material/substance or meet the quantities criteria per BLM Instruction Memorandum No. 93-344 will not be used.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities (crude oil/condensate, produced water). They may also be kept in limited quantities on drilling sites (barite, diesel fuel, cement, cottonseed hulls, etc.) for short periods of time during drilling or completion activities.

**G. Surface Ownership:**

Phillip C. Crowley Trust  
Trustee: C. Duane Crowley  
P.O. Box 700  
Cortez, CO 81321-0700  
(970) 759-2153

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**H. Lessee's or Operators' Representative & Certification:**

Gina T. Becker  
Senior Regulatory Analyst  
Anadarko E&P Onshore, LLC  
PO Box 173779  
Denver, CO 80217-3779  
(720) 929-6086

Tommy Thompson  
General Manager, Drilling  
Anadarko E&P Onshore, LLC  
PO Box 173779  
Denver, CO 80217-3779  
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Anadarko E&P Onshore, LLC is considered to be the operator of the subject well. Anadarko E&P Onshore, LLC agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage for State lease activities is provided by State Surety Bond 22013542.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

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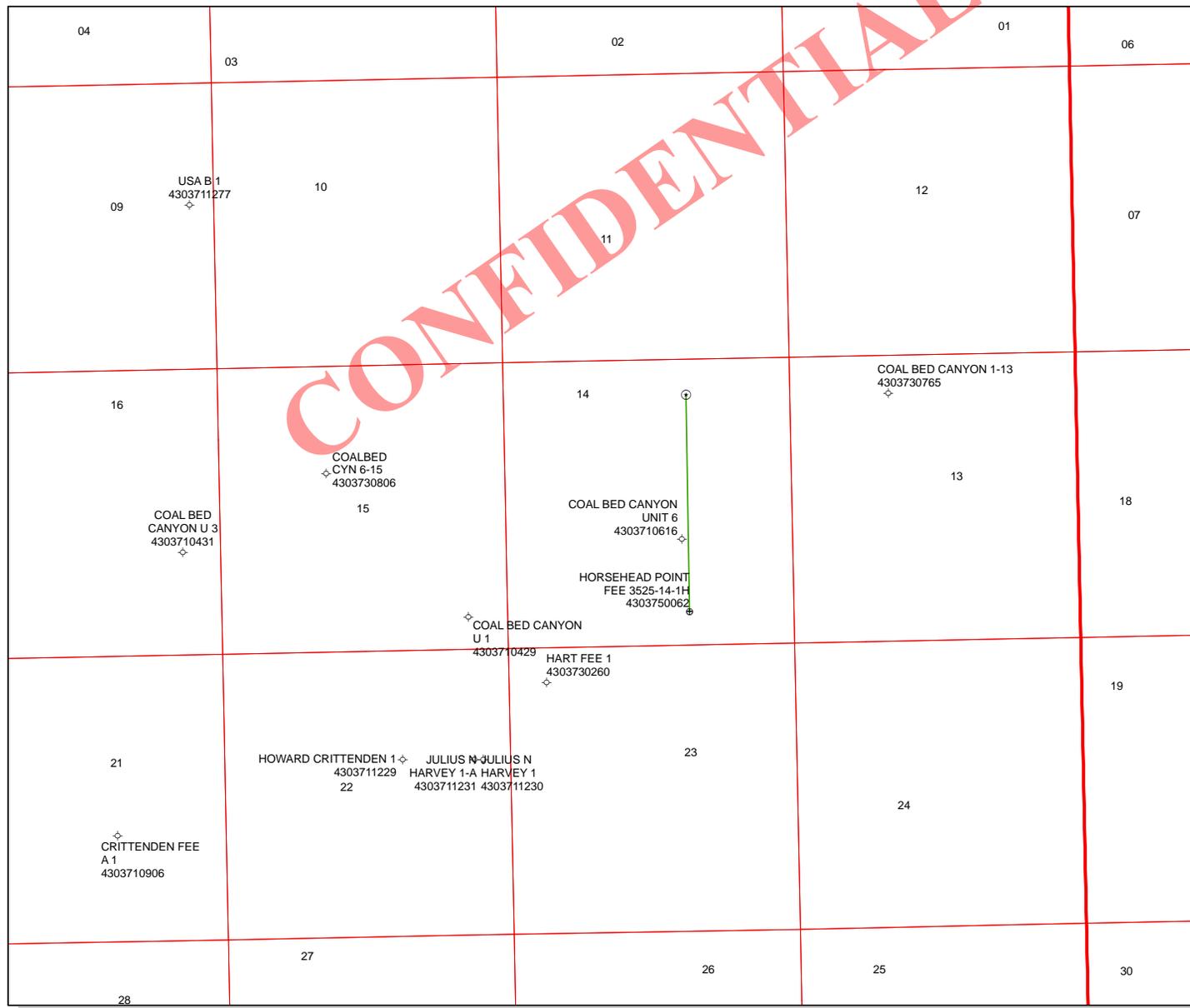


Gina T. Becker

May 24, 2013

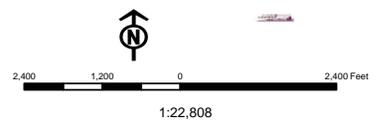
Date

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**API Number: 4303750062**  
**Well Name: HORSEHEAD POINT FEE 3525-14-1H**  
 Township T35.0S Range R25.0E Section 14  
**Meridian: SLBM**  
 Operator: ANADARKO E&P ONSHORE, LLC  
 Map Prepared:  
 Map Produced by Diana Mason

- Units STATUS**
- ACTIVE
  - EXPLORATORY
  - GAS STORAGE
  - NF PP OIL
  - NF SECONDARY
  - PI OIL
  - PP GAS
  - PP GEOTHERM
  - PP OIL
  - SECONDARY
  - TERMINATED



|  |   |       |       |  |
|--|---|-------|-------|--|
| Well Name                                | ANADARKO E&P ONSHORE, LLC HORSEHEAD POINT FEE 3525-14-1 |       |       |  |
| String                                   | Surf  | I1    | Prod  |  |
| Casing Size(")                           | 9.625   | 7.000 | 4.500 |  |
| Setting Depth (TVD)                      | 2000  | 5679  | 5679  |  |
| Previous Shoe Setting Depth (TVD)        | 0   | 2000  | 5679  |  |
| Max Mud Weight (ppg)                     | 8.4   | 10.0  | 10.0  |  |
| BOPE Proposed (psi)                      | 500   | 5000  | 5000  |  |
| Casing Internal Yield (psi)              | 3520  | 11220 | 14420 |  |
| Operators Max Anticipated Pressure (psi) | 2726  |       | 9.2   |  |

|   |  |       |   |
|---|--|-------|---|
| Calculations                                  | Surf String  | 9.625 | "   |
| Max BHP (psi)                                 | .052*Setting Depth*MW=                             | 874   |   |
|   |  |       | BOPE Adequate For Drilling And Setting Casing at Depth? |
| MASP (Gas) (psi)                              | Max BHP-(0.12*Setting Depth)=                      | 634   | NO <input type="checkbox"/> diverter                    |
| MASP (Gas/Mud) (psi)                          | Max BHP-(0.22*Setting Depth)=                      | 434   | YES <input type="checkbox"/> OK                         |
|   |  |       | *Can Full Expected Pressure Be Held At Previous Shoe?   |
| Pressure At Previous Shoe                     | Max BHP-.22*(Setting Depth - Previous Shoe Depth)= | 434   | NO <input type="checkbox"/>                             |
| Required Casing/BOPE Test Pressure=           |  | 2000  | psi   |
| *Max Pressure Allowed @ Previous Casing Shoe= |  | 0     | psi *Assumes 1psi/ft frac gradient                      |

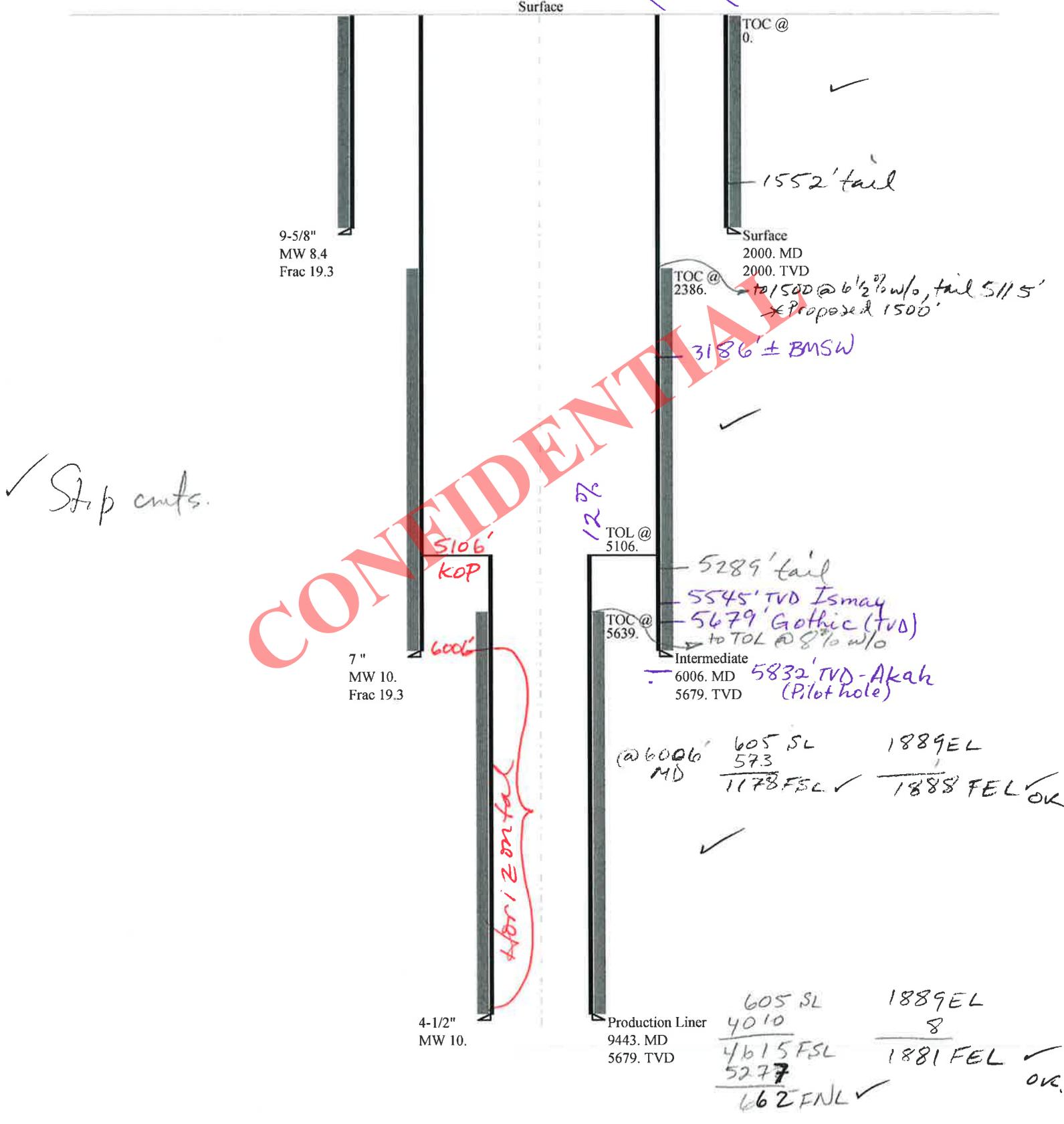
|   |  |       |  |
|---|--|-------|--|
| Calculations                                  | I1 String  | 7.000 | "  |
| Max BHP (psi)                                 | .052*Setting Depth*MW=                             | 2953  |  |
|   |  |       | BOPE Adequate For Drilling And Setting Casing at Depth?                |
| MASP (Gas) (psi)                              | Max BHP-(0.12*Setting Depth)=                      | 2272  | YES <input type="checkbox"/> 5M BOPE, pipe and blind rams, 5M annular  |
| MASP (Gas/Mud) (psi)                          | Max BHP-(0.22*Setting Depth)=                      | 1704  | YES <input type="checkbox"/> 5M choke panel with 2 chokes - one remote |
|   |  |       | *Can Full Expected Pressure Be Held At Previous Shoe?                  |
| Pressure At Previous Shoe                     | Max BHP-.22*(Setting Depth - Previous Shoe Depth)= | 2144  | NO <input type="checkbox"/> OK   |
| Required Casing/BOPE Test Pressure=           |  | 5000  | psi  |
| *Max Pressure Allowed @ Previous Casing Shoe= |  | 2000  | psi *Assumes 1psi/ft frac gradient                                     |

|   |  |       |   |
|---|--|-------|---|
| Calculations                                  | Prod String  | 4.500 | "   |
| Max BHP (psi)                                 | .052*Setting Depth*MW=                             | 2953  |   |
|   |  |       | BOPE Adequate For Drilling And Setting Casing at Depth? |
| MASP (Gas) (psi)                              | Max BHP-(0.12*Setting Depth)=                      | 2272  | YES <input type="checkbox"/>                            |
| MASP (Gas/Mud) (psi)                          | Max BHP-(0.22*Setting Depth)=                      | 1704  | YES <input type="checkbox"/> OK                         |
|   |  |       | *Can Full Expected Pressure Be Held At Previous Shoe?   |
| Pressure At Previous Shoe                     | Max BHP-.22*(Setting Depth - Previous Shoe Depth)= | 2953  | YES <input type="checkbox"/>                            |
| Required Casing/BOPE Test Pressure=           |  | 5000  | psi   |
| *Max Pressure Allowed @ Previous Casing Shoe= |  | 5679  | psi *Assumes 1psi/ft frac gradient                      |

|   |  |  |   |
|---|--|--|---|
| Calculations                                  | String   |  | "   |
| Max BHP (psi)                                 | .052*Setting Depth*MW=                             |  |   |
|   |  |  | BOPE Adequate For Drilling And Setting Casing at Depth? |
| MASP (Gas) (psi)                              | Max BHP-(0.12*Setting Depth)=                      |  | NO <input type="checkbox"/>                             |
| MASP (Gas/Mud) (psi)                          | Max BHP-(0.22*Setting Depth)=                      |  | NO <input type="checkbox"/>                             |
|   |  |  | *Can Full Expected Pressure Be Held At Previous Shoe?   |
| Pressure At Previous Shoe                     | Max BHP-.22*(Setting Depth - Previous Shoe Depth)= |  | NO <input type="checkbox"/>                             |
| Required Casing/BOPE Test Pressure=           |  |  | psi   |
| *Max Pressure Allowed @ Previous Casing Shoe= |  |  | psi *Assumes 1psi/ft frac gradient                      |

43037500620000 Horsehead Point Fee 3525-14-1H

Casing Schematic



✓ Strip cuts.

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|           |                   |                      |
|-----------|-------------------|----------------------|
| @ 6006 MD | 605 SL            | 1889EL               |
|           | 573               |                      |
|           | <u>1178 FEL ✓</u> | <u>1888 FEL ✓ OK</u> |

|                  |                   |
|------------------|-------------------|
| 605 SL           | 1889EL            |
| 4010             | 8                 |
| <u>4615 FSL</u>  | <u>1881 FEL ✓</u> |
| 5277             |                   |
| <u>662 FNL ✓</u> | <u>OK</u>         |

|              |  |                             |
|--------------|--|-----------------------------|
| Well name:   | <b>43037500620000 Horsehead Point Fee 3525-14-1H</b> |                             |
| Operator:    | <b>ANADARKO E&amp;P ONSHORE, LLC</b>                 |                             |
| String type: | Surface  | Project ID:<br>43-037-50062 |
| Location:    | SAN JUAN COUNTY                                      |                             |

**Design parameters:**

**Collapse**

Mud weight: 8.400 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 102 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 100 ft

**Burst:**

Design factor 1.00

Cement top: Surface

**Burst**

Max anticipated surface pressure: 1,760 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 2,000 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.70 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

Tension is based on air weight.  
Neutral point: 1,751 ft

**Non-directional string.**

**Re subsequent strings:**

Next setting depth: 5,679 ft  
Next mud weight: 10.000 ppg  
Next setting BHP: 2,950 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 2,000 ft  
Injection pressure: 2,000 psi

| Run Seq | Segment Length (ft) | Size (in)               | Nominal Weight (lbs/ft) | Grade            | End Finish           | True Vert Depth (ft) | Measured Depth (ft) | Drift Diameter (in)     | Est. Cost (\$)        |
|---------|---------------------|-------------------------|-------------------------|------------------|----------------------|----------------------|---------------------|-------------------------|-----------------------|
| 1       | 2000                | 9.625                   | 36.00                   | J-55             | LT&C                 | 2000                 | 2000                | 8.796                   | 16354                 |
| Run Seq | Collapse Load (psi) | Collapse Strength (psi) | Collapse Design Factor  | Burst Load (psi) | Burst Strength (psi) | Burst Design Factor  | Tension Load (kips) | Tension Strength (kips) | Tension Design Factor |
| 1       | 873                 | 2020                    | 2.315                   | 2000             | 3520                 | 1.76                 | 72                  | 453                     | 6.29 J                |

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Mining

Phone: 801 538-5357  
FAX: 801-359-3940

Date: June 28, 2013  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 2000 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

|              |  |                             |
|--------------|--|-----------------------------|
| Well name:   | <b>43037500620000 Horsehead Point Fee 3525-14-1H</b> |                             |
| Operator:    | <b>ANADARKO E&amp;P ONSHORE, LLC</b>                 |                             |
| String type: | Intermediate   | Project ID:<br>43-037-50062 |
| Location:    | SAN JUAN COUNTY                                      |                             |

**Design parameters:**

**Collapse**

Mud weight: 10.000 ppg  
Design is based on evacuated pipe.

**Burst**

Max anticipated surface pressure: 1,701 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP: 2,950 psi  
  
No backup mud specified.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.60 (B)

Tension is based on air weight.  
Neutral point: 4,820 ft

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 154 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,000 ft

Cement top: 2,386 ft

**Directional Info - Build & Hold**

Kick-off point: 5106 ft  
Departure at shoe: 573 ft  
Maximum dogleg: 10 °/100ft  
Inclination at shoe: 89.96 °

**Re subsequent strings:**

Next setting depth: 5,679 ft  
Next mud weight: 10.000 ppg  
Next setting BHP: 2,950 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 5,679 ft  
Injection pressure: 5,679 psi

| Run Seq | Segment Length (ft) | Size (in)               | Nominal Weight (lbs/ft) | Grade            | End Finish           | True Vert Depth (ft) | Measured Depth (ft) | Drift Diameter (in)     | Est. Cost (\$)        |
|---------|---------------------|-------------------------|-------------------------|------------------|----------------------|----------------------|---------------------|-------------------------|-----------------------|
| 1       | 6006                | 7                       | 29.00                   | HCP-110          | LT&C                 | 5679                 | 6006                | 6.059                   | 67823                 |
| Run Seq | Collapse Load (psi) | Collapse Strength (psi) | Collapse Design Factor  | Burst Load (psi) | Burst Strength (psi) | Burst Design Factor  | Tension Load (kips) | Tension Strength (kips) | Tension Design Factor |
| 1       | 2950                | 8785                    | 2.978                   | 2950             | 11220                | 3.80                 | 164.7               | 797                     | 4.84 J                |

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Mining

Phone: 801 538-5357  
FAX: 801-359-3940

Date: June 28, 2013  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 5679 ft, a mud weight of 10 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

|              |  |                             |
|--------------|--|-----------------------------|
| Well name:   | <b>43037500620000 Horsehead Point Fee 3525-14-1H</b> |                             |
| Operator:    | <b>ANADARKO E&amp;P ONSHORE, LLC</b>                 |                             |
| String type: | Production Liner                                     | Project ID:<br>43-037-50062 |
| Location:    | SAN JUAN COUNTY                                      |                             |

**Design parameters:**

**Collapse**

Mud weight: 10.000 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 154 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,000 ft

Cement top: 5,639 ft

**Burst**

Max anticipated surface pressure: 1,701 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP 2,950 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.60 (B)

Tension is based on air weight.  
Neutral point: 5,687 ft

Liner top: 5,106 ft

**Directional Info - Build & Hold**

Kick-off point 5106 ft  
Departure at shoe: 4010 ft  
Maximum dogleg: 10 °/100ft  
Inclination at shoe: 90 °

| Run Seq | Segment Length (ft) | Size (in)               | Nominal Weight (lbs/ft) | Grade            | End Finish           | True Vert Depth (ft) | Measured Depth (ft) | Drift Diameter (in)     | Est. Cost (\$)        |
|---------|---------------------|-------------------------|-------------------------|------------------|----------------------|----------------------|---------------------|-------------------------|-----------------------|
| 1       | 4343                | 4.5                     | 15.10                   | HCP-110          | DQX                  | 5679                 | 9443                | 3.701                   | 229310                |
| Run Seq | Collapse Load (psi) | Collapse Strength (psi) | Collapse Design Factor  | Burst Load (psi) | Burst Strength (psi) | Burst Design Factor  | Tension Load (kips) | Tension Strength (kips) | Tension Design Factor |
| 1       | 2950                | 15500                   | 5.254                   | 2950             | 14420                | 4.89                 | 8.7                 | 484.8                   | 55.41 J               |

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Mining

Phone: 801 538-5357  
FAX: 801-359-3940

Date: June 28, 2013  
Salt Lake City, Utah

**Remarks:**

For this liner string, the top is rounded to the nearest 100 ft. Collapse is based on a vertical depth of 5679 ft, a mud weight of 10 ppg. The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a



**Flora**

Grass: Indian rice grass, mutton grass, squirrel tail spp.

Forbs: Lupine L. spp, scarlet globe mallow, tumble mustard, western salsify, arrow leaf balsam root, rocket gila, Indian paint brush, dusty penstomon, vetch spp.

Shrubs: Wyoming sage, apple brush, antelope bitter brush, Gamble oak, gray horsebrush.

Trees: Utah Juniper, two needle pinion pine.

Fauna: Rocky mountain elk, mule deer, mountain lion, black bear, coyote, kit fox, gray fox, badger, cotton tail rabbit, black tailed jack rabbit, spotted skunk, and Gunnison prairie dog. Host of small rodents and reptiles possible such as: woodrat spp, kangaroo rat spp., deer mouse, pinion mouse, rock squirrel, and antelope squirrel.. Seasonal use by migrating birds such as sage sparrow, cassin finch, house finch, pinion jay, white crowned sparrow, gray crowned rosy finch, blue gray knat catcher, Bewick's wren, black throated sparrow, black capped chickadee, Brewers sparrow, bushtit, western kingbird, chipping sparrow, common nighthawk, Coppers hawk, sharp shin hawk, red tailed hawk, ruff legged hawk, golden eagle, bald eagle turkey vulture, Downey wood pecker, juniper titmouse, northern shrike, mountain bluebird, mourning dove, pine siskin, sage thrasher, western blue bird, and western meadow lark.

**Soil Type and Characteristics**

Northdale loam and Monticello very fine sandy loam. Fine textured orange sandy loam soils 20-60" deep.

**Erosion Issues Y**

Sandy loam soils prone to wind erosion once disturbed

**Sedimentation Issues N****Site Stability Issues N**

Site stability appears suitable for the proposed drilling program.

**Drainage Diverson Required? N****Berm Required? Y**

Berms not required around well pad, but are required around equipment and tanks containing E&P fluids, fuels and lubricants.

**Erosion Sedimentation Control Required? Y**

Top soil stock pile should be seeded with perennial grass and forb species to stabilize following disturbance.

**Paleo Survey Run? N    Paleo Potential Observed? N    Cultural Survey Run? N    Cultural Resources? N**

**Reserve Pit**

| <b>Site-Specific Factors</b>             | <b>Site Ranking</b> |    |
|--|---------------------|----|
| <b>Distance to Groundwater (feet)</b>    | 25 to 75            | 15 |
| <b>Distance to Surface Water (feet)</b>  | 200 to 300          | 10 |
| <b>Dist. Nearest Municipal Well (ft)</b> | >5280               | 0  |
| <b>Distance to Other Wells (feet)</b>    | 300 to 1320         | 10 |
| <b>Native Soil Type</b>                  | High permeability   | 20 |

|   |              |                        |
|---|--------------|------------------------|
| <b>Fluid Type</b>                       | TDS>5000 and | 10                     |
| <b>Drill Cuttings</b>                   | Normal Rock  | 0                      |
| <b>Annual Precipitation (inches)</b>    | 10 to 20     | 5                      |
| <b>Affected Populations</b>             |              |                        |
| <b>Presence Nearby Utility Conduits</b> | Not Present  | 0                      |
| <b>Final Score</b>                      |              | 70 1 Sensitivity Level |

**Characteristics / Requirements**

Reserve pit will not be permitted at this site, a closed loop drilling system is being proposed.

Completions pit will be permitted with a 30 mil liner as proposed.

All E&P materials, including drill cuttings, shall be contained in steel tanks or an approved pit containing a synthetic liner until it can be demonstrated such materials meet DOGM stands for abandonment. E&P materials, such as drilling cuttings, shall conform to the following DOGM standards prior to abandonment: Electrical Conductivity

**Closed Loop Mud Required? Y Liner Required? Y Liner Thickness 30 Pit Underlayment Required? Y**

**Other Observations / Comments**

Surface pond located within 250' and high quality ground water is thought to occur at the Dakota Sandstone in the area. Historic homestead located 2000' from proposed project area appears to have collected drinking water supplies from Dakota Sandstone outcrops located immediately adjacent to it. Two intermittent seeps suspected during years of average precipitation based on riparian vegetation observed along proposed access road.

Multiple permanent resident and recreational houses are located in close proximity to the proposed project area or access route. Potential for conflicts between adjacent surface owners and drilling operations exist. Notification to surrounding surface owners regarding activities that will occur as drilling operation commence is recommended

Bart Kettle  
**Evaluator**

6/18/2013  
**Date / Time**

**Application for Permit to Drill  
Statement of Basis  
Utah Division of Oil, Gas and Mining**

| APD No           | API WellNo  | Status | Well Type                | Surf Owner               | CBM |
|------------------|---|--------|--------------------------|--------------------------|-----|
| 8094             | 43037500620000                                      | LOCKED | OW                       | P                        | No  |
| <b>Operator</b>  | ANADARKO E&P ONSHORE, LLC                           |        | <b>Surface Owner-APD</b> | Phillip C. Crowley Trust |     |
| <b>Well Name</b> | HORSEHEAD POINT FEE 3525-14-1H                      |        | <b>Unit</b>              |                          |     |
| <b>Field</b>     | WILDCAT   |        | <b>Type of Work</b>      | DRILL                    |     |
| <b>Location</b>  | SWSE 14 35S 25E S 605 FSL<br>(UTM) 663619E 4177424N |        | 1889 FEL                 | GPS Coord                |     |

**Geologic Statement of Basis**

Anadarko E&P Onshore, LLC proposes to drill the well to a total depth of 5,718' and plans to set surface casing from 0'-2,000'. The surface string will be drilled using a water based mud. Within a one-mile radius there are two underground water rights; the water wells range from 233' to 320' deep, with water as shallow as 100' below the ground surface. The base of the moderately saline groundwater is approximately 3,186' below the ground surface, based on DNR Technical Publication #94. Several units of the Morrison Formation, Entrada Sandstone, and Navajo Sandstone are present within the subsurface; these strata are likely to contain useable groundwater and are within the interval to be protected by the surface casing string. The operator should be aware of the likelihood of these and other units being water saturated and to respond to protecting these zones by extending the surface casing as necessary. Proposed surface casing and cement should adequately isolate any shallow zones containing water.

Ammon McDonald  
APD Evaluator

7/1/2013  
Date / Time

**Surface Statement of Basis**

Surface evaluation completed on June 18, 2013. In attendance: Bart Kettle-Division of Oil Gas and Mining (DOGM), Buzz Crowley-Surface Owner, Gina Becker-Anadarko E&P Onshore LLC, Jacob Dunham-Anadarko E&P Onshore LLC, Jed Lemmons-Anadarko E&P Onshore LLC, Chantill Recker-Anadarko E&P, Andrue Flyod-Timberline

As proposed well will be drilled using a closed loop mud circulating system, no reserve pit is being requested for proposed project. Drilling medium will be contained in steel mud tanks, drill cuttings will be separated from drilling medium and captured in a steel trough or tank. All E&P materials, including drill cuttings, shall be contained in steel tanks or an approved pit containing a synthetic liner until it can be demonstrated such materials meet DOGM standards for abandonment. E&P materials, such as drilling cuttings, shall conform to the following DOGM standards prior to abandonment: Electrical Conductivity  
Dry land farm at the project area is managed as an organic farm, as such vegetation should be controlled mechanically or biologically without the aide of herbicide. Russian knapweed, hoary cress and jointed goat grass observed along proposed access route. State or county listed noxious weeds shall be controlled along access road, pipelines and well pad to prevent spread with area of operations.

Access road should be maintained as a surfaced raised bed road with a 2% slope to

facilitate storm water drainage from running surface. Rolling dips shall be constructed as needed to divert storm water from running surface.

Top 12" of suitable soils shall be salvaged for interim reclamation. Soils containing rock fragments should not be salvaged. Vegetation striped from project site shall be kept separate from top soil.

Bart Kettle  
Onsite Evaluator

6/18/2013  
Date / Time

**Conditions of Approval / Application for Permit to Drill**

| <b>Category</b> | <b>Condition</b>  |
|-----------------|---|
| Pits            | A closed loop mud circulation system is required for this location.   |
| Pits            | The Division shall be consulted prior to reclamation of pits or disposal of E&P wastes.                                   |
| Pits            | All E&P materials, including drill cuttings, shall be contained in steel tanks or an approved pit.                        |
| Surface         | Tanks containing fuel, chemicals or produced fluids shall be bermed and placed on a 30 mil string reinforced geomembrane. |
| Surface         | Top 12" of suitable soil shall be salvaged.   |
| Surface         | Interim reclamation shall be completed within 12 months following well pad construction.                                  |
| Surface         | Fresh water shall be applied to access road and well pad to control dust.   |

CONFIDENTIAL

## WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 5/24/2013

API NO. ASSIGNED: 43037500620000

WELL NAME: HORSEHEAD POINT FEE 3525-14-1H

OPERATOR: ANADARKO E&amp;P ONSHORE, LLC (N3940)

PHONE NUMBER: 720 929-6086

CONTACT: Gina Becker

PROPOSED LOCATION: SWSE 14 350S 250E

Permit Tech Review: 

SURFACE: 0605 FSL 1889 FEL

Engineering Review: 

BOTTOM: 0660 FNL 1890 FEL

Geology Review: 

COUNTY: SAN JUAN

LATITUDE: 37.72949

LONGITUDE: -109.14328

UTM SURF EASTINGS: 663619.00

NORTHINGS: 4177424.00

FIELD NAME: WILDCAT

LEASE TYPE: 4 - Fee

LEASE NUMBER: FEE

PROPOSED PRODUCING FORMATION(S): GOTHIC

SURFACE OWNER: 4 - Fee

COALBED METHANE: NO

## RECEIVED AND/OR REVIEWED:

- PLAT
- Bond: STATE - 22013542
- Potash
- Oil Shale 190-5
- Oil Shale 190-3
- Oil Shale 190-13
- Water Permit: Municipal
- RDCC Review: 2013-07-11 00:00:00.0
- Fee Surface Agreement
- Intent to Commingle

Commingling Approved

## LOCATION AND SITING:

- R649-2-3.
- Unit:
- R649-3-2. General
- R649-3-3. Exception
- Drilling Unit
- Board Cause No: R649-3-2.6
- Effective Date:
- Siting:
- R649-3-11. Directional Drill

Comments: Presite Completed  
TEMP 640 ACRE SPACING:

Stipulations: 5 - Statement of Basis - bhill  
12 - Cement Volume (3) - hmadonald  
21 - RDCC - dmason  
23 - Spacing - dmason  
25 - Surface Casing - hmadonald  
26 - Temporary Spacing - bhill  
27 - Other - bhill



GARY R. HERBERT  
Governor

GREGORY S. BELL  
Lieutenant Governor

# State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

## Permit To Drill

\*\*\*\*\*

**Well Name:** HORSEHEAD POINT FEE 3525-14-1H  
**API Well Number:** 43037500620000  
**Lease Number:** FEE  
**Surface Owner:** FEE (PRIVATE)  
**Approval Date:** 7/15/2013

### Issued to:

ANADARKO E&P ONSHORE, LLC, P.O. Box 173779, Denver, CO 80217

### Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of R649-3-2.6. The expected producing formation or pool is the GOTHIC Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

### Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

### Conditions of Approval:

The Application for Permit to Drill has been forwarded to the Resource Development Coordinating Committee for review of this action. The operator will be required to comply with any applicable recommendations resulting from this review. (See attached)

This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

A temporary 640 acre spacing unit is hereby established in Section 14, Township 35 S, Range 25 E, SLM for the drilling of this well (R649-3-2.6). No other horizontal wells may be drilled in this section unless approved by the Board of Oil, Gas and Mining.

Cement volume for the 7" intermediate and 4 1/2" production strings shall be determined from actual hole diameter in order to place cement from the pipe setting depths back to 1500' MD and TOL, respectively, as indicated in the submitted drilling plan.

Surface casing shall be cemented to the surface.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

In accordance with Utah Admin. R.649-3-21, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

**Additional Approvals:**

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan - contact Dustin Doucet
- Significant plug back of the well - contact Dustin Doucet
- Plug and abandonment of the well - contact Dustin Doucet

**Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well - contact Carol Daniels

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at <http://oilgas.ogm.utah.gov>

- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing - contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program

program

- contact Dustin Doucet

• 24 hours prior to commencing operations to plug and abandon the well - contact Dan Jarvis

**Contact Information:**

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office  
801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office  
801-231-8956 - after office hours

**Reporting Requirements:**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) - due within 5 days of spudding the well
- Monthly Status Report (Form 9) - due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) - due prior to implementation
- Written Notice of Emergency Changes (Form 9) - due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) - due prior to implementation
- Report of Water Encountered (Form 7) - due within 30 days after completion
- Well Completion Report (Form 8) - due within 30 days after completion or plugging

**Approved By:**

A handwritten signature in black ink, appearing to read "John Rogers", written over a horizontal line.

For John Rogers  
Associate Director, Oil & Gas

|  |  |
|--|--|
| <b>STATE OF UTAH</b><br>DEPARTMENT OF NATURAL RESOURCES<br>DIVISION OF OIL, GAS, AND MINING  | <b>FORM 9</b>  |
| <b>SUNDRY NOTICES AND REPORTS ON WELLS</b>   | 5. LEASE DESIGNATION AND SERIAL NUMBER:<br>FEE             |
| Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME:                      |
| 1. TYPE OF WELL<br>Oil Well  | 7. UNIT or CA AGREEMENT NAME:                              |
| 2. NAME OF OPERATOR:<br>ANADARKO E&P ONSHORE, LLC  | 8. WELL NAME and NUMBER:<br>HORSEHEAD POINT FEE 3525-14-1H |
| 3. ADDRESS OF OPERATOR:<br>P.O. Box 173779 , Denver, CO, 80217   | 9. API NUMBER:<br>43037500620000                           |
| 4. LOCATION OF WELL<br>FOOTAGES AT SURFACE:<br>0605 FSL 1889 FEL<br>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:<br>Qtr/Qtr: SWSE Section: 14 Township: 35.0S Range: 25.0E Meridian: S   | 9. FIELD and POOL or WILDCAT:<br>WILDCAT                   |
|  | COUNTY:<br>SAN JUAN  |
|  | STATE:<br>UTAH   |

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

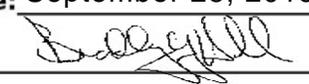
| TYPE OF SUBMISSION   | TYPE OF ACTION   |   |   |
|--|--|---|---|
| <input checked="" type="checkbox"/> NOTICE OF INTENT<br>Approximate date work will start:<br>7/22/2013 | <input type="checkbox"/> ACIDIZE                       | <input type="checkbox"/> ALTER CASING                   | <input type="checkbox"/> CASING REPAIR                  |
| <input type="checkbox"/> SUBSEQUENT REPORT<br>Date of Work Completion:                                 | <input type="checkbox"/> CHANGE TO PREVIOUS PLANS      | <input type="checkbox"/> CHANGE TUBING                  | <input type="checkbox"/> CHANGE WELL NAME               |
| <input type="checkbox"/> SPUD REPORT<br>Date of Spud:  | <input type="checkbox"/> CHANGE WELL STATUS            | <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS | <input type="checkbox"/> CONVERT WELL TYPE              |
| <input type="checkbox"/> DRILLING REPORT<br>Report Date:   | <input type="checkbox"/> DEEPEN                        | <input type="checkbox"/> FRACTURE TREAT                 | <input type="checkbox"/> NEW CONSTRUCTION               |
|  | <input type="checkbox"/> OPERATOR CHANGE               | <input type="checkbox"/> PLUG AND ABANDON               | <input type="checkbox"/> PLUG BACK                      |
|  | <input type="checkbox"/> PRODUCTION START OR RESUME    | <input type="checkbox"/> RECLAMATION OF WELL SITE       | <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION |
|  | <input type="checkbox"/> REPERFORATE CURRENT FORMATION | <input type="checkbox"/> SIDETRACK TO REPAIR WELL       | <input type="checkbox"/> TEMPORARY ABANDON              |
|  | <input type="checkbox"/> TUBING REPAIR                 | <input type="checkbox"/> VENT OR FLARE                  | <input type="checkbox"/> WATER DISPOSAL                 |
|  | <input type="checkbox"/> WATER SHUTOFF                 | <input type="checkbox"/> SI TA STATUS EXTENSION         | <input type="checkbox"/> APD EXTENSION                  |
|  | <input type="checkbox"/> WILDCAT WELL DETERMINATION    | <input checked="" type="checkbox"/> OTHER               | OTHER: <input type="text" value="Add Water Sources"/>   |

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The Operator wishes to add additional water sources to our approved APD package. This is a Confidential well. 1. Pond- Located in the SENE, Section 25, Township 34S - Range 25E in Utah (37.796126, -109.119856) / 2. Irrigation Well- Located in the SENW, Section 6, Township 42N - Range 19W in Colorado (37.934544, -109.006297) / 3. Blanding Hydrant- Located in the SWSW, Section 23m Township 36S - Range 22E in Utah (37.637213, -109.475634)

**Accepted by the Utah Division of Oil, Gas and Mining**

Date: September 25, 2013

By: 

|                                    |                              |                                |
|------------------------------------|------------------------------|--------------------------------|
| NAME (PLEASE PRINT)<br>Gina Becker | PHONE NUMBER<br>720 929-6086 | TITLE<br>Regulatory Analyst II |
| SIGNATURE<br>N/A                   | DATE<br>7/18/2013            |                                |

|  |  |
|--|--|
| <b>STATE OF UTAH</b><br>DEPARTMENT OF NATURAL RESOURCES<br>DIVISION OF OIL, GAS, AND MINING  | <b>FORM 9</b>  |
| <b>SUNDRY NOTICES AND REPORTS ON WELLS</b><br><br>Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. | 5. LEASE DESIGNATION AND SERIAL NUMBER:<br>FEE             |
| 1. TYPE OF WELL<br>Oil Well  | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME:                      |
| 2. NAME OF OPERATOR:<br>ANADARKO E&P ONSHORE, LLC  | 7. UNIT or CA AGREEMENT NAME:                              |
| 3. ADDRESS OF OPERATOR:<br>P.O. Box 173779 , Denver, CO, 80217   | 8. WELL NAME and NUMBER:<br>HORSEHEAD POINT FEE 3525-14-1H |
| 4. LOCATION OF WELL<br>FOOTAGES AT SURFACE:<br>0605 FSL 1889 FEL<br>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:<br>Qtr/Qtr: SWSE Section: 14 Township: 35.0S Range: 25.0E Meridian: S   | 9. API NUMBER:<br>43037500620000                           |
| 9. FIELD and POOL or WILDCAT:<br>WILDCAT   | COUNTY:<br>SAN JUAN  |
| STATE:<br>UTAH   |  |

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION   | TYPE OF ACTION   |   |   |
|--|--|---|---|
| <input checked="" type="checkbox"/> NOTICE OF INTENT<br>Approximate date work will start:<br>7/15/2014 | <input type="checkbox"/> ACIDIZE                       | <input type="checkbox"/> ALTER CASING                   | <input type="checkbox"/> CASING REPAIR                  |
| <input type="checkbox"/> SUBSEQUENT REPORT<br>Date of Work Completion:                                 | <input type="checkbox"/> CHANGE TO PREVIOUS PLANS      | <input type="checkbox"/> CHANGE TUBING                  | <input type="checkbox"/> CHANGE WELL NAME               |
| <input type="checkbox"/> SPUD REPORT<br>Date of Spud:  | <input type="checkbox"/> CHANGE WELL STATUS            | <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS | <input type="checkbox"/> CONVERT WELL TYPE              |
| <input type="checkbox"/> DRILLING REPORT<br>Report Date:   | <input type="checkbox"/> DEEPEN                        | <input type="checkbox"/> FRACTURE TREAT                 | <input type="checkbox"/> NEW CONSTRUCTION               |
|  | <input type="checkbox"/> OPERATOR CHANGE               | <input type="checkbox"/> PLUG AND ABANDON               | <input type="checkbox"/> PLUG BACK                      |
|  | <input type="checkbox"/> PRODUCTION START OR RESUME    | <input type="checkbox"/> RECLAMATION OF WELL SITE       | <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION |
|  | <input type="checkbox"/> REPERFORATE CURRENT FORMATION | <input type="checkbox"/> SIDETRACK TO REPAIR WELL       | <input type="checkbox"/> TEMPORARY ABANDON              |
|  | <input type="checkbox"/> TUBING REPAIR                 | <input type="checkbox"/> VENT OR FLARE                  | <input type="checkbox"/> WATER DISPOSAL                 |
|  | <input type="checkbox"/> WATER SHUTOFF                 | <input type="checkbox"/> SI TA STATUS EXTENSION         | <input checked="" type="checkbox"/> APD EXTENSION       |
|  | <input type="checkbox"/> WILDCAT WELL DETERMINATION    | <input type="checkbox"/> OTHER                          | OTHER: <input style="width: 100px;" type="text"/>       |

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Anadarko E&P Onshore, LLC respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

**Approved by the  
Utah Division of  
Oil, Gas and Mining**  
 May 27, 2014

Date: \_\_\_\_\_

By: 

|                                    |                              |                                      |
|------------------------------------|------------------------------|--------------------------------------|
| NAME (PLEASE PRINT)<br>Teena Paulo | PHONE NUMBER<br>720 929-6236 | TITLE<br>Staff Regulatory Specialist |
| SIGNATURE<br>N/A                   | DATE<br>5/23/2014            |                                      |



**The Utah Division of Oil, Gas, and Mining**

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

**Request for Permit Extension Validation Well Number 43037500620000**

API: 43037500620000

Well Name: HORSEHEAD POINT FEE 3525-14-1H

Location: 0605 FSL 1889 FEL QTR SWSE SEC 14 TWNP 350S RNG 250E MER S

Company Permit Issued to: ANADARKO E&P ONSHORE, LLC

Date Original Permit Issued: 7/15/2013

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- If located on private land, has the ownership changed, if so, has the surface agreement been updated?  Yes  No
- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?  Yes  No
- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?  Yes  No
- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?  Yes  No
- Has the approved source of water for drilling changed?  Yes  No
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?  Yes  No
- Is bonding still in place, which covers this proposed well?  Yes  No

Signature: Teena Paulo

Date: 5/23/2014

Title: Staff Regulatory Specialist Representing: ANADARKO E&P ONSHORE, LLC

|  |  |
|--|--|
| <b>STATE OF UTAH</b><br>DEPARTMENT OF NATURAL RESOURCES<br>DIVISION OF OIL, GAS, AND MINING  | <b>FORM 9</b>  |
| <b>SUNDRY NOTICES AND REPORTS ON WELLS</b><br><br>Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. | 5. LEASE DESIGNATION AND SERIAL NUMBER:<br>FEE             |
|  | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME:                      |
|  | 7. UNIT or CA AGREEMENT NAME:                              |
| 1. TYPE OF WELL<br>Oil Well  | 8. WELL NAME and NUMBER:<br>HORSEHEAD POINT FEE 3525-14-1H |
| 2. NAME OF OPERATOR:<br>KERR-MCGEE OIL & GAS ONSHORE, L.P.   | 9. API NUMBER:<br>43037500620000                           |
| 3. ADDRESS OF OPERATOR:<br>P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779   | PHONE NUMBER:<br>720 929-6100                              |
| 4. LOCATION OF WELL<br>FOOTAGES AT SURFACE:<br>0605 FSL 1889 FEL<br>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:<br>Qtr/Qtr: SWSE Section: 14 Township: 35.0S Range: 25.0E Meridian: S   | 9. FIELD and POOL or WILDCAT:<br>WILDCAT                   |
|  | COUNTY:<br>SAN JUAN  |
|  | STATE:<br>UTAH   |

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION  | TYPE OF ACTION   |   |   |
|---|--|---|---|
| <input checked="" type="checkbox"/> NOTICE OF INTENT<br>Approximate date work will start:<br><b>6/17/2015</b> | <input type="checkbox"/> ACIDIZE                       | <input type="checkbox"/> ALTER CASING                   | <input type="checkbox"/> CASING REPAIR                  |
| <input type="checkbox"/> SUBSEQUENT REPORT<br>Date of Work Completion:  | <input type="checkbox"/> CHANGE TO PREVIOUS PLANS      | <input type="checkbox"/> CHANGE TUBING                  | <input type="checkbox"/> CHANGE WELL NAME               |
| <input type="checkbox"/> SPUD REPORT<br>Date of Spud:   | <input type="checkbox"/> CHANGE WELL STATUS            | <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS | <input type="checkbox"/> CONVERT WELL TYPE              |
| <input type="checkbox"/> DRILLING REPORT<br>Report Date:  | <input type="checkbox"/> DEEPEN                        | <input type="checkbox"/> FRACTURE TREAT                 | <input type="checkbox"/> NEW CONSTRUCTION               |
|   | <input type="checkbox"/> OPERATOR CHANGE               | <input type="checkbox"/> PLUG AND ABANDON               | <input type="checkbox"/> PLUG BACK                      |
|   | <input type="checkbox"/> PRODUCTION START OR RESUME    | <input type="checkbox"/> RECLAMATION OF WELL SITE       | <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION |
|   | <input type="checkbox"/> REPERFORATE CURRENT FORMATION | <input type="checkbox"/> SIDETRACK TO REPAIR WELL       | <input type="checkbox"/> TEMPORARY ABANDON              |
|   | <input type="checkbox"/> TUBING REPAIR                 | <input type="checkbox"/> VENT OR FLARE                  | <input type="checkbox"/> WATER DISPOSAL                 |
|   | <input type="checkbox"/> WATER SHUTOFF                 | <input type="checkbox"/> SI TA STATUS EXTENSION         | <input checked="" type="checkbox"/> APD EXTENSION       |
|   | <input type="checkbox"/> WILDCAT WELL DETERMINATION    | <input type="checkbox"/> OTHER                          | OTHER: <input style="width: 100px;" type="text"/>       |

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

**Approved by the**  
**June 23, 2015**  
**Oil, Gas and Mining**

Date: \_\_\_\_\_  
 By:

|  |                              |                                |
|--|------------------------------|--------------------------------|
| NAME (PLEASE PRINT)<br>Jennifer Thomas | PHONE NUMBER<br>720 929-6808 | TITLE<br>Regulatory Specialist |
| SIGNATURE<br>N/A                       | DATE<br>6/17/2015            |                                |



**The Utah Division of Oil, Gas, and Mining**

- State of Utah  
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

**Request for Permit Extension Validation Well Number 43037500620000**

API: 43037500620000

Well Name: HORSEHEAD POINT FEE 3525-14-1H

Location: 0605 FSL 1889 FEL QTR SWSE SEC 14 TWNP 350S RNG 250E MER S

Company Permit Issued to: ANADARKO E&P ONSHORE, LLC

Date Original Permit Issued: 7/15/2013

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- If located on private land, has the ownership changed, if so, has the surface agreement been updated?  Yes  No
  
- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?  Yes  No
  
- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?  Yes  No
  
- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?  Yes  No
  
- Has the approved source of water for drilling changed?  Yes  No
  
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?  Yes  No
  
- Is bonding still in place, which covers this proposed well?  Yes  No

Signature: Jennifer Thomas

Date: 6/17/2015

Title: Regulatory Specialist Representing: ANADARKO E&P ONSHORE, LLC



GARY R. HERBERT  
Governor

SPENCER J. COX  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

July 21, 2016

Anadarko E&P Onshore, LLC  
P.O. BOX 173779  
Denver, CO 80217

Re: APD Rescinded–Horsehead Point FEE 3525-14-1H, Sec. 14, T.35S, R.25E,  
San Juan County, Utah API No. 43-037-50062

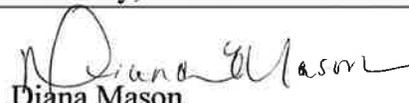
Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on July 15, 2013. On May 27, 2014 and June 23, 2015 the Division granted a one-year APD extension. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective July 21, 2016.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

  
Diana Mason  
Environmental Scientist

cc: Well File  
Brad Hill, Technical Service Manager

