



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

Permit To Drill

Well Name: Virtus Lone Pine 34-11-5 #5
API Well Number: 43021500020000
Lease Number: UTU84126
Surface Owner: FEDERAL
Approval Date: 8/31/2015

Issued to:

VIRTUS OIL & GAS CORP, 1517 San Jacinto St, Houston, TX 77002

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 R649-3-3. The expected producing formation or pool is the NAVAJO 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

Exception Location:

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

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:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

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, 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.

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 at 801-538-5284

(please leave a voicemail message if not available)

OR

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

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

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



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

October 30, 2012

Notice to Oil and Gas Operators

Re: New Hydraulic Fracturing Rule R649-3-39

The process of hydraulic fracturing has been a commonly used method for obtaining production from oil and gas wells for many years in Utah and worldwide. This process has become an increasingly controversial issue with the public. Currently there are no conclusive studies that show examples of ground water contamination or public health issues resulting from hydraulic fracturing in Utah. However, there is still a great amount of public debate concerning the subject. The Utah Division of Oil, Gas and Mining believes that in order to alleviate some of the public's concerns, it was beneficial to create a rule to address the hydraulic fracturing process.

The Board of the Division of Oil, Gas and Mining on October 24, 2012, unanimously passed a rule to regulate the hydraulic fracturing process utilized in the production of oil and gas in Utah. The rule will be effective as of November 1, 2012. The rule can be found at the Division's website <http://oilgas.ogm.utah.gov/>. The rule in summary, addresses the following:

- The public disclosure of the chemicals used in the hydraulic fracturing process by individual well. This information must be reported to FracFocus <http://fracfocus.org>. FracFocus is a national chemical registry that is available for the public's use and analysis. By rule, each well that is hydraulically fractured must be reported to FracFocus within 60 days after the completion of the hydraulic fracturing process.
- The rule defines proper methods for production of oil and gas emphasizing well bore integrity, casing design, pressures, drilling, completions and protection of ground water.
- The proper methods for the protection of surface waters from flowback. In addition, the proper disposal methods of managing flowback and produced water.

The Division believes that the FracFocus website is a powerful tool for both the industry and public. Please make yourself familiar with FracFocus. In addition, the other sections of the rules are procedures that have been utilized for many years by the Division for oil and gas operations in Utah. If you have any questions concerning this new rule, please contact John Rogers at the Division of Oil, Gas and Mining at 801-538-5349.

Sincerely,

John Rogers
Associate Director, Oil and Gas

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

FORM 3

AMENDED REPORT



| | | | | | | | | | | |
|---|--|--|--|--|--|---|--|--|--|--|
| APPLICATION FOR PERMIT TO DRILL | | | | | | 1. WELL NAME and NUMBER Virtus Lone Pine 34-11-5 #5 | | | | |
| 2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/> | | | | | | 3. FIELD OR WILDCAT WILDCAT | | | | |
| 4. TYPE OF WELL Oil Well Coalbed Methane Well: NO | | | | | | 5. UNIT or COMMUNITIZATION AGREEMENT NAME | | | | |
| 6. NAME OF OPERATOR VIRTUS OIL & GAS CORP | | | | | | 7. OPERATOR PHONE 281 806-5000 | | | | |
| 8. ADDRESS OF OPERATOR 1517 San Jacinto St, Houston, TX, 77002 | | | | | | 9. OPERATOR E-MAIL brett@virtusoilandgas.com | | | | |
| 10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UTU84126 | | | 11. MINERAL OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/> | | | 12. SURFACE OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/> | | | | |
| 13. NAME OF SURFACE OWNER (if box 12 = 'fee') | | | | | | 14. SURFACE OWNER PHONE (if box 12 = 'fee') | | | | |
| 15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee') | | | | | | 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 YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/> | | | 19. SLANT VERTICAL <input checked="" type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input type="checkbox"/> | | | | |

| 20. LOCATION OF WELL | FOOTAGES | QTR-QTR | SECTION | TOWNSHIP | RANGE | MERIDIAN |
|---------------------------------|------------------|---------|---------|----------|--------|----------|
| LOCATION AT SURFACE | 2249 FNL 976 FWL | SWNW | 5 | 34.0 S | 11.0 W | S |
| Top of Uppermost Producing Zone | 2249 FNL 976 FWL | SWNW | 5 | 34.0 S | 11.0 W | S |
| At Total Depth | 2249 FNL 976 FWL | SWNW | 5 | 34.0 S | 11.0 W | S |

| | | | | | |
|---|--|--|--|---|--|
| 21. COUNTY IRON | | 22. DISTANCE TO NEAREST LEASE LINE (Feet) 348 | | 23. NUMBER OF ACRES IN DRILLING UNIT 1991 | |
| | | 25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 5280 | | 26. PROPOSED DEPTH MD: 7000 TVD: 7000 | |
| 27. ELEVATION - GROUND LEVEL 5367 | | 28. BOND NUMBER UTB000670 | | 29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE City of Enoch | |

| Hole, Casing, and Cement Information | | | | | | | | | | |
|--------------------------------------|-----------|-------------|----------|--------|----------------|-------------|---------|-------|-------|--------|
| String | Hole Size | Casing Size | Length | Weight | Grade & Thread | Max Mud Wt. | Cement | Sacks | Yield | Weight |
| COND | 20 | 16 | 0 - 40 | 45.0 | Unknown | 0.0 | Unknown | 0 | 0.0 | 0.0 |
| SURF | 12.25 | 9.625 | 0 - 600 | 36.0 | J-55 ST&C | 8.6 | Varocem | 115 | 2.273 | 12.5 |
| | | | | | | | Varocem | 85 | 1.81 | 13.5 |
| PROD | 8.75 | 5.5 | 0 - 7000 | 17.0 | N-80 LT&C | 8.8 | Varocem | 700 | 1.479 | 13.5 |

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

| | |
|--|--|
| <input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER | <input checked="" type="checkbox"/> COMPLETE DRILLING PLAN |
| <input 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 type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED) | <input checked="" type="checkbox"/> TOPOGRAPHICAL MAP |

| | | |
|--|-------------------------------------|--|
| NAME Brett A Murray | TITLE Chief Operating Office | PHONE 281 806-5000 |
| SIGNATURE | DATE 08/25/2015 | EMAIL brett@virtusoilandgas.com |
| API NUMBER ASSIGNED 43021500020000 | | |
| APPROVAL Permit Manager | | |

VIRTUS OIL & GAS
VIRTUS LONE PINE 34-11-5 #5
SEC 5, T34S, R11W, S.L.B.&M.

DATE: _____

DESCRIPTION:

[illegible]

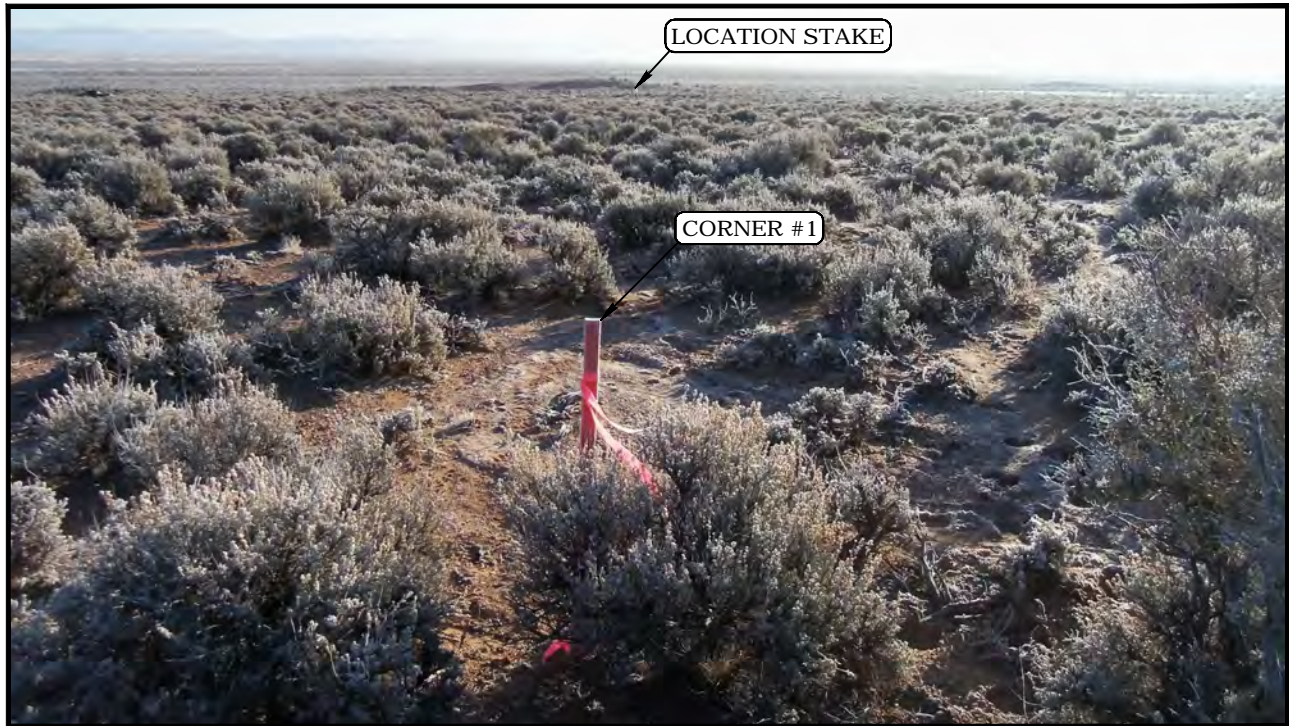


PHOTO: VIEW FROM CORNER #1 TO LOCATION STAKE

CAMERA ANGLE: WESTERLY



PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: SOUTHERLY

VIRTUS OIL & GAS

VIRTUS LONE PINE 34-11-5 #5
SECTION 5, T34S, R11W, S.L.B.&M.
2249' FNL 976' FWL



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

DRAWN BY: C.B.

DATE DRAWN: 01-22-15

TAKEN BY: B.H.

REVISED: 06-15-15 J.M.C.

LOCATION PHOTOS

PHOTO

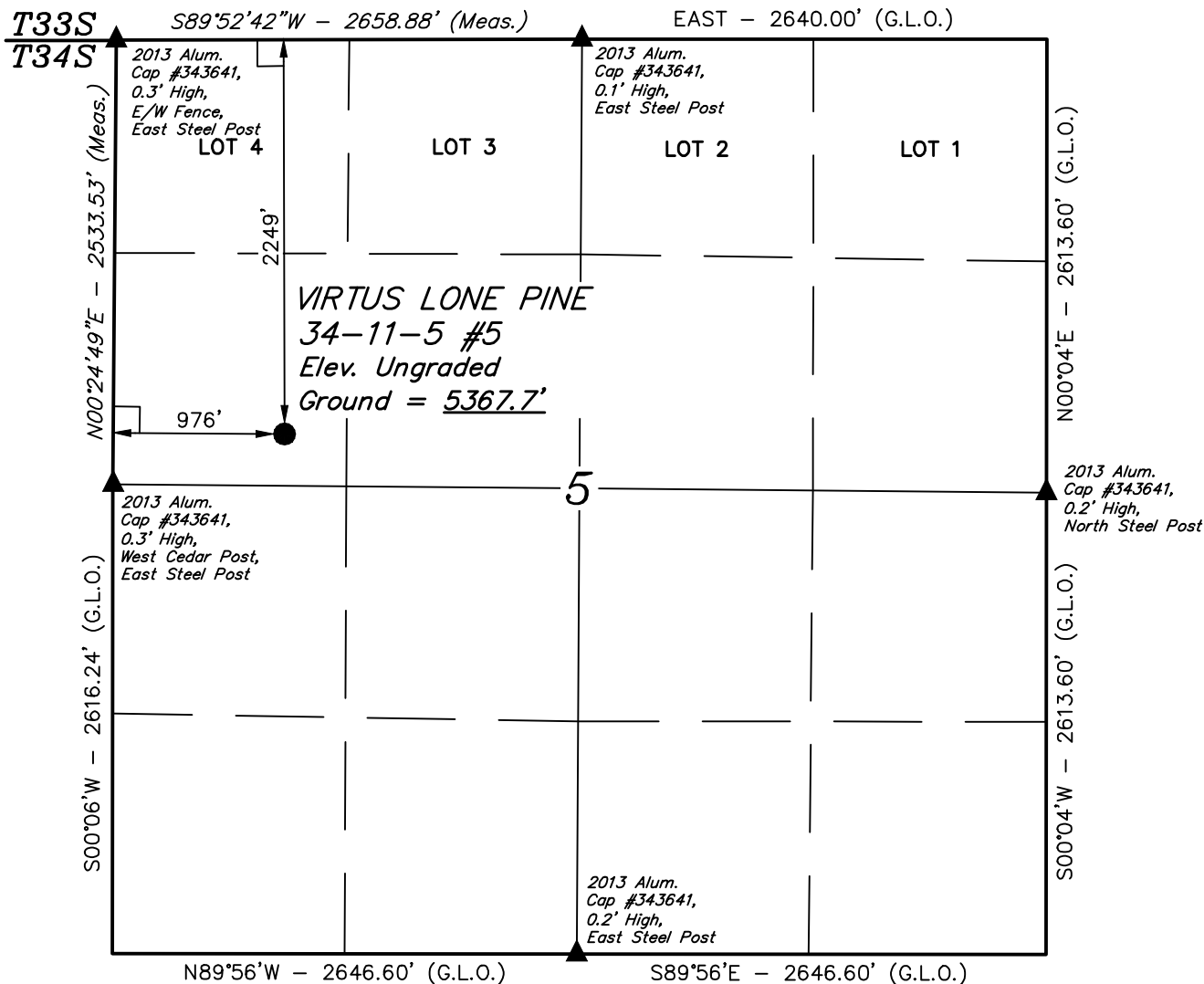
LEGEND:

└─ = 90° SYMBOL

● = PROPOSED WELLHEAD.

▲ = SECTION CORNERS LOCATED.

T34S, R11W, S.L.B.&M.

**NAD 83 (SURFACE LOCATION)**

LATITUDE = 37°52'34.62" (37.876283)

LONGITUDE = 113°07'13.52" (113.120422)

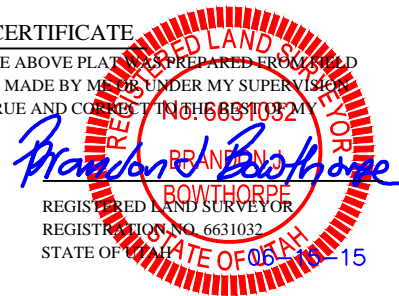
NAD 27 (SURFACE LOCATION)

LATITUDE = 37°52'34.71" (37.876308)

LONGITUDE = 113°07'10.69" (113.119636)

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 IN THE BEST OF MY KNOWLEDGE AND BELIEF.

**BASIS OF BEARINGS**

BASIS OF BEARINGS IS A G.P.S. OBSERVATION

BASIS OF ELEVATION

SPOT ELEVATION LOCATED AT THE NORTHEAST CORNER OF SECTION 31, T33S, R11W, S.L.B.&M., TAKEN FROM THE ENOCH NE QUADRANGLE, UTAH, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5352 FEET.

**VIRTUS OIL & GAS**

**VIRTUS LONE PINE 34-11-5 #5
SECTION 5, T34S, R11W, S.L.B.&M.
2249' FNL 976' FWL**

SURVEYED BY: B.H., J.L.

SURVEY DATE: 01-14-15

DRAWN BY: B.A.

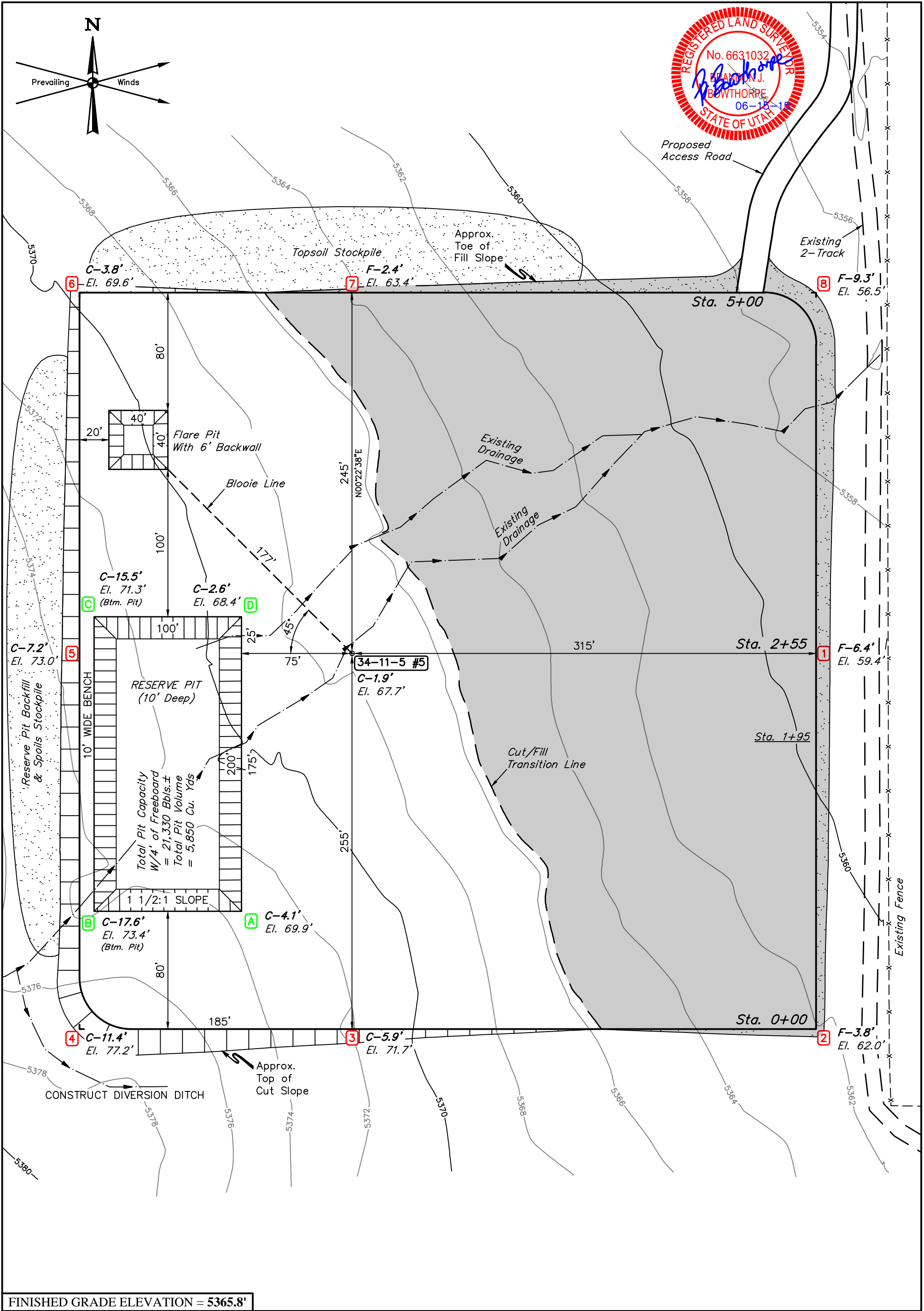
DATE DRAWN: 01-20-15

SCALE: 1" = 1000'

REVISED: 06-15-15 J.M.C.

WELL LOCATION PLAT

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



FINISHED GRADE ELEVATION = 5365.8'

- NOTES:**
- Round corners at 35' radius or as needed.
 - Construct diversion ditches as needed.
 - Contours shown at 2' intervals.
 - Flare pit is to be located a min. of 125' from the wellhead.

VIRTUS OIL & GAS

**VIRTUS LONE PINE 34-11-5 #5
SECTION 5, T34S, R11W, S.L.B.&M.
2249' FNL 976' FWL**

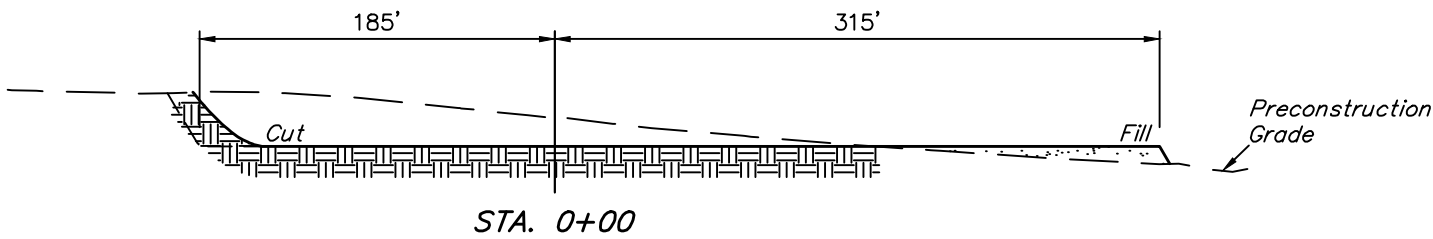
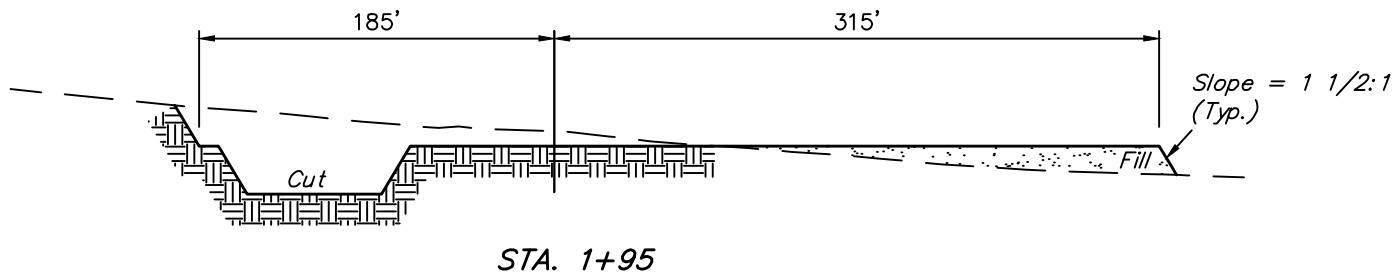
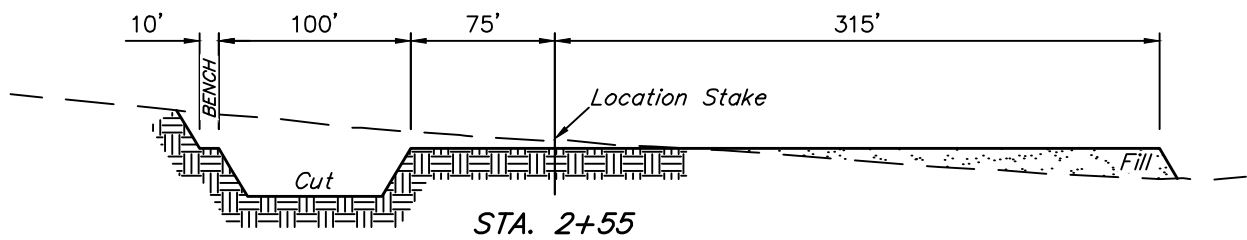
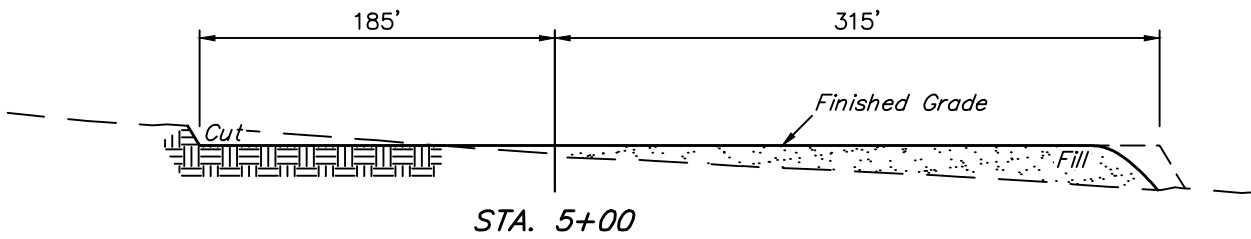
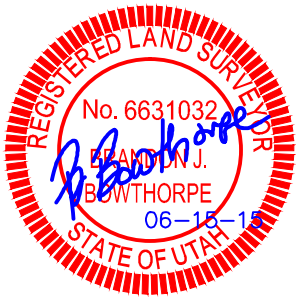


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Vernal, UT 84078 * (435) 789-1017

| | |
|-----------------|--------------------------|
| DRAWN BY: B.A. | DATE DRAWN: 01-20-15 |
| SCALE: 1" = 60' | REVISED: 06-15-15 J.M.C. |

| | |
|------------------------|------------------|
| LOCATION LAYOUT | FIGURE #1 |
|------------------------|------------------|

1" = 40'
X-Section
Scale
1" = 100'



| APPROXIMATE EARTHWORK QUANTITIES | |
|---|------------------------|
| (6") TOPSOIL STRIPPING | 4,950 Cu. Yds. |
| REMAINING LOCATION | 23,940 Cu. Yds. |
| TOTAL CUT | 28,890 Cu. Yds. |
| FILL | 21,010 Cu. Yds. |
| EXCESS MATERIAL | 7,880 Cu. Yds. |
| TOPSOIL & PIT BACKFILL (1/2 Pit Vol.) | 7,880 Cu. Yds. |
| EXCESS UNBALANCE (After Interim Rehabilitation) | 0 Cu. Yds. |

| APPROXIMATE SURFACE DISTURBANCE AREAS | | |
|--|----------|----------------|
| | DISTANCE | ACRES |
| WELL SITE DISTURBANCE | NA | ±6.806 |
| 30' WIDE ACCESS ROAD R-O-W DISTURBANCE | ±5783' | ±3.983 |
| TOTAL SURFACE USE AREA | | ±10.789 |

- NOTES:**
- Fill quantity includes 5% for compaction.
 - Calculations based on 6" of topsoil stripping.
 - Topsoil should not be stripped below finished grade on substructure area.

VIRTUS OIL & GAS

**VIRTUS LONE PINE 34-11-5 #5
SECTION 5, T34S, R11W, S.L.B.&M.
2249' FNL 976' FWL**



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| | |
|-------------------------------|--------------------------|
| DRAWN BY: B.A. | DATE DRAWN: 01-20-15 |
| SCALE: AS SHOWN | REVISED: 06-15-15 J.M.C. |
| TYPICAL CROSS SECTIONS | FIGURE #2 |

PROCEED IN A NORTHERLY DIRECTION FROM CEDAR CITY, UTAH ALONG I-15 FOR APPROXIMATELY 3.4 MILES TO EXIT 62, EXIT RIGHT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 0.3 MILES TO THE JUNCTION OF THIS ROAD AND HIGHWAY 130 TO THE NORTH; TURN LEFT AND PROCEED IN A NORTHERLY, THEN NORTHEASTERLY, THEN THEN NORTHERLY DIRECTION APPROXIMATELY 12.7 MILES TO THE JUNCTION OF THIS ROAD AND HORSE HOLLOW ROAD TO THE SOUTHWEST; TURN LEFT AND PROCEED IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 5.2 MILES TO THE BEGINNING OF THE PROPOSED ACCESS ROAD TO THE SOUTH; FOLLOW ROAD FLAGS IN A SOUTHERLY DIRECTION APPROXIMATELY 5783' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM CEDAR CITY, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 22.7 MILES.

VIRTUS OIL & GAS

**VIRTUS LONE PINE 34-11-5 #5
SECTION 5, T34S, R11W, S.L.B.&M.
2249' FNL 976' FWL**



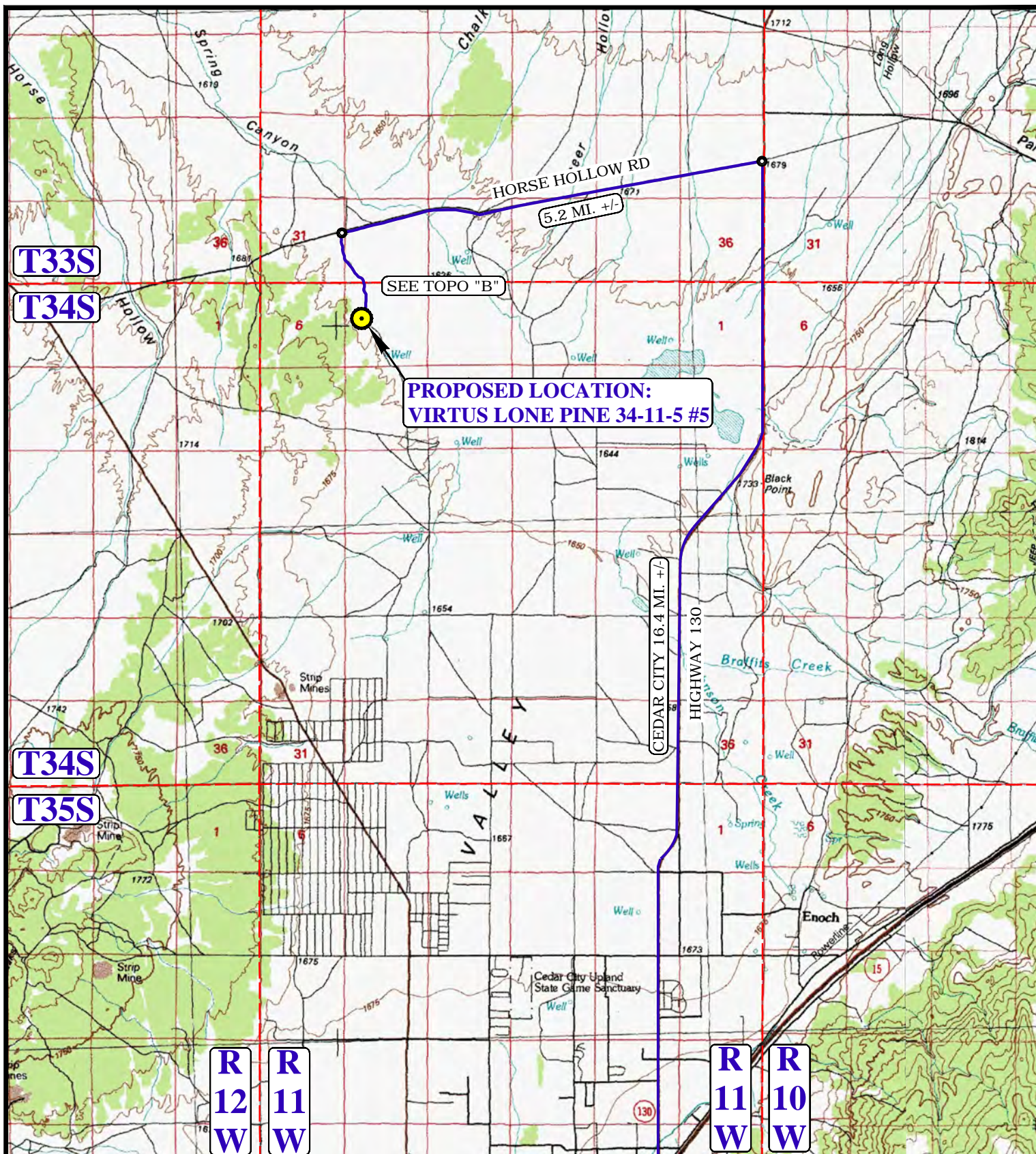
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

DRAWN BY: C.B.

DATE DRAWN: 01-22-15

REVISED: 06-15-15 J.M.C.

ROAD DESCRIPTION



LEGEND:

 **PROPOSED LOCATION**

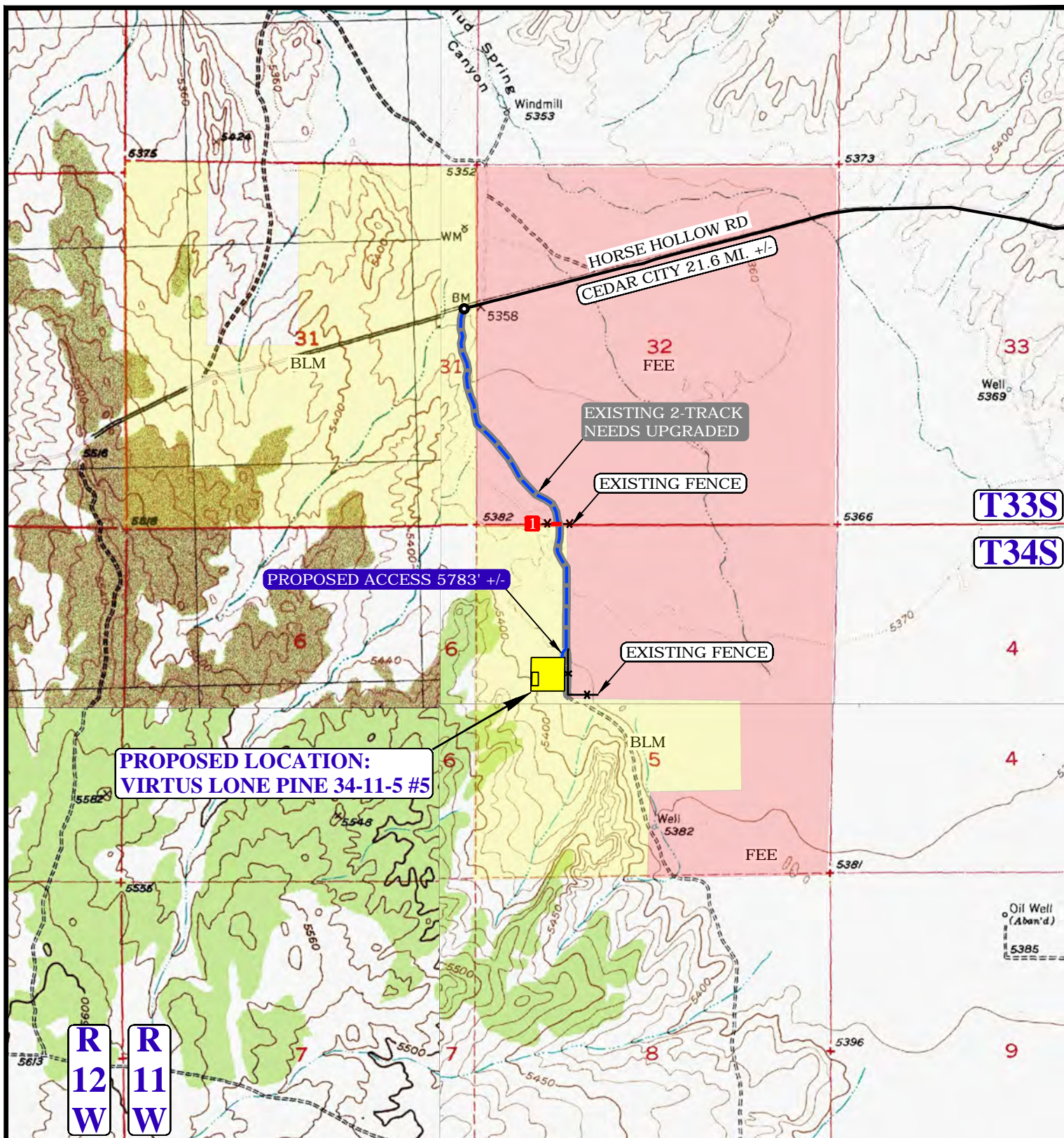
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| | |
|------------------------|--------------------------|
| DRAWN BY: C.B. | DATE DRAWN: 01-22-15 |
| SCALE: 1:100,000 | REVISED: 06-15-15 J.M.C. |
| ACCESS ROAD MAP | TOPO A |



NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

LEGEND:

- EXISTING ROAD
- - - PROPOSED ROAD
- * * EXISTING FENCE
- EXISTING 2-TRACK NEEDS UPGRADED
- 1 CATTLE GAURD REQUIRED

VIRTUS OIL & GAS

VIRTUS LONE PINE 34-11-5 #5
SECTION 5, T34S, R11W, S.L.B.&M.
2249' FNL 976' FWL

DRAWN BY: C.B.

DATE DRAWN: 01-22-15

SCALE: 1" = 2000'

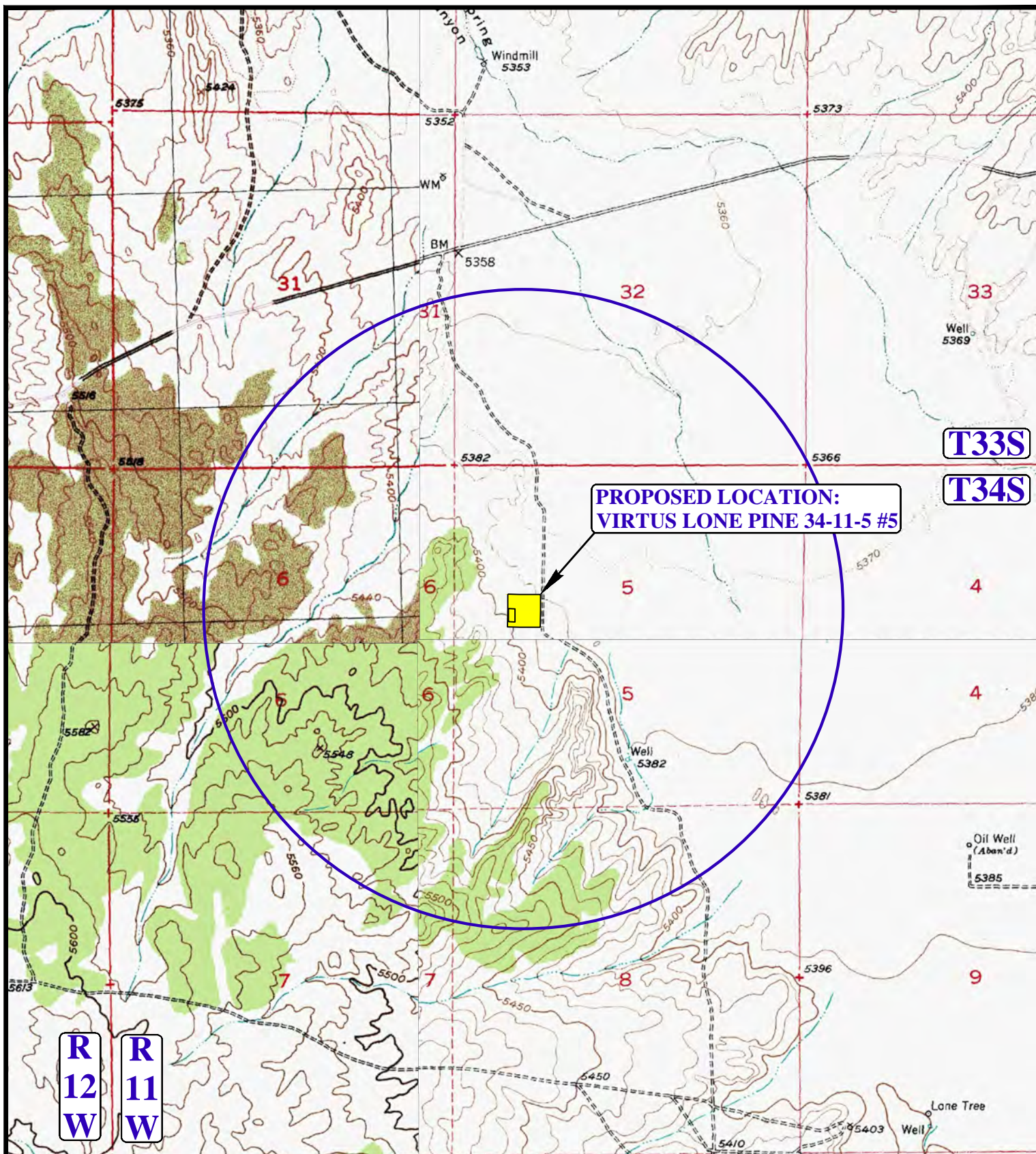
REVISED: 06-15-15 J.M.C.

ACCESS ROAD MAP

TOPO B



UELS, LLC
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 Vernal, UT 84078 * (435) 789-1017



LEGEND:

- Ø DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

VIRTUS OIL & GAS

VIRTUS LONE PINE 34-11-5 #5
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2249' FNL 976' FWL

DRAWN BY: C.B.

DATE DRAWN: 01-22-15

SCALE: 1" = 2000'

REVISED: 06-15-15 J.M.C.

WELL PROXIMITY MAP

TOPO C



UELS, LLC
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