

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE\*  
(Other instructions on  
reverse side)

APPROVED  
O&M NO. 1004-0136  
Expires February 28, 1998

5. LEASE DESIGNATION AND SERIAL NO.  
**U-02025**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
**N/A**

7. UNIT AGREEMENT NAME  
**RED WASH UNIT**

8. FARM OR LEASE NAME, WELL NO.  
**RWU #24-30B**

9. API WELL NO.

10. FIELD AND POOL, OR WILDCAT  
**RED WASH UNIT**

11. SEC., T., R., M., OR BLK  
AND SURVEY OR AREA  
**Sec. 30, T7S, R23E, S1B&M**

12. COUNTY OR PARISH  
**Uintah**

13. STATE  
**Utah**

**APPLICATION FOR PERMIT TO DRILL OR DEEPEN**

1a. TYPE OF WORK  
**DRILL**  **DEEPEN**

b. TYPE OF WELL  
OIL WELL  GAS WELL  OTHER   
SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
**Shenandoah Energy Inc.**

3. ADDRESS AND TELEPHONE NO. Phone: **435-781-4341** **11002 East 17500 South**  
Fax: **435-781-4329** **Vernal, Utah 84078**

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
At surface  
**795.4' FSL, 1467.8' FWL SESW**  
At proposed prod. Zone  
**Same**  
**4448304 N**  
**638534 E**

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
**3 miles West of Redwash Utah**

15. DISTANCE FROM PROPOSED\*  
LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drip, Unit line if any)  
**795' ±**

16. NO. OF ACRES IN LEASE  
**1920**

17. NO. OF ACRES ASSIGNED  
TO THIS WELL  
**40**

18. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR ON THIS LEASE, FT.  
**1000' ±**

19. PROPOSED DEPTH  
**5823'**

20. ROTARY OR CABLE TOOLS  
**Rotary**

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
**5424.0' GR**

22. APPROX. DATE WORK WILL START\*  
**A.S.A.P**

23. PROPOSED CASING AND CEMENTING PROGRAM  
**REFER TO S.O.P**

Shenandoah Energy Inc. proposes to drill a well to 5823' to test the Green River. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and State of Utah requirements.

Operations will be according to the Standard Operating Procedures for the Redwash Unit, the Wonsits Valley Federal Unit and surrounding areas Green River Wells.

See Onshore Order No. 1 attached.

Please be advised that Shenandoah Energy Inc. is considered to be the operator of the above mentioned well. Shenandoah Energy Inc. agrees to be responsible under the terms and conditions of the lease for the operations conducted upon the lease lands.

Bond coverage for this well is provided by Bond No. 0969. The principal is Shenandoah Energy Inc. via surety as consent as provided for in 43 CFR 3104.2.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give flowback prevention program if any.

24  
SIGNED John Busch John Busch TITLE Red Wash Operations Representative DATE 11/30/00

(This space for Federal or State office use)  
PERMIT NO. 43-047-33787 APPROVAL DATE \_\_\_\_\_

Application approval does not warrant or certify that the applicant holds legal or other rights in these lands in the subject lease which would entitle the applicant to conduct operations thereon.  
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY Bradley G. Hill **BRADLEY G. HILL** RECLAMATION SPECIALIST III DATE 01-08-01

\*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**RECEIVED**

DEC 04 2000

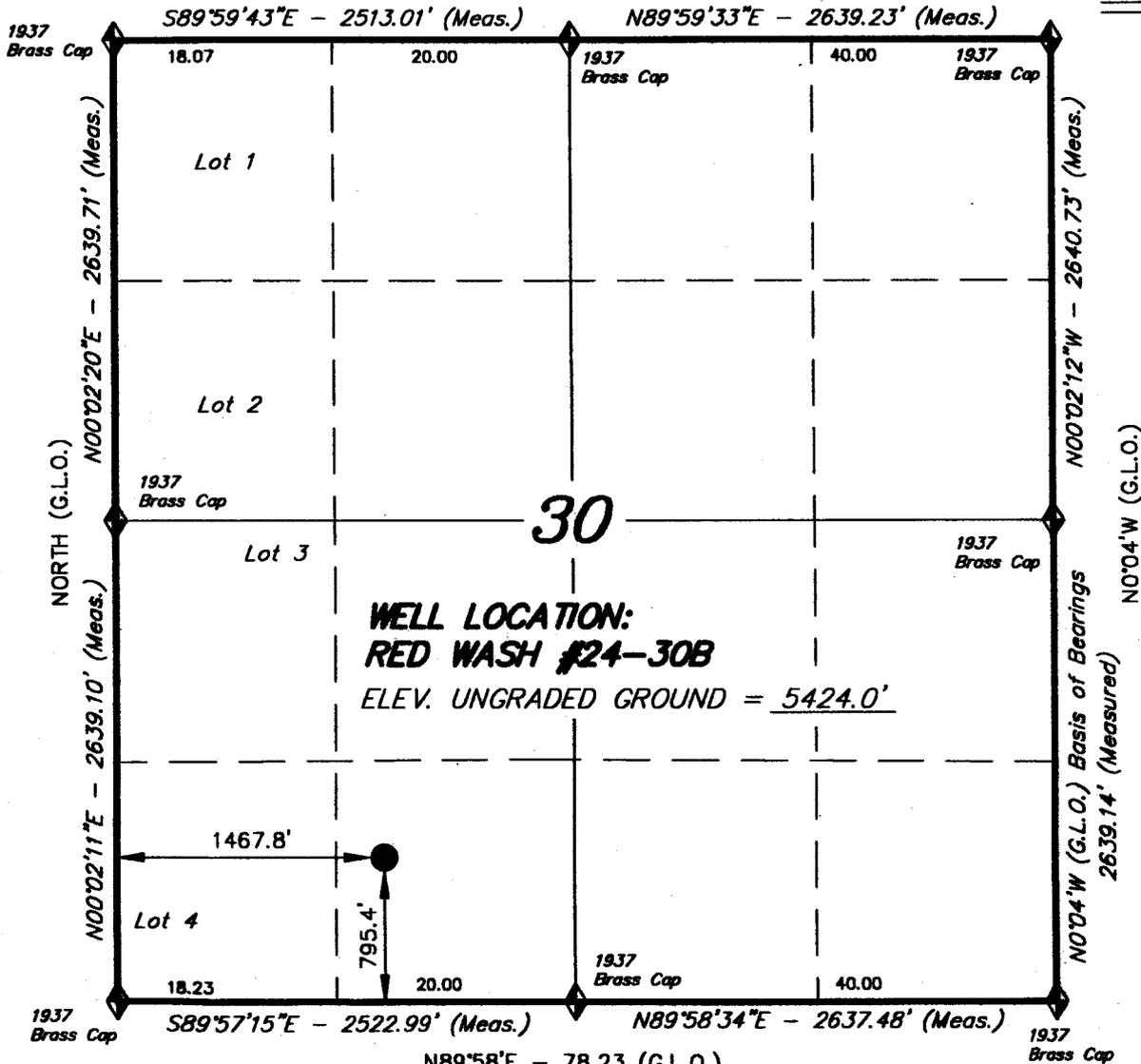
DIVISION OF  
OIL, GAS AND MINING

**CONFIDENTIAL**

# T7S, R23E, S.L.B.&M.

N89°59'E - 78.07 (G.L.O.)

**SHENANDOAH ENERGY, INC.**

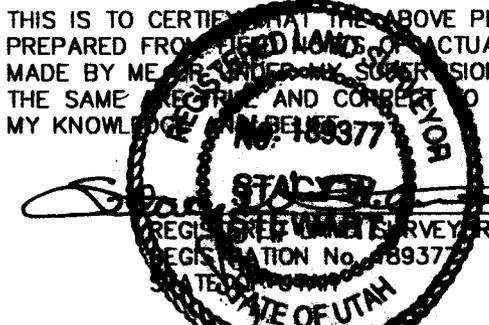


WELL LOCATION, RED WASH #24-30B,  
LOCATED AS SHOWN IN THE SE 1/4  
SW 1/4 OF SECTION 30, T7S, R23E,  
S.L.B.&M. UINTAH COUNTY, UTAH.

**RECEIVED**  
DEC 04 2000

DIVISION OF  
OIL, GAS AND MINING

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS  
PREPARED FROM THE ORIGINAL RECORDS 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.



◆ = SECTION CORNERS LOCATED  
BASIS OF ELEV; U.S.G.S. 7-1/2 min QUAD (RED WASH)

**RED WASH #24-30B**  
LATITUDE = 40° 10' 31.92"  
LONGITUDE = 109° 22' 25.14"

<b>TRI STATE LAND SURVEYING &amp; CONSULTING</b>		
38 WEST 100 NORTH - VERNAL, UTAH 84078 (435) 781-2501		
SCALE:	1" = 1000'	SURVEYED BY: D.J.S.
DATE:	11-14-00	WEATHER: SNOWY
DRAWN BY:	J.R.S.	FILE #

ONSHORE OIL & GAS ORDER NO. 1  
Shenandoah Energy Inc.  
RWU #24-30B

DRILLING PROGRAM

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DEC 04 2000

DIVISION OF  
OIL, GAS AND MINING

ONSHORE OIL & GAS ORDER NO. 1  
Approval of Operations on Onshore  
Federal Oil and Gas Leases

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas No. 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished the field representative to insure compliance.

1. Formation Tops

The estimated tops of important geologic markers are as follows:

<u>Formation</u>	<u>Depth</u>	<u>Prod. Phase Anticipated</u>
Uinta	Surface	
Green River	2948'	
Mahogany Ledge	3823'	
Mesa	5648'	
TD (Green River)	5823'	Oil

2. Anticipated Depths of Oil Gas Water and Other Mineral Bearing Zones

The estimated depths at which the top and bottom of the anticipated water, oil, gas. Or other mineral bearing formations are expected to be encountered are as follows:

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
Oil/Gas	Green River	5823'

All fresh water and prospectively valuable minerals encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

All water shows and water-bearing sands will be reported to the BLM in Vernal, Utah. Copies of State of Utah form OGC-8-X are acceptable. If no flows are detected, samples will be submitted to the BLM along with any water analyses conducted.

3. Anticipated Bottom Hole Pressures

Maximum anticipated bottom hole pressure equals approximately 2329.2 psi.

4. Surface Ownership

The well pad and access road are located on lands owned by the Federal Government.

**MULTI-POINT SURFACE USE & OPERATIONS PLAN**

SHENANDOAH ENERGY INC.  
REDWASH #24-30B  
SESW, SEC. 30, T7S, R23E, SLB&M  
UINTAH COUNTY, UTAH

1. Plans for Reclamation of the Surface

As per the onsite on November 29 with Greg Darlington Vernal BLM, Byron Tolman Vernal BLM, Raleen Searle Shenandoah Energy Inc., John Busch Shenandoah Energy Inc. the following stipulations were determined:

There will be a pit liner. There will be a seed mix of 12lbs per acre consisting of:

- 4lbs – Gardner Saltbush
- 4lbs – Indian Rice Grass
- 4lbs – Western Wheat Grass

2. Other Information

Refer to the attached maps:

- Topo map A- Access routes
- Topo map B- Proposed Access road
- Topo map C- Location of wells within a one mile radius
- Topo map D- Proposed pipeline

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DEC 04 2000  
DIVISION OF  
OIL, GAS AND MINING

**Lessee's or Operator's Representative:**

John Busch  
Red Wash Operations Rep.  
Shenandoah Energy Inc.  
11002 East 17500 South  
Vernal, Utah 84078  
(435) 781-4341

**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 & Gas Orders, the approved plan of operations, and any applicable Notice to Lessees.

Shenandoah Energy Inc. will be fully responsible for the actions of their 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.

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Shenandoah Energy Inc. its' contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

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OIL, GAS AND MINING

**NOVEMBER 30, 2000**

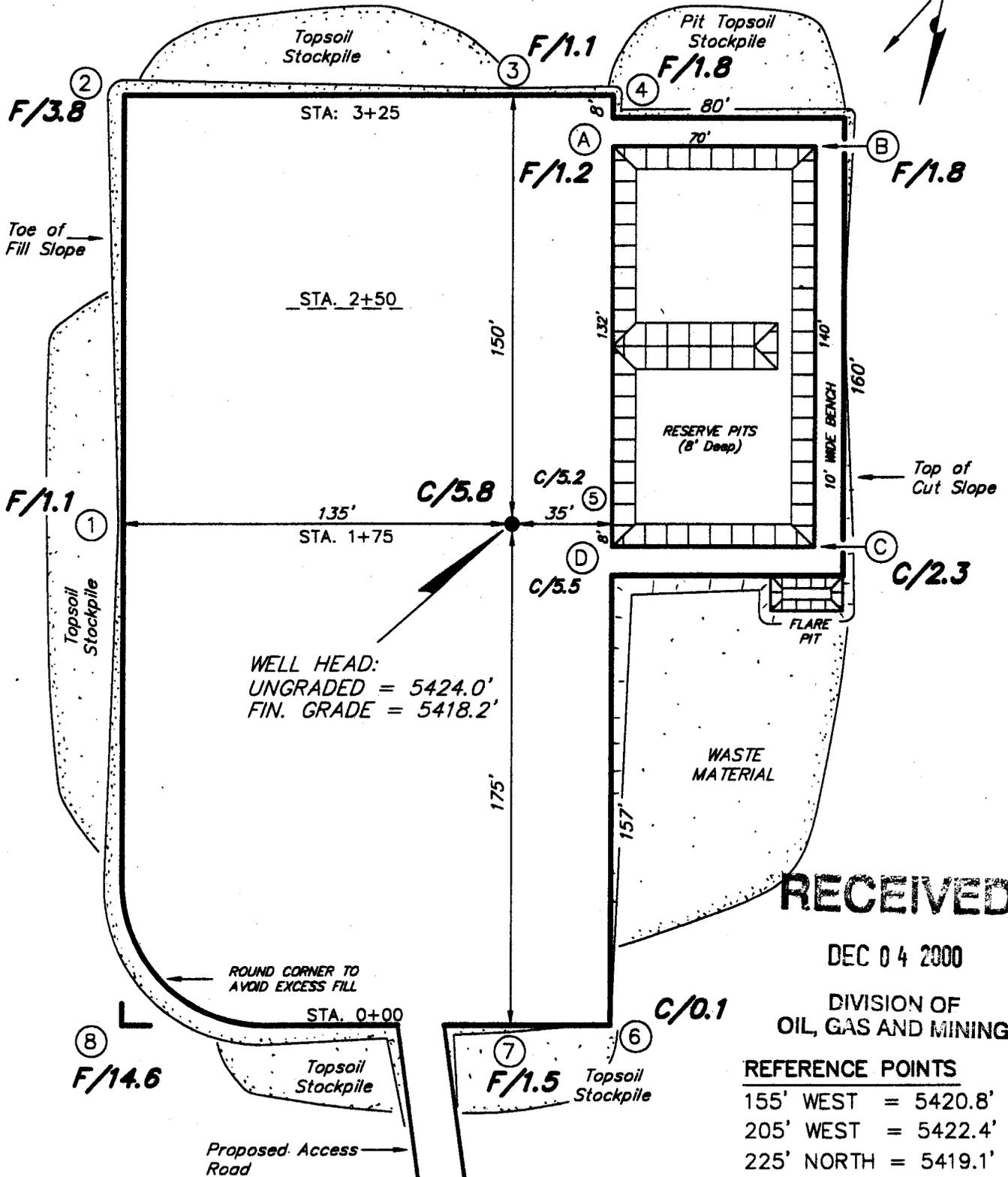
John Busch

John Busch  
Red Wash Operations Representative

Date

# SHENANDOAH ENERGY, INC.

RED WASH #24-30B  
SEC. 30, T7S, R23E, S.L.B.&M.



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OIL, GAS AND MINING

**REFERENCE POINTS**

- 155' WEST = 5420.8'
- 205' WEST = 5422.4'
- 225' NORTH = 5419.1'
- 275' NORTH = 5418.7'

Revised: 11-30-00 J.R.S. (Topsoil Pile)

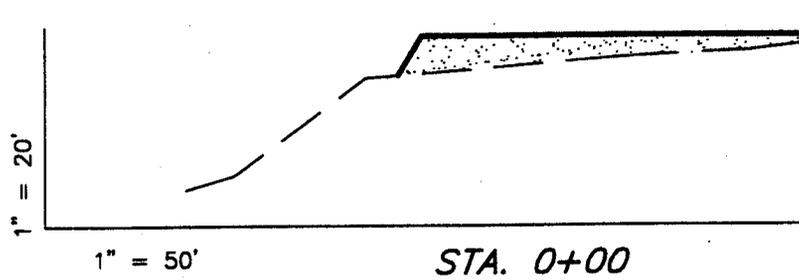
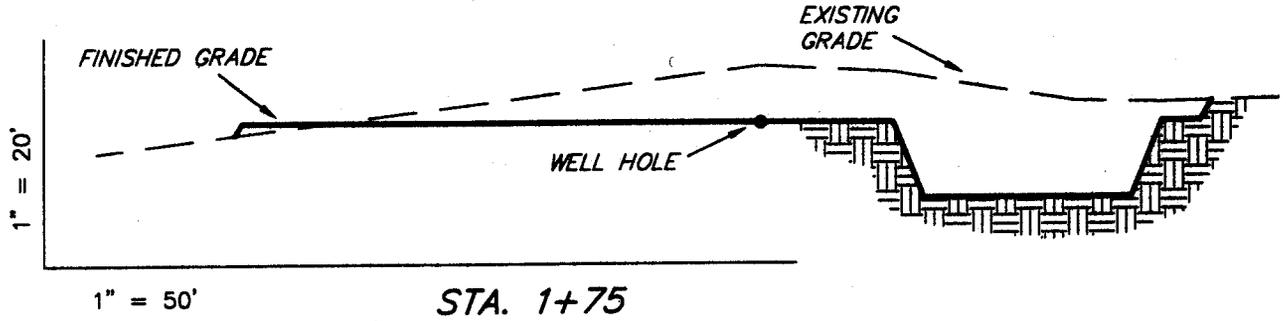
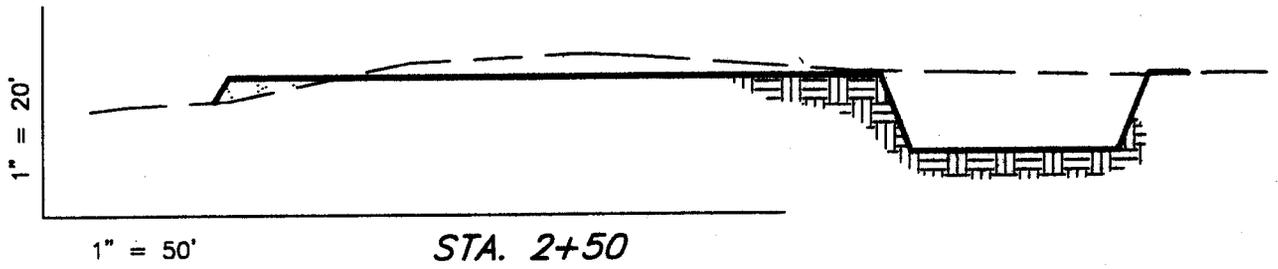
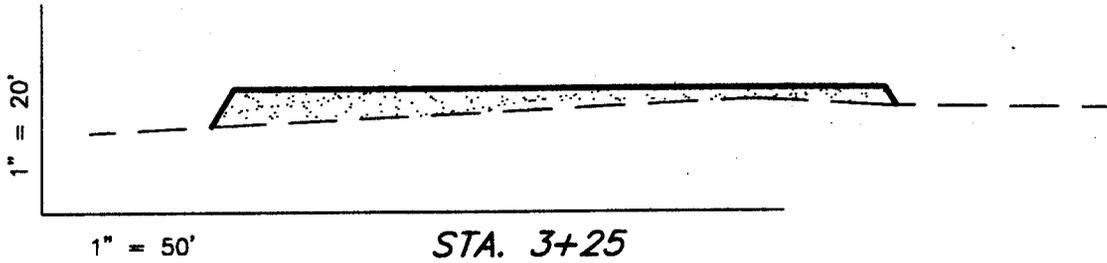
SURVEYED BY: D.J.S.	SCALE: 1" = 50'
DRAWN BY: J.R.S.	DATE: 11-14-00

**Tri State**  
Land Surveying, Inc. (435) 781-2501  
38 WEST 100 NORTH VERNAL, UTAH 84078

SHENANDOAH ENERGY INC.

CROSS SECTIONS

RED WASH #24-30B



APPROXIMATE YARDAGES

- CUT = 2,230 Cu. Yds.
- FILL = 2,230 Cu. Yds.
- PIT = 2,370 Cu. Yds.
- 6" TOPSOIL = 1,260 Cu. Yds.

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DEC 04 2000

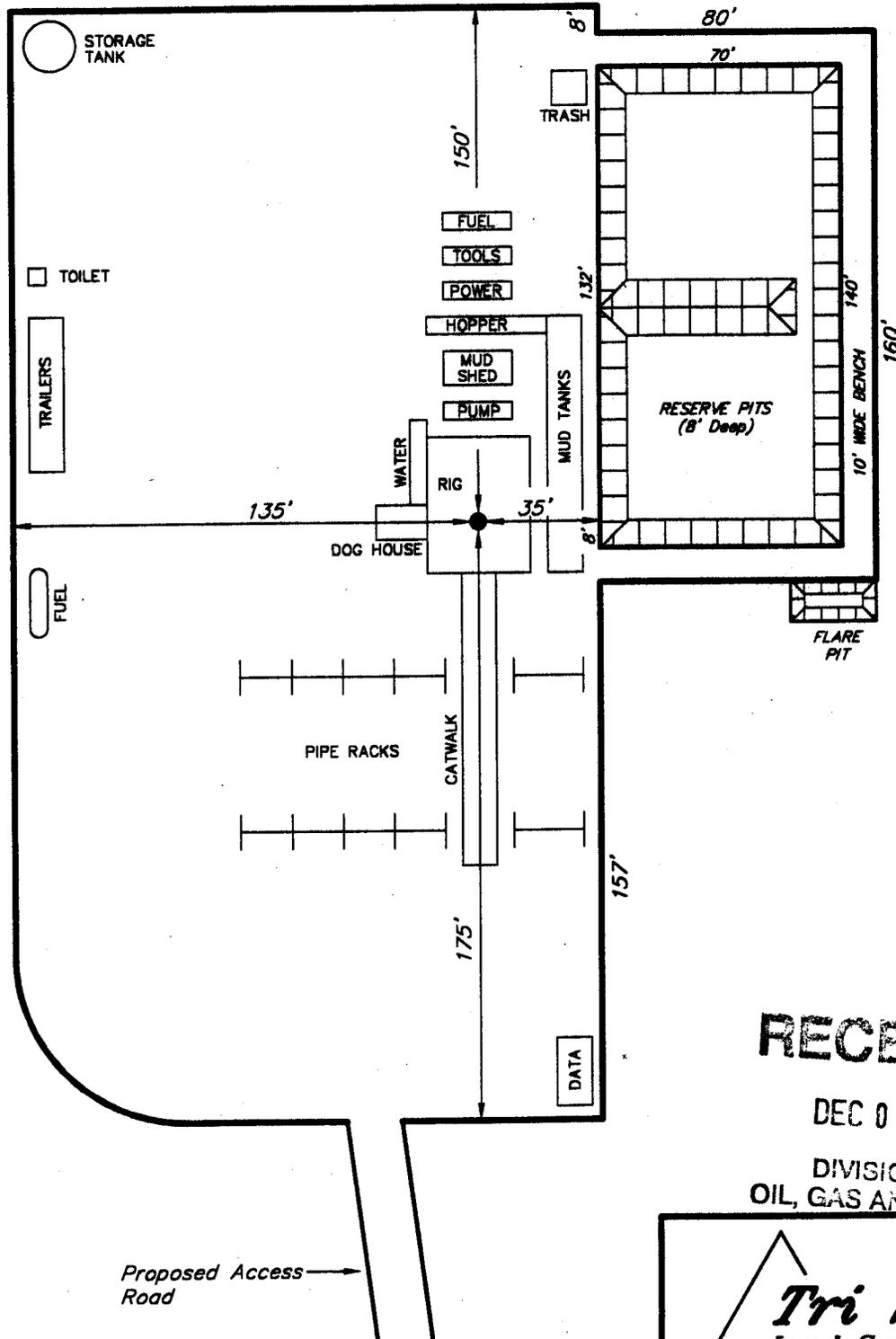
DIVISION OF  
OIL, GAS AND MINING

SURVEYED BY: D.J.S.	SCALE: 1" = 50'
DRAWN BY: J.R.S.	DATE: 11-14-00

**Tri State** (435) 781-2501  
**Land Surveying, Inc.**  
 38 WEST 100 NORTH VERNAL, UTAH 84078

# SHONANDOAH ENERGY, INC.

## TYPICAL RIG LAYOUT RED WASH #24-30B

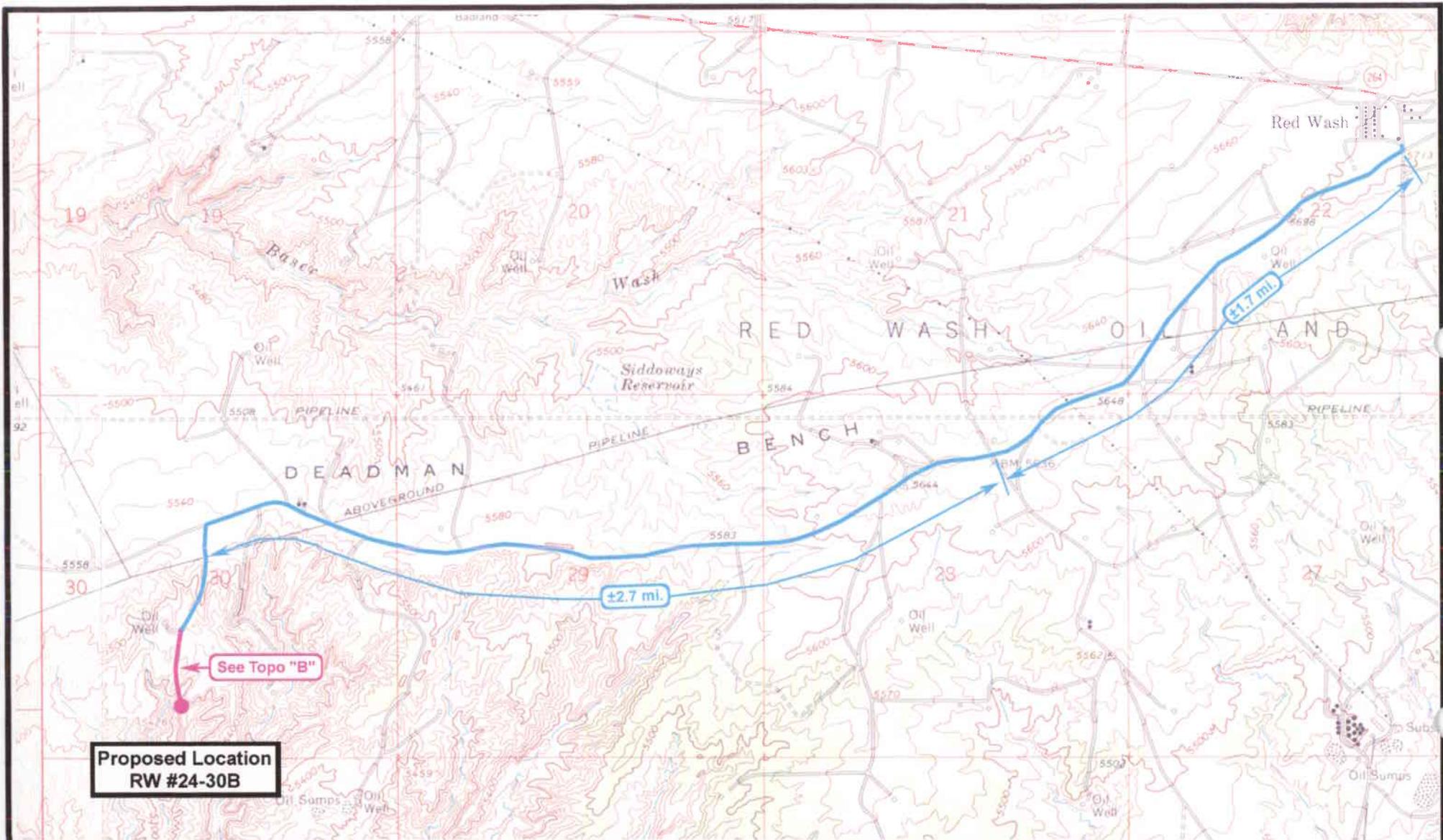


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DIVISION OF  
OIL, GAS AND MINING

**Tri State**  
Land Surveying, Inc.  
(435) 781-2501  
38 WEST 100 NORTH, VERNAL, UTAH 84078



**Proposed Location  
RW #24-30B**

See Topo "B"

**SHENANDOAH ENERGY INC.**

**RED WASH #24-30B  
SEC. 30, T7S, R23E, S.L.B.&M.**

**TOPOGRAPHIC MAP "A"**



Drawn By: bgm

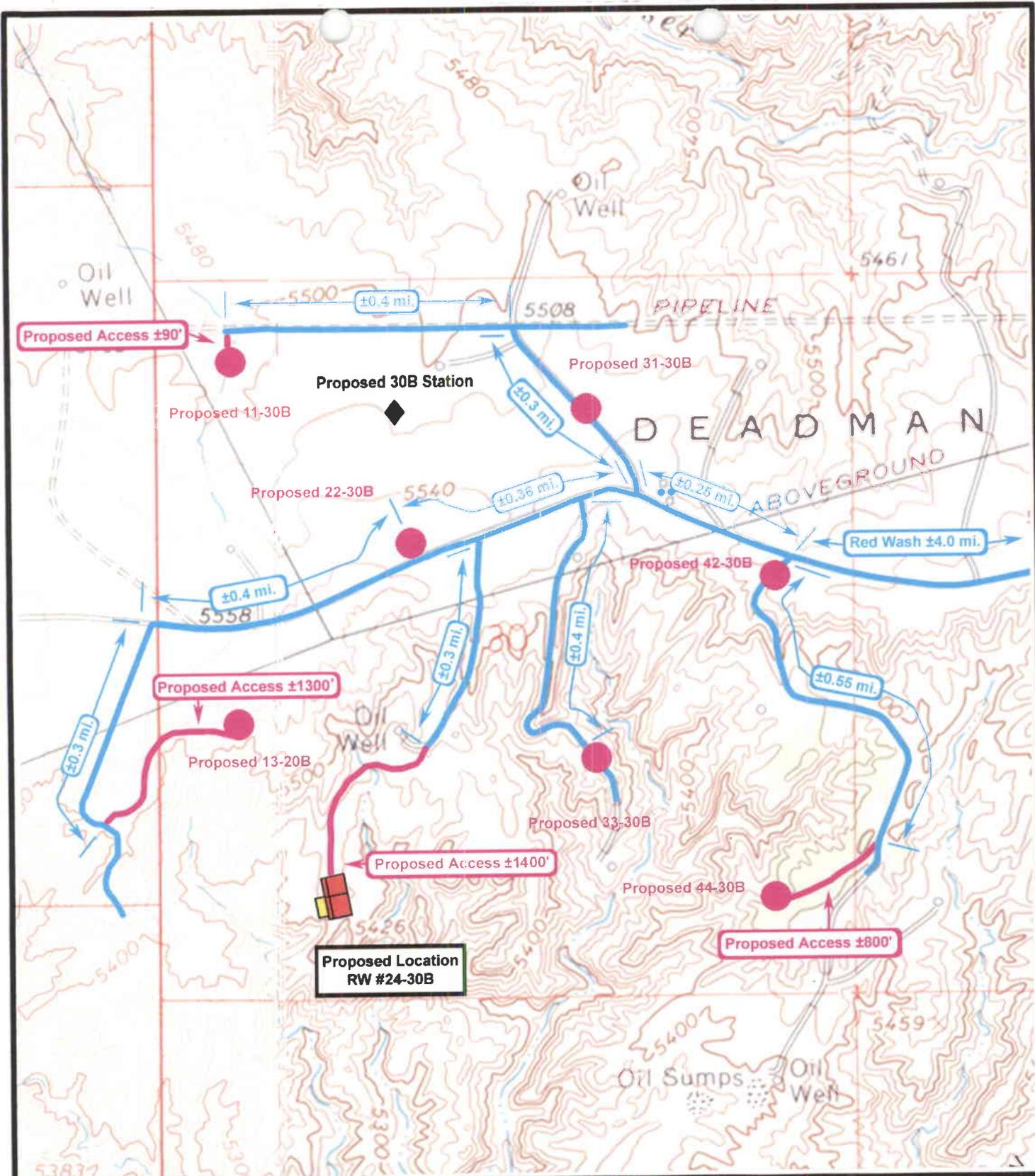
Revision:

Scale: 1" = 2000'

File:

Date: 11-10-00

**Tri-State Land Surveying Inc.  
P.O. Box 533, Vernal, UT 84078  
435-781-2501 Fax 435-781-2518**



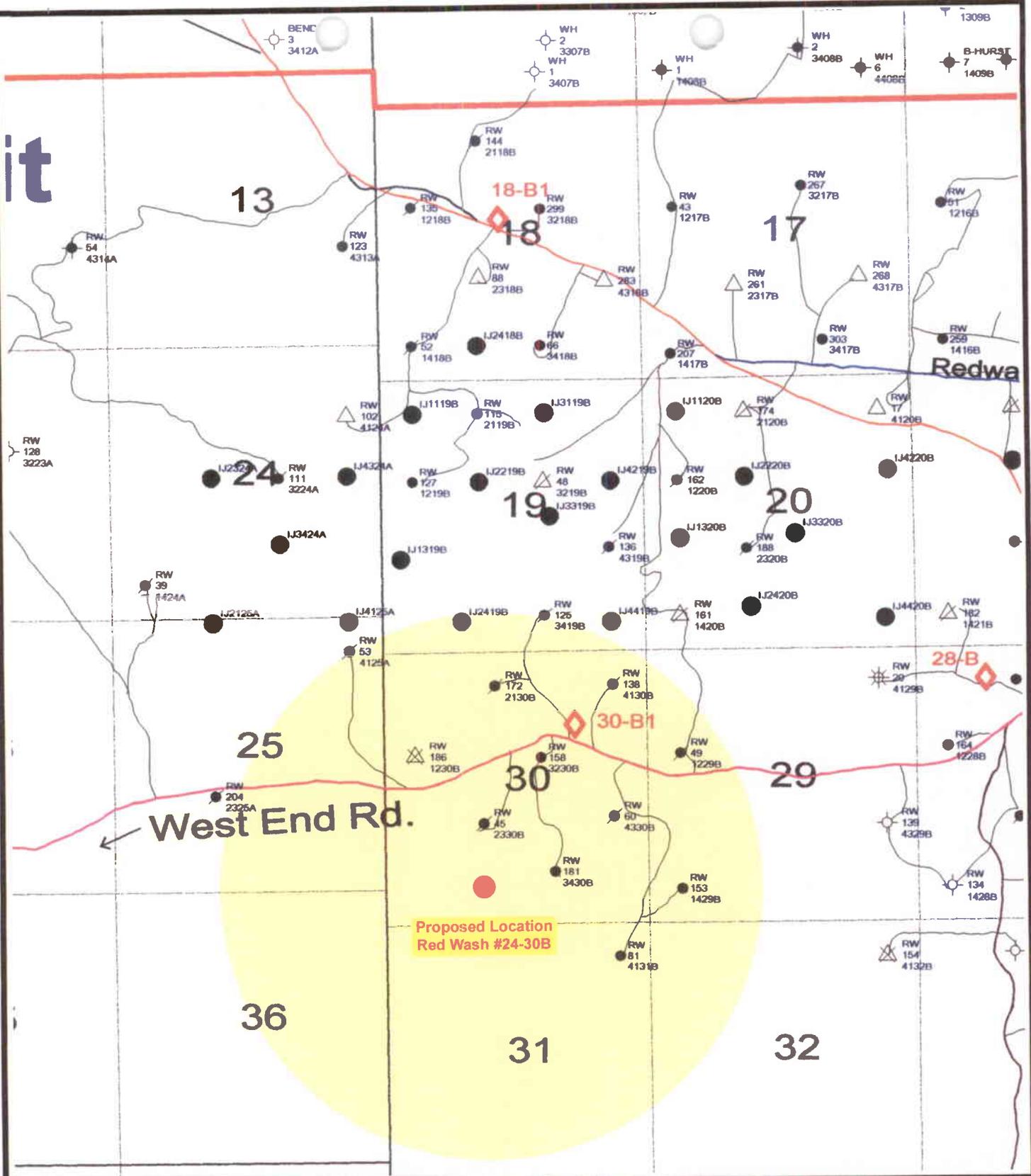
**SHENANDOAH ENERGY INC.**

**RED WASH #24-30B  
 SEC. 30, T7S, R23E, SLB&M.  
 TOPOGRAPHIC MAP "B"**



Drawn By: bgm	Revision:
Scale: 1" = 1000'	File:
Date: 11-13-00	
<b>Tri-State Land Surveying Inc.</b> <b>P.O. Box 533, Vernal, UT 84078</b> <b>435-781-2501 Fax 435-781-2518</b>	

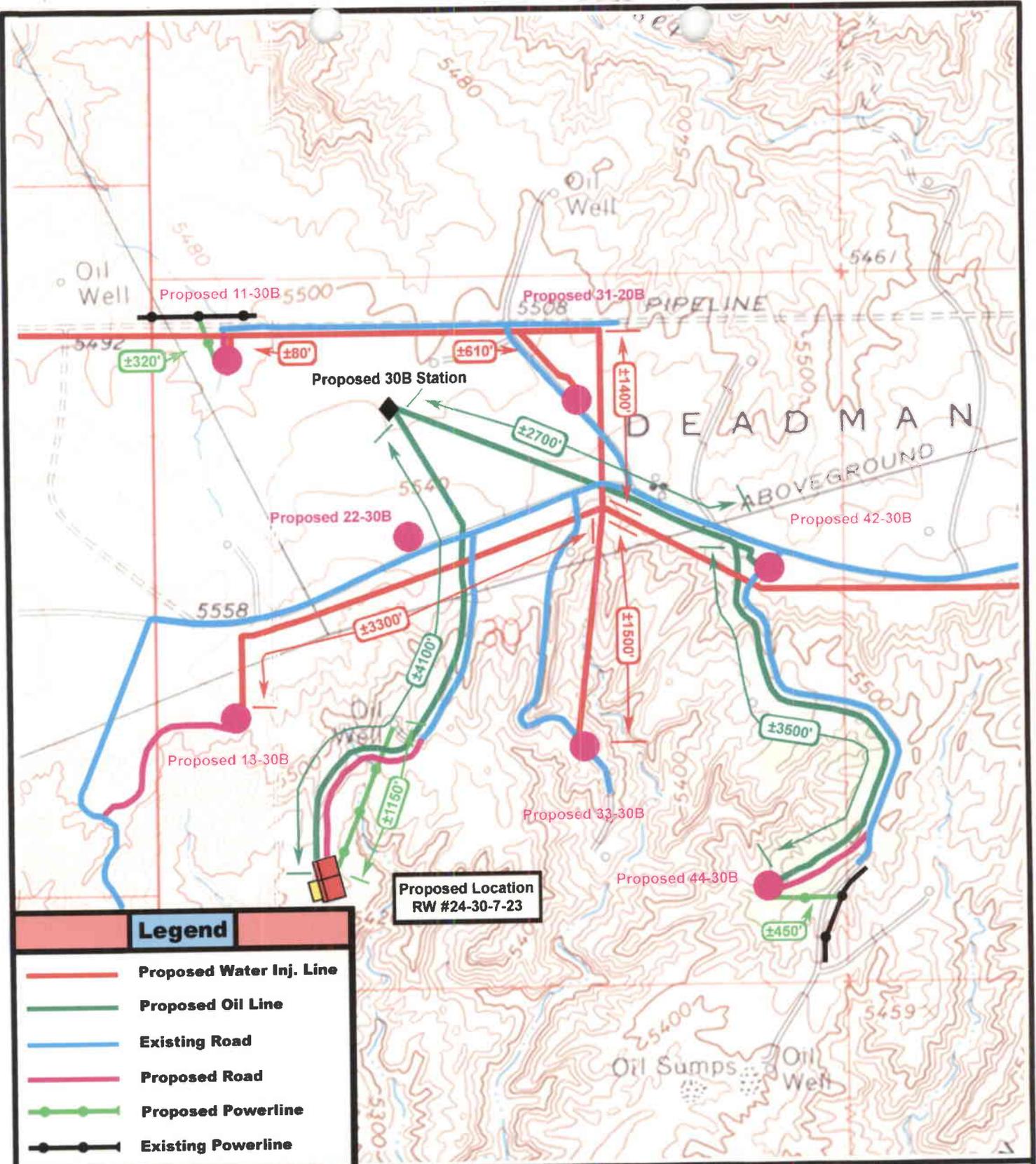
it



**SHENANDOAH ENERGY INC.**  
**RED WASH #24-30A**  
**SEC. 30, T7S, R23E, S.L.B.&M.**  
**TOPOGRAPHIC MAP "C"**



Drawn By: bgm	Revision:
Scale: 1" = 2000'	File:
Date: 11-09-2000	
<b>Tri-State Land Surveying Inc.</b> <b>P.O. Box 533, Vernal, UT 84078</b> <b>435-781-2501 Fax 435-781-2518</b>	



Legend	
	Proposed Water Inj. Line
	Proposed Oil Line
	Existing Road
	Proposed Road
	Proposed Powerline
	Existing Powerline

Proposed Location  
RW #24-30-7-23

**SHENANDOAH ENERGY INC.**  
**RED WASH #24-30B**  
**SEC. 30, T7S, R23E, SLB&M.**  
**TOPOGRAPHIC MAP "D"**



Drawn By: bgm	Revision:
Scale: 1" = 1000'	File:
Date: 11-13-00	
Tri-State Land Surveying Inc. P.O. Box 533, Vernal, UT 84078 435-781-2501 Fax 435-781-2518	

**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 12/04/2000

API NO. ASSIGNED: 43-047-33787

WELL NAME: RWU 24-30B  
 OPERATOR: SHENANDOAH ENERGY INC ( N4235 )  
 CONTACT: JOHN BUSCH

PHONE NUMBER: 435-781-4341

PROPOSED LOCATION:

SESW 30 070S 230E  
 SURFACE: 0795 FSL 1468 FWL  
 BOTTOM: 0795 FSL 1468 FWL  
 UINTAH  
 UNDESIGNATED ( 2 )

INSPECT LOCATN BY: / /		
<b>Tech Review</b>	<b>Initials</b>	<b>Date</b>
Engineering		
Geology		
Surface		

LEASE TYPE: 1-Federal  
 LEASE NUMBER: U-02025  
 SURFACE OWNER: 1-Federal

PROPOSED FORMATION: GRRV

RECEIVED AND/OR REVIEWED:

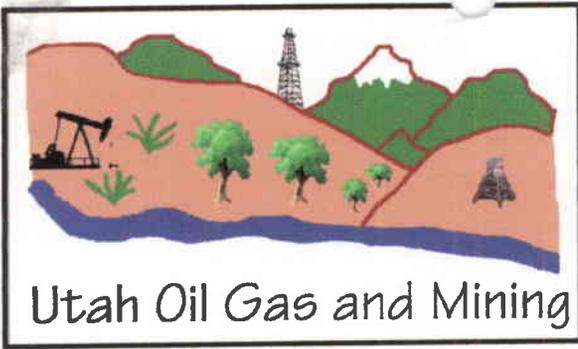
- Plat
- Bond: Fed[1] Ind[] Sta[] Fee[]  
(No. UT-0969 )
- Potash (Y/N)
- Oil Shale (Y/N) \*190-5 (B) or 190-3
- Water Permit  
(No. 43-8496 )
- RDCC Review (Y/N)  
(Date: \_\_\_\_\_ )
- Fee Surf Agreement (Y/N)

LOCATION AND SITING:

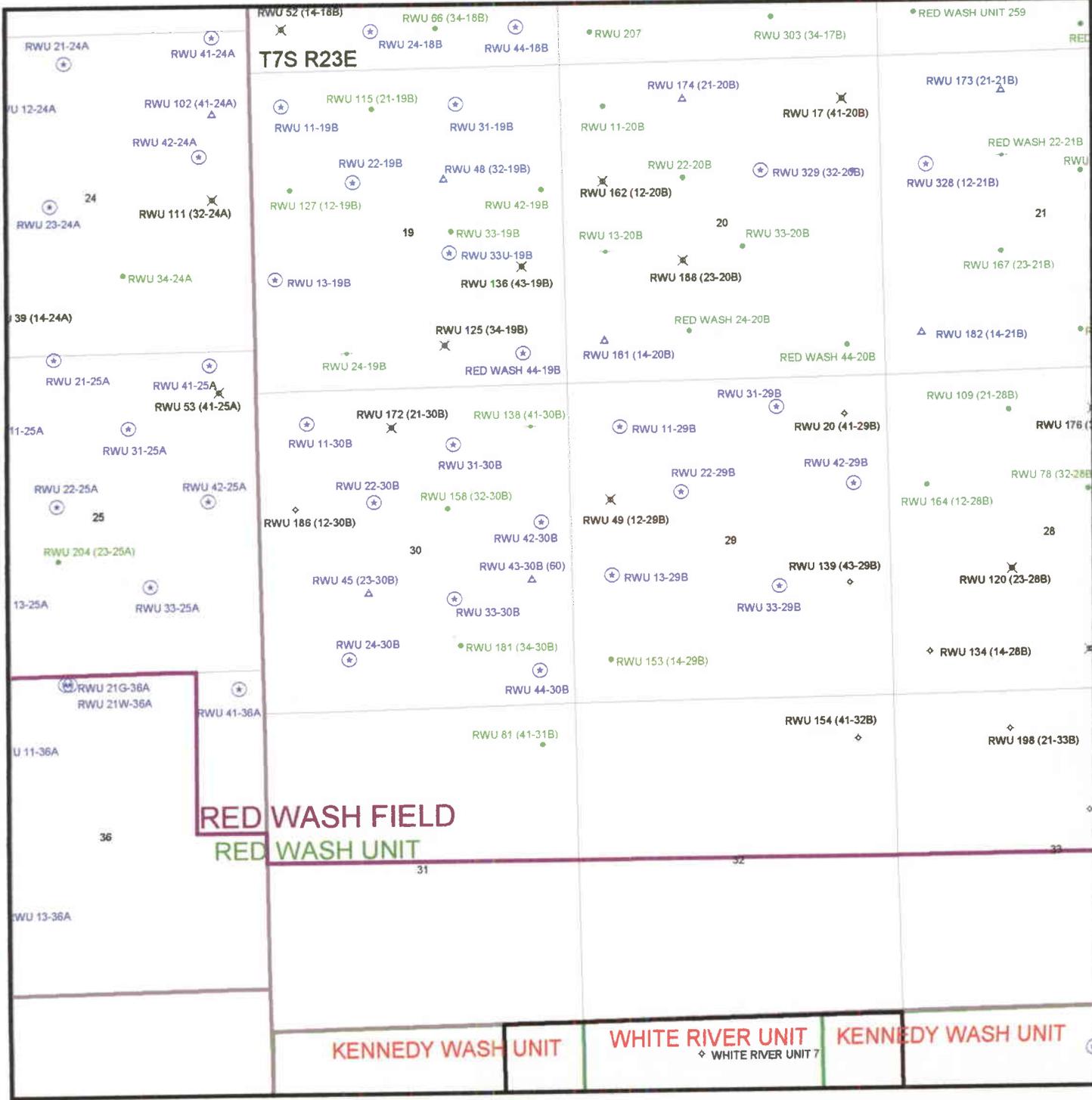
- R649-2-3. Unit RED WASH
- R649-3-2. General
- Siting: 460 From Qtr/Qtr & 920' Between Wells
- R649-3-3. Exception
- Drilling Unit
- Board Cause No: \_\_\_\_\_
- Eff Date: \_\_\_\_\_
- Siting: \_\_\_\_\_
- R649-3-11. Directional Drill

COMMENTS: Red Wash Unit SOP, separate file.

STIPULATIONS: ① FEDERAL APPROVAL



OPERATOR: SHENANDOAH ENERGY (N4235)  
 FIELD: RED WASH (665)  
 SEC. 29 & 30, T7S, R23E,  
 COUNTY: UINTAH UNIT: RED WASH  
 SPACING: R649-3-2 & R649-3-3



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:  
3160  
(UT-922)

December 12, 2000

### Memorandum

To: Assistant District Manager Minerals, Vernal District  
From: Michael Coulthard, Petroleum Engineer  
Subject: 2000 Plan of Development Red Wash Unit,  
Uintah County, Utah.

Pursuant to email between Lisha Cordova, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management. The following wells are planned for calendar year 2000 within the Red Wash Unit, Uintah County, Utah.

Api Number	Well	Location
(Proposed Green River Completions)		
43-047-33785	RWU 11-30B	Sec. 30, T7S, R23E 0590 FNL 0787 FWL
43-047-33786	RWU 22-25A	Sec. 25, T7S, R22E 2531 FNL 1949 FWL
43-047-33787	RWU 24-30B	Sec. 30, T7S, R23E 0795 FSL 1468 FWL
43-047-33788	RWU 31-30B	Sec. 30, T7S, R23E 0950 FNL 1943 FEL
43-047-33789	RWU 33-29B	Sec. 29, T7S, R23E 1832 FSL 1840 FEL
43-047-33790	RWU 33-30B	Sec. 30, T7S, R23E 1775 FSL 1937 FEL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Red Wash Unit  
Division of Oil Gas and Mining  
Agr. Sec. Chron  
Fluid Chron

MCoulthard:mc:12-12-0

# SHENANDOAH ENERGY INC.

---

11002 East 17500 South

Vernal, UT 84078

Phone: (435) 781-4300

Fax (435) 781-4329

January 2, 2001

Division of Oil, Gas & Mining  
1594 W. N. Temple STE 1210  
Salt Lake City, UT 84114-5801

To Whom It May Concern:

Shenandoah Energy Inc. Red Wash Unit #24-30B is an exception location due to the severe topography. This lease #(U-02025) is under the Red Wash Unit Agreement and all owners are committed under the Unit Agreement.

There are no additional lease owners within 460' of this proposed well. If you have any question please contact Raleen Searle @ (435) 781-4309.

Thank you,



Raleen Searle

Administrative Assistant

**RECEIVED**

JAN 03 2001

DIVISION OF  
OIL, GAS AND MINING



**State of Utah**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor

Kathleen Clarke  
Executive Director

Lowell P. Braxton  
Division Director

1594 West North Temple, Suite 1210  
PO Box 145801  
Salt Lake City, Utah 84114-5801  
801-538-5340  
801-359-3940 (Fax)  
801-538-7223 (TDD)

January 8, 2001

Shenandoah Energy Inc.  
11002 E 17500 S  
Vernal, UT 84078

Re: Red Wash Unit 24-30B Well, 795' FSL, 1468' FWL, SE SW, Sec. 30, T. 7 South,  
R. 23 East, Uintah County, Utah

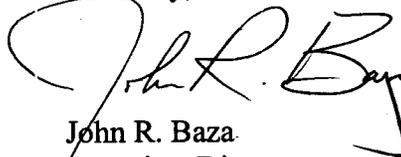
Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

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

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. The API identification number assigned to this well is 43-047-33787.

Sincerely,



John R. Baza  
Associate Director

er

Enclosures

cc: Uintah County Assessor  
Bureau of Land Management, Vernal District Office

**Operator:** Shenandoah Energy Inc.

**Well Name & Number** Red Wash Unit 24-30B

**API Number:** 43-047-33787

**Lease:** U-02025

**Location:** SE SW      **Sec.** 30      **T.** 7 South      **R.** 23 East

### **Conditions of Approval**

**1. 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.

**2. Notification Requirements**

Notify the Division within 24 hours of spudding the well.

- Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

- Contact Dan Jarvis at (801) 538-5338

**3. Reporting Requirements**

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK  
**DRILL**  **DEEPEN**

b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER  SINGLE ZONE  MULTIPLE ZONE

5. LEASE DESIGNATION AND SERIAL NO.  
**U-02030**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
**N/A**

7. UNIT AGREEMENT NAME  
**RED WASH UNIT**

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**RWU #24-30B**

9. API WELL NO.

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**Shenandoah Energy Inc.**

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At proposed prod. Zone  
**Same**

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**3 miles West of Redwash Utah**

12. COUNTY OR PARISH  
**Uintah**

13. STATE  
**Utah**

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**795' ±**

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**1920**

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**5823'**

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**Rotary**

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22. APPROX. DATE WORK WILL START\*  
**A.S.A.P**

23. PROPOSED CASING AND CEMENTING PROGRAM  
**REFER TO S.O.P**

Shenandoah Energy Inc. proposes to drill a well to 5823' to test the Green River. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and State of Utah requirements.

Operations will be according to the Standard Operating Procedures for the Redwash Unit, the Wonsits Valley Federal Unit and surrounding areas Green River Wells.

See Onshore Order No. 1 attached.

Please be advised that Shenandoah Energy Inc. is considered to be the operator of the above mentioned well. Shenandoah Energy Inc. agrees to be responsible under the terms and conditions of the lease for the operations conducted upon the lease lands.

Bond coverage for this well is provided by Bond No. 0969. The principal is Shenandoah Energy Inc. via surety as consent as provided for in 43 CFR 3104.2.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventor program if any.

24  
SIGNED John Busch John Busch TITLE Red Wash Operations Representative DATE 11/30/00

(This space for Federal or State office use)

**NOTICE OF APPROVAL** **CONDITIONS OF APPROVAL ATTACHED**

Application approval does not warrant or certify that the applicant holds legal or equitable title to these rights in the subject lease which would entitle the applicant to conduct operations thereon.  
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY [Signature] TITLE Assistant Field Manager Mineral Resources DATE 03/15/2001

RECEIVED  
RECEIVED  
MAR 19 2001  
DIVISION OF OIL, GAS AND MINING

**CONFIDENTIAL**

\*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

DOG M

CONDITIONS OF APPROVAL  
APPLICATION FOR PERMIT TO DRILL

Company/Operator: Shenandoah Energy, Inc.

Well Name & Number: RWU #24-30B

API Number: 43-047-33787

Lease Number: U - 02030

Location: SESW Sec. 30 T. 7S R. 23E

Agreement: Red Wash GR Unit

For more specific details on notification requirements, please check the Conditions of Approval for Notice to Drill and Surface Use Program.

**CONDITIONS OF APPROVAL FOR NOTICE TO DRILL**

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Be aware fire restrictions may be in effect when location is being constructed and/or when well is being drilled. Contact the appropriate Surface Management Agency for information.

A. DRILLING PROGRAM

1. Casing Program and Auxiliary Equipment

As a minimum, the usable water and oil shale resources shall be isolated and/or protected by having a cement top for the production casing at least 200 ft. above the top of the Green River Formation, identified at 2,990 ft.

**SURFACE USE PROGRAM  
CONDITIONS OF APPROVAL (COAs)**

-Access roads and surface disturbing activities will conform to standards outlined in the Bureau of Land Management and Forest Service publication: Surface Operating Standards for Oil and Gas Exploration and Development, (1989).

The road shall be constructed/upgraded to meet the standards of the anticipated traffic flow and all-weather road requirements. Construction/upgrading shall include ditching, draining, and crowning (2 to 3%). Graveling or capping the roadbed will be required as necessary to provide a well constructed safe road. Prior to construction/upgrading, the proposed road surface or existing road shall be cleared of any snow cover and allowed to dry completely. Traveling off the 30 foot right-of-way (ROW) will not be allowed. Should mud holes develop, they shall be filled in to prevent detours. Road drainage crossings shall be of the typical dry creek drainage crossing type. Crossings shall be designed so they will not cause siltation or accumulation of debris in the drainage crossing nor shall the drainage be blocked by the roadbed. Erosion of drainage ditches by runoff water shall be prevented by diverting water off at frequent intervals by means of cutouts. Upgrading shall not be allowed during muddy conditions. When snow is removed from the road during the winter months, the snow shall be pushed outside of the burrow ditches and the turn outs shall be kept clear so that when the snow melts the water will be channeled away from the road.

Shenandoah Energy will control noxious weeds along the ROW for roads, pipelines, well sites, or other applicable facilities. If noxious weeds spread from disturbed areas onto adjoining lands, Shenandoah shall be responsible for control of the infestation. A list of noxious weeds may be obtained from the BLM, or the appropriate County Extension Office. On BLM administered land it is required that a Pesticide Use Proposal shall be submitted, and given approval, prior to the application of herbicides or other pesticides or possible hazardous chemicals.

If cultural resources or paleontological resources are found, the BLM Authorized Officer shall be notified. Procedures described in the Standard Operating Practices for Red Wash Unit Green River Formation Wells will be followed as such finds are evaluated.

One three foot diameter culvert will be installed in the major drainage on the new access road.

The reserve pit shall be lined.

Four to six inches of topsoil shall be stripped from the location and windrowed as shown on the cut sheet. This topsoil shall be broadcast seeded with the recommended seed mix immediately after it has been windrowed and the seed walked in to the soil with a dozer.

The topsoil from the reserve pit shall be stripped and piled separately near the reserve pit. When the reserve pit is closed, it shall be recontoured and the topsoil respread; then the area shall be seeded in the same manner as the topsoil.

When the location is plugged and abandoned, it shall be recontoured to natural contours, topsoil respread, and the entire location seeded with the recommended seed mix.

Seeding can be done by drilling the seed or by broadcasting the location and walking it in with a dozer. Seeding shall take place immediately after the dirt work is completed.

The following seed mix shall be used to seed the topsoil pile, reserve pit and for final abandonment of the location:

Gardner saltbush	Atriplex gardneri	4 lbs/acre
Indian ricegrass	Oryzopsis hymenoides	4 lbs/acre
Western wheatgrass	Agropyron smithii	4 lbs/acre

All poundages are in pure live seed.

When installing the power poles and lines, vehicles shall stay on the flagged route, existing roads, or other previously disturbed areas.

When installing the surface pipeline bundle, the pipelines shall be welded on location and dragged into place using a dozer or backhoe. The bundling crew shall then make one pass along the pipeline staying on the pipeline route or roads located in the area.

Unless otherwise agreed to by the authorized officer in writing, powerlines shall be constructed in accordance with standards outlined in "Suggested Practices for Raptor Protection on Powerlines", (Raptor Research Foundation, Incorporated, 1981). Shenandoah shall construct the powerline in accordance with those standards or Shenandoah shall assume the burden and expense of proving pole designs not shown in the above publication are "eagle safe". Such proof shall be provided by a raptor expert approved by the authorized officer. The BLM reserves the right to require modifications or additions to all powerline structures placed on this route authorization, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by Shenandoah without liability or expense to the United States Department of the Interior.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir  
Use "APPLICATION FOR PERMIT—" for such proposals

**SUBMIT IN TRIPLICATE**

1. Type of Well  
Oil  Gas   
 Well  Well  Other

2. Name of Operator  
**SHENANDOAH ENERGY INC**

3. Address and Telephone No  
**11002 E. 17500 S. VERNAL, UT 84078-8526 (801) 781-4341**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**795' FSL, 1468' FWL SESW Sec. 30 T7S R23E**

**CONFIDENTIAL**

5. Lease Designation and Serial No.  
**U-02030**

6. If Indian, Allottee or Tribe Name  
**N/A**

7. If Unit or CA, Agreement Designation  
**Red Wash Unit**

8. Well Name and No.  
**RWU 24-30B**

9. API Well No.  
**43-047-33787**

10. Field and Pool, or Exploratory Area  
**RED WASH - GREEN RIVER**

11. County or Parish, State  
**UINTAH, UTAH**

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other <u>APD Extension</u>
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note) Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)

**Shenandoah Energy Inc. hereby requests an 1 year extension on the RWU 24-30B.**

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

Date: 03-05-02

By: [Signature]

**RECEIVED**

COPY SENT TO OPERATOR  
Date: 03-06-02  
Initials: CHO

MAR 04 2002

DIVISION OF OIL, GAS AND MINING

14. I hereby certify that the foregoing is true and correct.  
Signed JOHN BUSCH John Busch Title OPERATIONS REPRESENTATIVE Date 2/28/02

(This space for Federal or State office use)

Approved by: \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

Conditions of approval, if any \_\_\_\_\_

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**  
Do not use this form for proposals to drill or to deepen or reentry to a different reservoir  
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.  
**U-02030**

6. If Indian, Allottee or Tribe Name  
**N/A**

7. If Unit or CA, Agreement Designation  
**Red Wash Unit**

8. Well Name and No.  
**RWU 24-30B**

9. API Well No.  
**43-047-33787**

10. Field and Pool, or Exploratory Area  
**RED WASH - GREEN RIVER**

11. County or Parish, State  
**UINTAH, UTAH**

**SUBMIT IN TRIPLICATE**

1. Type of Well  
Oil  Gas   
 Well  Well  Other

2. Name of Operator  
**SHENANDOAH ENERGY INC**

3. Address and Telephone No  
**11002 E. 17500 S. VERNAL, UT 84078-8526 (801) 781-4341**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**795' FSL, 1468' FWL SESW**

**RECEIVED**  
**FEB 28 2002**

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other <u>APD Extension</u>
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note) Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

14. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)

Shenandoah Energy Inc. hereby requests an 1 year extension on the RWU 24-30B.

**RECEIVED**  
**MAR 19 2002**  
DIVISION OF  
OIL, GAS AND MINING

**CONDITIONS OF APPROVAL ATTACHED**

14. I hereby certify that the foregoing is true and correct.  
Signed JOHN BUSCH John Busch Title OPERATIONS REPRESENTATIVE Date 2/28/02

(This space for Federal or State office use)  
Approved by: Neil Fulwood Title Petroleum Engineer Date 3/12/02

Conditions of approval, if any

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*See instruction on Reverse Side

~~DOG~~ DOGM

Shenandoah Energy Inc.  
APD Extension

Well: RWU 24-30B

Location: SESW Sec 30 T7S, R23E

Lease: UTU 02030

**CONDITIONS OF APPROVAL**

An extension for the referenced APD is granted with the following conditions:

---

1. The extension will expire 3/15/03
2. No other extensions beyond that time frame will be granted or allowed.

If you have any other questions concerning this matter, please contact Kirk Fleetwood of this office at (435) 781-4486



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210  
PO Box 145801  
Salt Lake City, Utah 84114-5801  
(801) 538-5340 telephone  
(801) 359-3940 fax  
(801) 538-7223 TTY  
www.nr.utah.gov

Michael O. Leavitt  
Governor  
Robert L. Morgan  
Executive Director  
Lowell P. Braxton  
Division Director

March 11, 2003

Raleen Searle  
Shenandoah Energy Inc.  
11002 East 17500 South  
Vernal, Utah 84078

Re: APD Rescinded – RWU 24-30B, Sec. 30, T. 7S, R. 23E – Uintah County, Utah  
API No. 43-047-33787

Dear Mrs. Searle:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on January 8, 2001. On March 5, 2002 the Division granted a one-year APD extension. On March 11, 2003, you requested that the division rescind the state approved APD. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective March 11, 2003.

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  
Engineering Technician

cc: Well File  
Gil Hunt, Technical Services Manager  
Bureau of Land Management, Vernal



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Vernal Field Office

170 South 500 East

Vernal, Utah 84078-2799

<http://www.blm.gov/utah/vernal>

Phone: (435) 781-4400

Fax: (435) 781-4410

IN REPLY REFER TO:

3160

UT08300

April 11, 2003

Raleen Searle  
Shenandoah Energy Inc.  
11002 East 17500 South  
Vernal, UT 84078

Re: Notification of Expiration  
Well No. RWU 24-30B  
SESE, Sec. 20, T7S, R23E  
Uintah County, Utah  
Lease No. UTU-02030  
Red Wash GR

Dear Raleen:

The Application for Permit to Drill the above-referenced well was approved on March 15, 2001. A one (1) year extension of the original APD was requested. The request was reviewed and the extension approved until March 15, 2003. According to our records, no known activity has transpired at the approved location. In view of the foregoing, this office is notifying you that the approval of the referenced application has expired. If you intend to drill at this location at a future date, a new Application for Permit to Drill must be submitted.

This office requires a letter confirming that no surface disturbance has been made for this drill site. Any surface disturbance associated with the approved location of this well is to be rehabilitated. A schedule for this rehabilitation must be submitted to this office. Your cooperation in this matter is appreciated.

Sincerely,

Leslie Walker  
Legal Instruments Examiner

cc: UDOGM – Diana Mason

RECEIVED

APR 15 2003

DIV. OF OIL, GAS & MINING

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

FORM 3

AMENDED REPORT



<b>APPLICATION FOR PERMIT TO DRILL</b>						<b>1. WELL NAME and NUMBER</b> RW 24-30B					
<b>2. TYPE OF WORK</b> DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						<b>3. FIELD OR WILDCAT</b> RED WASH					
<b>4. TYPE OF WELL</b> Gas Well <input type="checkbox"/> Coalbed Methane Well: NO <input type="checkbox"/>						<b>5. UNIT or COMMUNITIZATION AGREEMENT NAME</b> RED WASH					
<b>6. NAME OF OPERATOR</b> QEP ENERGY COMPANY						<b>7. OPERATOR PHONE</b> 303 308-3068					
<b>8. ADDRESS OF OPERATOR</b> 11002 East 17500 South, Vernal, Ut, 84078						<b>9. OPERATOR E-MAIL</b> debbie.stanberry@questar.com					
<b>10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)</b> UTU02030			<b>11. MINERAL OWNERSHIP</b> FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>			<b>12. SURFACE OWNERSHIP</b> FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>					
<b>13. NAME OF SURFACE OWNER (if box 12 = 'fee')</b>						<b>14. SURFACE OWNER PHONE (if box 12 = 'fee')</b>					
<b>15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')</b>						<b>16. SURFACE OWNER E-MAIL (if box 12 = 'fee')</b>					
<b>17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')</b>			<b>18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS</b> YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			<b>19. SLANT</b> VERTICAL <input checked="" type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input type="checkbox"/>					
<b>20. LOCATION OF WELL</b>		<b>FOOTAGES</b>		<b>QTR-QTR</b>	<b>SECTION</b>	<b>TOWNSHIP</b>	<b>RANGE</b>	<b>MERIDIAN</b>			
LOCATION AT SURFACE		821 FSL 1441 FWL		SESW	30	7.0 S	23.0 E	S			
Top of Uppermost Producing Zone		821 FSL 1441 FWL		SESW	30	7.0 S	23.0 E	S			
At Total Depth		821 FSL 1441 FWL		SESW	30	7.0 S	23.0 E	S			
<b>21. COUNTY</b> UINTAH			<b>22. DISTANCE TO NEAREST LEASE LINE (Feet)</b> 821			<b>23. NUMBER OF ACRES IN DRILLING UNIT</b> 40					
<b>27. ELEVATION - GROUND LEVEL</b> 5424			<b>25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)</b> 558			<b>26. PROPOSED DEPTH</b> MD: 11508 TVD: 11508					
<b>28. BOND NUMBER</b> ESB000024			<b>29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE</b> A-36125/ 49-2153								
<b>Well Casing, and Cement Information</b>											
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement		Sacks	Yield	Weight
Surf	12.25	9.625	0 - 3938	36.0	N-80 LT&C	0.0	Halliburton Light , Type Unknown		460	3.12	11.0
							Halliburton Premium , Type Unknown		320	1.47	13.5
Prod	7.875	4.5	0 - 12508	11.6	HCP-110 LT&C	10.5	Halliburton Light , Type Unknown		650	3.18	11.0
							Halliburton Premium , Type Unknown		510	1.65	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 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					
<b>NAME</b> Valyn Davis			<b>TITLE</b> Regulatory Affairs Analyst			<b>PHONE</b> 435 781-4369					
<b>SIGNATURE</b>			<b>DATE</b> 09/14/2011			<b>EMAIL</b> Valyn.Davis@qepres.com					
<b>API NUMBER ASSIGNED</b> 43047337870000						<b>APPROVAL</b>					

Returned Unapproved

**QEP Energy Company**  
**RW 24-30B**  
**Summarized Drilling Procedure**

1. Construct location per plat.
2. MIRU air drilling rig.
3. Pre-set conductor.
4. Nipple up diverter system.
5. Drill 12-1/4" hole to 3,938' with air/mist.
6. RIH with 9-5/8" 36# N-80 casing and cement same per program.
7. RDMO air drilling rig.
8. MIRU conventional drilling rig.
9. NU and test 5M BOPE.
10. Drill out of 9-5/8" shoe and down to 11,508' using conventional mud systems.
11. Log well. Triple or Quad-Combo (GR, NEU/DEN, IND, RES, SON)
12. RIH with 4-1/2" 11.6# HCP-110 casing and cement same per program.
13. Pressure test casing.
14. ND BOP's and NU remainder of wellhead. Set BPV.
15. RDMO.

**Returned Unapproved**  
**CONFIDENTIAL**

ONSHORE OIL & GAS ORDER NO. 1  
QEP ENERGY COMPANY  
RW 24-30B

## DRILLING PROGRAM

### ONSHORE OIL & GAS ORDER NO. 1 Approval of Operations on Onshore Federal Oil and Gas Leases

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil & Gas No. 1, and the approved plan of operations. The operator is fully responsible for the actions of its subcontractors. A copy of these conditions will be furnished the field representative to insure compliance.

#### 1. Formation Tops

The estimated top of important geologic markers are as follows:

<u>Formation</u>	<u>Depth</u>
Uinta	Surface
Green River	2,908'
Mahogany	3,888'
Wasatch	6,378'
Mesaverde	9,098'
Sego	11,408'
TD	11,508'

#### 2. Anticipated Depths of Oil, Gas, Water, and Other Mineral Bearing Zones

The estimated depths at which the top of the anticipated water, oil, gas, or other mineral bearing formations are expected to be encountered are as follows:

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
Oil	Green River	2,908'
Gas	Wasatch	6,378'
Gas	Mesaverde	9,098'
Gas	Sego	11,408'

All fresh water and prospectively valuable minerals encountered during drilling will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

All water shows and water-bearing sands will be reported to the BLM in Vernal, Utah. Copies of State of Utah form OGC-8-X are acceptable. If flows are detected, samples will be submitted to the BLM along with any water analyses conducted. Fresh water will be obtained from Wonsits Valley water right A36125 (which was filed on May 7, 1964) or Red Wash water right # 49-2153 (which was filed on March 25, 1960). It was

ONSHORE OIL & GAS ORDER NO. 1  
QEP ENERGY COMPANY  
RW 24-30B

determined by the Fish and Wildlife Service that any water right number filed before 1989 is not depleting to the Upper Colorado River System, to supply fresh water for drilling purposes. All water resulting from drilling operations will be disposed of at Red Wash Central Battery Disposal site; SWSE, Section 27, T7S, R23E or Wonsits Valley Disposal Site; SWNW, Section 12, T8S, R21E.

**3. Operator's Specification for Pressure Control Equipment**

- A. An 11" 5000 psi double ram with blind rams and pipe rams, annular preventer and drilling spool or BOP with 2 side outlets.
- B. All BOP connections subject to pressure shall be flanged, welded or clamped.
- C. Kill line (2" min), 2 choke line valves (3" min), choke line (3" min), 2 kill line valves (2" min) and a check valve, 2 chokes with one remotely controlled from rig floor and a pressure gauge on choke manifold.
- D. Upper and Lower Kelly cock valves with handles and safety valve and subs to fit all drill string connections.
- E. IBOP or float sub available.
- F. Fill up line must be installed above the uppermost preventer.
- G. Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or to 50 percent of internal yield pressure of casing whichever is less. BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc..., for a 5M system and individual components shall be operable as designed.

**4. Casing Design:**

Hole Size	Csg. Size	Top (MD)	Bottom (MD)	Wt.	Grade	Thread	Cond.	Expected MW(ppg)
17 1/2"	14"	Sfc	60'	Steel	Conductor	None	Used	N/A
12-1/4"	9-5/8"	Sfc	3,938'	36#	N-80	LTC	New	Air
7 7/8"	4-1/2"	Sfc	11,508'	11.6#	HCP-110	LTC	New	10.5

ONSHORE OIL & GAS ORDER NO. 1  
QEP ENERGY COMPANY  
RW 24-30B

Casing Strengths:				Collapse	Burst	Tensile (min)
9-5/8"	36#	N-80	LTC	2,370 psi	5,120 psi	820,000 lb.
4 1/2"	11.6#	HCP-110	LTC	8,830 psi	10,710 psi	279,000 lb.

### Casing Design Factors

\*The casing prescribed above meets or exceeds the below listed design factors.

Burst: 1.2  
Collapse: 1.2  
Tension: 1.6

Maximum anticipated mud weight: 10.5 ppg  
Maximum anticipated surface treating pressure: 7,200 psi

### 5. Cementing Program

#### 9-5/8" Surface Casing:

**Lead Slurry: Surface (TOC) – 3,000'.** 460 sks (1409 ft<sup>3</sup>) Halliburton Extendacem, 1 pps Granulite TR 1/4, 0.125 pps Poly-E-Flake, Slurry Weight 11.0 ppg, 3.12 ft<sup>3</sup>/sk, 50% XS in open hole only.

**Tail Slurry: 3,000' – 3,938'.** 320 sx (458 ft<sup>3</sup>) Halliburton Peonocem, 0.2% HR-5 Retarder, 1.0 pps Granulite TR 1/4, 0.125 pps Poly-E-Flake, Slurry Weight 13.5 ppg, 1.47 ft<sup>3</sup>/sk, 50% XS in open hole.

#### 4-1/2" Production Casing\*:

**Lead Slurry: 3,000' (TOC) – 9,098'.** 650 sks (2,067 ft<sup>3</sup>) Halliburton Extendacem, 1 pps Granulite 1/4, 0.125 pps Poly-E-Flake. Slurry Weight 11.0 lb/gal, 3.18 ft<sup>3</sup>/sk, 50% excess over gauge in open hole only.

**Tail Slurry: 9,098' – 11,508'.** 510 sks (827 ft<sup>3</sup>), Halliburton Expandacem, 0.3% Super CBL (Expander), 0.6% HR-800 (Retarder), 1 pps Granulite TR ¼, 0.125 pps Poly-E-Flake (LCM). Slurry Weight 13.5 lb/gal, 1.65 ft<sup>3</sup>/sk, 50% excess over gauge hole.

\*Final cement volumes to be calculated from caliper log, if run.

ONSHORE OIL & GAS ORDER NO. 1  
QEP ENERGY COMPANY  
RW 24-30B

6. Auxiliary Equipment

- A. Kelly Cock – yes
- B. Float at the bit – Yes
- C. Monitoring equipment on the mud system – PVT/Flow Show
- D. Full opening safety valve on the rig floor – Yes
- E. Rotating Head – Yes
- F. Request for Variance:

Drilling surface hole with air:

A variance from 43 CFR 3160 Onshore Oil and Gas Order #2, Section III Requirements, subsection E. Special Drilling Operations is requested for the specific operation of drilling and setting surface casing on the subject well with a truck mounted air rig. The variance from the following requirements of Order #2 is requested because surface casing depth for this well is 50' into the Mahogany Bench formation and high pressures are not expected.

1. **Properly lubricated and maintained rotating head** – A diverter system in place of a rotating head. The diverter system forces the air and cutting returns to the reserve pit and is used to drill the surface casing.
2. **Bloolie line discharge 100 feet from wellbore and securely anchored** – the bloolie line discharge for this operation will be located 50 to 70 feet from the wellhead. This reduced length is necessary due to the smaller location size to minimize surface disturbance.
3. **Automatic igniter or continuous pilot light on bloolie line** – a diffuser will be used rather than an automatic pilot/igniter. Water is injected into the compressed air and eliminates the need for a pilot light and the need for dust suppression equipment.
4. **Compressors located in the opposite direction from the bloolie line a minimum of 100 feet from the wellbore** – compressors located within 50 feet on the opposite side of the wellbore from the bloolie line and is equipped with a 1) emergency kill switch on the driller's console, 2) pressure relief valves on the compressors, 3) spark arrestors on the motors.
5. **Well Kill Fluid** – A suitable amount of water and weighting agents will be available in the reserve pit during air drilling operations to kill the well, if necessary. No overpressured zones are expected in the area.
6. **Deflector on the end of the bloolie line** – QEP will mount a deflector unit at the end of the bloolie line for the purpose of changing the direction and velocity of the air and cuttings flow into the reserve pit. Changing the

ONSHORE OIL & GAS ORDER NO. 1  
QEP ENERGY COMPANY  
RW 24-30B

velocity and direction of the cuttings and air will preserve the pit liner. In the event the deflector washes out due to erosion caused by the sand blasting effect of the cuttings, there will be no problem because the deflector is mounted on the very end of the blooie. A washed out deflector will be easily replaced.

7. **Flare Pit** – there will be no need of a flare pit during the surface hole air drilling operation because the blooie line is routed directly to the reserve pit. When the big rig arrives for the main drilling after setting surface casing, a flare box will be installed and all flare lines will be routed to the flare box.

G. Drilling below the 9-5/8” casing will be done with water based mud. Maximum anticipated mud weight is 10.5 ppg.

H. No minimum quantity of weight material will be required to be kept on location.

I. Gas detector will be used from intermediate casing depth to TD.

7. **Testing, logging and coring program**

A. Cores – none.

B. DST – none anticipated

C. Logging – Mud logging – Intermediate Casing to TD  
OH Logs: GR-SP-Induction, Neutron Density.

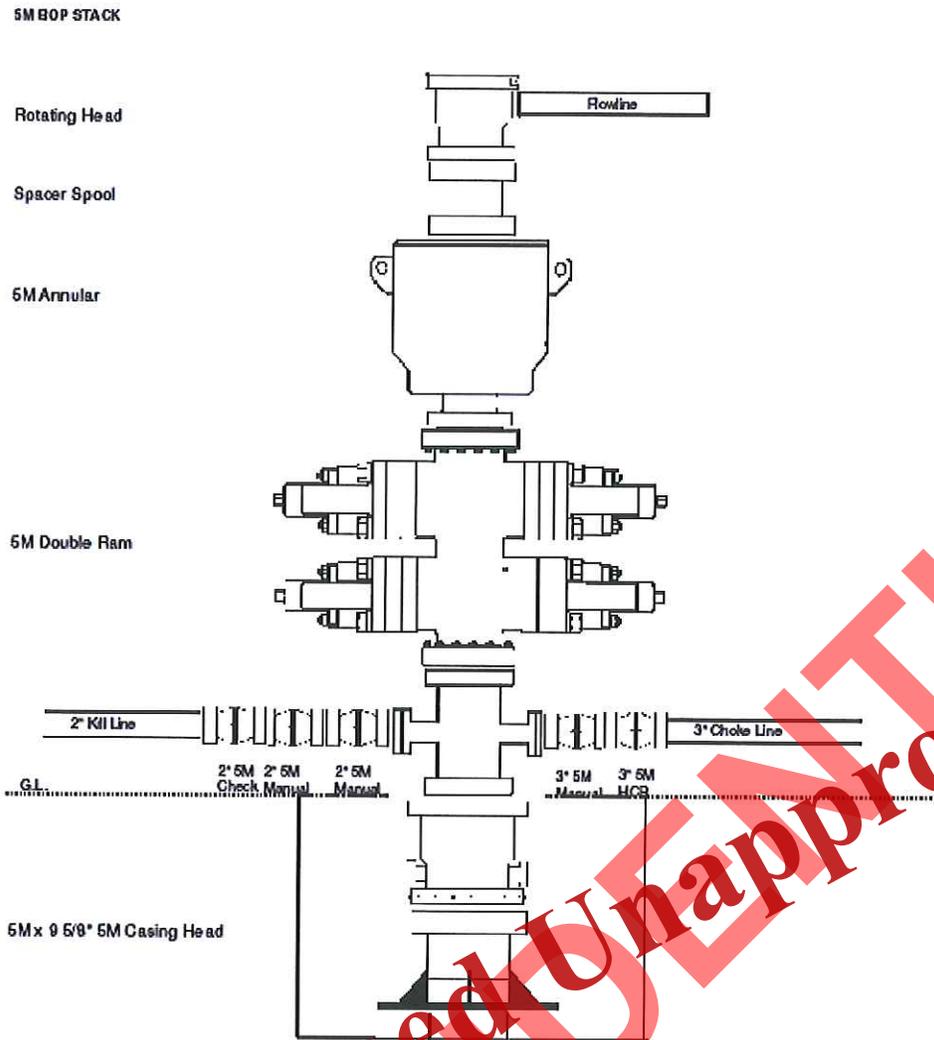
D. Formation and Completion Interval:  
– Stimulation will be designed for the particular area of interest as encountered.

8. **Anticipated Abnormal Pressures and Temperatures, Other Potential Hazards**

No abnormal temperatures or pressures are anticipated. Maximum anticipated bottom hole pressure equals approximately 6,283 psi. Maximum anticipated bottom hole temperature is 211° F.

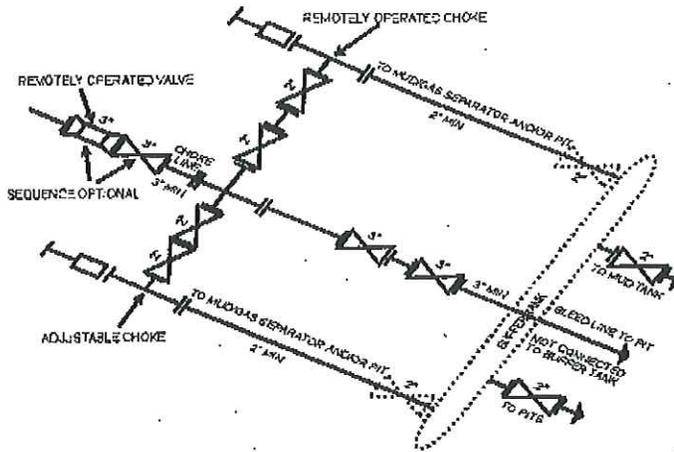
H2S has not been encountered in other wells drilled to similar depths in the general area.

ONSHORE OIL & GAS ORDER NO. 1  
QEP ENERGY COMPANY  
RW 24-30B



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ONSHORE OIL & GAS ORDER NO. 1  
QEP ENERGY COMPANY  
RW 24-30B

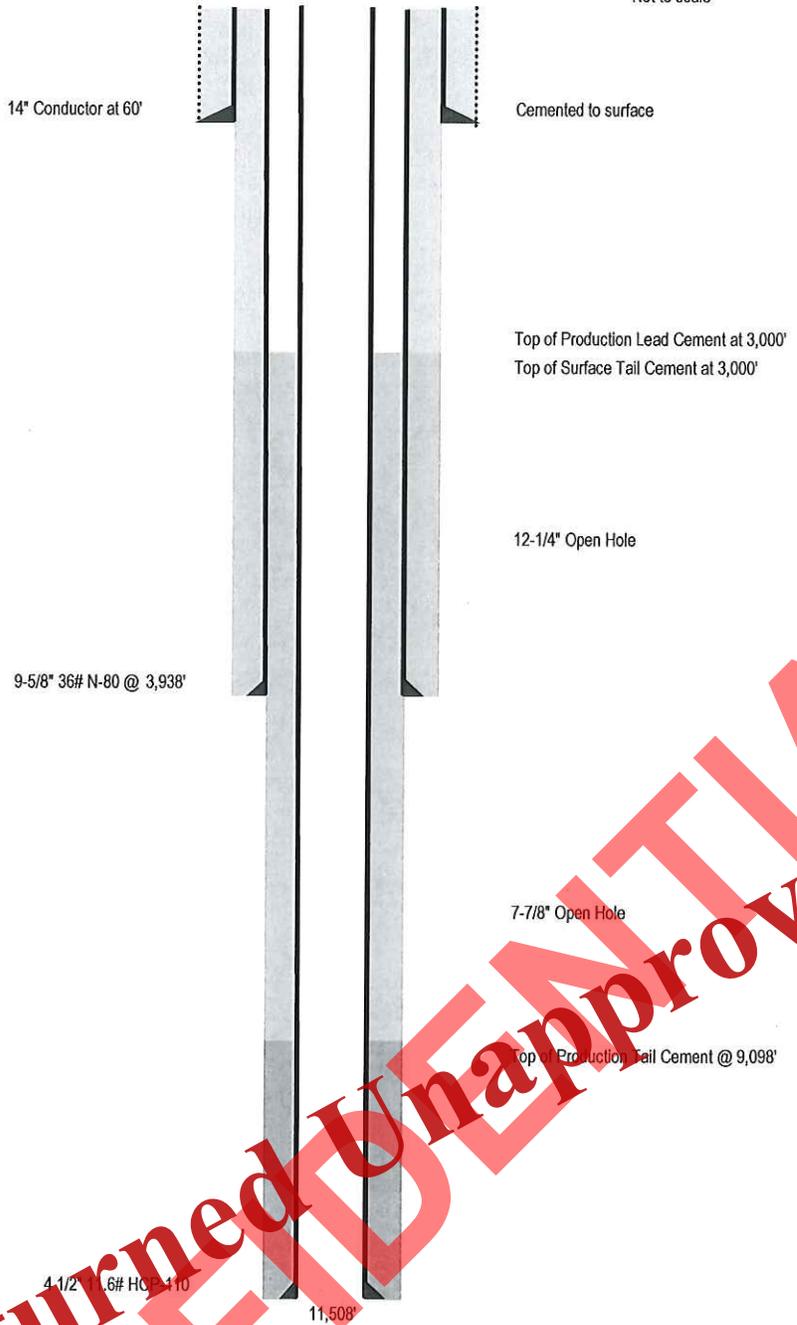


5M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY

Although not required for any of the choke manifold systems, buffer tanks are sometimes installed downstream of the choke assemblies for the purpose of manifolding the bleed lines together. When buffer tanks are employed, valves shall be installed upstream to isolate a failure or malfunction without interrupting flow control. Though not shown on 28L 384, 1004, OR 1524 drawings, it would also be applicable to those situations.  
[54 FR 39528, Sept. 27, 1989]

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RW 24-30B  
821' FSL & 1,441' FWL Sec 30 T7S R23E S.L.B.&M.  
Uintah County, Utah  
KB 5,438'  
GL 5,424'



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T7S, R23E, S.L.B.&M.

QEP ENERGY COMPANY

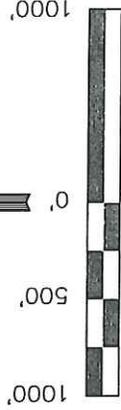
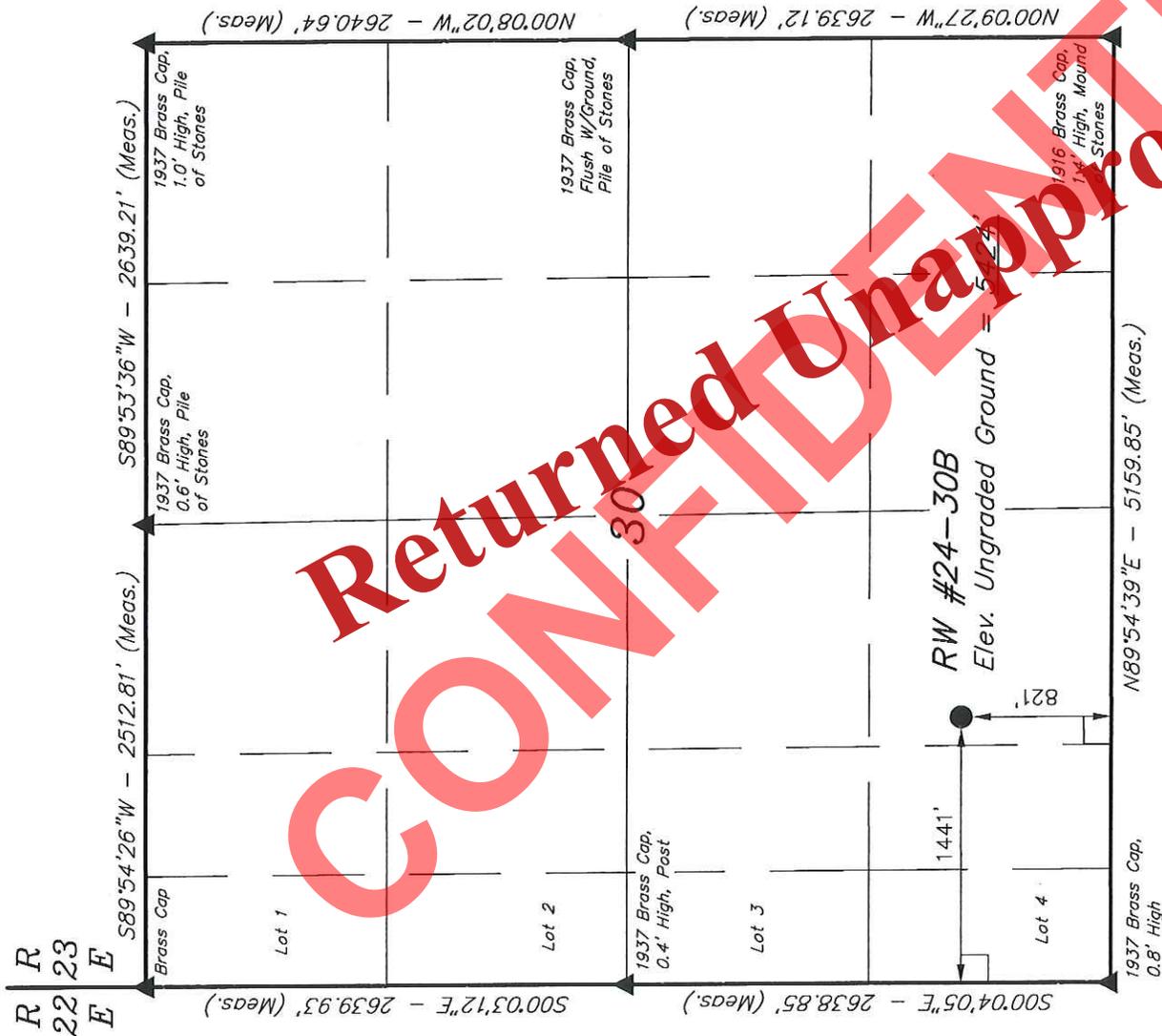
Well location, RW #24-30B, located as shown in the SE 1/4 SW 1/4 of Section 30, T7S, R23E, S.L.B.&M., Uintah County, Utah.

**BASIS OF ELEVATION**

BENCH MARK 20EAM LOCATED IN THE SE 1/4 OF SECTION 35, T8S, R21E, S.L.B.&M. TAKEN FROM THE OURAY SE, QUADRANGLE, UTAH, Uintah County, 7.5 MINUTE QUAD (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4697 FEET.

**BASIS OF BEARINGS**

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



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.

*[Signature]*  
 REGISTERED LAND SURVEYOR  
 REGISTRATION NO. 161319  
 STATE OF UTAH 07-19-11

**UINTAH ENGINEERING & LAND SURVEYING**  
 85 SOUTH 200 EAST - VERNAL, UTAH 84078  
 (435) 789-1017

SCALE	DATE SURVEYED:	DATE DRAWN:
1" = 1000'	06-21-11	06-24-11
PARTY	REFERENCES	
A.F. B.A. T.B.	G.L.O. PLAT	
WEATHER	FILE	
WARM		QEP ENERGY COMPANY

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**LEGEND:**

- = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

(NAD 83)  
 LATITUDE = 40°10'31.97" (40.175547)  
 LONGITUDE = 109°22'25.62" (109.373728)  
 (NAD 27)  
 LATITUDE = 40°10'32.10" (40.175583)  
 LONGITUDE = 109°22'22.96" (109.373044)

# QEP ENERGY COMPANY

## RW #24-30B

LOCATED IN UINTAH COUNTY, UTAH  
SECTION 30, T7S, R23E, S.L.B.&M.

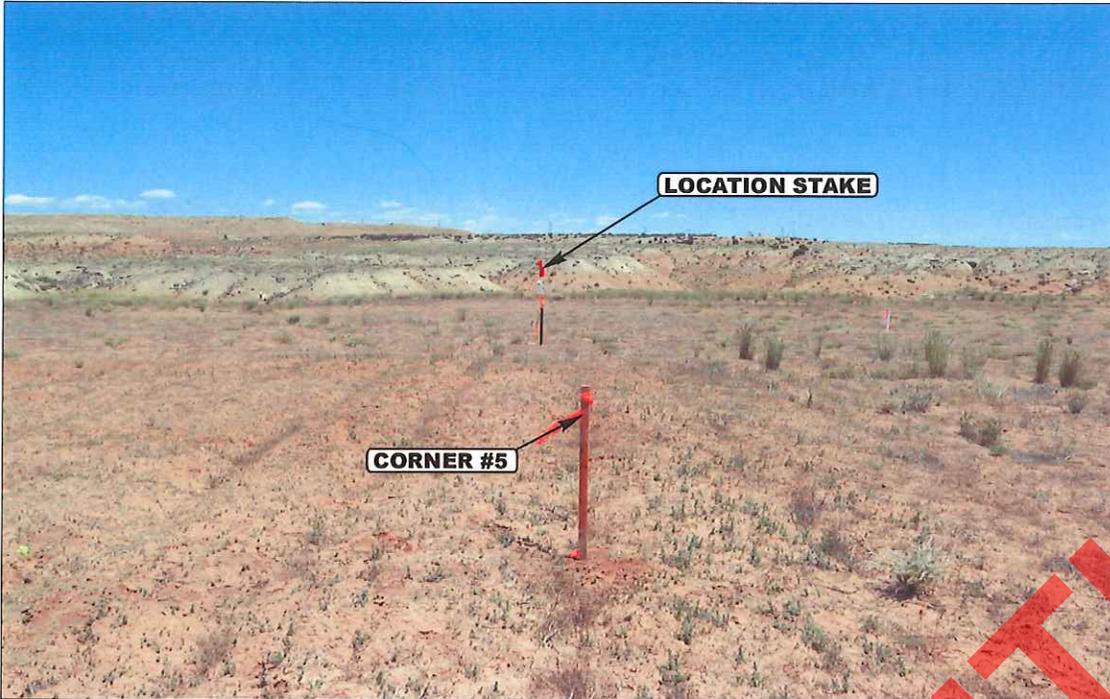


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: EASTERLY



PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: SOUTHERLY



- Since 1964 -

**UELS** Uintah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813

**LOCATION PHOTOS**

**06 29 11**  
MONTH DAY YEAR

**PHOTO**

TAKEN BY: A.F. | DRAWN BY: B.D.H. | REVISED: 00-00-00

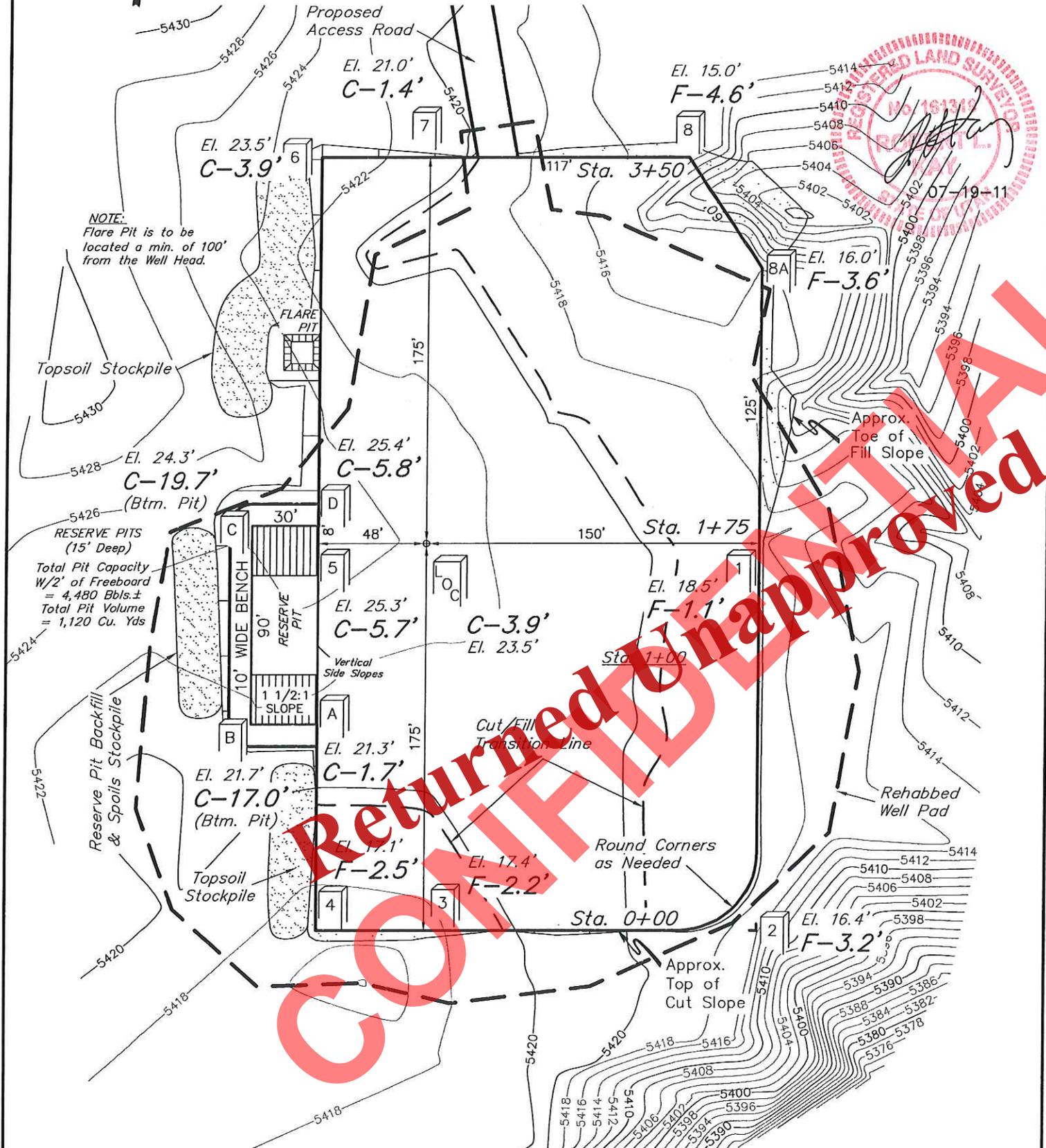
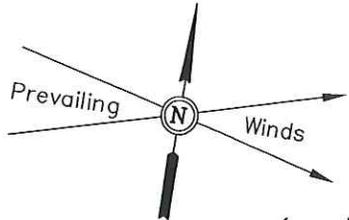
QEP ENERGY COMPANY

LOCATION LAYOUT FOR

RW #24-30B  
SECTION 30, T7S, R23E, S.L.B.&M  
821' FSL 1441' FWL

FIGURE #1

SCALE: 1" = 60'  
DATE: 06-24-11  
DRAWN BY: T.B.



NOTE:  
Flare Pit is to be located a min. of 100' from the Well Head.

Topsoil Stockpile

RESERVE PITS (15' Deep)

Total Pit Capacity W/2' of Freeboard = 4,480 Bbls.±  
Total Pit Volume = 1,120 Cu. Yds

Reserve Pit Backfill & Spoils Stockpile

Topsoil Stockpile

Approx. Toe of Fill Slope

Approx. Top of Cut Slope

Elev. Ungraded Ground At Loc. Stake = 5423.5'  
FINISHED GRADE ELEV. AT LOC. STAKE = 5419.6'

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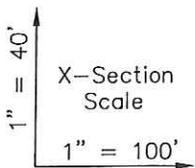
TYPICAL CROSS SECTIONS FOR

RW #24-30B

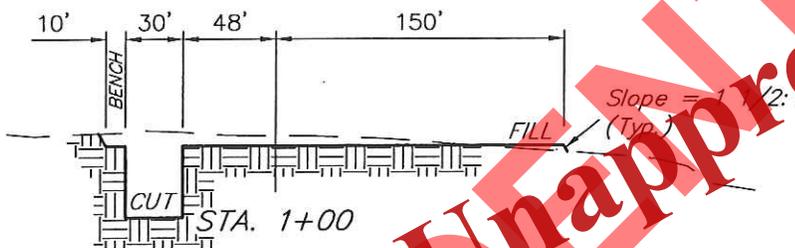
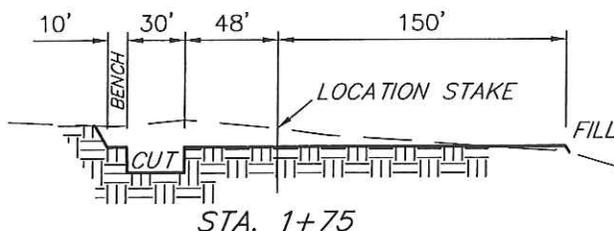
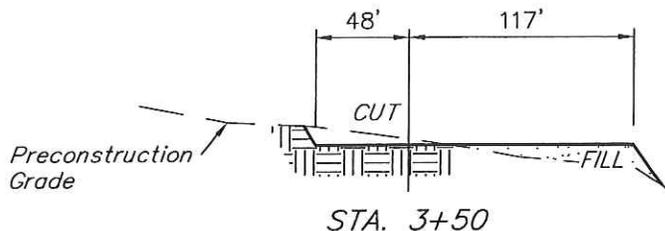
SECTION 30, T7S, R23E, S.L.B.&M

821' FSL 1441' FWL

FIGURE #2



DATE: 06-24-11  
DRAWN BY: T.B.



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NOTE:

Topsoil should not be Stripped Below Finished Grade on Substructure Area.

APPROXIMATE ACREAGES

WELL SITE DISTURBANCE	= ± 1.948 ACRES
ACCESS ROAD DISTURBANCE	= ± 1.991 ACRES
PIPELINE DISTURBANCE	= ± 2.121 ACRES
<b>TOTAL</b>	<b>= ± 6.060 ACRES</b>

\* NOTE:  
FILL QUANTITY INCLUDES 5% FOR COMPACTION

APPROXIMATE YARDAGES

(6") Topsoil Stripping	= 1,530 Cu. Yds.
Remaining Location	= 3,580 Cu. Yds.
<b>TOTAL CUT</b>	<b>= 5,110 CU.YDS.</b>
<b>FILL</b>	<b>= 3,020 CU.YDS.</b>

EXCESS MATERIAL	= 2,090 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	= 2,090 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	= 0 Cu. Yds.

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QEP ENERGY COMPANY

TYPICAL RIG LAYOUT FOR

RW #24-30B

SECTION 30, T7S, R23E, S.L.B.&M

821' FSL 1441' FWL

FIGURE #3

SCALE: 1" = 60'

DATE: 06-24-11

DRAWN BY: T.B.

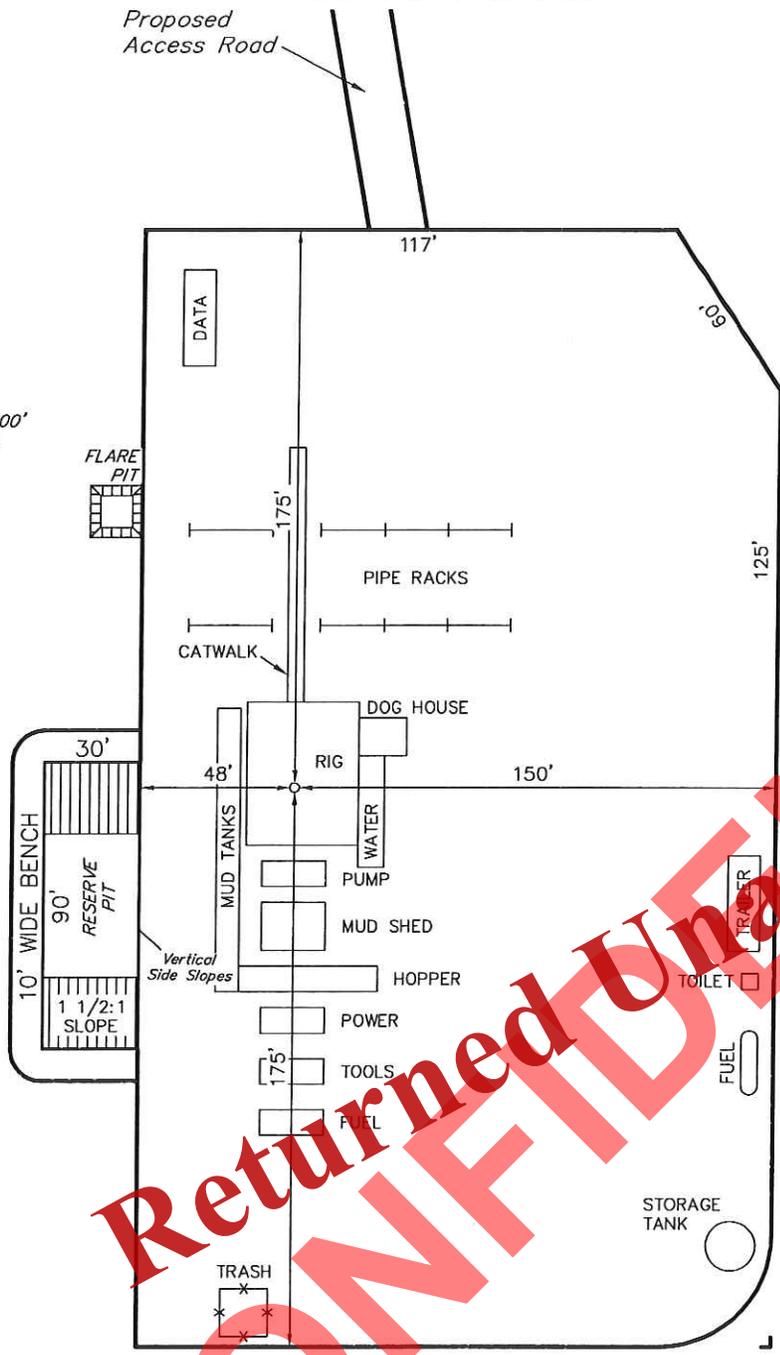


Proposed Access Road



NOTE:  
Flare Pit is to be located a min. of 100' from the Well Head.

RESERVE PITS  
(15' Deep)  
Total Pit Capacity  
W/2' of Freeboard  
= 4,480 Bbls.±  
Total Pit Volume  
= 1,120 Cu. Yds



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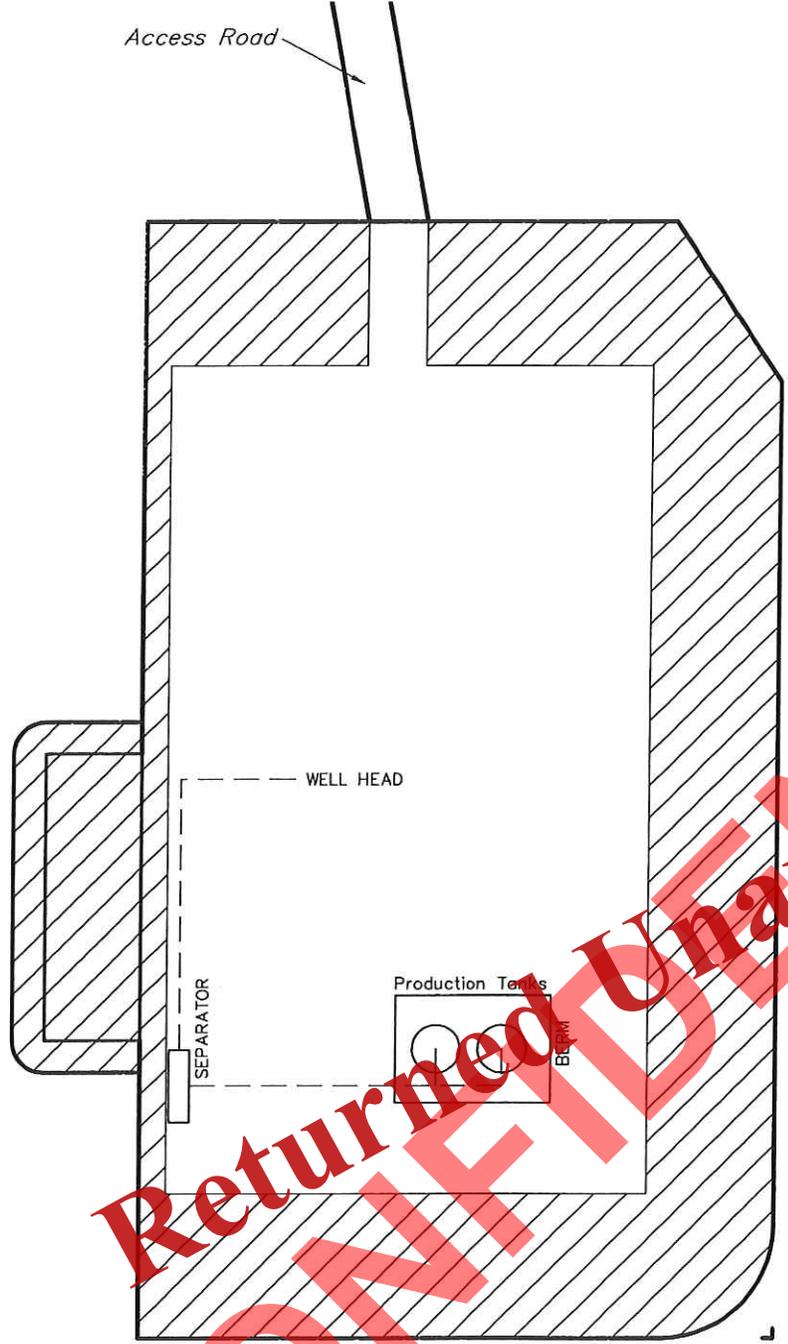
QEP ENERGY COMPANY  
PRODUCTION FACILITY LAYOUT FOR  
RW #24-30B  
SECTION 30, T7S, R23E, S.L.B.&M  
821' FSL 1441' FWL

FIGURE #4

SCALE: 1" = 60'  
DATE: 06-24-11  
DRAWN BY: T.B.



Access Road



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 RECLAIMED AREA

QEP ENERGY COMPANY  
RW #24-30B  
SECTION 30, T7S, R23E, S.L.B.&M.

PROCEED IN AN EASTERLY, THEN SOUTHERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 3.9 MILES TO THE JUNCTION OF STATE HIGHWAY 45; EXIT RIGHT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 19.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE WEST; TURN RIGHT AND PROCEED IN A WESTERLY DIRECTION APPROXIMATELY 2.6 MILES TO THE JUNCTION OF THIS ROAD AND THE BEGINNING OF THE PROPOSED ACCESS TO THE SOUTH; FOLLOW ROAD FLAGS IN A SOUTHERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 2,891' TO THE PROPOSED WELL LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 26.2 MILES.

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**PROPOSED LOCATION:  
RW #24-30B**

**LEGEND:**  
**PROPOSED LOCATION**



**QEP ENERGY COMPANY**

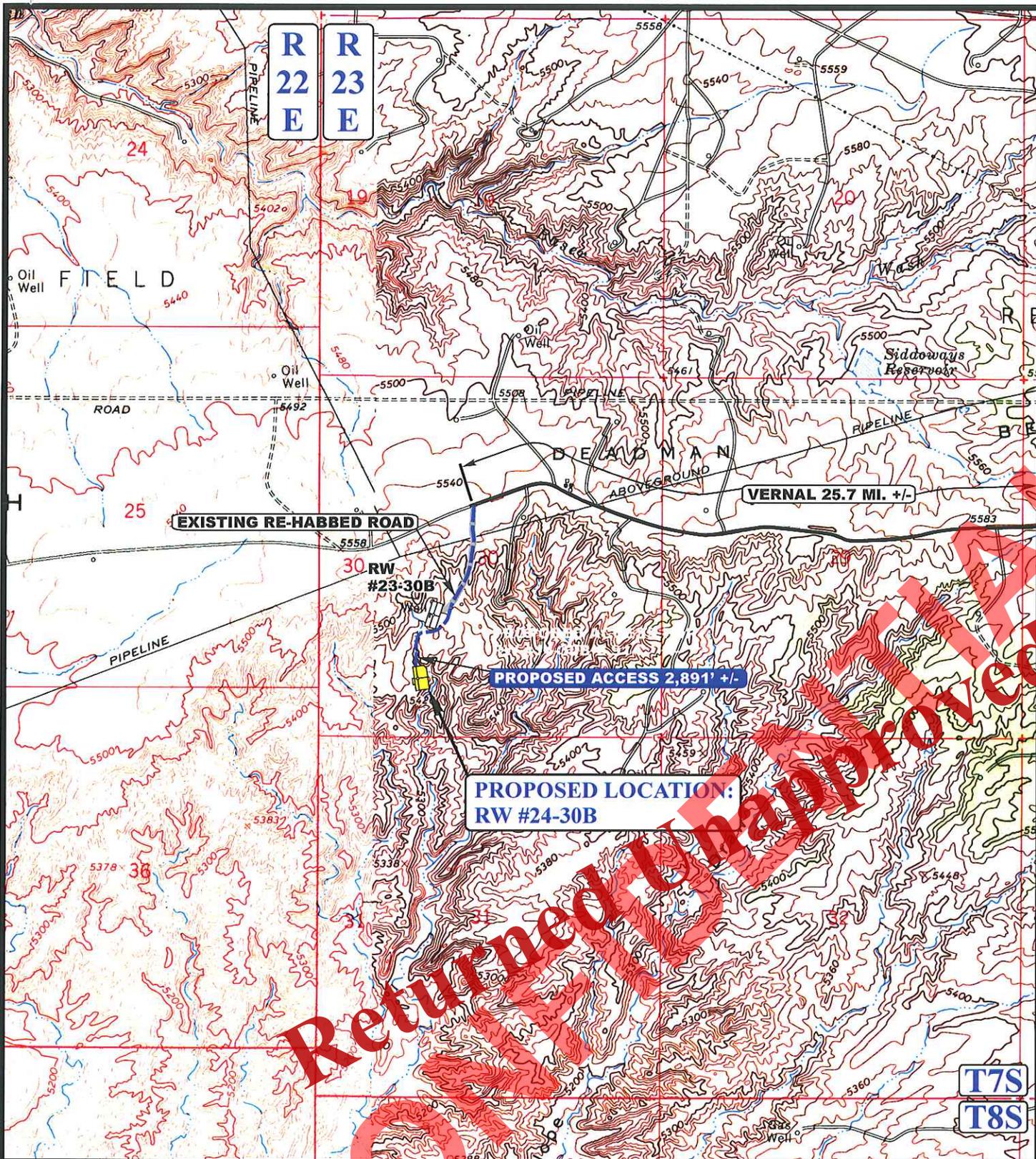
**RW #24-30B  
SECTION 30, T7S, R23E, S.L.B.&M.  
821' FSL 1441' FWL**

**UEIS**  
**Uintah Engineering & Land Surveying**  
 85 South 200 East Vernal, Utah 84078  
 (435) 789-1017 \* FAX (435) 789-1813

**ACCESS ROAD  
MAP**

<b>06</b>	<b>29</b>	<b>11</b>
MONTH	DAY	YEAR

SCALE: 1:100,000 DRAWN BY: B.D.H. REVISED: 00-00-00 **TOPO**



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**LEGEND:**

- EXISTING ROAD
- PROPOSED ACCESS ROAD
- EXISTING RE-HABBED ROAD



**QEP ENERGY COMPANY**

**RW #24-30B**  
**SECTION 30, T7S, R23E, S.L.B.&M.**  
**821' FSL 1441' FWL**



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**ACCESS ROAD**  
**MAP**

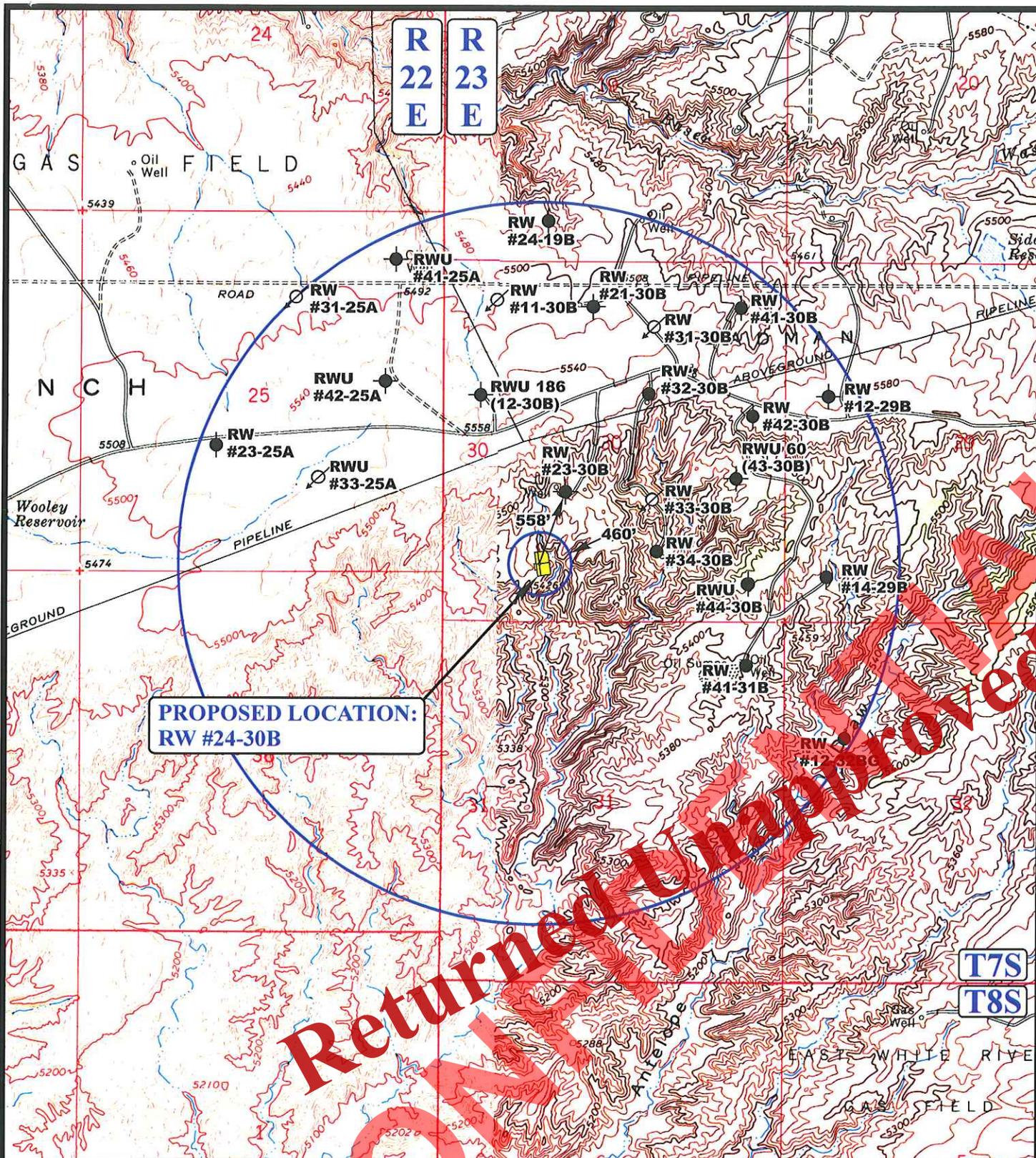
06 29 11

MONTH DAY YEAR

B

TOPO

SCALE: 1" = 2000' DRAWN BY: B.D.H. REVISED: 00-00-00



**PROPOSED LOCATION:  
RW #24-30B**

Returned Unavailable

**LEGEND:**

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



**QEP ENERGY COMPANY**

**RW #24-30B**  
**SECTION 30, T7S, R23E, S.L.B.&M.**  
**821' FSL 1441' FWL**

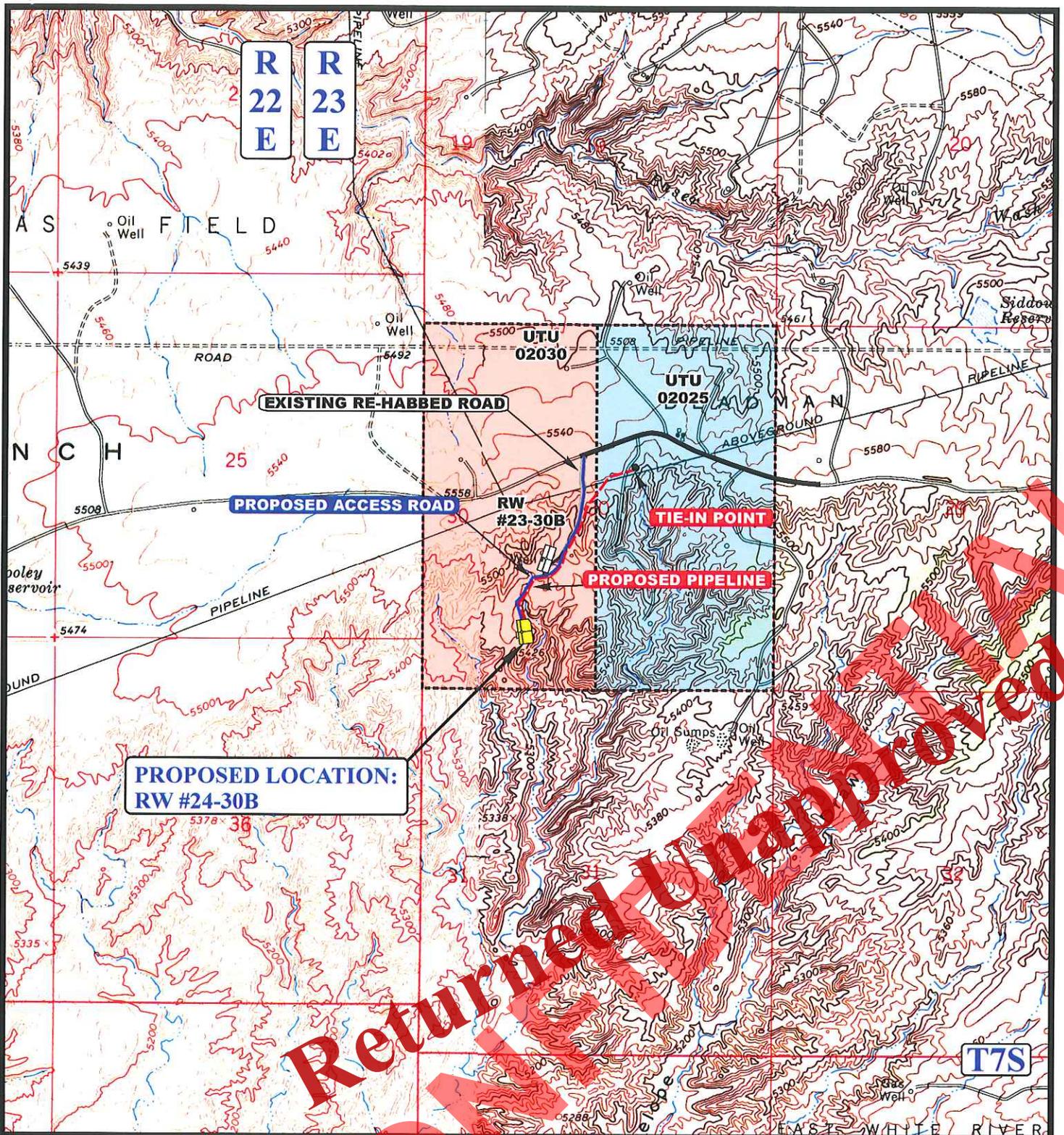
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 (435) 789-1017 \* FAX (435) 789-1813

**TOPOGRAPHIC MAP**

<b>06</b>	<b>29</b>	<b>11</b>	
MONTH	DAY	YEAR	

SCALE: 1" = 2000' DRAWN BY: B.D.H. REVISED: 00-00-00





**PROPOSED LOCATION:  
RW #24-30B**

**APPROXIMATE TOTAL PIPELINE DISTANCE = 3,080' +/-**

**LEGEND:**

- PROPOSED ACCESS ROAD
- EXISTING PIPELINE
- PROPOSED PIPELINE
- EXISTING RE-HABBED ROAD
- PROPOSED PIPELINE (SERVICING OTHER WELLS)

**QEP ENERGY COMPANY**

**RW #24-30B  
SECTION 30, T7S, R23E, S.L.B.&M.  
821' FSL 1441' FWL**

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85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813



**TOPOGRAPHIC MAP** 06 29 11  
MONTH DAY YEAR  
SCALE: 1" = 2000' DRAWN BY: B.D.H REVISED: 00-00-00

**D**  
TOPO

**WEED DATA SHEET**

PROJECT NAME: *RW 24-30 B*  
 SURVEYOR: Stephanie Tomkinson

DATE: *6-8-11*

	Location GPS Coordinates	Site Description	Weed Species	Cover Class or Number	Pattern	Infestation Size (acres)
1						
2						
3						
4						
5						
6						
7						

*Use ref site from 23.30 B*

**SITE DRAWING (Optional):** Include a sketch of the infestation within the project area. Count the number of individuals if possible.

*No noxious weeds on location*

\*Cover Class- estimated percent cover, by species, of the infestation

- 0 = No weeds found
- 1 = Less than 1% (trace)
- 2 = One to five % (low - occasional plants)
- 3 = Six to twenty-five % (moderate - scattered plants)
- 4 = Twenty-five to 100 % (high - fairly dense)

\*Pattern - pattern of the infestation

- 0 = No weeds found
- 1 = Single plant or small area of many plants
- 2 = Linear
- 3 = Patchy
- 4 = Block

\*Infestation Size - number of estimated acres of the infestation

- 0 = No weeds found
- 1 = Less than one acre
- 2 = One to five acres
- 3 = five or more acres

Cheatgrass canopy cover: 4

Russian thistle canopy cover: 2

Halogeton canopy cover: 2

Kochia canopy cover: 1

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### **Additional Operator Remarks**

QEP Energy Company proposes drill a vertical gas well to a depth of 11,508' to test the Mesa Verde Formation. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and State of Utah requirements.

Please see Onshore Order No. 1.

Please refer to QEP Energy Company Greater Deadman Bench  
EIS UT-080-2003-0369V Record of Decision dated March 31, 2008.

Please be advised that QEP Energy Company agrees to be responsible under the terms and conditions of the lease for the operations conducted upon the lease lands.

Bond coverage for this well is provided by Bond No.ESB000024. The principal is QEP Energy Company via surety as consent as provided for the 43 CFR 3104.2.

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**QEP ENERGY COMPANY  
RW 24-30B  
821' FSL 1441' FWL  
SESW SECTION 30, T7S, R23E  
UINTAH COUNTY, UTAH  
LEASE # UTU-02030**

**ONSHORE ORDER NO. 1  
MULTI – POINT SURFACE USE & OPERATIONS PLAN**

An onsite inspection was conducted for the RW 24-30B on June 8, 2011. Weather conditions were sunny at the time of the onsite. In attendance at the inspection were the following individuals:

Kevin Sadlier	Bureau of Land Management
Aaron Roe	Bureau of Land Management
Holly Villa	Bureau of Land Management
Daniel Emmett	Bureau of Land Management
Melissa Wardle	Bureau of Land Management
Stephanie Tomkinson	QEP Energy Company
Valyn Davis	QEP Energy Company
Andy Floyd	Uintah Engineering & Land Surveying

**1. Existing Roads:**

The proposed well site is approximately 26 miles South of Vernal, Utah.

Refer to Topo Maps A and B for location of access roads within a 2 – mile radius.

All existing roads will be maintained and kept in good repair during all phases of operation.

**2. Planned Access Roads:**

Please refer to QEP Energy Company Greater Deadman Bench EIS UTU-080-200-0369V Record of Decision dated March 31, 2008.

There will be a new access road approximately 2,891' in length, containing approximately 1.991 acres. The access road will be crowned and ditched with a running surface of 18 feet and a maximum disturbed width of 30. Any additional disturbance required due to intersections or sharp curves will be discussed at the on-site and approved by the BLM/VFO AO. Graveling or capping the roadbed will be performed as necessary to provide a well constructed safe road. Should conditions warrant, rock, gravel or culverts will be installed as needed. Surface disturbance and vehicular traffic will be limited to the approved location and access route or, as proposed by the Operator.

Access roads and surface disturbing activities will conform to standards outlined in the BLM and Forest Service publication: Surface Operating Standards for Oil and gas Exploration and Development, Fourth Edition 2006. The road surface and shoulders will be kept in a safe and usable condition and will be maintained in accordance with the original construction standards. All drainage ditches and culverts will be kept clear and free-flowing and will be maintained according to original construction standards. The access road disturbed area will be kept free of trash during operations. All traffic will be confined to the approved road running surface. Road drainage crossings shall be of the typical dry creek drainage crossing type. Crossings shall be designed so they will not cause excess siltation or accumulation of debris in the drainage nor shall the drainage be blocked by the roadbed. If culverts are needed, the location and size of the culverts will be proposed during the on-site. The operator will clean and maintain approved culverts as needed. Erosion of drainage ditches by runoff water shall be prevented by diverting water off at frequent intervals by means of cutouts. Should mud holes develop, the holes shall be filled in and detours around the holes avoided. When snow is removed from the road during the winter months, the snow should be pushed outside of the borrow ditches, and the turnouts kept clear so that snowmelt will be channeled away from the road.

Refer to Topo Map B for the location of the proposed access road.

3. **Location of Existing Wells Within a 1 – Mile Radius:**

Please refer to Topo Map C.

4. **Location of Existing & Proposed Facilities:**

Please refer to QEP Energy Company Greater Deadman Bench EIS-UTU-080-200-0369V Record of Decision dated March 31, 2008.

The following guidelines will apply if the well is productive.

A containment dike will be constructed completely around those production facilities which contain fluids (i.e., production tanks, produced water tanks). These dikes will be constructed of compacted impervious subsoil; hold 110% of the capacity of the largest tank; and, be independent of the back cut. If a Spill Prevention, Control, and Countermeasure (SPCC) Plan is required by the Environmental Protection Agency, the containment dike may be expanded to meet SPCC requirements with approval by the BLM/VFO AO. The specific APD will address additional capacity if such is needed due to environmental concerns. The use of topsoil for the construction of dikes will not be allowed.

All loading lines will be placed inside the berm surrounding the tank batteries.

All permanent (on site six months or longer) above the ground structures constructed or installed, including pumping units, will be painted a color approved by the State.

It was determined on the onsite by the BLM VFO AO that the facilities will be painted Covert Green.

Refer to Topo Map D for the location of the proposed pipeline.

The proposed surface pipeline will be constructed utilizing existing disturbed areas to minimize surface disturbance. No construction activities will be allowed outside of the proposed pipeline.

Prior to construction, the Permittee will develop a plan of installation to minimize surface disturbance. Pipe will be strung along the pipeline route with either a flatbed trailer and rubber tired backhoe or a tracked typed side boom. Where surface conditions do not allow the pipe to be strung using conventional methods, the Permittee will utilize pull sections to run the fabricated pipe through the area from central staging areas along the pipeline route.

Upon completion of stringing activities the Permittee will fabricate the pipeline on wooden skids adjacent to the centerline of the pipeline route using truck mounted welding machines. All fabricated piping will be lowered off of the wooden skids and placed along the centerline. Upon completion of all activities, the wooden skids will be removed from the pipeline route using a flatbed truck or flatbed truck and trailer.

When the surface terrain prohibits the Permittee from safely installing the pipeline along the pipeline route, grading of the route will be required. Prior to installing the pipeline in these areas a plan will be developed to safely install the pipeline while minimizing grading activities and surface disturbances. Additionally, erosion control Best Management Practices will be installed as needed prior to the start of any grading activities. Surface grading will be limited to what is needed to safely install the pipeline. Track type bulldozers and track type backhoes will be utilized for grading activities.

Upon completion of the pipeline installation, the pipeline route will be restored to the pre-disturbance surface contours.

The proposed pipeline will be a surface 10" or smaller, 3,080' in length, containing 2.121 acres.

### **Road Crossings**

Fusion Bond or concrete coated pipe will be used for all road crossings to alleviate future corrosion.

All pipe and fittings used for road crossings will be prefabricated within the proposed pipeline route to minimize the duration of open pipe trench across the roadway. Pipe used for road crossings will be isolated on each end with a flange set and insulation kit and cathodically protected with a magnesium type anode. Adequately sized equipment will be used for minor and major road crossings. Depth of cover for minor roads will be >4' and the depth of cover for major roads will be >6'.

Prior to lowering the pipe in the trench, the Permittee will "Jeep" the pipe to locate and repair any Holidays in the pipe coating. Upon lowering the pipe in the trench, 6" of bedding and a minimum of 6" of shading will be installed to protect the pipe using either native soils <1" in diameter or imported sand. Pipe trenches that extend across gravel roads will be backfilled with native soils to within 8" of the driving surface and capped with 3/4" road base. Pipe trenches that extend across asphalt paved roads will be backfilled to 4" of the driving surface with 3/4" road base and capped asphalt material.

**5. Location and Type of Water Supply:**

Please refer to QEP Energy Company Greater Deadman Bench EIS UTU-080-200-0369V Record of Decision dated March 31, 2008.

Water for drilling purposes would be obtained from Wonsits Valley Water Right # A 36125 (which was filed on May 7, 1964) or Red Wash Water Right # 49-2153 (which was filed on March 25, 1960). It was determined by the Fish and Wildlife Service that any water right number filed before 1989 is not depleting to the Upper Colorado River System.

**6. Source of Construction Materials:**

Please refer to QEP Energy Company Greater Deadman Bench EIS UTU-080-200-0369V Record of Decision dated March 31, 2008.

Surface and subsoil materials in the immediate area will be utilized.

Any gravel will be obtained from a commercial source.

The use of materials under BLM jurisdiction will conform with 43 CFR 3610.2-3.

**7. Methods of Handling Waste Materials:**

Please refer to QEP Energy Company Greater Deadman Bench EIS UTU-080-200-0369V Record of Decision dated March 31, 2008.

Drill cuttings will be contained and buried in the reserve pit.

Drilling fluids including salts and chemicals will be contained in the reserve pit. Upon termination of drilling and completion operations, the liquid contents of the reserve pit will be used at the next drill site or will be removed and disposed of at an approved waste disposal facility within 6 months after drilling is terminated. Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1.

Unless specified in the site specific APD, the reserve pit will be constructed on the location and will not be located within natural drainages, where a flood hazard exists

or surface runoff will or damage the pit walls. The reserve pit will be constructed so that it will not leak, break, or allow discharge of liquids.

It will be determined at the on-site inspection if a pit liner is necessary, the reserve pit will be lined with a synthetic reinforced liner, a minimum of 20 millimeters thick, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place.

No trash or scrap will be disposed of in the pit.

Reserve pit leaks are considered an undesirable event and will be orally reported to the AO.

After first production, produced wastewater will be confined to the approved pit or storage tank for a period not to exceed 90 days.

After the 90 day period, the produced water will be contained in tanks on location and then hauled by truck to one of the following pre-approved disposal sites:

Red Wash Disposal well located in the SESE, Section 28, T7S, R23E,  
West End Disposal located in the NESE, Section 28, T7S, R22E.

Produced water, oil, and other byproducts will not be applied to roads or well pads for the control of dust or weeds. The dumping of produced fluids on roads, well sites, or other areas will not be allowed.

Any spills of oil, gas, salt water, or other noxious fluids will be immediately cleaned up and removed to an approved disposal site. The spills will be reported to the AO and other authorities as appropriate.

A chemical porta-toilet will be furnished with the drilling rig. The chemical porta-toilet wastes will be hauled to Ashley Valley Sewer and Water System for disposal.

Garbage, trash, and other waste materials will be collected in a portable, self-contained, fully enclosed trash cage during operations. Trash will not be burned on location. All debris and other waste material not contained in the trash cage will be cleaned up and removed from the location immediately after removal of the drilling rig. All trash and waste material will be hauled to the Uintah County Landfill.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of wells. Furthermore, extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will not be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completing of wells within these areas. Specific APD's shall address any modifications from this policy.

8. **Ancillary Facilities:**

None anticipated.

9. **Well Site Layout: (See Location Layout Diagram)**

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram rig orientation, parking areas, and access roads, as well as the location of the following:

The reserve pit.

The stockpiled topsoil will not be used for facility berms. All brush removed from the well pad during construction will be stockpiled with topsoil.

The flare pit or flare box will be located downwind from the prevailing wind direction.

Any drainage that crosses the well location will be diverted around the location by using ditches, water diversion drains or berms. If deemed necessary at the on-site, erosion drains may be installed to contain sediments that could be produced from access roads and well locations.

A pit liner is required. A felt pit liner will be required if bedrock is encountered.

10. **Fencing Requirements:**

Any open pits will be fenced during the operations. The fencing will be maintained until such time as the pits are backfilled.

All pits will be fenced according to the following minimum standards:

39 inch net wire will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.

The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.

Corner posts shall be cemented and/or braced in such a manner 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.

All wire shall be stretched using a stretching device before it is attached to corner posts.

The reserve pit will be fenced on three (3) sides during drilling operations. The fourth side will be put in place when the rig moves off location. The pit will be fenced and maintained until it is backfilled. If drilling operations does not commence within 3 days, the fourth side of the fence will be installed

**11. Plans for Reclamation of the Surface:**

Please refer to QEP Energy Company Uinta Basin Division Reclamation Plan

**Site Specific Procedures:**

**Site Specific Reclamation Summary:**

Reclamation will follow Questar Exploration and Production Company, Uinta Basin Division's Reclamation Plan, September 2009 (Questar's Reclamation Plan) and the BLM Green River District Reclamation Guidelines.

All trash and debris will be removed from the disturbed area.

The disturbed area will be backfilled with subsoil.

Topsoil will be spread to an even, appropriate depth and disked if needed.

Water courses and drainages will be restored.

Erosion control devices will be installed where needed.

Seeding will be done in the fall, prior to ground freeze up.

Seed mix will be submitted to a BLM AO for approval prior to seeding.

Monitoring and reporting will be conducted as stated in Questar's Reclamation Plan. A sundry notice (Form 3160.5), for the Reference Site will be filed at a later date. A Weed Data Sheet is included with this application.

It was determined and agreed upon that there is 3" inches of top soil.

**12. Surface Ownership:**

Bureau of Land Management  
170 South 500 East  
Vernal, Utah 84078  
(435) 781-4400

**13. Other Information:**

A Class III archaeological survey was conducted by Montgomery Archaeology Consultants. A copy of this report was submitted on August 3, 2011, **Moac Report No. 11-212** by Montgomery Archaeology Consultants. Cultural resource clearance was recommended for this location.

A Class III paleontological survey was conducted by Intermountain Paleo Consulting. A copy of this report was submitted on July 11, 2011 IPC # 11-111 by Stephen D. Sandau. The inspection resulted in the location of no fossil resources. However, if vertebrate fossil(s) are found during construction a paleontologist should be immediately notified. QEP will provide Paleo monitor if needed.

**Per the onsite on June 8, 2011, the following items were requested/ discussed.**

There is a Red-tailed Hawk Stipulation from March 15 to August 15. No construction or drilling will commence during this period unless otherwise determined by a wildlife biologist that the site is inactive.

**Returned Unapproved**  
**CONFIDENTIAL**

**Lessee's or Operator's Representative & Certification:**

Valyn Davis  
Regulatory Affairs Analyst  
QEP Energy Company  
11002 East 17500 South  
Vernal, UT 84078  
(435) 781-4369

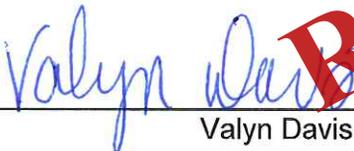
Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

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.

QEP Energy Company is considered to be the operator of the subject well. QEP Energy Company agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104.2 for lease activities is being provided by Bond No. ESB000024

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 operations; 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 plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

  
\_\_\_\_\_  
Valyn Davis

9/14/2011  
\_\_\_\_\_  
Date

**Returned Unapproved**  
**CONFIDENTIAL**



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*

September 14, 2011

QEP ENERGY COMPANY  
11002 East 17500 South  
Vernal, Ut 84078



Re: Application for Permit to Drill - UINTAH County, Utah

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the RW 24-30B well, API 43047337870000 that was submitted September 14, 2011 is being returned unapproved. If you plan on drilling this well in the future, you must first submit a new application.

Should you have any questions regarding this matter, please call me at (801) 538-5312.

Sincerely,

Diana Mason  
Environmental Scientist

Enclosure

cc: Bureau of Land Management, Vernal, Utah