

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		<b>CONFIDENTIAL</b>		5. Lease Serial No. UTU-0558
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone				6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator SHENANDOAH ENERGY INC.		Contact: RALEEN SEARLE E-Mail: rsearle@shenandoahenergy.com		7. If Unit or CA Agreement, Name and No. <del>N/A</del> Red Wash
3a. Address 11002 EAST 17500 SOUTH VERNAL, UT 84078		3b. Phone No. (include area code) Ph: 435.781.4309 Fx: 435.781.4329		8. Lease Name and Well No. RED WASH 11W-34-7-22
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NESW 2082FSL 2162FWL At proposed prod. zone		447219 N 633940 E		9. API Well No. 43-047-34360
14. Distance in miles and direction from nearest town or post office* 9+/- MILES TO REDWASH, UTAH				10. Field and Pool, or Exploratory RED WASH Undesignated
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 2082' +/-		16. No. of Acres in Lease 40.00		11. Sec., T., R., M., or Blk. and Survey or Area Sec 34 T7S R22E Mer SLB
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 3000' +/-		19. Proposed Depth 8475 MD 8475 TVD		12. County or Parish UINTAH
21. Elevations (Show whether DF, KB, RT, GL, etc.) 5215 KB		22. Approximate date work will start		13. State UT
		23. Estimated duration 10 DAYS		

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>1. Well plat certified by a registered surveyor.</li> <li>2. A Drilling Plan.</li> <li>3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).</li> </ul> | <ul style="list-style-type: none"> <li>4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).</li> <li>5. Operator certification</li> <li>6. Such other site specific information and/or plans as may be required by the authorized officer.</li> </ul> |
|--|--|

25. Signature (Electronic Submission)	Name (Printed/Typed) RALEEN SEARLE	Date 10/24/2001
Title PREPARER	<i>John Bush</i>	
Approved by (Signature)	Name (Printed/Typed) BRADLEY G. HILL	Date 11-06-01
Title	Office RECLAMATION SPECIALIST III	

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

Additional Operator Remarks (see next page)

Electronic Submission #8037 verified by the BLM Well Information System  
For SHENANDOAH ENERGY INC., sent to the Vernal

**RECEIVED**

OCT 29 2001

DIVISION OF  
OIL, GAS AND MINING

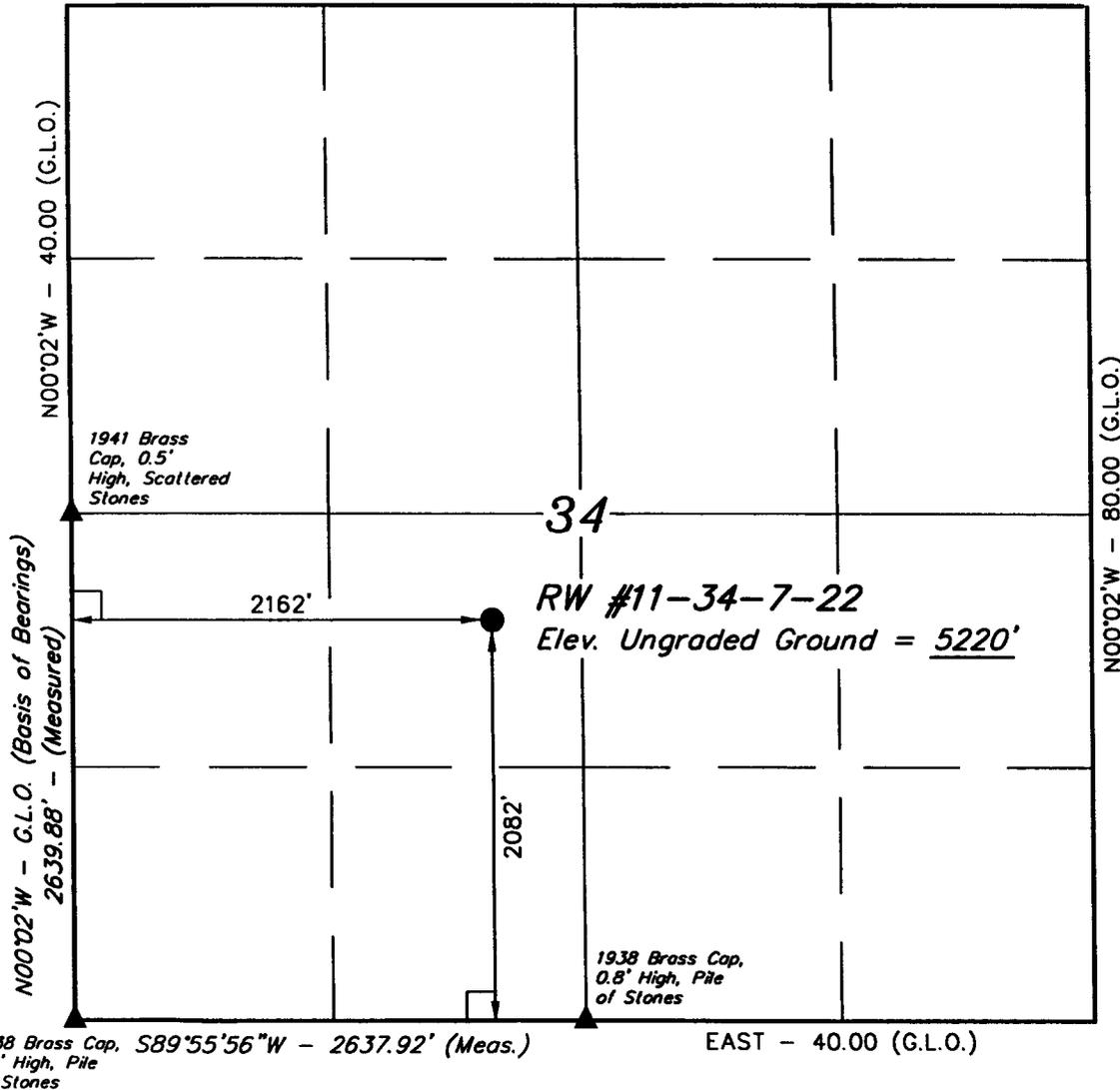
\*\* ORIGINAL \*\*

T7S, R22E, S.L.B.&M.

SHENANDOAH ENERGY, INC.

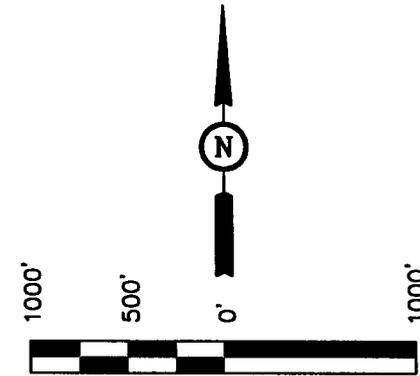
Well location, RW #11W-34-7-22, located as shown in the NE 1/4 SW 1/4 of Section 34, T7S, R22E, S.L.B.&M. Uintah County, Utah.

S89°55'W - 79.60 (G.L.O.)



BASIS OF ELEVATION

SPOT ELEVATION IS THE SOUTHWEST CORNER OF SECTION 34, T7S, R22E, S.L.B.&M. TAKEN FROM THE RED WASH NW 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 5220 FEET.



SCALE

CERTIFICATE

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

*Robert J. Key*  
 REGISTERED LAND SURVEYOR  
 REGISTRATION NO. 16119  
 STATE OF UTAH

REVISED: 10-17-01 C.G.

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

LEGEND:

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

LATITUDE = 40°09'59"  
 LONGITUDE = 109°25'38"

SCALE 1" = 1000'	DATE SURVEYED: 10-5-01	DATE DRAWN: 10-8-01
PARTY B.B. W.L. C.G.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE SHENANDOAH ENERGY, INC.	

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)

November 1, 2001

Memorandum

To: Assistant District Manager Minerals, Vernal District  
From: Michael Coulthard, Petroleum Engineer  
Subject: 2001 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 well is planned for calendar year 2001 within the Red Wash Unit, Uintah County, Utah.

Api Number	Well	Location
(Proposed PZ Wasatch)		
43-047-34360	RWU 11W-34-7-22	Sec. 34, T7S, R22E 2082 FSL 2162 FWL*

\* Outside of an existing Participating Area

This office has no objection to permitting the well 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:11-1-1

**Additional Operator Remarks:**

Shenandoah Energy Inc. proposes to drill a well to 8475' to test the Wasatch. 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 Shenandoah Energy Inc. Standard Practices for Wasatch Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and undesignated fields in Townships 07 and 08 South, Ranges 21 and 24 East.

See Onshore Order No. 1 attached

Please be advised that 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. U-0969. The principal is Shenandoah Energy Inc. via surety as consent as provided for the 43 CFR 3104.2.

# SHENANDOAH ENERGY, INC.

**RW #11W-34-7-22**

**LOCATED IN UINTAH COUNTY, UTAH  
SECTION 34, T7S, R22E, S.L.B.&M.**



**PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE**

**CAMERA ANGLE: WESTERLY**



**PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS**

**CAMERA ANGLE: SOUTHERLY**



- Since 1964 -

**U  
E  
L** Uintah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
435-789-1017 uels@uelsinc.com

**LOCATION PHOTOS**

**10 9 01**  
MONTH DAY YEAR

**PHOTO**

TAKEN BY: B.B.

DRAWN BY: K.G.

REVISED: 10-17-01

SHENANDOAH ENERGY INC.  
RW 11W-34-7-22

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:

<i>Formation</i>	<i>Depth</i>	<i>Prod. Phase Anticipated</i>
Uinta	Surface	
Green River	2950	
Mahogany Ledge	3965	
Mesa	6475	
TD (Wasatch)	8475	GAS

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:

<i>Substance</i>	<i>Formation</i>	<i>Depth</i>
Oil/Gas	Wasatch	8475

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 3390.0 psi.

SHENANDOAH ENERGY INC.  
RED WASH 11W-34-7-22  
2082' FSL, 2162' FWL  
NESW, SECTION 34, T7S, R22E  
UINTAH COUNTY, UTAH  
LEASE # UTU-0558

ONSHORE ORDER NO. 1

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

An onsite inspection was conducted for the RW 11W-34-7-22 on October 16, 2001 at approximately 2:30 PM. Weather conditions were sunny and clear with a light wind and a temperature of about 70 degrees at the time of the onsite. In attendance at the inspection were the following individuals:

Byron Tolman      Bureau of Land Management  
Raleen Searle      Shenandoah Energy Inc.

**1. Existing Roads:**

The proposed well site is approximately 9 miles southeast of Red Wash, Utah.

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

Upgrade/ replacements of culverts on existing roads will be done as needed.

**2. Planned Access Roads:**

Please see Shenandoah Energy Inc. Standard Practices for Wasatch Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and undesignated fields in Townships 07 and 08 South, Ranges 21 to 24 East.

The access road will consist of the following:

10-3' culverts, 2-4' culverts, 1-5' culvert, 4-18" culverts, 3-24" culverts, and 2 low water crossings.

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 see Shenandoah Energy Inc. Standard Practices for Wasatch Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and undesignated fields in Townships 07 and 08 South, Ranges 21 to 24 East.

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

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

Please see Shenandoah Energy Inc. Standard Practices for Wasatch Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and undesignated fields in Townships 07 and 08 South, Ranges 21 to 24 East.

**6. Source of Construction Materials:**

Please see Shenandoah Energy Inc. Standard Practices for Wasatch Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and undesignated fields in Townships 07 and 08 South, Ranges 21 to 24 East.

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

Please see Shenandoah Energy Inc. Standard Practices for Wasatch Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and undesignated fields in Townships 07 and 08 South, Ranges 21 to 24 East.

**8. Ancillary Facilities:**

Please see Shenandoah Energy Inc. Standard Practices for Wasatch Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and undesignated fields in Townships 07 and 08 South, Ranges 21 to 24 East.

**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 to describe rig orientation, parking areas, and access roads.

A reserve pit liner is required.

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

Please see Shenandoah energy inc. Standard Operating Practices for Wasatch Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and undesignated fields in Township 07 and 08 South, Ranges 21 to 24 East.

Seed mix #5

**11. Surface Ownership:**

The well pad and access road are located on lands owned by:

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

**12. Other Information**

A Class III archaeological survey was conducted by Montgomery Archaeology Consultants. A copy of this report was submitted directly to the appropriate agencies by Montgomery Archaeology Consultants. Cultural resource clearance was recommended for this location.

A paleontological survey was conducted by Sue Ann Bileby. A copy of this report was submitted directly to the appropriate agencies by Sue Ann Bileby.

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.

John Busch John Busch  
John Busch  
Red Wash Operations Representative

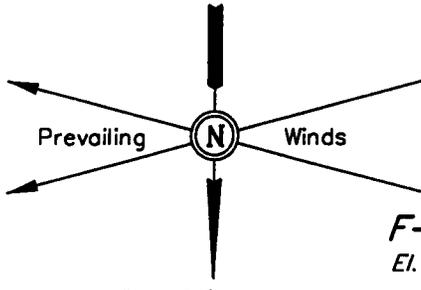
24-Oct-01  
Date

# SHENANDOAH ENERGY, INC.

FIGURE #1

LOCATION LAYOUT FOR

RW #11W-34-7-22  
SECTION 34, T7S, R22E, S.L.B.&M.  
2082' FSL 2162' FWL



SCALE: 1" = 50'  
DATE: 10-8-01  
Drawn By: C.G.  
Revised: 10-17-01

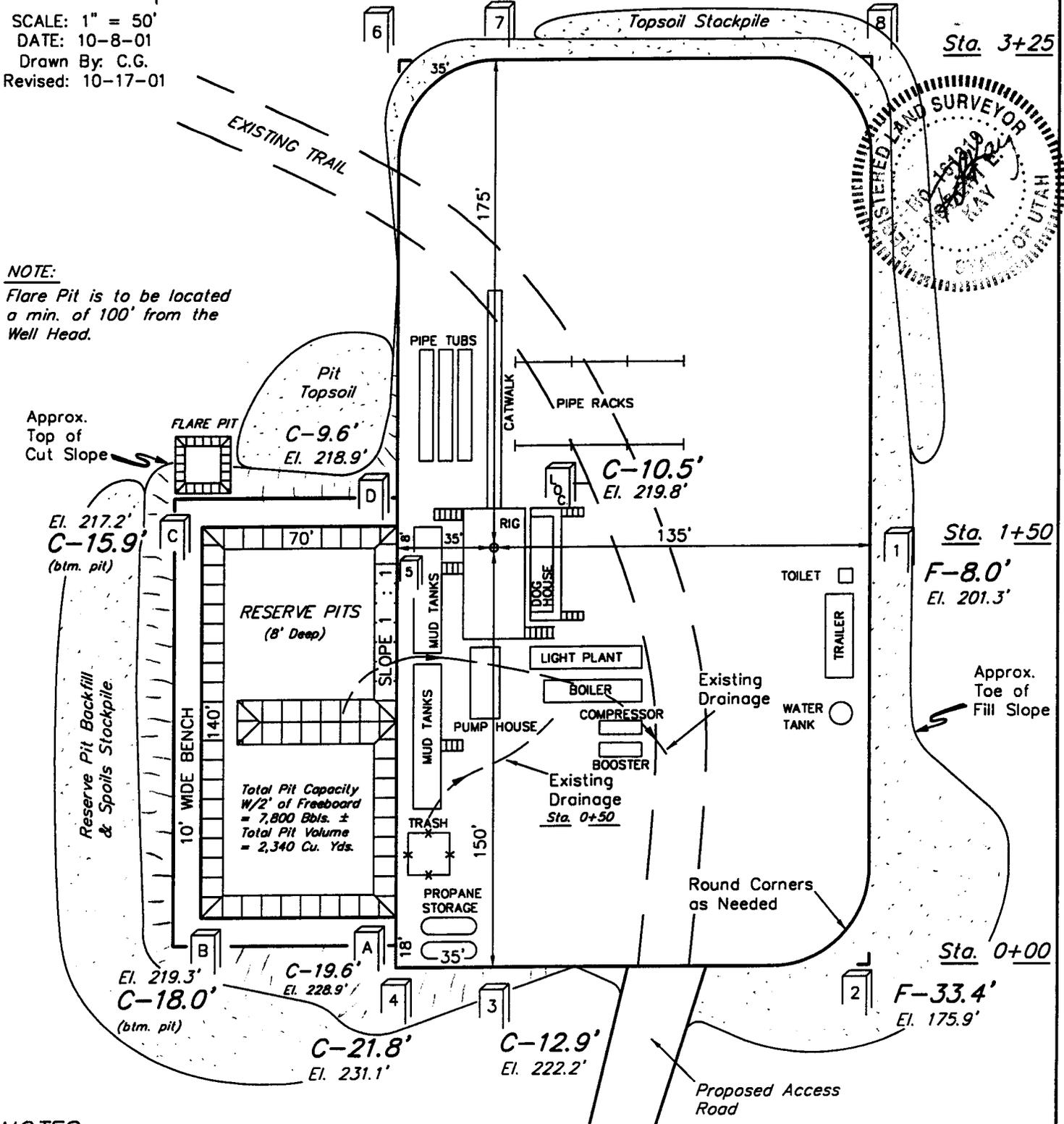
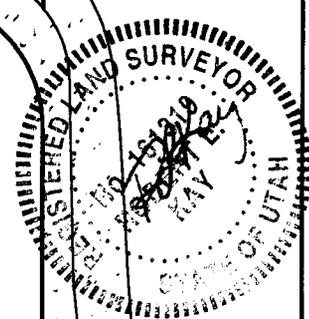
F-4.3'  
El. 205.0'

F-3.5'  
El. 205.8'

F-4.2'  
El. 205.1'

**NOTE:**

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



**NOTES:**

Elev. Ungraded Ground At Loc. Stake = 5219.8'  
FINISHED GRADE ELEV. AT LOC. STAKE = 5209.3'

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East • Vernal, Utah 84078 • (435) 789-1017

SHENANDOAH ENERGY, INC.

FIGURE #2

TYPICAL CROSS SECTIONS FOR

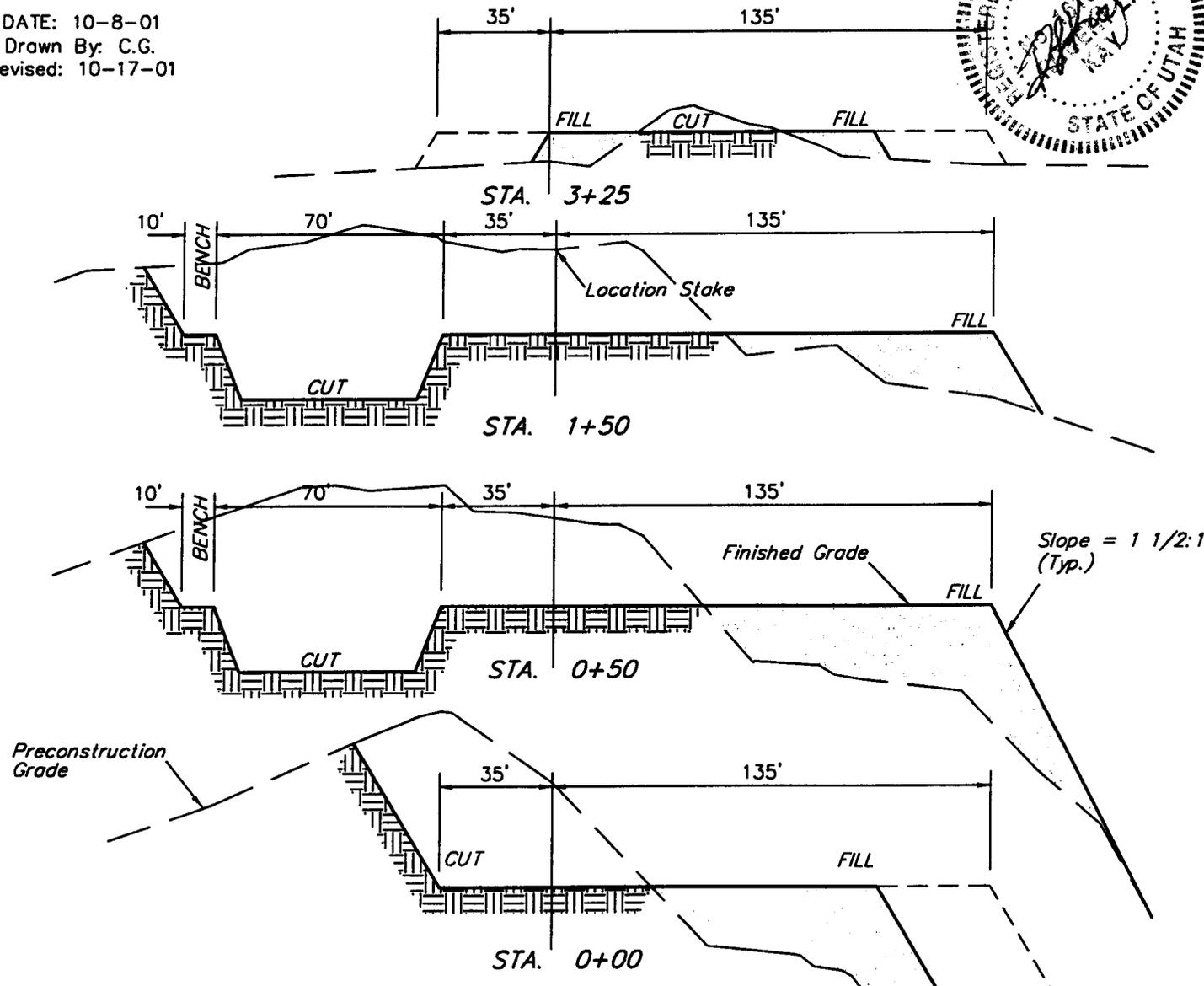
RW #11W-34-7-22

SECTION 34, T7S, R22E, S.L.B.&M.

2082' FSL 2162' FWL

1" = 20'  
X-Section Scale  
1" = 50'

DATE: 10-8-01  
Drawn By: C.G.  
Revised: 10-17-01

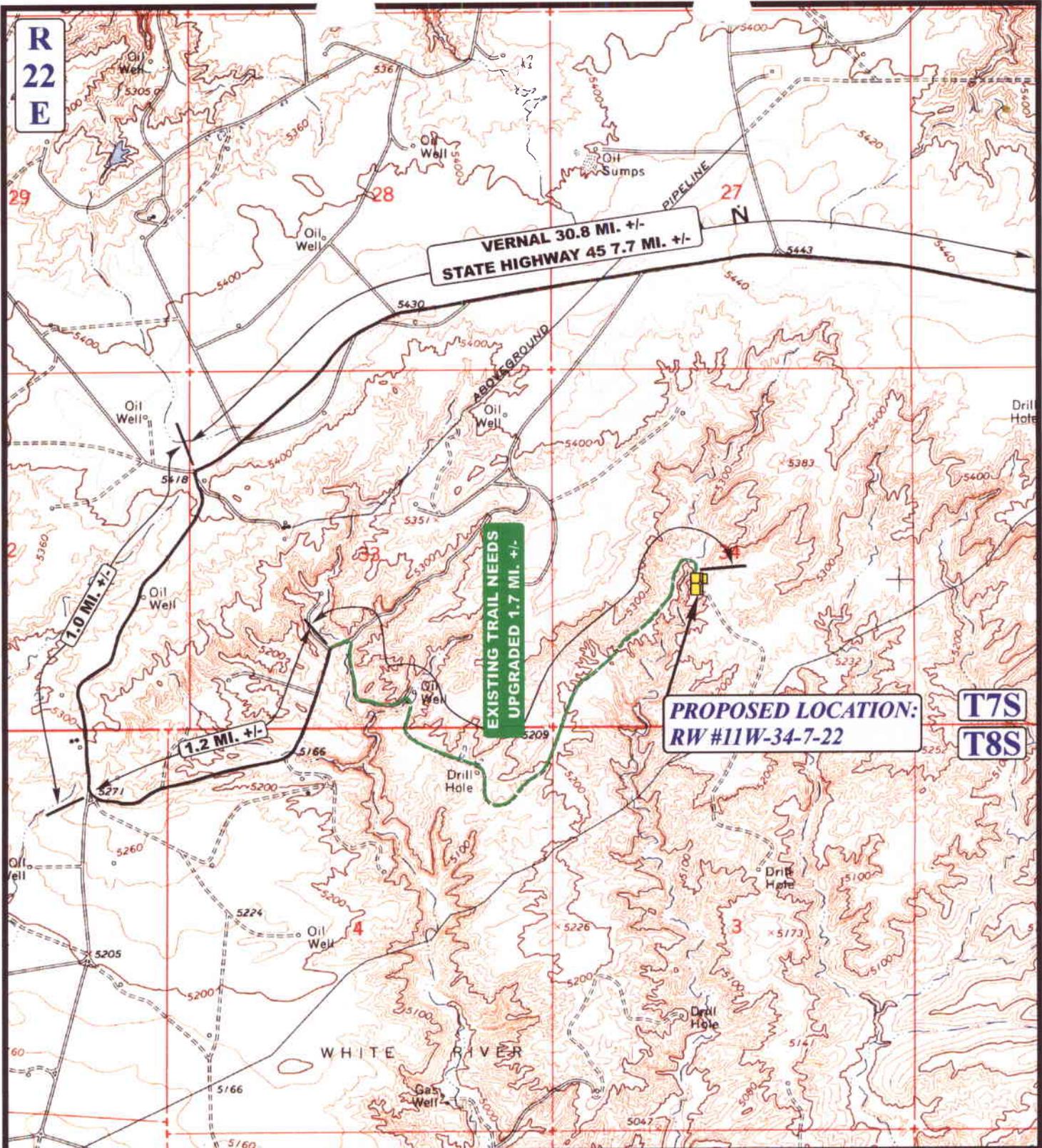


APPROXIMATE YARDAGES

CUT	
(6") Topsoil Stripping	= 1,260 Cu. Yds.
Remaining Location	= 13,050 Cu. Yds.
<b>TOTAL CUT</b>	<b>= 14,310 CU.YDS.</b>
<b>FILL</b>	<b>= 11,290 CU.YDS.</b>

EXCESS MATERIAL AFTER 5% COMPACTION	= 2,430 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	= 2,430 Cu. Yds.
EXCESS UNBALANCE (After Rehabilitation)	= 0 Cu. Yds.





**LEGEND:**

- PROPOSED ACCESS ROAD
- EXISTING ROAD

N



**SHENANDOAH ENERGY, INC.**

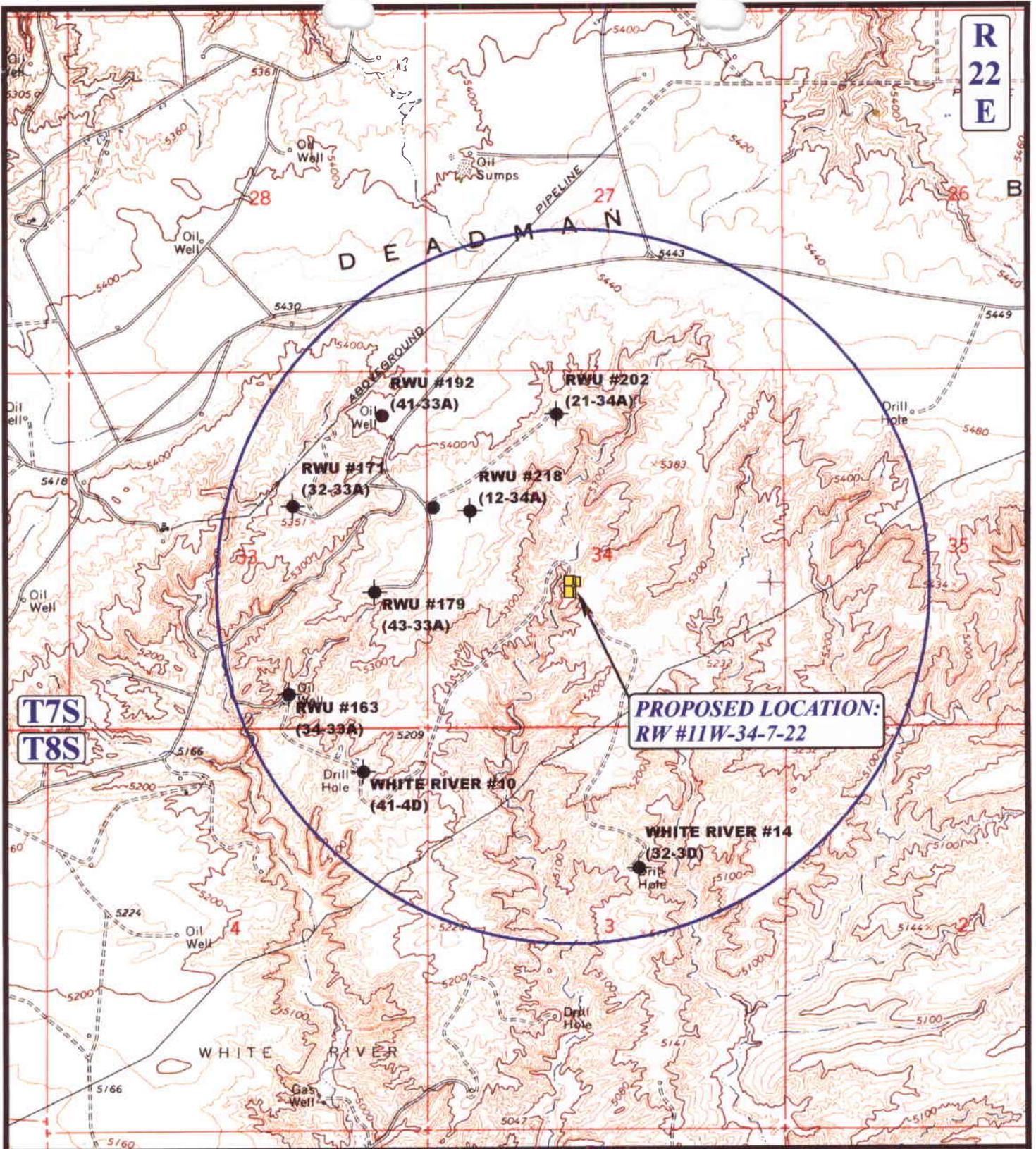
RW #11W-34-7-22  
 SECTION 34, T7S, R22E, S.L.B.&M.  
 2082' FSL 2162' FWL



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

**TOPOGRAPHIC MAP** 10 9 01  
 MONTH DAY YEAR  
 SCALE: 1" = 2000' DRAWN BY: K.G. REVISED: 10-17-01





**PROPOSED LOCATION:  
RW #11W-34-7-22**

**LEGEND:**

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



**SHENANDOAH ENERGY, INC.**

**RW #11W-34-7-22  
SECTION 34, T7S, R22E, S.L.B.&M.  
2082' FSL 2162' FWL**



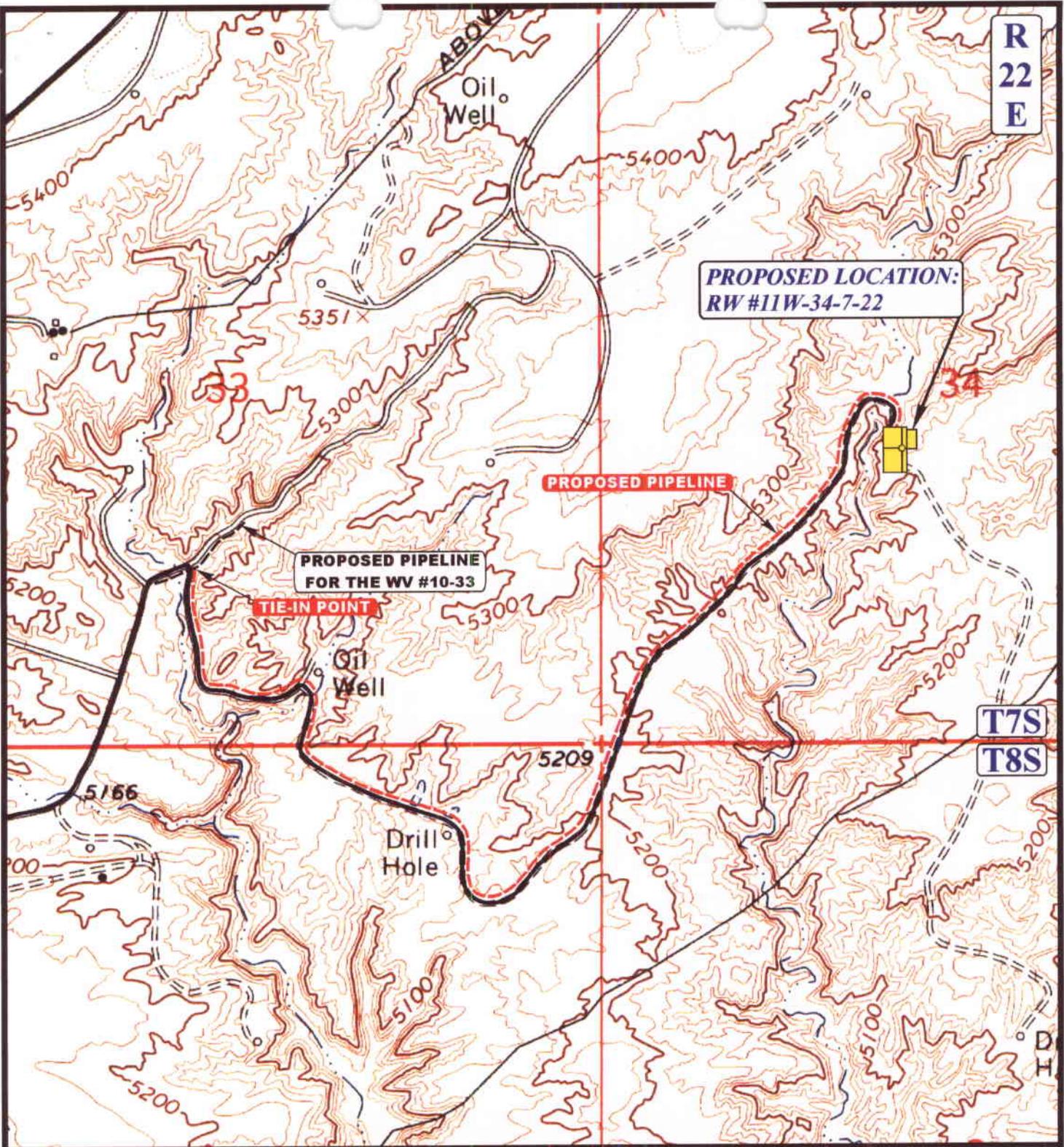
**Uintah Engineering & Land Surveying**  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813

**TOPOGRAPHIC  
MAP**

**10 9 01**  
MONTH DAY YEAR

SCALE: 1" = 2000' DRAWN BY: K.G. REVISED: 10-17-01





**APPROXIMATE TOTAL PIPELINE DISTANCE = 9100' +/-**

**LEGEND:**

-  EXISTING PIPELINE
-  PROPOSED PIPELINE
-  PROPOSED ACCESS



**SHENANDOAH ENERGY, INC.**

**RW #11W-34-7-22**  
**SECTION 34, T7S, R22E, S.L.B.&M.**  
**2082' FSL 2162' FWL**



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

<b>TOPOGRAPHIC</b> <b>MAP</b>	<b>10</b>	<b>9</b>	<b>01</b>
	MONTH	DAY	YEAR
SCALE: 1" = 1000'	DRAWN BY: K.G.		REVISED: 10-17-01



**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 10/29/2001

API NO. ASSIGNED: 43-047-34360

WELL NAME: RWU 11W-34-7-22  
 OPERATOR: SHENANDOAH ENERGY INC ( N4235 )  
 CONTACT: JOHN BUSCH

PHONE NUMBER: 435-781-4309

PROPOSED LOCATION:

NESW 34 070S 220E  
 SURFACE: 2082 FSL 2162 FWL  
 BOTTOM: 2082 FSL 2162 FWL  
 UINTAH  
 UNDESIGNATED ( 2 )

LEASE TYPE: 1 - Federal  
 LEASE NUMBER: UTU-0558  
 SURFACE OWNER: 1 - Federal

PROPOSED FORMATION: WSTC

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

RECEIVED AND/OR REVIEWED:

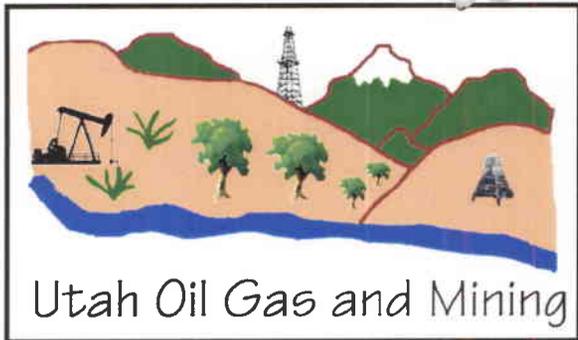
- Plat
- Bond: Fed[1] Ind[] Sta[] Fee[]  
(No. U-0969 )
- Potash (Y/N)
- Oil Shale 190-5 (B) or 190-3 or 190-13
- Water Permit  
(No. 43-8496 )
- RDCC Review (Y/N)  
(Date: \_\_\_\_\_ )
- Fee Surf Agreement (Y/N)

LOCATION AND SITING:

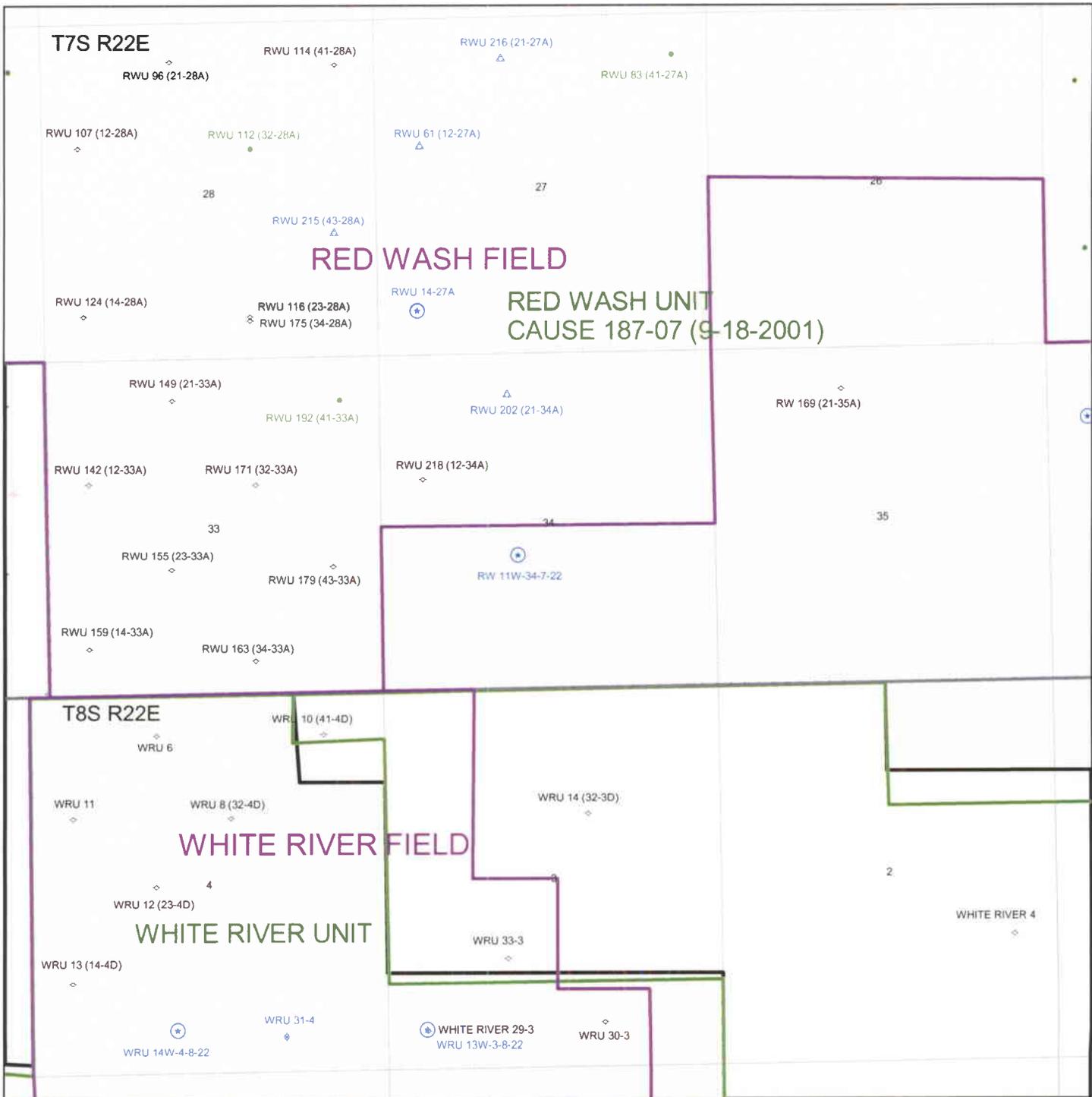
- R649-2-3. Unit RED WASH
- R649-3-2. General  
Siting: 460 From Qtr/Qtr & 920' Between Wells
- R649-3-3. Exception
- Drilling Unit  
Board Cause No: 187-07  
Eff Date: 9-18-2001  
Siting: \* Suspends Gen Siting
- R649-3-11. Directional Drill

COMMENTS: RWU Sol, separate file.

STIPULATIONS: 1-Fed. Approval



OPERATOR: SHENANDOAH ENERGY (N4235)  
 SEC. 34, T7S, R22E  
 FIELD: UNDESIGNATED (002)  
 COUNTY: UINTAH UNIT: RED WASH  
 CAUSE: 187-07





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)

Novemeber 1, 2001

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

Re: Red Wash 11W-34-7-22 Well, 2082' FSL, 2162' FWL, NE SW, Sec. 34, T. 7 South,  
R. 22 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.

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 43-047-34360.

Sincerely,

A handwritten signature in black ink, appearing to read "John R. Baza".

John R. Baza  
Associate Director

dm

Enclosures

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

Operator: Shenandoah Energy Inc.  
Well Name & Number Red Wash 11W-34-7-22  
API Number: 43-047-34360  
Lease: UTU 0558

Location: NE SW      Sec. 34      T. 7 South      R. 22 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 ENVIRONMENTAL PROTECTION AGENCY

REGION 8  
999 18<sup>TH</sup> STREET - SUITE 300  
DENVER, CO 80202-2466  
<http://www.epa.gov/region08>

APR 4 2002

RECEIVED

Ref: 8P-W-GW

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Scott M. Webb  
Regulatory Coordinator  
Shenandoah Energy Company  
475 Seventeenth Street-Suite 1000  
Denver, CO 80202

APR 08 2002

Accepted by the  
Utah Division of  
Oil, Gas and Mining

DIVISION OF  
GAS AND MINING

FOR RECORD ONLY

RE: UNDERGROUND INJECTION CONTROL (UIC)  
Final Permit  
Red Wash Unit No. 11-30B  
EPA Permit No. UT2929-04658  
Uintah County, Utah

Dear Mr. Webb:

Enclosed is a Final Underground Injection Control Permit for the Shenandoah Energy, Inc. (Shenandoah) proposed Class II enhanced recovery injection well, the Red Wash Unit (RWU) No. 11-30B, Uintah County, Utah. A Statement of Basis is also enclosed which discusses the development of the Permit.

The public comment period ended on March 14, 2002. There were no comments from either the general public or the land owners who may be affected by the proposed action.

Following conversion, but prior to injection, Shenandoah must meet the requirements outlined in the Permit under Part II, Section C. 1., Prior to Commencing Injection, i.e., EPA Form No. 7520-12 (Well Rework Record), fluid pore pressure, and a Part I (Internal) Mechanical Integrity Test (MIT). The operator shall submit these requirements to the Director for EPA review and approval. The permittee may commence injection following receipt of written authorization from the Director.

A two (2) week notice to Mr. Jackson of the schedule of all MITs is required so that the EPA can arrange to witness each test.

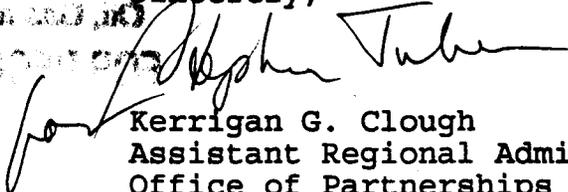
It is Shenandoah's responsibility to be familiar with, and to comply with, all conditions contained in this Permit.



If you have any questions on this action please contact Dan Jackson at (800) 227-8917 (Ext.6155). Please submit all Prior to Commencing Injection Requirements to the **ATTENTION: DAN JACKSON** at the letterhead address, citing **MAIL CODE: 8P-W-GW** very prominently.

UNITED STATES  
BUREAU OF LAND MANAGEMENT  
SALT LAKE CITY, UTAH 84143

Sincerely,



Kerrigan G. Clough  
Assistant Regional Administrator  
Office of Partnerships and  
Regulatory Assistance

Enclosures: Final Permit  
Statement of Basis

cc w/ encl: Mr. D. Floyd Wopsock  
Chairman  
Uintah & Ouray Business Committee  
Ute Indian Tribe

Ms. Elaine Willie  
Environmental Director  
Ute Indian Tribe

Superintendent  
BIA - Uintah & Ouray Indian Agency

Mr. Jerry Kenczka  
BLM - Vernal District Office

Mr. Gilbert Hunt  
State of Utah Natural Resources  
Division of Oil, Gas, and Mining

**RECEIVED**

APR 08 2002

DIVISION OF  
OIL, GAS AND MINING

**STATEMENT OF BASIS**

**SHENANDOAH ENERGY INC.**

**RED WASH UNIT NO. 11-30B**

**CLASS II ENHANCED RECOVERY INJECTION WELL**

**UINTAH COUNTY, UTAH**

**EPA PERMIT NUMBER: UT2929-04658**

**CONTACT: Mr. Dan Jackson (8P-W-GW)  
U. S. Environmental Protection Agency  
999 18th Street, Suite 300  
Denver, Colorado 80202-2466  
Telephone: (800) 227-8917 (Ext.6155)**

**DESCRIPTION OF FACILITY AND BACKGROUND INFORMATION:**

On October 17, 2001, Shenandoah Energy Inc. (SEI) made application to convert the Red Wash Unit (RWU) No. 11-30B Green River Formation oil well to a Class II enhanced recovery injection well. Injected fluid will be produced Green River Formation water from the Red Wash Unit. The **average total dissolved solids (TDS)**, from twelve (12) RWU locations, i.e., twenty-three (23) analyses dated April and May 2001, identify TDS produced Green River Formation water as **15,013 mg/l**. Individual analyses identify a range of TDS from 5640 mg/l to 28,100 mg/l. Two (2) oil wells have multiple produced water analyses enclosed with the application. The RWU No. 21-24A has four (4) water analyses with TDS ranging from 5640 mg/l to 14,400 mg/l. The RWU No. 31-19B has three (3) analyses with TDS ranging from 7700 mg/l to 17,400 mg/l. **The gross Green River Formation has been exempted as an Underground Source of Drinking Water (USDW).**

The area covered by the application is in the Red Wash Field/Red Wash Unit which lies under federal jurisdiction for purposes of UIC program implementation for the following reclassified well:

**Red Wash Unit No.11-30B  
590' FNL & 787' FWL (NW NW)  
Section 30 - Township 7 South - Range 23 East  
Uintah County, Utah**

The permittee has sent notices to all surface landowners and interested parties within one-quarter (1/4) mile of the proposed salt water disposal well.

SEI has submitted all required information and data necessary for Permit issuance in accordance with 40 CFR §§ 144, 146 and 147, and a Permit has been prepared.

The Permit will be issued for the operating life of the well from the effective date of this Permit; therefore, no reapplication will be necessary unless the Permit is terminated for reasonable cause (40 CFR §§ 144.39, 144.40, and 144.41). However, the Permit will be reviewed every five (5) years.

This Statement of Basis (SOB) gives the derivation of the site specific Permit conditions and reasons for them, on the basis of the direct implementation regulations promulgated for the Uintah-Ouray Indian Tribal lands in the State of Utah, under the Underground Injection Control (UIC) program provisions for the Safe Drinking Water Act (SDWA). The referenced sections and conditions correspond to the sections and conditions in Permit No. UT2929-04658. The general Permit conditions for which the content is mandatory and not subject to site specific differences (based on 40 CFR §§ 144, 146 and 147), are not included in the discussion.

## **PART II: SPECIFIC PERMIT CONDITIONS**

### **SECTION A: CURRENT WELL CONSTRUCTION**

#### **Casing and Cementing**

(Condition 1)

The RWU No. 11-30B was drilled and completed for oil production October 2, 2001. Casing and cementing details are submitted by the applicant.

- (1) **Surface casing** (9-5/8 inch) is set in a 12-1/4 inch hole to a depth of 455 feet. The casing is secured with 175 sacks of Premium Plus cement which was circulated to the surface, isolating the casing from the wellbore. The Uinta Formation underground sources of drinking water (USDW) are from the surface to an approximate maximum depth of 3112 feet. The top of the Green River Formation is 3112 feet. The Plugging and Abandonment Plan requires a cement plug across this depth.
- (2) **Production casing** (5-1/2 inch) is set in a 7-7/8 inch hole to a depth of 5949 feet. Total depth is in the Green River Formation at 5949 feet. Plugged back total depth (PBTD) is 5932 feet. The production casing was set with 240 sacks of Hi-Fill Modified followed by 590 sacks of 50/50 Pozmix. The applicant cites the top of cement (TOC) as approximately 3260 feet by Cement Bond Log (CBL). The EPA's analysis of the CBL identifies the TOC (80% bond index cement bond) at 3474 feet.

Gross current injection perforations are 5587 feet to 5812 feet.

The Cement Bond Log (CBL) identifies 80% bond index cement bond 3374 feet to 3416 feet, 3660 feet to 3920 feet, 4231 feet to 4270 feet, 4500 feet to 4548 feet, 4698 feet to 5123 feet, 5167 feet to 5214 feet, 5274 feet to 5320 feet, **5344 feet to 5586 feet**, 5614 feet to 5644 feet, 5666 feet to 5724 feet, 5769 feet to 5805 feet, 5817 feet to CBL total depth (TD) 5915 feet.

Cement interval **5344 feet to 5586 feet** is located across the EPA designated confining zone **5486 feet to 5568 feet**, and the applicant's designated confining zone of **5382 feet to 5575 feet**.

The construction and proposed conversion of this well complies with the UIC requirements and is incorporated into the Permit.

### **UNDERGROUND SOURCES OF DRINKING WATER:**

The State of Utah, Department of Natural Resources, Technical Publication No. 92, indicates that the base of moderately saline Uinta Formation ground water (3,000 mg/l to 10,000 mg/l) is from the surface to an approximate maximum depth of 3112 feet GL. The Uinta Formation extends from the surface to a depth of 3112 feet. The Uinta Formation consists of variegated sequences of mudstone, shales, siltstones, and sandstones. Uinta Formation sands are discontinuous, and are not subject to direct recharge (low yielding). Waters of less than 10,000 mg/l total dissolved solids (TDS) may be present in these sand lenses of the Uinta Formation in this area and may be considered USDWs.

SEI has submitted water analyses that identify the total dissolved solids composition of the proposed Green River Formation salt water disposal injection intervals and the injectate as ranging from 5640 mg/l to 28,100 mg/l.

Aquifer Exemption: The gross Green River Formation within the Red Wash Unit was exempted as an Underground Source of Drinking Water (USDW) in 1982 as part of the delegation of Utah's Class II Underground Injection Control (UIC) program ((40 CFR § 147.2251 (c) (2), re : Aquifer Exemption Process, dated June 16, 1982)).

### **WATER WELLS AND SPRINGS:**

**<http://nrwrt1.nr.state.ut.us/>(Water Rights) (Queries) (POD)**

There are no water wells or springs within the RWU No. 11-30B one-quarter (1/4) mile AOR.

**CONFINING INTERVAL:**

The confining zone in the RWU No. 11-30B is identified by the applicant as "...193 feet (5382 feet to 5575 feet) of dolomitic shale, tight mudstone, and carbonates." Within this zone, the EPA notes the continuous 88-foot interval of dolomitic shale and mudstone, from 5486 feet to 5574 feet, as capable of limiting fluid movement above the injection zone. Additionally, the EPA identifies a continuous 242-foot interval, from 5344 feet to 5586 feet, of 80%, or greater, effective bond on the backside of the 5-1/2 inch casing demonstrating the presence of adequate cement to prevent significant fluid movement, pursuant to 40 CFR, § 146.8 (a) (2).

**Tubing and Packer Specifications**

(Condition 2)

The 2-7/8 inch injection tubing information submitted by the applicant is incorporated into the permit, but the permittee may select any diameter tubing that will most effectively facilitate the injection operation. The packer will be set at a depth no more than 100 feet above the top perforation of 5587 feet.

**Monitoring Devices**

(Condition 3)

For the purposes of taking tubing and tubing/long string casing annulus pressure measurements, the EPA is requiring that the permittee install one-half (1/2) inch fittings or equivalent quick disconnect fittings, with cut-off valves at the well head on the tubing, and on the tubing/casing annulus (for attachment of pressure gauges). EPA is further requiring the permittee to install a sampling tap on the line to the injection well and a flow meter that will be used to measure cumulative volumes of injected fluid. The permittee shall be required to maintain these devices in good operating condition.

**Formation Testing**

(Condition 4)

The permittee is required to determine the injection zone fluid pore pressure (static bottom-hole pressure) prior to commencing injection operations.

**PART II, Section B CORRECTIVE ACTION**

The applicant submitted the required one-quarter (1/4) mile Area of Review (AOR) information with the Permit application. There are three (3) wells located within the AOR.

RWU NO. 41-25A (Formerly No. 53)

NE NE Sec. 25 - T7S - R22E

Green River Oil Well.

Confining Zone:.....5578 feet to 5485 feet (93').

80% Bond Index Cement Bond:.....No Cement Bond Log run.

With no Cement Bond Log available to evaluate annulus cement within the confining zone, which overlies the top of the authorized gross injection interval, the permittee is

required to inspect the surface for fluid leaks, and record the results of these observations. Should fluid leakage be observed at the surface, the RWU No. 11-30B will suspend operations immediately, and will stay suspended until the non-compliance has been resolved, and renewed injection has been approved in writing by the Director.

RWU NO. 24-19B SE SW Sec. 19 - T7S - R23E  
Green River Oil Well.  
Confining Zone:.....5564 feet to 5376 feet (88').  
80% Bond Index Cement Bond.....5332 feet to 5556 feet.

RWU NO. 21-30B NE NW Sec. 30 - T7S - R23E  
Temporarily Abandoned Green River Oil Well.  
Confining Zone.....5496 feet to 5586 feet (90').  
80 % Bond Index Cement Bond.....5384 feet to 5594 feet.

RWU NO. 12-30B SW NW Sec. 30 - T7S - R23E  
p&a Green River oil well: November 17, 1993.

**PART II, Section C WELL OPERATION**

**Prior To Commencing Injection** (Condition 1)

Injection into the RWU No. 11-30B will not commence until the permittee has successfully fulfilled the following applicable conditions of the Permit:

- (1) The permittee has determined the **injection zone fluid pore pressure**;
- (2) **mechanical integrity (MIT: Part I [Internal]** has been successfully demonstrated according to the Guidelines discussed in the Permit; and
- (3) a **Well Rework Record (EPA Form 7520-12)** following conversion.
- (4) **Written authorization to inject** will be given by the Director subsequent to the EPA review and approval of (1), (2), and (3) above.

**Mechanical Integrity** (Condition 2)

A tubing/casing annulus pressure test (Part I MI) must be conducted, at least once every five (5) years (active injection wells) to demonstrate continued tubing, packer, and casing integrity by using an EPA approved methods.

**Injection Interval**

(Condition 3)

Injection will be limited to the gross Green River Formation “target” interval 5575 feet to 5932 feet, as requested by SEI. The current gross perforated interval is 5587 feet to 5812 feet. The permittee may find it necessary to perforate additional intervals within the above gross “target” interval. These additional perforations may be added later and reported on EPA Form 7520-12.

**Injection Pressure Limitation**

(Condition 4)

The formation-face fracture gradient (FG) for the injection zone, as currently authorized, is 0.78 psi/ft. Using the 0.78 psi/ft FG value, a specific gravity of 1.015, and the uppermost injection perforation (5587 feet), a maximum allowable surface injection pressure (MAIP) for this well may be calculated as shown below:

$$\text{MAIP} = [\text{FG} - (0.433)(\text{Sg})] d$$

Where: MAIP = maximum pressure at wellhead in pounds per square inch

Sg = specific gravity of injected fluid 1.015

d = top injection perforation = 5587 feet

$$\text{or MAIP} = [0.78 - (0.433) (1.005)] 5587 = 1902 \text{ psig}$$

Until such time as the permittee demonstrates, through a step-rate injectivity test (SRT), or other approved method, that the fracture gradient is other than 0.78 psi/ft, the RWU No.11-30B shall be operated at a surface injection pressure no greater than 1902 psig. Permit provisions have been made that allows the Director to increase or decrease the injection pressure based upon the test results and/or other parameters reflecting actual injection operations.

**Injection Volume Limitation**

(Condition 5)

There is no limitation on the number of barrels of water per day (BWPD.) that may be injected into the RWU No. 11-30B, provided that in no case shall injection pressure exceed that limit shown in Part II, Section C. 4., of this Permit. Injected fluids shall be limited to that which are identified in 40 CFR § 144.6 (b) (2) as fluids used for enhanced recovery of oil or natural gas. The permittee shall provide a listing of the sources of injected fluids on an annual basis as required by the Permit.

**Injection Fluid Limitation**

(Condition 6)

Injected fluids shall be limited to those which are brought to the surface in connection with natural gas storage operations, or conventional oil or gas production and may be commingled with waste waters from gas plants which are an integral part of production operations in the Red Wash Unit/Field, unless those waters are classified as hazardous waste at the time of injection.

Fluids shall be further limited to those generated by sources owned or operated by the Permittee. If the Permittee wishes to dispose of any other Class II fluids generated on site, approval must be obtained from the Director prior to injection. The injection of any hazardous material is prohibited.

**Annulus Fluid**

(Condition 7)

The annulus between the tubing and casing is required to be filled with fresh water treated with a corrosion inhibitor. A diesel freeze blanket, or other fluid as approved in writing by the Director, may be circulated from surface to below the frost level to prevent freezing and possible equipment failure during winter months.

**PART II, Section D MONITORING, RECORD KEEPING AND REPORTING OF RESULTS**

**Injection Well Monitoring Program**

(Condition 1)

The permittee is required to monitor water quality of the injected fluids at annual intervals for total dissolved solids, pH, specific conductivity, and specific gravity. Any time there is a change in the source of injection fluid, a new water quality analysis of the injection fluid is required.

**Monthly observations** of flow rate, injection pressure, annulus pressure and cumulative volume will be made. Observation of each will be recorded on a monthly basis. The permittee shall maintain copies (or originals) of all pertinent records at the office of:

Shenandoah Energy Inc.  
475 Seventeenth Street, Suite 1000  
Denver, Colorado 80202.

**PART II, Section E PLUGGING AND ABANDONMENT**

**Plugging and Abandonment Plan**

(Condition 1)

The plugging and abandonment plan submitted by the applicant (Appendix C of the Permit) consists of five (5) cement plugs. The Plan is incorporated into the Permit under

Appendix C. This Plan has been reviewed and approved by the EPA. The Plan is consistent with UIC requirements.

**NOTE: CEMENT PLUGS ARE TO BE SEPARATED BY BENTONITE MUD OR A 9.6 P.G. PLUGGING GEL (BRINE WATER WITH A GELLING AGENT).**

PLUG NO. 1: Set cast iron bridge plug (CIBP) approximately 5537 feet. Place 35 sacks of Class G cement on CIBP.

PLUG NO. 2: Set Class G cement plug inside of the 5-1/2 inch casing from 3885 feet to 4086 feet.

PLUG NO. 3: Cut 5-1/2 inch casing at 3060 feet. Set cement plug from 2960 feet to 3162 feet in 7-7/8 inch hole.

PLUG NO. 4: Set Class G cement plug inside of the 5-1/2 inch casing and 7-7/8 inch hole from 405 feet to 505 feet.

PLUG NO. 5: Set cement plug inside of the 5-1/2 inch casing from the surface to a depth of fifty (50) feet.

## **PART II, Section F FINANCIAL RESPONSIBILITY**

### **Demonstration of Financial Responsibility**

(Condition 1)

Shenandoah Energy Inc. has chosen to demonstrate financial responsibility (FRD) through a Surety Bond and Standby Trust Agreement, which documents are valued at \$2,016,000. The RWU No. 11-30B is included in the \$2,016,000. P&A costs per well are cited as \$18,000. The EPA has reviewed and approved the FRD documents.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8  
999 18<sup>TH</sup> STREET - SUITE 300  
DENVER, CO 80202-2466

## UNDERGROUND INJECTION CONTROL PROGRAM

FINAL PERMIT  
for  
CONVERSION TO A CLASS II  
ENHANCED RECOVERY INJECTION WELL

Permit No. UT2929-04658

Well Name: Red Wash Unit No. 11-30B

Field Name: Red Wash Unit (RWU)

County & State: Uintah County, Utah

issued to:

Shenandoah Energy Inc.  
475 Seventeenth Street, Suite 1000  
Denver, CO 80202

Date Prepared: March 2002



Printed on Recycled Paper

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## **PART I. AUTHORIZATION TO OPERATE**

Pursuant to the Underground Injection Control Regulations of the U. S. Environmental Protection Agency codified at Title 40 of the Code of Federal Regulations (CFR) §§ 124, 144, 146, and 147,

Shenandoah Energy Inc.  
475 Seventeenth Street, Suite 1000  
Denver, CO 80202

is hereby authorized to convert and operate the Green River Formation oil well as the

Red Wash Unit No. 11-30B  
590' FNL and 787' FWL (NW NW)  
Section 30, Township 7 South, Range 23 East  
Uintah County, Utah

as a Class II Green River Formation enhanced recovery injection well.

Injection shall be for the purpose of increasing Green River Formation productivity so that Shenandoah Energy Inc. (SEI) may continue to economically produce oil from their Red Wash Field/Unit in accordance with conditions set forth herein.

All conditions set forth herein refer to Title 40 §§ 124, 144, 146, and 147 of the Code of Federal Regulations (40 CFR) and are regulations that are in effect on the date that this Permit becomes effective.

This Permit consists of a total of twenty-seven (27) pages and includes all items listed in the Table of Contents. Further, it is based upon representations made by the permittee and on other information contained in the administrative record.

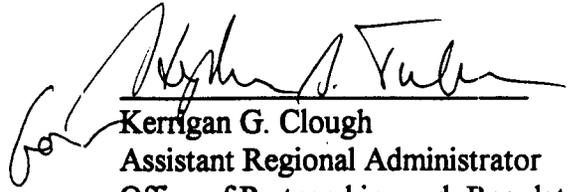
This Permit and the authorization to operate are issued for the operating life of the well, unless modified, reissued, or terminated (Part III, Section B 1. of this Permit).

The Permit will be reviewed by EPA at least once every five (5) years to determine whether action under 40 CFR § 144.36 (a) is warranted.

The Permit will expire upon delegation of primary enforcement responsibility for the UIC Program to the State of Utah, Division of Oil, Gas, and Mining, or the Uintah-Ouray Indian Tribal Government, unless either the State or the Indian Tribal Government has adequate authority, and choose, to adopt and enforce this Permit as a State Permit or Tribal Government Permit.

Issued APR 4 2002.

This Permit shall become effective APR 4 2002.

\*   
Kerrigan G. Clough  
Assistant Regional Administrator  
Office of Partnerships and Regulatory Assistance

\* NOTE: The person holding this title is referred to as the "Director" throughout this Permit.

## PART II. SPECIFIC PERMIT CONDITIONS

### A. WELL CONVERSION REQUIREMENTS

1. **Casing and Cementing.** The conversion details submitted with the application are hereby incorporated into this Permit as **Appendix A**, and shall be binding on the permittee.
2. **Tubing and Packer Specifications.** A tubing of two and seven-eighths (2-7/8) inches diameter, or a similar appropriate diameter, shall be utilized. A packer shall be set at a distance of no more than 100 feet above the top perforation. Injection between the outer-most casing protecting underground sources of drinking water (USDWs) and the well bore is prohibited.
3. **Monitoring Devices.** The operator shall provide and maintain in good operating condition:
  - (a) a tap on the injection line, for the purpose of obtaining representative samples of the injection fluids;
  - (b) two (2), one-half (1/2) inch Female Iron Pipe (FIP) fittings, isolated by plug or globe valves, and located: 1) at the wellhead on the tubing; and 2) on the tubing/casing annulus (for attachment of pressure gauges). The gauges shall be designed to operate at a certified accuracy of at least ninety-five (95) percent, throughout the range of anticipated injection pressures; and
  - (c) a flow meter that will be used to measure cumulative volumes of injected fluid.
4. **Proposed Changes and Workovers.** The permittee shall give advance notice to the Director, as soon as possible, of any planned physical alterations or additions to the permitted well. Major alterations or workovers of the permitted well shall meet all conditions as set forth in this Permit. A major alteration/workover shall be considered any work performed, which affects casing, packer(s), or tubing.

Demonstration of mechanical integrity shall be performed within thirty (30) days of completion of workovers/alterations and prior to recommencing injection, in accordance with Part II, Section C. 2.

The permittee shall provide all records of well workovers, logging, and other test data to EPA within sixty (60) days of completion of the activity. **Appendix B** contains samples of the appropriate reporting forms.

5. **Formation Testing.** The permittee is required to determine the injection zone fluid pore pressure (static bottom hole pressure).

## **B. CORRECTIVE ACTION**

The applicant submitted the required one-quarter (1/4) mile Area of Review (AOR) information with the Permit application. There are two (2) active Green River Formation oil wells; one (1) temporarily abandoned (TA) Green River Formation oil well; and one (1) plugged and abandoned (P&A) Green River Formation oil well. There are no proposed drilling locations, water wells, or springs in the AOR. No locations require corrective action.

The permittee is required to inspect the surface location of all wells in the one-quarter (1/4) mile Area-of-Review for fluid leaks, and record the results of these observations. If surface leakage is observed, the operator shall halt injection into the RWU No. 11-30B, notify the Director within twenty-four (24) hours and describe the measures to be undertaken for correction. The permittee shall provide a written report of the corrections taken and receive written authorization from the Director prior to resuming injection activities.

## **C. WELL OPERATION**

### **1. Prior to Commencing Injection.**

- (a) Conversion is complete and the permittee has submitted a **Well Rework Record (Form 7520-12 in Appendix B)**;
- (b) a **current wellbore diagram** has been submitted;
- (c) the permittee has determined the **injection zone fluid pore pressure (static bottom-hole pressure)**; and
- (d) the operator has demonstrated **Part I (Internal) Mechanical Integrity (MI)**, i.e., no significant leak in the casing, tubing, or packer. The demonstration shall be made by using a casing-tubing pressure test, or an approved alternate test method.

### **2. Mechanical Integrity.** The operator shall ensure that the enhanced recovery injection well maintains mechanical integrity at all times. The Director, by written notice, may require the operator to comply with a schedule describing when mechanical integrity shall be made.

- (a) **Mechanical Integrity Test Methods.** Any of several EPA-approved methods may be used to demonstrate mechanical integrity (MI). Current copies of **GUIDANCE NO. 34: CEMENT BOND LOGGING TECHNIQUES AND INTERPRETATION**, dated April 19, 1995;

**GUIDANCE NO. 37: DEMONSTRATING PART II (EXTERNAL) MECHANICAL INTEGRITY**, dated August 9, 1995; and **GUIDANCE NO. 39: PRESSURE TESTING INJECTION WELLS FOR PART I (INTERNAL) MECHANICAL INTEGRITY**, dated September 27, 1995, are provided at issuance of the Final Permit. Results of the test(s) shall be submitted on the appropriate EPA form to the Director as soon as possible, but no later than sixty (60) days after a test is completed.

- (b) **Frequency of Mechanical Integrity Testing**. The operator shall demonstrate Part I (Internal) mechanical integrity at least once every five (5) years during the life of the well. The permittee shall demonstrate Part I (Internal) mechanical integrity (no significant leak in the casing, tubing, or packer) after workovers affecting the tubing, casing, or packer. The operator shall arrange for and conduct all mechanical integrity tests.
- (c) **Prior Notification of Test**. The operator shall notify the Director at least two (2) weeks prior to any required integrity test. The Director may allow shorter notification period if it is sufficient to enable the EPA to witness the mechanical integrity test. Notification may be in the form of a yearly or quarterly schedule of planned mechanical integrity tests or it may be on an individual well basis.
- (d) **Loss of Mechanical Integrity**. If the well fails to demonstrate mechanical integrity during a test, or a loss of mechanical integrity as defined by 40 CFR § 146.8 becomes evident during operation, the operator shall notify the Director in accordance with Part III. E. 10. of this Permit. Injection activities shall be terminated immediately, and operations shall not be resumed until the operator has taken necessary actions to restore integrity to the well and the Director has given approval to recommence injection.

3. **Injection Interval**. As identified in **Appendix A**, injection shall be limited to the SEI "target" gross Green River Formation interval 5575 feet to 5932 feet. Additional perforations, within the gross interval, may be added later and reported on EPA Form 7520-12.

The **confining zone** overlying the injection interval consists of eighty-two (82) feet (5486 feet to 5568 feet) of impervious dolomitic shale and mudstone.

4. **Injection Pressure Limitation**.

- (a) Injection pressure, measured at the surface, shall not exceed an amount that the Director determines is appropriate to ensure that injection does not initiate new fractures or propagate existing fractures in the confining zone adjacent to USDWs.

- (b) The exact pressure limit may be **increased or decreased** by the Director in order to ensure that the requirements in paragraph (a) are fulfilled. In order to determine an exact pressure limit, the permittee shall conduct a step rate injection test or other authorized well test(s) that will serve to determine the fracture pressure of the injection zone. Test procedures shall be pre-approved in writing by the Director. The Director will specify in writing, to the permittee, any increase or decrease to the injection pressure based upon the test results and/or other parameters reflecting actual injection operations. Until such time that this demonstration and approval is made the **maximum injection pressure, measured at the surface shall not exceed 1902 psig.**
5. **Injection Volume Limitation.** There is no limitation on the number of barrels of water per day (BWPD) that shall be injected into this well, provided further that in no case shall injection pressure exceed that limit shown in Part II, Section C. 3. (b) of this Permit. There is no limitation on the gross number of barrels that may be injected into this well.
6. **Injection Fluid Limitation.** The permittee shall not inject any hazardous substances, as defined by 40 CFR § 261, at any time during the operation of the facility; and further, no substances other than produced brines from oil and/or gas production. This well is not authorized for use as a Class II salt water disposal well.
7. **Annular Fluid.** The annulus between the tubing and the casing shall be filled with fresh water treated with a corrosion inhibitor to prevent corrosion. A diesel freeze blanket may be circulated from surface to below frost level at completion to prevent freezing and possible equipment failure during winter months, or other fluid as approved, in writing, by the Director.

## **D. MONITORING, RECORDKEEPING, AND REPORTING OF RESULTS**

1. **Injection Well Monitoring Program.** Samples and measurements shall be representative of the monitored activity. The permittee shall utilize the applicable analytical methods described in Table 1 of 40 CFR § 136.3, or in Appendix III of 40 CFR § 261, or in certain circumstances, by other methods that have been approved by the EPA Administrator. Monitoring shall consist of:
- (a) **Analysis of the injection fluids, performed:**
- (i) **Annually** for Total Dissolved Solids, pH, Specific Conductivity, and Specific Gravity.

- (ii) Whenever there is a change in the source of injection fluids, a comprehensive water analysis(es) shall be submitted to the Director within thirty (30) days of any change in injection fluids.
  - (b) **Monthly observations of flow rate, injection pressure and annulus pressure, and cumulative volume.** Observation of each shall be recorded monthly.
2. **Monitoring Information.** Records of any monitoring activity required under this Permit shall include:
- (a) The date, exact place, the time of sampling or field measurements;
  - (b) the name of the individual(s) who performed the sampling or measurements;
  - (c) the exact sampling method(s) used to take samples;
  - (d) the date(s) laboratory analyses were performed;
  - (e) the name of the individual(s) who performed the analyses;
  - (f) the analytical techniques or methods used by laboratory personnel; and
  - (g) the results of such analyses .
3. **Recordkeeping.**
- (a) The permittee shall retain records concerning:
    - (i) the nature and composition of all injected fluids until three (3) years after the completion of plugging and abandonment which has been carried out in accordance with the Plugging and Abandonment Plan shown in Appendix C, and is consistent with 40 CFR § 146.10.
    - (ii) all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation and copies of all reports required by this Permit for a period of at least five (5) years from the date of the sample, measurement or report throughout the operating life of the well.

- (b) The permittee shall continue to retain such records after the retention period specified in paragraphs (a) (i) and (a) (ii) unless he delivers the records to the Director or obtains written approval from the Director to discard the records.
- (c) The permittee shall maintain copies (or originals) of all pertinent records at the office of

**Shenandoah Energy Inc.**  
**475 Seventeenth Street, Suite 1000**  
**Denver, Colorado 80202.**

- 4. **Annual Reporting.** The permittee shall submit to the Director an Annual Report that includes a summary of the results of the monitoring required by Part II. D. 1. a. and b. of this Permit, whether the well is injecting or not, and shall include the monthly records of injection pressure, annulus pressure, injection flow rate, and cumulative volume. EPA Form No. 7520-11 shall be submitted with the Annual Report. A blank EPA Form No. 7520-11 may be found in Appendix B.

The Annual Report shall be submitted by February 15 of the year following the data collection year. The first Annual Report shall cover the period from the effective date of the Permit through December 31. Subsequent Annual Reports shall cover the period from January 1 through December 31 of the data collection year.

## **E. PLUGGING AND ABANDONMENT**

- 1. **Notice of Plugging and Abandonment.** The permittee shall notify the Director forty-five (45) days before conversion, or abandonment of the well.
- 2. **Plugging and Abandonment Plan.** The permittee shall plug and abandon the well as provided in the Plugging and Abandonment Plan, **Appendix C**. This plan incorporates information supplied by the permittee and may contain a clarification by the EPA. The EPA reserves the right to change the manner in which the well will be plugged if the well is modified during its permitted life or if the well is not made consistent with EPA requirements for construction and mechanical integrity. The Director may require the permittee to update the estimated plugging cost periodically. Such estimates, two (2), shall be based on an independent service company's cost for current EPA approved P&A operations, not an "in-house" cost estimate.

3. **Cessation of Injection Activities.** After a cessation of operations of two (2) years [40 CFR § 145.52 (a) (6)], the permittee shall plug and abandon the well in accordance with the Plugging and Abandonment Plan, unless the permittee:
  - (a) has provided notice to the Director;
  - (b) has demonstrated that the well will be used in the future;
  - (c) has described actions or procedures, satisfactory to the Director, that will be taken to ensure that the well will not endanger underground sources of drinking water during the period of temporary abandonment.
  
4. **Plugging and Abandonment Report.** Within sixty (60) days after plugging the well, the permittee shall submit a report on Form 7520-13 to the Director. The report shall be certified as accurate by the person who performed the plugging operation and the report shall consist of either: (1) a statement that the well was plugged in accordance with the plan; or (2) where actual plugging differed from the plan, a statement that specifies the different procedures followed.

## **F. FINANCIAL RESPONSIBILITY**

1. **Demonstration of Financial Responsibility.** The permittee is required to maintain continuous financial responsibility and resources to close, plug and abandon the injection well as provided in the plugging and abandonment plan.
  - (a) Shenandoah Energy Inc. has submitted an updated Surety Bond for \$2,016,000, and a Standby Trust Agreement, for all existing Class II enhanced recovery injection wells in the Red Wash Unit. These documents have been reviewed and approved by the EPA. The Red Wash Unit No. 11-30B is included in this financial responsibility demonstration.
  - (b) The permittee may upon his own initiative and upon written request to EPA, change the method of demonstrating financial responsibility. Any such change must be approved by the Director. A Minor Permit Modification will be made to reflect any changes in financial mechanisms, without further opportunity for public comment.
  
2. **Insolvency of Financial Institution.** In the event that an alternate demonstration of financial responsibility has been approved under (b), above, the permittee must submit an alternate demonstration of financial responsibility acceptable to the Director within sixty (60) days after either of the following events occur:
  - (a) The institution issuing the trust or financial instrument files for bankruptcy;  
or

- (b) The authority of the trustee institution to act as trustee, or the authority of the institution issuing the financial instrument, is suspended or revoked.

3. **Cancellation of Demonstration by Financial Institution.**

The permittee must submit an alternative demonstration of financial responsibility acceptable to the Director, within sixty (60) days after the institution issuing the trust or financial instrument serves 120-day notice to the EPA of their intent to cancel the trust or financial statement.

## **PART III. GENERAL PERMIT CONDITIONS**

### **A. EFFECT OF PERMIT**

The permittee is allowed to engage in underground injection in accordance with the conditions of this Permit. The permittee, as authorized by this Permit, shall not construct, operate, maintain, convert, plug, abandon, or conduct any other injection activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR § 142 or otherwise adversely affect the health of persons. Any underground injection activity not authorized in this Permit or otherwise authorized by Permit or Rule is prohibited. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any enforcement action brought under the provisions of Section 1431 of the Safe Drinking Water Act (SDWA) or any other law governing protection of public health or the environment for any imminent and substantial endangerment to human health, or the environment, nor does it serve as a shield to the permittee's independent obligation to comply with all UIC regulations.

### **B. PERMIT ACTIONS**

1. **Modification, Reissuance, or Termination.** The Director may, for cause or upon a request from the permittee, modify, revoke and reissue, or terminate this Permit in accordance with 40 CFR §§ 124.5, 144.12, 144.39, and 144.40. Also, the Permit is subject to Minor Permit Modifications for cause as specified in 40 CFR § 144.41. The filing of a request for a Permit Modification, revocation and reissuance, or termination or the notification of planned changes or anticipated noncompliance on the part of the permittee does not stay the applicability or enforceability of any Permit condition.

2. **Conversions.** The Director may, for cause or upon a request from the permittee allow conversion of the well from a Class II salt water disposal well to a non-Class II well. Requests to convert the injection well from its Class II status to a non-Class II well, such as, a production well, must be made in writing to the Director. Conversion may not proceed until a Permit modification indicating the conditions of the proposed conversion is received by the permittee. Conditions of the modification may include such items as, but is not limited to, approval of the proposed well rework, follow up demonstration of mechanical integrity, and well specific monitoring and reporting following the conversion. This Permit remains in effect as issued or modified until all conversion requirements have been fulfilled, conversion is complete, and evidence has been submitted to the Director that the conversion has actually occurred and is complete.
3. **Transfers.** This Permit is not transferrable to any person except after notice is provided to the Director and the requirements of 40 CFR § 144.38 are complied with. The Director may require modification, or revocation and reissuance, of the Permit to change the name of the permittee and incorporate such other requirements as may be necessary under the SDWA.
4. **Operator Change of Address.** Upon the operator's change of address, notice must be given to the following EPA office:

**Director - Ground Water Program  
U. S. Environmental Protection Agency  
Region VIII, UIC Section (8P-W-GW)  
999 - 18th Street, Suite 300  
Denver, CO 80202-2466**
5. **Termination of Permit.** Pursuant to 40 CFR § 144.40, the Director may terminate this Permit during its term or deny a Permit renewal application for non-compliance with any condition of the Permit, or for failure to fully disclose all relevant facts during the Permit issuance process or misrepresentation of relevant facts at any time, or for a determination that the permitted activity endangers human health and the environment and can only be regulated to acceptable levels by Permit modification or termination.

## **C. SEVERABILITY**

The provisions of this Permit are severable, and if any provision of this Permit or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit shall not be affected thereby.

## D. CONFIDENTIALITY

In accordance with 40 CFR Part 2 and 40 CFR § 144.5, any information submitted to EPA pursuant to this Permit may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the validity of the claim will be assessed in accordance with the procedures in 40 CFR Part 2 (Public Information). Claims of confidentiality for the following information will be denied:

- The name and address of the permittee; and
- information which deals with the existence, absence, or level of contaminants in drinking water.

## E. GENERAL DUTIES AND REQUIREMENTS

1. **Duty to Comply.** The permittee shall comply with all conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency Permit. Any Permit noncompliance constitutes a violation of the SDWA and is grounds for enforcement action, Permit termination, revocation and reissuance, or modification. Such noncompliance may also be grounds for enforcement action under the Resource Conservation and Recovery Act (RCRA).
2. **Penalties for Violations of Permit Conditions.** Any person who violates a Permit requirement is subject to civil penalties, fines, and other enforcement action under the SDWA and may be subject to such actions pursuant to the RCRA. Any person who willfully violates Permit conditions may be subject to criminal prosecution.
3. **Need to Halt or Reduce Activity not a Defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.
4. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Permit.
5. **Proper Operation and Maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality

assurance procedures. This provision requires the operation of back-up, or auxiliary facilities or similar systems, only when necessary, to achieve compliance with the conditions of this Permit.

6. **Duty to Provide Information.** The permittee shall furnish the Director, within a time specified, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with the Permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this Permit.
7. **Inspection and Entry.** The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:
  - (a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;
  - (b) have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
  - (c) inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
  - (d) sample or monitor, at reasonable times, for the purpose of assuring Permit compliance or as otherwise authorized by the SDWA any substances or parameters at any location.
8. **Records of Permit Application.** The permittee shall maintain records of all data required to complete the Permit application and any supplemental information submitted for a period of five (5) years from the effective date of this Permit. This period may be extended by request of the Director at any time.
9. **Signatory Requirements.** All reports or other information requested by the Director shall be signed and certified according to 40 CFR § 144.32.
10. **Reporting of Noncompliance.**
  - (a) **Anticipated Noncompliance.** The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with Permit requirements.

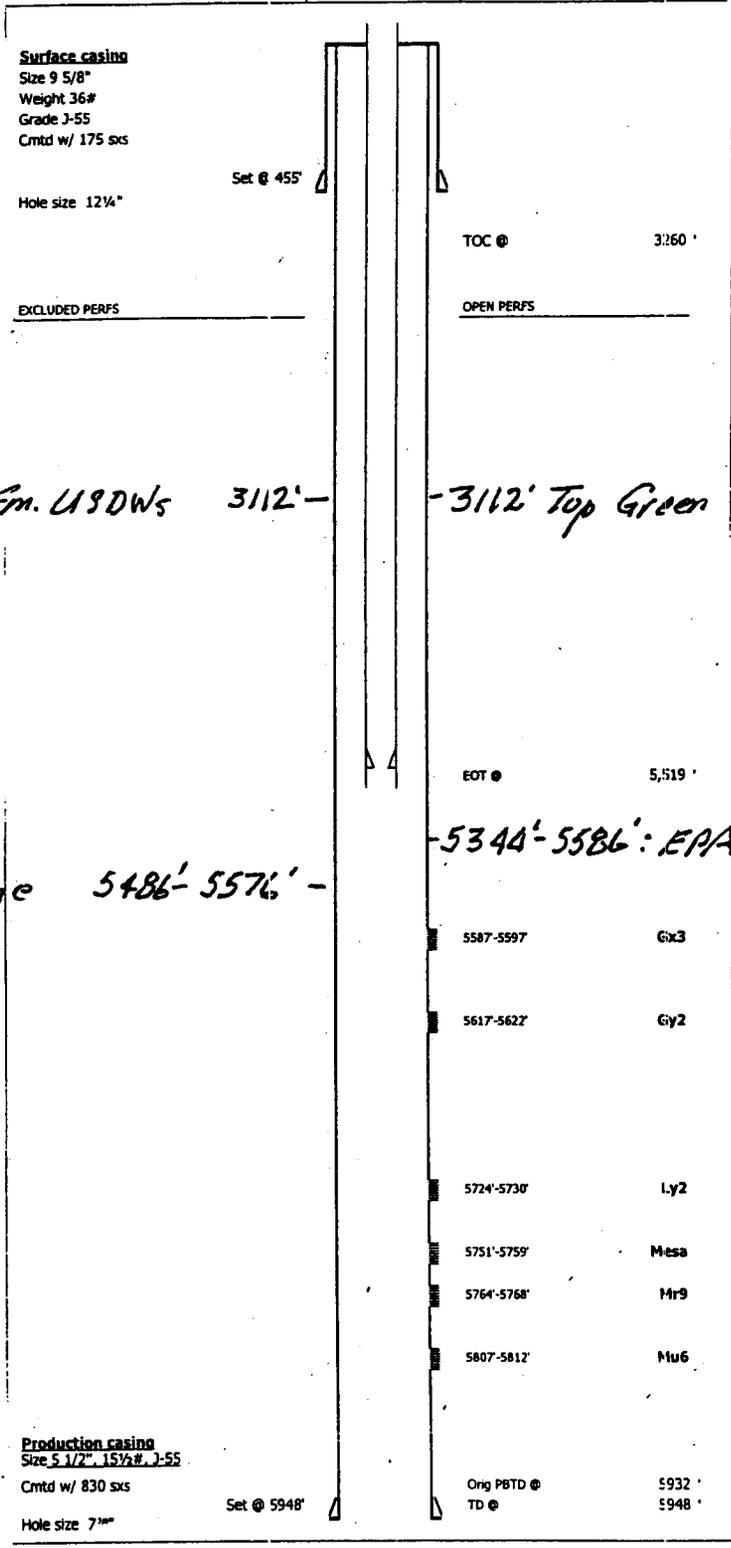
- (b) **Compliance Schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted no later than thirty (30) days following each schedule date.
- (c) **Twenty-four Hour Reporting.**
- (i) The permittee shall report to the Director any noncompliance which may endanger health or the environment. Information shall be provided orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances by telephoning EPA at (303) 312-6155 during normal business hours, or at (303) 293-1788 for reporting at all other times. The following information shall be included in the verbal report:
- (A) Any monitoring or other information which indicates that any contaminant may cause endangerment to an underground source of drinking water.
- (B) Any noncompliance with a Permit condition or malfunction of the injection system which may cause fluid migration into or between underground sources of drinking water.
- (ii) A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
- (d) **Other Noncompliance.** The permittee shall report all other instances of noncompliance not otherwise reported at the time monitoring reports are submitted. The reports shall contain the information listed in Part III, Section E. 10.(C) (ii) of this Permit.
- (e) **Other Information.** Where the permittee becomes aware that he failed to submit any relevant facts in the Permit application, or submitted incorrect information in a Permit application or in any report to the Director, the permittee shall submit such correct facts or information within two (2) weeks of the time such information became known to him.

**APPENDIX A**  
**(Conversion Details)**

FIELD: Red Wash

Well: RWU #11-30B

Wellbore Schematic



**Surface casing**  
 Size 9 5/8"  
 Weight 36#  
 Grade J-55  
 Cmtd w/ 175 sxs

Hole size 12 1/4"

Set @ 455'

TOC @ 3260'

EXCLUDED PERFS

OPEN PERFS

*Base Uintz Fm. USDWs 3112' -*

*-3112' Top Green River*

*Confining Zone 5486' - 5576' -*

*-5344' - 5586': EPA 80% Cement (annulus bond)*

EOT @ 5,519'

5587-5597 Gx3

5617-5627 Gy2

5724-5730 Ly2

5751-5759 Mesa

5764-5768 Mr9

5807-5812 Mu6

**Production casing**  
 Size 5 1/2" 15 1/2# J-55

Cmtd w/ 830 sxs

Set @ 5948'

Orig PBTD @ 5932'

TD @ 5948'

Hole size 7"

## **APPENDIX B**

### **(Reporting Forms and Instructions)**

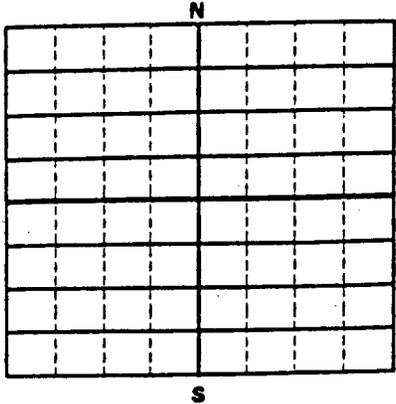
1. EPA Form 7520- 7: APPLICATION TO TRANSFER PERMIT
2. EPA Form 7520-10: COMPLETION REPORT FOR BRINE DISPOSAL WELL
3. EPA Form 7520-11: ANNUAL DISPOSAL/INJECTION WELL MONITORING REPORT
4. EPA Form 7520-12: WELL REWORK RECORD
5. EPA Form 7520-13: PLUGGING RECORD

United States Environmental Protection Agency  
 Washington, DC 20460



# Application To Transfer Permit

Name and Address of Existing Permittee	Name and Address of Surface Owner
--	-----------------------------------

Locate Well and Outline Unit on Section Plat- 640 Acres  	State	County	Permit Number
	Surface Location Description ___ 1/4 of ___ 1/4 of ___ 1/4 of ___ 1/4 of Section ___ Township ___ Range ___		
	Locate well in two directions from nearest lines of quarter section and drilling unit		
	Surface Location ___ ft. from (N/S) ___ Line of quarter section and ___ ft. from (E/W) ___ Line of quarter section.		
Well Activity <input type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Brine Disposal <input type="checkbox"/> Enhanced Recovery <input type="checkbox"/> Hydrocarbon Storage <input type="checkbox"/> Class III <input type="checkbox"/> Other		Well Status <input type="checkbox"/> Operating <input type="checkbox"/> Modification/Conversion <input type="checkbox"/> Proposed	Type of Permit <input type="checkbox"/> Individual <input type="checkbox"/> Area Number of Wells ___
Lease Number		Well Number	

Name(s) and Address(es) of New Owners(s)	Name and Address of New Operator
--	----------------------------------

*Attach to this application a written agreement between the existing and new permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them.*

*The new permittee must show evidence of financial responsibility by the submission of a surety bond, or other adequate assurance, such as financial statements or other materials acceptable to the Director.*

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)

Name and Official Title (Please type or print)	Signature	Date Signed
--	-----------	-------------



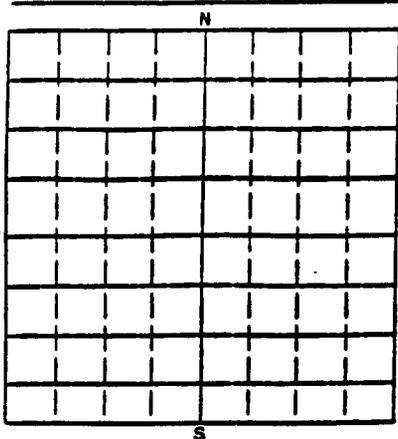
**COMPLETION REPORT FOR BRINE DISPOSAL, HYDROCARBON STORAGE, OR ENHANCED RECOVERY WELL**

Approval Expires 6-30-98

NAME AND ADDRESS OF EXISTING PERMITEE

NAME AND ADDRESS OF SURFACE OWNER

LOCATE WELL AND OUTLINE UNIT ON SECTION PLAT — 640 ACRES



STATE

COUNTY

PERMIT NUMBER

SURFACE LOCATION DESCRIPTION

1/4 of 1/4 of 1/4 of 1/4 of Section Township Range

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface Location ft. from (N/S) Line of quarter section

and ft. from (E/W) Line of quarter section

WELL ACTIVITY

TYPE OF PERMIT

Brine Disposal

Individual

Estimated Fracture Pressure of Injection Zone

Enhanced Recovery

Area

Hydrocarbon Storage

Number of Wells

Anticipated Daily Injection Volume (Bbls)

Injection Interval

Average

Maximum

Feet

to Feet

Anticipated Daily Injection Pressure (PSI)

Depth to Bottom of Lowermost Freshwater Formation (Feet)

Average

Maximum

Type of Injection Fluid (Check the appropriate block(s))

Salt Water

Brackish Water

Fresh Water

Liquid Hydrocarbon

Other

Lease Name

Well Number

Name of Injection Zone

Date Drilling Began

Date Well Completed

Permeability of Injection Zone

Date Drilling Completed

Porosity of Injection Zone

CASING AND TUBING

CEMENT

HOLE

OD Size

Wt/Ft — Grade — New or Used

Depth

Secks

Class

Depth

Bit Diameter

INJECTION ZONE STIMULATION

WIRE LINE LOGS, LIST EACH TYPE

Interval Treated

Materials and Amount Used

Log Types

Logged Intervals

Complete Attachments A — E listed on the reverse.

**CERTIFICATION**

*I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32).*

NAME AND OFFICIAL TITLE (Please type or print)

DATE SIGNED



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

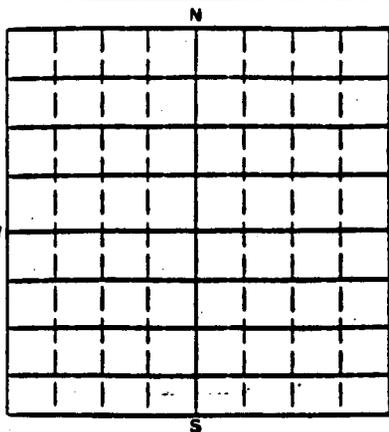


**WELL REWORK RECORD**

NAME AND ADDRESS OF PERMITTEE

NAME AND ADDRESS OF CONTRACTOR

LOCATE WELL AND OUTLINE UNIT ON SECTION PLAT — 640 ACRES



STATE \_\_\_\_\_ COUNTY \_\_\_\_\_ PERMIT NUMBER \_\_\_\_\_

SURFACE LOCATION DESCRIPTION  
\_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 of Section \_\_\_\_\_ Township \_\_\_\_\_ Range \_\_\_\_\_

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface Location \_\_\_\_\_ ft. from (N/S) \_\_\_\_\_ Line of quarter section  
and \_\_\_\_\_ ft. from (E/W) \_\_\_\_\_ Line of quarter section

<b>WELL ACTIVITY</b> <input type="checkbox"/> Brine Disposal <input type="checkbox"/> Enhanced Recovery <input type="checkbox"/> Hydrocarbon Storage  Lease Name _____	Total Depth Before Rework _____	<b>TYPE OF PERMIT</b> <input type="checkbox"/> Individual <input type="checkbox"/> Area Number of Wells _____  Well Number _____
	Total Depth After Rework _____	
	Date Rework Commenced _____	Well Number _____
	Date Rework Completed _____	

**WELL CASING RECORD — BEFORE REWORK**

Casing		Cement		Perforations		Acid or Fracture Treatment Record
Size	Depth	Sacks	Type	From	To	

**WELL CASING RECORD — AFTER REWORK (Indicate Additions and Changes Only)**

Casing		Cement		Perforations		Acid or Fracture Treatment Record
Size	Depth	Sacks	Type	From	To	

DESCRIBE REWORK OPERATIONS IN DETAIL  
USE ADDITIONAL SHEETS IF NECESSARY

**WIRE LINE LOGS. LIST EACH TYPE**

Log Types	Logged Intervals

**CERTIFICATION**

*I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32).*

NAME AND OFFICIAL TITLE (Please type or print)

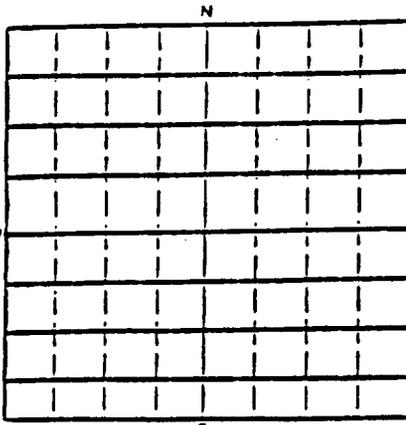
SIGNATURE

DATE SIGNED



# PLUGGING RECORD

NAME AND ADDRESS OF PERMITTEE	NAME AND ADDRESS OF CEMENTING COMPANY
-------------------------------	---------------------------------------

LOCATE WELL AND OUTLINE UNIT ON SECTION PLAT - 640 ACRES  	STATE	COUNTY	PERMIT NUMBER	
	SURFACE LOCATION DESCRIPTION			
	1/4 OF	1/4 OF	1/4 SECTION	TOWNSHIP
	RANGE			
LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT  Surface Location _____ ft. from (N/S) _____ Line of quarter section and _____ ft. from (E/W) _____ Line of quarter section				
TYPE OF AUTHORIZATION <input type="checkbox"/> Individual Permit <input type="checkbox"/> Area Permit <input type="checkbox"/> Rule  Number of Wells _____  Lease Name _____			Describe in detail the manner in which the fluid was placed and the method used in intruding it into the hole  _____ _____ _____ _____	

CASING AND TUBING RECORD AFTER PLUGGING					WELL ACTIVITY	METHOD OF EMPLACEMENT OF CEMENT PLUGS
SIZE	WT(LB./FT)	TO BE PUT IN WELL (FT)	TO BE LEFT IN WELL (FT)	HOLES SIZE		
					<input type="checkbox"/> CLASS I <input type="checkbox"/> CLASS II <input type="checkbox"/> Brine Disposal <input type="checkbox"/> Enhance Recovery <input type="checkbox"/> Hydrocarbon Storage <input type="checkbox"/> CLASS III	<input type="checkbox"/> The Balance Method <input type="checkbox"/> The Dump Sider Method <input type="checkbox"/> The Two-Plug Method <input type="checkbox"/> Other

CEMENTING TO PLUG AND ABANDON DATA:	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Size of Hole or Pipe in which Plug Will Be Placed (inches)							
Depth to Bottom of Tubing or Drill Pipe (ft.)							
Seals of Cement To Be Used (each plug)							
Slurry Volume To Be Pumped (cu. ft.)							
Calculated Top of Plug (ft.)							
Measured Top of Plug (if tagged ft.)							
Slurry Wt. (Lb./Gal.)							
Type Cement or Other Material (Class III)							

LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS			
From	To	From	To

Signature of Cementer or Authorized Representative	Signature of EPA Representative
--	---------------------------------

## CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.  
(REF. 40 CFR 122.22)

NAME AND OFFICIAL TITLE (Please type or print)	SIGNATURE	DATE SIGNED
--	-----------	-------------

**APPENDIX C**  
**PLUGGING & ABANDONMENT PLAN)**

## PLUGGING AND ABANDONMENT PLAN

The Plugging and Abandonment Plan submitted by the applicant consists of five (5) cement plugs. This Plan is incorporated into this Permit. The Plan has been reviewed and approved by the EPA. The Plan is consistent with UIC requirements.

**NOTE: CEMENT PLUGS ARE TO SEPARATED BY BENTONITE MUD OR A 9.5 POUND PER GALLON PLUGGING GEL (BRINE WATER WITH A GELLING AGENT).**

PLUG NO. 1: Set a cast iron bridge plug (CIBP) approximately 5537 feet. Place thirty-five (35) feet of Class G cement on CIBP.

PLUG NO. 2: Set Class G cement plug inside of the 5-1/2 inch casing from 3885 feet to 4086 feet.

PLUG NO. 3: At 3060 feet, cut and pull 5-1/2 inch casing. Set Class G cement plug on 5-1/2 inch casing stub from 2960 feet to 3162 feet.

PLUG NO. 4: Set Class G cement plug inside of the 5-1/2 inch casing and 7-7/8 inch hole from 405 feet to 505 feet.

PLUG NO. 5: Set Class G cement plug inside of the 5-1/2 inch casing from the surface to a depth of fifty (50) feet.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

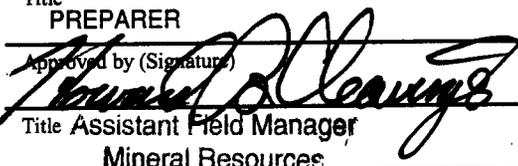
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		<b>CONFIDENTIAL</b>		5. Lease Serial No. UTU-0558
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone				6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator SHENANDOAH ENERGY INC.		Contact: RALEEN SEARLE E-Mail: rsearle@shenandoahenergy.com		7. If Unit or CA Agreement, Name and No. <del>***</del> Red Wash
3a. Address 11002 EAST 17500 SOUTH VERNAL, UT 84078		3b. Phone No. (include area code) Ph: 435.781.4309 Fx: 435.781.4329		8. Lease Name and Well No. RED WASH 11W-34-7-22
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NESW 2082FSL 2162FWL At proposed prod. zone		<b>RECEIVED OCT 24 2001</b>		9. API Well No.
14. Distance in miles and direction from nearest town or post office* 9+/- MILES TO REDWASH, UTAH				10. Field and Pool, or Exploratory RED WASH
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 2082' +/-		16. No. of Acres in Lease 40.00		11. Sec., T., R., M., or Blk. and Survey or Area Sec 34 T7S R22E Mer SLB
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 3000' +/-		19. Proposed Depth 8475 MD 8475 TVD		12. County or Parish UINTAH
21. Elevations (Show whether DF, KB, RT, GL, etc.) 5215 KB		20. BLM/BIA Bond No. on file U-0969		13. State UT
		22. Approximate date work will start		17. Spacing Unit dedicated to this well 2560.00
		23. Estimated duration 10 DAYS		

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>1. Well plat certified by a registered surveyor.</li> <li>2. A Drilling Plan.</li> <li>3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).</li> </ul> | <ul style="list-style-type: none"> <li>4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).</li> <li>5. Operator certification</li> <li>6. Such other site specific information and/or plans as may be required by the authorized officer.</li> </ul> |
|--|--|

25. Signature (Electronic Submission)	Name (Printed/Typed) RALEEN SEARLE	Date 10/24/2001
Title PREPARER		
Approved by (Signature) 	Name (Printed/Typed)	Date 07/11/2002
Title Assistant Field Manager Mineral Resources	Office	

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

Additional Operator Remarks (see next page)

Electronic Submission #8037 verified by the BLM Well Information System  
For SHENANDOAH ENERGY INC., sent to the Vernal  
Committed to AFMSS for processing by LESLIE WALKER on 11/06/2001 ()

**RECEIVED**

JUL 22 2002

DIVISION OF  
OIL, GAS AND MINING

CONDITIONS OF APPROVAL  
APPLICATION FOR PERMIT TO DRILL

Company/Operator: Shenandoah Energy, Inc.  
Well Name & Number: Red Wash #11W-34-7-22  
API Number: 43-047-34360  
Lease Number: U - 0558  
Location: NESW Sec. 34 T. 7S R. 22E  
Agreement: Red Wash Unit (NON P.A. WELL)

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 that would entitle the applicant to conduct operations thereon.

**NOTE: If this well should prove to be productive, then a paying well determination request must be submitted to the BLM - Utah State Office in Salt Lake City, Utah.**

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.

### **DRILLING PROGRAM**

#### **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 base of the usable water zone, identified at  $\pm 1,220$  ft.

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

Due to paleontological concerns, a qualified paleontologist shall monitor the construction of the access road, well pad, and reserve pit.

No construction or drilling will be allow during the ferruginous hawk nesting season of March 1 to July 15.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

CONFIDENTIAL

FORM APPROVED  
OMB NO. 1004-0135  
Expires: November 30, 2000

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*

<b>SUBMIT IN TRIPLICATE - Other instructions on reverse side.</b>		5. Lease Serial No. UTU-0558
		6. If Indian, Allottee or Tribe Name N/A
		7. If Unit or CA/Agreement, Name and/or No. N/A
1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No. RED WASH 11W-34-7-22
2. Name of Operator SHENANDOAH ENERGY INC. Contact: RALEEN SEARLE E-Mail: raleen.searle@questar.com		9. API Well No. 43-047-34360
3a. Address 11002 EAST 17500 SOUTH VERNAL, UT 84078	3b. Phone No. (include area code) Ph: 435.781.4309 Fx: 435.781.4329	10. Field and Pool, or Exploratory RED WASH
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 34 T7S R22E NESW 2082FSL 2162FWL		11. County or Parish, and State UINTAH COUNTY, UT

12. CHECK APPROPRIATE BOX(ES) 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"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Shenandoah Energy Inc. hereby requests an one year extension on the APD for the RW 11W-34-7-22.

**RECEIVED**  
NOV 25 2002  
DIVISION OF  
OIL, GAS AND MINING

Approved by the  
Utah Division of  
Oil, Gas and Mining

Date: 12-09-02  
By: *[Signature]*

COPY SENT TO OPERATOR  
Date: 12-10-02  
Initials: *[Signature]*

14. I hereby certify that the foregoing is true and correct.  
Electronic Submission #16241 verified by the BLM Well Information System  
For SHENANDOAH ENERGY INC., will be sent to the Vernal

Name (Printed/Typed) RALEEN SEARLE	Title REGULATORY AFFAIRS ANALYST
Signature <i>Raleen Searle</i>	Date 11/19/2002

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____	Title _____	Date _____
Conditions of approval, if any, are attached. Approval of this notice 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.		Office _____

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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

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

IN REPLY REFER TO  
UT-922

June 9, 2003

QEP Uinta Basin, Inc.  
1050 17<sup>th</sup> Street, Suite 500  
Denver, Colorado 80265

Re: Red Wash Unit  
Uintah County, Utah

Gentlemen:

On May 30, 2003, we received an indenture dated February 1, 2003, whereby Shenandoah Energy, Inc. changed its name and QEP Uinta Basin, Inc. was designated as Successor Unit Operator for the Red Wash Unit, Uintah County, Utah.

This indenture was executed by all required parties and the signatory parties have complied with Sections 5 and 6 of the unit agreement. The instrument is hereby approved effective June 9, 2003. In approving this designation, the Authorized Officer neither warrants nor certifies that the designated party has obtained all required approval that would entitle it to conduct operations under Red Wash Unit Agreement.

Your nationwide (Eastern States) oil and gas bond No. B000024 will be used to cover all operations within the Red Wash Unit.

It is requested that you notify all interested parties of the name change of unit operator. Copies of the approved instruments are being distributed to the appropriate federal offices, with one copy returned herewith.

Sincerely,

/s/ Robert A. Henricks

Robert A. Henricks  
Chief, Branch of Fluid Minerals

Enclosure

bcc: Field Manager - Vernal (w/enclosure)  
SITLA  
Division of Oil, Gas & Mining  
Minerals Adjudication Group  
File – Red Wash Unit (w/enclosure)  
Agr. Sec. Chron  
Fluid Chron

UT922:TAThompson:tt:6/9/03

**OPERATOR CHANGE WORKSHEET**

1. GLH
2. CDW
3. FILE

Change of Operator (Well Sold)

Designation of Agent/Operator

**X Operator Name Change**

Merger

The operator of the well(s) listed below has changed, effective:		<b>2/1/2003</b>
<b>FROM: (Old Operator):</b>	<b>TO: ( New Operator):</b>	
N4235-Shenandoah Energy Inc 11002 E 17500 S Vernal, UT 84078-8526 Phone: (435) 781-4341	N2460-QEP Uinta Basin Inc 11002 E 17500 S Vernal, UT 84078-8526 Phone: (435) 781-4341	

**CA No. Unit: RED WASH UNIT**

<b>WELL(S)</b>									
NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS	Confid
RWU 21W-36A	36	070S	220E	4304733730		State	GW	APD	C
RWU 21G-36A	36	070S	220E	4304733731		State	OW	APD	C
RWU 41-36A	36	070S	220E	4304733732		State	OW	APD	C
RWU 43-16B	16	070S	230E	4304733733		State	OW	APD	C
RWU 21-16B	16	070S	230E	4304733734		State	OW	APD	C
RWU 11-36A	36	070S	220E	4304733736		State	OW	APD	C
RWU 13-36A	36	070S	220E	4304733737		State	OW	APD	C
RWU 13-29B	29	070S	230E	4304733764		Federal	OW	APD	C
RWU 33-29B	29	070S	230E	4304733789		Federal	OW	APD	C
RWU 14-13A	13	070S	220E	4304733950		Federal	OW	APD	C
RWU 11W-34-7-22	34	070S	220E	4304734360		Federal	GW	APD	C

**OPERATOR CHANGES DOCUMENTATION**

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 6/2/2003
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 6/2/2003
- The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 6/19/2003
- Is the new operator registered in the State of Utah: YES Business Number: 5292864-0151
- If **NO**, the operator was contacted on: \_\_\_\_\_

6. (R649-9-2)Waste Management Plan has been received on: IN PLACE

7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: 7/21/2003

**8. Federal and Indian Units:**

The BLM or BIA has approved the successor of unit operator for wells listed on: 7/21/2003

**9. Federal and Indian Communization Agreements ("CA"):**

The BLM or BIA has approved the operator for all wells listed within a CA on: n/a

10. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: n/a

**DATA ENTRY:**

1. Changes entered in the **Oil and Gas Database** on: 9/11/2003

2. Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 9/11/2003

3. Bond information entered in RBDMS on: n/a

4. Fee wells attached to bond in RBDMS on: n/a

**STATE WELL(S) BOND VERIFICATION:**

1. State well(s) covered by Bond Number: 965-003-032

**FEDERAL WELL(S) BOND VERIFICATION:**

1. Federal well(s) covered by Bond Number: ESB000024

**INDIAN WELL(S) BOND VERIFICATION:**

1. Indian well(s) covered by Bond Number: 799446

**FEE WELL(S) BOND VERIFICATION:**

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number 965-003-033

2. The **FORMER** operator has requested a release of liability from their bond on: n/a

The Division sent response by letter on: n/a

**LEASE INTEREST OWNER NOTIFICATION:**

3. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

**COMMENTS:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**SEI (N4235) to QEP (N2460)**

well name	Sec	R	api DOGM	Entity	State	OW	APD	C	unit name
RWU 21W-36A	36	070S	220E	4304733730	State	GW	APD	C	RED WASH
RWU 21G-36A	36	070S	220E	4304733731	State	OW	APD	C	RED WASH
RWU 41-36A	36	070S	220E	4304733732	State	OW	APD	C	RED WASH
RWU 43-16B	16	070S	230E	4304733733	State	OW	APD	C	RED WASH
RWU 21-16B	16	070S	230E	4304733734	State	OW	APD	C	RED WASH
RWU 11-36A	36	070S	220E	4304733736	State	OW	APD	C	RED WASH
RWU 13-36A	36	070S	220E	4304733737	State	OW	APD	C	RED WASH
RWU 13-29B	29	070S	230E	4304733764	Federal	OW	APD	C	RED WASH
RWU 33-29B	29	070S	230E	4304733789	Federal	OW	APD	C	RED WASH
RWU 14-13A	13	070S	220E	4304733950	Federal	OW	APD	C	RED WASH
RWU 11W-34-7-22	34	070S	220E	4304734360	Federal	GW	APD	C	RED WASH



State of Utah

Department of  
Natural Resources

Division of  
Oil, Gas & Mining

ROBERT L. MORGAN  
*Executive Director*

LOWELL P. BRAXTON  
*Division Director*

MICHAEL O. LEAVITT  
*Governor*

OLENE S. WALKER  
*Lieutenant Governor*

January 23, 2004

Raleen Searle  
QEP Uinta Basin Inc.  
11002 East 17500 South  
Vernal, Utah 84078

Re: APD Rescinded – Red Wash 11W-34-7-22, Sec. 34, T. 7S, R. 22E  
Uintah County, Utah API No. 43-047-34360

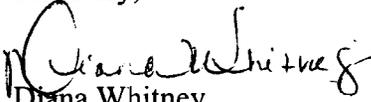
Dear Ms. Searle:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on November 1, 2001. On December 9, 2002, the Division granted a one-year APD extension. On January 22, 2004 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 January 22, 2004.

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 Whitney  
Engineering Technician

cc: Well File  
Bureau of Land Management, Vernal