

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

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

APPLICATION  
FOR PERMIT TO DRILL, DEEPEN, OR REENTER AND OPERATE

1a. TYPE OF WORK  
 DRILL  DEEPEN  REENTER   
 b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER  SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
 United Utilities Corporation  
 PHONE NO. \_\_\_\_\_

3. ADDRESS OF OPERATOR  
 625 North 100 West Vernal, Utah 84078

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
 At surface 890' FNL & 1075' FWL, Sec. 15, T11S, R23E  
 At proposed prod. zone Same *NW 1/4 NW 1/4*

5. LEASE DESIGNATION AND SERIAL NO.  
 UTU-0780

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 NA

7. UNIT AGREEMENT NAME  
 Rockhouse Unit

8. FARM OR LEASE NAME  
 Federal

9. WELL NO.  
 16

10. FIELD AND POOL, OR WILDCAT  
 Rockhouse Gas Field

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Sec. 15, T11S, R23E S.L.B. & M.

12. COUNTY  
 Uintah

13. STATE  
 Utah

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE  
 Approximately 34 miles from Bonanza, Utah

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. line, if any)  
 890'

16. NO. OF ACRES IN LEASE  
 760

17. NO. OF ACRES AND/OR DRILLING UNIT ASSIGNED TO THIS WELL  
 160

18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 5,200'

19. PROPOSED DEPTH  
 5,612

20. ROTARY OR CABLE TOOLS  
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 6069 GR

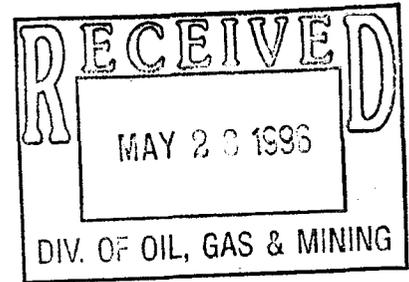
22. APPROX. DATE WORK WILL START  
 6/5/96

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4	9 5/8	36	250	150 sx to surface
7 7/8	4 1/2	10.5	5,612	1,030 sx to surface

Attachments to this APD:

1. Surveyors location plat
2. Well Control Plan
3. Surface use and operating plan
4. Maps & diagrams
5. Self certification statement
6. Hazardous materials declaration



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

24. SIGNED *[Signature]* TITLE Agent-Consulting Engineer DATE 5/23/96

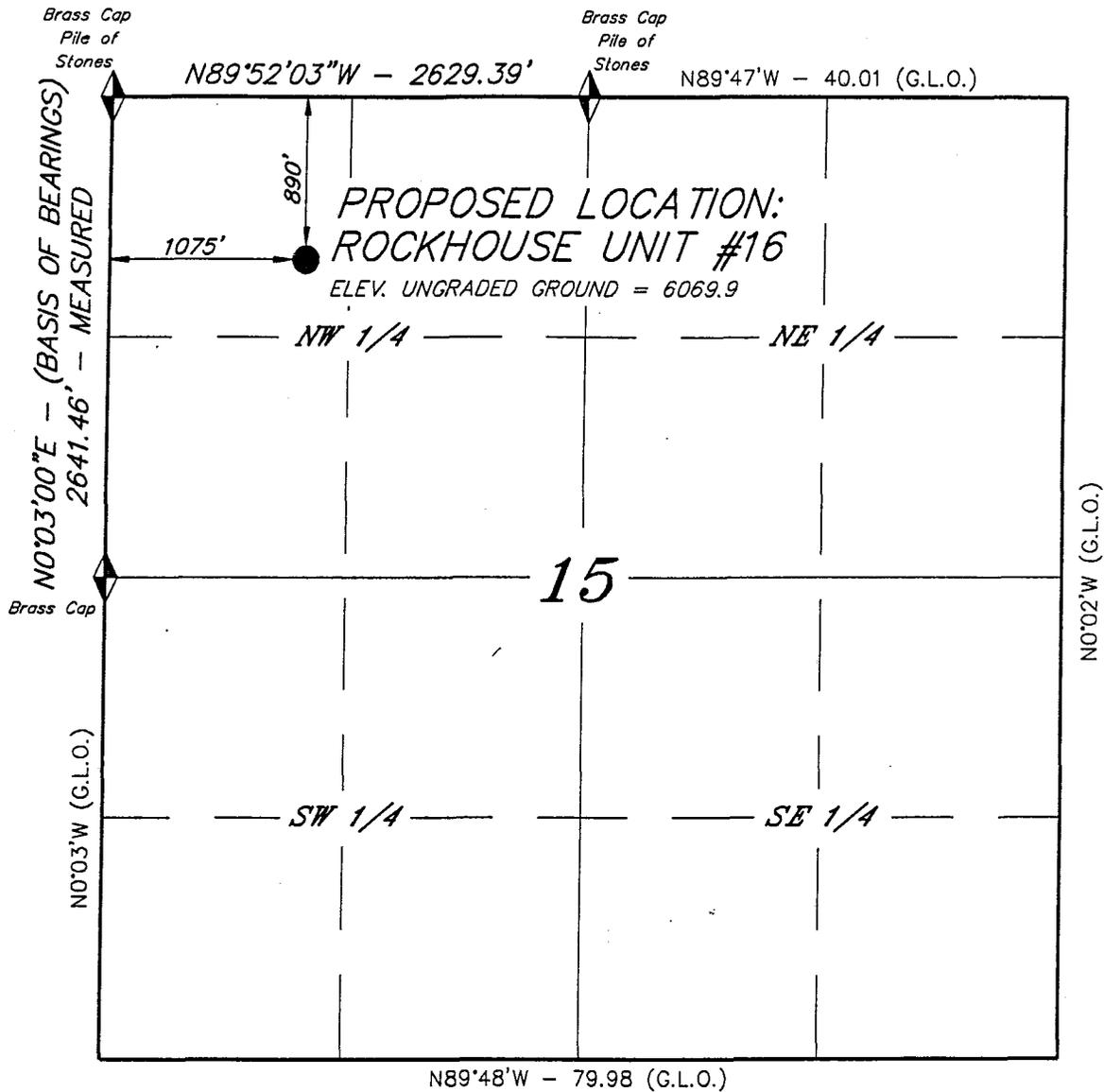
(This space for Federal or State Office use)

PERMIT NO. 43-047-32761 APPROVAL DATE \_\_\_\_\_  
 APPROVED BY *[Signature]* TITLE Petroleum Engineer DATE 6/4/96  
 CONDITIONS OF APPROVAL, IF ANY:

# UNITED UTILITIES INC.

WELL LOCATION, ROCKHOUSE UNIT #16 LOCATED  
AS SHOWN IN THE NW 1/4 NW 1/4 OF SECTION 15,  
T11S, R23E, S.L.B.&M., UINTAH COUNTY, UTAH.

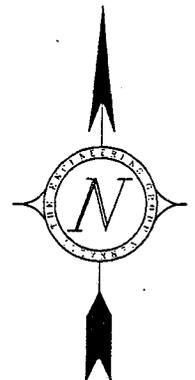
**T 1 1 S, R 2 3 E, S. L. B. & M.**



**BASIS OF ELEVATION**

SPOT ELEVATION FROM A BENCHMARK LOCATED ON THE NORTH LINE OF SECTION 17, T11S, R23E, S.L.B.&M. TAKEN FROM THE ARCHY BENCH SE QUADRANGLE PUBLISHED BY THE U.S.G.S. SAID ELEVATION IS MARKED AS BEING 6054 FEET.

- = SECTION CORNER LOCATED
- = PROPOSED LOCATION



THIS IS TO CERTIFY THAT THE PLAT HEREON WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY DIRECT SUPERVISION. THAT THE SAME HAS BEEN CORRECTLY SURVEYED AND STAKED ON THE GROUND AS SHOWN ON THIS PLAT AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

MELVIN L. WALKER  
REGISTERED LAND SURVEYOR  
REGISTRATION NO. 174894  
STATE OF UTAH



REVISED: 5-6-96 R.E.H.

<b>FOA</b> <small>Freston Ostler Vernon &amp; Associates, Inc.</small> <small>The Engineering Group</small>		
P.O. Box 1790, 100 North Second Avenue, Suite 2, Provo, Utah 84601 Telephone: (801) 799-0847 Fax: (801) 799-6406 EMail: (801) 799-8218		
DATE SURVEYED: 4-11-96	DRAWN BY: B.R.W.	
SURVEYED BY: D.P. T.V.	DATE DRAWN: 4-17-96	
WEATHER: COOL	NOTES:	
SCALE: 1" = 1000'	FILE: ROCKHOUSE 16	

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APPLICATION  
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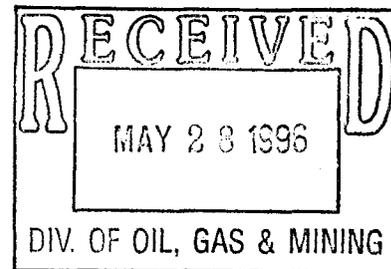
1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> REENTER <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. UTU-0780
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>			6. IF INDIAN, ALLOTTEE OR TRIBE NAME NA
2. NAME OF OPERATOR United Utilities Corporation			7. UNIT AGREEMENT NAME Rockhouse Unit
3. ADDRESS OF OPERATOR 625 North 100 West Vernal, Utah 84078			8. FARM OR LEASE NAME Federal
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18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 5,200'		19. PROPOSED DEPTH 5,612	12. COUNTY Uintah
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6069 GR		13. STATE Utah	
22. APPROX. DATE WORK WILL START 6/5/96		17. NO. OF ACRES AND/OR DRILLING UNIT ASSIGNED TO THIS WELL 160	
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24. SIGNED [Signature] TITLE Agent-Consulting Engineer DATE 5/23/96

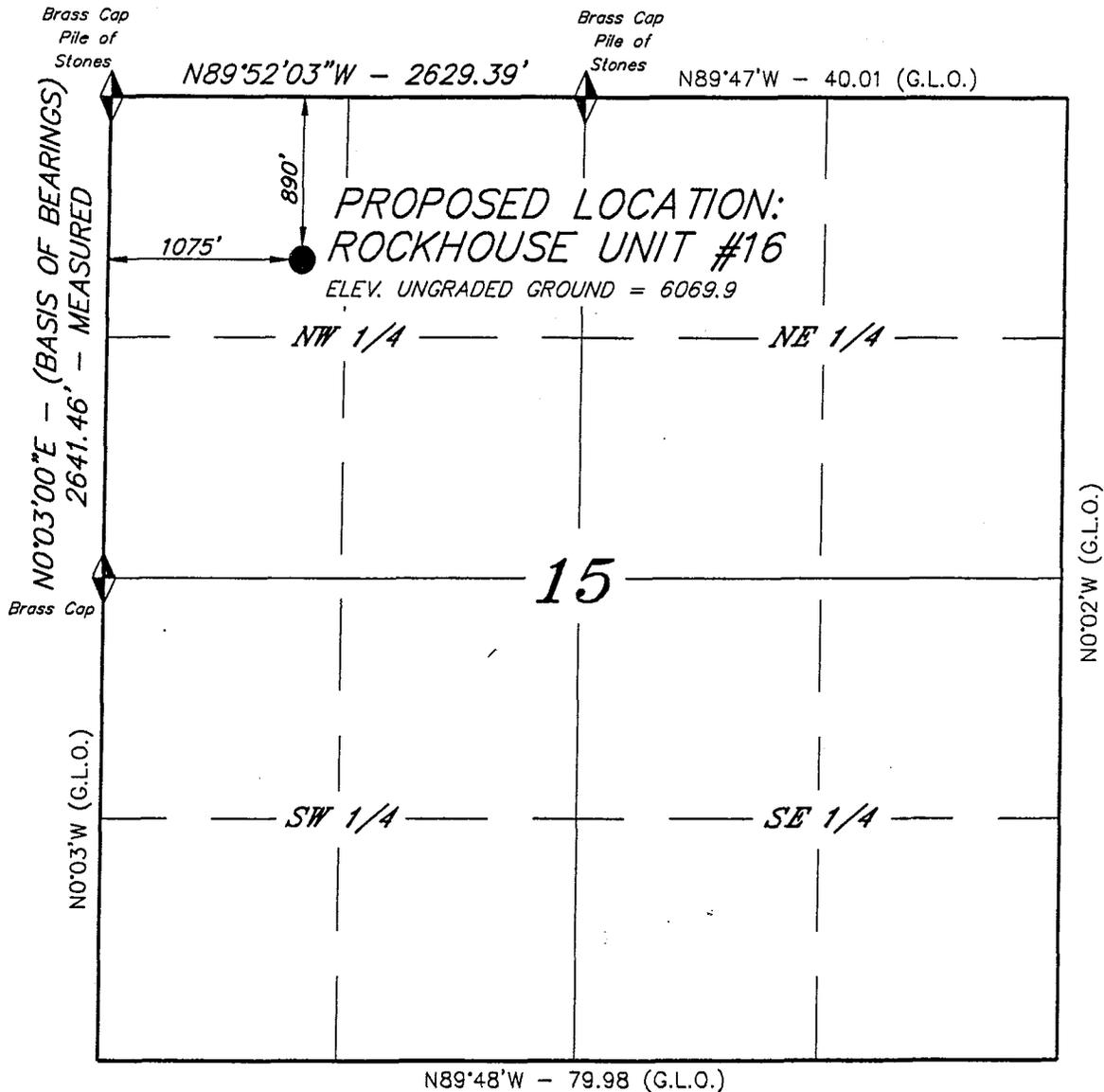
(This space for Federal or State Office use)

PERMIT NO. 43-047-32761 APPROVAL DATE  
APPROVED BY [Signature] TITLE Chief Engineer DATE 6/4/96  
CONDITIONS OF APPROVAL, IF ANY:

# UNITED UTILITIES INC.

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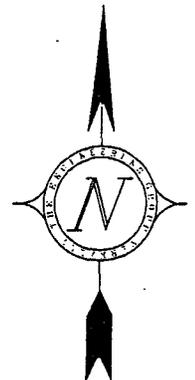
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*Melvin L. Walker*  
MELVIN L. WALKER  
REGISTERED LAND SURVEYOR  
REGISTRATION NO. 174894  
STATE OF UTAH



REVISED: 5-6-96 R.E.H.

<b>FOA</b> <i>Freston Ostler Vernon &amp; Associates, Inc.</i> The Engineering Group		
P.O. Box 1790, 100 North Second Avenue, Suite 2, Provo, Utah 84606 Telephone (801) 799-0841 Fax (801) 799-6496 Lab (801) 791-8218		
DATE SURVEYED: 4-11-96	DRAWN BY: B.R.W.	
SURVEYED BY: D.P. T.V.	DATE DRAWN: 4-17-96	
WEATHER: COOL	NOTES:	
SCALE: 1" = 1000'	FILE: ROCKHOUSE 16	

**APPLICATION FOR PERMIT TO DRILL**

**UNITED UTILITIES CORPORATION**

Lease UTU-0780, Rockhouse Unit #16  
890' FNL & 1075' FWL Section 15, T11S, R23E  
Uintah County, Utah

**Drilling Prognosis**

1. Estimated Tops of Important Geologic Markers

Uintah	Surface	Mesaverde	5,512'
Wasatch	3,562'	Total Depth	5,612'

2. Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations

Water:	Surface to T.D.		
Oil & Gas:	Green River		
	Wasatch	3,562' - 5,512'	Gas (Primary Objective)

If any shallow water zones are encountered, they will be adequately protected and reported. All potentially productive hydrocarbon zones will be cemented off.

3. Pressure Control Equipment - Schematic Attached

A. Type: Double Gate Hydraulic with Annular Preventer (Hydril).

The Blow-Out Preventer will be equipped as follows:

1. One (1) blind ram (above).
2. One (1) pipe ram (below).
3. Drilling spool with two (2) side outlets (choke side 3-inch minimum, kill side 2-inch minimum).
4. Kill line (2-inch minimum).
5. Two (2) kill line valves, one of which will be a check valve (2-inch minimum).
6. 3-inch (minimum) choke line.

7. Two (2) choke line valves (minimum).
8. Two (2) adjustable chokes.
9. Pressure gauge on choke manifold.
10. Upper kelly cock valve with handle available.
11. Safety valve and subs to fit all drill strings in use.
12. Fill up line above the uppermost preventer.

B. Pressure Rating:

The BOP and related equipment will meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc. for a 3,000 psi system and individual components will be operable as designed.

C. Testing Procedure:

Annular Preventer (Hydril)

At a minimum, the Annular Preventer will be pressure tested to 50% of the rated working pressure for a period of ten (10) minutes or until provisions of the test are met, whichever is longer.

At a minimum, the above pressure test will be performed:

1. When the annular preventer is initially installed;
2. Whenever any seal subject to test pressure is broken;
3. Following related repair; and
4. At thirty (30) day intervals.

In addition to the above, the annular preventer will be functionally operated at least weekly.

Blow-Out Preventer:

At a minimum, the BOP, choke manifold, and related equipment will be pressure tested to the approved working pressure of the BOP stack (if isolated from the surface casing by test plug) or to 70% of the internal yield strength of the surface casing (if the BOP is not isolated from the casing by a test plug). Pressure will be maintained for a period of at least ten (10) minutes or until the requirements of the test are met, whichever is longer.

At a minimum, the above pressure test will be performed:

1. When the BOP is initially installed;
2. Whenever any seal subject to test pressure is broken;
3. Following related repairs; and
4. At thirty (30) day intervals.

Chart recorders shall be used for all pressure tests. Test charts, with individual test results identified, shall be maintained on location while drilling and available for inspection. In addition to the above, the pipe and blind rams will be activated each trip, but not more than once each day.

All BOP drills and tests will be recorded in the LADC driller's log.

D. Choke Manifold Equipment:

All choke lines will be straight lines unless turns use tee blocks or are targeted with running tees, and will be anchored to prevent whip and vibration.

E. Accumulator:

The accumulator will have sufficient capacity to close all BOP's and retain 200 psi above precharge. Nitrogen bottles which meet the manufacturer's specifications will be used as the backup to the required independent power source. The accumulator precharge pressure test will be conducted prior to connecting the closing unit to the BOP stack and at least once every six (6) months thereafter. The accumulator pressure will be corrected if the measured precharge pressure is found to be above or below the maximum or minimum limits specified in Onshore Operating Order #2.

F. Miscellaneous Information:

The blow-out preventer and related pressure control equipment will be installed, tested, and maintained in compliance with the specifications in and requirements of Onshore Operating Order #2.

The choke manifold and BOP extension rods with hand wheels will be located outside the rig substructure. The hydraulic BOP closing unit will be located at least twenty five (25) feet from the well head but readily accessible to the driller. Exact locations and configurations of the hydraulic BOP closing unit will depend upon the particular rig contracted to drill the hole.

A flare line will be installed after the choke manifold, extending 100 feet (minimum) from the center of the drill hole to a separate flare pit.

4. The Proposed Casing and Cementing Program - All New

A. Casing Program

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt./Ft.</u>	<u>Grade Joint</u>	<u>Depth Set</u>
12-1/4"	9-5/8"	36.0#	K-55 ST&C	0 - 250'
7 7/8"	4-1/2"	10.5#	M-50 ST&C	0- 5,612'

The surface casing will have centralizers on the bottom joints, with a minimum of one (1) centralizer per joint.

All casing strings below the conductor will be pressure tested to 0.22 psi/foot, or 1,500 psi (not to exceed 70%) of the internal yield strength of the casing, whichever is greater, after cementing and prior to drilling out from under the casing shoe.

On all exploratory wells, and on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe will be performed, if required by the Authorized Officer, Bureau of Land Management. The formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at a total depth of the well. This test shall be performed before drilling more than twenty (20) feet of new hole.

B. Cementing Program

Surface Casing: 150 sx Class "G" + 0.25#/sk Cello-Seal + 2.0% CaCl<sub>2</sub>, circulated to surface.

Production Casing: Lead with 295 sx Class "G" + 16% gel (bentonite) + 3% salt + 10#/sk Gilsonite, followed by 735 sx Class "G" + 10% gypsum + 0.4% CF-14A + 0.2% WR-15 + 10% salt. Actual cement volumes will be determined from caliper log adding 5% excess to assure a cement top of at least 200 feet above the top of the Mahogany oil shale zone.

5. Mud Program - Visual Monitoring

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0' - 2,500'	Fresh Water	8.4-9.0	27-30	No Control
2,500' - T.D.'	LSND	8.5-9.5	35- 45	8-10 cc's

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blowout will be available at the well site during drilling operations.

6. Evaluation Program

Logs:	High Resolution Resistivity - GR	-	5,612' - 250'
	Caliper-SP	-	5,612' - 250'
	Spectral Density	-	5,612' - 3,300'
	Dual Spaced Neutron	-	5,612' - 3,300'

DST's: None anticipated.

Cores: None anticipated

Evaluation program may change at the discretion of the wellsite geologist, with approval of the Authorized Officer, Vernal District Office, Bureau of Land Management.

Stimulation: No stimulation or frac treatment has been formulated for this test at this time. The drill site, as approved, will be of sufficient size to accommodate all completion activities.

Whether the well is completed as a dry hole or as a producer, Well Completion and Recompletion report and Log (Form 3160-4) will be submitted to the Resource Area Officer no later than thirty (30) days after the completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two (2) copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample descriptions and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the Area Manager, Vernal District Office, Bureau of Land Management,.

7. Abnormal conditions

No abnormal temperatures or pressures are anticipated. No H<sub>2</sub>S has been reported or is known to exist from previous drilling in this area at this depth.

Maximum anticipated bottom hole pressure equals approximately 2,436 psi (calculated at 0.434 psi/foot) and maximum anticipated surface pressure equals approximately 1,235 psi (anticipated bottom hole pressure minus partially evacuated hole pressure calculated at 0.22 psi/foot).

8. Anticipated Starting Dates and Notification of Operations

A. Anticipated Starting Dates:

Anticipated Commencement Date	:	June 5, 1996
Drilling Days	:	Approximately 8 days
Completion Days	:	Approximately 15 days

B. Notification of Operations:

The spud date will be reported orally to the Branch of Inspection/Enforcement at least 24 hours prior to spudding, unless otherwise required in the site specific conditions of approval, and will be followed up with a report on Form 3160-5 confirming the date of spud.

All wells, whether drilling, producing, or abandoned shall be identified in accordance with 43 CFR 3162.6. This requires the name of the operator, the lease number, the well number, and the location of the well.

A progress report will be filed a minimum of once a month starting with the month in which the well was spudded and continuing until the well is completed. The report will be filed by the 25th day of each month on form 3160-5. The report will include the spud date, casing information such as size, grade, weight, hole size, and setting depth, amount and type of cement used, top of cement, depth of cementing tools, casing test method(s), intervals tested, perforated, acidized, fractured, and results obtained and the dates of all work done.

Spills, blowouts, fires, leaks, accidents, theft, or any other unusual occurrences will be promptly reported to the Resource Area Office in accordance with NTL-3A.

Any venting or flaring of gas during initial well evaluation will be subject to the provisions of NTL-4A.

In the event abandonment of the hole is desired, an oral request may be granted by the Resources Area Office but must be followed with a "notice of Intention to Abandon" (Form 3160-5) within fifteen (15) days of receiving oral permission to plug and abandon. A "Subsequent Report of Abandonment" (Form 3160-5) will be submitted within thirty (30) days following the actual plugging of the well bore. This report will indicate where plugs were placed and the current status of surface restoration operations. If surface restoration has not been completed at that time, a follow up report on Form 3160-5 will be filed when all surface restoration work has been completed and the location is considered ready for final inspection. If the location is on private surface, a "Landowner Acceptance of Reclamation" letter will be attached to this "Sundry Notice."

Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR 3162.6.

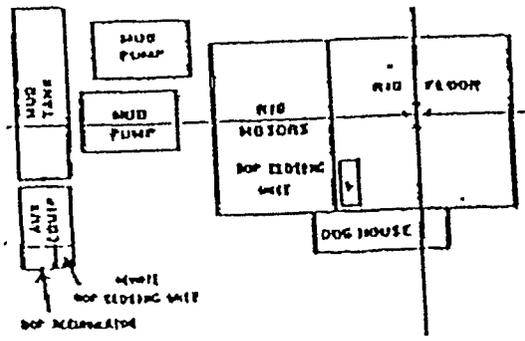
The following information will be permanently placed on the marker with a plate, cap, or beaded on with a welding torch: Company Name, Well Name and Number, Location by Quarter/Quarter, Section, Township, Range, and the Federal Lease Number.

Not later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than ninety (90) days, the operator shall notify the Authorized Officer by letter or "Sundry Notice", of the date on which such production has begun or resumed. The notification shall provide as a minimum, the following information items;

- a. Operator name, address, and telephone number
- b. Well name and number
- c. Well location: 1/4, 1/4, Section, Township, Range, P.M.
- d. Date well was placed in a producing status
- e. The nature of the wells production, i.e.: crude oil casing gas, or natural gas and entrained liquid hydrocarbons
- f. The OCS, Federal or Indian lease prefix and number on which the well is located. Otherwise, the non-Federal or non-Indian land category, i.e.: state or private.
- g. As appropriate, the Communitization agreement number, the unit agreement name, number, and participating area name.

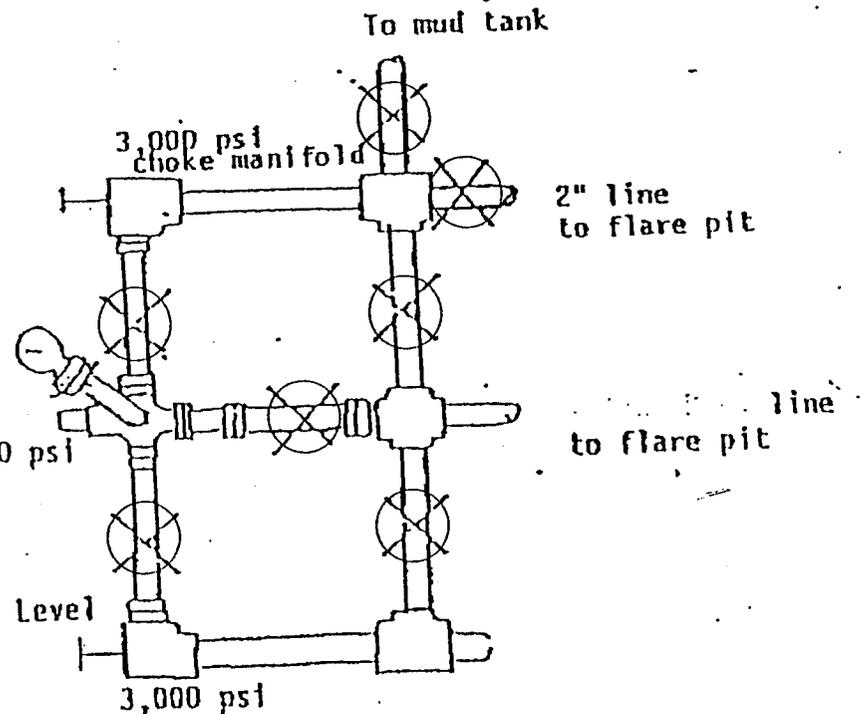
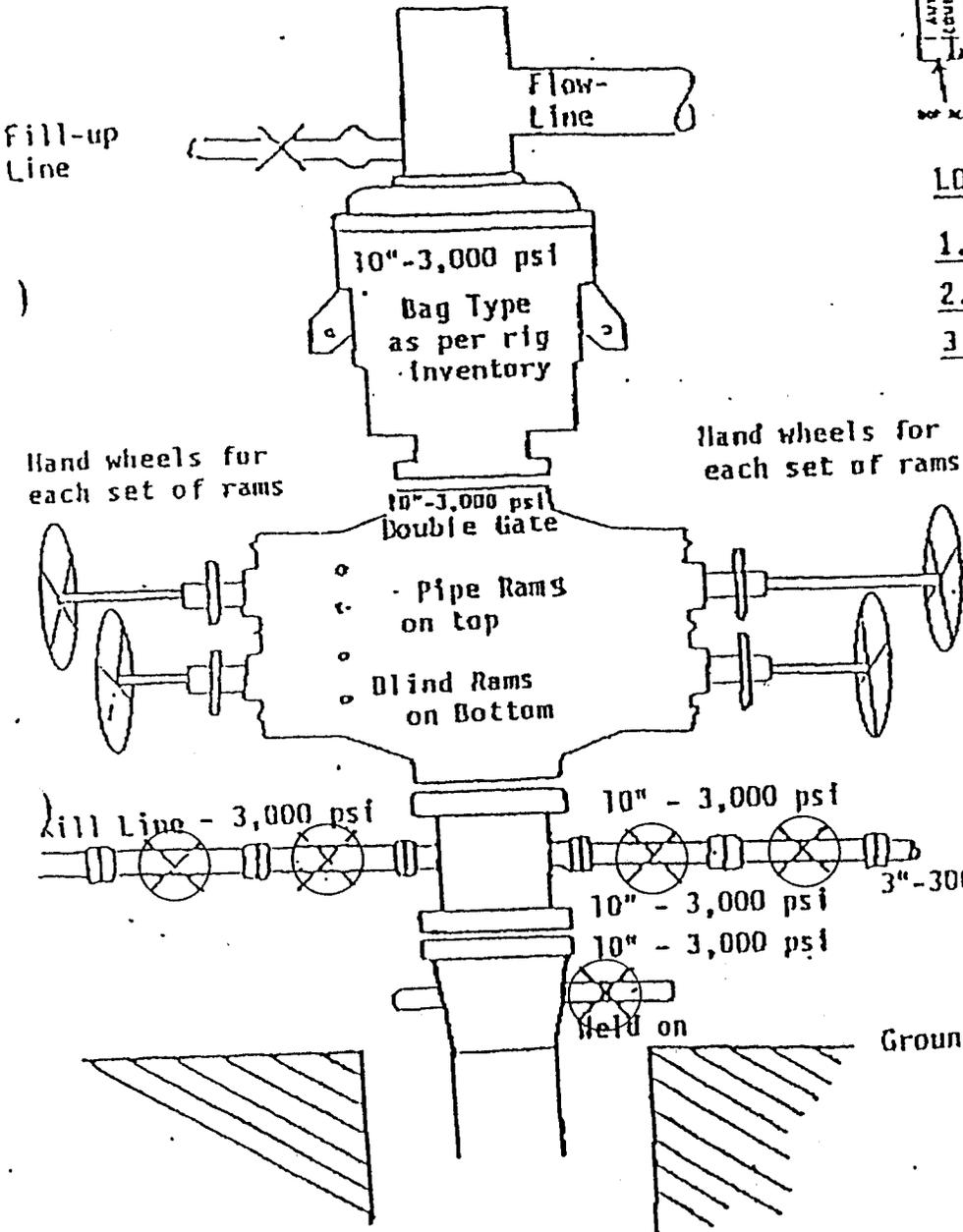
**FIGURE No. 1**  
**3000 psi**

**DOUBLE GATE BAG TYPE BOP STACK  
 W/HYDRAULIC CONTROLS AND CHOKE  
 MANIFOLD FOR:**



LOCATION OF:

1. BOP controls on rig floor.
2. BOP remote controls.
3. BOP accumulator.



⊗ - VALVE

**SURFACE USE PROGRAM OF THE  
APPLICATION FOR PERMIT TO DRILL**

**Company/Operator:** United Utilities Corporation  
**Well Name & Number:** Rockhouse Unit #16  
**Lease Number:** UTU-0780  
**Location:** 890' FNL & 1075' FWL Section 15, T11S, R23E  
Uintah County, Utah  
**Surface Ownership:** United States of America

**NOTIFICATION REQUIREMENTS**

**Location Construction:** Forty eight ( 48 ) hours prior to construction of access and roads and location.

**Location Completion:** Prior to moving in the drilling rig

**Spud Notice:** At least twenty four ( 24 ) hours prior to spudding the well

**Casing String & Cementing:** Twenty four ( 24 ) hours prior to running casing and cementing all strings.

**BOP & Related Tests:** Twenty four ( 24 ) hours prior to initiating pressure tests.

**First Production Notice:** Within five ( 5 ) business days after new well begins or production resumes after the well has been off production for more than ninety ( 90 ) days.

1. Existing Roads: Refer to Map "A" (shown in YELLOW)
  - A. The proposed well site is staked.
  - B. To reach the location continue south on HWY 45 to MILE marker "O". Turn left (Baxter Pass & other signs) onto the secondary road. Continue on the main road past the corrals at Hell's Canyon "Y" and turn right. Stay on the main road through Watson taking the left hand turn at Asphalt Wash and the right fork at the "Y" to Rainbow. Continue on the main road by Kings Well and the corral on the right hand side to a "Y". Continue on the right hand fork for +/- 0.3 mi. Take the left hand turn and proceed 5.9 mi. Staying to the right continue northward on the main road. After +/-5.9 mi. take the left fork and travel +/- 1.4

mi. Take the right turn and travel .9 mi. Take the right turn and travel 0.7 mi. Turn right and travel 0.1 mi. to the well site.

- C. Access roads - refer to Maps "A".
- D. Access roads within a one mile radius - refer to Map "A".
- E. The existing roads will be maintained in the same or better condition as existed prior to the commencement of operations and said maintenance will continue until final abandonment and reclamation of the well location.

2. Planned Access Roads:

Approximately 0.1 mile of new road construction will be required for access to the proposed Rockhouse Unit #16 well location.

- A. Width - 18 foot running surface, crowned and ditched for drilling and completion operations with a 30' right-of-way.
- B. Maximum grade - 7%.
- C. Turnouts - none required.
- D. Drainage design - the access road will be upgraded and maintained as necessary to prevent soil erosion and accommodate year around traffic. Access road will be crowned, ditched, and water turnouts installed as necessary to provide for proper drainage along the access road route.
- E. Culverts, cuts, and fills - None.
- F. Surfacing material - none required for drilling operations. If production is established, surfacing materials for the access road will be purchased from a local contractor having a permitted source of materials in the area, if required by the Authorized Officer, Vernal Resource Area Office, Bureau of Land Management.
- G. Gates, cattle guards or fence cuts - none required.
- H. The new access road route has been flagged.

3. Location of Existing Wells Within a Two Mile Radius:

- A. Water wells - None.
  - B. Abandoned wells - NW SW Section 4, T11S, R23E  
NW SW Section 2, T11S, R23E
  - C. Temporarily abandoned wells - None
  - D. Disposal wells - None.
  - E. Drilling wells - None.
  - F. Producing wells - NE SE Section 3, T11S, R23E  
SW SW Section 3, T11S, R23E  
SE NW Section 9, T11S, R23E  
SW SE Section 9, T11S, R23E  
NE NW Section 9, T11S, R23E  
SW SW Section 10, T11S, R23E  
SE NW Section 10, T11S, R23E  
NE SW Section 11, T11S, R23E
  - G. Shut-in wells - NE SW Section 8, T11S, R23E  
SE SE Section 8, T11S, R23E  
SE NE Section 8, T11S, R23E  
SE SE Section 10, T11S, R23E  
SW NE Section 16, T11S, R23E  
SW NE Section 21, T11S, R23E  
SE SE Section 15, T11S, R23E  
SE NW Section 14, T11S, R23E  
SE SE Section 14, T11S, R23E  
SE NE Section 23, T11S, R23E
  - H. Injection wells - None.
  - I. Monitoring wells - None.
4. Location of Existing and/or Proposed Facilities Owned By United Utilities Corporation  
Within a One Mile Radius:
- A. Existing

1. Tank batteries -
  - Rockhouse Unit #4 SE NW Section 9, T11S, R23E
  - Rockhouse Unit #12 SW SE Section 9, T11S, R23E
  - Rockhouse Unit #14 SW SW Section 10, T11S, R23E
  - Rockhouse Unit #13 SW NW Section 10, T11S, R23E
2. Production facilities -
  - Rockhouse Unit #4 SE NW Section 9, T11S, R23E
  - Rockhouse Unit #12 SW SE Section 9, T11S, R23E
  - Rockhouse Unit #14 SW SW Section 10, T11S, R23E
  - Rockhouse Unit #13 SW NW Section 10, T11S, R23E
3. Oil gathering lines - None.
4. Gas gathering lines -
  - SE 1/4 Section 9, T11S, R23E.
  - SW 1/2 Section 10, T11S, R23E
  - SE 1/4 Section 10, T11S, R23E

B. New Facilities Contemplated

1. All production facilities will be located on the disturbed (cut) portion of the well pad and at a minimum of fifteen (15) feet from the toe of the backout.
2. Production facilities will require an area approximately 300' X 150'. A diagram showing the proposed production facility layout will be submitted to the Authorized Officer via Sundry Notice (Form 3160-5) for approval prior to commencement of installation operations. All loading lines will be placed inside the berm surrounding the tank battery. All off lease storage, off lease measurement, or commingling on lease or off lease will have prior written approval from the AO. Gas meter runs for each well will be located within 500 feet of the wellhead. The gas flowline will be buried or anchored down from the wellhead to the meter and within 500 feet downstream of the meter run or any production facilities. Meter runs will be housed and/or fenced. The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted monthly for the first three months on new meter installations and at least quarterly thereafter. The AO will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the Vernal District Office. All meter measurement facilities will conform with Onshore Oil & Gas Order No. 4 for liquid hydrocarbons and Onshore Oil & Gas Order No. 5 for natural gas

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

3. Production facilities will be accommodated on the well pad. Construction materials needed for installation of the production facilities will be obtained from the site; any additional materials needed will be purchased from a local supplier as required. A dike will be constructed completely around the production tanks. The dikes will be constructed of compacted subsoil, be impervious, hold the capacity of the largest tank plus one foot of free board, and be independent of the back cut.
4. All permanent above the ground structures, tank batteries, etc., that will remain longer than six months will be painted Juniper Green. The exception being that safety rules and regulations will be complied with where special safety colors are required.
5. The pipeline for Rockhouse Unit #16 will be laid to the west to tie into the gathering system in approximately the NW NE Section 16, T11S, R23E . Refer to Map "B".

C. Pit Fences

- a. All pits will be fenced "Sheep-Tight" with 39-inch woven wire and one (1) top strand of barbed wire.
- b. The net wire shall be no more than 2-inches above the ground. The barbed wire will be 3-inches above the net wire. Total height of the fence shall be at least 42 inches.
- c. Corner posts will be braced in such a manner to keep the fence tight at all times.
- d. Standard steel, wood, or pipe posts will be used between the corner braces. The maximum distance between any two posts will be no greater than 16 feet.
- e. All wire will be stretched before it is attached to the corner post by means of a stretching device.

D. During drilling and subsequent operations, all equipment and vehicles will be confined to the access road and any additional areas which may be specified in the approved Application for Permit to Drill.

E. Reclamation of disturbed areas no longer needed for operations will be accomplished by grading, leveling, and seeding with: Fourwing Saltbrush (6

lbs/acre); Beardless Bluebunch Wheatgrass (5 lbs/acre); Yellow Sweetclover (1 lbs/acre) Total of 12 lbs/acre.

5. Location and Type of Water Supply:

Water to be used for drilling this well will be hauled by truck over road marked in green on Map A.

- A. The primary water source will be under State of Utah Water Right Number 49-1547 and Water Right Number 49-1548 from wells :

Rainbow Unit #2-A  
NESW, S 18, T11S,R24E

Rainbow Unit #5  
S/2, S 6, T11S,R24E

Rockhouse Unit #5-A  
SWSE, S 13, T11S,R23E

- B. Secondary water source will be:

From Bitter Creek located approximately SW NW SW Section 25, T11S,R23E

- C. The tertiary water source will be:

Purchased from Vernal City water system and hauled to well site on the roads shown on Map A from Bonanza, Utah.

6. Source of Construction Materials:

- A. No construction materials will be needed for well pad construction; surface and subsurface soils will be sufficient. Refer to Item #2F regarding construction materials which may be required on the access road.
- B. No construction materials will be taken from Federal and/or Indian lands without prior approval from the appropriate Surface Management Agency.
- C. If production is established, any construction materials required for surfacing of the access road and installation of production facilities will be purchased from a local supplier having an approved (permitted) source of materials in the area.

D. No new access roads for construction materials will be required.

7. Methods of Handling Waste Materials:

- A. Cuttings - the cuttings will be deposited in the reserve pit.
- B. Drilling fluids - including salts and chemicals will be contained in the reserve pit and allowed to evaporate. The reserve pit will be designed to prevent the collection of surface runoff and will be constructed with a minimum of one half (1/2) the total depth below the original ground level at the lowest point in the pit.
- C. Produced fluids - hydrocarbons produced during completion operations will be placed in test tanks on the location. Water produced during completion operations will be put into the reserve pit according to Onshore Operating Order #7 (formerly NTL-2B). At first production, produced water will be confined to the reserve pit or storage tanks for a period not to exceed ninety ( 90 ) days. During that 90 day period, in accordance with Onshore Order No. 7, an application for approval of a permanent disposal method and location, along with required water analysis, will be submitted to the AO for approval. Any spills of oil, gas, salt water, or other potentially hazardous materials will be cleaned up and immediately removed to an approved disposal site.
- D. Sewage - portable, self contained chemical toilets will be provided for human waste disposal. The toilet holding tanks will be pumped as necessary, and the contents thereof disposed of at an approved sewage disposal facility under permit #91-0120 from Uintah District Health Department.
- E. Garbage and other waste material - garbage, trash, and other waste material will be collected in a portable, self contained and fully enclosed trash cage during drilling and completion operations. Upon completion of operations (or as needed) the accumulated trash will be disposed of at an authorized sanitary landfill. No trash will be placed in the reserve pit. No burning will be allowed.
- F. Immediately after removal of the drilling rig, all debris and waste materials not contained in the trash cage will be cleaned up and removed from the well location. No adverse materials will be left on the location. Any open pits will be fenced during drilling operations and the fencing maintained until such time as the pits are backfilled.

8. Ancillary Facilities:

None anticipated.

9. Wellsite Layout:

- A. Figure #1 shows the drill site layout as staked. Cross sections have been drafted to visualize the planned cuts and fills across the location (refer to Figure #2). A minimum of six (6) inches of topsoil will be stripped from the location (including areas of cut, fill, and/or subsoil storage) and stockpiled for future reclamation of the well site. Refer to Figure #1 for the location of the topsoil stockpiles.
- B. Figure #1 is a diagram showing the rig layout. No permanent living facilities are planned. There will be approximately four (4) trailers on location: one each for the drilling engineer, geologist, mud logger, and toolpusher.
- C. A diagram showing the proposed production facility layout will be submitted to the Authorized officer via Sundry Notice (Form 3160-5) for approval prior to the commencement of installation operations (Refer to Item #4B for additional information in this regard).
- D. If porous soil or fractured rock is encountered during the excavation of the reserve pit, an inspection will be requested in order to ascertain the necessity of the installation of a pit liner. In the event of competent soils, a pit liner will not be installed.
- E. No silt catchment dams or basins will be required.

10. Plans for Reclamation of the Surface:

- A. If production is established, the unneeded areas of the location will be reclaimed as soon as the reserve pit has dried or no later than 6 months, whichever is sooner. If a plastic reinforced liner is used, it will be torn and perforated before backfilling of the reserve pit. The reserve pit will be cleaned of any cans, barrels, pipe, etc. prior to reclaiming. All waste materials will be disposed of immediately upon termination of drilling and completion activities. The reserve pit and portion of the location not needed for production facilities or operations will be recontoured to the approximate natural contours.
- B. Upon completion of backfilling, leveling and recontouring all disturbed surfaces

(including the access road and well pad areas) will be scarified (ripped) and the stockpiled topsoil will be evenly spread over the reclaimed area(s). The seed bed will be prepared by disking on the contour to an approximate depth of four (4) to six (6) inches, leaving no depressions that would trap water or form ponds.

- C. All disturbed surfaces (including the well pad and access road) will be reseeded using the seed mixture referenced in Paragraph #4 E.

Seed will be drilled on the contour with the seed drill set at a depth of one half (1/2) inch. Fall seeding will be completed after September 1 and prior to ground frost. Spring seeding, to be effective, will be completed after the frost has left the ground and prior to May 15.

- D. Three sides of the reserve pit will be fenced "sheep tight" prior to commencement of drilling operations and the fourth side will be fenced immediately upon removal of the drilling rig. Said fencing will consist of 39-inch woven wire with one (1) top strand of barbed wire. Corner braces will be installed to assure tight fencing in order to protect livestock and wildlife. Please refer to item #4C for additional information regarding the actual fencing specifications.

- E. Immediately upon well completion, any hydrocarbons on the pit shall be removed in accordance with 43 CFR 3162.7-1.

- F. Reclamation operations will begin after the drilling rig has been removed. Removal of oil or other adverse substances will begin immediately or the affected area(s) will be flagged and/or fenced. Other clean up will be done as needed. Reseeding activities are considered best in the Fall, 1996, unless requested otherwise.

11. Surface Ownership:

The well site and proposed access road route are situated on surface estate owned by the United States of America and administered by:

Area Manager  
Vernal District Office  
Bureau of Land Management  
170 South 500 East  
Vernal, Utah 84078

12. Other Information:

- A. Topography: Rolling hills and shallow valleys.
- B. Soil characteristics: Rocky and sandy shale.
- C. Flora: +/- 30% coverage of land with sage brush, bunch grass, prickly pear cactus, etc.
- D. Fauna: Domestic sheep. Mule deer, elk, rabbits, coyotes and rodents.
- E. Surface use: Wildlife management and livestock grazing.
- F. Surface ownership: Location and roads Federal.
- G. Proximity of Water, Occupied Dwellings, Archaeological, Historical, or Cultural Sites:
  - 1. The closest source of permanent water is the White River, located approximately 3 miles to the north.
  - 2. Occupied dwellings: None.
  - 3. There are no known archaeological, historical, or cultural sites, which are potentially eligible for inclusion in the National Register of Historical Places, that will be disturbed by this proposed drilling operation.

United Utilities Corporation will be responsible for informing all persons associated with this project that they shall be subject to prosecution for damaging, altering, excavating or removing any archaeological, historical, or vertebrate fossil objects or site(s).

If archaeological, historical, or vertebrate fossil materials are discovered, United Utilities Corporation will suspend all operations that further disturb such materials and immediately contact the Authorized Officer, Bureau of Land Management. Operations will not resume until written authorization to proceed is issued by the Area Manager, Vernal Resource Area Office, Bureau of Land Management.

Within five (5) working days, the Authorized Officer will evaluate the discovery and inform United Utilities Corporation of actions that will be necessary to prevent loss of significant cultural or scientific values. United Utilities Corporation will, at any time, have the option to relocate

activities to avoid the expense of mitigation and/or the delays associated with this process at which time, the Administrative Officer will assume responsibility for whatever recordation and stabilization of the exposed materials which may be required. Otherwise, United Utilities Corporation will be responsible for mitigation costs. The Authorized Officer will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the Authorized Officer that the required mitigation has been completed, United Utilities Corporation will be allowed to resume operations.

13. Lessee's or Operator's Representative and Certification:

Representative:

Durrell Karren, Field Superintendent  
625 North 100 West  
Vernal, Utah 84078  
Phone (808) 789-2772           (801) 828-8516

Terry J. Cox, Consulting Engineer  
Suite 1120  
1050 17th Street  
Denver, Colorado 80265  
Phone (303) 892-9120           (801) 828-8384 or (801) 828-8771

Contact the above for any additional information which may be required for approval of this Application for Permit to Drill.

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

United Utilities Corporation will be fully responsible for the actions of their subcontractors. A copy of these conditions will be furnished to the field representative(s) to ensure compliance.

The dirt contractor will be provided with a copy of the Surface Use and Operations Plan from the approved Application for Permit to Drill.

SELF CERTIFICATION FOR APPLICATION FOR PERMIT TO DRILL

I hereby certify that United Utilities Corporation is authorized by the proper Lease Interest Owners to conduct lease operations associated with the Application for Permit to Drill the Rockhouse Unit #16 NW 1/4 NW 1/4 Section 15, T11S, R23E, lease UTU-0780. Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by United Utilities Corporation under Statewide Bond #UT-1028 and United Utilities Corporation will be responsible for compliance with all terms and conditions of that portion of the lease associated with this Application for Permit to Drill.

HAZARDOUS MATERIAL DECLARATION FOR APPLICATION FOR PERMIT TO DRILL

No chemical subject to reporting under SARA Title III in an amount equal to or greater than 10,000 pounds will be used, stored, transported, or disposed of annually in association with the drilling of the Rockhouse Unit #16. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities will be used, produced, stored, transported, or disposed of in association with the drilling of this well.

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 United Utilities Corporation, their 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.

5/23/96

Date



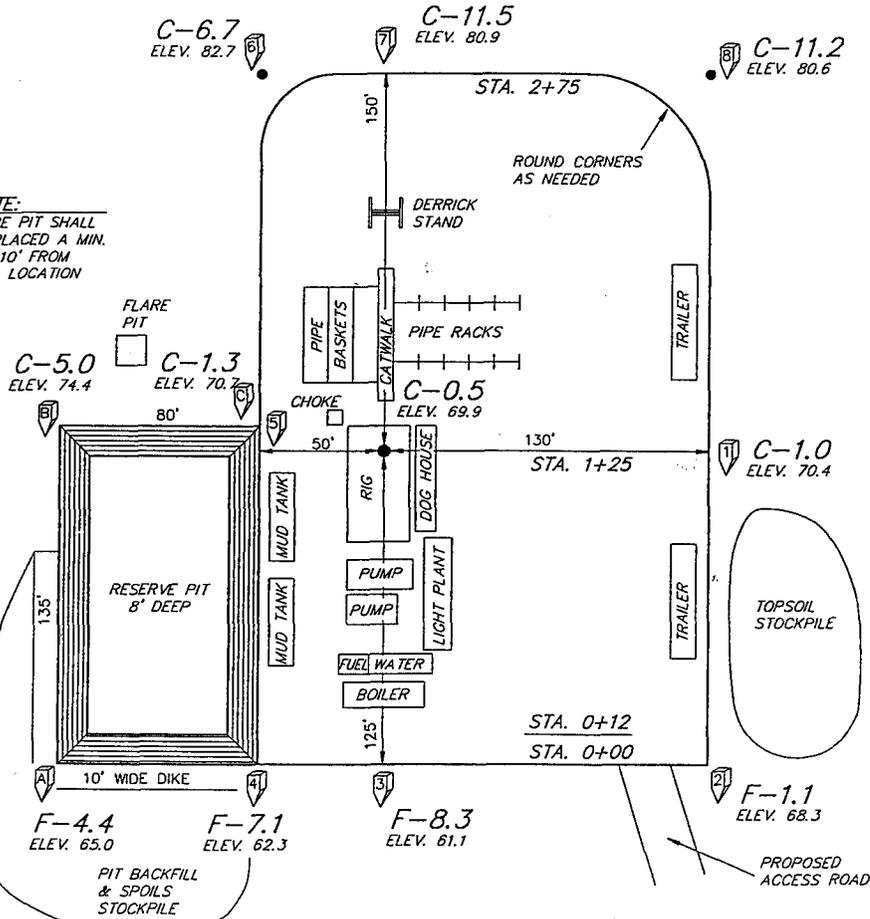
Terry J. Cox  
Agent for United Utilities Corporation

# UNITED UTILITIES INC.

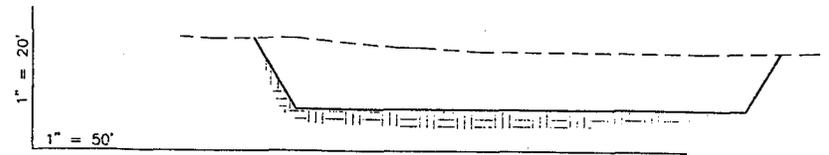
ROCKHOUSE #16  
SECTION 15, T11S, R23E, S.L.B.&M.  
890' FNL 1075' FEL

C-6.7 ELEV. 82.7  
C-11.5 ELEV. 80.9  
C-11.2 ELEV. 80.6

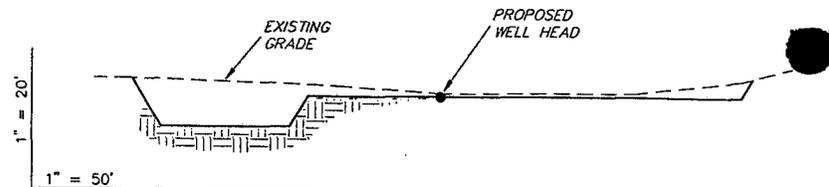
NOTE:  
FLARE PIT SHALL  
BE PLACED A MIN.  
OF 110' FROM  
WELL LOCATION



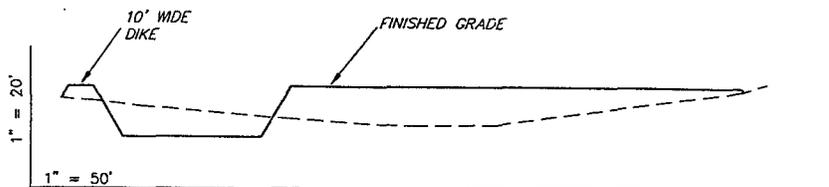
SCALE: 1" = 50'  
DRAWN BY: R.E.H.  
DATE: 5-6-96



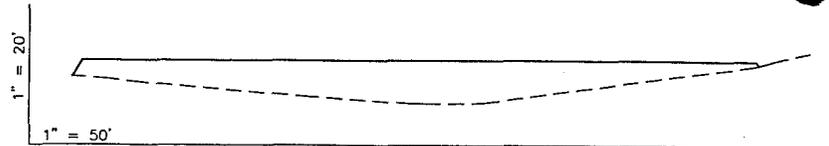
STA. 2+75



STA. 1+25



STA. 0+12



STA. 0+00

## APPROXIMATE YARDAGES

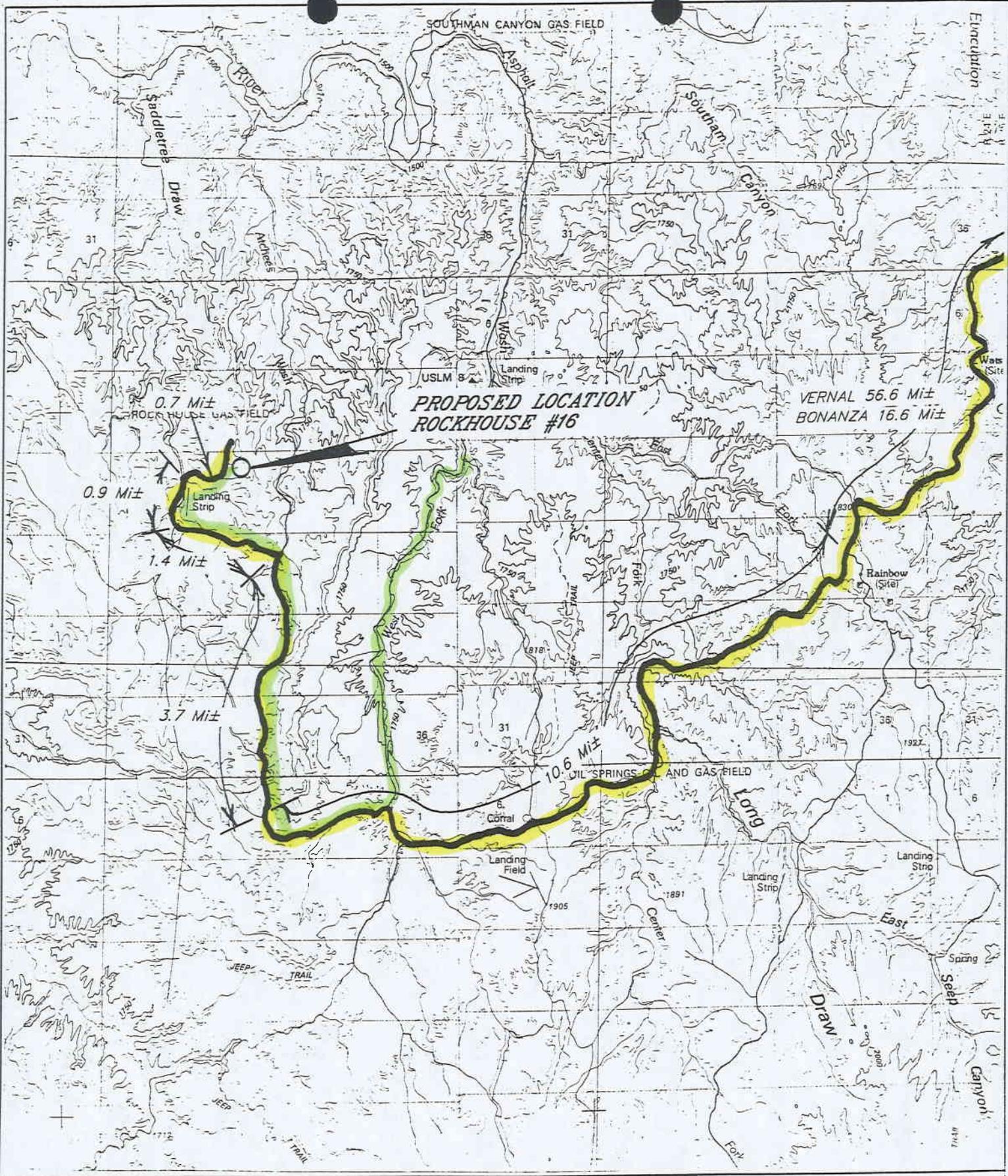
6" TOPSOIL = 940 CU. YDS.  
RESERVE PIT YARDAGE = 2480 CU. YDS.  
TOTAL CUT = 7400 CU. YDS.  
TOTAL FILL = 2200 CU. YDS.  
EXCESS MATERIAL = 5200 CU. YDS.

ELEV. UNGRADED GROUND = 6069.9  
ELEV. FINISHED GRADE = 6069.4

## REFERENCE POINTS

RP 175' 6058.50  
RP 225' 6057.70  
RP 170' 6075.52  
RP 220' 6080.45

PREPARED BY:  
**FOA** Freeman Oster Verone & Associates, Inc.  
The Engineering Group **TE**



**PROPOSED LOCATION  
ROCKHOUSE #16**

VERNAL 56.6 Mi±  
BONANZA 16.6 Mi±

**UNITED UTILITIES INC.**

**FOA** Freston Ostler Vernon & Associates, Inc.  
The Engineering Group

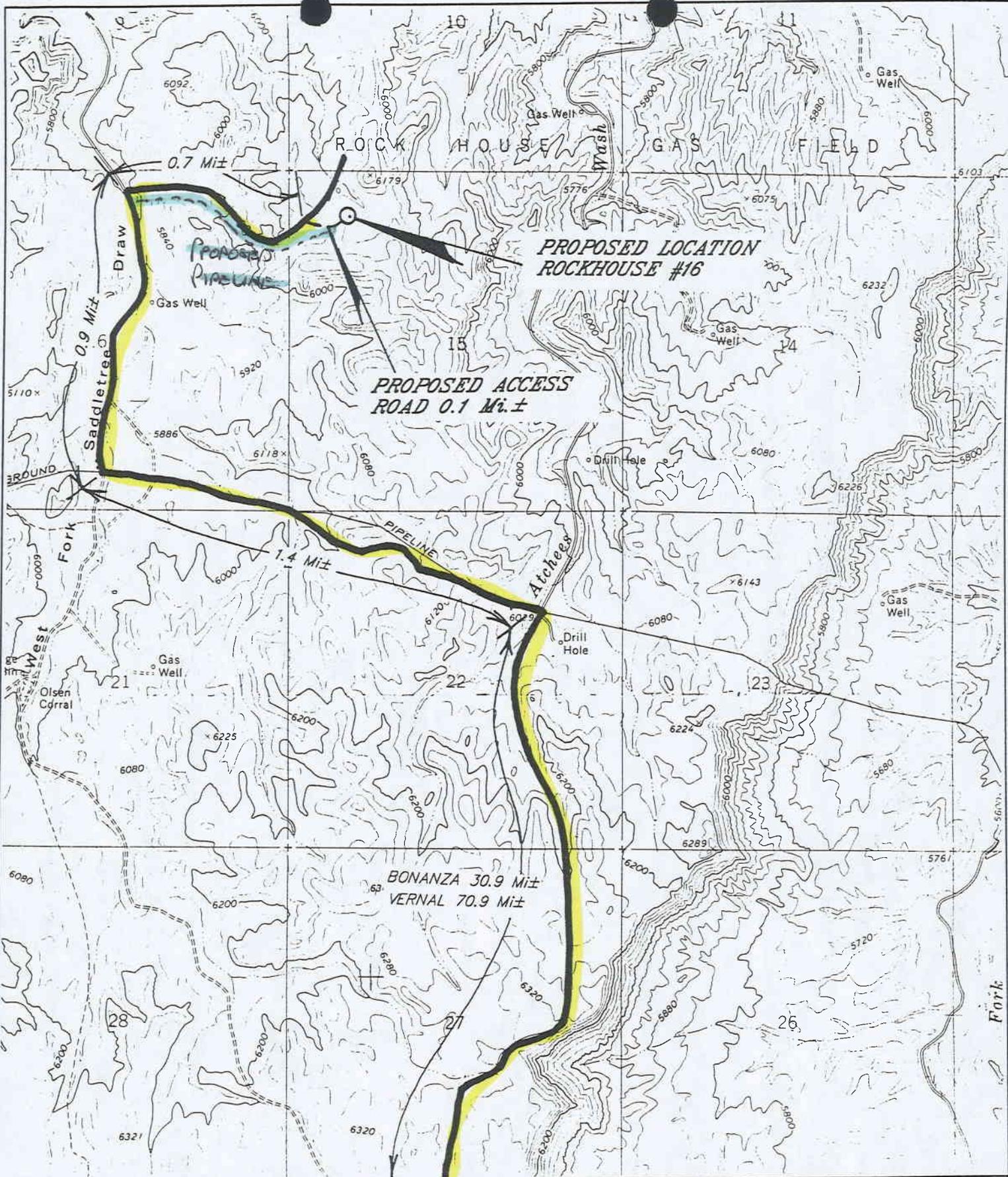


P.O. Box 1790, 100 North Pearl Avenue, Suite 2, Pecos, New Mexico 88079  
Telephone (505) 769-8041 Fax (505) 769-8440 Telex (505) 761-8113

ROCKHOUSE UNIT #16  
SECTION 15, T11S, R23E, S.L.B.&M.  
890' FNL 1075' FEL



TOPO MAP "A"



**UNITED UTILITIES INC.**

**FOVA** Preston Oatler Vernon & Associates, Inc.  
The Engineering Group

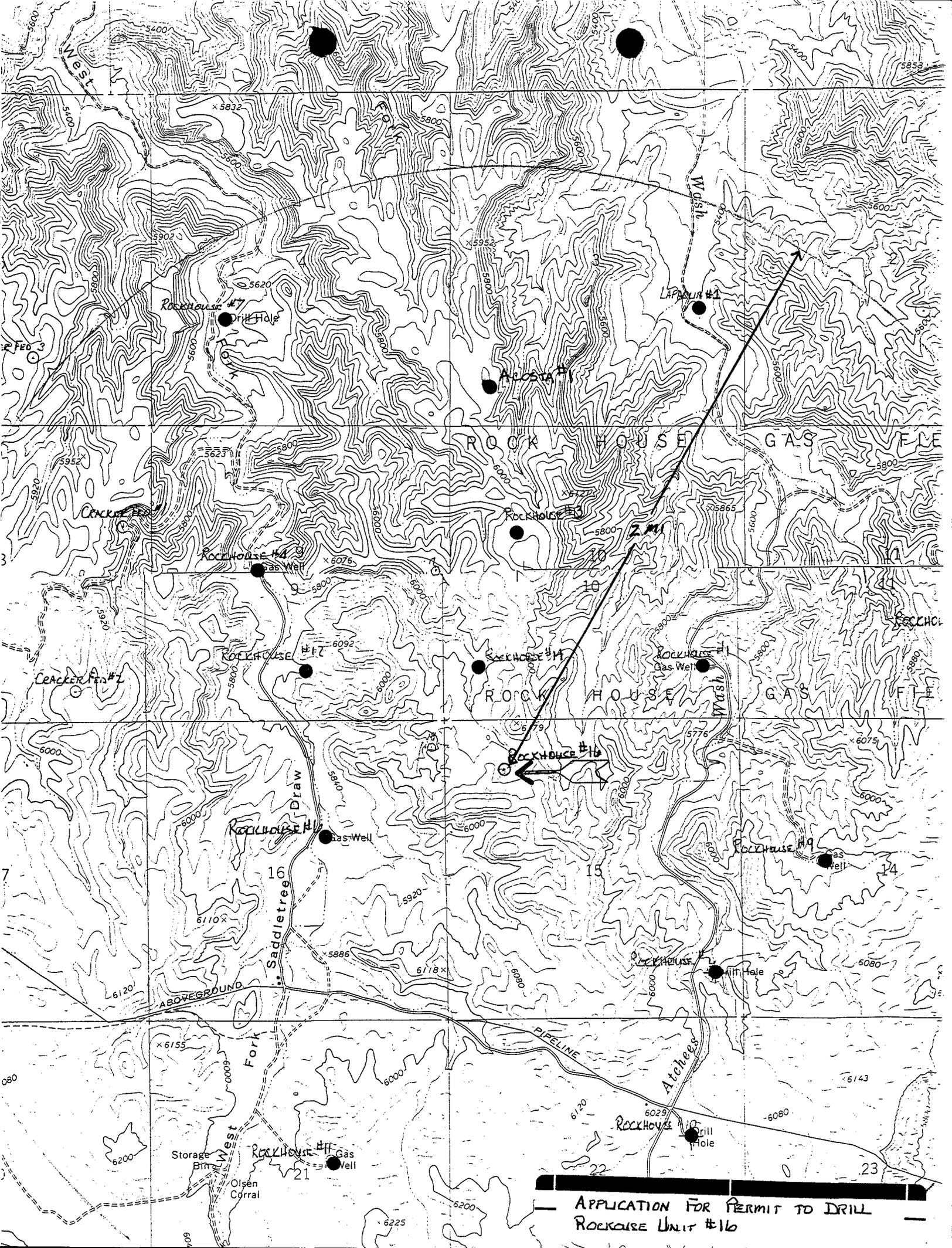


P.O. Box 1792, 100 North Fourth Avenue, Suite 2 Vernal, Utah 84077  
Telephone (435) 782-8841 Fax (435) 782-1488 Telex (981) 711-2112

ROCKHOUSE UNIT #16  
SECTION 15, T11S, R23E, S.L.B.&M.  
890' FNL 1075' FEL



TOPO MAP "B"  
SCALE: 1" = 2000'



APPLICATION FOR PERMIT TO DRILL  
ROCKHOUSE UNIT #10

WORKSHEET  
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 05/28/96

API NO. ASSIGNED: 43-047-32761
--------------------------------

WELL NAME: FEDERAL 16  
 OPERATOR: UNITED UTILITIES (N6360)

PROPOSED LOCATION:  
 NWNW 15 - T11S - R23E  
 SURFACE: 0890-FNL-1075-FWL  
 BOTTOM: 0890-FNL-1075-FWL  
 UINTAH COUNTY  
 ROCKHOUSE FIELD (670)

INSPECT LOCATION BY: / /		
TECH REVIEW	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: FED  
 LEASE NUMBER: UTU - 0780

PROPOSED PRODUCING FORMATION: WSTC

RECEIVED AND/OR REVIEWED:

Plat  
 Bond: Federal [ State [] Fee []  
 (Number UT-1028)  
 Potash (Y/N)  
 Oil shale (Y/N)  
 Water permit  
 (Number 44-1548)  
 RDCC Review (Y/N)  
 (Date: \_\_\_\_\_)

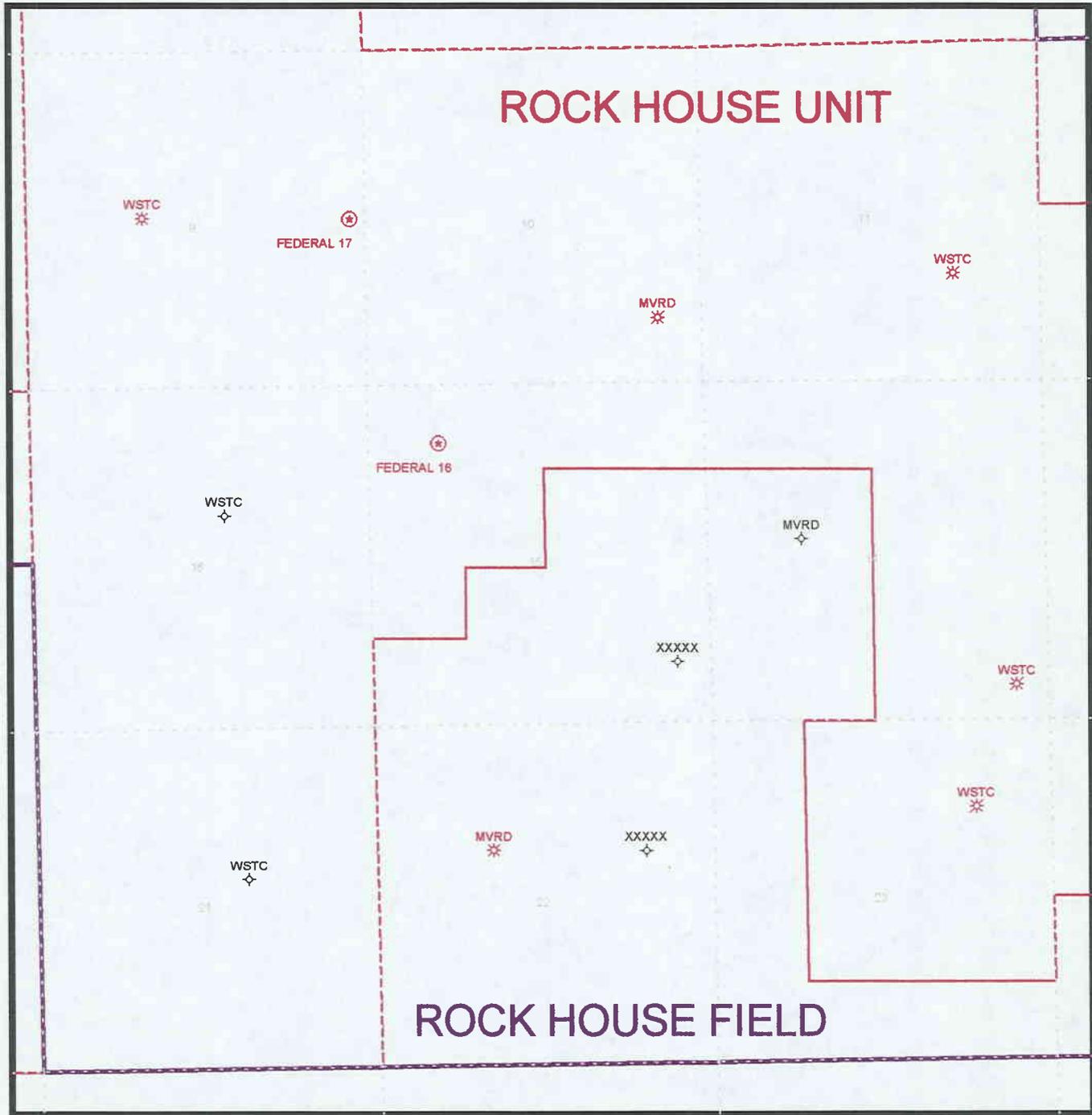
LOCATION AND SITING:

R649-2-3. Unit: ROCKHOUSE UNIT  
 R649-3-2. General.  
 R649-3-3. Exception.  
 Drilling Unit.  
 Board Cause no: \_\_\_\_\_  
 Date: \_\_\_\_\_

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

STIPULATIONS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

UNITED UTILITIES CORP.  
ROCKHOUSE UNIT DEVELOPMENT  
SECTIONS 9 & 15, T11S, R23E  
UINTAH COUNTY, UAC R649-3-3



PREPARED:  
DATE: 29-MAY-96



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

Michael O. Leavitt  
Governor

Ted Stewart  
Executive Director

James W. Carter  
Division Director

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340  
801-359-3940 (Fax)  
801-538-5319 (TDD)

June 4, 1996

United Utilities Corporation  
625 North 100 West  
Vernal, Utah 84078

Re: Federal 16 Well, 890' FNL, 1075' FWL, NW NW, Sec. 15,  
T. 11 S., R. 23 E., 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 43-047-32761.

Sincerely,

R. J. Birch  
Associate Director

lwp

Enclosures

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

WAPD



Operator: United Utilities Corporation  
Well Name & Number: Federal 16  
API Number: 43-047-32761  
Lease: UTU-0780  
Location: NW NW Sec. 15 T. 11 S. R. 23 E.

### 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 following spudding the well or commencing drilling operations. Contact Jimmie Thompson at (801)538-5340.

Notify the Division prior to commencing operations to plug and abandon the well. Contact Frank Matthews or Mike Hebertson at (801)538-5340.

3. Reporting Requirements

All required reports, forms and submittals shall 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.

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: UNITED UTILITIES

Well Name: ROCK HOUSE FEDERAL # 16

Api No. 43-047-32761

Section 15 Township 11S Range 23E County UINTAH

Drilling Contractor NABORS

Rig #: 908

SPUDDED:

Date: 6/21/96

Time: \_\_\_\_\_

How: ROTARY

Drilling will commence: \_\_\_\_\_

Reported by: D. INGRAM-DOGM

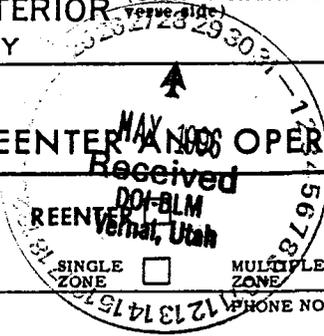
Telephone #: \_\_\_\_\_

Date: 6/24/96 Signed: JLT

105 4/22/96

UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

SUBMIT IN TRIPlicate (Other instructions on reverse side)

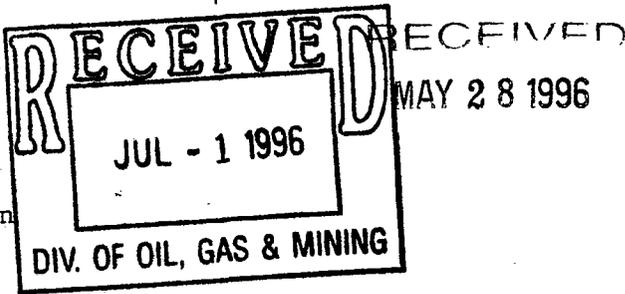


APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR REENTER AND OPERATE

5. LEASE DESIGNATION AND SERIAL NO. UTU-0780
6. IF INDIAN, ALLOTTEE OR TRIBE NAME NA
7. UNIT AGREEMENT NAME Rockhouse Unit
8. FARM OR LEASE NAME Federal
9. WELL NO. 16
10. FIELD AND POOL, OR WILDCAT Rockhouse Gas Field
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 15 T11S, R23E S.L.B. & M.
12. COUNTY Uintah 13. STATE Utah
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE Approximately 34 miles from Bonanza, Utah
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. 890'
16. NO. OF ACRES IN LEASE 760
17. NO. OF ACRES AND/OR DRILLING UNIT ASSIGNED TO THIS WELL 160
18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 5,200'
19. PROPOSED DEPTH 5,612
20. ROTARY OR CABLE TOOLS Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6069 GR
22. APPROX. DATE WORK WILL START 6/5/96

Table with 5 columns: SIZE OF HOLE, SIZE OF CASING, WEIGHT PER FOOT, SETTING DEPTH, QUANTITY OF CEMENT. Row 1: 12 1/4, 9 5/8, 36, 250, 150 sx to surface. Row 2: 7 7/8, 4 1/2, 10.5, 5,612, 1,030 sx to surface.

- Attachments to this APD:
1. Surveyors location plat
2. Well Control Plan
3. Surface use and operating plan
4. Maps & diagrams
5. Self certification statement
6. Hazardous materials declaration



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

24. SIGNED [Signature] TITLE Agent-Consulting Engineer DATE 5/23/96

PERMIT NO. APPROVED BY [Signature] TITLE ASSISTANT DISTRICT MANAGER MINERALS DATE JUN 07 1996

NOTICE OF APPROVAL CONDITIONS OF APPROVAL ATTACHED

See Instructions On Reverse Side

44080-601-136

**CONDITIONS OF APPROVAL**  
**APPLICATION FOR PERMIT TO DRILL**

Company/Operator: United Utilities Corporation

Well Name & Number: Rockhouse Unit 16

API Number: 43-047-32761

Lease Number: U-0780

Location: NWNW Sec. 15 T. 11S R. 23E

**NOTIFICATION REQUIREMENTS**

- Location Construction - at least forty-eight (48) hours prior to construction of location and access roads.
- Location Completion - prior to moving on the drilling rig.
- Spud Notice - at least twenty-four (24) hours prior to spudding the well.
- Casing String and Cementing - at least twenty-four (24) hours prior to running casing and cementing all casing strings.
- BOP and Related Equipment Tests - at least twenty-four (24) hours prior to initiating pressure tests.
- First Production Notice - within five (5) business days after new well begins, or production resumes after well has been off production for more than ninety (90) days.

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

**CONDITIONS OF APPROVAL FOR NOTICE TO DRILL**

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

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 Orders, 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.

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

A. DRILLING PROGRAM

1. Estimated Depth at Which Oil, Gas, Water, or Other Mineral Bearing Zones are Expected to be Encountered

Report ALL water shows and water-bearing sands to Tim Ingwell of this office **prior to setting the next casing string or requesting plugging orders**. Faxed copies of State of Utah form OGC-8-X are acceptable. If noticeable water flows are detected, submit samples to this office along with any water analyses conducted.

All usable water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

2. Pressure Control Equipment

The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc., for a 3M system and individual components shall be operable as designed. Chart recorders shall be used for all pressure tests.

Test charts, with individual test results identified, shall be maintained on location while drilling and shall be made available to a BLM representative upon request.

3. Casing Program and Auxiliary Equipment

Surface casing shall have centralizers on the bottom three joints, with a minimum of one centralizer per joint.

As a minimum, the usable water and oil shale resources shall be isolated and/or protected by having a cement top for the production casing at least 200 ft. above the Top of the Mahogany Oil Shale zone identified at  $\pm 1,469$  ft. If gilsonite is encountered while drilling, it shall be isolated and/or protected via the cementing program.

4. Mud Program and Circulating Medium

Hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing, or completion operations.

No chromate additives will be used in the mud system on Federal and Indian lands without prior BLM approval to ensure adequate protection of fresh water aquifers.

5. Coring, Logging and Testing Program

Daily drilling and completion progress reports shall be submitted to this office on a weekly basis.

All Drill Stem tests (DST) shall be accomplished during daylight hours, unless specific approval to start during other hours is obtained from the AO. However, DSTs may be allowed to continue at night if the test was initiated during daylight hours and the rate of flow is stabilized and if adequate lighting is available (i.e., lighting which is adequate for visibility and vaporproof for safe operations). Packers can be released, but tripping should not begin before daylight unless prior approval is obtained from the AO.

A cement bond log (CBL) will be run from the production casing shoe to  $\pm 1,269$  ft. and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analyses, well-test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the AO.

6. Notifications of Operations

No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the AO. If operations are to be suspended, prior approval of the AO will be obtained and notification given before resumption of operations.

The Vernal District Office shall be notified, during regular work hours (7:45 a.m.-4:30 p.m., Monday through Friday except holidays), at least 24 hours prior to spudding the well.

Operator shall report production data to MMS pursuant to 30 CFR 216.5 using form MMS/3160.

Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported in accordance with the requirements of NTL-3A or its revision.

If a replacement rig is contemplated for completion operations, a "Sundry Notice" (Form 3160-5) to that effect will be filed, for prior approval of the AO, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig.

The date on which production is commenced or resumed will be construed for oil wells as the date on which liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which liquid hydrocarbons are first produced into a permanent storage facility, whichever first occurs; and, for gas wells as the date on which associated liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which gas is first measured through permanent metering facilities, whichever first occurs.

Should the well be successfully completed for production, the AO will be notified when the well is placed in a producing status. Such notification will be sent by telegram or other written communication, not later than five (5) days following the date on which the well is placed on production.

Gas produced from this well may not be vented or flared beyond an initial authorized test period of 30 days or 50 MMCF following its completion, whichever occurs first, without the prior written approval of the Authorized Officer. Should gas be vented or flared without approval beyond the authorized test period, the operator may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted and the operator shall be required to compensate the lessor for that portion of the gas vented or flared without approval which is determined to have been avoidably lost.

A schematic facilities diagram as required by 43 CFR 3162.7-5 (b.9. d.), and shall be submitted to the appropriate District Office within sixty (60) days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 43 CFR 3162.7-5 (b. 4).

No well abandonment operations will be commenced without the prior approval of the AO. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the AO. A "Subsequent Report of Abandonment" Form 3160-5, will be filed with the AO within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the AO or his representative, or the appropriate Surface Managing Agency.

7. Other Information

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

All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the AO.

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted following initial installation and at least quarterly thereafter. The AO will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the Vernal District Office. All meter measurement facilities will conform with Onshore Oil & Gas Order No. 4 for liquid hydrocarbons and Onshore Oil & Gas Order No. 5 for natural gas measurement.

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

There will be no deviation from the proposed drilling and/or workover program without prior approval from the AO. Safe drilling and operating practices must be observed. All wells,

whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.

"Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3162.3-2.

Section 102(b)(3) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at Title 43 CFR 3162.4-1(c), requires that "not later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160-5, or orally to be followed by a letter or sundry notice, of the date on which such production has begun or resumed."

If you fail to comply with this requirement in the manner and time allowed, you shall be liable for a civil penalty of up to \$10,000 per violation for each day such violation continues, not to exceed a maximum of 20 days. See Section 109(c)(3) of the Federal Oil and Gas Royalty Management Act of 1982 and the implementing regulations at Title 43 CFR 3162.4-1(b)(5)(ii).

APD approval is valid for a period of one (1) year from the signature date. An extension period may be granted, if requested, prior to the expiration of the original approval period.

In the event after-hours approval or notification is necessary, please contact one of the following individuals:

Wayne Bankert Petroleum Engineer	(801) 789-4170
Ed Forsman Petroleum Engineer	(801) 789-7077
Jerry Kenczka Petroleum Engineer	(801) 789-1190
BLM FAX Machine	(801) 781-4410

### EPA'S LIST OF NONEXEMPT EXPLORATION AND PRODUCTION WASTES

While the following wastes are nonexempt, they are not necessarily hazardous.

- Unused fracturing fluids or acids
- Gas plant cooling tower cleaning wastes
- Painting wastes
- Oil and gas service company wastes, such as empty drums, drum rinsate, vacuum truck rinsate, sandblast media, painting wastes, spent solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums, transporting or containing nonexempt waste
- Refinery wastes
- Liquid and solid wastes generated by crude oil and tank bottom reclaimers
- Used equipment lubrication oils
- Waste compressor oil, filters, and blowdown
- Used hydraulic fluids
- Waste solvents
- Waste in transportation pipeline-related pits
- Caustic or acid cleaners
- Boiler cleaning wastes
- Boiler refractory bricks
- Incinerator ash
- Laboratory wastes
- Sanitary wastes
- Pesticide wastes
- Radioactive tracer wastes
- Drums, insulation and miscellaneous solids.

**CONDITIONS OF APPROVAL**  
**FOR THE SURFACE USE PROGRAM OF THE**  
**APPLICATION FOR PERMIT TO DRILL**

- No vehicle travel will be allowed off of the existing roads or ROW.
- The topsoil will be windrowed on the west side of the location between stakes 2 and 8 and the trees should be on the north end of the location between stakes 2 and 4.
- The access road will enter the location at stake 8 instead of as shown on cut sheet.

OPERATOR UNITED UTILITIES CORP  
ADDRESS 7670 WOODWAY SUITE 340  
HOUSTON, TX 77063-1520

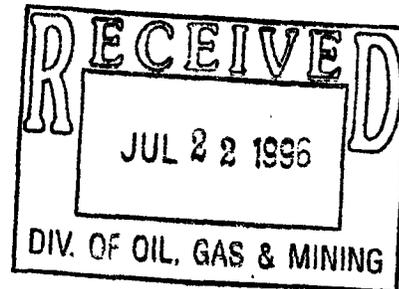
OPERATOR ACCT. NO. N 6360

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
B	02025	99998	43-047-32761	ROCKHOUSE FEDERAL UNIT # 16	NW NW	15	11S	23E	UINTAH	6-18-96	
WELL 1 COMMENTS: ROCKHOUSE UNIT WELL-PLUG AND ABANDON PA'd 6-28-96. <i>Luc</i>											
A	99999	11949	43-047-32753	ROCKHOUSE #13-A	SW NW	10	11S	23E	UINTAH	7-5-96	
WELL 2 COMMENTS: Entity added 7-23-96. <i>Luc</i>											
B	02025	→	(STATE) 43-047-32762	ROCKHOUSE UNIT #18	NE NE	16	11S	23E	UINTAH	7-11-96	
WELL 3 COMMENTS: ROCKHOUSE UNIT Entity added 7-23-96. <i>Luc</i>											
WELL 4 COMMENTS:											
WELL 5 COMMENTS:											

- ACTION CODES (See instructions on back of form)
- A - Establish new entity for new well (single well only)
  - B - Add new well to existing entity (group or unit well)
  - C - Re-assign well from one existing entity to another existing entity
  - D - Re-assign well from one existing entity to a new entity
  - E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

(3/89)



Signature J. Anderson Walker  
Date 7-17-96  
Title \_\_\_\_\_  
Phone No. (801) 789-2772

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**

SUBMIT IN DUPLICATE

(See instructions on reverse side)

FORM APPROVED  
OMB NO. 1004-0137  
Expires: February 28, 1995

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG\***

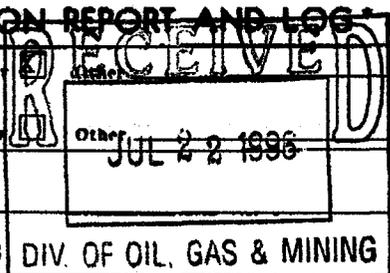
**1a. TYPE OF WELL:** OIL WELL  GAS WELL  DRILLING  OTHER

**1. TYPE OF COMPLETION:**  
NEW WELL  WORK OVER  DEEPEN  PLUG BACK  DIFF. GEN'Y

**2. NAME OF OPERATOR:**  
UNITED UTILITIES CORP.

**3. ADDRESS AND TELEPHONE NO.:**  
625 North 100 West Vernal Utah 84078 DIV. OF OIL, GAS & MINING

**4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements):**  
At surface 890' FNL & 1075' FWL, Sec 15, T 11S, R23E  
At top prod. interval reported below same  
At total depth same



**5. LEASE DESIGNATION AND SERIAL NO.:**  
UTU-0780

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

**7. UNIT AGREEMENT NAME:**  
ROCKHOUSE

**8. FARM OR LEASE NAME, WELL NO.:**  
16

**9. API WELL NO.:**  
43-047-32761

**10. FIELD AND POOL, OR WILDCAT:**  
ROCKHOUSE GAS FIELD

**11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA:**  
SEC. 15, T11S, R23E  
S.L.B.&M

**12. COUNTY OR PARISH:** UTAH **13. STATE:** UTAH

**14. PERMIT NO.:** \_\_\_\_\_ **DATE ISSUED:** 6-7-96

**15. DATE SPUDDED:** 6-21-96 **16. DATE T.D. REACHED:** 6-28-96 **17. DATE COMPL. (Ready to prod.):** D&A **18. ELEVATIONS (DF, R&D, RT, CR, ETC.):\*** 6081.9 **19. ELEV. CASINGHEAD:** 6069.9

**20. TOTAL DEPTH, MD & TVD:** 5480' **21. PLUG BACK T.D., MD & TVD:** \_\_\_\_\_ **22. IF MULTIPLE COMPL., HOW MANY?\*** \_\_\_\_\_ **23. INTERVALS DRILLED BY:** \_\_\_\_\_ **ROTARY TOOLS:** 10-TD **CABLE TOOLS:** \_\_\_\_\_

**24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*:** None **25. WAS DIRECTIONAL SURVEY MADE:** No

**26. TYPE ELECTRIC AND OTHER LOGS R/N:** CNL/FDC Induction 7-22-96 **27. WAS WELL COBBED:** No

**28. CASING RECORD (Report all strings set in well)**

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
9 5/8 K-55	36	272'	12 1/4	Surface	None

**29. LINER RECORD** **30. TUBING RECORD**

SIZE	TOP (MD)	BOTTOM (MD)	BACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

**31. PERFORATION RECORD (Interval, size and number):**  
Plug #1: 3485'-3685' Tagged Plug  
Plug #2: 1409'-1759'  
Plug #3: 164'-364'  
Plug #4: 50' to surface

**32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.:**

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

**33. PRODUCTION**

**DATE FIRST PRODUCTION:** \_\_\_\_\_ **PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump):** \_\_\_\_\_ **WELL STATUS (Producing or shut-in):** P&A

DATE OF TEST	HOURS TESTED	CHOKED SIZE	PROD'N. FOR TEST PERIOD	OIL--BSL.	GAS--MCF.	WATER--BSL.	GAS-OIL RATIO

**FLOW, TUBING PRESS.:** \_\_\_\_\_ **CASING PRESSURE:** \_\_\_\_\_ **CALCULATED 24-HOUR RATE:** \_\_\_\_\_ **OIL--BSL.:** \_\_\_\_\_ **GAS--MCF.:** \_\_\_\_\_ **WATER--BSL.:** \_\_\_\_\_ **OIL GRAVITY-API (CORR.):** \_\_\_\_\_

**34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.):** \_\_\_\_\_ **TEST WITNESSED BY:** \_\_\_\_\_

**35. LIST OF ATTACHMENTS:**  
Logs under separate cover

**36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records**

SIGNED Daniel D. [Signature] TITLE VP United Utilities Corp DATE 7-19-96

\*(See Instructions and Spaces for Additional Data on Reverse Side)

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries);

38. GEOLOGIC MARKERS

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH	TOP TRUE VERT. DEPTH
Wasatch Meas Verde	3604 5325	5325 T.D.				

