

Petroglyph Operating Co., Inc.
P.O. Box 1839
Hutchinson, KS 67504-1839

November 6, 1996

Utah Division of Oil, Gas, & Mining
Attn: Mr. Frank Matthews, Petroleum Engineer
1594 West North Temple
Box 145801
Salt Lake City, UT 84114-5801

RE: APPLICATION FOR PERMIT TO DRILL
UTE TRIBAL #18-14
SE/SW SEC.18, T5S, R3W
DUCHESNE COUNTY, UTAH
LEASE NO. BIA 14-20-H62-3513
UTE TRIBAL LANDS

Dear Mr. Matthews:

Enclosed please find a copy of the Application for Permit to Drill and associated attachments for the referenced well.

Please address further communication regarding this matter (including approval) to:

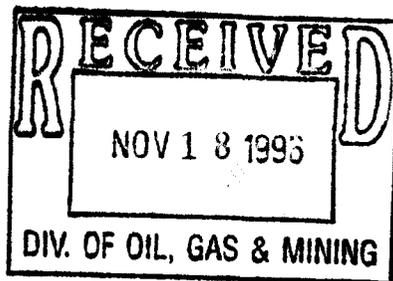
Ed Trotter
P.O. Box 1910
Vernal, UT 84078
Phone # (801) 789-4120
Fax # (801) 789-1420

Sincerely,



Ed Trotter
Agent

Petroglyph Operating Co., Inc.



Attachments

/EHT/dmt

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
 DRILL DEEPEN

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

2. NAME OF OPERATOR
 PETROGLYPH OPERATING COMPANY, INC.

3. ADDRESS AND TELEPHONE NO.
 P.O. BOX 607, ROOSEVELT, UT 84066

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
 At surface 660' FSL & 1980' FWL SE/SW
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 18.5 MILES SOUTHWEST OF MYTON, UTAH

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. 660'
 (Also to nearest drig. unit line, if any)

16. NO. OF ACRES IN LEASE
 640

17. NO. OF ACRES ASSIGNED TO THIS WELL
 40

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

19. PROPOSED DEPTH
 5803.1' GRRV

20. ROTARY OR CABLE TOOLS
 ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 6031.1' GRADED GROUND

22. APPROX. DATE WORK WILL START*
 NOVEMBER, 1996

5. LEASE DESIGNATION AND SERIAL NO.
 14-20-H62-3513

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
 UTE INDIAN TRIBE

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.
 UTE TRIBAL

9. API WELL NO.
 #18-14

10. FIELD AND POOL, OR WILDCAT
 ANTELOPE CREEK 060

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
 Sec. 18, T5S, R3W

12. COUNTY OR PARISH
 DUCHESNE

13. STATE
 UTAH

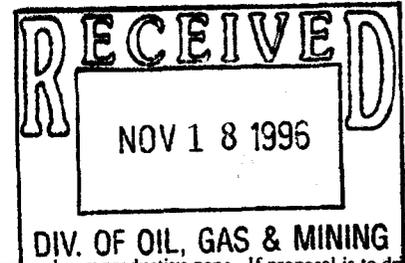
23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4	8 5/8	24.0#	250'	135 sx class "G" + 2% CaCl ₂ + 1/4 #/sx celloflake. 50/50 POZMIX + 2% GEL + 10% SALT TO 400' ABOVE ALL ZONES OF INTEREST (+ 10% EXCESS). LIGHT CEMENT (11 PPG +) + LCM TO 200' ABOVE OIL SHALE OR FRESH WATER INTERVALS (+ 5% EXCESS).
7 7/8	5 1/2	15.5#	5803.1'	

CONFIDENTIAL

PETROGLYPH OPERATING COMPANY, INC. WILL BE THE DESIGNATED OPERATOR OF THE SUBJECT WELL UNDER BOND # BO 4556.

pc: Utah Division of Oil, Gas, and Mining
Bureau of Indian Affairs, Fort Duchesne, Utah
Ute Tribe, Fort Duchesne, Utah



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

24. SIGNED [Signature] TITLE AGENT FOR PETROGLYPH DATE 11-6-96

(This space for Federal or State office use)

PERMIT NO. 43-013-31746 APPROVAL DATE _____

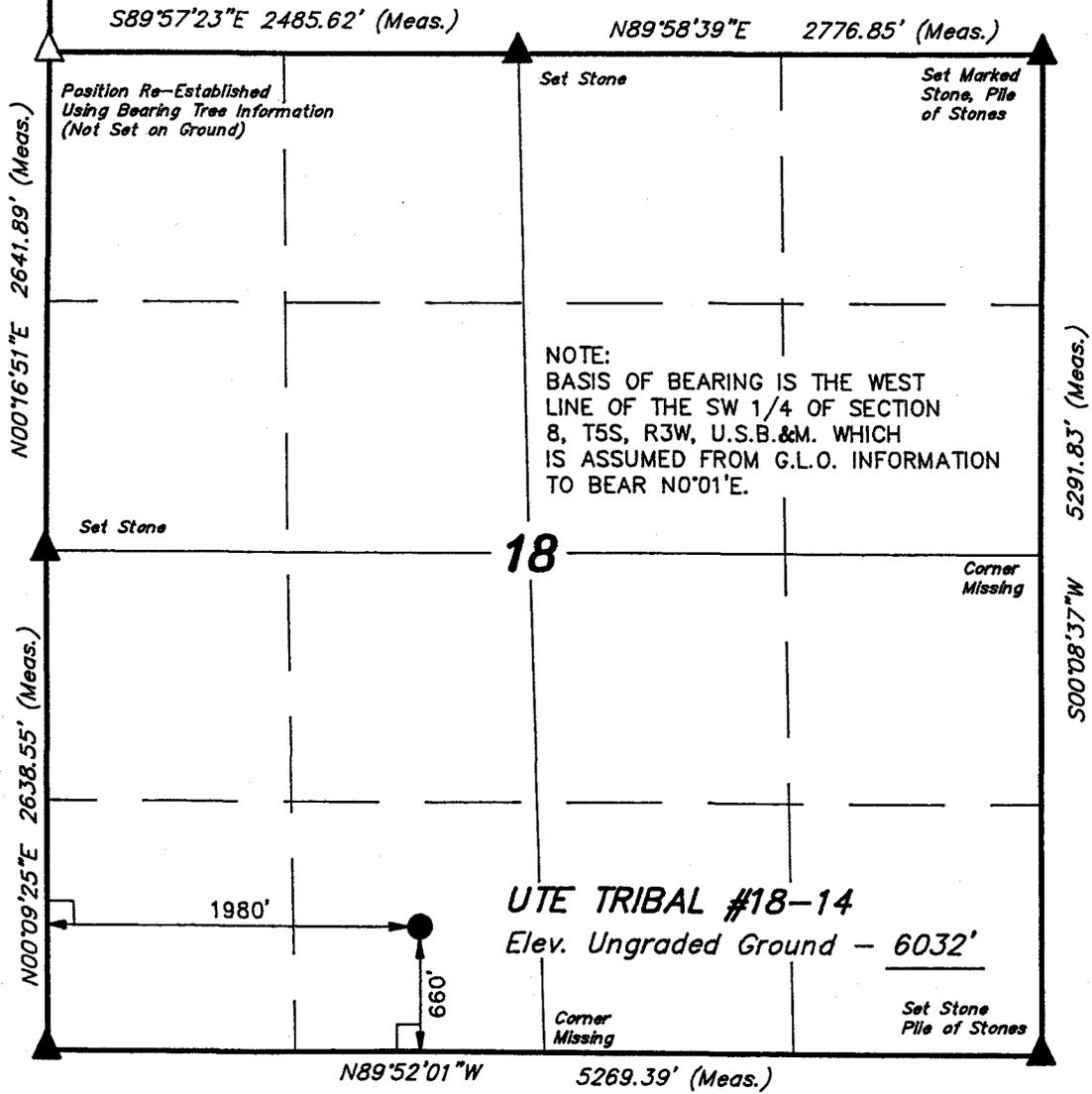
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY [Signature] TITLE Petroleum Engineer DATE 1/14/97

*See Instructions On Reverse Side

R
4
W

T5S, R3W, U.S.B.&M.

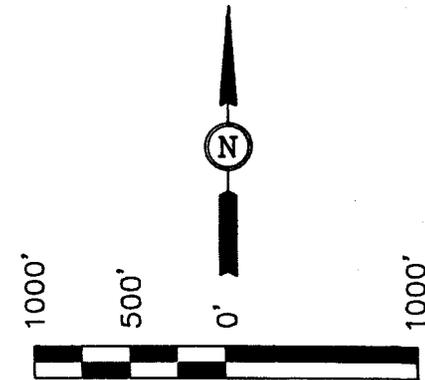


PETROGLYPH OPERATING CO., INC.

Well Location, UTE TRIBAL #18-14, located as shown in SE 1/4 SW 1/4 of Section 18, T5S, R3W, U.S.B.&M. Duchesne County, Utah.

BASIS OF ELEVATION

SPOT ELEVATION AT THE NORTHEAST CORNER OF SECTION 18, T5S, R3W, U.S.B.&M. TAKEN FROM THE DUCHESNE SE QUADRANGLE, UTAH, DUCHESNE COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5943 FEET.



SCALE

CERTIFICATE

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

Robert L. Hay
 REGISTERED LAND SURVEYOR
 REGISTRATION NO. 161319
 STATE OF UTAH

LEGEND:

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

UINTAH ENGINEERING & LAND SURVEYING

85 SOUTH 200 EAST - VERNAL, UTAH 84078

(801) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 9-25-96	DATE DRAWN: 9-27-96
PARTY B.B. B.H. C.B.T.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE PETROGLYPH OPERATING CO., INC.	

EIGHT POINT PLAN

UTE TRIBAL #18-14
SE/SW SEC. 18, T5S R3W
DUCHESNE COUNTY, UTAH

1. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:

FORMATIONS	DEPTH	SUBSEA
Mahogany Shale	2602.1	3439
'X' marker	4171.1	1870
Douglas Creek	4311.1	1730
"B" Limestone	4743.1	1298
B/Castle Peak Limestone	5261.1	780
Basal Carbonate Limestone	5693.1	348
Total Depth	5803.1	238

Anticipated BHP 2500 psi

2. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS FORMATIONS:

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>	<u>Subsea</u>
Oil/Gas	Douglas Creek	4311.1	1730
Oil/Gas	B/Castle Peak	5261.1	780
Other mineral zones	N/A		

3. PRESSURE CONTROL EQUIPMENT : BOP Schematic Diagram attached.

4. CASING PROGRAM :

<u>HOLE SIZE</u>	<u>INTERVAL</u>	<u>LENGTH</u>	<u>SIZE</u>	<u>WEIGHT</u>	<u>GRADE</u>	<u>MINIMUM SAFETY FACTOR</u>		
						<u>COLLAPSE</u>	<u>BURST</u>	<u>TENSILE</u>
12 1/4	0' - 250'	250'	8 5/8	24.0 #	J-55	1370 PSI	2950 PSI	263,000#
7 7/8	0' - 5803.1'	5803.1'	5 1/2	15.5 #	M-50	3650 PSI	4550 PSI	186,000#

All casing will be new or inspected.

EIGHT POINT PLAN

UTE TRIBAL #18-14
SE/SW SEC. 18, T5S R3W
DUCHESNE COUNTY, UTAH

5. MUD PROGRAM

INTERVAL

0' - 250'
250' - 4000'
4000' - TD
TD

MUD TYPE

Air
Air/Mist & Aerated Water
Air/3% KCL water or KCL substitute
Gel/polyacrylamide polymer w/5-10% LCM

Sufficient mud inventory will be maintained on location during drilling to handle any adverse conditions that may arise.

6. VARIANCE REQUESTS:

- A. Petroglyph Operating Co., Inc. requests a variance to regulations requiring a straight run blooie line.
- B. Petroglyph Operating Co., Inc. requests a variance to regulations requiring an automatic ignitor or continuous pilot light on the blooie line.

7. EVALUATION PROGRAM:

Logs: Mud Logging	T.D. to base of surface csg.
Compensated Density-Compensated Neutron Log	T.D. to base of surface csg.
Dual Laterolog - Micro-SFL	T.D. to base of surface csg.
Numar (Magnetic Resonance Imaging Log)	@ Geologists discretion

Cores: None Programmed
DST': None Programmed

Completion: To be submitted at a later date.

8. ABNORMAL CONDITIONS:

None anticipated.

EIGHT POINT PLAN

UTE TRIBAL #18-14
SE/SW SEC. 18, T5S R3W
DUCHESNE COUNTY, UTAH

9. STANDARD REQUIRED EQUIPMENT:

- A. Choke Manifold
- B. Kelly Cock
- C. Stabbing Valve
- D. Visual Mud Monitoring

10. HAZARDOUS CHEMICALS:

No chemicals subject to reporting under SARA title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling of this well. 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.

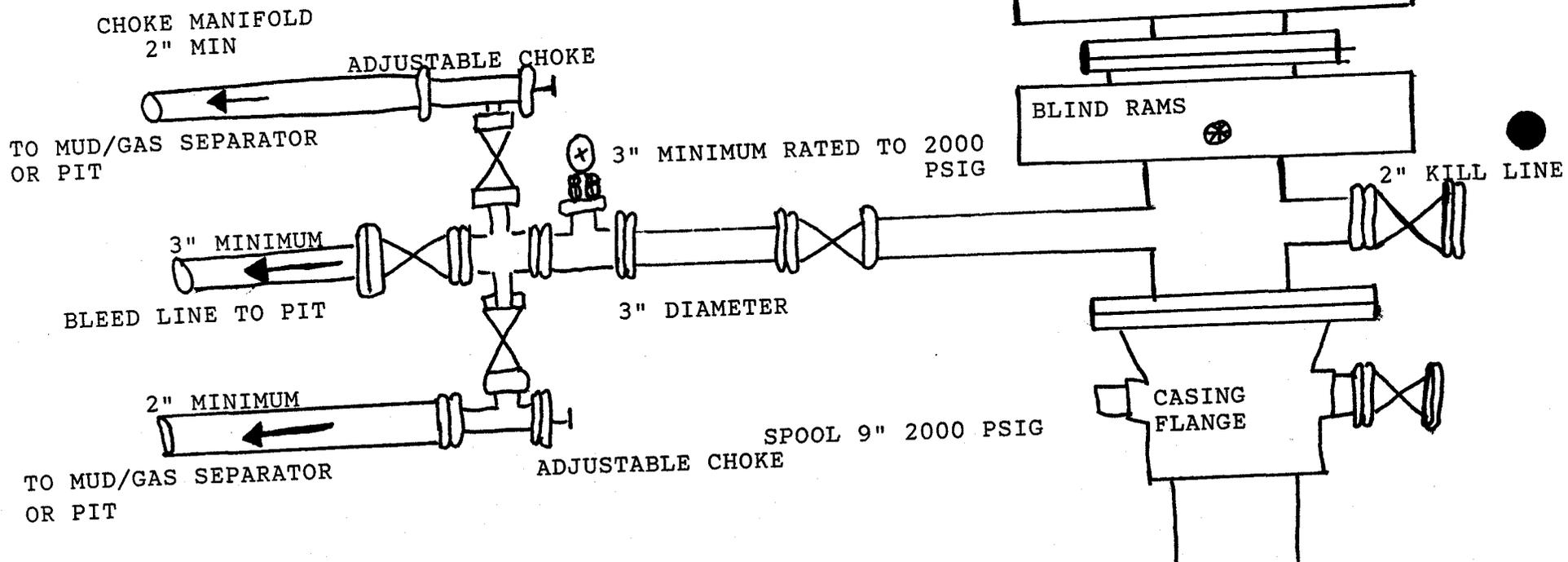
(Attachment: BOP Schematic Diagram)

2000 PSIG DIAGRAM

BOTH RAMS ARE 2000 PSIG RATED.
 CASING FLANGE IS 9" 2000 PSIG RATED.
 BOPE 9" 2000 PSIG

TESTING PROCEDURE:

1. BOPE 's will be tested with a professional tester to conform to Onshore Order #2 with retest every 14 days.
2. Blind rams will be tested to rated working pressure, 2000 psig
3. Casing will be tested to 0.22 psi/ft. or 1500 psig. Not to exceed 70% of burst strength, whichever is greater.
4. All lines subject to well pressure will be pressure tested to the same pressure as blind & pipe rams.
5. All BOPE specifications and configurations will meet Onshore Order #2 requirements for 2000 psig BOPE specifications.



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

Company/Operator: Petroglyph Operating Co., Inc.
Well Name & Number: Ute Tribal #18-14
Lease Number: BIA 14-20-H62-3513
Location: 660' FSL & 1980' FWL SE/SW, Sec. 18, T5S R3W
U.S.B.&M., Duchesne County, Utah
Surface Ownership: Ute Indian Tribe

NOTIFICATION REQUIREMENTS

- Location Construction - 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 - twenty-four (24) hours prior to running casing and cementing all casing strings.
- BOP and related Equipment Tests - twenty-four (24) hours prior to running casing and 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.

THIRTEEN POINT SURFACE USE PROGRAM

1. EXISTING ROADS

- A. See attached Wellsite Plats showing directional reference stakes on location, and attached TOPO Map "B" showing access to location from existing road.
- B. The proposed well site is located approximately 18.5 miles southwest of Myton, Utah - See attached TOPO Map "A".
- C. Refer to attached Topographic Map "A" showing labeled access route to location.
- D. Existing roads will be maintained and repaired as necessary. No off lease Right-of-Way will be required.

2. PLANNED ACCESS ROAD

- A. The access road will be approximately 130 feet in length. See attached TOPO Map "B"
- B. The access road has a 30 foot ROW w/18 foot running surface.
- C. Maximum grade on access road will be 8%
- D. No turnouts will be required.
- E. Road drainage crossings shall be of the typical dry creek drainage crossing type.
- F. No culverts, bridges or major cuts & fills will be required.
- G. The access road will be dirt surface.
- H. No gates, cattleguards or fences will be required or encountered.

New or reconstructed roads will be centerlined - flagged at time of location staking.

All travel will be confined to existing access road Right-of-Way. Access roads and surface disturbing activities will conform to standards outlined in the Bureau of Land Management and Forest Service Publication: Surface Operating Standards For Oil & Gas Exploration and Development, (1989).

The road shall be upgraded to meet the standards of the anticipated traffic flow and all-weather road requirements. Upgrading shall include ditching, drainage, graveling, crowning, and capping the

roadbed as necessary to provide a well-constructed safe road.

Prior to upgrading, the road shall be cleared of any snow cover and allowed to dry completely. Traveling off the 30 foot Right-of- Way will not be allowed.

Road drainage crossings shall be of the typical dry creek drainage crossing type. Crossings shall be designed so they will not cause siltation or accumulation of debris in the drainage crossings nor shall the drainages be blocked by the roadbed. Erosion of drainage ditches by run off water shall be prevented by diverting water off at frequent intervals by means of cutouts. Upgrading shall not be allowed during muddy conditions. Should mud holes develop, they shall be filled in and detours around them avoided.

As operator, Petroglyph Operating Co., Inc. shall be responsible for all maintenance on cattleguards, or gates associated with this oil and/or gas operation.

3. LOCATION OF EXISTING WELLS WITHIN A ONE MILE RADIUS OF PROPOSED WELL LOCATION

- A. Water wells - None
- B. Abandoned wells - None
- C. Temporarily abandoned wells - None.
- D. Disposal wells - None.
- E. Drilling wells - None.
- F. Producing wells - 8*
- G. Shut in wells - None
- H. Injection wells - None

(*See attached TOPO map "C" for location)

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

A. ON WELL PAD

- 1. Tank batteries - Yes
- 2. Production facilities-To be submitted later
- 3. Oil gathering lines - None

4. Gas gathering lines-None
5. Injection lines - None
6. Disposal lines - None
7. Surface pits - None

B. OFF WELL PAD

1. Proposed location of attendant off pad flowlines shall be flagged prior to archaeological clearance.
2. A 4 1/2" OD steel pipeline will be laid approximately 1810' from proposed location to a point in the NW/SE of Section 18, T5S, R3W, where it will tie into Petroglyph Operating Co., Inc.'s existing pipeline. Proposed pipeline crosses Ute Tribe lands, thus a Right-of-Way grant will be required. See attached TOPO Map D showing pipeline route.
3. Proposed pipeline will be a 4 1/2" OD steel, welded line laid on the surface.
4. Protective measures and devices for livestock and wildlife will be taken and/or installed where required.

If storage facilities/tank batteries are constructed on this lease, the facility/battery or the well pad shall be surrounded by a containment dike of sufficient capacity to contain, at a minimum, the entire contents of the largest tank within the facility/battery, unless more stringent protective requirements are deemed necessary by the authorized officer.

The production facilities will be placed on the South side of the location.

All permanent (on site for six months or longer) structures constructed or installed (including pumping units) will be painted a flat, non-reflective, earthtone color to match one of the standard environmental colors, as determined by the Rocky Mountain Five State Interagency Committee. All facilities required will be painted within 6 months of installation. Facilities required to comply with O.S.H.A.

(Occupational Safety and Health Act) will be excluded.
The required paint color is Desert Brown.

5. LOCATION & TYPE OF WATER SUPPLY

- A. Water supply will be from Target Trucking's Roosevelt Brine Storage and/or Target's water source in SE 1/4, Sec. 1, T 4S, R 5W Duchesne County, Utah (State water right #43-10152). All water will come from a non-depletable source.
- B. Water will be hauled by Target Trucking.
- C. No water well will be drilled on lease.

6. SOURCE OF CONSTRUCTION MATERIAL

- A. All construction material for this location and access road will be of native borrow and soil accumulated during the construction of location.
- B. All construction material will come from Ute Tribal Land.
- C. No mineral materials will be required.

7. METHODS OF HANDLING WASTE DISPOSAL

A. METHODS AND LOCATION

- 1. Cuttings will be confined in the reserve pit.
- 2. A portable toilet will be provided for human waste during the drilling and completion of the well. Disposal will be at the Vernal sewage disposal plant.
- 3. Burning will not be allowed. Trash and other waste material will be contained in a wire mesh cage and disposed of at an approved waste disposal facility.
- 4. Produced waste water will be confined to a lined pit or storage tank for a period not to exceed 90 days after initial production. During the 90 day period, an application for approval of a permanent disposal method and location, together with the required water analysis, will be submitted for the AO's approval.

5. All chemicals will be disposed of at an authorized disposal site. Drip pans and absorbent pads will be used on drilling rig to avoid leakage of oil to pit.

B. Water from drilling fluids and recovered during testing operations will be disposed of by either evaporating in reserve pit or be removed and disposed of at an authorized disposal site. Introduction of well bore hydrocarbons to reserve pit will be avoided by flaring them off in flare pit at time of recovery.

Burning of trash will not be allowed. All trash must be contained in a trash cage and hauled away to an approved disposal site at the completion of the drilling activities.

On BIA administered land:

All reserve pits will be lined with either native clay, commercial bentonite or plastic sufficient to prevent seepage. (If a plastic nylon reinforced liner is used, it shall be torn and perforated after the pit dries and before backfilling of the reserve pit).

A 12 mill liner shall be installed in the reserve pit.

To protect the environment:

If the reserve pit is lined the operator will provide the BIA with a chemical analysis of the fluids in that pit no later than 90 days after the well completion to determine the method for final reclamation of the reserve pit. If the elemental concentrations shown by the chemical analysis exceeds the requirements described by part II, Standards of Quality for Waters of the State, Wastewater Disposal Regulations, State of Utah Division of Health, the contents and liner will be removed and disposed of at an authorized disposal site.

To protect the environment (without a chemical analysis)
reserve pits will be constructed so as not to leak, break, or allow discharge of liquids.

Storage tanks will be used if drill sites are located on tribal

irrigable land, flood plains, or on lands under crop production. After first production, produced waste water will be confined to a lined pit or storage tank for a period not to exceed ninety (90) days. During the 90 day period, in accordance with NTL-2B, an application for approval of a permanent disposal method and location, along with required water analysis, shall be submitted for the AO's approval. Failure to file an application within the time allowed will be considered an incident of noncompliance.

8. ANCILLARY FACILITIES

- A. No airstrips or camps are planned for this well.

9. WELL SITE LAYOUT

- A. Refer to attached well site plat for related topography cuts and fills & cross sections.
- B. Refer to attached well site plat for rig layout and soil material stockpile location as approved on On-site.
- C. Refer to attached well site plat for rig orientation parking areas, and access road.

The reserve pit will be located on the North side of the location.

The flare pit will be located downwind of the prevailing wind direction on the North side of the location, a minimum of 100 feet from the well head and 30 feet from the reserve pit fence.

The stockpiled topsoil will be stored on the Southeast corner.

Access to the well pad will be from the East.

X Diversion ditch shall be constructed on the South side of the location below the cut slope, draining to the East.

N/A Soil compacted earthen berm(s) shall be placed on the _____ side(s) of the location between the _____

N/A The drainage(s) shall be diverted around the sides of the well pad location.

N/A The reserve pit and/or pad locations shall be constructed long and narrow for topographic reasons _____

X Corners No. 2 & 8 will be rounded off to minimize excavation.

FENCING REQUIREMENTS

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

- A. 39 inch net wire shall be used with at least one strand of barbed wire on top of the net wire. (barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence).
- B. The net wire shall be no more than 2 inches above the ground. The barbed wire strand shall be 3 inches above the net wire. Total height of the fence shall be at least 42 inches.
- C. Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
- D. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any two posts shall be no greater than 16'.
- E. All wire shall be stretched by using a stretching device before it is attached to the corner posts.

The reserve pit fencing will be on the three sides during drilling operations and on the fourth side when the rig moves off the location. Pits will be fenced and maintained until clean-up.

Each existing fence to be crossed by the access road shall be braced and tied off before cutting so as to prevent slacking of the wire. The opening shall be closed temporarily as necessary during construction to prevent the escape of livestock, and upon completion of construction the fence shall be repaired to BIA or SMA specifications. A cattleguard with an adjacent 16 foot gate shall be installed in any fence where a road is to be regularly travelled. If the well is a producer, the cattleguards (shall/ shall not) be permanently mounted on concrete bases. Prior to a new road, crossing any fence located on federal land, or any fence between federal land and private land, the operator will contact the BIA, who will in turn contact the grazing permittee or owner of said fence and offer him/her the opportunity to be present when the fence is cut in order to satisfy himself/herself that the fence is adequately braced and tied off.

10. PLANS FOR RESTORATION OF SURFACE

A. PRODUCING LOCATION

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, debris, materials, trash, and junk not required for production.

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

If a plastic nylon reinforced liner is used, it shall be torn and perforated before backfilling of the reserve pit.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours. The reserve pit will be reclaimed within 120 days from the date of well completion (weather permitting). Before any dirt work takes place, the reserve pit will be completely dry and all cans, barrels, pipe, fluid, and hydrocarbons, will be removed.

Contact appropriate surface management agency for required seed mixture.

B. DRY HOLE/ABANDONED LOCATION

At such time as the well is plugged and abandoned, the operator will submit a subsequent report of abandonment and BIA will attach the appropriate surface rehabilitation conditions of approval.

ON BIA Administered lands:

Abandoned well sites, roads, or other disturbed areas will be restored to near their original condition. This procedure will include: (a) reestablishing irrigation systems where applicable, (b) reestablishing soil conditions in irrigated fields in such a way as to ensure cultivation and harvesting of crops and, (c) ensuring revegetation of the disturbed areas to the specifications of the Ute Indian Tribe or the BIA at the time of abandonment.

11. SURFACE OWNERSHIP

Access road: Ute Indian Tribe
Location: Ute Indian Tribe

12. OTHER INFORMATION

A. Petroglyph Operating Co., Inc. will inform all persons in the area who are associated with this project that they are subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator will immediately stop work that might further disturb such materials, and contact the AO. Within five working days the AO will inform the operator as to:
-whether the materials appear eligible for the National Register of historic Places;

the mitigation measures the operator will likely have to undertake before the site can be used.

-a time frame for the AO to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wished, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials that may be required. Otherwise, the operator will be responsible for mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that required mitigation has been completed, the operator will then be allowed to resume construction.

B. As operator, Petroglyph Operating Co., Inc. will control noxious weeds along Right-of-Ways for roads, pipelines, well sites, or other applicable facilities. A list of noxious weeds will be obtained from the BIA, or the appropriate County Extension Office. On BIA administered land,

a Pesticide Use proposal shall be submitted, and given approval, prior to the application of herbicides or other pesticides or possible hazardous chemicals.

- C. Drilling rigs and/or equipment used during drilling operations on this well site will not be stacked or stored on Tribal Lands after the conclusion of drilling operations or at any other time without BIA authorization. However, if BIA authorization is obtained, it is only a temporary measure to allow time to make arrangements for permanent storage on commercial facilities.

On BIA administered land:

Operator's employees, including subcontractors, will not gather firewood along roads constructed by operators. If wood cutting is required, a permit will be obtained from the Forestry Department of the BIA pursuant to 25 CFR 169.13 "Assessed Damages Incident to Right-of-Way authorization". All operators, subcontractors, vendors, and their employees or agents may not disturb saleable timber (including firewood) without a duly granted wood permit from the BIA Forester.

If the surface rights are owned by the Ute Indian Tribe and mineral rights are owned by another entity, an approved right-of-way will be obtained from the BIA before the operator begins any construction activities. If the surface is owned by another entity and the mineral rights are owned by the Ute Indian Tribe, rights-of-way will be obtained from the other entity.

All roads constructed by operators on the Uintah and Ouray Indian Reservation will have appropriate signs. Signs will be neat and of sound construction. They will state: (a) that the land is owned by the Ute Indian Tribe, (b) the name of the operator, (c) that firearms are prohibited to all non-Ute Tribal members (d) that permits must be obtained from the BIA before cutting firewood or other timber products, and (e) only authorized personnel permitted. All well site locations on the Uintah and Ouray Indian Reservation will have an appropriate sign indicating the name of the operator, the lease serial number, the well name and number, the survey

description of the well (either footage or the quarter-quarter section, the section, township, and range).

Additional Surface Stipulations

N/A No construction or drilling activities shall be conducted between _____ and _____ because of _____

N/A No surface occupancy will be allowed within 1,000 feet of any sage grouse strutting ground.

N/A No construction or exploration activities are permitted within 1.5 mile radius of sage grouse strutting grounds from April 1 to June 30.

N/A There shall be no surface disturbance within 600 feet of live water (includes stock tanks, springs, and guzzlers).

N/A No cottonwood trees will be removed or damaged.

N/A Pond will be constructed according to BLM specifications approximately _____ ft. _____ of the location, as flagged on onsite.

LESSEE'S OR OPERATOR'S REPRESENTATIVE AND CERTIFICATION

PERMITTING

Ed Trotter
1620 West 750 North
Vernal UT 84078
Telephone # (801)789-4120
Fax # (801) 789-1420

OPERATIONS

Vince Guinn
P.O. Box 607
Roosevelt, UT 84066
(801) 722-2531
Fax # (801) 722-9145

All lease/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 approval plan of operations, and any applicable Notice to Lessees. Petroglyph Operating Co., Inc. is fully responsible for the actions of their subcontractors. A copy of these conditions will be furnished to the field representative to insure compliance.

A copy of the approved APD and ROW grant, if applicable, shall be on

location during construction of the location and drilling activities.

The BIA Office shall be notified upon site completion prior to moving on the drilling rig.

Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in the 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 Petroglyph Operating Co., Inc. and its contractors and sub-contractors in conformity with this Plan and the terms and conditions under which it is approved.

11-6-96

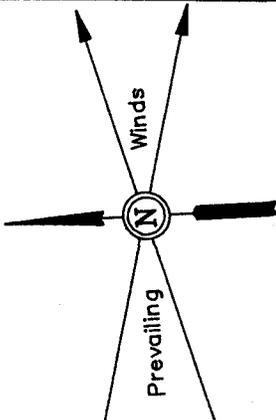
Date



PETROGLYPH OPERATING CO., INC.

LOCATION LAYOUT FOR

UTE TRIBAL #18-14
SECTION 18, T5S, R3W, U.S.B.&M.
660' FSL 1980' FWL



SCALE: 1" = 50'
DATE: 9-27-96
Drawn By: C.B.T.

NOTE:

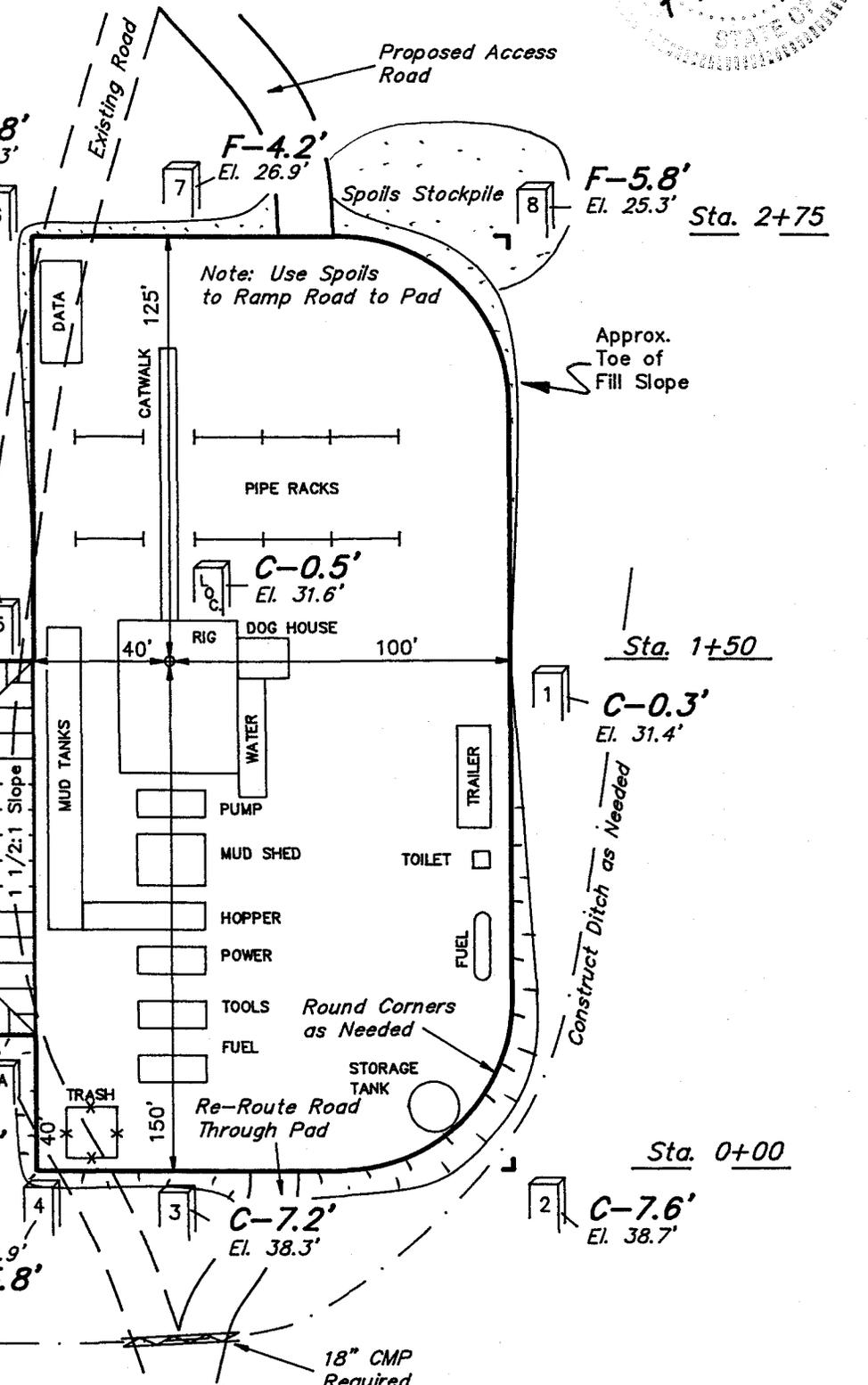
Flare Pit is to be located a min. of 100' from the Well Head.

FLARE PIT



NOTE: Pit Capacity w/2' of Freeboard is ±4,600 Bbls.

Reserve Pit Backfill & Spoils Stockpile



Elev. Ungraded Ground at Location Stake = 6031.6'

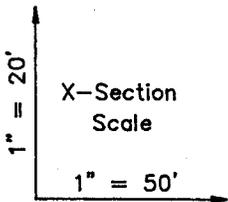
Elev. Graded Ground at Location Stake = 6031.1'

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East • Vernal, Utah 84078 • (801) 789-1017

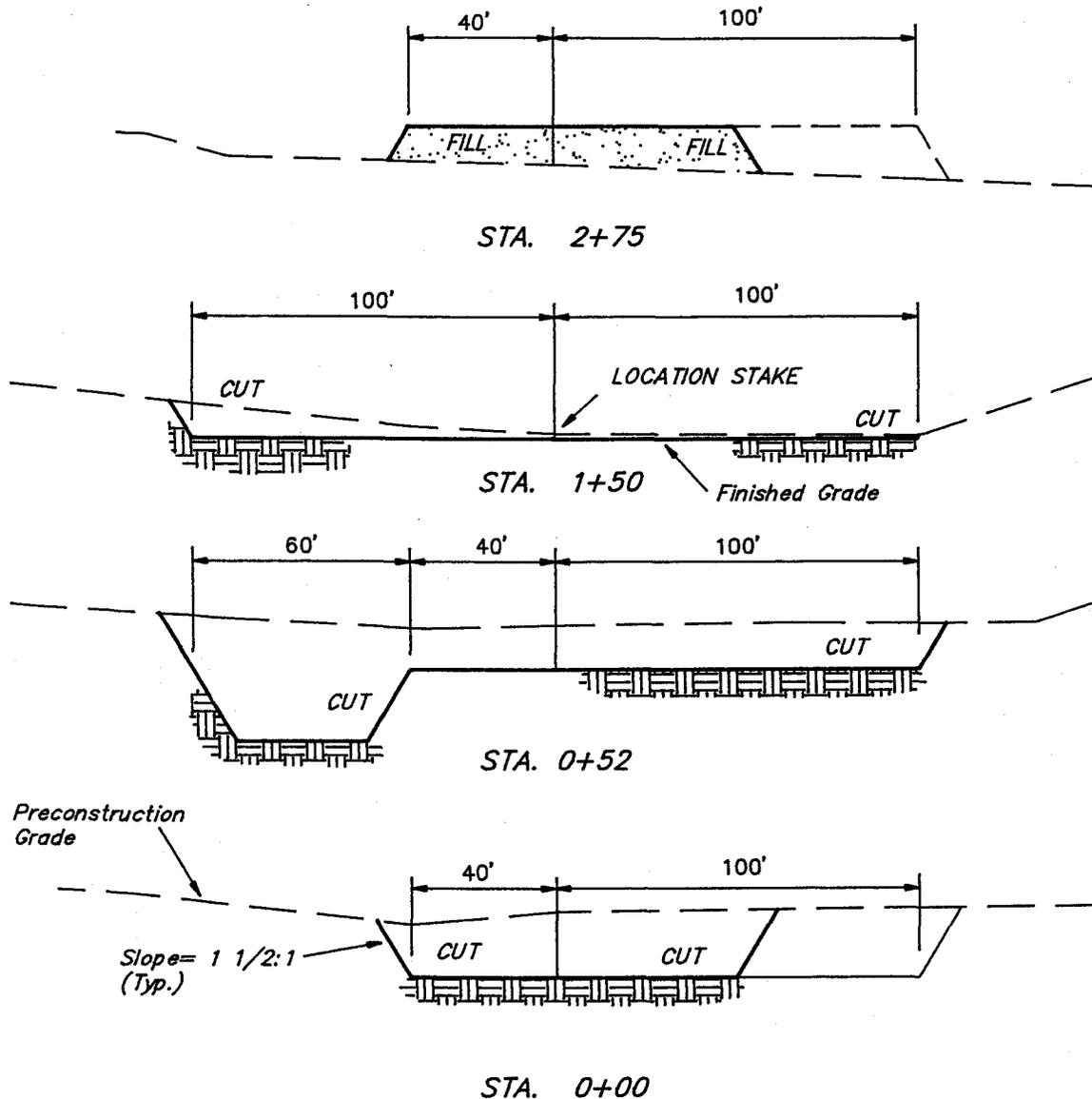
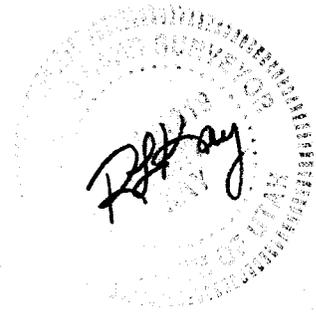
PETROGLYPH OPERATING CO., INC.

TYPICAL CROSS SECTIONS FOR

UTE TRIBAL #18-14
SECTION 18, T5S, R3W, U.S.B.&M.
660' FSL 1980' FWL



DATE: 9-27-96
Drawn By: C.B.T.

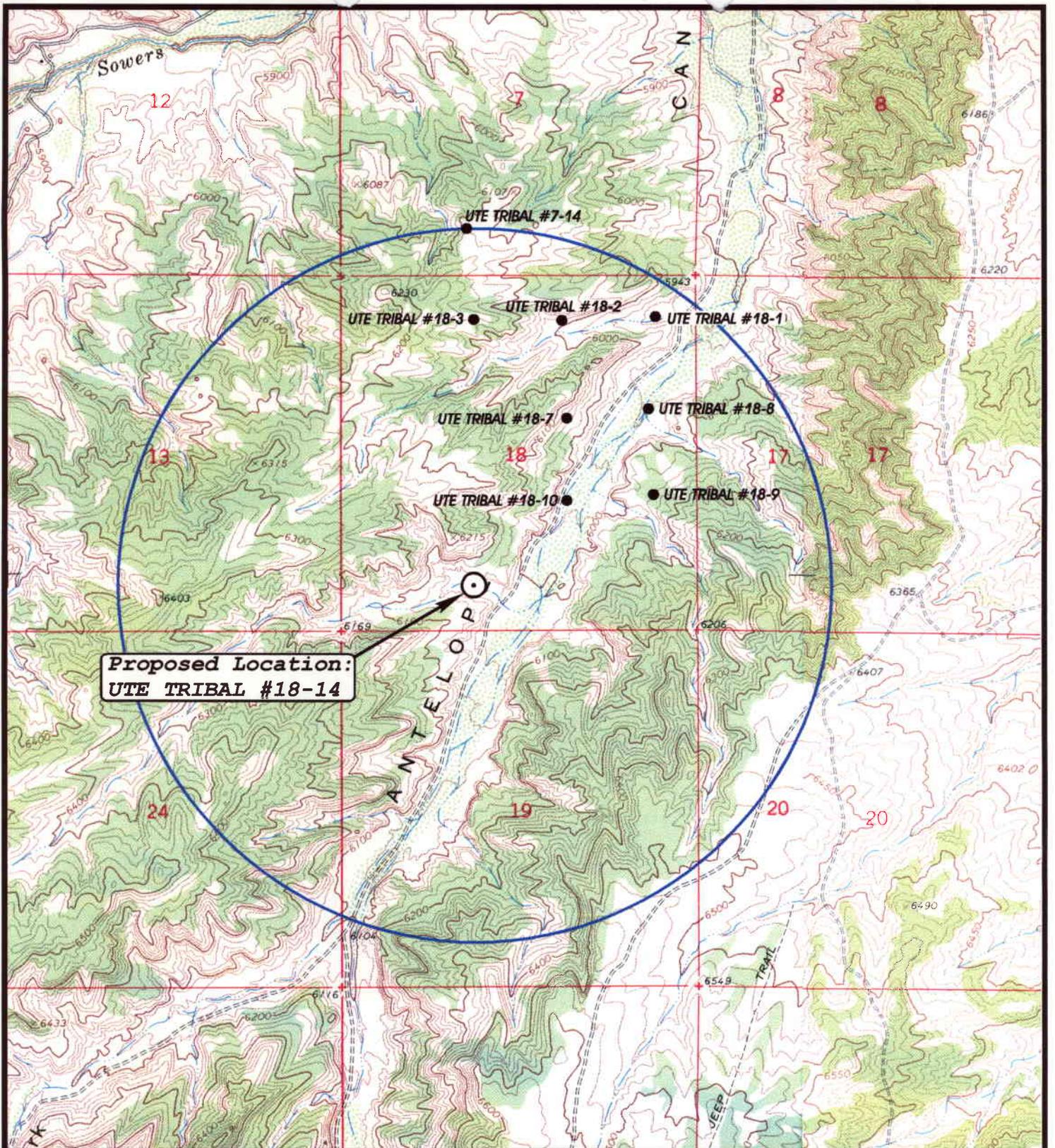


APPROXIMATE YARDAGES

(12") Topsoil Stripping	=	1,670 Cu. Yds.
Remaining Location	=	4,610 Cu. Yds.
TOTAL CUT	=	6,280 CU.YDS.
FILL	=	2,110 CU.YDS.

EXCESS MATERIAL AFTER 5% COMPACTION	=	4,060 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	=	2,370 Cu. Yds.
EXCESS UNBALANCE (After Rehabilitation)	=	1,680 Cu. Yds.

UINTAH ENGINEERING & LAND SURVEYING
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**Proposed Location:
UTE TRIBAL #18-14**

LEGEND

**U
E
I
S**

- Water Wells
- Abandoned Wells
- Temporarily Abandoned Wells
- Disposal Wells
- Drilling Wells
- Producing Wells
- Shut-in Wells

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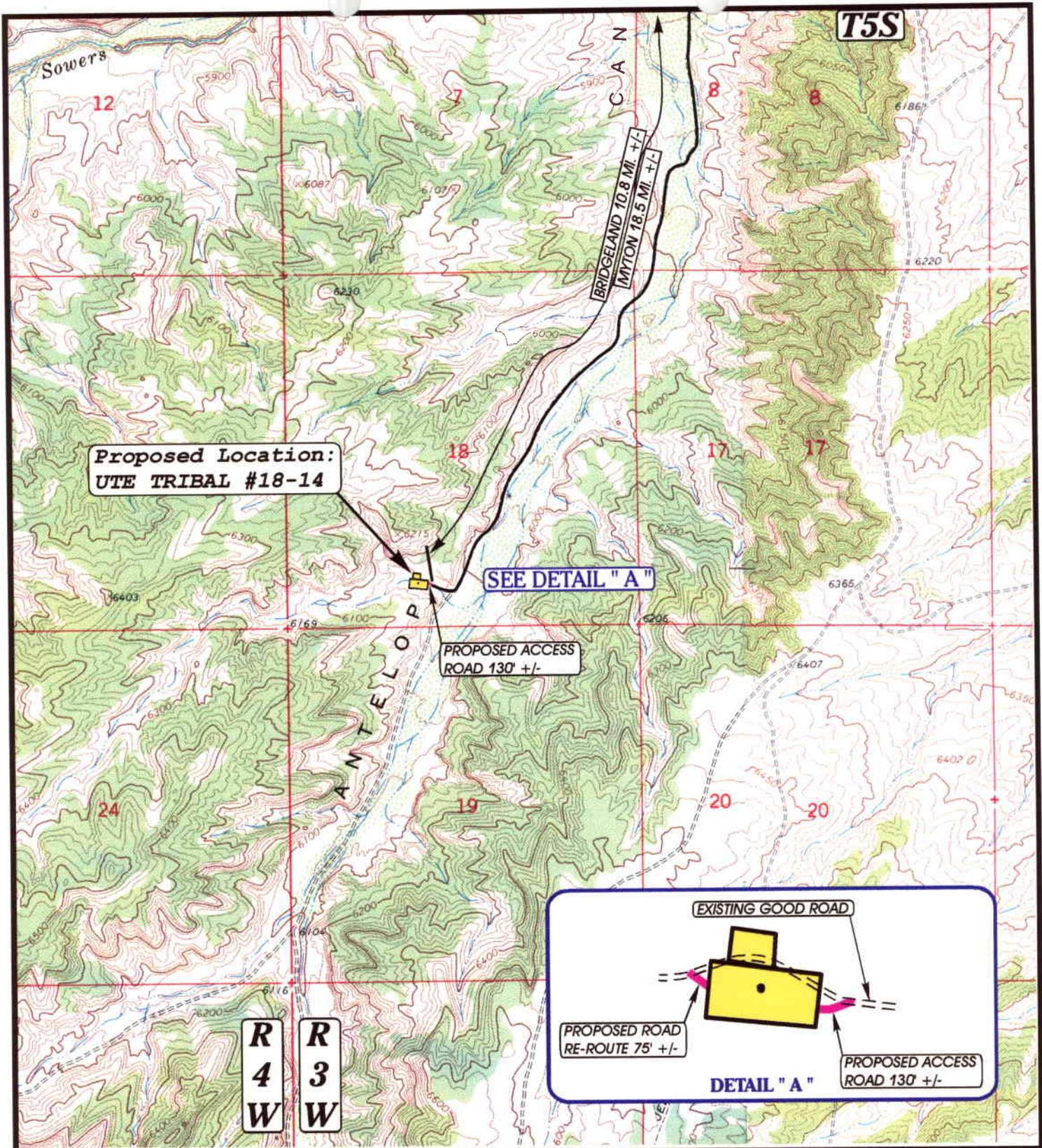
SCALE: 1" = 2000

PETROGLYPH OPERATING CO., INC.

UTE TRIBAL #18-14
SECTION 18, T5S, R3W, U.S.B.&M.
T O P O G R A P H I C
M A P " C "

DATE: 10-4-96 D.COX

43-013-31746



UELS

**TOPOGRAPHIC
MAP "B"**

**DATE: 10-4-96
Drawn by: D.COX**

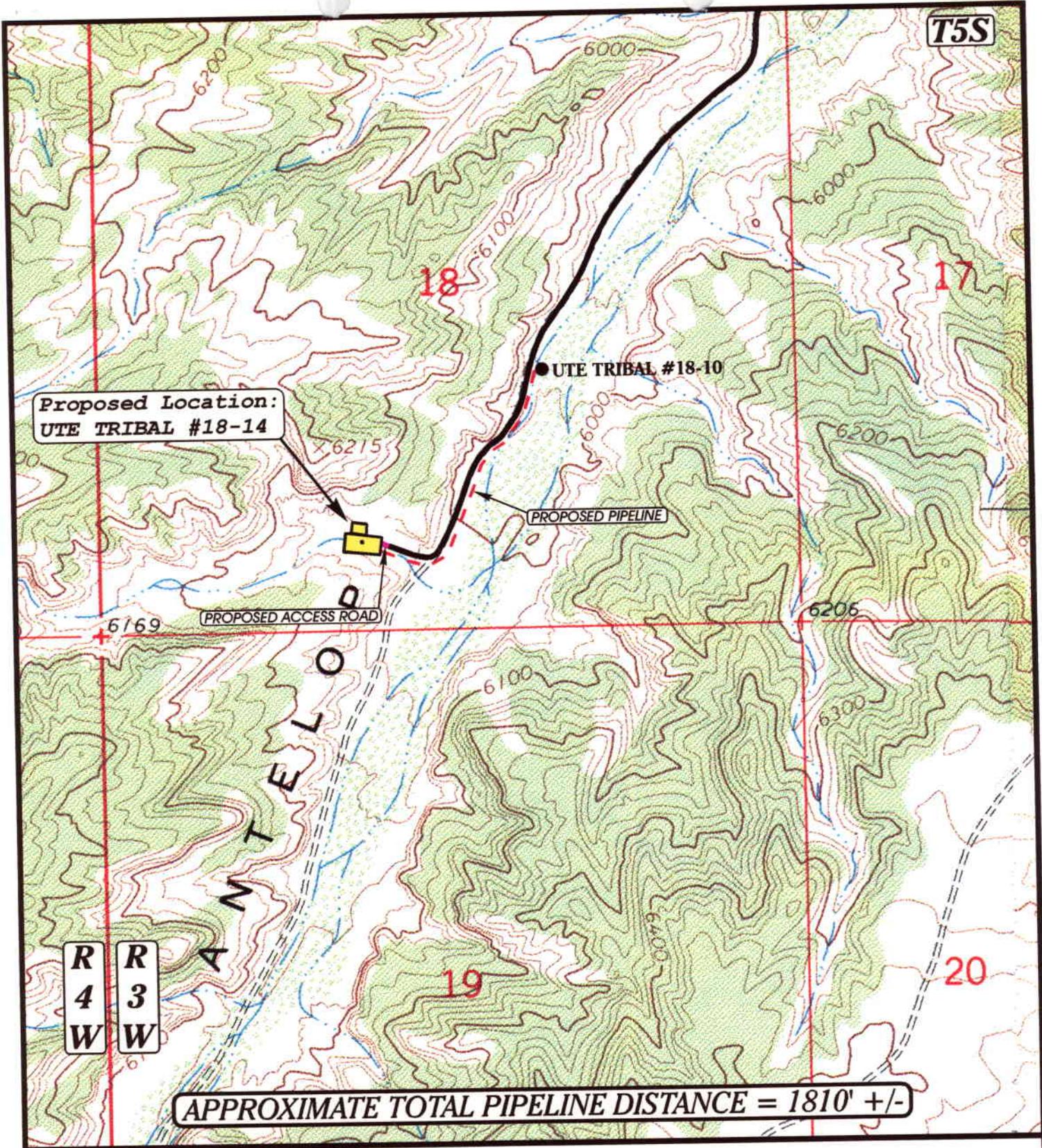
UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East • Vernal, Utah 84078 • (801) 789-1017



SCALE: 1" = 2000'

PETROGLYPH OPERATING CO., INC.

UTE TRIBAL #18-14
SECTION 18, T5S, R3W, U.S.B.&M.
660' FSL 1980' FWL



Proposed Location:
UTE TRIBAL #18-14

PROPOSED PIPELINE

PROPOSED ACCESS ROAD

APPROXIMATE TOTAL PIPELINE DISTANCE = 1810' +/-

TOPOGRAPHIC
MAP "D"



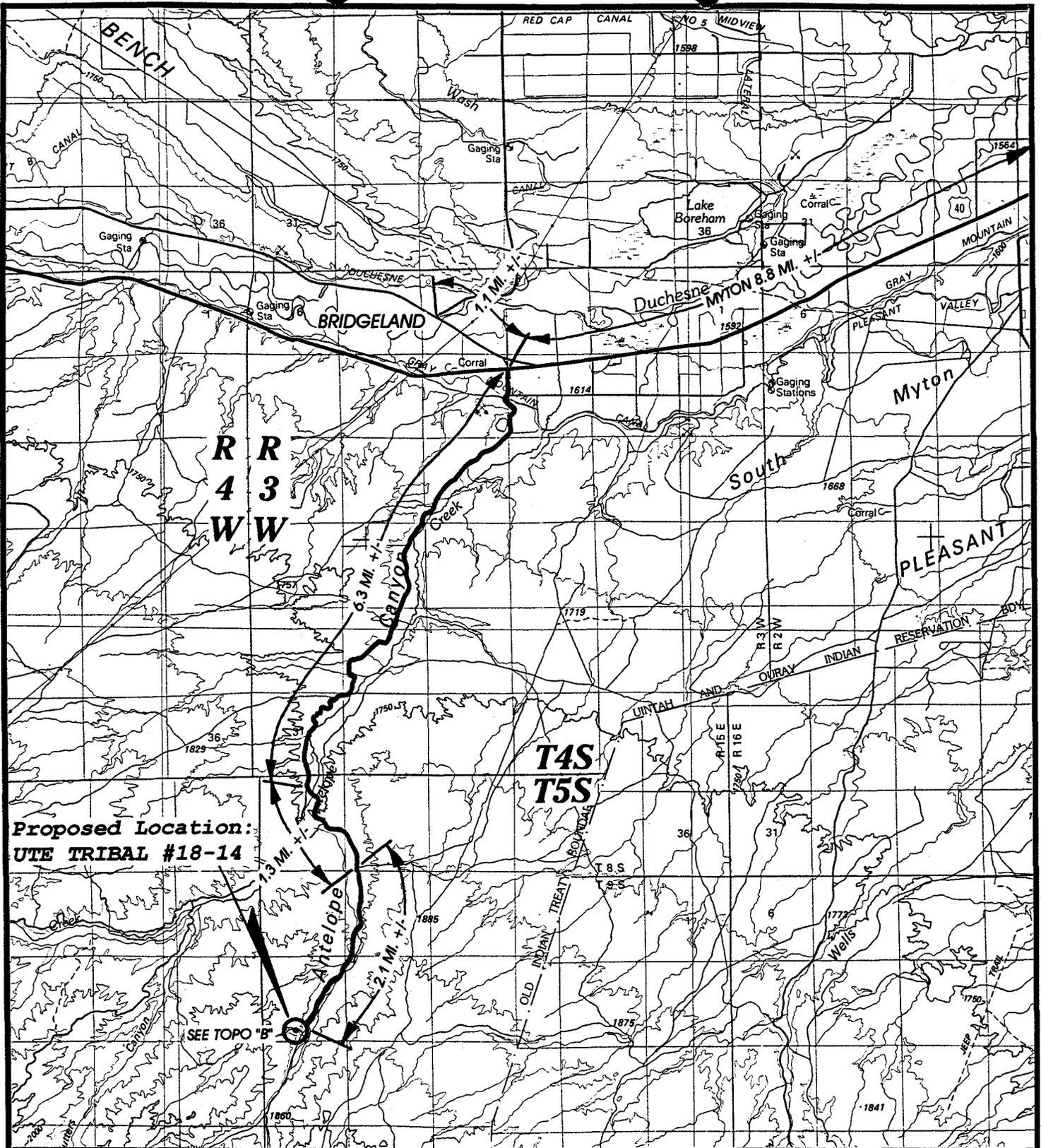
- — — — Existing Pipeline
- - - - Proposed Pipeline



PETROGLYPH OPERATING CO., INC.

UTE TRIBAL #18-14
SECTION 18, T5S, R3W, U.S.B.&M.

DATE: 10-4-96
Drawn by: D.COX



UELS

**TOPOGRAPHIC
MAP "A"**

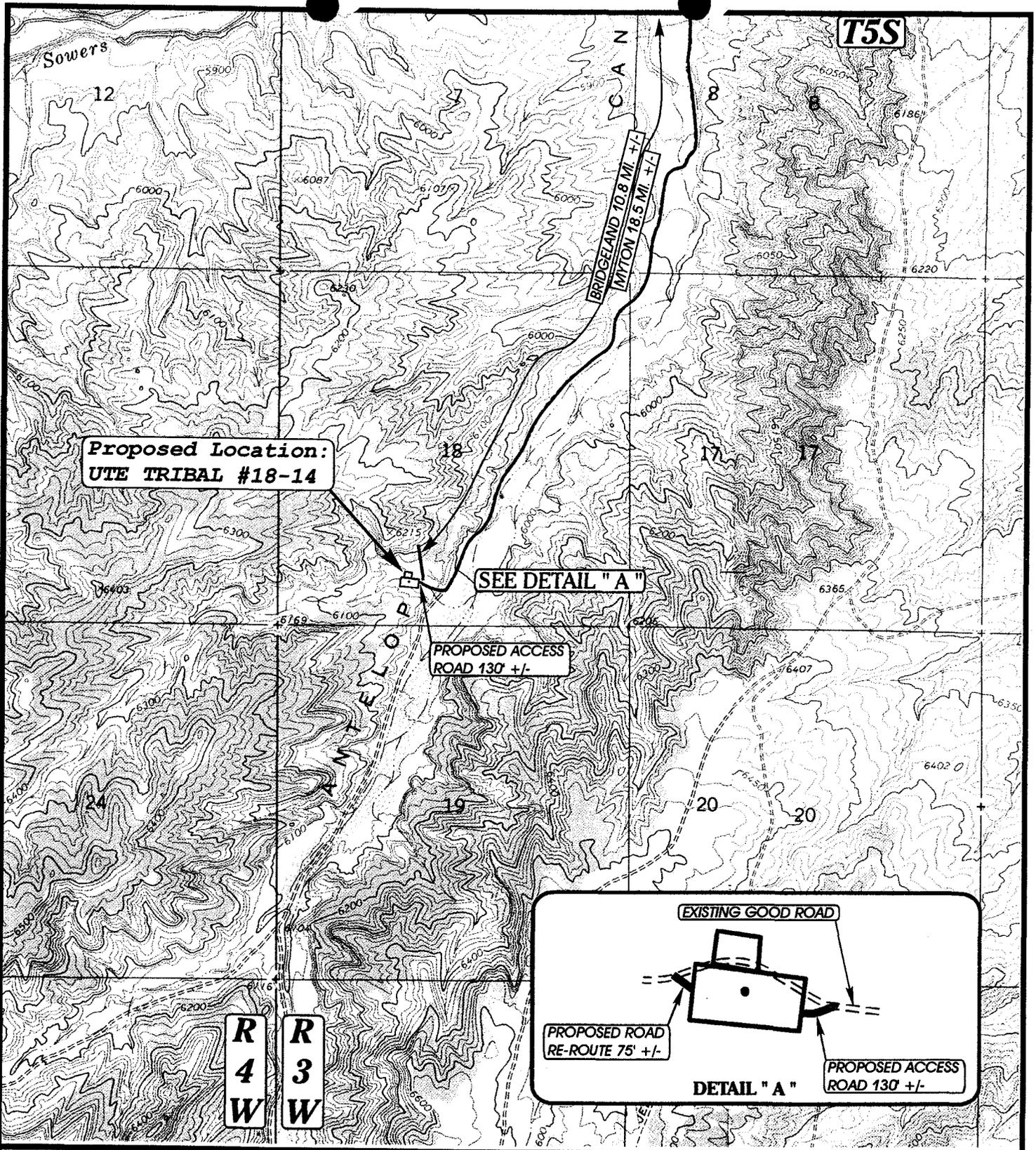
DATE: 10-3-96
Drawn by: D.COX

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85 So. 200 East • Vernal, Utah 84078 • (801) 789-1017



PETROGLYPH OPERATING CO., INC.

**UTE TRIBAL #18-14
SECTION 18, T5S, R3W, U.S.B.&M.
660' FSL 1980' FWL**



UELS

**TOPOGRAPHIC
MAP "B"**

**DATE: 10-4-96
Drawn by: D.COX**

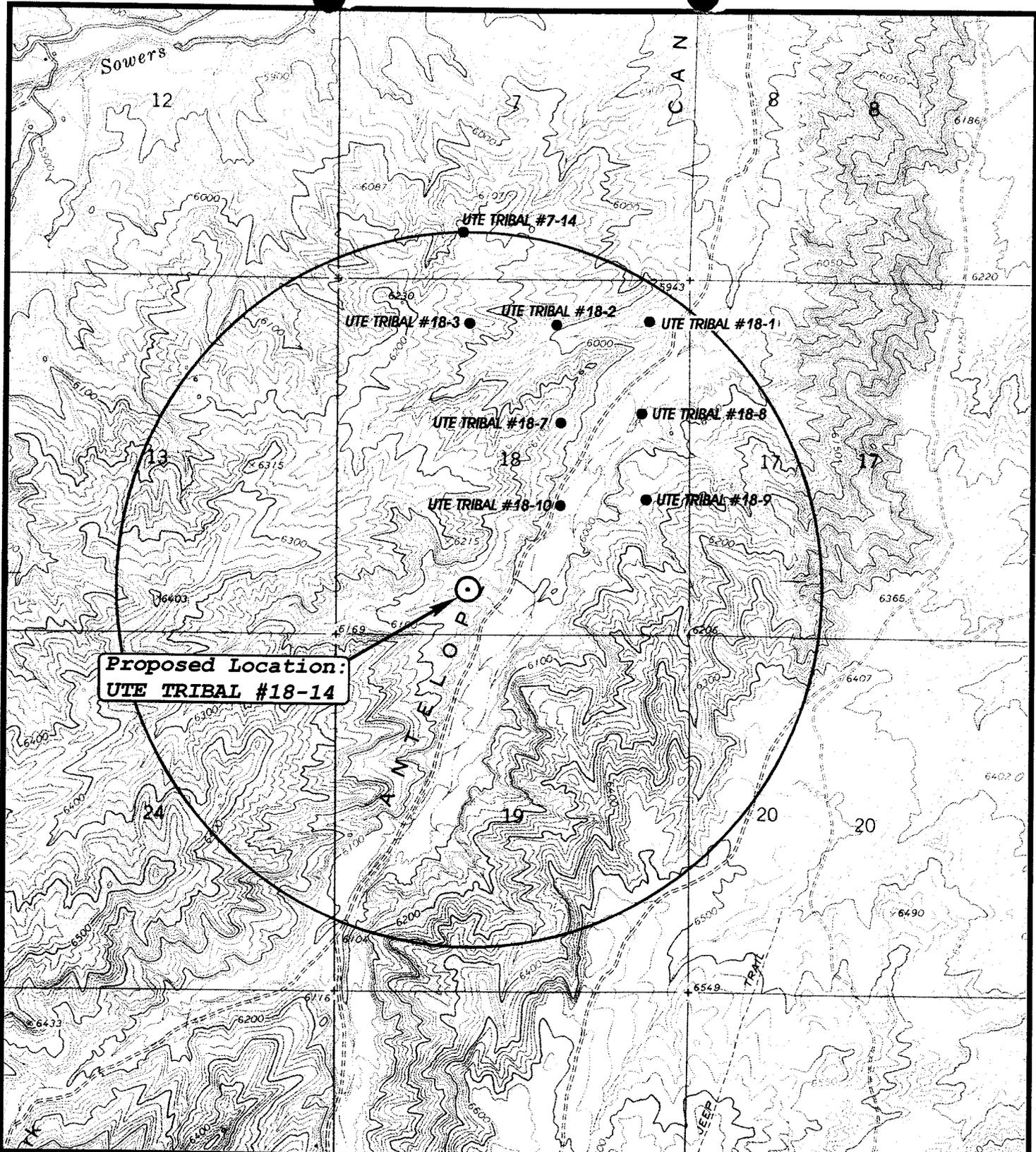
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85 So. 200 East • Vernal, Utah 84078 • (801) 789-1017**



SCALE: 1" = 2000'

PETROGLYPH OPERATING CO., INC.

**UTE TRIBAL #18-14
SECTION 18, T5S, R3W, U.S.B.&M.
660' FSL 1980' FWL**



**Proposed Location:
UTE TRIBAL #18-14**

LEGEND

- WELLS**
- Water Wells
 - Abandoned Wells
 - ◐ Temporarily Abandoned Wells
 - ⊙ Disposal Wells
 - Drilling Wells
 - Producing Wells
 - Shut-In Wells

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85 So. 200 East • Vernal, Utah 84078 • (801) 789-1017

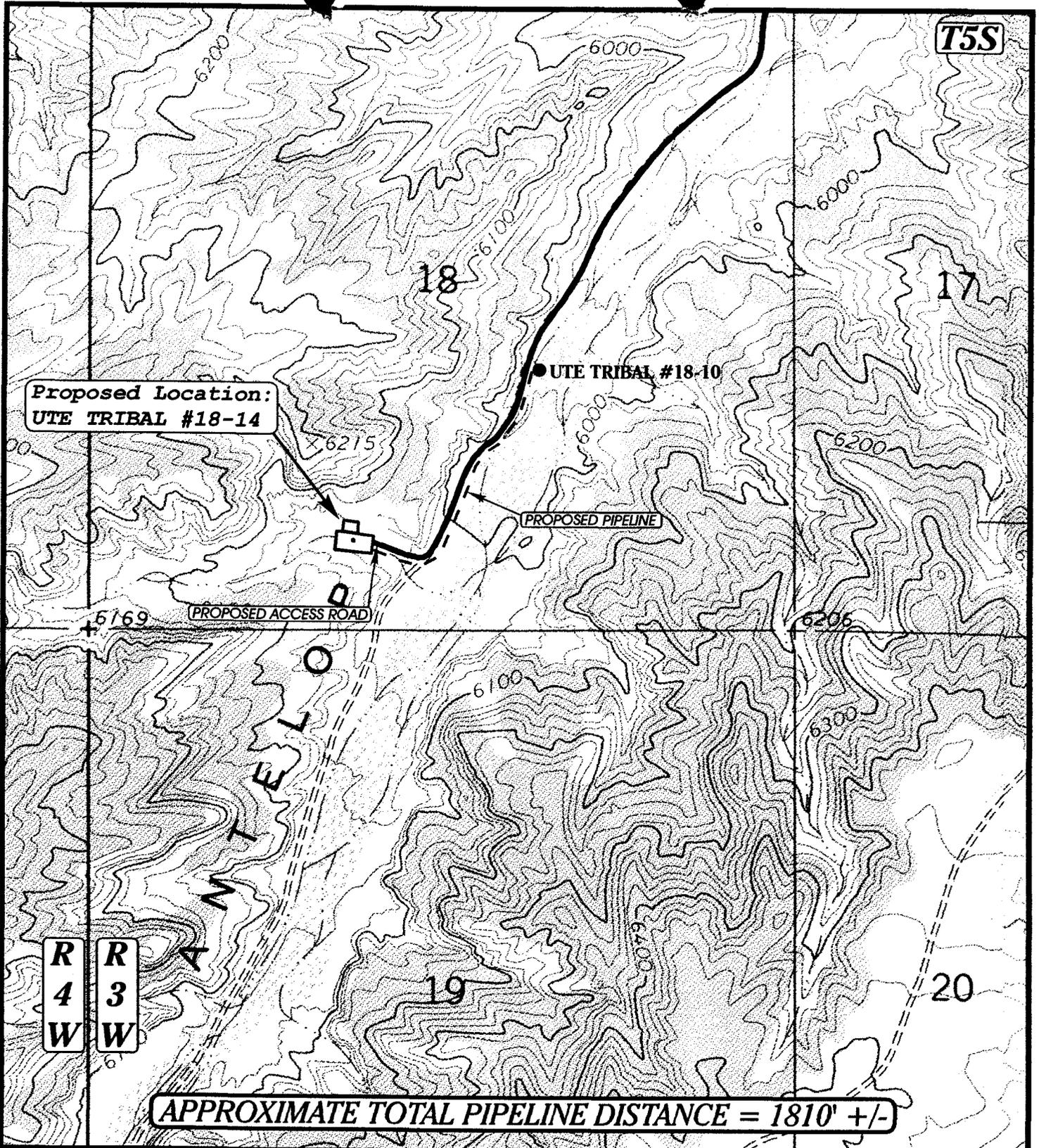


SCALE: 1" = 2000'

PETROGLYPH OPERATING CO., INC.

UTE TRIBAL #18-14
SECTION 18, T5S, R3W, U.S.B.&M.
**TOPOGRAPHIC
MAP "C"**

DATE: 10-4-96 D.COX



**TOPOGRAPHIC
MAP "D"**

UELS

- — — — Existing Pipeline
- - - - Proposed Pipeline



PETROGLYPH OPERATING CO., INC.

UTE TRIBAL #18-14
SECTION 18, T5S, R3W, U.S.B.&M.

DATE: 10-4-96
Drawn by: D.COX

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 11/18/96

API NO. ASSIGNED: 43-013-31746

WELL NAME: UTE TRIBAL 18-14
 OPERATOR: PETROGLYPH OPERATING CO (N3800)

PROPOSED LOCATION:
 SESW 18 - T05S - R03W
 SURFACE: 0660-FSL-1980-FWL
 BOTTOM: 0660-FSL-1980-FWL
 DUCHESNE COUNTY *201 603*
 ANTELOPE CREEK FIELD (060)

LEASE TYPE: IND
 LEASE NUMBER: 14-20-H62-3513

PROPOSED PRODUCING FORMATION: GRRV

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

RECEIVED AND/OR REVIEWED:

Plat

Bond: Federal State Fee
 (Number 80 4556)

Potash (Y/N)

Oil shale (Y/N)

Water permit
 (Number TRIBAL ALLOCATION 43-10152)

RDCC Review (Y/N)
 (Date: _____)

LOCATION AND SITING:

___ R649-2-3. Unit: _____

R649-3-2. General.

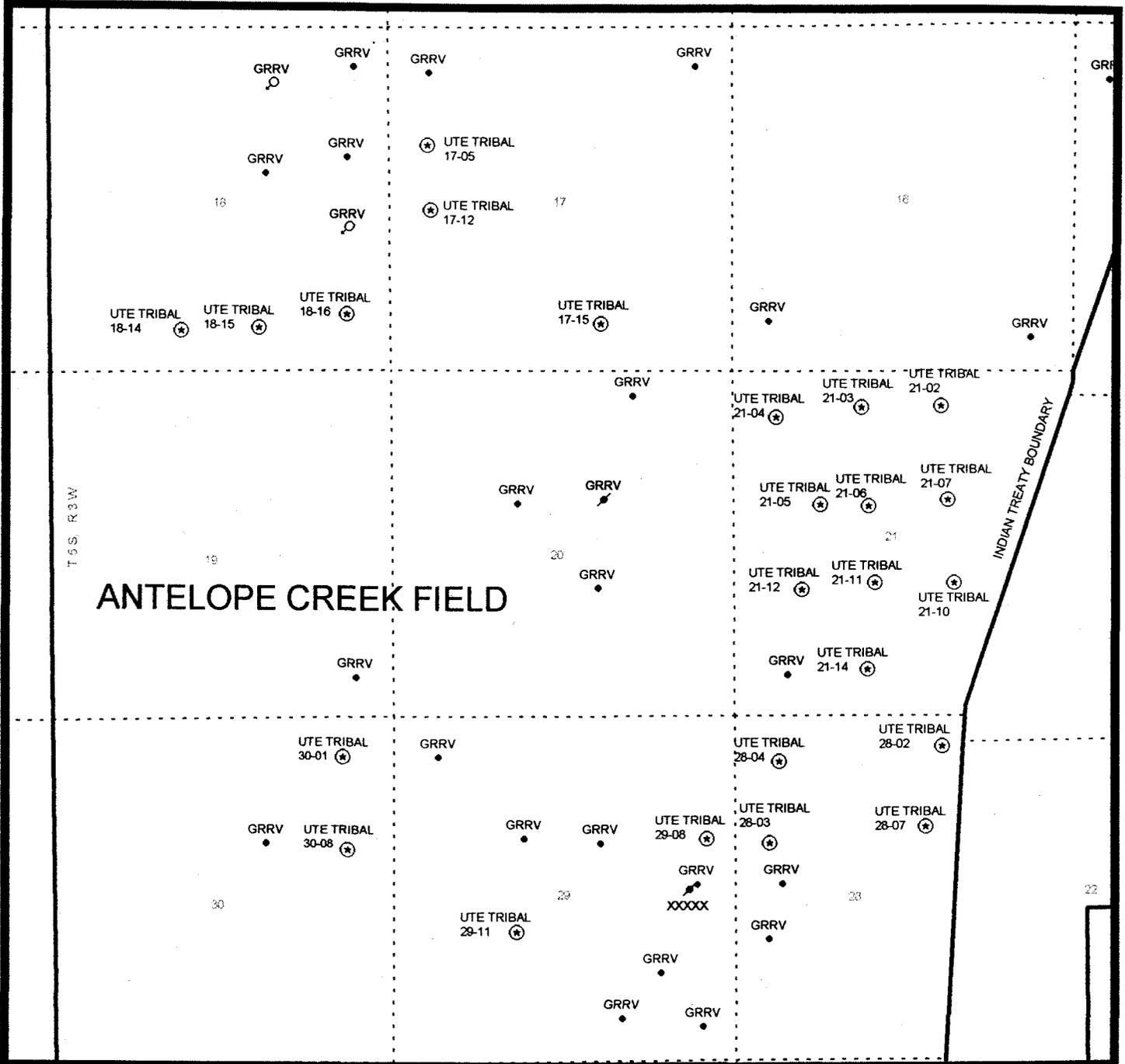
___ R649-3-3. Exception.

___ Drilling Unit.
 Board Cause no: _____
 Date: _____

COMMENTS: _____

STIPULATIONS: _____

**OPERATOR: PETROGLYPH
FIELD: ANTELOPE CREEK (060)
SEC. TWP. RNG: 18 & 21, T5S R3W
COUNTY: DUCHESNE
UAC: R649-3-2 & R649-3-3**



**PREPARED:
DATE: 21-NOV-96**

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

DOGMA

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
 DRILL DEEPEN

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

2. NAME OF OPERATOR
 PETROGLYPH OPERATING COMPANY, INC.

3. ADDRESS AND TELEPHONE NO.
 P.O. BOX 607, ROOSEVELT, UT 84066

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface
 660' FSL & 1980' FWL SE/SW
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 18.5 MILES SOUTHWEST OF MYTON, UTAH

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. 660'
 (Also to nearest drlg. unit line, if any)

16. NO. OF ACRES IN LEASE
 640

17. NO. OF ACRES ASSIGNED TO THIS WELL
 40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
 5803.1'

19. PROPOSED DEPTH
 5803.1'

20. ROTARY OR CABLE TOOLS
 ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 6031.1' GRADED GROUND

22. APPROX. DATE WORK WILL START*
 NOVEMBER, 1996

5. LEASE DESIGNATION AND SERIAL NO.
 14-20-H62-3513

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
 UTE INDIAN TRIBE

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.
 UTE TRIBAL

9. API WELL NO.
 #18-14

10. FIELD AND POOL, OR WILDCAT
 ANTELOPE CREEK

11. SEC., T., E., M., OR BLEK. AND SURVEY OR AREA
 Sec. 18, T5S, R3W

12. COUNTY OR PARISH
 DUCHESNE

13. STATE
 UTAH

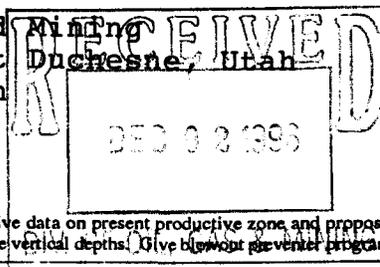
42-013-31746

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4	8 5/8	24.0#	250'	135 sx class "G" + 2% CaCl ₂ + 1/4 #/sx celloflake. 50/50 POZMIX + 2% GEL + 10% SALT TO 400' ABOVE ALL ZONES OF INTEREST (+ 10% EXCESS). LIGHT CEMENT (11 PPG +) + LCM TO 200' ABOVE OIL SHALE OR FRESH WATER INTERVALS (+ 5% EXCESS).
7 7/8	5 1/2	15.5#	5803.1'	

PETROGLYPH OPERATING COMPANY, INC. WILL BE THE DESIGNATED OPERATOR OF THE SUBJECT WELL UNDER BOND # BO 4556.

pc: Utah Division of Oil, Gas, and Mining
Bureau of Indian Affairs, Fort Duchesne, Utah
Ute Tribe, Fort Duchesne, Utah



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NOV 07 1996

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

24. SIGNED [Signature] TITLE AGENT FOR PETROGLYPH DATE 11-6-96

(This space for Federal or State office use)

CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY

PERMIT NO. NOTICE OF APPROVAL APPROVAL DATE

Application approval 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. CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY [Signature] TITLE ACTING Assistant Field Manager DATE NOV 26 1996
Mineral Resources

*See Instructions On Reverse Side

44080-7m-029

ED STATES GOVERNMENT
memorandum

DATE: NOV. 19 1996

REPLY TO
ATTN OF:

SUBJECT:

Superintendent, Uintah & Ouray Agency

Concurrence Letter for PETROGLYPH OPERATING COMPANY
Ute Tribal #18-14, SENW Sec. 18, T5S, R3W, USB&M ← SESW
Ute Tribal #18-15, NENW Sec. 18, T5S, R3W, USB&M
Ute Tribal #18-16, SESE Sec 18, T5S, R3W, USB&M

TO:

Bureau of Land Management, Vernal District Office
Attention: Minerals and Mining Division

NOV 19 1996
RECEIVED
BLM
Vernal, Utah

We recommend approval of the Application for Permit to Drill on the subject well.

Based on available information received on November 19, 1996, we cleared the proposed location in the following areas of environmental impact.

- YES NO Listed threatened or endangered species
- YES NO Critical wildlife habitat
- YES NO Archaeological or cultural resources
- YES NO Air quality aspects (to be used only if project is in or adjacent to a Class I area of attainment)
- YES NO Other (if necessary)

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NOV 22 1996

COMMENTS: The Ute Tribe Energy & Minerals is recommending the following criteria to be adhered during all phases of construction activities.

1. The Ute Tribe Energy and Minerals Department is to notified 48 hours prior to construction, as a Tribal Technician is to monitor construction.
2. A 50 foot corridor rights-of-way shall be granted with the following:
 - A. Access roads shall be limited to 22 feet, except as granted for sharp turns.
 - B. Surface pipelines shall be limited to 13 feet.
 - C. Buried pipelines shall be limited 15 feet, and will be monitored by Tribal Technician.
3. Petroglyph Operating Company will assure the Ute Tribe that any/all contractors and any sub-contractors has acquired a Tribal Business License and have access permits prior to construction.
4. All vehicular traffic, personnel movement, construction and restoration operations should be confined to the areas examined, as referenced in report, and to the existing roadways and/or evaluated access routes.
5. All personnel should refrain from collecting artifacts and from disturbing any significant cultural resources in the area.
6. The personnel for the Ute Tribe Energy & Mineral Department should be consulted should cultural remains from subsurface deposits be exposed or identified during construction.
7. All mitigation stipulations contained in the Bureau of Indian Affairs combined site specific Environmental Analysis (EA) will be strictly adhered.
8. Upon completion of Application for Permit to Drill and Right-of-way, the Ute Tribe Energy & Minerals Resource Department will be notified by Petroglyph Operating Company so that a Tribal Technician can verify Affidavit of Completion's.

OPTIONAL FORM NO. 10
(REV. 1-80)
GSA FPMR (41 CFR) 101-11.6
5010-114

**SITE SPECIFIC
ENVIRONMENTAL ANALYSIS**

1.0 PROPOSED ACTION

Petroglyph Operating Co., Inc. is proposing to drill oil well #18-14, and construct approximately 1810 feet of steel surface production pipeline, and approximately 130 feet of access road..

2.0 ALTERNATIVE ACTIONS

- A. ALTERNATIVE CONSIDERED: The proposed action is the preferred alternative.
- B. NO ACTION: Under the no action alternative the proposed action would not be implemented.
- C. OTHER: NA

RECEIVED

3.0 PERMITTEE/LOCATION

NOV 22 1996

- A. Permittee- Petroglyph Operating Co., Inc.
- B. Date 10-7-96
- C. Well number- 18-14
- D. Right-of-way-Pipeline R\W approx.1810 feet, access road 130 feet.
- E. Site location- SESW, Section 18, T5S, R3W, USB&M.

4.0 SITE SPECIFIC SURVEY

A. SITE DESCRIPTION

- 1. Elevation (feet) 6032
- 2. Annual precipitation (inches)- 8-12
- 3. Topography- valley bottom
- 4. Soil- The soil texture is (0 to 6") gravely shale loam with moderate permeability.

B. VEGETATION

- 1. Habitat type is upland shrub.
- 2. Percent Ground Cover- estimated to be 40%.
- 3. Vegetation consists of approximately 20% grasses, 70% shrubs, 10% forbs. The main variety of grasses are needle & thread, bluebunch wheat, galleta, and blue grama. Forbs are astragalus, mustard, lambs quarter, globemallow, buck wheat, & annuals. Shrubs consist of shadscale, greasewood, big sagebrush.
- 4. Observed Threatened & Endangered species: None.

5. Potential For Threatened & Endangered species: Slight
7. Observed Noxious Weeds: None

8. AFFECTED ENVIRONMENTAL

1. There are no surface damages as a result of the initial survey.

4.1 WILDLIFE

A. POTENTIAL SITE UTILIZATION

1. Big Game-The area is used throughout the year by mule deer, elk, and antelope.
2. Small Game-The area is used by cottontail rabbit.
3. Raptor- Various species of raptors use this area for habitat. Raptors which are observed using the area are Golden eagles, Redtail hawk, & Kestrel. Ferruginous hawk hunt in the area and there is an active nest located approximately 2.0 miles south east of this site in Section 20, T5S, R3W, USB&M.
5. Non-Game Wildlife- Animal species which have been observed using this area are black tail jack rabbit, coyote, fox, badger, and various species of reptiles, and song birds.
6. Threatened & Endangered Species: No T&E species are reported using the area of this project.

4.2 PRESENT SITE USE

A. USAGE

	<u>acres</u>
Rangeland	2.60
Irrigable land	0
Woodland	0
Non-Irrigable land	2.60
Commercial timber	0
Floodplain	0
Wetland	0
Riparian	0
Other:	0

4.3 CULTURAL RESOURCES

A. CULTURAL SURVEY

Cultural Resource Surveys were performed by James A. Truesdale, an Independent Archaeologist.

5.0 ENVIRONMENTAL IMPACTS

A. SURFACE ALTERATIONS

	<u>acres</u>
1. Access road	0.09
2. Well site	1.26
3. Pipeline right-of-way	1.25
4. Corridor right-of-way	0.00
5. Total area disturbed	2.60

B. VEGETATION/LANDSCAPE

1. Production loss (AUM's)/year: 0.17
2. Permanent scar on landscape: Yes x No
3. Potential impacts to Threatened & Endangered species:
Yes No X

C. SOIL/RANGE/WATERSHED

There will be an increase in soil erosion from wind and water. There will not be any possible point source of water pollution.

The area is presently used as rangeland. In recent years the area has been permitted for livestock grazing, but at the present time no permits have been issued for the area. This project will reduce livestock grazing by approximately 0.17 AUM/year.

The area is not used as irrigated cropland and a water right has not been designated for the area.

D. WILDLIFE/THREATENED & ENDANGERED SPECIES

There will be an insignificant reduction of wildlife habitat and grazing for livestock. There will also be an increase in wildlife disturbance and poaching resulting from the additional traffic and people using the area.

There are no known impacts to Threatened or Endangered species but is important habitat for the Ferruginous hawk. The area is important winter range for big game.

Ferruginous Hawks use this area for nesting and hunting. There is an nest in Section 20.

6.0 MITIGATION STIPULATIONS

A. VEGETATION/LANDSCAPE

1. Before the site is abandoned the company will be required to restore the well site and right-of-ways to near their original state. The disturbed area

will be reseeded with desirable perennial vegetation.

2. Noxious weeds will be controlled on the well site and rights-of-way. If noxious weeds spread from the project area onto adjoining land, the company will also be responsible for their control.

B. SOILS/RANGE/WATERSHEDS

1. Soil erosion will be mitigated by reseeding all disturbed areas.
2. The pipeline will be constructed to lay on the soil surface, and the right-of-way will not be bladed or cleared of vegetation.

Where pipelines are constructed parallel to roads they may be welded on the road and then lifted from the road onto the right-of-way.

Where pipelines do not parallel roads but cross country between stations, they shall be welded in place at wellsites or on access roads and then pulled between stations with a suitable piece of equipment. Traffic will be restricted along these areas so that the pipeline right-of-way will not be used as an access road.

3. An open drilling system will be used. Reserve pits will be lined with impervious synthetic liners. Prior to backfilling the reserve pit all fluids will be pumped from the pit into trucks and hauled to approved disposal sites. When the reserve pits are backfilled the surplus oil and mud, etc will be buried a minimum of 3.0 feet below the surface of the soil.
4. A closed production system will be used. Production fluids will be contained in leak proof tanks. All production fluids will be disposed of at approved disposal sites. The indiscriminate dumping of production fluids on roads, wellsites or other areas will not be allowed.
5. Although there is a 30 foot right-of-way the bladed area of the access road will be limited to 22 feet in all areas except where deep cuts and fills are required, sharp turns are required, or at the intersections with other roads.

C. WILDLIFE/VEGETATION/THREATENED & ENDANGERED SPECIES

Because the wellsite is located more than 1/2 mile from a Ferruginous hawk nest this wellsite may be constructed and drilled at any time throughout the year.

D. CULTURAL RESOURCES

Cultural resource surveys were performed by James A. Truesdale. The consultant recommends clearance of the project as it is presently staked.

E. UTE TRIBAL REGULATIONS

(1). Prior to commencing surveys or construction on the U&O Indian Reservation the operator, and any of its sub-contractors, shall acquire access permits and business permits from the Ute Indian Tribe.

(2). Prior to the commencement of construction, the operator shall notify the Ute Tribal Department of Energy and Minerals of the date construction shall begin.

7.0 UNAVOIDABLE ADVERSE IMPACTS

A. SURFACE ALTERATIONS

None of the adverse impacts listed in 5.0 above can be avoided in a practical manner except those which are mitigated in item 6.0 above and those specified in BLM's 13 point surface use plan.

B. RELATIONSHIP BETWEEN SHORT-TERM USE OF THE ENVIRONMENT VS LONG TERM PRODUCTIVITY.

1. Short Term: (Estimated 20 years) A total loss of production on the land and the associated environmental impacts will continue to influence the surrounding area for the productive life of the well.

2. Long Term: Standard policies provide for rehabilitation of wellsite and rights-of-ways. After the land is rehabilitated, it is not expected to return to its original productive capability. Normally, there will be a permanent scar left on the landscape.

C. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT

Oil and Gas are non-renewable resources, once they have been removed they can never be replaced.

8.0 CUMULATIVE IMPACTS

A. FULL DEVELOPMENT

Each additional well drilled for development increases the soil erosion potential, reduces wildlife habitat and grazing, increases potential soil and geologic pollution resulting from salt loading, reduces the soil's potential to recover, and increases the potential of water pollution from produced waters and hydro-carbons. Therefore, strict conformance with the mitigation measures and recommendations in this document is emphasized to minimize the adverse environmental impacts.

9.0 NEPA COMPLIANCE

A. RESEARCH/DOCUMENTATION

Based on available information, 10-17-96, the proposed location in the following areas of environmental impacts has been cleared:

<u>X</u>	Yes	_____	No	Listed Threatened & Endangered species
<u>X</u>	Yes	_____	No	Critical wildlife habitat
<u>X</u>	Yes	_____	No	Historical and cultural resources

10.0 REMARKS

A. SURFACE PROTECTION/REHABILITATION

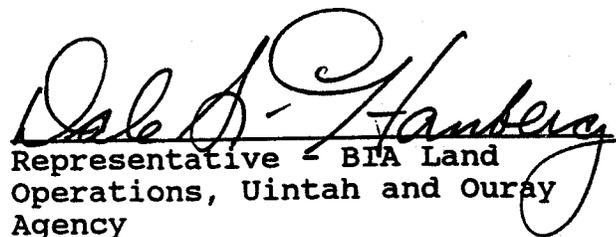
All essential surface protection and rehabilitation requirements are specified above.

11.0 RECOMMENDATIONS

A. APPROVAL/DISAPPROVAL

We recommend approval of the proposed action as outlined in item 1.0 above.

10-17-96
Date


Representative - BIA Land
Operations, Uintah and Ouray
Agency

12.0 DECLARATION

A. APPROVAL

It has been determined that the proposed action is not a federal action significantly affecting the quality of the environment as it would require the preparation of an environmental impact statement in accordance with Section 102 (2) (c) of the National Environmental Policy Act of 1969 (42 USC 4331) (2) (C).

10/18/96
Date



Superintendent,
Uintah and Ouray Agency

14.0 CONSULTATION

A. REPRESENTATIVES/ORGANIZATION

Dale Hanberg- BIA
Ed Trotter-Petroglyphs
Lonnie Nephi-UTEM
Stan Olmstead-BLM
B:\EAPetro.181

CONDITIONS OF APPROVAL
APPLICATION FOR PERMIT TO DRILL

Company/Operator: Petroglyph Operating Company Inc.

Well Name & Number: Ute Tribal 18-14

API Number: 43-013-31746

Lease Number: 14-20-H62-3513

Location: SESW Sec. 18 T.5S R. 3W

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

CONDITIONS OF APPROVAL FOR NOTICE TO DRILL

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

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

A. DRILLING PROGRAM

1. 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 **2M** 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.

If an air compressor is on location and is being utilized to provide air for the drilling medium while drilling, the special drilling requirements in Onshore Oil and Gas Order No. 2, regarding air or gas drilling shall be adhered to. If a mist system is being utilized then the requirement for a deduster shall be waived.

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 shall be isolated and/or protected by having a cement top for the production casing at least 200 ft. above the top of the shallowest potential productive zone. 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 the top of the cement 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.

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 3162.7-2, 3162.7-3, and 3162.7-4 shall be submitted to the appropriate District Office within thirty (30) 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 3162.7-4.

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 onlease 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 and tested for meter accuracy 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 approvals are necessary, please contact one of the following individuals:

Ed Forsman (801) 789-7077
Petroleum Engineer

Wayne P. Bankert (801) 789-4170
Petroleum Engineer

Jerry Kencka (801) 781-1190
Petroleum Engineer

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.

SURFACE CONDITIONS OF APPROVAL

The Surface Use Conditions of Approval all come from the BIA Concurrence letter and Environmental Analysis Mitigation Stipulations.

Concurrence Letter:

1. The Ute Tribe Energy and Mineral Department is to be notified 48 hours prior to construction. A Tribal Technician is to monitor construction.
2. A 50 foot corridor rights-of-way shall be granted with the following: Access roads shall be limited to 22 feet, except as granted for sharp turns. Surface pipelines shall be limited to 13 feet. Buried pipelines shall be limited to 15 feet, and will be monitored by a Tribal Technician.
3. Petroglyph will assure the Ute Tribe that any/all contractors and subcontractors have acquired a Tribal Business License and have access permits prior to construction.
4. All vehicular traffic, personnel movement, construction, and restoration activities shall be confined to the areas examined, as referenced in report, and to the existing roadways and/or evaluated access routes.
5. All personnel should refrain from collecting artifacts and from disturbing any significant cultural resources in the area.
6. The Ute Tribe Energy & Mineral Department shall be consulted if cultural remains from subsurface deposits are exposed or identified during construction.
7. All mitigation Stipulations from the BIA combined site specific Environmental Analysis will be strictly adhered to.
8. Upon completion of APD and Right-of-way construction, the Ute Tribe Energy & Mineral Department will be notified by Petroglyph so that a Tribal Technician can verify an Affidavit of Completion.

Environmental Analysis Mitigation Stipulations:

VEGETATION/LANDSCAPE

1. Before the site is abandoned, the company will be required to restore the well site and right-of-ways to near their original state. The disturbed areas will be reseeded with desirable perennial vegetation.
2. Noxious weeds will be controlled on the well site and rights-of-way. If noxious weeds spread from the project area onto adjoining land, the company will also be responsible for their control.

SOILS/ RANGE/ WATERSHEDS

1. Soil Erosion will be mitigated by reseeded all disturbed areas.
2. The pipeline will be constructed to lay on the soil surface, and the right-of-way for the pipeline will not be bladed or cleared of vegetation. Where pipelines are constructed parallel to roads they may be welded on the road and then lifted from the road onto the right-of-way. Where pipelines cross country between stations, they shall be welded in place at wellsites or on roads and then pulled into place with suitable equipment. Traffic will be restricted along these areas so that the pipeline right-of-way will not be used as an access road.
3. An open drilling system will be used. Reserve pits will be lined with impervious synthetic liners. Prior to backfilling the reserve pit all fluids will be pumped from the pit into trucks and hauled to approved disposal sites. When the reserve pits are backfilled the cuttings and mud, etc. left in them to be buried will be buried a minimum of three feet below the surface of the soil.
4. A closed production system will be used. Production fluids will be contained in leak proof tanks. All production fluids will be disposed of at approved disposal sites. The indiscriminate dumping of production fluids on roads, wellsites or other areas will not be allowed.
5. Although there is a 50 foot right-of-way, the bladed areas of the access road will be limited to 22 feet in all areas except where deep cuts and fills are required, or sharp turns are required, and at intersections with other roads.

WILDLIFE/VEGETATION/ THREATENED & ENDANGERED SPECIES

Because the wellsite is located more than one half mile from a Ferruginous Hawk nest, this well site does not have a seasonal restriction on construction and drilling.



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

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

January 14, 1997

Petroglyph Operating Company, Inc.
P.O. Box 607
Roosevelt, Utah 84066

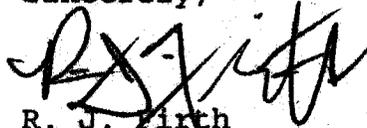
Re: Ute Tribal 18-14 Well, 660' FSL, 1980' FWL, SE SW, Sec. 18,
T. 5 S., R. 3 W., Duchesne County, Utah

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 43-013-31746.

Sincerely,


R. J. Firth
Associate Director

lwp

Enclosures

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

Operator: Petroglyph Operating Company, Inc.
Well Name & Number: Ute Tribal 18-14
API Number: 43-013-31746
Lease: 14-20-H62-3513
Location: SE SW Sec. 18 T. 5 S. R. 3 W.

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)538-5336.

Notify the Division prior to commencing operations to plug and abandon the well. Contact Frank Matthews at (801)538-5334 or Mike Hebertson at (801)538-5333.

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.

STATE OF UTAH, DIV OF OIL, GAS & MINERALS

Operator: PETROGLYPH OPERATING	Well Name: UTE TRIBAL 18-15
Project ID: 43-013-31753	Location: SEC. 18 - T5S - R3W

Design Parameters:

Mud weight (8.90 ppg) : 0.462 psi/ft
 Shut in surface pressure : 2323 psi
 Internal gradient (burst) : 0.060 psi/ft
 Annular gradient (burst) : 0.000 psi/ft
 Tensile load is determined using air weight
 Service rating is "Sweet"

Design Factors:

Collapse : 1.125
 Burst : 1.00
 8 Round : 1.80 (J)
 Buttress : 1.60 (J)
 Other : 1.50 (J)
 Body Yield : 1.50 (B)

Length (feet)	Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost		
1	5,774	5.500	15.50	M-50	ST&C	5,774	4.890		
	Collapse Load (psi)	Strgth (psi)	S.F.	Burst Load (psi)	Min Int Strgth (psi)	Yield S.F.	Tension Load (kips)	Strgth (kips)	S.F.
1	2670	3650	1.367	2670	4550	1.70	89.50	186	2.08 J

Prepared by : MATTHEWS, Salt Lake City, Utah
 Date : 01-14-1997
 Remarks :

GREEN RIVER

Minimum segment length for the 5,774 foot well is 1,500 feet.

SICP is based on the ideal gas law, a gas gravity of 0.69, and a mean gas temperature of 114°F (Surface 74°F , BHT 155°F & temp. gradient 1.400°/100 ft.)

String type: Production

The mud gradient and bottom hole pressures (for burst) are 0.462 psi/ft and 2,670 psi, respectively.

NOTE: The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - collapse (with evacuated casing), 1.0 - (uniaxial) burst, 1.8 - API 8rd tension, 1.6 - buttress tension, 1.5 - body yield tension, and 1.6 - EUE 8rd tension. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser.
 Costs for this design are based on a 1987 pricing model. (Version 1.07)

DIVISION OF OIL, GAS AND MINING

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SPUDDING INFORMATION

Name of Company: PETROGLYPH OPERATING

Well Name: UTE 18-14

Api No. 43-013-31746

Section 18 Township 5S Range 3W County DUCHESNE

Drilling Contractor UNION

Rig # 16

SPUDDED:

Date 1/14/97

Time _____

How ROTARY

Drilling will commence _____

Reported by D. INGRAM

Telephone # _____

Date: 1/28/97 Signed: FRM

REPORT OF WATER ENCOUNTERED DURING DRILLING

1. Well name and number: Ute Tribal 18-14

API number: 43-013-31746

2. Well Location: QQ SESW Section 18 Township 5S Range 3W County Duchesne

3. Well operator: Petroglyph Operating Company, Inc.

Address: P.O. Box 607

Roosevelt, UT 84066

Phone: (801) 722-2531

4. Drilling contractor: Union Drilling

Address: P.O. Drawer 40

Buckhannon, WV 26201

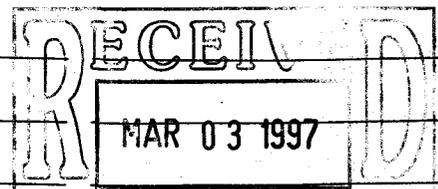
Phone: (304) 472-4610

5. Water encountered (attach additional pages as needed):

DEPTH		VOLUME (FLOW RATE OR HEAD)	QUALITY (FRESH OR SALTY)
FROM	TO		
	809	1/4" x 1/2" x 7'	FRESH
	2632	Add. 1/2" AT 7' Flow L	Fresh.

Blow test @ 1011 1/4" x 7"

6. Formation tops:



DIV. OF OIL, GAS & MIN.

If an analysis has been made of the water encountered, please attach a copy of the report to this form.

I hereby certify that this report is true and complete to the best of my knowledge.

Date: 1-20-97

Name & Signature: Deanna Bell

Title: Operations Coordinator

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

SUNDRY NOTICES AND REPORTS ON WELLS

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

SUBMIT IN TRIPLICATE

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
 Petroglyph Operating Company, Inc.

3. Address and Telephone No.
 P.O. Box 1839, Hutchinson, KS 67504-1839, (316) 665-8500

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
 SE SW 18-T5S-R3W
 660' FSL 1980' FWL

5. Lease Designation and Serial No.
 14-20-H62-3513

6. If Indian, Allottee or Tribe Name
 Ute Indian Tribe

7. If Unit or CA, Agreement Designation
 14-20-H62-4650

8. Well Name and No.
 Ute Tribal 18-14

9. API Well No.
 43-013-31746

10. Field and Pool, or Exploratory Area
 Antelope Creek Field

11. County or Parish, State
 Duchesne County, UT

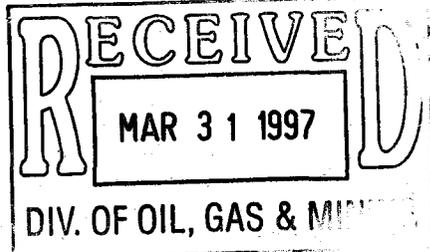
12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

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

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

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

Petroglyph Operating Company, Inc. has submitted an application for a UIC permit to convert the Ute Tribal 18-14 from a producing well to an injection well under the EPA Area Permit #UT2736-00000 within the Antelope Creek Waterflood Project Area located in Duchesne County, Utah.



14. I hereby certify that the foregoing is true and correct

Signed _____ Title Geo./Petroleum Engineering Tech. Date March 27, 1997

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
 Conditions of approval, if any:

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

*See instruction on Reverse Side

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

5. LEASE DESIGNATION AND SERIAL NO.
14-20-H62-3513

6. IF INDIAN, ALOTTEE OR TRIBE NAME
Ute Indian Tribe

7. UNIT AGREEMENT NAME
14-20-H62-4650

8. FARM OR LEASE NAME
Ute Tribal

9. WELL NO.
18-14

10. FIELD AND POOL, OR WILDCAT
Antelope Creek

11. SEC., T., R., M. OR BLOCK AND
SURVEY OR AREA
Sec. 18, T5S, R3W

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1.a. TYPE OF WELL: Oil Well Gas Well Dry Other

b. TYPE OF COMPLETION: New Well Workover Deepen Plug Back Diff. Reserv. Other

2. NAME OF OPERATOR
Petroglyph Operating Company, Inc.

3. ADDRESS OF OPERATOR
P.O. Box 1839, Hutchinson, KS 67504-1839

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface 660' FSL & 1980' FWL SE SW

At top prod. interval reported below

At total depth 5803' RTD

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14. PERMIT NO.
43-013-31746

DATE ISSUED

12. County or Parish
Duchesne

13. State
Utah

15. DATE SPUNDED
1/14/97

16. DATE T.D. REACHED
1/25/97

17. DATE COMPLETED (Ready to prod.)
3/1/97

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*
6031.1

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD
5803

21. PLUG BACK T.D., MD & TVD
5764

22. IF MULTIPLE COMPL., HOW MANY*

23. INTERVALS
DRILLED BY

ROTARY TOOLS

CABLE TOOLS

24. PRODUCING INTERVAL(S) OF THIS COMPLETION -- TOP, BOTTOM, NAME (MD AND TVD)*
Green River

25. WAS DIRECTIONAL SURVEY MADE

26. TYPE ELECTRIC AND OTHER LOGS RUN
AIT, CNE 6-13-97

27. WAS WELL CORED

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24#	414	12-1/4"	300 sx Class G + 2% CaCl2	
5-1/2"	15.5#	5805	7-7/8"	90 sx Modified HiFill + 330 sx Thixotropic w/ 5# sx Gilsonite	

29. LINER RECORD

SIZE	TOP	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-7/8"	4808	

30. TUBING RECORD

31. PERFORATION RECORD (Interval, size and number)

4771 - 4775 17 shots
4422 - 4427 21 shots
4375 - 4379 17 shots
3873 - 3877 17 shots

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
4422 - 4427	3844 gal. fluid & 13,500# prop.
4375 - 4379	4114 gal. fluid & 14,300# prop.
3873 - 3877	6121 gal. fluid & 34,300# prop.

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump)				WELL STATUS (Producing or shut-in)		
5/10/97	Pumping 2 1/2 x 1 3/4 x 16				Producing		
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD	OIL - BBL.	GAS - MCF.	WATER - BBL.	GAS-OIL RATIO
5/12/97	24			10	12	13	
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED	OIL - BBL.	GAS - MCF.	WATER - BBL.	OIL GRAVITY - API (CORR.)	
	750	24 HR. RATE					

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

Sold, used for fuel

TEST WITNESSED BY

Dave Schreiner

35. LIST OF ATTACHMENTS

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

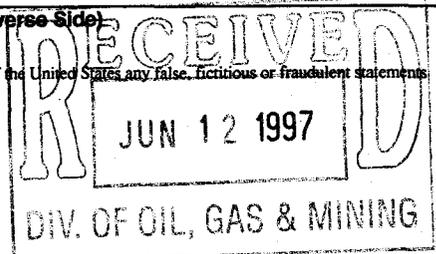
Signed April Menzies

Title Geology/Petroleum Engineering Technician

Date 6-10-97

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

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly or 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.



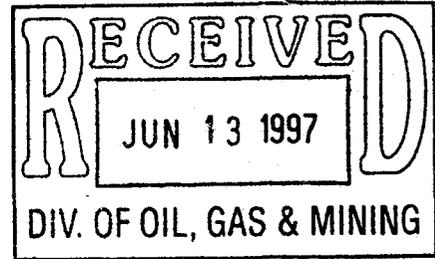
37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

38. GEOLOGIC MARKERS

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
X Marker	4183					
Douglas Creek	4323					
B Limestone	4706					
Castle Peak	5286					
Basal Carbonate	5696					

CONFIDENTIAL

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June 10, 1997

Vicky Dyson
State of Utah
Division of Oil, Gas & Mining
1594 W. North Temple, Ste.1210
Salt Lake City, UT 84114

CONFIDENTIAL

Ms. Dyson:

Enclosed please find the logs listed below for the wells located in Duchesne County, Utah.

<u>Well Name</u>	<u>Log</u>
Ute Tribal 18-14	CNL, AIT 43013 31746 055 03018
Ute Tribal 18-16	CNL, AIT

I have received your requests for logs on the 30-02, 20-09 and 29-05. These logs are unavailable at the moment as they are being copied. I have requested rapid service on the copying and will forward these to you as quickly as possible.

Please hold these in confidence as permitted in division guidelines. If you need further information, please do not hesitate to call me at 316-665-8500.

Sincerely,

April Menzies
Petroleum Engineering/Geology Technician

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. 1420H623513
2. Name of Operator PETROGLYPH OPERATING COMPANY,		6. If Indian, Allottee or Tribe Name UTE INDIAN TRIBE
3a. Address P.O. BOX 607 ROOSEVELT, UT 84066		7. If Unit or CA/Agreement, Name and/or No. 1420H624650
3b. Phone No. (include area code) Ph: 435.722.2531 Fx: 435.722.9145		8. Well Name and No. UTE TRIBAL 18-14
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 18 T5S R3W Mer SESW 660FSL 1980FWL		9. API Well No. 43-013-31746
		10. Field and Pool, or Exploratory ANTELOPE CREEK
		11. County or Parish, and State DUCHESNE COUNTY, UT

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input 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 checked="" 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"/> WRK
	<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 recompleat 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 recompleat 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.)

A workover was performed on the above referenced well on 4/10/2001 and it was put back to production on 4/12/2001. The following zones were reperforated 3877-84, 4520-28 4 spf and 120 degree phasing. Treated with 15% HCL and additives.
4520-28 treated with 500 gallons
4375-79 treated with 500 gallons
3873-84 treated with 1000 gallons

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JUL 06 2001

DIVISION OF
OIL, GAS AND MINING

14. I hereby certify that the foregoing is true and correct. Electronic Submission #5433 verified by the BLM Well Information System For PETROGLYPH OPERATING COMPANY,, sent to the Vernal	
Name (Printed/Typed) MICHEAL SAFFORD	Title COORDINATOR
Signature	Date 07/03/2001

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.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

(3)

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
DRILLING INSPECTION FORM

OPERATOR: PETROGLYPH OPERATING CO COMPANY REP: STRINGHAM

WELL NAME UTE TRIBAL #18-14 API NO 43-013-31746

QTR/QTR: SE/SW SECTION: 18 TWP: 28 RANGE: 3N

CONTRACTOR: UNION DRILLING COMPANY RIG NUMBER: #16

INSPECTOR: DENNIS L INGRAM TIME: 1:00 PM DATE: 1/15/97

SPUD DATE: DRY: 1/14/97 ROTARY: 1/14/97 PROJECTED T. D.: 6000'

OPERATIONS AT TIME OF VISIT: PRESENTLY DRILLING AHEAD AT 308'

ON SURFACE HOLE. THEY WILL SET JUST OVER 400 FEET OF PIPE.

WELL SIGN: Y MUD WEIGHT 8.3+ LBS/GAL ROPE: N

BLOOD LINE: Y FLARE PIT: N H2S POTENTIAL: N

ENVIRONMENTAL:

RESERVE PIT: Y FENCED: Y LINED: Y PLASTIC: Y

RUBBER: _____ BENTONITE: _____ SANITATION: (2)

ROPE TEST RECORDED IN THE RIG DAILY TOUR BOOK: N/A,

1200 PSI ON KOONEY,

REMARKS:

T. D. 'D THE #21-07 ON 1/12/97 AND MOVED HERE. SPUDDED LATE

LAST NIGHT. GOZEN IS PRESENTLY BUILDING ANOTHER LOCATION IN

SECTION 18. APD IS HUNG IN DOG HOUSE.

(2)

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
DRILLING INSPECTION FORM

OPERATOR: PETROGLYPH OPERATING CO COMPANY REP: KENT STRINGHAM

WELL NAME UTE TRIBAL #1B-14 API NO 43-013-31745

QTR/QTR: SE/SW SECTION: 1B TWP: 5E RANGE: 3W

CONTRACTOR: UNION DRILLING COMPANY RIG NUMBER: #16

INSPECTOR: DENNIS L INGRAM TIME: 1:15 PM DATE: 1/22/97

SPUD DATE: DRY: 1/14/97 ROTARY: 1/14/97 PROJECTED T.D.: 5774

OPERATIONS AT TIME OF VISIT: PULL OUT OF HOLE TO PICK UP BENT

SUB AT 3847.

WELL SIGN: Y MUD WEIGHT 8.4 LBS/GAL BOPE: Y

BLOOD LINE: Y FLARE FIT: N H2S POTENTIAL: N

ENVIRONMENTAL:

RESERVE PIT: Y FENCED: Y LINED: Y PLASTIC: Y

RUBBER: _____ BENTONITE: _____ SANITATION: 2

BOPE TEST RECORDED IN THE RIG DAILY TOUR BOOK: YES,

3200 PSI ON ACCUMULATOR.

REMARKS:

OPERATOR LOST DRILL BIT IN HOLE AND CHASED SAME TO BOTTOM. THE

BIT TURNED UPSIDE DOWN WHILE THEY TRYED TO RETREIVE IT WITH AN

OVERSHOT (BIT LOCATED AT 4018 FEET). CONTRACTOR SPOTTED A 400

FOOT CEMENT PLUG ON TOP OF BIT AND TAGGED SAME AT 3845 FEET.

THEY HOPE TO DRILL AROUND THE FISH AND CONTINUE ON TO T.D.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8

1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
<http://www.epa.gov/region08>

MAR 27 2007

Ref: 8P-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Steve Wall
District Manager
Petroglyph Energy, Inc.
4116 West 3000 So. Ioka Lane
Roosevelt, UT 84066

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY

43-013-31746
5S 3W 18

Re: Additional Well to Antelope Creek Area Permit
UIC Permit No. UT20736-00000
Well ID: UT20736-07536
Ute Tribal No. 18-14
Duchesne County, Utah

Dear Mr. Wall:

The Petroglyph Operating Company, Inc.'s (Petroglyph) request to convert the former Green River Formation oil well Ute Tribal No. 18-14 to an enhanced recovery injection well in the Antelope Creek Waterflood project is hereby authorized by the Environmental Protection Agency (EPA) under the terms and conditions of the Authorization For Additional Well.

The addition of the proposed injection well, within the exterior boundary of the Uintah & Ouray Indian Reservation, is being made under the authority of 40 CFR §144.33 (c) and terms of the Antelope Creek Waterflood UIC Area Permit No. UT20736-00000. Unless specifically mentioned in the enclosed Authorization For Additional Well, the Ute Tribal No. 18-14 is subject to all terms and conditions of the UIC Area Permit UT20736-00000 as modified.

Please be aware that Petroglyph does not have authorization to begin injection operations into the well until all Prior to Commencing Injection requirements have been submitted and evaluated by the EPA, and Petroglyph has received written authorization from the Director to begin injection.

Prior to receiving authorization to inject, the EPA requires that Petroglyph submit for review and approval the following: (1) the results of a **Part I (Internal) Mechanical Integrity Test (MIT)**, (2) a **pore pressure** calculation of the injection interval, and (3) a completed EPA **Form No. 7520-12 Well Rework Record**.

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DIV. OF OIL, GAS & MINING

The initial Maximum Allowable Injection Pressure (MAIP) for the Ute Tribal No. 18-14 was determined to be **1405 psig**. UIC Area Permit UT20736-00000 also provides the opportunity for the permittee to request a change in the MAIP based upon results of a step rate test that demonstrates that the formation breakdown pressure will not be exceeded.

If you have any questions, please call Ms. Linda Bowling at (303) 312-6254 or 1.800.227.8917 (Ext. 6254). Please submit the required data to **ATTENTION: LINDA BOWLING**, at the letterhead address, citing **MAIL CODE: 8P-W-GW** very prominently.

Sincerely,

Carol L. Campbell for

Stephen S. Tuber
Assistant Regional Administrator
Office of Partnerships and Regulatory Assistance

encl: Authorization For Conversion of An Additional Well
EPA Form No. 7520-12 (Well Rework Record)

cc w/enclosures:

Chester Mills, Superintendent
BIA - Uintah & Ouray Indian Agency
P.O. Box 130
Fort Duchesne, UT 84026

Frances Poowegup, Councilwoman
Uintah & Ouray Business Committee
Ute Indian Tribe
P.O. Box 190
Ft. Duchesne, UT 84026

Irene Cuch, Councilwoman
Uintah & Ouray Business Committee
Ute Indian Tribe
P.O. Box 190
Ft. Duchesne, UT 84026

Maxine Natchees, Chairperson
Uintah & Ouray Business Committee
Ute Indian Tribe
P.O. Box 190
Fort Duchesne, UT 84026

Ronald Groves, Councilman
Uintah & Ouray Business Committee
Ute Indian Tribe
P.O. Box 190
Ft. Duchesne, UT 84026

T. Smiley Arrowchis, Vice Chairman
Uintah & Ouray Business Committee
Ute Indian Tribe
P.O. Box 190
Ft. Duchesne, UT 84026

Fluid Minerals Engineering Office
U.S. Bureau of Land Management-
Vernal Field Office
170 South 500 East
Vernal, Utah 84078

Gilbert Hunt
Associate Director
Utah Division of Oil, Gas, and Mining
1594 West North Temple - Suite 1220
Salt Lake City, UT 84114-5801

Kenneth Smith
Executive Vice President and Chief
Operating Officer
Petroglyph Energy, Inc.
555 S. Cole Blvd
Boise, ID 83709

Lynn Becker, Director
Energy and Minerals Department
Ute Indian Tribe
P.O. Box 70
Ft. Duchesne, UT 84026

Richard Jenks, Jr., Councilman
Uintah & Ouray Business Committee
Ute Indian Tribe
P.O. Box 190
Ft. Duchesne, UT 84026

Shaun Chapoose, Director
Land Use Department
Ute Indian Tribe
P.O. Box 460
Fort Duchesne, UT 84026

bcc w/o enclosures:

Judy Hervig, 8TAP
Nathan Wisser, 8 ENF-UFO





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8

1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
<http://www.epa.gov/region08>

AUTHORIZATION FOR ADDITIONAL WELL

UIC Area Permit No: UT20736-00000

The Antelope Creek Waterflood Final UIC Area Permit No. UT20736-00000, effective July 12, 1994, authorizes injection for the purpose of enhanced oil recovery into multiple lenticular sand units which are distributed throughout the lower portion of the Green River Formation. On October 18, 2006, the permittee provided notice to the Director concerning the following additional enhanced recovery injection well:

Well Name: **Ute Tribal 18-14**
EPA Well ID Number: **UT20736-07536**
Location: 660 ft FSL & 1980 ft FWL
Sec. 18 - T5S - R3W
Duchesne County, Utah

Pursuant to 40 CFR §144.33, Area UIC Permit No. UT20736-00000 authorizes the permittee to construct and operate, convert, or plug and abandon additional enhanced recovery injection wells within the area permit. This well was determined to satisfy additional well criteria required by the permit.

This well is subject to all provisions of UIC Area Permit No. UT20736-00000, as modified and as specified in the Well Specific Requirements detailed below. This Authorization shall expire one year after the Effective Date unless the permittee has converted the well to injection or submits a written request to extend this Authorization prior to the expiration date.

This Authorization is effective upon signature.

Date: MAR 27 2007

Carol L. Campbell for

Stephen S. Tuber
*Assistant Regional Administrator
Office of Partnerships and Regulatory Assistance

** The person holding this title is referred to as the Director throughout the permit and Authorization*

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WELL-SPECIFIC REQUIREMENTS

Well Name: Ute Tribal 18-14
EPA Well ID Number: UT20736-07536

Prior to commencing injection operations, the permittee shall submit the following information and receive written Authority to Inject from the Director:

1. a successful Part I (Internal) Mechanical Integrity Test (MIT);
2. pore pressure calculation of the proposed injection zone; and
3. completed Well Rework Record EPA Form No. 7520-12 and schematic diagram.

Approved Injection Zone: Injection is approved between the base of the Green River A Lime Marker, at approximately 3698 ft (KB)_{CBL}, to the top of the Basal Carbonate, at approximately 5696 ft (KB)_{CBL}.

Maximum Allowable Injection Pressure (MAIP): The initial MAIP is **1405 psig**, based on the following calculation:

$$\begin{aligned} \text{MAIP} &= [\text{FG} - (0.433)(\text{SG})] * \text{D}, \text{ where} \\ \text{FG} &= 0.80 \text{ psi/ft} \quad \text{SG} = 1.009 \quad \text{D} = 3873 \text{ ft (top perforation depth KB)} \\ \text{MAIP} &= \mathbf{1405 \text{ psig}} \end{aligned}$$

UIC Area Permit No. UT20736-00000 also provides the opportunity for the permittee to request a change of the MAIP based upon results of a step rate test that demonstrates the formation breakdown pressure will not be exceeded.

Well Construction and Corrective Action: *No Corrective Action is required.*

Based on review of well construction and cementing records, including CBL, well construction is considered adequate to prevent fluid movement out of the injection zone and into USDWs.

Tubing and Packer: *No Corrective Action is required.*

The 2-3/8" or similar size injection tubing is approved. The packer shall be set at a depth no more than 100 ft above the top perforation.

Corrective Action for Wells in Area of Review: *No Corrective Action is required.*

The following wells that penetrate the confining zone are within or proximate to a 1/4 mile radius around the Ute Tribal No. 18-14 were evaluated to determine if any corrective action is necessary to prevent fluid movement into USDWs:

Well: Ute Tribal No. 18-11L	Location: NESW	Sec. 18 - T5S - R3W
Well: Ute Tribal No. 18-12M	Location: NWSW	Sec. 18 - T5S - R3W
Well: Ute Tribal No. 18-15	Location: SWSE	Sec. 18 - T5S - R3W

WELL-SPECIFIC REQUIREMENTS

Well Name: Ute Tribal 18-14
EPA Well ID Number: UT20736-07536

Prior to commencing injection operations, the permittee shall submit the following information and receive written Authority to Inject from the Director:

1. a successful Part I (Internal) Mechanical Integrity Test (MIT);
2. pore pressure calculation of the proposed injection zone; and
3. completed Well Rework Record EPA Form No. 7520-12 and schematic diagram.

Approved Injection Zone: Injection is approved between the base of the Green River A Lime Marker, at approximately 3698 ft (KB)_{CBL}, to the top of the Basal Carbonate, at approximately 5696 ft (KB)_{CBL}.

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$$\begin{aligned} \text{MAIP} &= [\text{FG} - (0.433)(\text{SG})] * \text{D}, \text{ where} \\ \text{FG} &= 0.80 \text{ psi/ft} \quad \text{SG} = 1.009 \quad \text{D} = 3873 \text{ ft (top perforation depth KB)} \\ \text{MAIP} &= \mathbf{1405 \text{ psig}} \end{aligned}$$

UIC Area Permit No. UT20736-00000 also provides the opportunity for the permittee to request a change of the MAIP based upon results of a step rate test that demonstrates the formation breakdown pressure will not be exceeded.

Well Construction and Corrective Action: *No Corrective Action is required.*
Based on review of well construction and cementing records, including CBL, well construction is considered adequate to prevent fluid movement out of the injection zone and into USDWs.

Tubing and Packer: *No Corrective Action is required.*
The 2-3/8" or similar size injection tubing is approved. The packer shall be set at a depth no more than 100 ft above the top perforation.

Corrective Action for Wells in Area of Review: *No Corrective Action is required.*
The following wells that penetrate the confining zone are within or proximate to a 1/4 mile radius around the Ute Tribal No. 18-14 were evaluated to determine if any corrective action is necessary to prevent fluid movement into USDWs:

Well: Ute Tribal No. 18-11L	Location: NESW	Sec. 18 - T5S - R3W
Well: Ute Tribal No. 18-12M	Location: NWSW	Sec. 18 - T5S - R3W
Well: Ute Tribal No. 18-15	Location: SWSE	Sec. 18 - T5S - R3W

Demonstration of Mechanical Integrity: A successful demonstration of Part I (Internal) Mechanical Integrity using a standard Casing-Tubing pressure test is required prior to injection and at least once every five years thereafter. EPA reviewed the cement bond log and determined the cement will provide an effective barrier to significant upward movement of fluids through vertical channels adjacent to the well bore pursuant to 40 CFR 146.8 (a)(2). Therefore, further demonstration of Part II (External) Mechanical Integrity is not required at this time.

Demonstration of Financial Responsibility: The applicant has demonstrated financial responsibility in the amount of \$15,000 via a Surety Bond that has been reviewed and approved by the EPA.

Plugging and Abandonment: The well shall be plugged in a manner that isolates the injection zone and prevents movement of fluids into or between USDWs. Tubing, packers, and any downhole apparatus shall be removed. Class A, C, G, and H cements, with additives such as accelerators and retarders that control or enhance cement properties, may be used for plugs; however, volume extending additives and gel cements are not approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.2 lb/gal shall be placed between all plugs. A minimum 50 ft surface plug shall be set inside and outside of the surface casing to seal pathways for fluid migration into the subsurface. Within sixty (60) days after plugging the owner or operator shall submit Plugging Record (EPA Form 7520-13) to the Director. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. At a minimum, the following plugs are required:

- PLUG NO. 1: Set a cast iron bridge plug (CIBP) no more than 50 ft above the top perforation (located at 3873 ft (KB)) with a minimum 20 ft cement plug on top of the CIBP.
- PLUG NO. 2: Set a minimum 200 ft cement plug inside of the 5-1/2" casing and on the backside of the 5-1/2" casing across the Trona Zone and the Mahogany Shale, between approximately 2454 ft (KB) to 2654 ft (KB).
- PLUG NO. 3: Set a minimum 200 ft cement plug inside of the 5-1/2" casing and on the backside of the 5-1/2" casing across the top of the Green River, between approximately 1185 ft (KB) to 1385 ft (KB).
- PLUG NO. 4: Set a minimum 200 ft cement plug inside of the 5-1/2" casing and on the backside of the 5-1/2" casing across the base of the USDW, between approximately 844 ft (KB) to 1044 ft (KB).
- PLUG NO. 5: Set a minimum 50 ft cement plug on the backside of the 5-1/2" casing, across the surface casing shoe at 414 ft (KB) (unless pre-existing backside cement precludes cement-squeezing this interval).
- PLUG NO. 6: Set a cement plug inside of the 5-1/2" casing, from at least 389 ft (KB) to 439 ft (KB).

PLUG NO. 7: Set a cement plug on the backside of the 5-1/2" casing, from surface to a depth of at least 50 ft.

PLUG NO. 8: Set a cement plug inside of the 5-1/2" casing from surface to a depth of at least 50 ft.

Cut off surface and 5-1/2" casing at least 4 ft below ground level and set P&A marker; submit Sundry Notices and all necessary data as required by the EPA and other regulatory agencies.

Reporting of Noncompliance:

- (a) Anticipated Noncompliance. The operator 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 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) Written Notice of any noncompliance which may endanger health or the environment shall be reported to the Director within five (5) days of the time the operator becomes aware of the noncompliance. The written notice shall contain a description of the noncompliance and its cause; the period of noncompliance including dates and times; if the noncompliance has not been corrected the anticipated time it is expected to continue; and steps taken or planned to prevent or reduce recurrence of the noncompliance.

Twenty-Four Hour Noncompliance Reporting:

The operator shall report to the Director any noncompliance which may endanger health or environment. Information shall be provided, either orally or by leaving a message, within twenty-four (24) hours from the time the operator becomes aware of the circumstances by telephoning 1.800.227.8917 and asking for the EPA Region 8 UIC Program Compliance and Enforcement Director, or by contacting the Region 8 Emergency Operations Center at 303.293.1788 if calling from outside EPA Region 8. The following information shall be included in the verbal report:

- (a) Any monitoring or other information which indicates that any contaminant may cause an endangerment to a USDW.
- (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.

PLUG NO. 7: Set a cement plug on the backside of the 5-1/2" casing, from surface to a depth of at least 50 ft.

PLUG NO. 8: Set a cement plug inside of the 5-1/2" casing from surface to a depth of at least 50 ft.

Cut off surface and 5-1/2" casing at least 4 ft below ground level and set P&A marker; submit Sundry Notices and all necessary data as required by the EPA and other regulatory agencies.

Reporting of Noncompliance:

- (a) Anticipated Noncompliance. The operator 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 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) Written Notice of any noncompliance which may endanger health or the environment shall be reported to the Director within five (5) days of the time the operator becomes aware of the noncompliance. The written notice shall contain a description of the noncompliance and its cause; the period of noncompliance including dates and times; if the noncompliance has not been corrected the anticipated time it is expected to continue; and steps taken or planned to prevent or reduce recurrence of the noncompliance.

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- (a) Any monitoring or other information which indicates that any contaminant may cause an endangerment to a USDW.
- (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.

Oil Spill and Chemical Release Reporting:

The operator shall comply with all other reporting requirements related to oil spills and chemical releases or other potential impacts to human health or the environment by contacting the **National Response Center (NRC) 1.800.424.8802 or 202.267.2675**, or through the NRC website at **<http://www.nrc.uscg.mil/index.htm>**.

Other Noncompliance:

The operator shall report all other instances of noncompliance not otherwise reported at the time monitoring reports are submitted.

Other Information:

Where the operator 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 operator shall submit such correct facts or information within two (2) weeks of the time such information became known to him.

WELL-SPECIFIC CONSIDERATIONS

Well Name: Ute Tribal 18-14
EPA Well ID: UT20736-07536

Underground Sources of Drinking Water (USDWs): USDWs in the Antelope Creek Waterflood area generally may occur within the Uinta Formation, which extends from the surface to the top of the Green River Formation at approximately 1285 ft (KB). According to "*Base of Moderately Saline Ground Water in the Uinta Basin, Utah, State of Utah Technical Publication No. 92,*" the base of moderately saline ground water may be found at approximately 75 ft. below ground surface at this well location. Based on analysis of the submitted CBL the top of casing cement in this well is at approximately 1932 ft (KB).

Confining Zone: The Confining Zone at this location is approximately 230 ft of interbedded limestone and shale between the depths of 3468 ft to 3698 ft (KB) which directly overlies the Injection Zone, based on correlation to the Antelope Creek Ute Tribal 04-03 well Type Log. Additional impermeable lacustrine shale beds above the Confining Zone provide for further protection for any overlying USDW.

Injection Zone: The Injection Zone at this well location is an approximately 1998 ft section of multiple lenticular sand units interbedded with shale, marlstone and limestone from the base of the Confining Zone at 3698 ft (KB) to the top of the Basal Carbonate Formation at 5696 ft (KB), based on correlation to the Antelope Creek Ute Tribal 04-03 well Type Log.

Well Construction: The CBL shows three (3) sections that consist of more than 69 ft of 80% or greater bond across the confining zone, at approximately 3540 ft (KB) to 3558 ft (KB); 3644 ft to 3659 ft (KB); and 3662 ft (KB) to 3698 ft (KB)

Surface Casing: 8-5/8" casing is set at 414 ft (KB) in a 12-1/4" hole, using 300 sacks cement circulated to the surface

Longstring Casing: 5-1/2" casing is set at 5805 ft (KB) in a 7-7/8" 5803 ft (KB) total depth hole with plugged back total depth (PBSD) of 5764 ft (KB), cemented with 420 sacks cement

Top of Cement : 1932 ft (KB)_{CBL}

Perforations: Top: 3873 ft (KB) Bottom : 4775 ft (KB)

WELL-SPECIFIC CONSIDERATIONS

Well Name: Ute Tribal 18-14
EPA Well ID: UT20736-07536

Underground Sources of Drinking Water (USDWs): USDWs in the Antelope Creek Waterflood area generally may occur within the Uinta Formation, which extends from the surface to the top of the Green River Formation at approximately 1285 ft (KB). According to "*Base of Moderately Saline Ground Water in the Uinta Basin, Utah, State of Utah Technical Publication No. 92,*" the base of moderately saline ground water may be found at approximately 75 ft. below ground surface at this well location. Based on analysis of the submitted CBL the top of casing cement in this well is at approximately 1932 ft (KB).

Confining Zone: The Confining Zone at this location is approximately 230 ft of interbedded limestone and shale between the depths of 3468 ft to 3698 ft (KB) which directly overlies the Injection Zone, based on correlation to the Antelope Creek Ute Tribal 04-03 well Type Log. Additional impermeable lacustrine shale beds above the Confining Zone provide for further protection for any overlying USDW.

Injection Zone: The Injection Zone at this well location is an approximately 1998 ft section of multiple lenticular sand units interbedded with shale, marlstone and limestone from the base of the Confining Zone at 3698 ft (KB) to the top of the Basal Carbonate Formation at 5696 ft (KB), based on correlation to the Antelope Creek Ute Tribal 04-03 well Type Log.

Well Construction: The CBL shows three (3) sections that consist of more than 69 ft of 80% or greater bond across the confining zone, at approximately 3540 ft (KB) to 3558 ft (KB); 3644 ft to 3659 ft (KB); and 3662 ft (KB) to 3698 ft (KB)

Surface Casing: 8-5/8" casing is set at 414 ft (KB) in a 12-1/4" hole, using 300 sacks cement circulated to the surface

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Top of Cement : 1932 ft (KB)_{CBL}

Perforations: Top: 3873 ft (KB) Bottom : 4775 ft (KB)

Wells in Area of Review (AOR): Construction and cementing records, including cement bond logs (CBL) as available, for two wells in the 1/4 mile AOR that penetrated the confining zone were reviewed and found adequate to prevent fluid movement out of the injection zone and into USDWs.

Well: Ute Tribal No. 18-11L
Well: Ute Tribal No. 18-12M
Well: Ute Tribal No. 18-15

Casing Cement top: 2002 ft (KB)_{CBL}
Casing Cement top: surface_{CBL}
Casing Cement top: 2034 ft (KB)_{CBL}



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

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: 1420H623513
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute Indian Tribe
1. TYPE OF WELL <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL OTHER <u>Water Injection Well</u>		7. UNIT or CA AGREEMENT NAME: 1420H62450
2. NAME OF OPERATOR: Petroglyph Operating Company, Inc.		8. WELL NAME and NUMBER: Ute Tribal 18-14
3. ADDRESS OF OPERATOR: P. O. Box 607 CITY <u>Roosevelt</u> STATE <u>Ut</u> ZIP <u>84066</u>		9. API NUMBER: 4301331746
		10. FIELD AND POOL, OR WILDCAT: Antelope Creek
4. LOCATION OF WELL FOOTAGES AT SURFACE: 660' FSL 1980' FWL		COUNTY: Duchesne
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWES 18 5S 3W		STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>4/2/2007</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input checked="" type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

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

This sundry is serving notice that Petroglyph Operating Company (POCI) plans to convert the Ute Tribal 18-14 to an injection well from a producing well. This work is being performed under our area UIC permit #UT 20736-07536. POCI has obtained approval to perform the conversion from the EPA and after conversion is complete we will submit the necessary information to the EPA to obtain approval to begin injection operations.

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

NAME (PLEASE PRINT) <u>Steve Wall</u>	TITLE <u>Manager</u>
SIGNATURE <u>Steve Wall</u>	DATE <u>4/2/2007</u>

(This space for State use only)

RECEIVED
JUN 25 2007
DIV. OF OIL, GAS & MINING

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

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: 1420H623513
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute Indian Tribe
1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>Water Injection Well</u>		7. UNIT or CA AGREEMENT NAME: 1420H62450
2. NAME OF OPERATOR: Petroglyph Operating Company, Inc.		8. WELL NAME and NUMBER: Ute Tribal 18-14
3. ADDRESS OF OPERATOR: P. O. Box 607 CITY <u>Roosevelt</u> STATE <u>Ut</u> ZIP <u>84066</u>		9. API NUMBER: 4301331746
4. LOCATION OF WELL FOOTAGES AT SURFACE: 660' FSL 1980' FWL		10. FIELD AND POOL, OR WILDCAT: Antelope Creek
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWSE 18 T5S R3W		COUNTY: Duchesne
		STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: <u>6/27/2007</u>	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input checked="" type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

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

First date of injection June 27, 2007

NAME (PLEASE PRINT) <u>Steve Wall</u>	TITLE <u>Manager</u>
SIGNATURE <u><i>Steve Wall</i></u>	DATE <u>6/29/2007</u>

(This space for State use only)

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JUL 03 2007
 DIV. OF OIL, GAS & MINING

COPY



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8

1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
<http://www.epa.gov/region08>

Ref: 8P-W-GW

JUN 27 2007

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

RECEIVED
JUL 02 2007

Steve Wall, District Manager
Petroglyph Energy, Inc.
4116 West 3000 So. Ioka Lane
Roosevelt, UT 84066

BY:.....

RE: 43,013,31746
Authorization to Inject
UIC Permit No. UT20736-00000
Well ID: UT20736-07536
Ute Tribal No. 18-14
Duchesne County, Utah

Dear Mr. Wall:

Thank you for submitting information pertaining to the newly constructed or converted Ute Tribal No. 18-14 enhanced recovery injection well to the Region 8 Ground Water Program office of the Environmental Protection Agency (EPA). The "Prior To Commencing Injection" requirements for the Ute Tribal No. 18-14 injection well required well owner and operator Petroglyph Operating Company, Inc. to submit the following information to the Director:

- I. A successful mechanical integrity test (MIT) demonstrating Part I Internal MI,
- II. Pore pressure calculation of the proposed injection zone, and
- III. Completed EPA Form No. 7520-12.

All required information has been submitted, and has been reviewed and approved by the EPA. We have noted the change in depth of the lowermost perforation presented in the Well Rework Record dated 4/17/07. This lowermost perforation is located at a depth of 5250 ft and remains in the injection zone. Therefore, effective upon your receipt of this letter, Administrative approval hereby is granted for injection into the Ute Tribal No. 18-14 enhanced recovery injection well under the conditions of the Authorization For Additional Well and UIC Area Permit UT20736-00000 as modified.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY

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JUL 18 2007

DIV. OF OIL, GAS & MINING

As of this approval, responsibility for permit compliance and enforcement is transferred to the Region 8 UIC Technical Enforcement Program office. Therefore, please direct all future notification, reporting, monitoring and compliance correspondence to the following address, referencing your well and UIC Permit number on all correspondence regarding this well.

Technical Enforcement Program - UIC
U.S. EPA Region 8, Mail Code 8ENF-UFO
1595 Wynkoop Street
Denver, Colorado 80202-1129

The Director has determined that the maximum allowable surface injection pressure (MAIP) for the Ute Tribal No. 18-14 shall not exceed 1405 psig. Please be reminded that it is the responsibility of the owner/operator to be aware of, and to comply with, all conditions of Authorization for Additional Well UT20736-07536 and EPA UIC Area Permit UT20736-00000 and relevant modifications as issued.

If you have any questions regarding this Authorization, please call Linda Bowling of my staff at (303) 312-6254. For questions regarding notification, testing, monitoring, reporting or other Permit requirements, please contact Nathan Wiser of the UIC Technical Enforcement Program by calling (303) 312-6211.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven J. Pratt". The signature is stylized with a large, looped initial "S" and a long horizontal stroke extending to the right.

Steven J. Pratt, P.E., CAPM (inactive)
Director, Ground Water Program

cc:

Curtis Cesspooch, Chairperson
Uintah & Ouray Business Committee
Ute Indian Tribe

Ronald Groves, Councilman
Uintah & Ouray Business Committee
Ute Indian Tribe

Irene Cuch, Vice-Chairperson
Uintah & Ouray Business Committee
Ute Indian Tribe

Steven Cesspooch, Councilman
Uintah & Ouray Business Committee
Ute Indian Tribe

Phillip Chimbraus, Councilman
Uintah & Ouray Business Committee
Ute Indian Tribe

Francis Poowegup, Councilman
Uintah & Ouray Business Committee
Ute Indian Tribe

Chester Mills, Superintendent
BIA - Uintah & Ouray Indian Agency

Mr. Kenneth Smith
Executive Vice President and Chief
Operating Officer
Petroglyph Energy, Inc.

Shawn Chapoose, Director
Land Use Department
Ute Indian Tribe

Gil Hunt
Technical Services Manager
Utah Division of Oil, Gas, and Mining

Fluid Minerals Engineering Office
BLM - Vernal Office

Lynn Becker, Director
Energy and Minerals Department
Ute Indian Tribe