

UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS: WELL LOG  ELECTRIC LOGS  WATER SANDS  LOCATION INSPECTED  SUB. REPORT/abd.

981016 Conf Exp!

DATE FILED JUNE 9, 1997

LAND: FEE & PATENTED STATE LEASE NO. PUBLIC LEASE NO. INDIAN #

DRILLING APPROVED: JUNE 30, 1997 14-20-H62-3519

SPOUDED IN: 8.2.97

COMPLETED: 9.16.97 POW PUT TO PRODUCING: 9-27-97

INITIAL PRODUCTION: 9-30-97 Oil-60 BBL Day-100 GOR Water-68 BBL

GRAVITY A.P.I.

GOR:

PRODUCING ZONES: 4140-5564'

TOTAL DEPTH: 6050'

WELL ELEVATION: 6638' GL

DATE ABANDONED:

FIELD: ANTELOPE CREEK

UNIT:

COUNTY: DUCHESNE

WELL NO. UTE TRIBAL 30-10 API NO. 43-013-31895

LOCATION 1980 FSL FT. FROM (N) (S) LINE, 2199 FEL FT. FROM (E) (W) LINE. NW SE 1/4 - 1/4 SEC. 30

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
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QUATERNARY	Star Point	Chinle	Molas
Alluvium	Wahweap	Shinarump	Manning Canyon
Lake beds	Masuk	Moenkopi	Mississippian
Pleistocene	Colorado	Sinbad	Humburg
Lake beds	Sego	PERMIAN	Brazer
TERTIARY	Buck Tongue	Kaibab	Pilot Shale
Pliocene	Castlegate	Coconino	Madison
Salt Lake	Mancos	Cutler	Leadville
Oligocene	Upper	Hoskinnini	Redwall
Norwood	Middle	DeChelly	DEVONIAN
Eocene	Lower	White Rim	Upper
Duchesne River	Emerj	Organ Rock	Middle
Uinta	Blue Gate	Cedar Mesa	Lower
Bridger	Ferron	Halgate Tongue	Ouray
Green River	Frontier	Phosphoria	Elbert
<del>B MKR</del> 3961	Dakota	Park City	McCracken
<del>X MKR</del> 4458	Burro Canyon	Rico (Goodridge)	Aneth
<del>Y MKR</del> 4500	Cedar Mountain	Supai	Simonson Dolomite
DOUGLAS CR 4607	Buckhorn	Wolfcamp	Sevy Dolomite
B-Limes 4977	JURASSIC	CARBON I FEROUS	North Point
<del>Wasatch</del> Castle PK 5524	Morrison	Pennsylvanian	SILURIAN
Stone Cabin B-Carb 5960	Salt Wash	Oquirrh	Laketown Dolomite
Colton	San Rafael Gr.	Weber	ORDOVICIAN
Flagstaff	Summerville	Morgan	Eureka Quartzite
North Horn	Bluff Sandstone	Hermosa	Pogonip Limestone
Almy	Curtis		CAMBRIAN
Paleocene	Entrada	Pardox	Lynch
Current Creek	Moab Tongue	Ismay	Bowman
North Horn	Carmel	Desert Creek	Tapeats
CRETACEOUS	Glen Canyon Gr.	Akah	Ophir
Montana	Navajo	Barker Creek	Tintic
Mesaverde	Kayenta		PRE - CAMBRIAN
Price River	Wingate	Cane Creek	
Blackhawk	TRIASSIC		

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

June 2, 1997

Utah Division of Oil, Gas, & Mining  
1594 West North Temple  
Box 145801  
Salt Lake City, UT 84114-5801

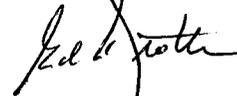
RE: APPLICATION FOR PERMIT TO DRILL  
UTE TRIBAL #30-10  
NW/SE, SEC. 30, T5S, R3W  
DUCHESNE COUNTY, UTAH  
LEASE NO. BIA 14-20-H62-3519  
UTE TRIBAL LANDS

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

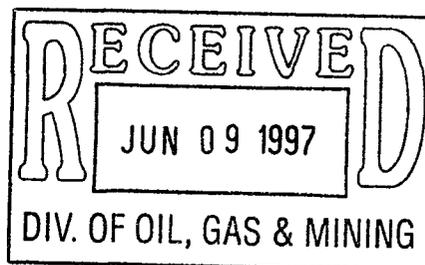
Please address further communication regarding this matter (including approval) to:

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, UTAH 84066

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*)  
 At surface <sup>603</sup> 1980' FSL & <sup>670</sup> 2199' FEL NW/SE  
 At proposed prod. zone

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

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
 1980'

16. NO. OF ACRES IN LEASE  
 640

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 80

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 6119.3'

19. PROPOSED DEPTH  
 6119.3'

20. ROTARY OR CABLE TOOLS  
 ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 6638.1' GRADED GROUND

22. APPROX. DATE WORK WILL START\*  
 JUNE 1997

5. LEASE DESIGNATION AND SERIAL NO.  
 14-20-H62-3519

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.  
 #30-10

10. FIELD AND POOL, OR WILDCAT  
 ANTELOPE CREEK

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 SEC. 30, T5S, R3W

12. COUNTY OR PARISH  
 DUCHESNE

13. STATE  
 UTAH

CONFIDENTIAL

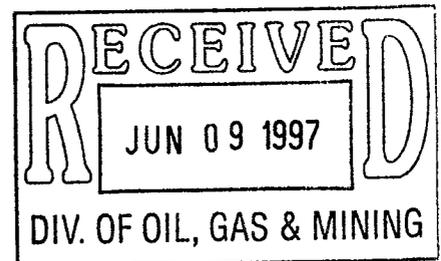
PROPOSED CASING AND CEMENTING PROGRAM

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 <sub>2</sub> + 1/4 #/sx celloflake.
7 7/8	5 1/2	15.5#	6119.3'	50/50 POZMIX + 2% GEL + 10% SALT TO 400' ABOVE ALL ZONE OF INTEREST (+ 10% EXCESS). LIGHT CEMENT (11 PPG+) + LCM TO 200' ABOVE OIL SHALE OR FRESH WATER INTERVALS (+ 5% EXCESS).

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

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

CONFIDENTIAL



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.

SIGNED [Signature] TITLE AGENT FOR PETROGLYPH DATE 6-5-97

(This space for Federal or State office use)

PERMIT NO. 43-013-31895 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 6/30/97

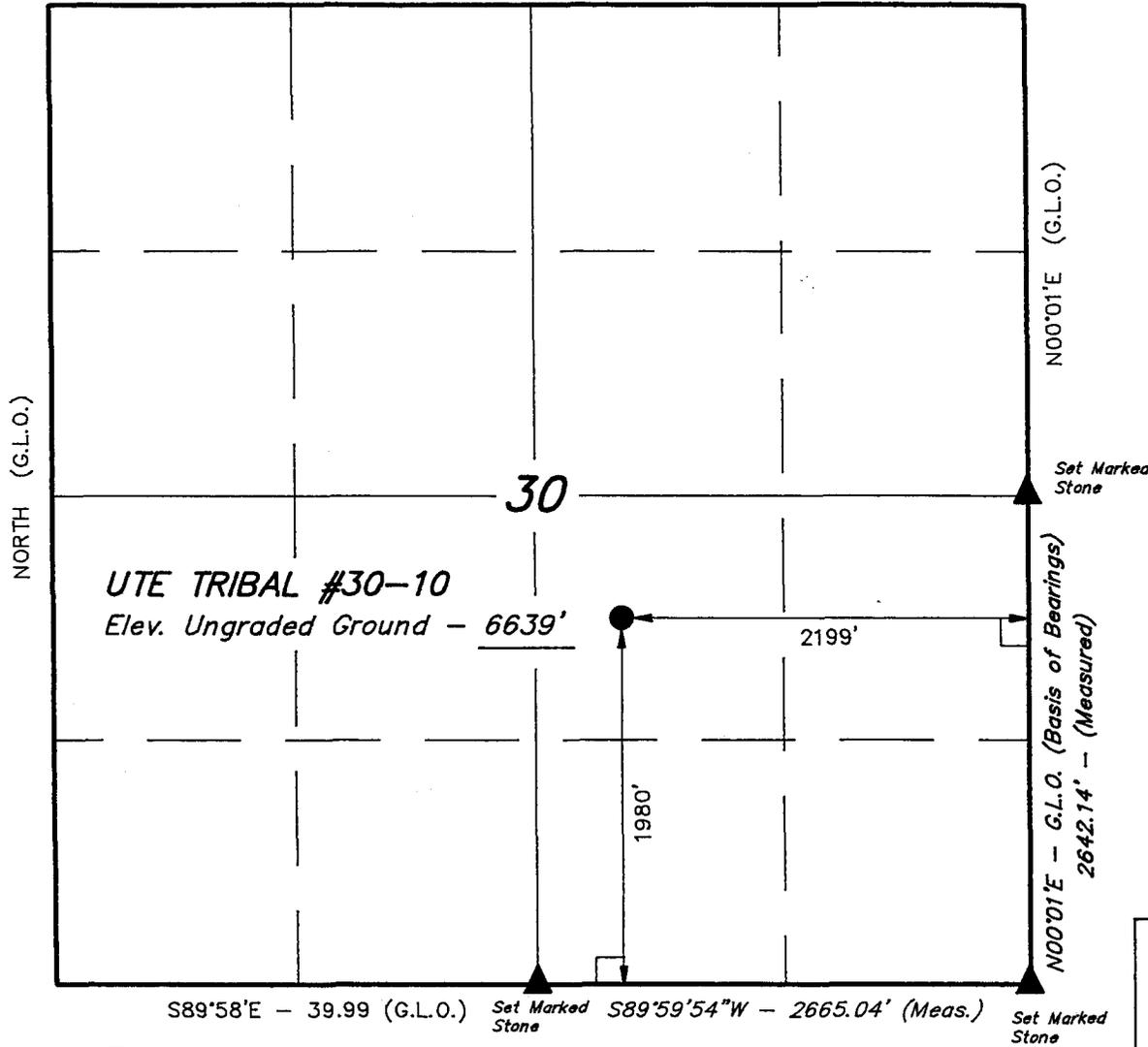
\*See Instructions On Reverse Side

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

**PETROGLYPH OPERATING CO., INC.**

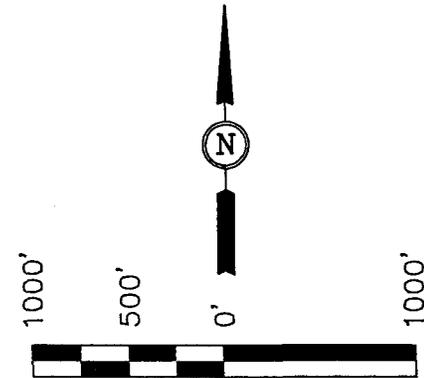
Well Location, UTE TRIBAL #30-10, located as shown in NW 1/4 SE 1/4 of Section 30, T5S, R3W, U.S.B.&M. Duchesne County, Utah.

N89°58'E - 80.04 (G.L.O.)



**BASIS OF ELEVATION**

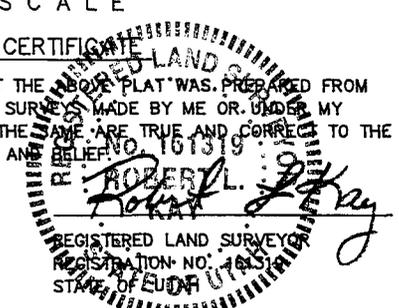
SPOT ELEVATION AT THE SOUTHEAST CORNER OF SECTION 30, T5S, R3W, U.S.B.&M. TAKEN FROM THE DUCHESNE SE, QUADRANGLE, UTAH, DUCHESNE COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 6680 FEET.



SCALE

CERTIFICATE

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



**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: 4-14-97	DATE DRAWN: 5-1-97
PARTY D.K. H.L. C.B.T.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE PETROGLYPH OPERATING CO., INC.	

EIGHT POINT PLAN

UTE TRIBAL #30-10  
NW/SE SEC. 30, T5S R3W  
DUCHESNE COUNTY, UTAH

1. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:

FORMATIONS	DEPTH	SUBSEA
Mahogany Shale	2943.3	3770
"X" Marker	4513.3	2200
Douglas Creek	4647.3	2066
"B" Limestone	5021.3	1692
B/Castle Peak Limestone	5577.3	1136
Basal Carbonate Limestone	6009.3	704
Total Depth	6119.3	594

Anticipated BHP                      2000 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	4647.3	2066
Oil/Gas	B/Castle Peak	5577.3	1136
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	0-6119.3'	6119.3'	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 #30-10  
NW/SE, SEC. 30, T5S R3W  
DUCHESNE COUNTY, UTAH

5. MUD PROGRAM

<u>INTERVAL</u>	<u>MUD TYPE</u>
0' - 250'	Air
250' - 4000'	Air/Mist & Aerated Water
4000' - TD	Air/3% KCL water or KCL substitute
TD	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 #30-10  
NW/SE, SEC. 30, 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.

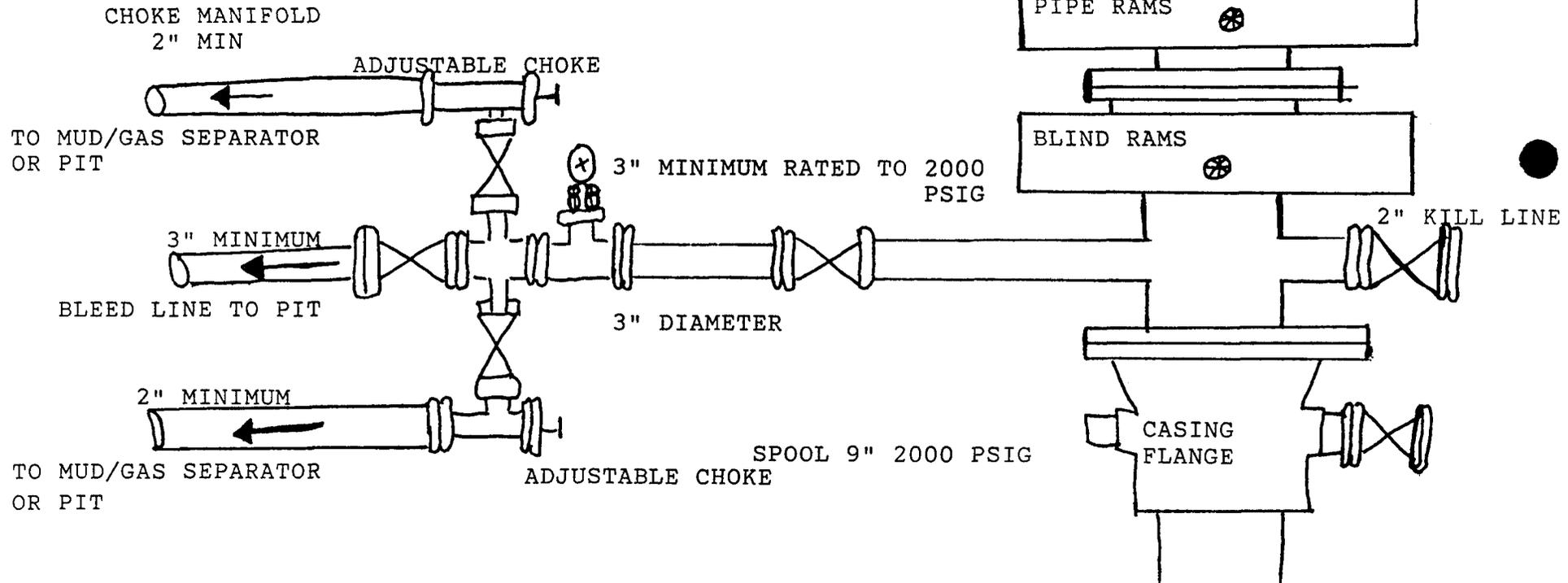
(Attachment: BOP Schematic Diagram)

# 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 #30-10  
Lease Number: BIA 14-20-H62-3519  
Location: 1980' FSL & 2199' FEL NW/SE, Sec. 30, 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 21.1 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 270 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 - 9\*
- 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 - None
- 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 above ground production pipeline will be laid approximately 25' from proposed location to a point in the NW/SE of Section 30, 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 Ute Tribal #30-07 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 West side of the location.

The flare pit will be located downwind of the prevailing wind direction on the West 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 South end.

Access to the well pad will be from the North.

N/A Diversion ditch(es) shall be constructed on the \_\_\_\_\_ side of the location (above/below) the cut slope, draining to the \_\_\_\_\_

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 Corner No. 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.

6-5-97

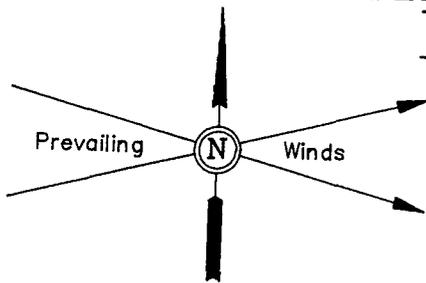
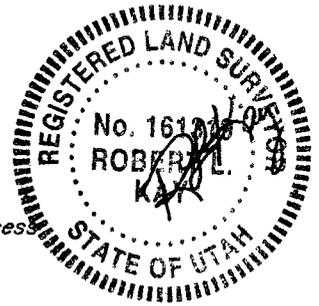
Date



PETROGLYPH OPERATING CO., INC.

LOCATION LAYOUT FOR

UTE TRIBAL #30-10  
SECTION 30, T5S, R3W, U.S.B.&M.  
1980' FSL 2199' FEL



Proposed Access Road

SCALE: 1" = 50'  
DATE: 5-1-97  
Drawn By: C.B.T.

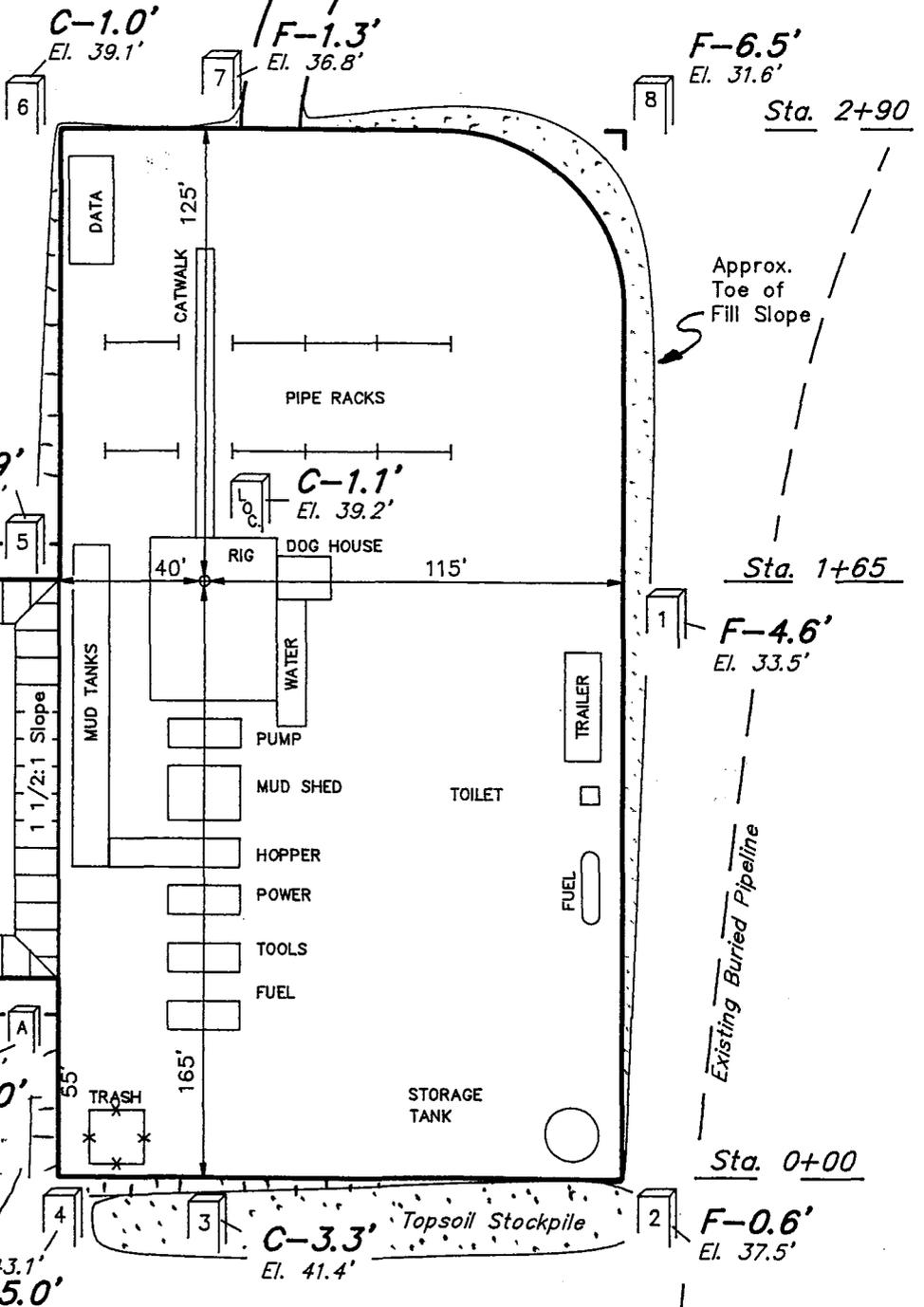
**NOTE:**

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.



Elev. Ungraded Ground at Location Stake = 6639.2'

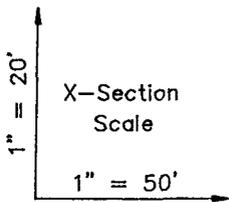
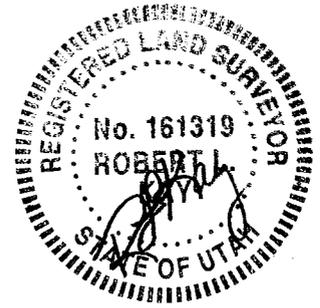
Elev. Graded Ground at Location Stake = 6638.1'

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

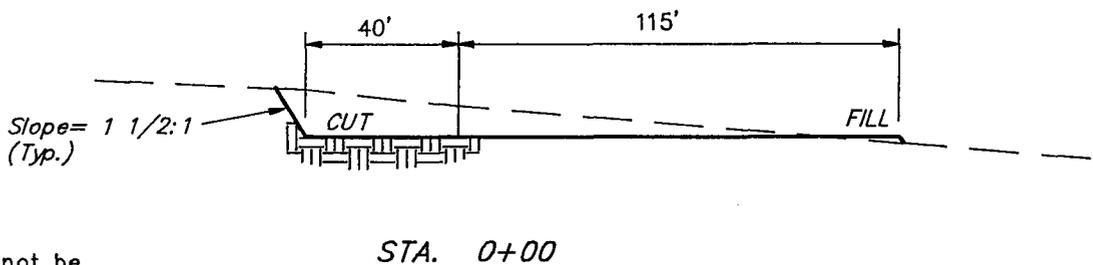
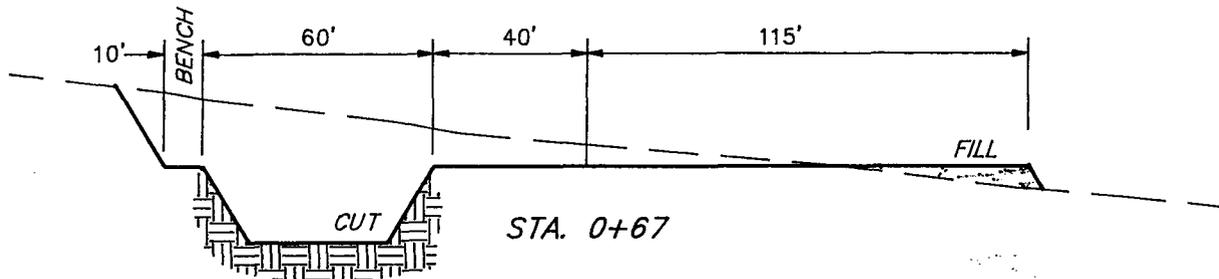
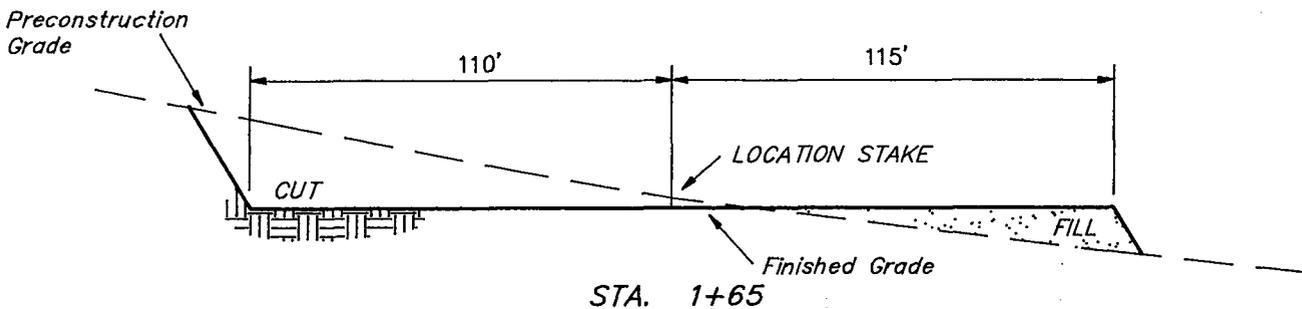
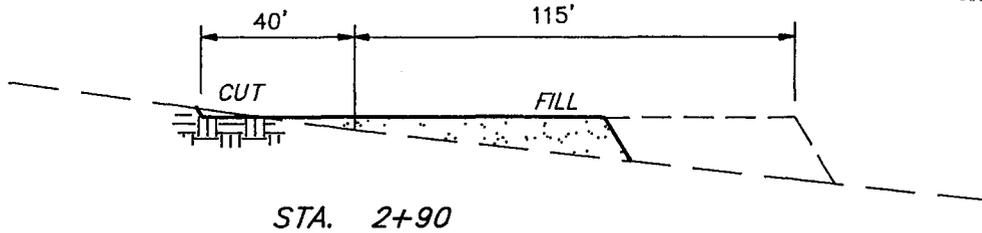
# PETROGLYPH OPERATING CO., INC.

## TYPICAL CROSS SECTIONS FOR

UTE TRIBAL #30-10  
SECTION 30, T5S, R3W, U.S.B.&M.  
1980' FSL 2199' FEL



DATE: 5-1-97  
Drawn By: C.B.T.



**NOTE:**

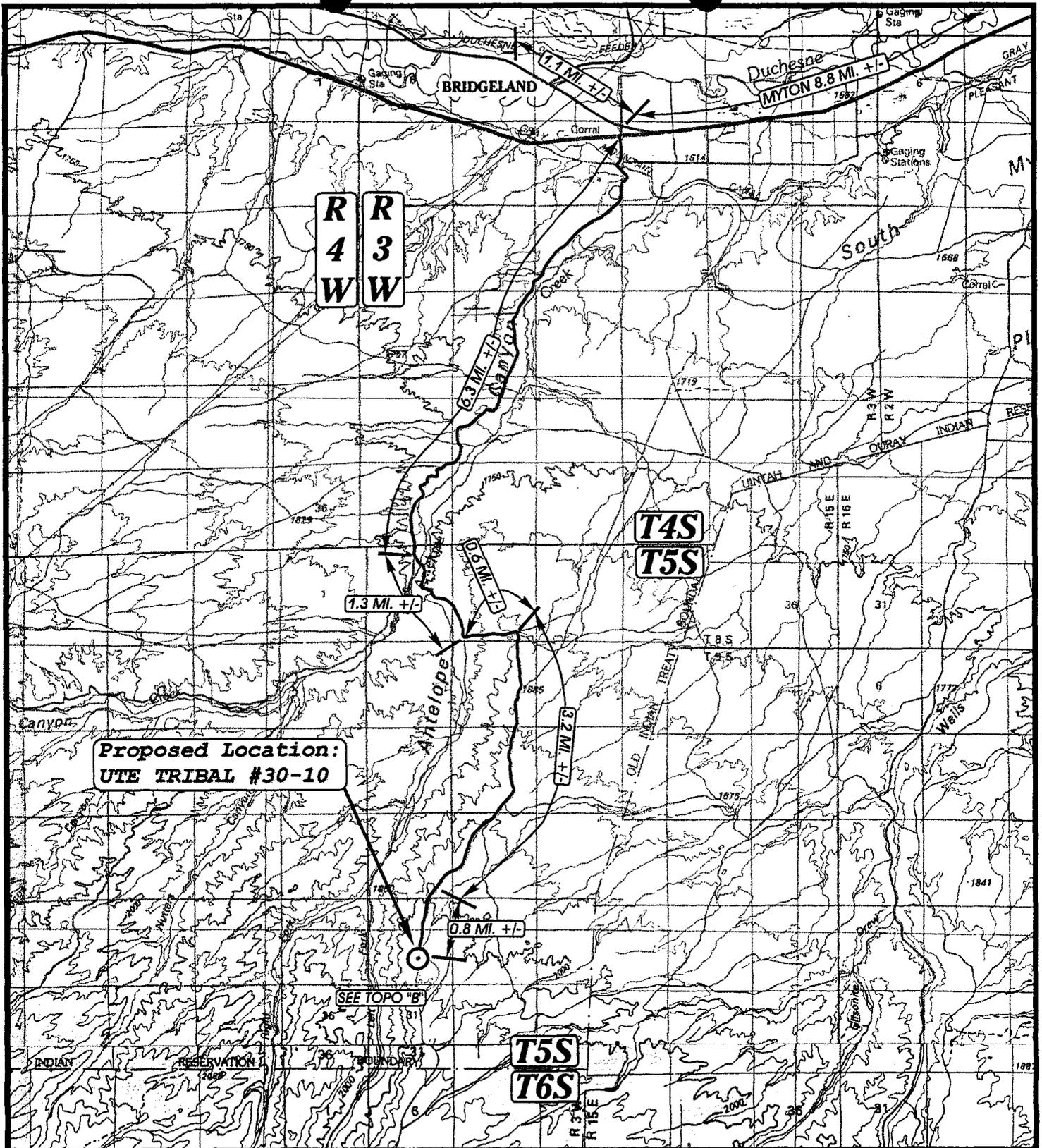
Topsoil should not be Stripped Below Finished Grade on Substructure Area.

### APPROXIMATE YARDAGES

(12") Topsoil Stripping	= 1,910 Cu. Yds.
Remaining Location	= 4,240 Cu. Yds.
<b>TOTAL CUT</b>	<b>= 6,150 CU.YDS.</b>
<b>FILL</b>	<b>= 3,350 CU.YDS.</b>

EXCESS MATERIAL AFTER 5% COMPACTION	= 2,620 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	= 2,610 Cu. Yds.
EXCESS UNBALANCE (After Rehabilitation)	= 10 Cu. Yds.

UINTAH ENGINEERING & LAND SURVEYING  
86 So. 200 East \* Vernal, Utah 84078 \* (801) 789-1017



**Proposed Location:  
UTE TRIBAL #30-10**

**UELS**

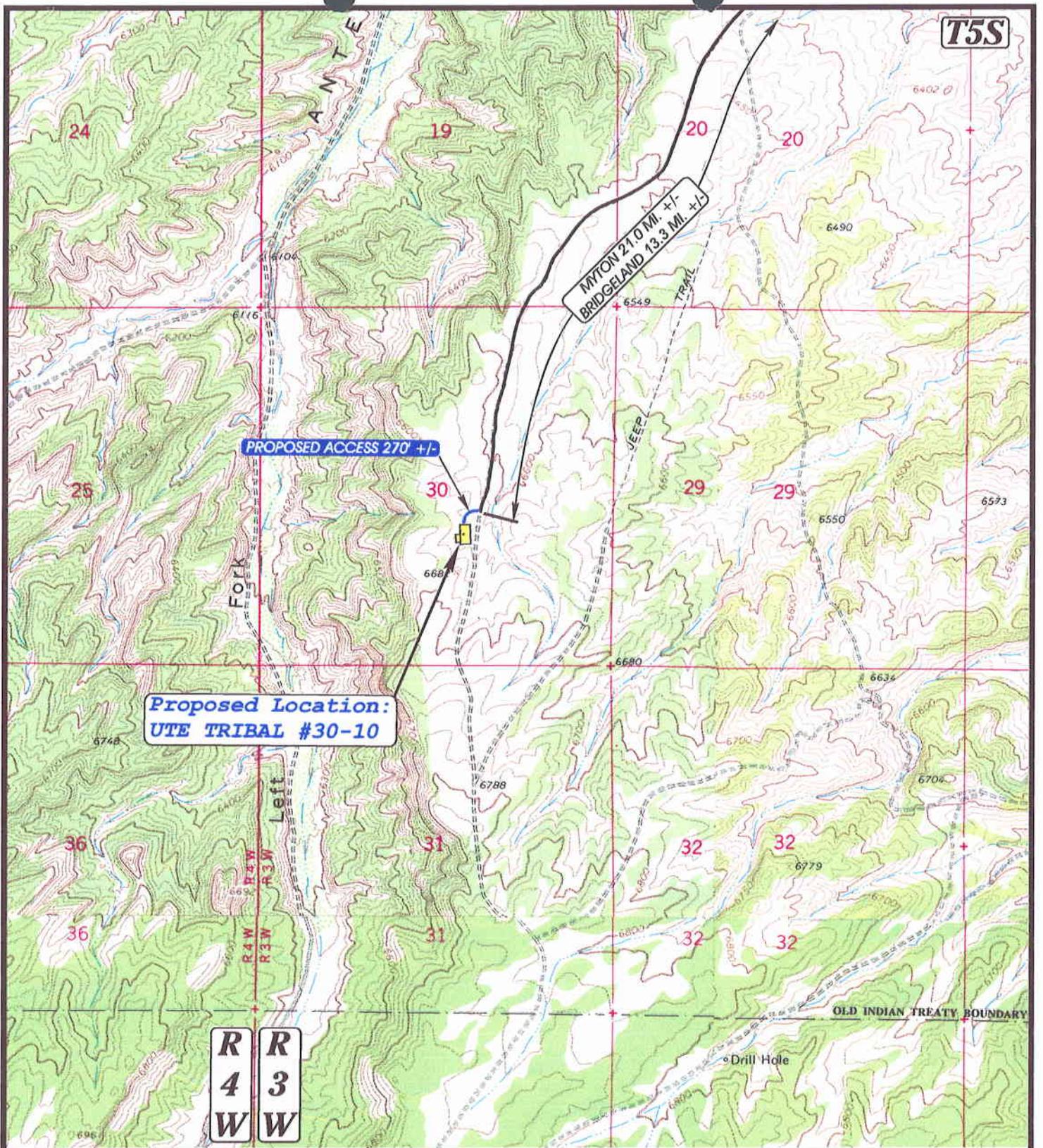
**TOPOGRAPHIC  
MAP "A"**

DATE: 4-22-97  
Drawn by: D.COX



**PETROGLYPH OPERATING CO., INC.**

**UTE TRIBAL #30-10  
SECTION 30, T5S, R3W, U.S.B.&M.  
1980' FSL 2199' FEL**



**TOPOGRAPHIC  
MAP "B"**

DATE: 4-22-97  
Drawn by: D.COX

**PETROGLYPH OPERATING CO., INC.**

**UTE TRIBAL #30-10  
SECTION 30, T5S, R3W, U.S.B.&M.  
1980' FSL 2199' FEL**

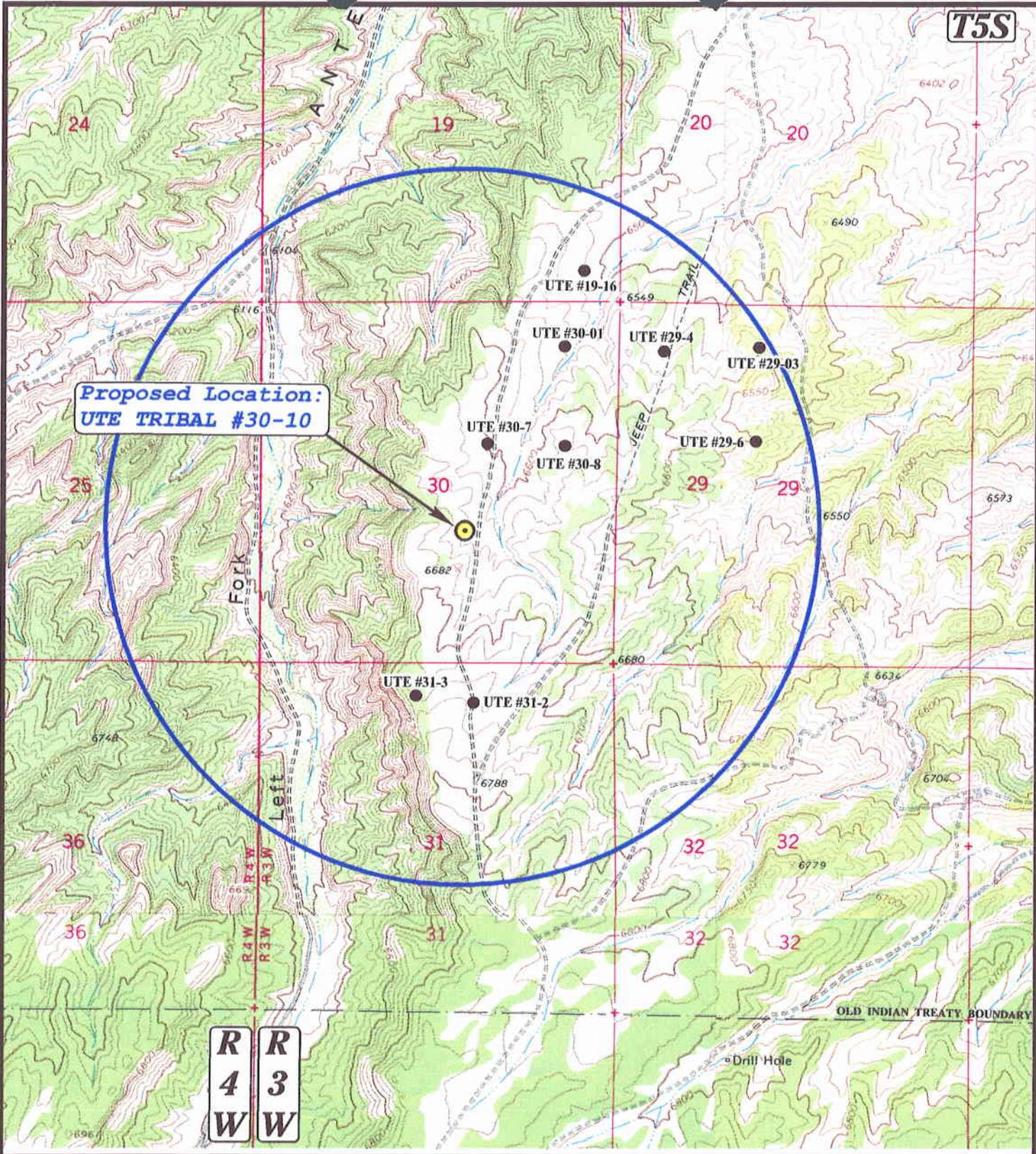


SCALE: 1" = 2000'

**UELS**

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

T5S



**Proposed Location:  
UTE TRIBAL #30-10**

**R**  
**4**  
**W**

**R**  
**3**  
**W**

**LEGEND:**

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

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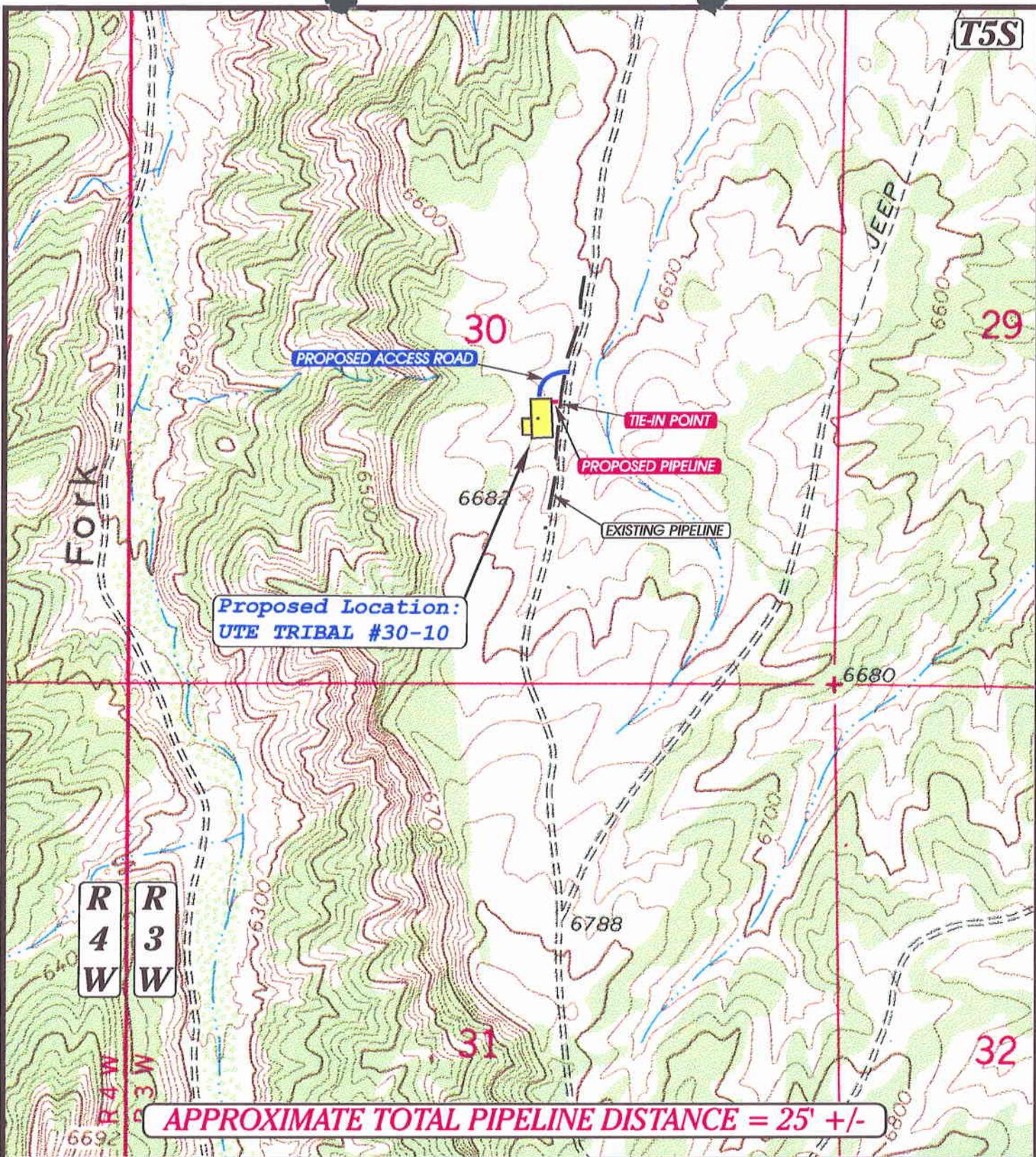


SCALE: 1" = 2000'

**PETROGLYPH OPERATING CO., INC.**

**UTE TRIBAL #30-10  
SECTION 30, T5S, R3W, U.S.B.&M.**

DATE: 4-22-97  
Drawn by: D.COX



**UELS**

**TOPOGRAPHIC  
MAP "D"**

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



**PETROGLYPH OPERATING CO., INC.**

**UTE TRIBAL #30-10  
SECTION 30, T5S, R3W, U.S.B.&M.**

**DATE: 4-22-97  
Drawn by: D.COX**

**UINTAH ENGINEERING & LAND SURVEYING**  
85 So. 200 East • Vernal, Utah 84078 • (801) 780-1017

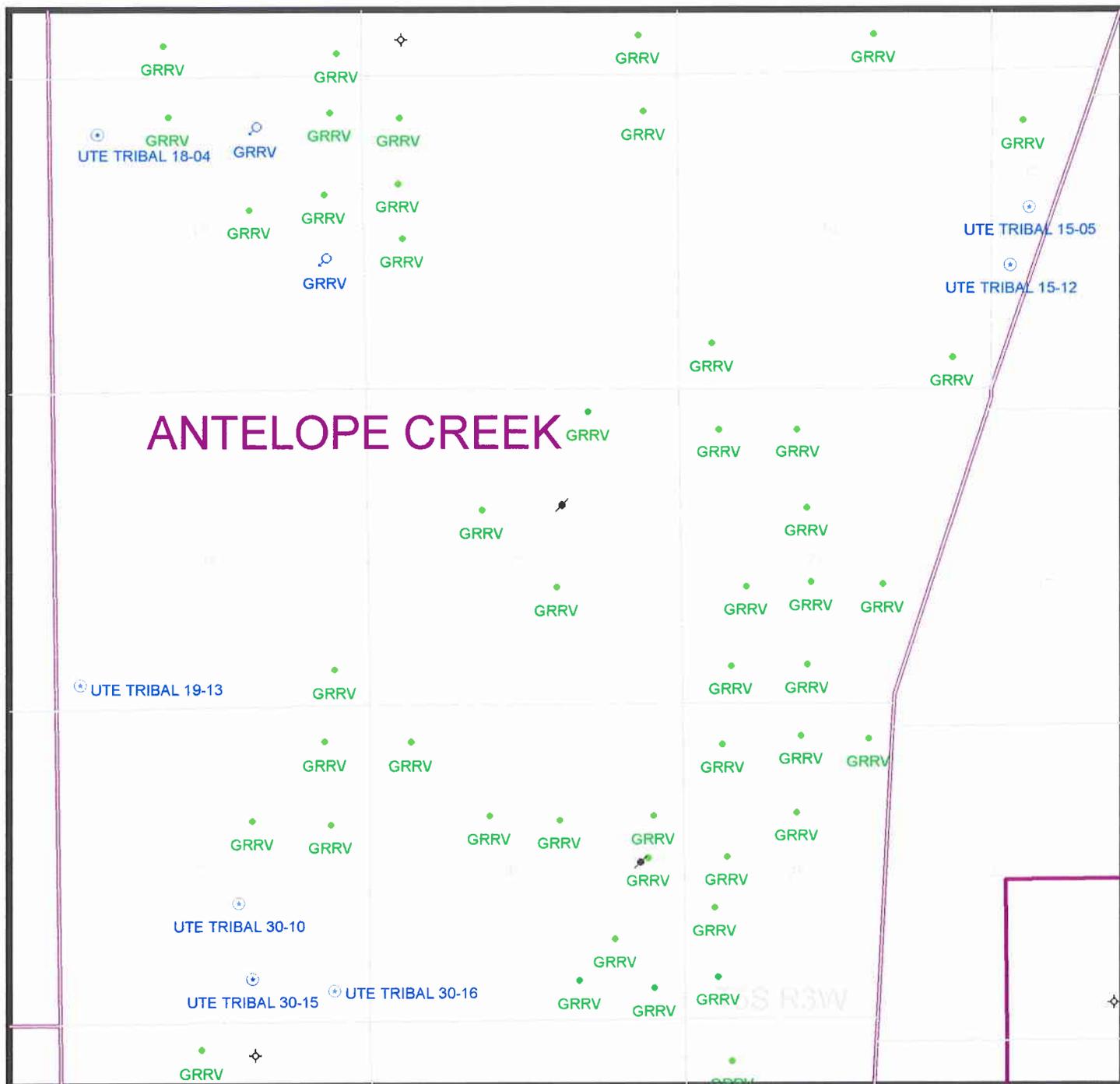
**SCALE: 1" = 100'**

OPERATOR: PERTOGLYPH (N3800)

FIELD: ANTELOPE CREEK (060)

SEC, TWP, RNG: 15,18,19, & 30, T5S, R3W

COUNTY: DUCHESNE UAC: R649-3-2 & R649-3-3



PREPARED:  
DATE: 10-JUNE-97

WORKSHEET  
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 06/09/97

API NO. ASSIGNED: 43-013-31895

WELL NAME: UTE TRIBAL 30-10  
 OPERATOR: PETROGLYPH OPERATING (N3800)

PROPOSED LOCATION:  
 NWSE 30 - T05S - R03W  
 SURFACE: 1980-FSL-2199-FEL  
 BOTTOM: 1980-FSL-2199-FEL  
 DUCHESNE COUNTY  
 ANTELOPE CREEK FIELD (060)

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

LEASE TYPE: IND  
 LEASE NUMBER: 14-20-H62-3519

PROPOSED PRODUCING FORMATION: GRRV

RECEIVED AND/OR REVIEWED:

Plat

Bond: Federal  State  Fee   
 (Number 4556 )

Potash (Y/N)

Oil shale (Y/N)

Water permit  
 (Number 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: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



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)

June 30, 1997

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

Re: Ute Tribal 30-10 Well, 1980' FSL, 2199' FEL, NW SE, Sec. 30,  
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 43-013-31895.

Sincerely,

A handwritten signature in cursive script that reads "Lowell P. Braxton".

Lowell P. Braxton  
Deputy Director

lwp

Enclosures

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

Operator: Petroglyph Operating Company, Inc.  
Well Name & Number: Ute Tribal 30-10  
API Number: 43-013-31895  
Lease: 14-20-H62-3519  
Location: NW SE Sec. 30 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 John R. Baza (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  
Division of Oil, Gas & Mining  
1594 West North Temple  
Box 145801  
Salt Lake City, UT 84114-5801

July 1, 1997

RE: Application for Exception Well Location  
Proposed Ute Tribal #30-10  
Township 5 South, Range 3 West  
Section 30: NW/4 SE/4  
Duchesne County, Utah

Gentlemen;

Petroglyph Operating Company, Inc. (Petroglyph) respectfully requests administrative approval per R-649-3-3 to drill the Ute Tribal #30-10 a 6119' Green River test, at a location 1980' FSL & 2199' FEL, NW/4 SE/4, Section 30, Township 5 South Range 3 West, Duchesne County, Utah.

The aforementioned footage is not a location at which a well could be drilled in compliance with the spacing order of this lease, which established 40 acre drilling units.

Enclosed is a topographic map which depicts the surface contour in the area of the subject location. Petroglyph believes the proposed exceptionally spaced location to be the preferred location from a construction standpoint. Also this location is preferred by the Bureau of Indian Affairs Resource Department and the Ute Indian Tribe, Energy and Minerals Department who regulate activities on this land.

Petroglyph Operating Company Inc. holds 100% of the operating rights underlying the subject drilling unit as well as drilling units to the north, south, east and west.

Petroglyph respectfully requests the Division of Oil, Gas and Mining Administratively grant this application for the exceptional well location at its earliest opportunity.

Please direct further correspondence and approval to myself at P.O. Box 1910, Vernal, Utah 84078, or phone me at 801-789-4120.

Sincerely,



Petroglyph Operating Company Inc.  
Ed Trotter, Agent



**T5S**

MYTON 27.0 MI. +1  
BRIDGE LAND 13.3 MI. +1

**Proposed Location:  
UTE TRIBAL #30-10**

**R R  
4 3  
W W**

**TOPOGRAPHIC  
MAP "B"**

DATE: 4-22-97  
Drawn by: D. COX

**PETROGLYPH OPERATING CO., INC.**

**UTE TRIBAL #30-10  
SECTION 30, T5S, R3W, U.S.B.&M.  
1980' FSL 2199' FEL**



SCALE: 1" = 2000

**UELS**

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Doorn

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, UTAH 84066

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*)  
 At surface 1980' FSL & 2199' FEL NW/SE  
 At proposed prod. zone

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

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1980'

16. NO. OF ACRES IN LEASE 640

17. NO. OF ACRES ASSIGNED TO THIS WELL .80

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 6119.3'

19. PROPOSED DEPTH 6119.3'

20. ROTARY OR CABLE TOOLS ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6638.1' GRADED GROUND

22. APPROX. DATE WORK WILL START\* JUNE 1997

5. LEASE DESIGNATION AND SERIAL NO.  
14-20-H62-3519

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.  
#30-10

10. FIELD AND POOL, OR WILDCAT  
ANTELOPE CREEK

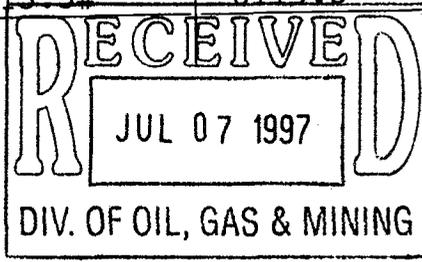
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
SEC. 30, T5S, R3W

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 <sub>2</sub>
7 7/8	5 1/2	15.5#	6119.3'		+ 1/4 #/sx celloflake. 50/50 POZMIX + 2% GEL + 10% SALT TO 400' ABOVE ALL ZONE OF INTEREST (+ 10% EXCESS). LIGHT CEMENT (11 PPG+) + LCM TO 200' ABOVE OIL SHALE OR FRESH WATER INTERVALS (+ 5% EXCESS).



PETROGLYPH OPERATING COMPANY, INC. WILL BE THE DESIGNATED OPERATOR OF THE SUBJECT WELL UNDER BOND #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 6-5-97

NOTICE OF APPROVAL

CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY

PERMIT NO. \_\_\_\_\_ 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 Mineral Resources DATE JUN 30 1997

44080-7M-276

\*See Instructions On Reverse Side

CONDITIONS OF APPROVAL  
APPLICATION FOR PERMIT TO DRILL

Company/Operator: Petroglyph Operating Company Inc.

Well Name & Number: Ute Tribal 30-10

API Number: 43-013-31895

Lease Number: 14-20-H62-3519

Location: NWSE Sec. 30 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 base of the usable water zone, identified at 653 ft. If gilsonite is encountered while drilling, it shall be isolated and/or protected via the cementing program.

4. Mud Program and Circulating Medium

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

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

5. Coring, Logging and Testing Program

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

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

A cement bond log (CBL) will be run from the production casing shoe to 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 Kenczka (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 Bureau of Indian Affairs Concurrence Memorandum and Site Specific Environmental Analysis.

The Ute Tribe Energy and Mineral Department is to be notified 48 hours prior to construction. A Tribal Technician is to monitor construction.

Fifty (75) foot wide Rights-Of-Way (ROWs) corridor shall be granted for the following:

Access roads which shall have constructed travel width limited to 30 feet, except as granted for sharp curves or intersections.

Surface pipelines shall be limited to 13 feet of the ROW. The pipeline will be constructed to lay on the soil surface, and the ROW 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 ROW. 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 ROW will not be used as an access road.

Buried pipelines shall be buried a minimum of 3 feet below the soil surface within an area of disturbance limited to 15 feet wide, and construction will be monitored by a Tribal Technician.

Buried pipelines adjacent to access roads shall be buried within 1.5 feet from the outside edge of the barrow ditch. Any additional buried pipelines shall be parallel to the outer side of the first buried pipeline and shall be constructed as close to the first pipeline as safety requirements allow.

After construction of the buried pipeline is completed the disturbed area of the right-of-way shall be contoured to blend into the natural landscape and it shall be reseeded with desirable vegetation as recommended by the BIA. Between September 15 and November 1 of the year following pipeline construction all disturbed areas shall be reseeded with perennial vegetation according to BIA, or Ute Tribe specifications.

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.

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.

All personnel should refrain from collecting artifacts and from disturbing any significant cultural resources in the area.

The Ute Tribe Energy & Mineral Department shall be consulted if cultural remains from subsurface deposits are exposed or identified during construction.

Before the site is abandoned, the company will be required to restore the well site and ROWs to near their original state. The disturbed areas will be reseeded with desirable perennial vegetation.

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.

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.

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.

Firewood shall be stockpiled at convenient locations near the wellsite and along the access road.

Upon completion of the project approved under this Application for Permit to Drill and Right-of-way, the Ute Tribe Energy & Minerals Resources Department will be notified by Petroglyph Operating Company so that a Tribal Technician can verify Affidavit of Completion's.



United States Department of the Interior  
 BUREAU OF INDIAN AFFAIRS  
 UINTAH AND OURAY AGENCY  
 Fort Duchesne, Utah 84026  
 (801) 722-2406 Ext.

IN REPLY REFER TO:  
 Minerals and Mining

**MINERAL ACCESS AGREEMENT ON INDIAN OWNED LANDS**

WELL PAD, ACCESS ROAD AND 75' WIDE PIPELINE CORRIDOR FOR Well No. UT #30-10

The purpose of this agreement is to regulate the surface development of Indian Lands which have been leased for oil and gas development. An approved agreement must be obtained prior to the commencement of any surface disturbing activity and will be in effect for the term of the lease and the agreed upon contractual provisions referenced therein, if not revoked under the terms in item 4 of this agreement.

- The authorized officer for the Bureau of Indian Affairs, in conjunction with the Indian Surface owner and Tribe hereby grants permission to:  
PETROGLYPH OPERATING CO., INC.  
P.O. BOX 607  
ROOSEVELT, UT 84066

To improve and/or construct and maintain a development corridor which may contain an access road, pipelines, powerlines, communication lines and well pads on the following trust land (reference lease number and legal description):

LEASE NO. 14-20-H62-3519 SE/4 SECTION 30, T5S, R3W, U.S.B. & M

- In consideration of the approval of this agreement, the above company agrees to adhere to all lease provisions, A.P.D. stipulations and regulations of the Secretary of the Interior now or hereafter in force relative to such leases.
- The Company herewith submits an estimated surface damage fee in the amount of 1 AS PER TERMS OF COOP. P.O.D., for \_\_\_\_\_ acres Pending Agency appraisal and the Affidavit of Completion.
- This agreement will remain in effect unless revoked upon 30 days written notice by the Superintendent or the appropriate official, depending upon circumstances.
- The permittee will submit a certified survey map of the proposed access road and/or well pad with this permit. The map must adhere to all specifications and requirements of the Branch of Minerals and Mining, Uintah and Ouray Agency, Bureau of Indian Affairs. Upon completion of construction, an Affidavit of Completion will be submitted by the company to certify that the construction completed was in accordance to the specifications certified to on the survey map accompanying this agreement.
- The Company agrees to furnish a bond in the amount of \$ \_\_\_\_\_, or to utilize said company's existing Nationwide Oil and Gas Bond No. BO 4556 to guarantee performance of this permit.
- The Company agrees to contact immediately the Bureau of Indian Affairs (BIA) and the Bureau of Land Management (BLM), if cultural resources discovered during construction or any time during the course of daily operations.

8. ADDITIONAL STIPULATIONS:

Signed on this 25th day of June, 1997.

WITNESS:

[Signature]

[Signature]  
 AUTHORIZED AGENT

PETROGLYPH OPERATING CO., INC.  
 COMPANY NAME

P.O. BOX 607  
 ADDRESS

ROOSEVELT, UT 84066  
 CITY/STATE ZIP CODE

APPROVED:

[Signature]  
 Superintendent

6/26/97  
 Date

## memorandum

DATE:

6/26/97

REPLY TO  
ATTN OF:

Superintendent, Uintah &amp; Ouray Agency

SUBJECT:

Concurrence Letter for Petroglyph Operating Company, T5S R3W  
 UT 30-10, NWNE, Sec. 30 UT 30-11, NESW, SEC. 30 UT 30-16, SESE, Sec.30  
 UT 30-14, SESW, Sec. 30 UT 30-15, NESW, SEC. 15

TO:

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

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

Based on available information received on JUNE 25, 1997, 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

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

1. The Ute Tribe Energy and Minerals Department is to be notified 48 hours prior to construction.
2. 75 foot corridor rights-of-way shall be granted with the following:
  - A. Buried pipelines shall be buried a minimum of 3 feet below soil surface.
  - B. Access roads shall be limited to 30 feet, except as granted for sharp turns.
  - C. Surface pipelines shall be limited to 13 feet wide.
  - D. Buried pipelines shall be limited to 15 feet wide and construction will be monitored by Tribal Technician.
3. Pipeline adjacent to access roads shall be buried within 1.5 feet from the outside edge the barrow ditch. Additional pipelines shall be parallel to each other, as safety requirements will allow.
4. 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.
5. All vehicular traffic, personnel movement, construction and restoration operations should be confined to the area examined, as referenced in report, and to the existing roadways and/or evaluated access routes.
6. All mitigative stipulation's contained in the Bureau of Indian Affairs site specific Environmental Analysis (EA) will be strictly adhered.
7. All personnel should refrain from collecting artifacts and from disturbing any significant cultural resources in the area.
8. The personnel from the Ute Tribe Energy & Minerals Department should be consulted, should cultural remains from subsurface deposits be exposed or identified during construction work.
9. Upon completion of Application for Right-of-way, the Ute Tribe Energy and Minerals Department will be notified by Petroglyph Operating Company, so that a Tribal Technician can verify Affidavits of Completion's.

JUN 26 1997

RECEIVED

OPTIONAL FORM NO. 10  
 (REV. 1-94)  
 5010-118  
 ☆ U.S. GPO: 1994-300-892/10064

RECEIVED

SITE SPECIFIC  
ENVIRONMENTAL ANALYSIS

JUN 26 1997

1.0 PROPOSED ACTION

Petroglyph Operating Co., Inc. is proposing to drill oil well #30-10, and construct pipelines, and an 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

3.0 PERMITTEE/LOCATION

- A. Permittee- Petroglyph Operating Co., Inc.
- B. Date 6-3-97
- C. Well number- 30-10
- D. Right-of-way- Access road R\W approx. 270 feet.  
Pipeline R\W approx. 25 feet.
- E. Site location- NWNE, Section 30, T5S, R3W, USB&M.

4.0 SITE SPECIFIC SURVEY

A. SITE DESCRIPTION

- 1. Elevation (feet) 6639
- 2. Annual precipitation (inches)- 12-14
- 3. Topography- rolling hills
- 4. Soil- The soil texture is (0 to 6") gravelly loam with moderate permeability.

B. VEGETATION

- 1. Habitat type is upland scrub.
- 2. Percent Ground Cover- estimated to be 40%.
- 3. Vegetation consists of approximately 30% grasses, 56% shrubs, 10% forbs, 4% trees. The main variety of grasses are squirrel tail, Indian ricegrass, poa, needle & thread, bluebunch wheat, galleta, and blue grama. Forbs are astragalus, mustard, lambs quarter, globemallow, buck wheat, flox, daisy, Indian paint brush, & annuals. Shrubs consist of black sagebrush, fring sage, bud sage, prickly pear, winterfat, shadscale, snakeweed, greasewood, rabbit brush.

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. (elk & mule deer use this area most during winter months.)
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 1.25 miles north 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	1.66
Irrigable land	0
Woodland	0
Non-Irrigable land	1.66
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	0.19
2. Well site	1.43
3. Pipeline right-of-way	0.04
4. Corridor right-of-way	0.00
5. Total area disturbed	1.66

### B. VEGETATION/LANDSCAPE

1. Production loss (AUM's)/year: 0.08
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 0.08 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 a 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 reseeded all disturbed areas.

#### 2. SURFACE PIPELINES

Surface pipelines will be constructed to lay on the soil surface, and the right-of-way will not be bladed or cleared of vegetation.

Where surface 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. BURIED PIPELINES

Buried pipelines shall be buried a minimum of 3.0 feet below the soil surface. After construction of the pipeline is completed the disturbed area of the right-of-way shall be contoured to blend into the natural landscape, and it shall be reseeded with desirable vegetation.

Between September 15 and November 1 of the year following pipeline construction all disturbed areas shall be reseeded with perennial vegetation according to BIA, or Ute Tribe specifications.

#### 4. CORRIDOR RIGHT-OF-WAY

A 75 foot wide corridor pipeline right-of-way will be used for, surface pipelines, buried pipelines.

#### 5. ACCESS ROADS

Although the access road rights-of-way is 30 feet, the constructed travel width of the access road shall be limited to 22 feet, except it may be wider where sharp curves, or intersections are required.

## 6. DRILLING SYSTEM

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.

## 7. PRODUCTION SYSTEM

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.

## 8. FIREWOOD

Firewood shall be stockpiled at convenient locations near the wellsite and along the access road.

### 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, 6-3-97, the proposed location in the following areas of environmental impacts has been cleared:

<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No	Listed Threatened & Endangered species
<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No	Critical wildlife habitat
<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	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.

6-5-97

Date

Dale A. Hanberg  
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).

6/5/97

Date

Allen Floyd  
Acting Superintendent,  
Uintah and Ouray Agency

#### 14.0 CONSULTATION

##### A. REPRESENTATIVES/ORGANIZATION

Dale Hanberg- BIA  
Ed Trotter-Petroglyphs  
Lonnie Nephi-UTEM  
Greg Darlington-BLM

B:\EAPet30.10

Approved 6/30/97

PAT

APD CONTROL SHEET

VERNAL DISTRICT

Operator: PETROGLYPH OPERATING CO  
Well No.: UTE TRIBAL 30-10  
Location: NWSE SEC 30, T5S, R3W  
DUCHESNE County, Utah  
Lease No: 14-20-H62-3519

Op. Address PO BOX 1839,  
HUTCHINSON, KS 64504-1839

Agent ED TROTTER, 1620 W 750 N  
Phone 789-4120

APD Rec'd 6/05/97  
District No. UT080-7M276  
API No. 43-013-31895  
Surface Plan To: NRPS  
Sent 6/09/97 Rec'd 6/27/97  
Downhole To: ENGINEER-ED  
Sent 6/09/97 Rec'd 6/27/97

Surface Ownership INDIAN  
SMA: BLM FS State/Fee X BIA  
cc: PETRO TO BIA Date  
Rec'd:

Private Surface:  
Name  
Address

Rehab Agreement Yes No

Spacing Order No. NONE  
C.A. Required Yes No  
460' Stip

Unit ANTELOPE CREEK 4650  
Unit Operator PETROGLYPH  
Tract No. Committed  
Plan of Development  
D/A

Remarks:

APD Deficiencies BIA CONCURRENCE

Lease File OFFICE SRP  
Eff. 11/22/76 Exp. / /  
Term. HBP Yes X No  
Acreage 640  
Type of Lease Public State  
X Indian Fee Acquired  
If Indian: X Tribal Allotted  
Field ANTELOPE CREEK  
Royalty Rate 16.85095%

LESSEES

INTEREST

PETROGLYPH GAS PARTNERS LP 100%

Self-Certification Statement: YES  
BLM Bond No. N/A

ROW Required: Yes INDIAN No  
Realty Notified:  
Sent / / Rec'd / /  
ROW No.

NOS Date 6/05/97  
APD Complete Incomplete  
Ack. Letter Sent 6/9/97

DIVISION OF OIL, GAS AND MINING

**CONFIDENTIAL**

SPUDDING INFORMATION

Name of Company: PETROGLYPH OPERATING

Well Name: UTE TRIBAL 30-10

Api No. 43-013-31895

Section: 30 Township: 5S Range: 3W County: DUCHESNE

Drilling Contractor: UNION

Rig # 16

SPUDDED:

Date: 8/2/97

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

How: ROTARY

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

Reported by: TAKEN FROM INSPECTION REPORT

Telephone NO.: \_\_\_\_\_

Date: 8/19/97 Signed: JLT

✓

FORM 7

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

REPORT OF WATER ENCOUNTERED DURING DRILLING

1. Well name and number: Ute Tribal 30-10  
API number: 43-013-31895
2. Well Location: QQ NWSE Section 30 Township 5S Range 3W County Duchesne
3. Well operator: Petrograph Operating Company Inc.  
Address: P.O. Box 607  
Roosevelt, UT 84066 Phone: 801 222 2531
4. Drilling contractor: Union #16  
Address: P.O. Drawer 40  
Buckhannon, WV 26201 Phone: 304 472 4616
5. Water encountered (attach additional pages as needed):

DEPTH		VOLUME (FLOW RATE OR HEAD)	QUALITY (FRESH OR SALTY)
FROM	TO		
<u>0</u>	<u>354</u>	<u>Dry</u>	
<u>354</u>	<u>890</u>	<u>Dry</u>	
<u>890</u>		<u>no sample</u> <u>no circ. w/ 5000 PUMP</u>	
<u>1340</u>	<u>Blow test</u>	<u>1/8 x 7</u>	

6. Formation tops: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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: 8-6-97  
 Name & Signature: [Signature] Title: DRILLER

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

OPERATOR: PETROGLYPH OPERATING CO COMPANY REP: KENT STRINGHAM

WELL NAME UTE TRIBAL #30-10 API NO 43-013-31895

QTR/QTR: NW/SE SECTION: 30 TWP: 5S RANGE: 3W

CONTRACTOR: UNION DRILLING COMPANY RIG NUMBER: #16

INSPECTOR: DENNIS L INGRAM TIME: 12:30 PM DATE: 8/7/97  
SPUD DATE: DRY: 8/2/97 ROTARY: 8/2/97 PROJECTED T.D.: 6050'

OPERATIONS AT TIME OF VISIT: DRILLING AHEAD AT 4891 WITH KCL  
WATER.

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

BLOOIE LINE: Y FLARE PIT: 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

REMARKS:

(LAST HOLE WAS UT #30-15, TD ON 8/1/97 AT 6043 AND RAN 5 1/2"  
CASING TO BOTTOM). THEY HAVE SET 245' OF 8 5/8" SURFACE CASING  
HERE, WAS 24# J55 AT 255'. NO OIL ON PIT YET. WATER SHOWS  
AT 890' (DAMP), AND 1340' WAS 1/8" FLOW THROUGH 7" FLOW LINE.  
SURVEYS AT 4290' WAS 1/2 DEGREE; 3680' WAS 1 3/4 DEGREES; 2134  
WAS 1 DEGREEE. NO GAS TO SPEAK OF.

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

OPERATOR: PETROGLYPH OPERATING CO COMPANY REP: KENT STRINGHAM

WELL NAME UTE TRIBAL #30-10 API NO 43-013-31895

QTR/QTR: NW/SE SECTION: 30 TWP: 5S RANGE: 3W

CONTRACTOR: UNION DRILLING COMPANY RIG NUMBER: #16

INSPECTOR: DENNIS L INGRAM TIME: 12:30 PM DATE: 8/7/97

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WATER.

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

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

ENVIRONMENTAL:

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

RUBBER: \_\_\_\_\_ BENTONITE: \_\_\_\_\_ SANITATION: (2)

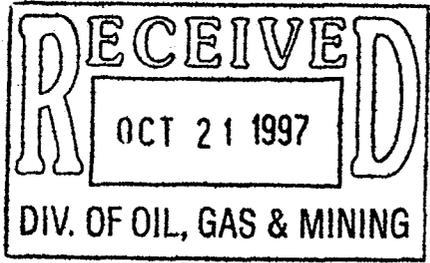
BOPE TEST RECORDED IN THE RIG DAILY TOUR BOOK: YES

REMARKS:

(LAST HOLE WAS UT #30-15, TD ON 8/1/97 AT 6043 AND RAN 5 1/2"  
CASING TO BOTTOM). THEY HAVE SET 245' OF 8 5/8" SURFACE CASING  
HERE, WAS 24# J55 AT 255'. NO OIL ON PIT YET. WATER SHOWS  
AT 890' (DAMP), AND 1340' WAS 1/8" FLOW THROUGH 7" FLOW LINE.  
SURVEYS AT 4290' WAS 1/2 DEGREE; 3680' WAS 1 3/4 DEGREES; 2134  
WAS 1 DEGREEE. NO GAS TO SPEAK OF.

October 15, 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 19-06	CNL & AIT
Ute Tribal 16-07	CNL & AIT
Ute Tribal 19-05	CNL & AIT
Ute Tribal 18-11	CNL & AIT
Ute Tribal 15-12	CNL & AIT
Ute Tribal 16-03	CNL & AIT
Ute Tribal 14-05	CNL & AIT
Ute Tribal 19-09	CNL & AIT
Ute Tribal 16-08	CNL & AIT
Ute Tribal 19-04	CNL & AIT
Ute Tribal 07-10	CNL & AIT
Ute Tribal 19-03	CNL & AIT
Ute Tribal 30-10	CNL & AIT
Ute Tribal 30-11	CNL & AIT

43 013 31895 T053 R03W 30

If you need further information, please do not hesitate to call me at 316-665-8500.

Sincerely,

Judy Gates  
Petroleum Geology Technician

**COMPLETION REPORT**

**CONFIDENTIAL**

10/10/97

*Petroglyph Operating Co., Inc.*

**Operator:** Petroglyph Operating Company, Inc.  
**Lease:** Ute Tribal 30-10  
**API #:** 43-013-31895  
**Location:** 30 - 5 S - 3 W  
**County, St.:** Duchesne UT

**Property:** 50162

**Elevation:** GL 6638  
KB 6648

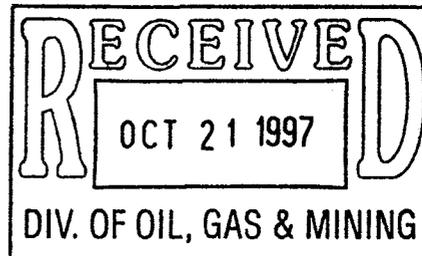
**AFE/EPE Number:**

**Activity Date    Daily Cost    Activity Description**

9/16/97            \$17,805.00

7:00 a.m. Finish seating pmp & space out. Install plshed rod. Test tbg to 500 psi w/rig pmp & increase to 1000 psi w/bttm hle pmp. OK. Land rod string 6' off tag. RO Rig & equip. Clean loc & move out 8:30 a.m. FINAL.

Rod Detail            Plshed - Rod 1 1/2 x 22' w/ 1 3/4 x 12 liner  
Pony Rod 1 = 7/8" x 2'  
Sucker rod 88 - 7/8" slick  
Sucker rod 135 - 3/4 (120 slick, 15 guided)  
bttm hole pmp - 2 1/2" x 1 3/4" x 16' RHAC  
40 lng press activated - 163" max stks  
3 cup top hold down



# COMPLETION REPORT

10/10/97

Petroglyph Operating Co., Inc.

**Operator:** Petroglyph Operating Company, Inc.

**Elevation:** GL 6638

**Well:** Ute Tribal 30-10

KB 6648

**County, St.:** Duchesne UT

**Activity Date    Daily Cost    Activity Description**

9/15/97

PERFORATIONS:

5558-5564	Green River E (02)	4 SPF	24 shots
4926-4933	Green River C (09.2)	4 SPF	28 shots
4907-4910	Green River C (09.2)	4 SPF	12 shots
4797-4801	Green River C (06)	4 SPF	16 shots
4417-4423	Green River B (11)	4 SPF	24 shots
4409-4412	Green River B (11)	4 SPF	12 shots
4302-4306	Green River B (08)	4 SPF	16 shots
4150-4152	Green River B (06)	4 SPF	8 shots
4140-4145	Green River B (06)	4 SPF	20 shots

WELLBORE:

6052	RTD
5995	PBTD
6040	CSA

SITP 250 psi . SICP 60 psi. 7:00 a.m. vent tbg & csg. Finish POOH. LD pkr. MU BVBP ret-tool & RIH. Circ reverse & displace oil. Clean 18' off BVBP @ +/- 4363. Circ clean. Latch & Release BVBP & POOH. MU bottom hole prod assem & RIH on tbg. Strip off BOPE & frac equip. Set TAC. Install tbg flange & land tbg. NU flange & surface prod equip. X/over to rod equip MU & prime bottom hole pmp. Single in rod string. (3 rods short) SWIFN. 6:30 p.m. Note: Tbg in Tension

12,000#	TAC from Arrow
Completion Sys Type B2 5 1/2" w/reg ships & 40,000# shear value	
Tubing Detail    Stretch 12,000# tension	.80
K.B.	10.
128 jts tbg	4069.41
5 1/2" THC	1.75    TOP @ 1
	4082.06
46 jts tbg	1473.57    tpC @ +/-
PSN	1.10    5556.62
1 jt. tbg	32.6
mech. psn	.70
perf'd tbg sub	6.00
2 jts tbg.	62.13
blow plg	.75
	EOT=    5659.90

# COMPLETION REPORT

Petroglyph Operating Co., Inc.

10/10/97

**Operator:** Petroglyph Operating Company, Inc.

**Elevation:** GL 6638

**Well:** Ute Tribal 30-10

KB 6648

**County, St.:** Duchesne UT

Activity Date	Daily Cost	Activity Description
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9/13/97	\$1,856.00	
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SITP 980 psi. SICP 575 psi. 7:00 a.m. w/BVBP, RET tool @ +/- 4104' & BVBP @ 4858'. Check fluid level w/swab line @ +/- 2300'. RD swab equip. RIH w/RET tool to TOS @ +/- 4805. Load well bore w/67 bbls k wtr & circ., reverse & displace oil & gas. Clean out 53' sand to BVBP @ +/- 4858'. Circ clean & latch & release BVBP. POOH & set BVBP w/top cup @ +/- 4363'. POOH & MU Hailb. 5 1/2" RTTS pkr w/BVBP RET tool @ bottom. RIH & set center element of pkr @ +/- 4197' Isolating D8 zone @ 4302-06. RU & swab test zone. Make 16 runs in 3 hrs 0 min.

1st run, fluid level 500'. Oil cut 0%. Trace oil @ run #3. 9% on Run #4. Recover 7 bbls oil, 38 1/4 bbls wtr; 45 1/4 bbls total fluid. Last run fluid level 3700'. Oil cut 28%. From run #10 to #16, fluid level remained @ 3700 & 3800'. By making 6 runs per hr we recovered avg of 1 1/2 bbls per run for a fluid entry of 9 bph. RD swab. Equalize & release pkr. RIH to latch BVBP but found sand @ +/- 4348. We were going to attempt to circ down 15' to BVBP but while RU to circ, pkr became partially stuck. Work pkr free & POOH. SWIFN 5:00 p.m.

#### FLUID RECOVERY

ZONE BLF:	1252
ZONE BLFR:	664
ZONE BLFTR:	588
ZONE % REC:	53.3%
WELL BLF:	2039
WELL BLFR:	729
WELL BLFTR:	1310
WELL % REC:	35.8%

9/12/97	\$2,338.00	
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SITP 340 psi. SICP 125 psi. 7:00 a.m. Cont. to swab C6, B11, B8 & B6 zones following fracs. Pumped 9/9/97 to recover fluid & elevate oil cut. Make 48 run in 10 hrs 50 min. Fluid level 1st run 750. 1st run oil cut 10% but diminished to heavy trace on 2nd run. Recover 33 3/4 bbls oil, 281 1/2 bbls wtr, 315 1/4 bbls total fluid. Fluid level last run @ +/- 3200'. Oil cut @ 30%. Hang back lube. SWIFN 6:30 p.m.

#### FLUID RECOVERY

ZONE BLF:	1252
ZONE BLFR:	626
ZONE BLFTR:	626
ZONE % REC:	50.4%
WELL BLF:	2039
WELL BLFR:	758
WELL BLFTR:	1281
WELL % REC:	37.2%

# COMPLETION REPORT

10/10/97

Petroglyph Operating Co., Inc.

**Operator:** Petroglyph Operating Company, Inc.  
**Well:** Ute Tribal 30-10  
**County, St.:** Duchesne UT

**Elevation:** GL 6638  
KB 6648

Activity Date	Daily Cost	Activity Description
---------------	------------	----------------------

9/11/97	\$2,317.00	
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7:00 a.m. SITP & SICP 0 psi. w/EOT @ +/- 4000', cont. RIH w/BVBP RET tool & find TOS @ +/- 4802'. Circ out 50' sand to +/- 4852'. (BVBP @ +/- 4858') POOH w/EOT to +/- 4101'. RU & swab to recover fluid & test. Make 44 runs in 9 hrs 40 min. Fluid level 1st run 300. Oil cut 0%. Recover 1/2 bbl oil, 264 3/4 bbls wtr, total 265 1/4 bbls fluid. Fluid level last run 2300'. Oil cut last run heavy trace to +/- 1%. SWIFN 7:30 p.m.

FLUID RECOVERY

ZONE BLF:	1252
ZONE BLFR:	345
ZONE BLFTR:	907
ZONE % REC:	27.6%
WELL BLF:	2039
WELL BLFR:	477
WELL BLFTR:	1562
WELL % REC:	23.4%

9/10/97	\$2,305.00	
---------	------------	--

SICP 0 psi. 7:00 a.m. MU Ret tool for 5 1/2" RBP & RIH & find TOS @ +/- 3666'. RU pump lines to circ. Reverse. Clean out 514' sand to RBP #1 @ 4180'. Clean off plg & circ clean. Retrieve plg & POOH. LD plg. RBIH w/RET tool & find TOS @ +/- 4272'. Clean out 78' sand to RBP #2 @ 4350'. Clean off plg. Circ. Clean. Retrieve plg & POOH. LD plg. RBIH w/RET tool & find TOS @ +/- 4432'. Circ. Rev & clean out +/- 148' sand to RBP #3 @ 4580'. Clean off plg. Circ. Clean. Retrieve RBP & POOH & LD plg & RET tool. MU RET tool for 5 1/2". BVBP & start RIH. Stay just above top perf. SWIFN 6:30 p.m.

FLUID RECOVERY

ZONE BLF:	1252
ZONE BLFR:	80
ZONE BLFTR:	1172
ZONE % REC:	6.4%
WELL BLF:	2039
WELL BLFR:	212
WELL BLFTR:	1827
WELL % REC:	10.4%

# COMPLETION REPORT

10/10/97

Petroglyph Operating Co., Inc.

**Operator:** Petroglyph Operating Company, Inc.

**Elevation:** GL 6638

**Well:** Ute Tribal 30-10

KB 6648

**County, St.:** Duchesne UT

Activity Date	Daily Cost	Activity Description
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9/9/97	\$60,404.00	
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SICP 0 psi. 6:30 a.m. MIRU Hallb. fenc. service & frac C6 zone @ 4797-4801 w/8137 gal boragel 30 & 42,000# 20/40 sand in 1 to 10 lb/gal stages & flush w/4675 gal. kwtr. Job done w/avg rate 19.5 bpm & max rate 26. BPM w/avg press 2650 psi & max press 4515 psi. ISIP 3778 psi. PFG -

MIRU Schlum WLS. Lub. in 5 1/2" RBP & set @ 4580' & test to 3000 psi w/o loss in 5 min. Perf w/4" gun B11 zone @ 4409-12 & 4417-23, total 36 holes. Break down form. w/kwtr @ 2600 psi & inject @ 4+ bpm @ 2400 psi. Frac B11 w/7815 gal boragel 30 w/42,000# 20/40 sand in 1 to 10 lb/gal stages & flush w/4309 gal kwtr. Job done @ avg rate of 30 bpm & max rate 30.8 bpm @ avg. press 2726 psi & max press of 3695 psi. ISIP 3263 psi. PFG

Lub. in 5 1/2" RBP & set @ 4350' & test to 3000 psi. Perf B8 zone @ 4302-06 w/4" gun 16 holes. Attempt to break form. would not @ 3000 psi. MU wire line. HCL bailer & bail in 15 gal HCL. Break dwn form @ 3000 psi. Inject 4 bpm @ 2200 psi. Frac B8 zone w/5612 gal boragel 30 w/28,500# 20/40 sand in 1-10 lb/gal stages. Flush w/4165 gal kwtr. Job done w/avg rate 20 bpm, max rate 24 bpm. Avg press 2946 psi, max press 4268 psi. ISIP 3633 psi. PFG

Lub in a 5 1/2" RBP & set @ 4180' & test to 3000 psi. Perf B6 zone. B6 @ 4140-45 & 4150-52 total holes 28. Break dwn form @ 3000 psi & inject @ 2 bpm @ 2500 psi. Frac B6 zone w/7947 gal Boragel 30 & 42,100# 20/40 sand in 1 to 10 lb/gal stages & flush w/4080 gal kwtr. Job done 2/ avg rate 25 bpm & max rate 26.8 bpm @ avg press 2439 psi & max press 3663 psi. ISIP 3154 psi. PFG

Following 15 min shut in flow back @ +/- 60 bph to 0 psi. Recovering 68 bbls flow. SWIFN 6 p.m.

**STIMULATION TREATMENT:**

**INTERVALS:**

Perfs	Zone
-------	------

**FLUID:**

Fluid Task	Fluid Type	Amount	Unit
frac fluid	Boragel 30	8137	gal

**PROPPANT:**

Type	Total Lbs:	Ramp Range
20/40 sand	42000	1-10

**PRESSURE/RATE:**

Maximum:	4515 psi	26 BPM
Average:	2650 psi	19.5 BPM

**FLUID RECOVERY**

ZONE BLF:		1252
ZONE BLFR:		68

# COMPLETION REPORT

10/10/97

Petroglyph Operating Co., Inc.

**Operator:** Petroglyph Operating Company, Inc.

**Elevation:** GL 6638

**Well:** Ute Tribal 30-10

KB 6648

**County, St.:** Duchesne UT

**Activity Date    Daily Cost    Activity Description**

ZONE BLFTR:	1184
ZONE % REC:	5.4%
WELL BLF:	2039
WELL BLFR:	200
WELL BLFTR:	1839
WELL % REC:	9.8%

9/8/97            \$3,499.00    PERFORATIONS:

5558-5564	Green River E (02)	4 SPF	24 shots
4926-4933	Green River C (09.2)	4 SPF	28 shots
4907-4910	Green River C (09.2)	4 SPF	12 shots
4797-4801	Green River C (06)	4 SPF	16 shots
4417-4423	Green River B (11)	4 SPF	24 shots
4409-4412	Green River B (11)	4 SPF	12 shots
4302-4306	Green River B (08)	4 SPF	16 shots
4150-4152	Green River B (06)	4 SPF	8 shots
4140-4145	Green River B (06)	4 SPF	20 shots

SITP & SICP no measureable psi. 7 a.m. w/BVBP @ +/- 5649' & EOT @ +/- 4874. Cont to swab zones E2 & C9.2 to recover fluid & treat zone potential. Had to make sinker bar run & run w/ 1/2 cup on to open tbg to swab. Make 16 runs in 4 hrs 40 min. Fluid level 1st run +/- 700' oil cut. 1st sample on run #4 @ 15%. Recover 32 1/4 bbls oil, 68 1/4 bbls wtr. 100 1/2 bbls total fluid. Fluid level lasst run @ +/- 2600'. Oil cut last run 45%. RD swab equip. RIH & clean off BVBP @ +/- 5649'. Latch & plse plg. POOH & set top cup on BVBP @ +/- 4858'. Pull EOT to +/- 4816' & press test BVBP to 4500 psi. 0 loss in 5 min. Pmp. 6 bbls 15% HCL dwn tbg & displace to end w/kwtr. POOH w/tbg & ret tool. MIRU Schlum. WLS & w/4" gun perforate C6 zone @ 4797-4801 (16 holes). RD WLS. Fill csg w/12 bbls kwtr & brk dwn form @ 2000 psi. Inject 20 bbls @ 4+ bpm @ 1000 psi. ISIP 850 psi. SWIFN 5:30 p.m.

**FLUID RECOVERY**

ZONE BLF:	26
ZONE BLFR:	0
ZONE BLFTR:	26
ZONE % REC:	.%
WELL BLF:	813
WELL BLFR:	132
WELL BLFTR:	681
WELL % REC:	16.2%

# COMPLETION REPORT

10/10/97

Petroglyph Operating Co., Inc.

**Operator:** Petroglyph Operating Company, Inc.

**Elevation:** GL 6638

**Well:** Ute Tribal 30-10

KB 6648

**County, St.:** Duchesne UT

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Activity Date	Daily Cost	Activity Description
---------------	------------	----------------------

9/6/97

\$2,267.00

7 a.m. w/ret tool @ +/- 4435' cont. RIH & find TOS @ +/- 4659'. RU to circ reverse & estb circ. Clean out 76' sand to RBP @ +/- 4735'. Circ clean & latch. Release & POOH w/RBP. LD RBP & RIH w/ret tool & find TOS @ +/- 5187'. Rev circ & clean out 113 sand to RBP @ 5300'. Circ clean latch. Release & POOH w/plg. LD Plg & ret tool. MU ret tool for BVBP. RTH & find TOS @ +/- 5618'. POOH w/EOT to +/- 4874'. RU. Swab equip & swab to recover fluid & test zones. Make 12 runs in 2 hrs 4 min w/f.level 1st run @ surface. Recover 98 3/4 bbls wtr +/- 2 bbls oil for 100 1/4 bbls total fluid. Oil cut 5% last run. Fluid level 2100' last run. Hang back swab. SWIFN 6 p.m.

#### FLUID RECOVERY

ZONE BLF:	787
ZONE BLFR:	113
ZONE BLFTR:	674
ZONE % REC:	14.4%
WELL BLF:	787
WELL BLFR:	113
WELL BLFTR:	674
WELL % REC:	14.4%

# COMPLETION REPORT

10/10/97

Petroglyph Operating Co., Inc.

**Operator:** Petroglyph Operating Company, Inc.

**Elevation:** GL 6638

**Well:** Ute Tribal 30-10

KB 6648

**County, St.:** Duchesne UT

Activity Date	Daily Cost	Activity Description
---------------	------------	----------------------

9/5/97	\$35,916.00	PERFORATIONS:
		5558-5564 Green River E (02) 4 SPF 24 shots
		4926-4933 Green River C (09.2) 4 SPF 28 shots
		4907-4910 Green River C (09.2) 4 SPF 12 shots
		4797-4801 Green River C (06) 4 SPF 16 shots
		4417-4423 Green River B (11) 4 SPF 24 shots
		4409-4412 Green River B (11) 4 SPF 12 shots
		4302-4306 Green River B (08) 4 SPF 16 shots
		4150-4152 Green River B (06) 4 SPF 8 shots
		4140-4145 Green River B (06) 4 SPF 20 shots

7 a.m. MIRU Hallb. Frac service. Frac E2 zone. Following 15 min shut in, lubricate in 5 1/2" Arrow Comp RBP @ set @ 5300'. Prss test RBP to 3000 psi w/ 0 loss. MU 7" gun & RIH & perf zones C9.2 @ 4907-10 (12 holes) & 4926-33 (28 holes). Would not break dwn @ 3000 psi. MU wire line dump bailse & bail in 15% HCL @ perms. Breakdwn form w/Kwtr @ 2700 psi & inject @ 1400 psi @ 4 bpm. RU Hallb & pmp @ PhiH = 2A. Schl frac on C9.2 zones. ISIP 2419 psi. PFG = .92. Following 15 min shut in lub in 5 1/2" RBP & set @ 4850'. Csg did not bleed off in stnd manner. RBlH & tag plg. Found it, had to come up hole 115' to 4735'. POOH & RD WLS & Hallb. serv. MU RBP. Ret tools & RIH w/EOT to 4435'. Circ. 100 bbls dwn csg up tbg. SWIFN 7:30 p.m.  
 Note: While RIH displace +/- 15 bbls kwtr.

**STIMULATION TREATMENT:**

**FLUID:**

Fluid Task	Fluid Type	Amount	Unit
frac fluid	Boragel 30	7619	gal

PROPPANT:	Type	Total Lbs:	Ramp Range
	20/40 sand	42700	1-10

**PRESSURE/RATE:**

Maximum:	2280 psi	25.8 BPM
Average:	1900 psi	25.3 BPM

**FRACTURE GRADIENT:** .75

**FLUID RECOVERY**

ZONE BLF:	26
ZONE BLFR:	0
ZONE BLFTR:	26
ZONE % REC:	.%

# COMPLETION REPORT

10/10/97

Petroglyph Operating Co., Inc.

**Operator:** Petroglyph Operating Company, Inc.

**Elevation:** GL 6638

**Well:** Ute Tribal 30-10

KB 6648

**County, St.:** Duchesne UT

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**Activity Date    Daily Cost    Activity Description**

WELL BLF:	813
WELL BLFR:	132
WELL BLFTR:	681
WELL % REC:	16.2%

STIMULATION TREATMENT:

FLUID:

Fluid Task	Fluid Type	Amount	Unit
frac fluid	Boragel 30	7442	gal

PROPPANT:	Type	Total Lbs:	Ramp Range
	20/40 sand	29100	1--1

PRESSURE/RATE:

Maximum:	2710 psi	30.3 BPM
Average:	1900 psi	27 BPM

FRACTURE GRADIENT: .92

FLUID RECOVERY

ZONE BLF:	787
ZONE BLFR:	15
ZONE BLFTR:	772
ZONE % REC:	1.9%
WELL BLF:	787
WELL BLFR:	15
WELL BLFTR:	772
WELL % REC:	1.9%



SUBMIT IN DUPLICATE  
(See other instructions on  
reverse side)

Form approved.  
Budget Bureau No. 1004-0137  
(Expires August 31, 1985)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

5. LEASE DESIGNATION AND SERIAL NO.  
14-20-H62-3519

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG\*

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

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

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

8. FARM OR LEASE NAME

2. NAME OF OPERATOR  
Petroglyph Operating Company, Inc.

CONFIDENTIAL

3. ADDRESS OF OPERATOR  
P.O. Box 607, Roosevelt, UT 84066 (801) 722-2531

PERIOD

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface 1980' FSL 2199' FEL

EXPIRED  
ON 10-16-98

9. WELL NO.  
Ute Tribal 30-10

10. FIELD AND POOL, OR WILDCAT  
Antelope Creek

11. SEC., T., R., M., OR BLOCK AND  
SURVEY OR AREA  
NWSE Sec. 30-T5S-R3W

At top prod. interval reported below

CONFIDENTIAL

At total depth 6050' RTD

14. PERMIT NO.  
43-013-31895

DATE ISSUED  
7/2/97

12. County or Parish  
Duchesne

13. State  
Utah

15. DATE SPURRED 8/2/97

16. DATE T.D. REACHED 8/9/97

17. DATE COMPLETED (Ready to prod.)  
9/16/97

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\*  
6638' GL

19. ELEV. CASINGHEAD  
6638'

20. TOTAL DEPTH, MD & TVD  
6050' RTD

21. PLUG BACK T.D., MD & TVD  
5994'

22. IF MULTIPLE COMPL., HOW MANY\*  
6

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  
CNL AIT 10-22-97

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#	256'	12-1/4"	165 sxs Type 5	
5-1/2"	15-5#	6040'	7-7/8"	265 sxs Highfill	
				340 sxs Thixotropic	

29. LINER RECORD

30. TUBING RECORD

SIZE	TOP	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-7/8"	5930'	

31. PERFORATION RECORD (Interval, size and number)

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

E2 5558-64' (24 holes)  
C9.2 4907-10' (12 holes)  
C9.2 4926-33' (28 holes)  
C6 4797-4801' (16 holes)  
B11 4409-12' (???) holes

B11 4417-23' (?? holes)  
B8 4302-06' (16 holes)  
B6 4150-52' (?? holes)  
B6 4140-45' (?? holes)

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5558-64'	7619 gal Boragel, 42700# 20/40 prop
4907-20' & 4926-33'	7442 gal Boragel, 29100# 20/40 prop
4797-4801'	8137 gal Boragel, 42000# 20/40 prop
4409-12' & 4417-23'	7815 gal Boragel, 42000# 20/40 prop
4302-06'	5612 gal Boragel, 28500# 20/40 prop (cont'd)

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump)	WELL STATUS (Producing or shut-in)					
9/27/97	2 1/2" x 1-3/4" x 16' 40 ring RHAC pump	producing					
DATE OF TEST	HOURS TESTED	CHOKO SIZE	PROD'N FOR TEST PERIOD	OIL - BBL.	GAS - MCF.	WATER - BBL.	GAS-OIL RATIO
9/30/97	24			60	100	68	
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24 HR. RATE	OIL - BBL.	GAS - MCF.	WATER - BBL.	OIL GRAVITY - API (CORR.)	
	1100						

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

TEST WITNESSED BY  
Dave Schreiner

CONFIDENTIAL

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

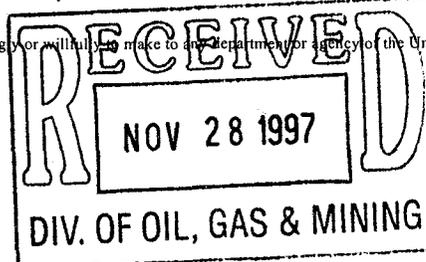
Signed Deanna Bell

Title Operations Coordinator

Date 11-25-97

\*(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.



CONFIDENTIAL

WELL COMPLETION 30-10

(continued)

32.

4140-45' & 4150-52' 7947 gal Boragel, 42100# 20/40 prop

**CONFIDENTIAL**

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
B Marker	3981		<b>CONFIDENTIAL</b>			
X Marker	4458					
Y Marker	4500					
Douglas Creek	4602					
B Limestone	4977					
Castle Peak	5524					
Basal Carbonate	5960					

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**

5. Lease Designation and Serial No.  
**14-20-H62-3519**

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 30-10**

9. API Well No.  
**43-013-31895**

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

11. County or Parish, State  
**Duchesne County, UT**

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 607, Roosevelt, UT 84066 (435) 722-2531**

4. Location of Well (Footage, Sec., T., R., or Survey Description)  
**1980' FSL 2199' FEL  
NWSE Sec. 30-T5S-R3W**

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

TYPE OF SUBMISSION

- Notice of Intent  
  
 Subsequent Report  
  
 Final Abandonment Notice

TYPE OF ACTION

- Abandonment                       Change of Plans  
 Recompletion                       New Construction  
 Plugging Back                       Non-Routine Fracturing  
 Casing Repair                       Water Shut-Off  
 Altering Casing                       Conversion to Injection  
 CONVERT TO INJECTOR               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 30-10 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 *W. Mark Smith* Title Operations Coordinator

Date 2-21-00

(This space for Federal or State official use)

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

Conditions of Approval, if any:

WELL HISTORY:

SPUD WELL: 08-02-97

FIRST PROD: 09-27-97

09-09-97 B6 ZONE

PERFS: 4140 TO 4145'

4SPF

4150 TO 4152'

4SPF

FRAC'ED, ISIP 3154 psi.

09-09-97 B8 ZONE

PERFS: 4302 TO 4306'

4SPF

FRAC'ED, ISIP 3632 psi.

09-09-97 B11 ZONE

PERFS: 4409 TO 4412' 4SPF

4447 TO 4423' 4SPF

FRAC'ED, ISIP 3263 psi.

9-09-97 C6 ZONE

PERFS, 4797 TO 4801' 4SPF

FRAC'ED, ISIP 3778 psi

2-05-97 C9.2 ZONE

PERFS, 4907 TO 4910' 4SPF

4926 TO 4933' 4SPF

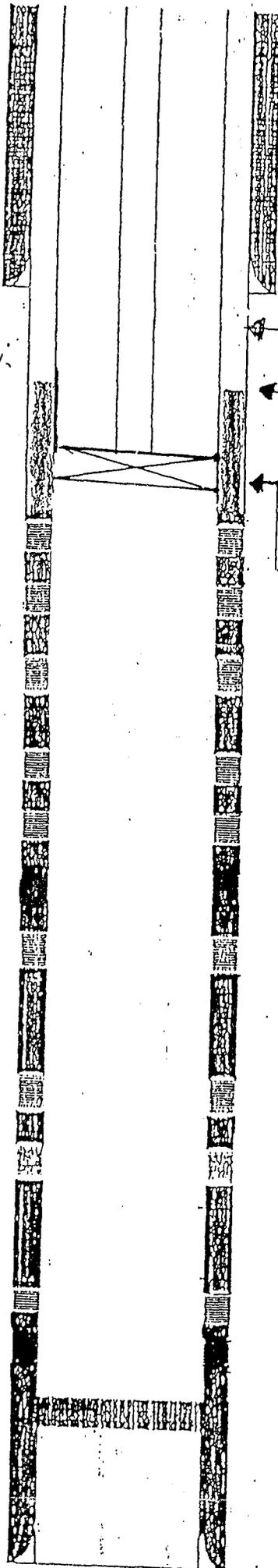
FRAC'ED, ISIP 2419 psi

05-97 E2 ZONE

PERFS, 5558 TO 5567'

TOTAL 24 HOLES

FRAC'ED, ISIP 1780 psi



GL: 6638

KB: 6648

← Surface Hole Size 12 1/4

8 5/8" 24# Surface Csg @

256' KB Cmt'd w/ 165 SXS

← Hole Size: 7 7/8" Bit.

Cement Tops:

1st Stage: 678'

5 1/2" 15.5# CSG @ 6040'

CMT'd W/ 605 Sxs. 1st. Stage

127 JTS. OF 2 3/8" 4.7#

TUBING SET ON PACKER

C 4064'

PBTD @ 5970'

TD @ 6050' KB

(Not to Scale)

Petroglyph Operating Co., Inc.

Ute Tribal # 30-10

980' FSL AND 2199' FEL

1/4 SEC. 30-58-3W

Antelope Creek Field

Duchesne Co, Utah

S&W # 14-20-462-3519

43-013-31895

OPERATOR Petroglyph Oper. Co., Inc.  
 ADDRESS P.O. Box 607  
Roosevelt, UT 84066

OPERATOR ACCT. NO. N 3800

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
B	09410	→	43-013-31895	Ute Tribal 30-10	NWSE	30	55	3W	Duchesne	8-2-97	
WELL 1 COMMENTS: Entity added 12-4-97. <i>J. (Common Tank) fee</i>											
WELL 2 COMMENTS:											
WELL 3 COMMENTS:											
WELL 4 COMMENTS:											
WELL 5 COMMENTS:											

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

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

(3/89)

Dorinda K. Bell  
 Signature  
Operations Coordinator 12-1-97  
 Title Date  
 Phone No. (801) 722-2531

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**

5. Lease Designation and Serial No.  
**14-20-H62-3519**

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 30-10**

9. API Well No.  
**43-013-31895**

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

11. County or Parish, State  
**Duchesne County, UT**

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 607, Roosevelt, UT 84066 (435) 722-2531**

4. Location of Well (Footage, Sec., T., R., or Survey Description)  
**1980' FSL 2199' FEL  
NWSE Sec. 30-T5S-R3W**

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

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

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

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

Further to BLM & EPA approval (Permit #UT2736-04524), Enclosed are copies of the MIT and job summary. Injection commenced on 8/30/2000.

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

Signed *[Signature]* Title Operations Coordinator

Date 10-20-00

(This space for Federal or State official 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 in its jurisdiction.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8  
999 18<sup>TH</sup> STREET - SUITE 500  
DENVER, CO 80202-2466

AUG 29 2000

Ref: 8P-W-GW

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Micheal Safford  
Operations Coordinator  
Petroglyph Operating Company, Inc.  
P.O. Box 607  
Roosevelt, UT 84066

RE: Limited Authorization to Inject  
Ute Tribal #30-10  
EPA Area Permit No. UT2736-00000  
EPA Well Permit No. UT04524  
Duchesne County, Utah

Dear Mr. Safford:

On August 23, 2000, Petroglyph Operating Company, Inc. (Petroglyph) submitted information required to fulfill the Environmental Protection Agency's (EPA) Prior to Commencing Injection (Additional Wells) requirements in the above-referenced Final Area Permit and Authorization to Add an Additional Well to the Area Permit. The Part I (Internal) Mechanical Integrity pressure test of August 7, 2000, a Well Rework Record (EPA Form No. 7520-12), and injection zone pore pressure determination (1792 psig) have been reviewed and approved by the EPA.

EPA is hereby authorizing injection into the Ute Tribal #30-10 for a limited period of up to one hundred eighty (180) calendar days, effective upon receipt of this letter, herein referred to as the 'limited authorized period'.

Because the cement bond log submitted for this well did not show an adequate interval of 80% or greater bond index through the confining zone above the perforated intervals (4,140' to 5,567'), the operator also is required to demonstrate Part II (External) Mechanical Integrity (Part II MI) within the limited authorized period. The demonstration shall be by temperature survey or other approved test. Approved tests for demonstrating



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2

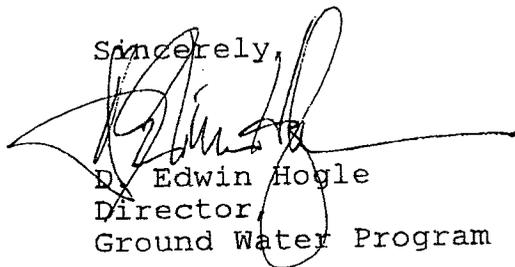
Part II MI include a temperature survey, noise log or oxygen activation log, and Region 8 may also accept results of a radioactive tracer survey (RATS) under certain circumstances. The limited authorized period allows injection for the purpose of stabilizing the injection formation pressure prior to demonstrating Part II MI, which is necessary because the proposed injection zone may be under pressured due to previous oil production from the zone, and the tests rely on stable formation pressure. Results of tests shall be submitted to, and written approval with authority to re-commence injection received from, EPA prior to resuming injection following the limited authorized period. A copy of Region 8 guideline for conducting a temperature survey is enclosed with this letter.

An initial maximum surface injection pressure (MSIP) not to exceed 1900 psig was determined for wells within Area Permit UT2736-00000. Please note that the maximum pressure used during the temperature survey or other approved test becomes the final permitted maximum injection pressure, or MIP, because Part II MI was demonstrated at that pressure. Therefore, it may be advantageous to run a step rate test prior to conducting the temperature survey or other approved test.

Should the operator apply for an increase to the MIP at any future date, another demonstration of Part II MI must be conducted in addition to the step rate test. The operator must receive prior authorization from the Director in order to inject at pressures greater than the permitted MIP during the test(s).

If you have any questions in regard to the above action, please contact Chuck Tinsley at 303.312.6266 or Dan Jackson at 303.312.6155. Results from temperature log or other Part II MI test should be mailed directly to the Ground Water Program Director, Mail Code 8P-W-GW.

Sincerely,



By Edwin Hogle  
Director  
Ground Water Program

enclosure:

Region 8 Guideline for conducting a temperature survey

cc w/o enclosures:

Mr. Roland McCook  
Chairman  
Uintah & Ouray Business Council

Ms. Elaine Willie  
Environmental Director  
Ute Indian Tribe

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

Mr. Jerry Kenczka  
Bureau of Land management  
Vernal District Office

Mr. Nathan Wiser, ENF-T



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION VIII**

**999 18th STREET - SUITE 500  
DENVER, COLORADO 80202-2466**

**TEMPERATURE LOGGING FOR MECHANICAL INTEGRITY**

January 12, 1999

**PURPOSE:**

The purpose of this document is to provide a guideline for the acquisition of temperature surveys, a procedure that may be used to determine the internal mechanical integrity of tubing and casing in an injection well. A temperature survey may be used to verify confinement of injected fluids within the injection formation.

**LOGGING PROCEDURE**

Run the temperature survey while going into the hole, with the temperature sensor located as close to the bottom of the tool as possible. The tool need not be centralized.

Record temperatures a 1-5 °F per inch, on a 5 inches per 100 feet log scale.

Logging speed should be within 20 - 30 feet per minute.

Run the log from ground level to total depth (or plug-back depth) of the well.

When using digital logging equipment, use the highest digital sampling rate as possible. Filtering should be kept to a minimum so that small scale results are obtained and preserved.

Record the first log trace while injecting at up to the maximum allowed injection pressure. Subsequent to the temperature survey, the maximum injection pressure will be limited to the pressure used during the survey.

**LOG TRACES**

Log the first log trace while the well is actively injecting, and record traces for gamma ray, temperature, and differential temperature.

Shut-in (not injecting) temperature curves should be recorded at intervals depending on the length of time that the injection well has been active. Preferred time intervals are shown in the following table:

Active Injection	Record Curves at These Times (In Hours)				
1 month	1	3	6	12	
6 months	1	6	10-12	22-24	
1 year	1	10-12	22-24	45-48	
5 years	1	10-12	22-24	45-48	90-96
10 years or more	1	22-24	45-48	90-96	186-192

H:\UIC\R8UIC-Guidance\INFO-TempLog.wpd January 12, 1999

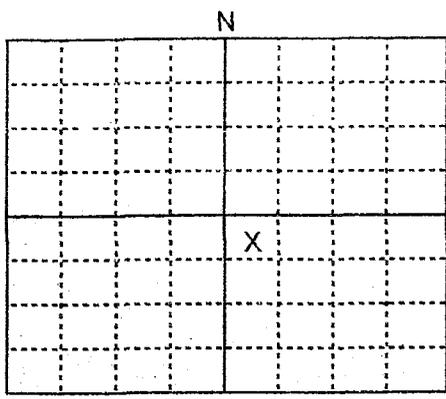


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**EPA**

**WELL REWORK RECORD**

NAME AND ADDRESS OF PERMITTEE Petroglyph Operating Company, Inc. P.O. Box 1839 Hutchinson, KS 67504-1839	NAME AND ADDRESS OF CONTRACTOR Ute Indian Tribe
-------------------------------------------------------------------------------------------------------------------	----------------------------------------------------

LOCATE WELL AND OUTLINE UNIT ON SECTION PLAT -- 640 ACRES  <div style="text-align: center;">                     N   </div>	STATE UT	COUNTY Duchesne	PERMIT NUMBER UT2736-04524
SURFACE LOCATION DESCRIPTION NW 1/4 OF SE 1/4 SECTION 30 TOWNSHIP 5S RANGE 3W LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT Surface Location 1890 ft. from South Line of quarter section and 2199 ft. from East Line of quarter section			
WELL ACTIVITY <input type="checkbox"/> Brine Disposal <input checked="" type="checkbox"/> Enhanced Recovery <input type="checkbox"/> Hydrocarbon Storage  Lease Name Ute Tribal		Total Depth Before Rework 6050  Total Depth After Rework 6050  Date Rework Commenced 7/25/00  Date Rework Completed 7/31/00	TYPE OF PERMIT <input type="checkbox"/> Individual <input checked="" type="checkbox"/> Area Number of Wells 1  Well Number Ute Tribal 30-10

**WELL CASING RECORD - BEFORE REWORK**

Casing		Cement		Perforations		Acid or Fracture Treatment Record
Size	Depth	Sacks	Type	From	To	
8-5/8" 24#	256	165	Type 5	5558	5564	7691 gal boragel, 42700# 20/40 prop
5-1/2" 15.5#	6040	265/340	Highfill/Thixotrop	4907	4920	& next perms; 7442 gal boragel, 29100# 20/40 prop
				4926	4933	
				4797	4801	8137 gal boragel, 42000# 20/40 prop
				4409-12'	4417-23'	7815 gal Boragel, 42000# 20/40 prop
				4302	4306	5612 gal Boragel, 28500# 20/40 prop
				4140-45'	4150-52'	7947 gal Boragel, 42100# 20/40 prop

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

Casing		Cement		Perforations		Acid or Fracture Treatment Record
Size	Depth	Sacks	Type	From	To	
Same as above						See attached page

DESCRIBE REWORK OPERATIONS IN DETAIL USE ADDITIONAL SHEETS IF NECESSARY  Complete as injection w/ 2-3/8" @ 4354'. Set pkr, test annulus. Performed M.I.T. test.	WIRE LINE LOGS, LIST EACH TYPE Log Types CNL, AIT, CBL
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------

**CERTIFICATION**

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

NAME AND OFFICIAL TITLE (Please type or print)  Micheal Safford Operations Coordinator	SIGNATURE 	DATE SIGNED 8-23-00
-------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------	------------------------

Ute Tribal 30-10

Page 2 Treatment record

Perforations		Acid or Fracture
From	To	Treatment Record
4657	4660	perf with 120 deg phasing 4 spf
4797	4801	perf with 120 deg phasing 4 spf
5050	5065	perf with 120 deg phasing 4 spf
5078	5084	perf with 120 deg phasing 4 spf
5554	5569	treat with 1500 gal 15% HCL
4797	4801	treat with 500 gal 15% HCL
4409	4423	treat with 1200 gal 15% HCL
5058	5084	frac'ed with 38700# sand ISIP 1547 psi
4657	4660	frac'ed with 21700# sand ISIP 2400 psi

# WORKOVER REPORT

8/2/00

*Petroglyph Operating Co., Inc.*

<b>Operator:</b>	Petroglyph Operating Company, Inc.	<b>Elevation:</b>	GL 6638
<b>Lease:</b>	Ute Tribal 30-10		KB 6648
<b>API #:</b>	43-013-31895	<b>Property:</b>	50162
<b>Location:</b>	30 - 5 S - 3 W	<b>AFE/EPE Number:</b>	
<b>County, St.:</b>	Duchesne UT	<b>Event Type:</b>	convert to injector

Activity Date	Daily Cost	Activity Description
---------------	------------	----------------------

7/31/00	\$14,415.00	
---------	-------------	--

7 AM RIH w/ 16 jts 3.5" tbg. Tag sand @ 4063'. Clean out sand to 5.5" RBP @ 4720', 117'. Release RBP. POOH & LD 150 jts 3.5" tbg, 5.5" pkr & RBP. RU 2 3/8" handling equipment. RIH w/ 46 jts 2 3/8" tbg. POOH & LD same. RIH w/ notched collar, F nipple, 4 jts tbg sub, 5.5" Hydro I pkr & 126 jts 2 3/8" tbg. ND BOP NU B1 adapter. Circ well w/ 100 bbls pkr fluid. Drop setting tool. Press tbg to 3000# to seat pkr @ 4090' w/ 10,000#?. F nipple & EOT @ 4095'. NU well head. Test csg to 1500#, held. Retrieve fishing tool. SWIFN @ 6:30 PM.

**TUBING DETAIL**

	LENGTH	DEPTH
KB	10.00	10.00
126 jts 2 3/8" tbg	4072.40	4082.40
X/over 2 3/8" box & 2 7/8" pin	0.75	4083.15
5.5" Hydro I pkr	7.30	4090.45
2 3/8" tbg sub	4.10	4094.55
2 3/8" F nipple	0.90	4095.45
2 3/8" notched collar	0.43	4095.88
EOT		4095.88

7/28/00	\$68,170.00	
---------	-------------	--

7 AM PU & RIH w/ 46 jts 3.5" tbg. Set RBP @ 5147' & pkr @ 5102'. Test tool to 3500#, no test. Release tools. Pull above perms, reset & test w/ no luck. POOH w/ 3.5" tbg & tools. RIH w/ reconditioned RBP & pkr. Set RBP @ 5155' & pkr @ 4984'. Test tools to 3500#, held. RU HES & frac perms 5050-84' w/ 38700# sand. Avg. rate 26.5 BPM, avg. pressure 3200#, max rate 28.5 BPM, max pressure 4000#. ISIP 1547, 5 min 1552, 10 min 1557, & 15 min 1602. Total load 292 bbls. Flow to tank for 35 min & recovered 27 bbls. Release pkr & circ sand off RBP. Move & reseat RBP @ 4720'. Test tools to 3500#, held. Set pkr @ 4600'. Frac perms 4657-60' w/ 21700# sand. Avg. rate @ 24 BPM, avg. pressure @ 3210#, max rate @ 25.1 BPM, max pressure @ 3600#. ISIP 2400, 5 min 1950, 10 min 1898, & 15 min 1800. Total load 381 bbls. Flow to tank for 45 min & recovered 52 bbls. Release 5.5" pkr @ 4600'. Circ well until clean. Pull above perms. EOT @ 4099'. SDFN @ 11 PM.

7/27/00	\$11,530.00	
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POOH w/ 126 jts tbg, 5.5" pkr & RBP. RIH w/ reconditioned RBP, pkr & 2 3/8" tbg. Set RBP @ 4866' & test tool to 3500#, held. Move & set pkr @ 4769'. Treat perms 4797-4801' w/ 500 gal 15% HCl. Max inj rate 2.5 BPM @ 3450#. Avg. inj rate .5 BPM @ 2400#. Total load 31 bbls. Move tool RBP @ 3450#, avg. inj rate .5 BPM @ 2400#. Total load 31 bbls. Move tool. RBP @ 4478' & pkr @ 4340'. Treat perms 4409-23' w/ 1200 gal 15% HCl. Max inj. Rat e3 BPM @ 3080#. Avg. inj rat .8 BPM @ 2290#. Total 47 bbls. Release tools. Set RBP @ 5610' & pkr @ 4350'. Swab perms @ 4409-5569'. All 4 acid jobs combined. Made 9 runs & recovered 32.5 bbls. TFL @ 1800', FFL @ 3800'. pH @ 2 w/ limited fluid entry. Release tools. Load well w/ 50 bbls wtr. POOH w/ tbg & tools. RU 3.5" tbg & BOP equipment. PU & RIH w/ 5.5" pkr & 115 jts 3.5" tbg. WOT @ 3640'. SDFN.

RECEIVED AUG 07 2000

# WORKOVER REPORT

Petroglyph Operating Co., Inc.

8/2/00

<b>Operator:</b>	Petroglyph Operating Company, Inc.	<b>Elevation:</b>	GL 6638
<b>Well:</b>	Ute Tribal 30-10		KB 6648
<b>County, St.:</b>	Duchesne UT		

Activity Date	Daily Cost	Activity Description		
7/26/00	\$32,480.00	PERFORATIONS:		
		5554-5569	Green River E (02)	4 SPF 60 shots
		5078-5084	Green River D (03)	4 SPF 24 shots
		5050-5065	Green River D (03)	4 SPF 60 shots
		4926-4933	Green River C (09.2)	4 SPF 28 shots
		4907-4910	Green River C (09.2)	4 SPF 12 shots
		4797-4801	Green River C (06)	4 SPF 16 shots
		4657-4660	Green River C (05)	4 SPF 12 shots
		4417-4423	Green River B (11)	4 SPF 24 shots
		4409-4412	Green River B (11)	4 SPF 12 shots
		4302-4306	Green River B (08)	4 SPF 16 shots
		4150-4152	Green River B (06)	4 SPF 8 shots
		4140-4145	Green River B (06)	4 SPF 20 shots

7 AM POOH w/ tbg, 5.5" x 15.5" csg scraper & 4 3/4" bit. RU Schlumberger. Perf intervals form 4657-60', 4797-4801', 5050-65', & 5078-84' w/ 4" csg gun. 120 deg phasing, 4 spf, 124 total holes. RD same. RIH w/ 5.5 RBP, 5.5 pkr, & 2 3/8" tbg. RU HES. Test tools to 3500#, held. Treat perfs as follows. Perfs 5554-69'. RB @ 5610 & pkr @ 5505'. Treat w/ 1500 gal 15% HCl. Max injection rate 2.9 BPM @ 1928#. Avg. injection rate 1.5 BPM @ 1400#. Total load 48 bbbls. Release pkr @ 4858' & RBP @ 4995'. Were unable to set 5.5 RBP. Chase to bttm @ 5914'. Did not appear to have RBP. Pull above perfs. EOT 2 4082'. SDFN @ 8:30 PM.

7/25/00      \$7,545.00

7 AM RU, load & haul off pumping unit. RU PU & rod equipment. Unseat pump & flush rods w/ 30 bbbls wtr. POOH & LD PR, 2' x 7/8" pony rod, 88 slick 7/8" rods, 113 slick 3/4" rods, 22 guided 3/4" rods, & insert pump. RU 2 7/8" tbg equipment. ND well head & release 5.5" TAC. NU BOP. POOH & LD 128 jts 2 7/8" tbg, 5.5" TAC, 46 jts tbg, SN 1 jt tbg, mech SN, perf sub, 2 jts tbg & solid plug. RU 2 3/8" tbg & BGP equipment. PU & RIH w/ 5.5" x 15.5" csg scraper & 183 jts 2 3/8" tbg. Tag fill @ 5914'. RU circulating equipment & circ well w/ 140 bbbls wtr until clean. 43 bbbls to establish circ. POOH w/ 58 jts 2 3/8" tbg above perfs. EOT @ 4082'. SWIFN @ 10 PM.

Cumulative Cost:      \$134,140.00

Days Since Start:      7

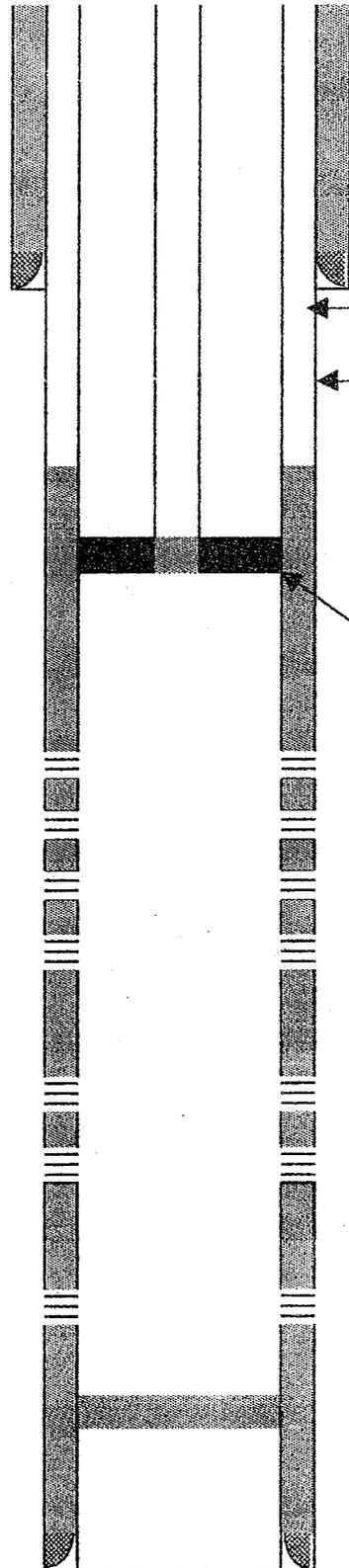
RECEIVED AUG 07 2000

Ute Tribal 30-10  
Wellbore Diagram  
After Conversion

8/23/00

Well History:

- 8/2/97 Spud Well
- 9/27/97 First Production
- 9/9/97 B-6 zone  
perfs 4140' to 4145'; 4 spf  
perfs 4150' to 4152'; 4 spf  
frac'ed ISIP 3154 psi
- 9/9/97 B-8 zone  
perfs 4302' to 4306'; 4 spf  
frac'ed ISIP 3633 psi
- 9/9/97 B-11 zone  
perfs 4409' to 4412'; 4 spf  
4447' to 4423'; 4 spf  
frac'ed ISIP 3263 psi
- 9/9/97 C-6 zone  
perfs 4797' to 4801'; 4 spf  
frac'ed ISIP 3778 psi
- 9/5/97 C-9.2 zone  
perfs 4907' to 4910'; 4 spf  
4926' to 4933'; 4 spf  
frac'ed ISIP 2419 psi
- 9/5/97 E-2 zone  
perfs 5558' to 5567'  
total 24 holes  
frac'ed ISIP 1780 psi



GL: 6638  
KB: 6648

Surface Hole Size: 12 1/4"

8-5/8" 24# Surface Csg @  
256' KB cmt'd w/ 165 sxs

Hole Size 7-7/8" bit

Cement Tops: 1st stage 678'  
5 1/2" 15.5# csg @ 6040'  
Cemented w/ 605 sxs.

Tubing 126 jts of 2-3/8" 4.7#  
J55 @ 4072'  
Packer @ 4090'

PBTD @ 5994'  
TD @ 6050 KB

Petroglyph Operating Co., Inc.  Ute Tribal 30-10 1980' FSL & 2199' FEL NW SE Sec. 30-T5S-R3W  Antelope Creek Field Duchesne Co, Utah Lease #14-20-H62-3519 API #43-013-31895
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

(Not to Scale)

Mechanical Integrity Test  
Casing or Annulus Pressure Test for Well UT2736

U.S. Environmental Protection Agency  
Underground Injection Control Program, UIC Implementation Section, 8WM-DW  
999 18th Street, Suite 500, Denver, CO 80202-2466  
This form was printed on 06/10/1996.

EPA Witness: \_\_\_\_\_ Date 8/7/00

Test conducted by: CHAD STEVENSON

Others present: CLIFF ATWOOD

UTE TRIBAL <u>30-10</u>	as of
ANTELOPE CREEK	
Petroglyph Operating Company, Inc., Hutchinson, KS	Op ID PTG01
Last MIT: No record / /	
Max Allowed Press psig	199 Max Reported Press psig

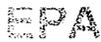
Is this a regularly scheduled test?  Yes  No  
 Initial test for permit?  Yes  No  
 Test after well rework?  Yes  No

Well injecting during test?  NO  YES

Initial casing/tubing annulus pressure 1400/400 psig  
 Does the annulus pressure build back up?  Yes  No

BPD

TUBING PRESSURE			
Initial	<u>400</u> psig	psig	psig
End of Test	<u>520</u> psig	psig	psig
CASING/TUBING ANNULUS PRESSURE			
Time	Test #1	Test #2	Test #3
0 min	<u>1400</u> psig	psig	psig
5	<u>1400</u>		
10	<u>1400</u>		
15 min	<u>1400</u>		
20	<u>1400</u>		
25	<u>1400</u>		
30 min	<u>1400</u>		
<u>24 HOURS</u>	<u>1390</u>		
Result (circle)	Pass	Fail	Pass
			Fail



WASHINGTON, DC 20460  
**WELL REWORK RECORD**

NAME AND ADDRESS OF PERMITTEE Petroglyph Operating Company, Inc. Hutchinson, KS 67504-1839	NAME AND ADDRESS OF CONTRACTOR
--------------------------------------------------------------------------------------------------	--------------------------------

LOCATE WELL AND OUTLINE UNIT ON SECTION PLAT -- 640 ACRES  	STATE UT	COUNTY Duchesne	PERMIT NUMBER UT2736-04522
	SURFACE LOCATION DESCRIPTION SW 1/4 OF SE 1/4 SECTION 21 TOWNSHIP 5S RANGE 3W		
	LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT Surface Location 682 ft. from South Line of quarter section and 3332 ft. from West Line of quarter section		
	WELL ACTIVITY <input type="checkbox"/> Brine Disposal <input checked="" type="checkbox"/> Enhanced Recovery <input type="checkbox"/> Hydrocarbon Storage  Lease Name Ute Tribal	Total Depth Before Rework 6067  Total Depth After Rework 6067  Date Rework Commenced 8/1/00  Date Rework Completed 8/4/00	TYPE OF PERMIT <input type="checkbox"/> Individual <input checked="" type="checkbox"/> Area Number of Wells 1  Well Number Ute Tribal 21-15

**WELL CASING RECORD - BEFORE REWORK**

Casing		Cement		Perforations		Acid or Fracture Treatment Record
Size	Depth	Sacks	Type	From	To	
8-5/8" 24#	508	300	"G" Neat +	5868	5882	1680 gal fluid; 33000# prop
			2% CaCL2	5066	5099	8728 gal fluid; 36300# prop
5-1/2" 15.5#	6057	95/340	Highfill/Thixotrop	5038	5057	7152 gal fluid; 39700# prop
				4983	4987	8658 gal fluid; 13900# prop

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

Casing		Cement		Perforations		Acid or Fracture Treatment Record
Size	Depth	Sacks	Type	From	To	
Same as above						See attached page

DESCRIBE REWORK OPERATIONS IN DETAIL USE ADDITIONAL SHEETS IF NECESSARY  Complete as injection w/ 2-3/8" @ 4563'. Set pkr, test annulus. Performed M.I.T. test.	WIRE LINE LOGS, LIST EACH TYPE	
	Log Types	Logged Intervals
	CNL, AIT, CBL	

**CERTIFICATION**

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

NAME AND OFFICIAL TITLE (Please type or print) Micheal Safford Operations Coordinator	SIGNATURE 	DATE SIGNED 8-16-00
---------------------------------------------------------------------------------------------	---------------	------------------------

Ute Tribal 21-15

Page 2 Treatment record

Perforations		Acid or Fracture Treatment Record
From	To	
4638	4641	perf with 170 deg phasing 4 spf
5038	5048	perf with 170 deg phasing 4 spf
5054	5057	perf with 170 deg phasing 4 spf
5064	5072	perf with 170 deg phasing 4 spf
5074	5079	perf with 170 deg phasing 4 spf
5088	5093	perf with 170 deg phasing 4 spf
5038	5093	treat perms with 3000 gallons 15% HCL, 1000 gallons into job perms established communication with perms 4983-87'
4983	4987	reset packer at 4935' and finish job
4638	4657	treat perms with 500 gallons 15% HCl

# WORKOVER REPORT

8/16/00

Petroglyph Operating Co., Inc.

Operator: Petroglyph Operating Company, Inc.		Elevation: GL 6339
Lease: Ute Tribal 21-15		KB 6349
API #: 43-013-31756	Property: 50134	
Location: 21 - 5 S - 3 W		AFE/EPE Number: 41259
County, St.: Duchesne UT	Event Type: convert to injector	

Activity Date	Daily Cost	Activity Description
---------------	------------	----------------------

8/4/00      \$1,690.00

7 AM pump 60 bbls KCl wtr to establish circulation. Continue to circ well w/ 100 bbls pkr fluid. Drop setting tool. Set 5.5" Hydro I pkr @ 4557' w/ 10,000# compression. F nipple & EOT @ 4563'. NU well head. Test csg to 2500#, held. Bleed off to 1500# & leave on well. RD & PU equipment @ 10 AM. Move off location.

**TUBING DETAIL**

	LENGTH	DEPTH
KB	10.00	10.00
141 jts 2 3/8" tbg	4540.12	4550.12
5.5" pkr	7.70	4567.82
2 3/8" tbg sub	4.13	4571.95
F nipple	.90	4572.85
2 3/8" collar	.40	4573.25
EOT		4573.25

8/3/00      \$33,180.00

RIH w/ 16 jts 2 3/8" tbg. Set RBP @ 5138'. Test tools to 3500 psi, held. Move & set pkr @ 3000'. Treat perms 5038-93' w/ 3000 gal 15% HCl. Max rate 3 BPM @ 1895 psi, avg. rate 1 BPM @ 1747 psi. 1000 gal into job establish communication for perms 4983-87'. Release, move & reset pkr @ 4935'. Continue to pump job w/ injection rate @ 2.4 BPM @ 1900 psi. ISIP 1624, 5 min 1360, 10 min 1011, & 15 min 725. Total load 118 bbls. Move tools. RBP @ 4878' & pkr @ 4582'. Treat perms 41-57' w/ 500 gal 15% HCl. Max rate 3 BPM @ 1890 psi, avg. rat 2 BPM @ 1360 psi. ISIP 1060, 5 min 436, 10 min 98, & 15 min 0. Total load 47 bbls. RU swab. IFL @ 1700'. Made 6 runs & recovered 23 bbls. FFL @ 4200'. pH @ 0. Displace hole w/ 50 bbls KCl wtr. Release pkr & RBP. POOH w/ tbg & Tools. RIH w/ 2 3/8" collar, f nipple, 4" tbg sub, 5.5" Hydro I pkr, & 141 jts 2 3/8" tbg. EOT @ 4563'. ND BOP NU B1 adapter. SDFN @ 6 PM. 4638

3000 gal snake oil

Max psi/rate: 1895 psi @ 3 BPM

Avg psi/rate: 1747 psi @ 1 BPM

ISIP: 1624

5 min: 1360

10 min: 1011

15 min: 725

**Fluid Recovery**

zone BLF: 118

zone BLFR: 11.5

zone BLFTR: 106.5

Treatment remarks: communicated w/ perms 4983-87' 1000 gal into job

# WORKOVER REPORT

Petroglyph Operating Co., Inc.

8/16/00

<b>Operator:</b>	Petroglyph Operating Company, Inc.	<b>Elevation:</b>	GL 6339
<b>Well:</b>	Ute Tribal 21-15		KB 6349
<b>County, St.:</b>	Duchesne UT		

Activity Date	Daily Cost	Activity Description
---------------	------------	----------------------

8/2/00            \$7,450.00

PERFORATIONS:

5878-5882	Green River E (07)	4 SPF	16 shots
5888-5874	Green River E (07)	4 SPF	24 shots
5088-5093	Green River D (03.4)	4 SPF	20 shots
5074-5079	Green River D (03.4)	4 SPF	20 shots
5064-5072	Green River D (03.4)	4 SPF	32 shots
5054-5057	Green River D (03.4)	4 SPF	12 shots
5038-5048	Green River D (03.3)	4 SPF	40 shots
4983-4987	Green River D (01)	4 SPF	16 shots
4716-4723	Green River C (05.3)	2 SPF	14 shots
4686-4688	Green River C (05.2)	2 SPF	4 shots
4653-4657	Green River C (05)	2 SPF	8 shots

7 AM PU & RIH w/ 84 jts 2 3/8" tbg. EOT @ 5930'. RU pump & lines. Pump 100 bbls wtr to establish circ. Continue to circ until clean. POOH w/ 184 jts 2 3/8" tbg, 5.5" csg scraper & 4 3/4" bit. RU Schlumberger, perf well from 4638-41', D3.3 5038-48', D3.4 5054-57', 5084-72', 5074-79', & 5088-93' w/ 170 deg phasing, 4 spf, & 136 total holes. RD same. RIH w/ 5.5" RBP, 5.5" pkr, & 143 jts 2 3/8" tbg. SD above perfs. EOT @ 4624'. SDFN @ 3 PM.

8/1/00            \$7,020.00

7 AM MIRU. PU rod equipment. Unseat pump & flush rods w/ 30 bbls wtr. POOH & LD 1.5" x 22' PR, 80 slick 7/8" rods, 140 slick 3/4" rods, 13 guided rods, & 1 3/4" pump. RU 2 7/8" tbg handling equipment. ND wellhead & NU BOP. Release 5.5" TAC @ 4542'. POOH & LD 189 jts 2 7/8" tbg, 5.5" TAC, & BHA. RU 2 3/8" handling equipment. PU & RIH w/ 4 3/4" bit, 5.5" x 15.5" csg scraper, 100 jts 2 3/8" tbg. EOT @ 4226'. SDFN @ 6 PM.

**Cumulative Cost:**            **\$49,340.00**

**Days Since Start:**            **4**

# Mechanical Integrity Test

## Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency  
Underground Injection Control Program, UIC Direct Implementation Program 8P-W-GW  
999 18<sup>th</sup> Street, Suite 500 Denver, CO 80202-2466

EPA Witness: \_\_\_\_\_ Date: 8/7/00  
 Test conducted by: CHAD STEVENSON  
 Others present: CLIFF ATWOOD

Well Name: <u>LITETRIBAL 21-15</u>	Type: ER SWD	Status: AC TA UC
Field: <u>ANTELOPE CREEK</u>		
Location: <u>21-15</u> Sec: _____ T _____ N/S R _____ E/W County: <u>DUCHESSNE</u> State: <u>UTAH</u>		
Operator: <u>PETROL-GLYPH OPERATING COMPANY</u>		
Last MIT: <u>1/1</u>	Maximum Allowable Pressure: _____	PSIG

- Is this a regularly scheduled test? [ ] Yes [ ] No
- Initial test for permit?  Yes [ ] No
- Test after well rework? [ ] Yes [ ] No
- Well injecting during test? [ ] Yes  No If Yes, rate: \_\_\_\_\_ bpd

Pre-test casing/tubing annulus pressure: 1560/120 psig

MIT DATA TABLE	Test #1	Test #2	Test #3
<b>TUBING PRESSURE</b>			
Initial Pressure	<u>120</u> psig	psig	psig
End of test pressure	<u>240</u> psig	psig	psig
<b>CASING / TUBING ANNULUS PRESSURE</b>			
0 minutes	<u>1560</u> psig	psig	psig
5 minutes	<u>1560</u> psig	psig	psig
10 minutes	<u>1560</u> psig	psig	psig
15 minutes	<u>1560</u> psig	psig	psig
20 minutes	<u>1560</u> psig	psig	psig
25 minutes	<u>1560</u> psig	psig	psig
30 minutes	<u>1560</u> psig	psig	psig
<del>24 hours</del> minutes	<u>1560</u> psig	psig	psig
minutes	psig	psig	psig
<b>RESULT</b>	[ ] Pass [ ] Fail	[ ] Pass [ ] Fail	[ ] Pass [ ] Fail

Does the annulus pressure build back after the test? [ ] Yes  No

CASINO  
START 10:45 AM  
PST 1560

CASINO  
STOP 10:45 AM  
PST 15100

800 TUBES  
20 HOURS  
PST 1410

CASINO  
START  
PST 120  
10:45 AM

METER NUMBER  
21-15  
TIME PUT ON  
10:45 AM  
DATE PUT ON  
8-5-60

TUBE GROUP 722  
TIME TAKEN OFF  
10:45 AM  
DATE TAKEN OFF  
8-6-60

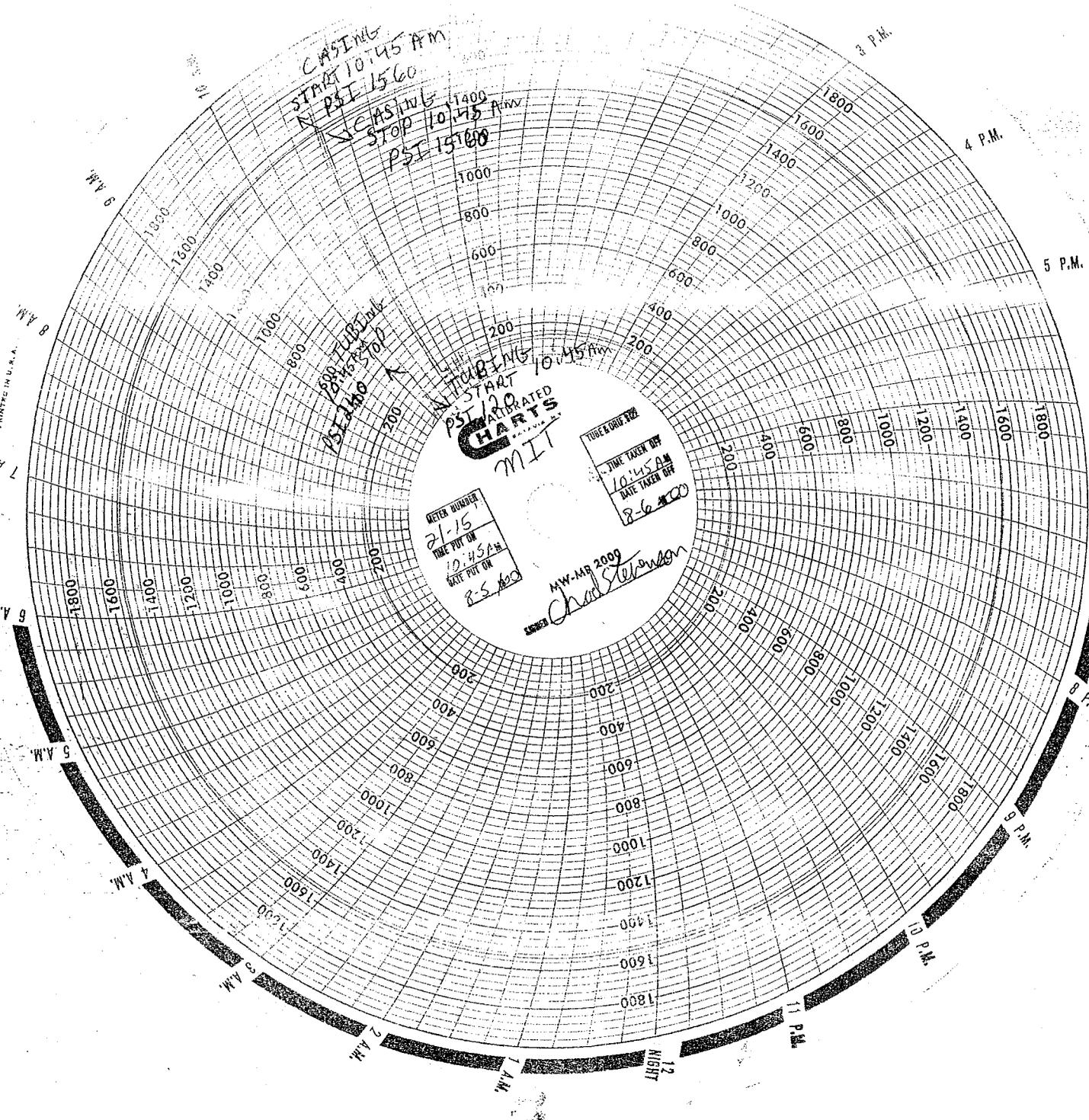
MW-MAR 2009  
Charl Stetson

MIT  
CALIBRATED  
CHARTS

PRINTED IN U.S.A.

9 A.M.  
8 A.M.  
7 A.M.  
6 A.M.  
5 A.M.  
4 A.M.  
3 A.M.  
2 A.M.  
1 A.M.  
12 NIGHT

3 P.M.  
4 P.M.  
5 P.M.  
6 P.M.  
7 P.M.  
8 P.M.



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**

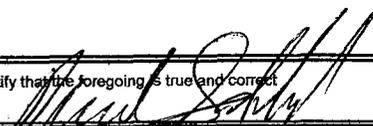
5. Lease Designation and Serial No.	14-20-H62-3516
6. If Indian, Allottee or Tribe Name	Ute Indian Tribe
7. If Unit or CA, Agreement Designation	14-20-H62-4650
8. Well Name and No.	Ute Tribal 21-15
9. API Well No.	43-013-31756
10. Field and Pool, or Exploratory Area	Antelope Creek
11. County or Parish, State	Duchesne County, UT

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other
2. Name of Operator <b>Petroglyph Operating Company, Inc.</b>
3. Address and Telephone No. <b>P.O. Box 1839, Hutchinson, KS 67504-1839; (316) 665-8500</b>
4. Location of Well (Footage, Sec., T., R., or Survey Description) <b>682' FSL &amp; 3332' FWL SWSE Sec. 21-T5S-R3W</b>

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>	
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input checked="" type="checkbox"/> CONVERT TO INJECTOR	<input type="checkbox"/> Dispose Water
<small>(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)</small>		

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.)\*

Further to BLM & EPA approval (Permit #UT2736-04522), Enclosed are copies of the MIT and job summary. Injection commenced on 8/30/2000.

14. I hereby certify that the foregoing is true and correct		
Signed 	Title <b>Operations Coordinator</b>	Date <b>10-20-00</b>
<small>(This space for Federal or State official use)</small>		
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 in its jurisdiction.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

AUG 27 2001

Ref: 8P-W-GW

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

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

Mr. Micheal Safford  
Operations Coordinator  
Petroglyph Operating Company, Inc.  
P.O. Box 607  
Roosevelt, UT 84066

RE: **Authorization to Continue Injection**  
Ute Tribal #30-10  
EPA Area Permit No. UT2736-00000  
EPA Well Permit No. UT04524  
Duchesne County, Utah

Dear Mr. Safford:

Thank you for submitting to the Region VIII Ground Water Program office of the Environmental Protection Agency (EPA) the results from the June 22, 2001, radioactive tracer survey (RATS) used to demonstrate Part II (External) Mechanical Integrity (MI) test on the Ute Tribal #30-10 injection well. In the letter accompanying the RATS results, you requested an extension on the time allowed to inject in order to allow for continued stabilization of pressure, and indicated your willingness to run RATS at set intervals until a maximum injection pressure of 1900 psig could be obtained, tested and approved. A limited injection period of up to one hundred and eighty days, beginning March 2, 2001, was authorized to allow for stabilization of the injection formation pressure prior to the demonstration of Part II (External) MI.

The results of the RATS have been reviewed and the EPA has determined that the test adequately demonstrated Part II MI, that injected fluids will remain in the authorized injection interval, at the tested pressure of 980 psig. Therefore, EPA hereby approves this demonstration of Part II (External) MI and authorizes continued injection into the Ute Tribal #30-10 under the terms and conditions of EPA Area Permit UT2736-00000 and the

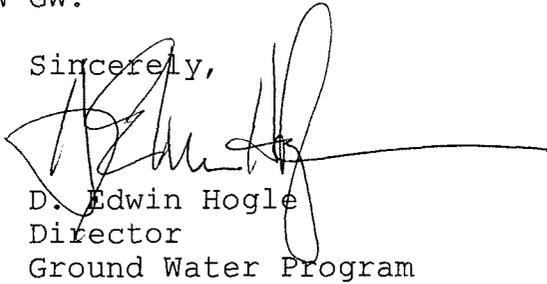


Authorization for Additional Well UT2736-04524 issued under this Area Permit. The maximum allowable injection pressure (MAIP) for this well is 980 psig.

Please note that the maximum pressure used during a RATS MI demonstration becomes the maximum allowable injection pressure for the well. However, you may apply for a higher maximum allowable injection pressure at a later date after the formation pressure has further stabilized. Your application should be accompanied by the interpreted results from a step rate test that measure the formation fracture pressure and fracture gradient at this location. A copy of EPA guidelines for running and interpreting a step rate test are included with this letter. Should the step rate test result in approval of a higher MAIP, a new Part II (External) MI demonstration must be run. Please note that to use a pressure greater than the present MAIP of 980 psig during a step rate test and RATS, you must first receive prior written authorization from the Director.

If you have any questions in regard to the above action, please contact Chuck Tinsley at 303.312.6266 or Dan Jackson at 303.312.6155. Results from temperature log or other Part II MI test should be mailed directly to the Ground Water Program Director, Mail Code 8P-W-GW.

Sincerely,



D. Edwin Hogle  
Director  
Ground Water Program

enclosure: Step-Rate Test Procedure

cc: Mr. D. Floyd Wopsock, Chairman  
Uintah & Ouray Business Council  
Ute Indian Tribe

Ms. Elaine Willie  
Environmental Coordinator  
Ute Indian Tribe

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

Mr. Jerry Kenczka  
Bureau of Land management  
Vernal District Office

Mr. Nathan Wiser, 8ENF-T  
USEPA