

UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS: WELL LOG _____ ELECTRIC LOGS _____

FILE WATER SANDS _____ LOCATION INSPECTE. _____

SUB. REPORT/abd _____

2000 02 14 LA'D, eff 2-7-2000

DATE FILED JANUARY 20, 1998

LAND. FEE & PATENTED

STATE LEASE NO.

PUBLIC LEASE NO.

U-67845

INDIAN

DRILLING APPROVED: JULY 9, 1998

SPUDED IN:

COMPLETED:

PUT TO PRODUCING:

INITIAL PRODUCTION:

GRAVITY A.P.I.

GOR.

PRODUCING ZONES:

TOTAL DEPTH:

WELL ELEVATION:

DATE ABANDONED:

2-7-2000 LA'D

FIELD: PARIETTE DRAW FIELD

UNIT: HUMPBACK

COUNTY: UINTAH

WELL NO HUMPBACK 9-26-8-17

API NO. 43-047-33060

LOCATION 1880 FSL FT. FROM (N) (S) LINE, 379 FEL

FT. FROM (E) (W) LINE. NE SE

1/4 - 1/4 SEC. 26

TWP.

RGE.

SEC.

OPERATOR

TWP.

RGE.

SEC.

OPERATOR

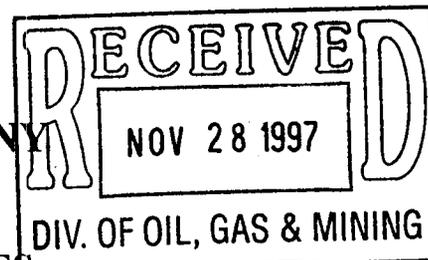
8S

17E

26

INLAND PRODUCTION

**INLAND PRODUCTION COMPANY
MONUMENT BUTTE FIELD
Duchesne and Uintah County, Utah
STANDARD OPERATING PRACTICES**



MULTI-POINT SURFACE USE & OPERATIONS PLAN

1. Existing Roads:

The location of a particular well location will be shown on maps and described in the site-specific APD.

Improvements to existing access roads will be noted in the site-specific APD.

All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.

2. Planned Access Roads:

Descriptions of the access road will be included in the site-specific APD. New access roads on BLM surface will be crowned (2 - 3%), ditched, and constructed with a running surface of 18' and a maximum disturbed width of 30'. Graveling or capping the roadbed will be performed as necessary to provide a well-constructed safe road. Prior to construction or upgrading, the proposed road shall be cleared of any snow and allowed to dry completely. On Ute Tribal, private, and/or state surface, access roads will be constructed according to the surface owner's specifications. These specifications or ROWs will be attached to the site-specific APD. Where deep cuts are required for road construction or where intersections or sharp curves occur, or when approval is issued by the BLM's Authorized Officer (AO), the road may be wider than 18 feet to accommodate larger equipment. Appropriate water control will be installed to control erosion.

Unless specified in the site-specific APD, the following specifications will apply:

- . No pipelines will be crossed with the new construction.
- . The maximum grade will be less than 8%.
- . There will be no turnouts.
- . There will be no major cut and fills, culverts, or bridges. If it becomes necessary to install a culvert at some time after approval of the APD, the BLM will be notified of the installation via sundry.
- . The access road will be centerline flagged during time of staking.

- There will be no gates, cattle guards, fence cuts, or modifications to existing facilities.

Surfacing material may be necessary, depending upon weather conditions.

Surface disturbance and vehicular traffic will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

Access roads and surface disturbed activities will conform to standards outlined in the BLM and Forest Service publication: **Surface Operating Standards for Oil and Gas Exploration and Development, 1989.**

The road surface and shoulders will be kept in a safe and usable condition and will be maintained in accordance with the original construction standards. All drainage ditches and culverts will be kept clear and free flowing and will be maintained according to original construction standards. The access road right-of-way will be kept free of trash during operations. All traffic will be confined to the approved right-of-way. Road drainage crossings shall be of the typical dry creek drainage crossing type. Crossings shall be designed so they will not cause siltation or accumulation of debris in the drainage crossing nor shall the drainage's be blocked by the roadbed. Erosion of drainage ditches by runoff water shall be prevented by diverting water off at frequent intervals by means of cutouts. Should mud holes develop, they shall be filled in and detours around them avoided. When snow is removed from the road during the winter months, the snow should be pushed outside of the borrow ditches, and the turnouts kept clear so that snowmelt will be channeled away from the road.

3. **Location of Existing Wells Within a One-Mile Radius:**

A map will be provided with the site-specific APD showing the location of existing wells within a one-mile radius.

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

The following guidelines will apply if the well is productive:

- A dike will be constructed completely around those production facilities which contain fluids (i.e., production tanks, produced water tanks). The dike will be constructed of compacted subsoil, be impervious, hold 100% of the capacity of the largest tank, and be independent of the back cut. The site-specific APD will address additional capacity if such is needed due to environmental concerns. (The use of topsoil for the construction of dikes will not be allowed)
- All permanent (on site six months or longer) above the ground 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 five state Rocky Mountain Inter-Agency Committee.
- All facilities will be painted within six months of installation. Facilities required to

comply with the Occupational Safety and Health Act (OSHA) will be excluded. The required color is Carlsbad Canyon, Munsell standard color number 2.5Y 6/2.

A description of the proposed pipeline and a map will be included with the site-specific APD. **Pipelines will be constructed of 4" OD steel. Pipeline segments will be welded together on disturbed areas in or near the location (whenever possible), and dragged into place.**

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

Unless otherwise specified in the site-specific APD, water for drilling and completion purposes will be obtained from Johnson Water District. A temporary line may be used for water transportation from our existing supply line, from Johnson Water District, or trucked from Inland's water supply lines, located at the Gilsonite State #7-32 (SW/NE Sec. 32, T8S, R17E), or the Monument Butte Federal #5-35 (SW/NW Sec. 35, T8S, R16E), or the Travis Federal #15-28 (SW/SE Sec. 28, T8S, R16E).

Water will be hauled to location over the roads marked on maps included with the site-specific APD.

6. **Source of Construction Materials:**

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

Any gravel will be obtained from a commercial source.

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

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

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

Drilling fluids, including salts and chemicals will be contained in the reserve pit. Upon termination of drilling and completion operations, the liquid contents of the reserve pit will be used at the next drill site or will be removed and disposed of at an approved waste disposal facility within 120 days after drilling is terminated. Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1.

Unless specified in the site-specific APD, the reserve pit will be constructed on the location and will not be located within natural drainage ways, where a flood hazard exists or surface runoff might destroy or damage the pit walls. The reserve pit will be constructed so that it will not leak, break, or allow discharge of liquids.

If it is determined at the onsite inspection that a pit liner is necessary, the reserve pit will be lined with a synthetic reinforced liner a minimum of 12 mil thick, with sufficient bedding used

to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. Trash or scrap that could puncture the liner will not be disposed of in the pit.

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

After first production, produced wastewater will be confined to the approved pit or storage tank for a period not to exceed 90 days. During the 90 day period, in accordance with Onshore Order #7, an application for approval of a permanent disposal method and location will be submitted for the AO's approval.

On BIA administered lands, production fluids will be contained in leak-proof tanks. All production fluids will be disposed of at approved disposal sites. Produced water, oil, and other byproducts will not be applied to roads or well pads for control of dust or weeds.

The indiscriminate dumping of produced fluids on roads, well sites, or other areas will not be allowed.

Any spills of oil, gas, salt water, or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

A chemical porta-toilet will be furnished with the drilling rig.

Garbage, trash, and other waste materials will be collected in a portable self-contained, fully enclosed trash cage during operations. Trash will not be burned on location.

All debris and other waste material not contained in the trash cage will be cleaned up and removed from the location immediately after removal of the drilling rig.

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

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

EPA's LIST OF NONEXEMPT EXPLORATION AND PRODUCTION WASTES

While the following wastes are not necessarily hazardous, they are nonexempt and will not be placed in reserve pits:

- . Unused fracturing fluids or acids
- . Gas plant cooling tower clearing 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

8. **Ancillary Facilities:**

Surface gas lines:

- . No installation of surface gas lines will be performed during periods when the soil is too wet to adequately support installation equipment. If such equipment creates ruts in excess of three inches deep, the soil will be deemed too wet to adequately support the equipment.
- . Where possible, surface gas lines shall be placed as close to existing oil field roads as possible without interfering with normal road travel or road maintenance activities. For lines that are installed cross-county (not along access roads), travel along the lines will be infrequent and for maintenance needs only. If surface disturbance occurs along the lines, the operator will reclaim the land to the satisfaction of the AO of the appropriate surface management agency.
- . All surface lines will be either black or brown in color.

9. **Well Site Layout:**

A location Layout Diagram describing drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, pipe racks, trailer parking, spoil dirt stockpile(s), and the surface material stockpile(s) will be included with the site-specific APD.

The diagram will describe rig orientation, parking area, and access roads, as well as the location of the following:

- . The reserve pit.
- . The stockpiled topsoil (first six inches), which shall not be used for facility berms. All brush removed from the well pad during construction will be stockpiled with the topsoil.
- . Access road.

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

- . A 39" net wire will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- . The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42".
- . The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42".
- . Corner posts shall be centered and/or braced in such a manner to keep the fence tight at all times.
- . Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16'.
- . All wire shall be stretched using a stretching device before it is attached to corner posts.
- . The reserve pit fencing will be on two sides during drilling operations, and on the third and fourth sides when the rig moves off location. Pits will be fenced and maintained until cleanup.
- . **If flare pits are utilized**, they will be located downwind from the prevailing wind direction.

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

Producing Location:

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

- . Before any dirt work associated with location restoration takes place, the reserve pit shall be as dry as possible. All debris in it will be removed. Other waste and spoil materials will be disposed of immediately upon completion of operations.
- . **If a synthetic, nylon reinforced, liner is used**, the excess liner will be cut off and removed and the remaining liner will be torn and perforated before backfilling the reserve pit. Alternatively, the pit will be pumped dry, the liner folded into the pit, and the pit backfilled. The liner will be buried to a minimum of four (4) feet deep. The AO will be contacted to obtain a seed mixture to revegetate the reserve pit and other unused disturbed areas after they are initially reclaimed.
- . 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. This will be completed by backfilling and crowning the pit to prevent water from standing.

Dry Hole/Abandoned Location:

- . At the time of final abandonment, the intent of reclamation will be to return disturbed areas to near natural conditions. All disturbed surfaces will be recontoured to the approximate natural contours, with reclamation of the well pad and access road to be performed as soon as practical after final abandonment. The surface of disturbed areas will be recontoured to **blend all cuts, fills, road berms, and borrow ditches to be natural in appearance** as compared to the surrounding terrain. Abandoned well sites, roads, and other disturbed areas will be restored as near as practical to their original condition. Where applicable, these conditions may include the re-establishment of irrigation systems, the re-establishment of appropriate soil conditions, and the re-establishment of vegetation as specified.
- . After recontouring of disturbed areas, any stockpiled topsoil will be spread over the surface, and the area reseeded and revegetated to the satisfaction of the AO of the appropriate surface management agency. The AO will be contacted at the time of reclamation for the appropriate seed mixture. Seed will be drilled on the contour to an appropriate depth. Reseeding operations will be performed after completion of other reclamation operations.

11. Surface Ownership:

The ownership of the access roads will be specified on the site-specific APD.

The ownership of well pad will be specified on the site-specific APD.

12. Other Information:

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees. The Operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

The Operator will control noxious weeds along rights-of-way for roads, pipelines, well sites, or other applicable facilities. A list of noxious weeds may be obtained from the BLM or the appropriate County Extension Office. On BLM administered land, it is required that a Pesticide Use Proposal be submitted and approved prior to the application of herbicides of other pesticides or possible hazardous chemicals.

Drilling rigs and/or equipment used during drilling operations on this location will not be stacked or stored on Federal Lands after the conclusion of drilling operations or at any other time without BLM authorization. If BLM authorization is obtained, such storage is only a temporary measure.

Unless previously conducted, a Class III archeological survey will be conducted on all Federal and/or Tribal lands. All personnel will refrain from collecting artifacts and from disturbing any significant cultural resources in the area. The Operator is responsible for informing all persons in the area who are associated with this project that they may be subject to prosecution for knowingly disturbing historic or archaeological sites or for collecting artifacts. All vehicular traffic, personnel movement, construction, and restoration activities shall be confined to the areas examined, as referenced in the archaeological report, and to the existing roadways and/or evaluated access routes. If historic or archaeological materials are uncovered during construction, the Operator is to immediately stop work that might further disturb such materials and contact the AO and the Ute Tribe Energy and Mineral Department.

Within five working days, the AO will inform the Operator as to:

- . Whether the materials appear eligible for the National Historic Register of Historic Places;
- . The mitigation measures the Operator will likely have to undertake before the site can be used (assuming in situ preservations is not necessary); and,
- . 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 is correct and that mitigation is appropriate.

If the Operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials 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 Authorized Officer that required mitigation has been completed, the Operator will then be allowed to resume construction.

On surface administered by the BIA, all Surface Use Conditions of Approval associated with the BIA Concurrence letter and Environmental Analysis Mitigation Stipulations will be adhered to, including:

- Any/all contractors used by Inland Production Company will have acquired a Tribal Business License and have access permits prior to construction.
- 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. The BIA right-of-way application will be delivered under separate cover. If the surface is owned by another entity and the mineral rights are owned by the Ute Indian Tribe, a right-of-way will be obtained from the other entity.
- Upon completion of the APD and right-of-way construction, the Ute Tribe Energy and Mineral Department will be notified so that a Tribal Technician can verify an Affidavit of Completion.
- Operator's employees, including subcontractors, will not gather firewood along roads constructed by the Operator. If woodcutting 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." The Operator, subcontractors, vendors and their employees or agents may not disturb saleable timber (including firewood) without a duly granted wood permit from the BIA Forester.
- All roads constructed by the Operator on the Uinta 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 fire arms 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) that only authorized personnel are permitted.
- All well site locations on the Uinta 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 footages or the quarter/quarter section, the section, township, and range).

13. Lessee's or Operator Representative and Certification:

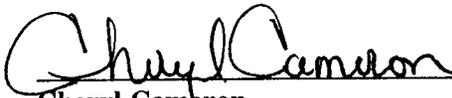
Cheryl Cameron
Regulatory Compliance Specialist
Inland Production Company
P.O. Box 790233
Vernal, UT 84079
(435) 789-1866

Brad Mecham
Operations Manager
Inland Production Company
P.O. Box 1446
Roosevelt, UT 84066

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

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field Representative (s) to ensure compliance and shall be on location during all construction and drilling operations.

Site-specific certification will be submitted with the site-specific APD >


Cheryl Cameron

11/20/97
Date

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

5. LEASE DESIGNATION AND SERIAL NO. U-67845
6. IF INDIAN, ALLOTTEE OR TRIBE NAME

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

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

7. UNIT AGREEMENT NAME
8. FARM OR LEASE NAME Humpback

2. NAME OF OPERATOR Inland Production Company

9. WELL NO. #9-26-8-17

3. ADDRESS OF OPERATOR P.O. Box 790233 Vernal, UT 84079 Phone: (801) 789-1866

10. FIELD AND POOL OR WILDCAT Undesignated

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*) At Surface NE/SE 1880' FSL & 379' FEL

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 26, T8S R17E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 10 Miles southeast of Myton, Utah

12. County Uintah 13. STATE UT

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

16. NO. OF ACRES IN LEASE

17. NO. OF ACRES ASSIGNED TO THIS WELL 40

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

19. PROPOSED DEPTH 6500'

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 4992.4' GL

22. APPROX. DATE WORK WILL START* First Quarter 1998

Table with 5 columns: SIZE OF HOLE, SIZE OF CASING, WEIGHT/FOOT, SETTING DEPTH, QUANTITY OF CEMENT. Includes text: Refer to Monument Butte Field SOP's Drilling Program/Casing Design

Inland Production Company proposes to drill this well in accordance with the attached exhibits, "A" through "E".

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM : If proposal is to deepen or plug back, 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. REGULATORY COMPLIANCE SIGNED Cheryl Cameron TITLE Specialist DATE 1/16/98

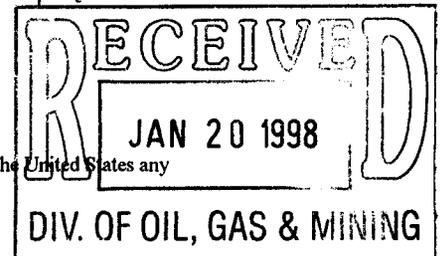
(This space for Federal or State office use)

PERMIT NO. 43-047-33060 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: Federal Approval of this Action is Necessary BRADLEY G. HILL RECLAMATION SPECIALIST III APPROVED BY [Signature] TITLE DATE 2/9/98

5882429 4437692.5



*See Instructions On Reverse Side

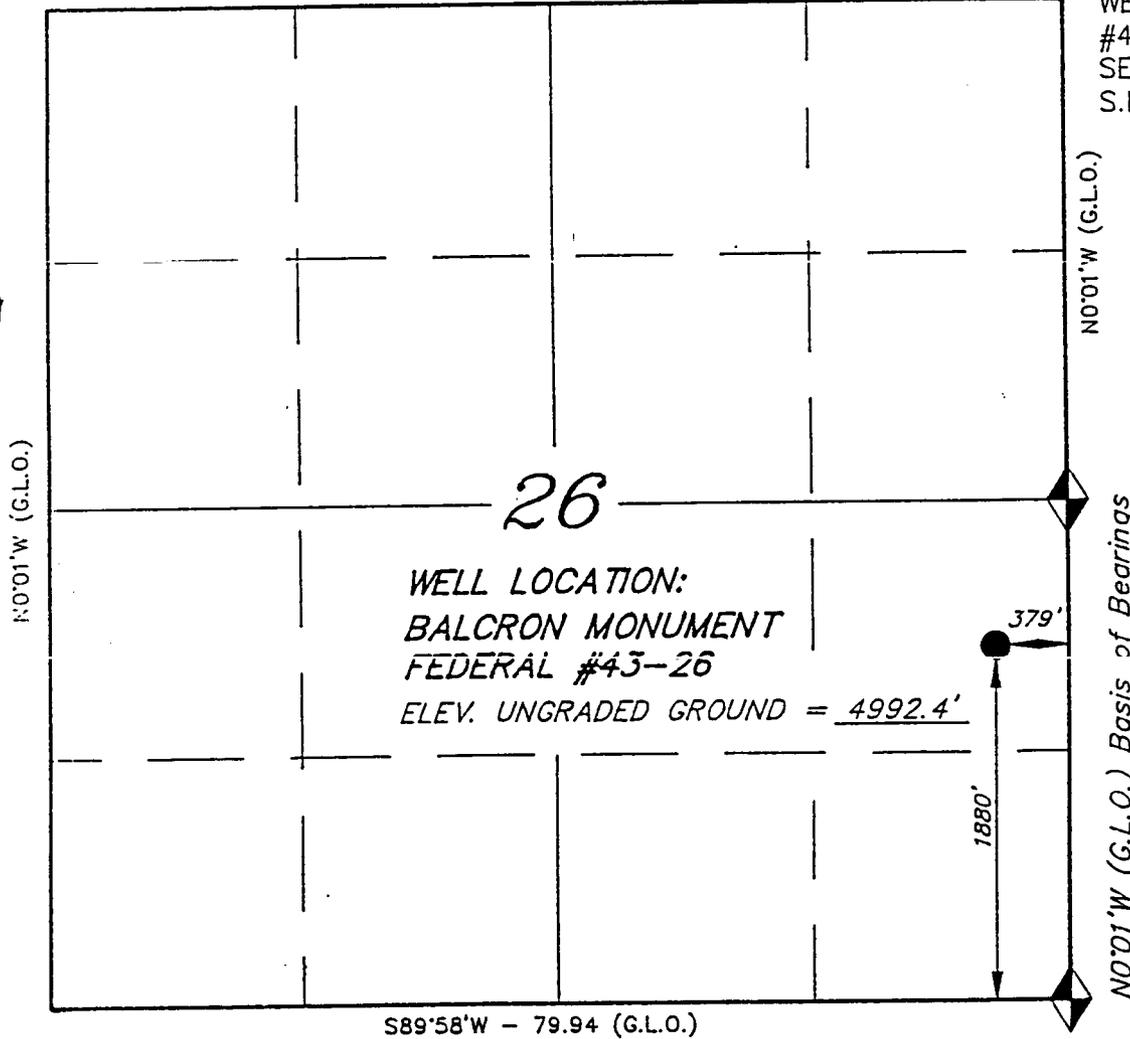
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

T8S, R17E, S.L.B.&M.

EQUITABLE RESOURCES ENERGY CO.

WEST - 79.88 (G.L.O.)

WELL LOCATION, BALCRON MONUMENT FEDERAL #43-26, LOCATED AS SHOWN IN THE ~~SE~~ 1/4 SE 1/4 OF SECTION 26, T8S, R17E, NE S.L.B.&M. UINTAH COUNTY, UTAH.



WELL LOCATION:
BALCRON MONUMENT
FEDERAL #43-26
ELEV. UNGRADED GROUND = 4992.4'

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

Seamus C. [Signature]
 REGISTERED LAND SURVEYOR
 REGISTRATION No. 189377
 STATE OF UTAH

TRI STATE LAND SURVEYING & CONSULTING

38 EAST 100 NORTH, VERNAL, UTAH 84078
(801) 781-2501

◆ = SECTION CORNERS LOCATED
 BASIS OF BEARINGS; G.L.O. DATED 1910
 BASIS OF ELEV; U.S.G.S. 7-1/2 min QUAD (PARIETTE DRAW SW)

SCALE: 1" = .1000'	SURVEYED BY: G.S. R.H.
DATE: 11-17-94	WEATHER: COOL
NOTES:	FILE #43-26

**INLAND PRODUCTION COMPANY
HUMPBACK #9-26-8-17
NE/SE SECTION 26, T8S, R17E
UINTAH COUNTY, UTAH**

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. GEOLOGIC SURFACE FORMATION:

Uinta formation of Upper Eocene Age

2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:

Uinta	0' – 1710'
Green River	1710'
Wasatch	6500'

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

Green River Formation 1710' – 6500' - Oil

4. PROPOSED CASING PROGRAM

Please refer to the Monument Butte Field Standard Operation Procedure (SOP).

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

Please refer to the Monument Butte Field SOP. See Exhibit "F".

6. TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATION MUDS:

Please refer to the Monument Butte Field SOP.

7. AUXILIARY SAFETY EQUIPMENT TO BE USED:

Please refer to the Monument Butte Field SOP.

8. TESTING, LOGGING AND CORING PROGRAMS:

Please refer to the Monument Butte Field SOP.

9. ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE:

The anticipated maximum bottom hole pressure is 1800 psi. It is not anticipated that abnormal temperatures will be encountered; nor that any other abnormal hazards such as H₂S will be encountered in this area.

10. ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:

Please refer to the Monument Butte Field SOP.

**INLAND PRODUCTION COMPANY
HUMPBACK #9-26-8-17
NE/SE SECTION 26, T8S, R17E
UINTAH COUNTY, UTAH**

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN

1. EXISTING ROADS

See attached Topographic Map "A"

To reach Inland Production Company well location site Humpback #9-26-8-17 located in the NE 1/4 SE 1/4 Section 26, T8S, R17E, S.L.B. 7 M. Uintah County, Utah:

Proceed westerly out of Myton, Utah along Highway 40 - 1.6 miles \pm to the junction of this highway and the Sand Wash road; proceed southeasterly along this road 6.6 miles \pm to its intersection with a dirt road to the east; proceed easterly 5.2 miles to the beginning of a dirt road to the south; proceed southeasterly 1.0 mile to the beginning of an intersection to the east; proceed easterly 0.1 mile to the beginning of the proposed access road.

2. PLANNED ACCESS ROAD

See Topographic Map "B" for the location of the proposed access road.

3. LOCATION OF EXISTING WELLS

Refer to Exhibit "D".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

Please refer to the Monument Butte Field Standard Operating Procedure (SOP).

5. LOCATION AND TYPE OF WATER SUPPLY

Please refer to the Monument Butte Field SOP. See Exhibit "C".

6. SOURCE OF CONSTRUCTION MATERIALS

Please refer to the Monument Butte Field SOP.

7. METHODS FOR HANDLING WASTE DISPOSAL

Please refer to the Monument Butte Field SOP. See Exhibit "E".

8. ANCILLARY FACILITIES

Please refer to the Monument Butte Field SOP.

9. WELL SITE LAYOUT

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

10. PLANS FOR RESTORATION OF SURFACE

Please refer to the Monument Butte Field SOP.

11. SURFACE OWNERSHIP - Bureau Of Land Management

12. OTHER ADDITIONAL INFORMATION

The Archaeological Cultural Resource Survey Report was submitted by Equitable Resources Energy Company, and is on file with the Bureau of Land Management.

13. LESSEE'S OR OPERATORS REPRESENTATIVE AND CERTIFICATION

Representative

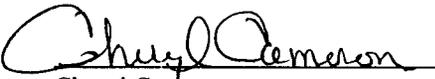
Name: Cheryl Cameron
Address: P.O. Box 790233 Vernal, Utah 84079
Telephone: (435) 789-1866

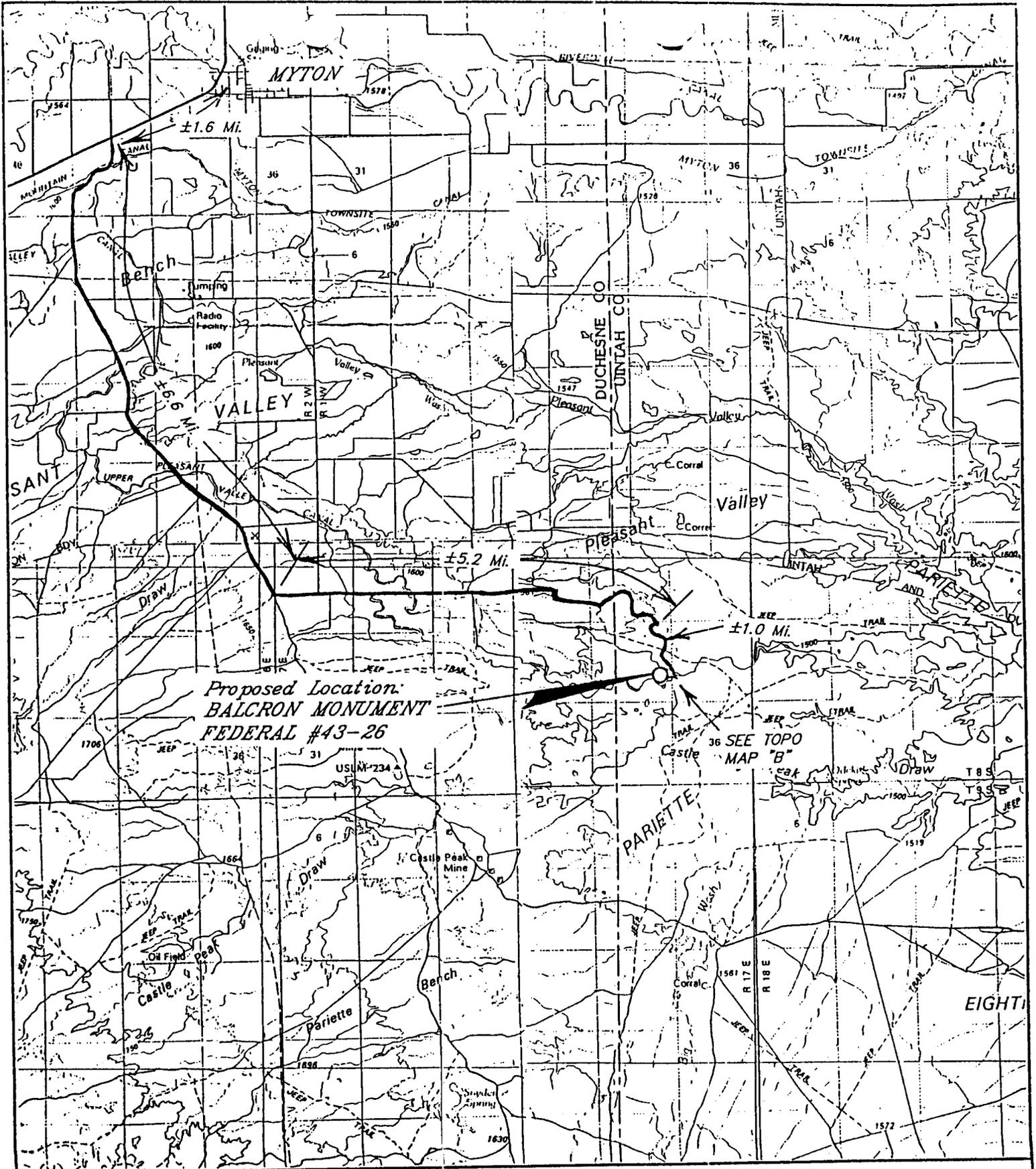
Certification

Please be advised that INLAND PRODUCTION COMPANY is considered to be the operator of well #9-26-8-17 NE/SE Section 26, Township 8S, Range 17E: Lease U-67845 Uintah County, Utah: and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by Hartford Accident #4488944.

I hereby certify that the proposed drillsite and access route have been inspected, and I am familiar with the conditions which currently exist; that the statements made in this plan are true and correct to the best of my knowledge; and that the work associated with the operations proposed here will be performed by Inland Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

1/14/98
Date


Cheryl Cameron
Regulatory Compliance Specialist



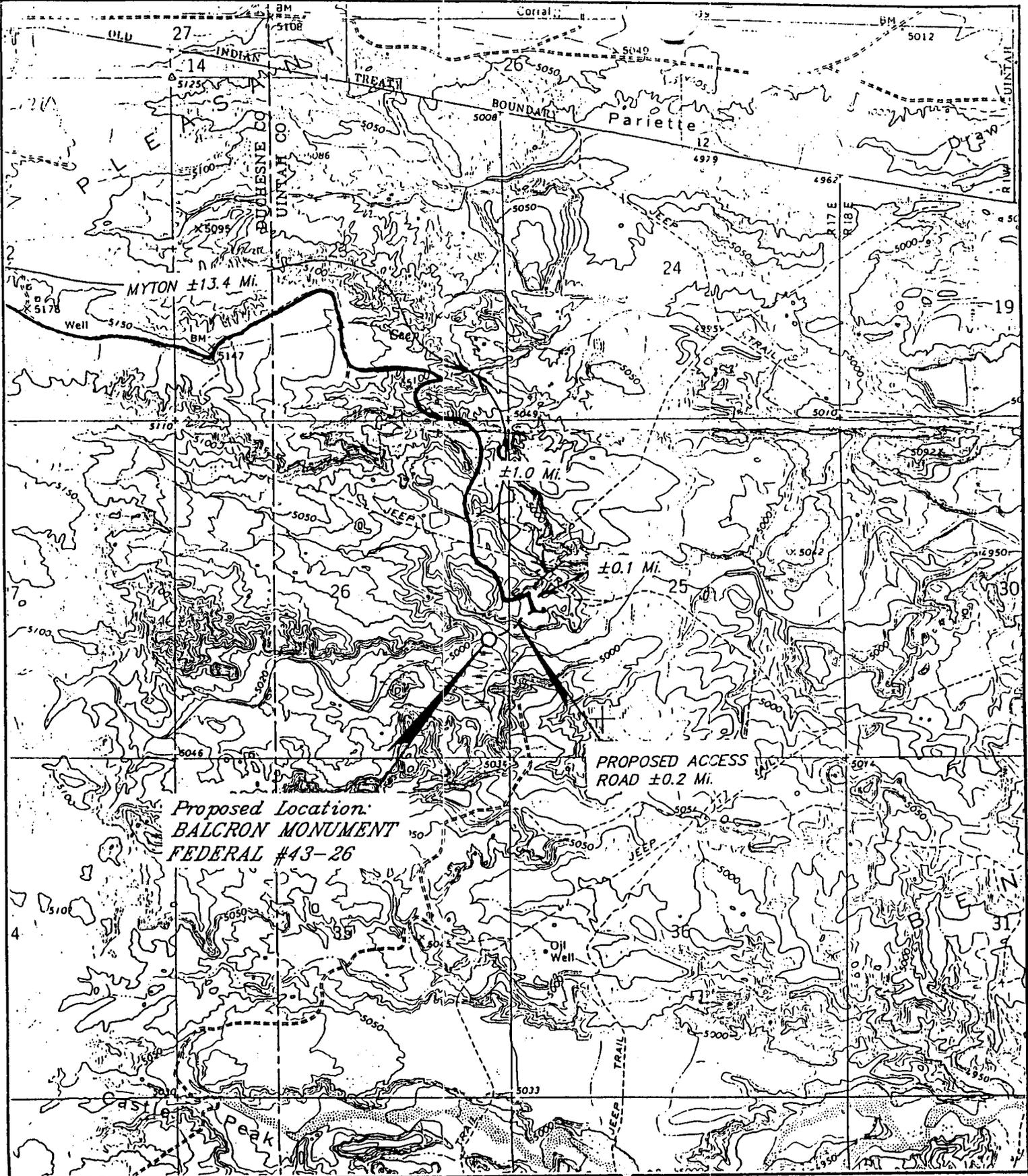
*Proposed Location:
BALCRON MONUMENT
FEDERAL #43-26*

SEE TOPO
MAP "B"

EQUITABLE RESOURCES CO.

*BALCRON MONUMENT FEDERAL #43-26
SECTION 26, T8S, R17E, S.L.B. & M.
TOPO "A"*

Tri State
Land Surveying, Inc.
(801) 781-2501
38 WEST 100 NORTH VERNAL, UTAH 84078



EQUITABLE RESOURCES CO.

BALCRON MONUMENT FEDERAL #43-26
 SECTION 26, T8S, R17E, S.L.B.&M.
 TOPO "B"



SCALE: 1" = 2000'

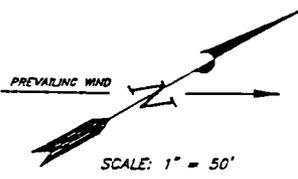
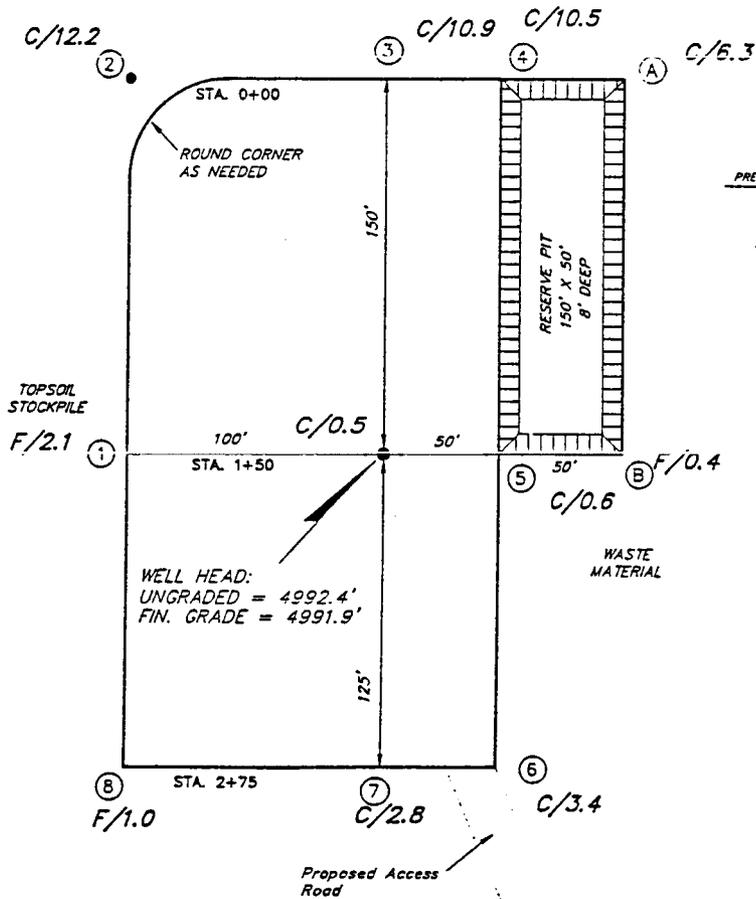
Tri State
 Land Surveying, Inc.
 (801) 781-2501

38 WEST 100 NORTH VERNAL, UTAH 84078

EXHIBIT "E"

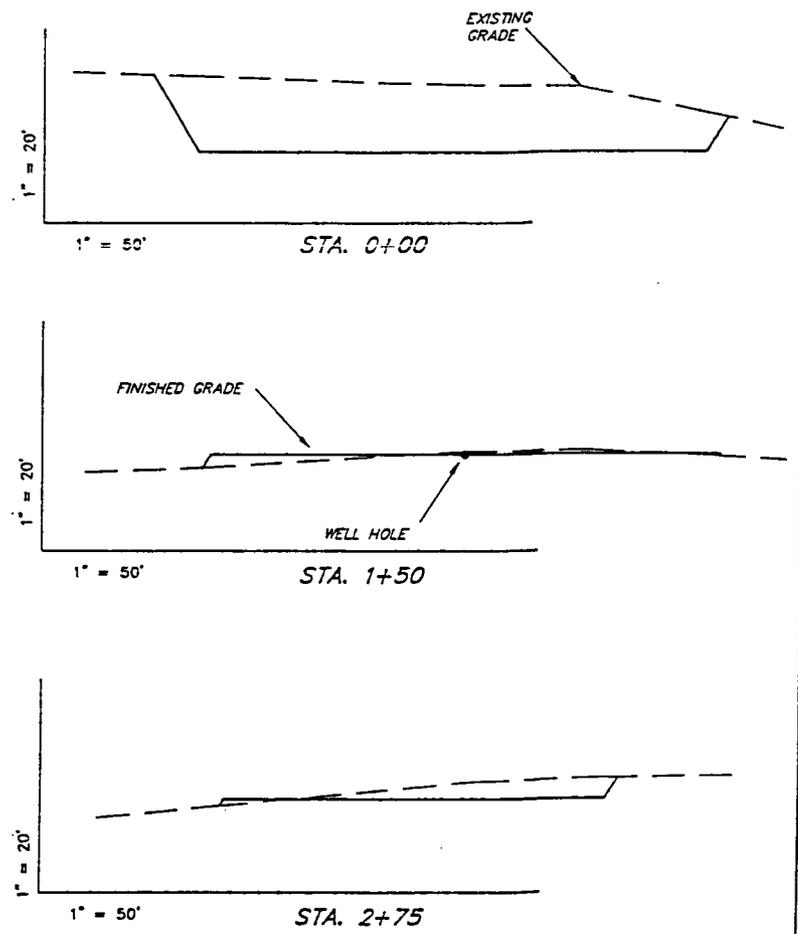
EQUITABLE RESOURCES ENERGY CO.

**BALCRON MONUMENT FEDERAL #43-26
SECTION 26, T8S, R17E, S.L.B.&M.**



REFERENCE POINTS
150' SOUTH 4989.0'
200' SOUTH 4988.9'

APPROXIMATE YARDAGES
CUT = 7059 Cu. Yds.
FILL = 519 Cu. Yds.
PIT = 2,710 Cu. Yds.
6" TOPSOIL = 910 Cu. Yds.



SURVEYED BY: S.S. J.S.
DRAWN BY: R.E.H.
DATE: 11-17-94
SCALE: 1" = 50'
FILE: 43-26

Tri State
Land Surveying, Inc.
(801) 781-2501
38 WEST 100 NORTH VERNAL, UTAH 84078

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 01/20/98

API NO. ASSIGNED: 43-047-33060

WELL NAME: HUMPBACK 9-26-8-17
 OPERATOR: INLAND PRODUCTION COMPANY (N5160)
 CONTACT: Cheryl Cameron (435) 789-1866

PROPOSED LOCATION:
 NESE 26 - T08S - R17E
 SURFACE: 1880-FSL-0379-FEL
 BOTTOM: 1880-FSL-0379-FEL
 UINTAH COUNTY
 PARIETTE DRAW FIELD (698)

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

LEASE TYPE: FED
 LEASE NUMBER: U-67845
 SURFACE OWNER: Federal

PROPOSED FORMATION: GRRV

RECEIVED AND/OR REVIEWED:

Plat

Bond: Federal State[] Fee[]
 (No. #4488944)

Potash (Y/N)

Oil Shale (Y/N) *190-5(B)

Water Permit
 (No. Johnson Water District)

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

N/A St/Fee Surf Agreement (Y/N)

LOCATION AND SITING:

R649-2-3. Unit Humpback (GP)

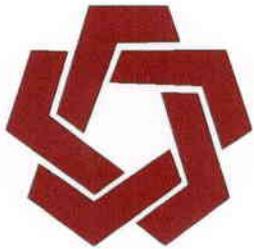
R649-3-2. General

R649-3-3. Exception

Drilling Unit
 Board Cause No: _____
 Date: _____

COMMENTS: * Mon. Butte Field Standard Operating Procedure (SOP) separate file.
* Not listed in Unit P.O.D. 1998. BLM added 7-2-98.

STIPULATIONS: ① FEDERAL APPROVAL



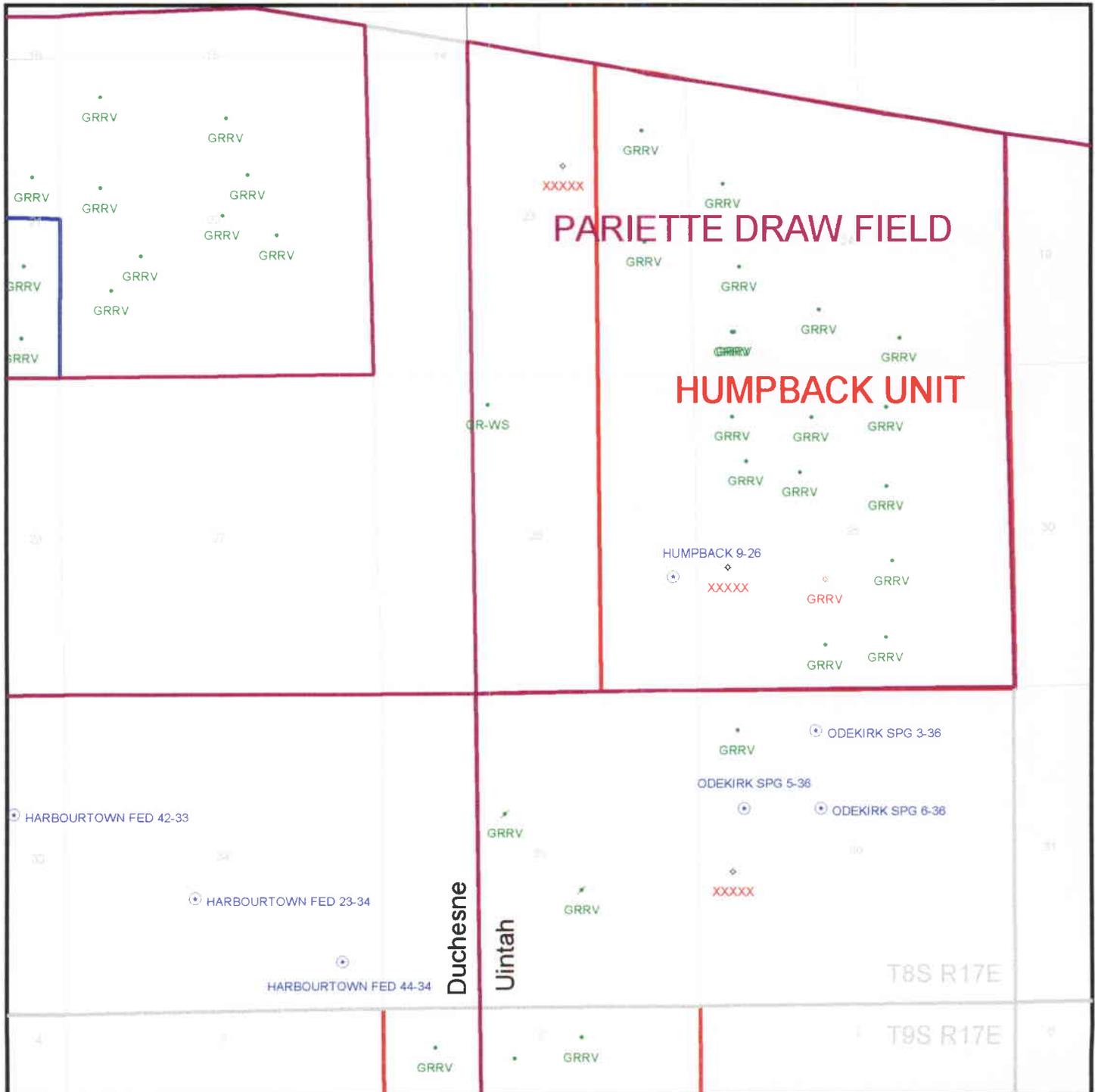
DIVISION OF OIL, GAS & MINING

OPERATOR: INLAND PRODUCTION (N5160)

FIELD: PARIETTE DRAW (698)

SEC. 26, TWP. 8S, RNG. 17E,

COUNTY: UINTAH UAC: R649-2-3 HUMPSBACK SECONDARY



DATE PREPARED:
11-FEB-1998

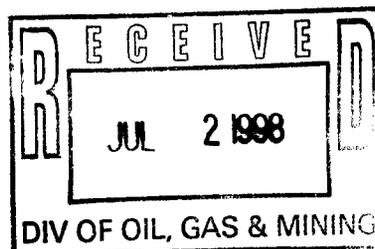
United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

Memorandum

To: Assistant District Manager Minerals, Vernal District
From: Michael Coulthard, Petroleum Engineer
Subject: 1998 Plan of Development Humpback Unit
Duchesne County, Utah.



Pursuant to email between Lisha Cordova, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management. The following well is planned for calendar year 1998 within the Humpback Unit, Duchesne County, Utah.

API #	WELL NAME	LOCATION
43-047-33060	HUMPBACK 9-26-8-17	1880-FSL-0379-FEL 26 08S 17E

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

/s/ Michael L. Coulthard

bcc: File - Humpback
Division of Oil Gas and Mining
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:--



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

1594 West North Temple, Suite 1210

PO Box 145801

Salt Lake City, Utah 84114-5801

801-538-5340

801-359-3940 (Fax)

801-538-7223 (TDD)

Michael O. Leavitt
Governor

Lowell P. Braxton
Division Director

July 9, 1998

Inland Production Company
P.O. Box 790233
Vernal, Utah 84079

Re: Humpback 9-26-8-17 Well, 1880' FSL, 379' FEL, NE SE,
Sec. 26, T. 8 S., R. 17 E., Uintah County, Utah

Gentlemen:

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

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-33060.

Sincerely,

A handwritten signature in cursive script that reads "John R. Baza".

John R. Baza
Associate Director

lwp

Enclosures

cc: Uintah County Assessor

Bureau of Land Management, Vernal District Office

Operator: Inland Production Company
Well Name & Number: Humpback 9-26-8-17
API Number: 43-047-33060
Lease: U-67845
Location: NE SE Sec. 26 T. 8 S. R. 17 E.

Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

2. Notification Requirements

Notify the Division within 24 hours prior to spudding the well. Contact Jim Thompson at (801)538-5336.

Notify the Division prior to commencing operations to plug and abandon the well. Contact Dan Jarvis at (801) 538-5338 or Robert Krueger at (801) 538-5274.

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.

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

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

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

2. NAME OF OPERATOR Inland Production Company

3. ADDRESS OF OPERATOR P.O. Box 790233 Vernal, UT 84079 Phone: (801) 789-1866

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*) At Surface NE/SE At proposed Prod. Zone 1880' FSL & 379' FEL JAN 16 1998

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 10 Miles southeast of Myton, Utah

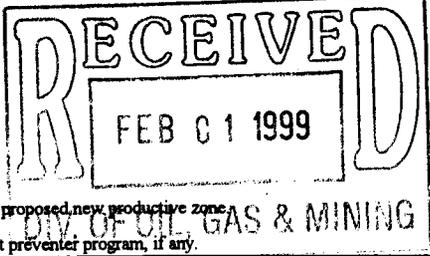
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 16. NO. OF ACRES IN LEASE 17. NO. OF ACRES ASSIGNED TO THIS WELL 40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT. 19. PROPOSED DEPTH 6500' 20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 4992.4' GL 22. APPROX. DATE WORK WILL START* First Quarter 1998

23. PROPOSED CASING AND CEMENTING PROGRAM Table with columns: SIZE OF HOLE, SIZE OF CASING, WEIGHT/FOOT, SETTING DEPTH, QUANTITY OF CEMENT. Content: Refer to Monument Butte Field SOP's Drilling Program/Casing Design

Inland Production Company proposes to drill this well in accordance with the attached exhibits, "A" through "E".



IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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 Cheryl Cameron TITLE Regulatory Compliance Specialist DATE 1/16/98

(This space for Federal or State office use) NOTICE OF APPROVAL PERMIT NO. APPROVAL DATE

CONDITIONS OF APPROVAL, IF ANY: APPROVED BY Assistant Field Manager Mineral Resources DATE JAN 25 1999

CONDITIONS OF APPROVAL TO OPERATIONS COPY

*See Instructions On Reverse Side

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

CONDITIONS OF APPROVAL
APPLICATION FOR PERMIT TO DRILL

Company/Operator: Inland Production Company

Well Name & Number: Humpback 9-26-8-17

API Number: 43-047-33060

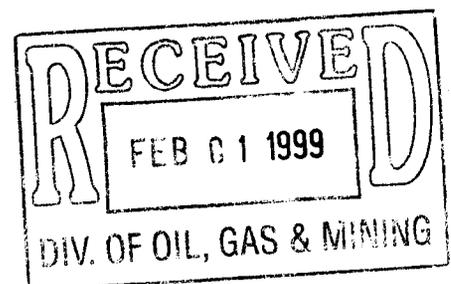
Lease Number: U-67845

Location: NESE Sec. 026 T. 08S R. 17E

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.



SURFACE USE PROGRAM
Conditions of Approval (COA)
Inland Production Company - Well #9-26-8-17

Methods for Handling Waste Disposal

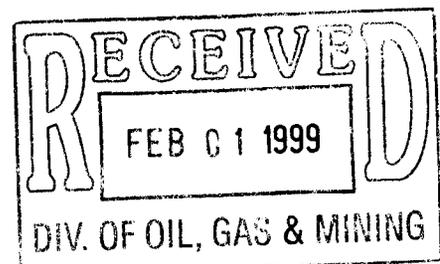
This is a previously developed location with the reserve pit taking on water from a perennial stream that is near the location. The reserve pit will be lined and the pit will be free of standing water before lining. The reserve pit will be lined with a synthetic reinforced liner a minimum of 12 mil thick, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. If straw or mulch is used to bed the liner, the straw or mulch will be certified noxious weed-free.

Location Reclamation

The following seed mixture will be used for reclamation of the reserve pit and for final reclamation:
(All poundages are in Pure Live Seed)

needle and thread	Stipa comata	2 lbs/acre
shadscale	Atriplex confertifolia	3 lbs/acre
fourwing saltbush	Atriplex canescens	4 lbs/acre
nuttals saltbush	Atriplex nuttalli v. cuneata	3 lbs/acre

At the time of final abandonment the location and access will be recontoured to natural topography and topsoil spread over the area and the surface seeded immediately. If the previously reclaimed surface of the reserve pit needs additional contouring, the topsoil over the pit will be scraped off and then used as additional topsoil for final reclamation.





United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Vernal Field Office

170 South 500 East

Vernal, Utah 84078-2799

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

Phone: (435) 781-4400

Fax: (435) 781-4410

IN REPLY REFER TO:

3162

UT08300

February 3, 2000

RECEIVED

FEB 07 2000

DIVISION OF
OIL, GAS AND MINING

Inland Production Company
Route 3 Box 3630
Myton, UT 84052

Re: Notification of Expiration
Well No. Humpback 9-26-8-17 43-047-33060
NESE, Section 26, T8S, R17E
Lease No. U-67845
Uintah County, Utah

Gentlemen:

The Application for Permit to Drill the above-referenced well was approved on January 25, 1999. Since that date, no known activity has transpired at the approved location. Applications for Permit to Drill are effective for a period of one year. In view of the foregoing, this office is notifying you the approval of the referenced application has expired. If you intend to drill at this location at a future date, a new Application for Permit to Drill must be submitted.

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

Sincerely,

Margie Herrmann
Legal Instruments Examiner

cc: State Div. OG&M

4304733060



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8
999 18TH STREET - SUITE 300
DENVER, CO 80202-2466
Phone 800-227-8917
<http://www.epa.gov/region08>

APR - 6 2005

Ref: 8P-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

RECEIVED
APR 08 2005
DIV. OF OIL, GAS & MINING

Mr. Mike Guinn
Vice President - Operations
Newfield Production Co.
Route 3 - Box 3630
Myton, Utah 84502

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

RE: ADDITIONAL WELL TO AREA PERMIT
Humpback Area Permit: UT20852-00000
Humpback No. 9-26-8-17
Well ID: 20852-06519
NE SE Sec. 26 - T8S - 17E
Uintah County, Utah

Dear Mr. Guinn:

The Newfield Production Co. (Newfield) request to convert a former Green River Formation oil well, the Humpback No. 9-26-8-17, to a Garden Gulch-Douglas Creek-Basal Carbonate Members of the Green River Formation enhanced recovery injection well in the Humpback Area Permit is hereby authorized. The proposed Humpback No. 9-26-8-17 Class II enhanced recovery injection well is within the exterior boundary of the Humpback Area Permit UT20852-00000; is within the exterior boundary of the Uintah & Ouray Indian Reservation; and the addition is being made under the authority of 40 CFR § 144.33 (c) and the terms of the Area Permit. Unless specifically mentioned in the enclosed Authorization For An Additional Well, all terms and conditions of the original Area Permit will apply to the conversion, operation, monitoring, and plugging and abandonment of the Humpback No. 9-26-8-17.

Prior to beginning injection, the Environmental Protection Agency (EPA) requires that Newfield submit for review and approval (1) the results of a **Part I (Internal) mechanical integrity test (MIT)**, (2) a **pore pressure** calculation of the injection interval, (3) an **EPA Form No. 7520-12 (Well Rework Record, enclosed)**.

Part II. Section C. Condition No. 5. (Injection Pressure Limitation), Humpback Area Permit (UT20852-00000), cites the method by which the maximum allowable injection pressure (MAIP) shall be calculated for each Additional Well to the Humpback Area Permit. As a result, the MAIP for the Humpback No. 9-26-8-17 shall not exceed **930 psig**. The Humpback Area Permit, Part II. C. 5., provides an opportunity for the permittee to request an increase, or decrease, in the initial maximum surface injection pressure.

Please be aware that Newfield does not have authorization to begin injection into the Humpback No. 9-26-8-17 until the Prior to Commencing Injection requirements, listed above, have been submitted and evaluated by the EPA, and Newfield has received written authorization to begin injection from the Assistant Regional Administrator, or the Assistant Regional Administrator's authorized representative.

If Newfield has any questions, please call Mr. Dan Jackson at (800) 227-8917 (Ext. 6155), or in the Denver area at (303) 312-6155. Please submit the required pre-authorization to inject data to **ATTENTION: DAN JACKSON**, at the letterhead address, citing **MAIL CODE: 8P-W-GW** very prominently.

Sincerely,



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

enclosures: Authorization For Conversion of An Additional Well
EPA Form No. 7520-12 (Well Rework Record)
Guidance No. 39: Part I Mechanical Integrity (Internal)
Schematic Diagram: Proposed Conversion

cc w/ enclosures: Maxine Natchees
Chairperson
Uintah & Ouray Business Committee
Ute Indian Tribe

Elaine Willie
Environmental Coordinator
Ute Indian Tribe

Chester Mills
Superintendent
Bureau of Indian Affairs
Uintah & Ouray Indian Agency

David Gerbig
Operations Engineer
Newfield Production Company
Denver, CO 80202

Gil Hunt
Technical Services Manager
State of Utah - Natural Resources

Kirk Fleetwood
Petroleum Engineer
Bureau of Land Management
Vernal District



1
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8
999 18TH STREET - SUITE 300
DENVER, CO 80202-2466
Phone 800-227-8917
<http://www.epa.gov/region08>

AUTHORIZATION FOR AN ADDITIONAL WELL
TO THE
HUMPBACK AREA PERMIT: UT20852-00000

The Environmental Protection Agency (EPA) authorizes the inclusion of an additional enhanced recovery injection well to the Humpback Area Permit No. UT20852-00000, as authorized by 40 CFR § 144.33 (c). The additional well is described as:

WELL NAME: HUMPBACK NO. 9-26-8-17

WELL PERMIT NUMBER: UT20852-06519

**SURFACE LOCATION: 377' FEL & 1883' FSL (NE SE)
Sec. 26 - T8S - R17E
Uintah County, Utah.**

This well is subject to all provisions of the original Humpback Area Permit No. UT20852-00000, and subsequent Modifications, unless specifically detailed below:

UNDERGROUND SOURCE OF DRINKING WATER (USDW): The base of the USDW (Total Dissolved Solids less than 10,000 mg/l) occurs within the Uinta Formation **less than 75 feet** from ground level (GL). The source for the location of the base of the USDW is the STATE OF UTAH: PUBLICATION NO. 2. BASE OF MODERATELY SALINE GROUND WATER IN THE UINTA BASIN, UTAH. Surface casing was set at **310 feet** kelly bushing (KB) and cemented to the surface.

Reference: <http://NRWRT1.NR.STATE.UT.US...> Water Rights...Queries...POD: Within the one-quarter (1/4) mile Area-of-Review (AOR) around the Humpback No. 9-26-8-17 there are no reservoirs, streams, springs or wells.

WATER ANALYSES:

Produced Green River Formation Water: (7/13/04) 15,521 mg/l TDS.

Source Water: Johnson Water District Reservoir. (3/31/04) 400 mg/l TDS.

Blended Injectate: (7/16/01) 8686 mg/l TDS.



CONFINING ZONE REVIEW: HUMPBACK NO. 9-26-8-17.

The EPA has authorized the gross interval from the top of the Garden Gulch Member to the top of the Wasatch as the enhanced recovery injection interval within the Humpback Area Permit. Overlying the top of the Garden Gulch Member (3987 feet), in the Humpback No. 9-26-8-17, are forty-four (44) feet of Green River Formation black, slightly silty, impervious shale which forms an effective lithologic **confining zone 3943 feet to 3987 feet.**

INJECTION ZONE REVIEW: HUMPBACK NO. 9-26-8-17.

The Humpback Final Area Permit (Effective October 8, 1998) authorized injection into the Douglas Creek Member of the Green River Formation. By Major Permit Modification No. 1 (Effective September 9, 2003), the EPA authorized the gross Green River Formation Garden Gulch-Douglas Creek-Basal Carbonate Members as the enhanced recovery injection interval for the Boundary Area Permit. This Modification also recognized the **Federal No. 1-26** (NE NW Sec. 26 - T8S - R17E), UIC Permit No. UT20702-04671, as the **TYPE WELL** for identifying the tops of the Garden Gulch Member, the Douglas Creek Member, the Basal Carbonate Member, the top of the Wasatch Formation and the "Confining Zone" overlying the top of the Garden Gulch Member.

The authorized injection zone for the Humpback No. 9-26-8-17 will be from the Garden Gulch Member (3987 feet) to the top of the Wasatch Formation (Estimated to be 6335 feet).

Lithologically, the gross authorized enhanced recovery injection interval, Garden Gulch to the top of the Wasatch Formation, is fluvial and lacustrine shale, fluvial and lacustrine sandstone, lacustrine marlstone, and limestone. The Uinta and Green River Formations are predominantly non-lacustrine fluvial shale and sandstone on the basin margins, whereas lacustrine deposition predominates in the central basin area for these two formations. The Wasatch Formation is predominantly fluvial, except for increasing minor lacustrine deposition in the central basin area.

WELL CONSTRUCTION REVIEW: HUMPBACK NO. 9-26-8-17.

SURFACE CASING: 8-5/8 inch casing is set at 310 feet in a 12-1/4 inch hole, using 150 sacks of Class "G" cement circulated to the surface. The base of the USDW is less than seventy-five (75) feet from ground level.

LONGSTRING CASING: 5-1/2 inch casing is set at 6350 feet kelly bushing (KB) in a 7-7/8 inch hole, and cemented with 310 sacks of Premium Lite II mixed and 400 sacks of 50/50 Pozmix.

The operator identifies the top of cement at 170 feet.

The EPA analysis of the CBL/GR identifies 80% cement bond index from 3952 feet to 3990 feet.

An EPA analysis of the Humpback No. 9-26-8-17 CBL/GR did identify continuous 80% bond index cement bond across the Garden Gulch Member confining zone, pursuant to standards of Region 8 GROUND WATER SECTION GUIDANCE NO. 34: Cement Bond Logging Techniques and Interpretation. Therefore, **it has been determined that the cement in this well may provide an effective barrier to upward movement of fluids through vertical channels adjacent to the wellbore, pursuant to 40 CFR 146.8 (a) (2).**

PART II. A. CONSTRUCTION REQUIREMENTS FOR ADDITIONAL WELLS

Tubing and Packer:

(Condition 3)

For injection purposes, the **Humpback No. 9-26-8-17** shall be equipped with 2-7/8 tubing with a packer to be set at a depth no higher than 100 feet above the top perforation.

Formation Testing and Logging

(Condition 6)

- (a) Upon conversion of the **Humpback No. 9-26-8-17**, the permittee is required to determine the injection zone **fluid pore pressure** (static bottom hole pressure) prior to commencement of enhanced recovery injection operation. The results of this test shall be submitted to the EPA.
- (b) A **Step-Rate Test (SRT)** shall be performed on the **Humpback No. 9-26-8-17** within three (3) to six (6) months after injection operations are initiated and the results submitted to the EPA. The permittee may contact the EPA prior to conducting the SRT to acquire the most current Guidance for conducting the SRT.

PART II. B.

Corrective Action

As of March 2005, there are two (2) active Green River oil wells within the one-quarter (1/4) mile radius around the Humpback No. 9-26-8-17. There are also one (1) Green River location (SE SE Sec. 26-T8S-R17E), and one (1) drilled and abandoned Green River test (NW SW Sec. 25-T8S-R17E). No wells need Corrective Action.

Garden Gulch-Douglas Creek Members Oil Wells:

<u>Humpback No. 13A-25-8-17:</u>	SW SW Sec. 25 -T8S-R17E
Top Garden Gulch Member:	4018 feet
Garden Gulch Confining Zone:	3979 feet to 4018 feet
Top 80% EPA Cement Bond:	4414 feet - 4444 feet
Top Douglas Creek Member:	5016 feet
Top Basal Carbonate Member:	6220 feet
Est. Top Wasatch Formation:	6345 feet
Total Depth (Driller):	6350 feet in Wasatch Formation.

The 39-foot confining shale overlying the top of the Garden Gulch Member is not protected by 80% bond index cement bond. This lack of confining zone annulus cement may not prevent upward movement of injected fluids through vertical channels adjacent to the well bore. The permittee will be required to inspect the surface of this location for fluid leaks on a weekly basis. **Any observation of surface leakage may be considered as noncompliance with the Humpback No. 9-26-8-17 Permit.** The Humpback No. 9-26-8-17 shall suspend operations immediately, and will stay suspended until the noncompliance has been resolved, and renewed injection has been approved in writing by the Director.

<u>Humpback No. 8-26-8-17:</u>	SE NE Sec. 26-T8S-R17E
Top Garden Gulch Member:	4099 feet
Garden Gulch Confining Zone:	4022 feet to 4099 feet
Top 80% EPA Cement Bond:	3988 feet to 4150 feet
Top Douglas Creek Member:	5052 feet
Total Depth (Driller):	6408 feet in Douglas Creek Member

The 77-foot confining shale overlying the top of the Garden Gulch Member is protected by 80% bond index cement bond. This confining zone annulus cement may prevent upward movement of injected fluids through vertical channels adjacent to the well bore. **Any observation of surface leakage may be considered as noncompliance with the Humpback No. 9-26-8-17 Permit.** The Humpback No. 9-26-8-17 shall suspend operations immediately, and will stay suspended until the noncompliance has been resolved, and renewed injection has been approved in writing by the Director.

PART II. C.

Prior to Commencing Injection (Additional Wells)

(Condition 2)

Humpback No. 9-26-8-17: This document is being issued without authority to inject. Prior to beginning injection, the operator is required to submit the following information for EPA review and written approval:

- A successful **mechanical integrity test (MIT)** demonstrating Part I Internal MI (Enclosed);
- a **pore pressure calculation** of the proposed injection zone; and an
- EPA Form No. 7520-12 (**Well Rework Record**, enclosed).

Injection Interval

(Condition 3)

Injection shall be limited to the gross Garden Gulch, Douglas Creek and Basal Carbonate Members of the Green River Formation from 3987 feet (KB) to the top of the Wasatch Formation, estimated to be 6335 feet (KB).

Injection Pressure Limitation

(Condition 4)

Pursuant to Final Area Permit UT20852-00000, Part II. Section C. 5. (b). the maximum allowable injection pressure (MAIP) shall not exceed 1752 psig. Until such time that a Step-Rate Test (SRT) has been performed, reviewed and approved by the EPA, the initial MAIP for the Humpback No. 9-26-8-17 shall not exceed **930 psig**.

A fracture gradient (FG) of 0.701 psi/ft is the minimum value FG calculated from five (5) sand/frac treatments. A review of nine (9) SRT FG values within Sections 23-24-25 indicate that a sand-frac FG of 0.701 psi/ft is much higher than all nine (9) SRT derived FGs. The average SRT FG of **0.643 psi/ft** will be used for the calculation of the **initial MAIP** for the Humpback No. 9-26-8-17.

Until such time that a step-rate injectivity test (SRT) has been performed, reviewed, and approved by the EPA, the initial maximum allowable injection pressure (MAIP) for the **Humpback No. 9-26-8-17** shall not exceed **930 psig**.

$$\begin{aligned} \text{MAIP} &= [\text{FG} - (0.433)(\text{SG})] \text{D} \\ \text{FG} &= 0.643 \text{ psi/ft} \\ \text{SG} &= 1.005 \\ \text{D} &= 4485 \text{ feet. Top perforation.} \end{aligned}$$

$$\text{MAIP} = [0.643 - (0.433)(1.005)] 4485$$

$$\text{MAIP} = 932 \text{ psig, but rounded down to } \mathbf{930 \text{ psig.}}$$

Part II. C. 5. (b) Final Area Permit (UT20852-00000), has a provision whereby the operator may request an increase, or decrease, in the maximum surface injection pressure.

PART II. F.

Demonstration of Financial Responsibility: (Condition 1)

The current plugging and abandonment cost for the Humpback No. 9-26-8-17 is estimated to be \$33,025.00. The applicant has chosen to demonstrate financial responsibility via a **Financial Statement** that has been reviewed and approved by the EPA.

PART III. E.

Reporting of Noncompliance: (Condition 10)

- (a) Anticipated Noncompliance. The operator shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (b) Compliance Schedules. Reports of compliance or noncompliance with, or any progress on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted **no later than thirty (30) days following each schedule date.**
- (c) Written Notice of any noncompliance which may endanger health or the environment **shall be reported to the Director within five (5) days** of the time the operator becomes aware of the noncompliance. The written notice shall contain a description of the noncompliance and its cause; the period of noncompliance including dates and times; if the noncompliance has not been corrected the anticipated time it is expected to continue; and steps taken or planned to prevent or reduce recurrence of the noncompliance.

Twenty-Four Hour Noncompliance Reporting: (Condition 11)

The operator shall report to the Director any noncompliance which may endanger health or environment. Information shall be provided, either orally or by leaving a message, within twenty-four (24) hours from the time the operator becomes aware of the circumstances by telephoning 1-800-227-8917 and asking for the EPA Region VIII UIC Program Compliance and Enforcement Director, or by contacting the Region VIII Emergency Operations Center at

303-293-1788 if calling from outside EPA Region VIII. The following information shall be included in the verbal report:

- (a) Any monitoring or other information which indicates that any contaminant may cause an endangerment to a USDW.
- (b) Any noncompliance with a Permit condition or malfunction of the injection system which may cause fluid migration into or between underground sources of drinking water.

Oil Spill and Chemical Release Reporting:

(Condition 12)

The operator shall comply with all other reporting requirements related to oil spills and chemical releases or other potential impacts to human health or the environment by contacting the National Response Center (NRC) 1-800-424-8802 or 202-267-2675, or through the NRC website at <http://www.nrc.uscg.mil/index.htm>.

Other Noncompliance:

(Condition 13)

The operator shall report all other instances of noncompliance not otherwise reported at the time monitoring reports are submitted. The reports shall contain the information listed in Part III. 10. c. ii. of this Permit.

Other Information: Where the operator becomes aware that he failed to submit any relevant facts in the Permit application, or submitted incorrect information in a Permit application, or in any report to the Director, the operator shall submit such correct facts or information within two (2) weeks of the time such information became known to him.

APPENDIX C

PLUGGING AND ABANDONMENT: The Plugging and Abandonment (P&A) Plan (Application Attachment Q-2) submitted by the applicant has been reviewed and approved by the EPA. The P&A Plan is consistent with EPA requirements to protect all USDWs. The permittee will place 9.2 ppg plugging gel or bentonite mud between all cement plugs.

PLUG NO. 1: Set a cast iron bridge plug (CIBP) at 4363 feet. Place 100 feet of Class "G" cement on top of CIBP.

PLUG NO. 2: Set a cement plug inside of the 5-1/2 inch casing from 2000 feet to 2200 feet over a water zone.

PLUG NO. 3: Pump Class "G" cement from the surface down the 5-1/2 inch casing to a depth of 361 feet, and up the 5-1/2 inch X 8-5/8 inch annulus to the surface.

This authorization for well conversion of the Humpback No. 9-26-8-17 to an injection well becomes effective upon signature.

Date: APR - 6 2005



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

Humpback 9-26-8-17

Spud Date: 4/24/03
 Put on Production: 06/03/03
 GL: 4991' KB: 5003'

Initial Production: 29 BOPD,
 24 MCFD, 37 BWPD

Proposed Injection Wellbore Diagram

SURFACE CASING

CSG SIZE: 8-5/8"
 GRADE: J-55
 WEIGHT: 24#
 LENGTH: 7 jts. (300.82')
 DEPTH LANDED: 310.82' KB *Base USOWs 275'*
 HOLE SIZE: 12-1/4"
 CEMENT DATA: 150 sxs Class "G" cmt mixed,
 est 2 bbls cmt to surf.
 CementTop @ 170'

PRODUCTION CASING

CSG SIZE: 5-1/2"
 GRADE: J-55
 WEIGHT: 15.5#
 LENGTH: 145 jts. (6352.59')
 DEPTH LANDED: 6350.59' KB *- Confine Zone 3943-87 -*
 HOLE SIZE: 7-7/8" *Garden Creek Mem 3987'*
 CEMENT DATA: 310 sxs Prem. Lite II mixed & 400 sxs 50/50 POZ
 mixed, est. 5 bbls cmt to surf.
 CEMENT TOP AT: 170'

TUBING

SIZE/GRADE/WT.: 2-7/8" / J-55 / 6.5#
 NO. OF JOINTS: 188 jts (6072.37')
 TUBING ANCHOR: 6087.71' KB
 NO. OF JOINTS: 2 jts (64.63')
 SEATING NIPPLE: 2-7/8" (1.10')
 SN LANDED AT: 6152.90' KB
 NO. OF JOINTS: 2 jts (64.64')
 TOTAL STRING LENGTH: EOT @ 6217.99' w/12'KB

FRAC JOB

5/26/03 6127'-6146' Frac CP5 sands as follows:
 48,088# 20/40 sand in 435 bbls Viking I-25
 fluid. Treated @ avg press of 1900 psi w/avg
 rate of 24.5 BPM. ISIP 2120 psi. Calc
 flush: 6124 gals. Actual flush: 6123 gals.

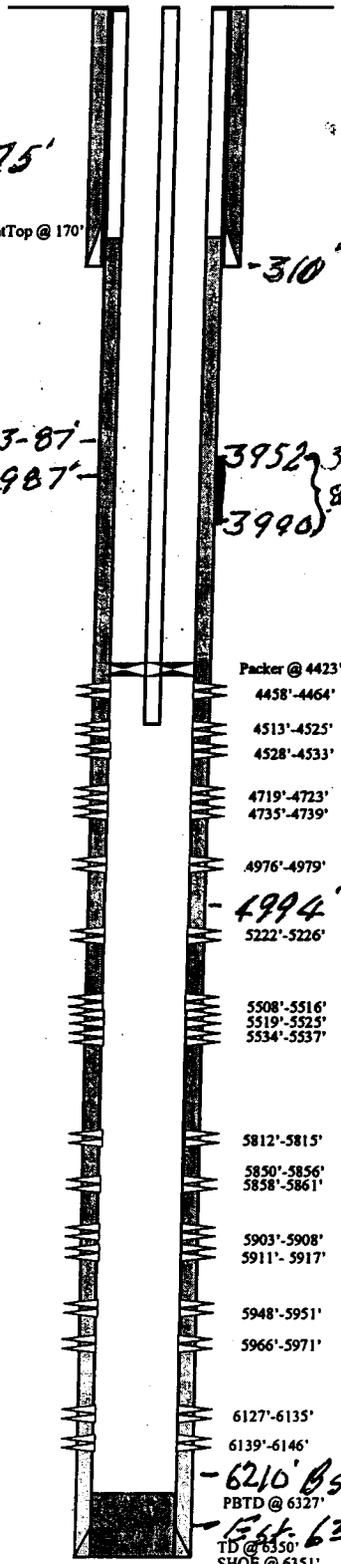
5/26/03 5812'-5971' Frac CR .5, 1, 2, and 3 sands as follows:
 90,000# 20/40 sand in 661 bbls Viking I-25
 fluid. Treated @ avg press of 1600 psi w/avg
 rate of 24.0 BPM. ISIP 1600 psi. Calc
 flush: 5810 gals. Actual flush: 5808 gals.

5/26/03 5508'-5537' Frac LODC sands as follows:
 35,413# 20/40 sand in 264 bbls Viking I-25
 fluid. Treated @ avg press of 3255 psi w/avg
 rate of 23.0 BPM. ISIP N/A. Screened out.

5/29/03 4976'-5226' Frac D1 and B.5 sands as follows:
 30,818# 20/40 sand in 312 bbls Viking I-25
 fluid. Treated @ avg press of 3050 psi w/avg
 rate of 24.3 BPM. ISIP 3900 psi. Calc flush:
 4974 gals. Actual flush: 4972 gals.

5/29/03 4719'-4739' Frac PB 11 sands as follows:
 24,000# 20/40 sand in 48 bbls Viking I-25
 pad. Treated @ avg 2900 psi w/avg
 rate of 29.4 BPM. ISIP 2330 psi. Calc flush:
 4717 gals. Actual flush: 4662 gals.

5/29/03 4458'-4533' Frac GB4 and GB6 sands as follows:
 50,831# 20/40 sand in 91 bbls Viking I-25
 pad. Treated @ avg 1800 psi w/avg
 rate of 24.3 BPM. ISIP 2010 psi. Calc flush:
 4456 gals. Actual flush: 4410 gals.



PERFORATION RECORD

Date	Depth (KB)	Number of Holes	Completion Type	Number of Holes
05/26/03	6139'-6146'	4	JSPF	28
05/26/03	6127'-6135'	4	JSPF	32
05/26/03	5966'-5971'	4	JSPF	20
05/26/03	5948'-5951'	4	JSPF	12
05/26/03	5911'-5917'	4	JSPF	24
05/26/03	5903'-5908'	4	JSPF	20
05/26/03	5858'-5861'	4	JSPF	12
05/26/03	5850'-5856'	4	JSPF	24
05/26/03	5812'-5815'	4	JSPF	123
05/26/03	5534'-5537'	4	JSPF	12
05/26/03	5519'-5525'	4	JSPF	24
05/26/03	5508'-5516'	4	JSPF	32
05/28/03	5222'-5226'	4	JSPF	16
05/28/03	4976'-4979'	4	JSPF	12
05/29/03	4735'-4739'	4	JSPF	16
05/29/03	4719'-4723'	4	JSPF	16
05/29/03	4528'-4533'	4	JSPF	20
05/29/03	4513'-4525'	4	JSPF	48
05/29/03	4458'-4464'	4	JSPF	24



Inland Resources Inc.
 Humpback 9-26-8-17
 1883' FSL & 377' FEL
 NE/SE Section 26-T8S-R17E
 Uintah Co, Utah
 API #43-047-34162: Lease #UTU-67845



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

999 18th STREET - SUITE 500

DENVER, COLORADO 80202-2466

SUBJECT: GROUND WATER SECTION GUIDANCE NO. 39
Pressure testing injection wells for Part I (internal)
Mechanical Integrity

FROM: Tom Pike, Chief
UIC Direct Implementation Section

TO: All Section Staff
Montana Operations Office

Introduction

The Underground Injection Control (UIC) regulations require that an injection well have mechanical integrity at all times (40 CFR 144.28 (f) (2) and 40 CFR 144.51 (q) (1)). A well has mechanical integrity (40 CFR 146.8) if:

- (1) There is no significant leak in the tubing, casing or packer; and
- (2) There is no significant fluid movement into an underground source of drinking water (USDW) through vertical channels adjacent to the injection wellbore.

Definition: Mechanical Integrity Pressure Test for Part I. A pressure test used to determine the integrity of all the downhole components of an injection well, usually tubing, casing and packer. It is also used to test tubing cemented in the hole by using a tubing plug or retrievable packer. Pressure tests must be run at least once every five years. If for any reason the tubing/packer is pulled, the injection well is required to pass another mechanical integrity test of the tubing casing and packer prior to recommencing injection regardless of when the last test was conducted. Tests run by operators in the absence of an EPA inspector must be conducted according to these procedures and recorded on either the attached form or an equivalent form containing the necessary information. A pressure recording chart documenting the actual annulus test pressures must be attached to the form.

This guidance addresses making a determination of Part I of Mechanical Integrity (no leaks in the tubing, casing or packer). The Region's policy is: 1) to determine if there are significant leaks in the tubing, casing or packer; 2) to assure that the casing can withstand pressure similar to that which



would be applied if the tubing or packer fails; 3) to make the Region's test procedure consistent with the procedures utilized by other Region VIII Primacy programs; and 4) to provide a procedure which can be easily administered and is applicable to all class I and II wells. Although there are several methods allowed for determining mechanical integrity, the principal method involves running a pressure test of the tubing/casing annulus. Region VIII's procedure for running a pressure test is intended to aid UIC field inspectors who witness pressure tests for the purpose of demonstrating that a well has Part I of Mechanical Integrity. The guidance is also intended as a means of informing operators of the procedures required for conducting the test in the absence of an EPA inspector.

Pressure Test Description

Test Frequency

The mechanical integrity of an injection well must be maintained at all times. Mechanical integrity pressure tests are required at least every five (5) years. If for any reason the tubing/packer is pulled, however, the injection well is required to pass another mechanical integrity test prior to recommencing injection regardless of when the last test was conducted. The Regional UIC program must be notified of the workover and the proposed date of the pressure test. The well's test cycle would then start from the date of the new test if the well passes the test and documentation is adequate. Tests may be required on a more frequent basis depending on the nature of the injectate and the construction of the well (see Section guidance on MITs for wells with cemented tubing and regulations for Class I wells).

Region VIII's criteria for well testing frequency is as follows:

1. Class I hazardous waste injection wells; initially [40 CFR 146.68(d)(1)] and annually thereafter;
2. Class I non-hazardous waste injection wells; initially and every two (2) years thereafter, except for old permits (such as the disposal wells at carbon dioxide extraction plants which require a test at least every five years);
3. Class II wells with tubing, casing and packer; initially and at least every five (5) years thereafter;
4. Class II wells with tubing cemented in the hole; initially and every one (1) or two (2) years thereafter



depending on well specific conditions (See Region VIII UIC Section Guidance #36);

5. Class II wells which have been temporarily abandoned (TAd) must be pressure tested after being shut-in for two years; and
6. Class III uranium extraction wells; initially.

Test Pressure

To assure that the test pressure will detect significant leaks and that the casing is subjected to pressure similar to that which would be applied if the tubing or packer fails, the tubing/casing annulus should be tested at a pressure equal to the maximum allowed injection pressure or 1000 psig whichever is less. The annular test pressure must, however, have a difference of at least 200 psig either greater or less than the injection tubing pressure. Wells which inject at pressures of less than 300 psig must test at a minimum pressure of 300 psig, and the pressure difference between the annulus and the injection tubing must be at least 200 psi.

Test Criteria

1. The duration of the pressure test is 30 minutes.
2. Both the annulus and tubing pressures should be monitored and recorded every five (5) minutes.
3. If there is a pressure change of 10 percent or more from the initial test pressure during the 30 minute duration, the well has failed to demonstrate mechanical integrity and should be shut-in until it is repaired or plugged.
4. A pressure change of 10 percent or more is considered significant. If there is no significant pressure change in 30 minutes from the time that the pressure source is disconnected from the annulus, the test may be completed as passed.

Recordkeeping and Reporting

The test results must be recorded on the attached form. The annulus pressure should be recorded at five (5) minute intervals. Tests run by operators in the absence of an EPA inspector must be conducted according to these procedures and recorded on the attached form or an equivalent form and a pressure recording



chart documenting the actual annulus test pressures must be attached to the submittal. The tubing pressure at the beginning and end of each test must be recorded. The volume of the annulus fluid bled back at the surface after the test should be measured and recorded on the form. This can be done by bleeding the annulus pressure off and discharging the associated fluid into a five gallon container. The volume information can be used to verify the approximate location of the packer.

Procedures for Pressure Test

1. Scheduling the test should be done at least two (2) weeks in advance.
2. Information on the well completion (location of the packer, location of perforations, previous cement work on the casing, size of casing and tubing, etc.) and the results of the previous MIT test should be reviewed by the field inspector in advance of the test. Regional UIC Guidance #35 should also be reviewed. Information relating to the previous MIT and any well workovers should be reviewed and taken into the field for verification purposes.
3. All Class I wells and Class II SWD wells should be shut-in prior to the test. A 12 to 24-hour shut-in is preferable to assure that the temperature of the fluid in the wellbore is stable.
4. Class II enhanced recovery wells may be operating during the test, but it is recommended that the well be shut-in if possible.
5. The operator should fill the casing/tubing annulus with inhibited fluid at least 24 hours in advance, if possible. Filling the annulus should be undertaken through one valve with the second valve open to allow air to escape. After the operator has filled the annulus, a check should be made to assure that the annulus will remain full. If the annulus can not maintain a full column of fluid, the operator should notify the Director and begin a rework. The operator should measure and report the volume of fluid added to the annulus. If not already the case, the casing/tubing valves should be closed, at least, 24 hours prior to the pressure test.

Following steps are at the well:

6. Read tubing pressure and record on the form. If the



well is shut-in, the reported information on the actual maximum operating pressure should be used to determine test pressures.

7. Read pressure on the casing/tubing annulus and record value on the form. If there is pressure on the annulus, it should be bled off prior to the test. If the pressure will not bleed-off, the guidance on well failures (Region VIII UIC Section Guidance #35) should be followed.
8. Ask the operator for the date of the last workover and the volume of fluid added to the annulus prior to this test and record information on the form.
9. Hook-up well to pressure source and apply pressure until test value is reached.
10. Immediately disconnect pressure source and start test time (If there has been a significant drop in pressure during the process of disconnection, the test may have to be restarted). The pressure gages used to monitor injection tubing pressure and annulus pressure should have a pressure range which will allow the test pressure to be near the mid-range of the gage. Additionally, the gage must be of sufficient accuracy and scale to allow an accurate reading of a 10 percent change to be read. For instance, a test pressure of 600 psi should be monitored with a 0 to 1000 psi gage. The scale should be incremented in 20 psi increments.
11. Record tubing and annulus pressure values every five (5) minutes.
12. At the end of the test, record the final tubing pressure.
13. If the test fails, check the valves, bull plugs and casing head close up for possible leaks. The well should be retested.
14. If the second test indicates a well failure, the Region should be informed of the failure within 24 hours by the operator, and the well should be shut-in within 48 hours per Headquarters guidance #76. A follow-up letter should be prepared by the operator which outlines the cause of the MIT failure and proposes a potential course of action. This report should be submitted to EPA within five days.



15. Bleed off well into a bucket, if possible, to obtain a volume estimate. This should be compared to the calculated value obtained using the casing/tubing annulus volume and fluid compressibility values.
16. Return to office and prepare follow-up.

Alternative Test Option

While it is expected that the test procedure outlined above will be applicable to most wells, the potential does exist that unique circumstances may exist for a given well that precludes or makes unsafe the application of this test procedure. In the event that these exceptional or extraordinary conditions are encountered, the operator has the option to propose an alternative test or monitoring procedures. The request must be submitted by the operator in writing and must be approved in writing by the UIC-Implementation Section Chief or equivalent level of management.

Attachment



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 18th Street, Suite 500 Denver, CO 80202-2466

EPA Witness: _____ Date: ____/____/____

Test conducted by: _____

Others present: _____

Well Name: _____	Type: ER SWD	Status: AC TA UC
Field: _____		
Location: _____	Sec: ____ T ____ N/S R ____ E/W	County: _____ State: ____
Operator: _____		
Last MIT: ____/____/____	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: _____ psig

MIT DATA TABLE	Test #1	Test #2	Test #3
TUBING PRESSURE			
Initial Pressure	psig	psig	psig
End of test pressure	psig	psig	psig
CASING / TUBING ANNULUS PRESSURE			
0 minutes	psig	psig	psig
5 minutes	psig	psig	psig
10 minutes	psig	psig	psig
15 minutes	psig	psig	psig
20 minutes	psig	psig	psig
25 minutes	psig	psig	psig
30 minutes	psig	psig	psig
minutes	psig	psig	psig
minutes	psig	psig	psig
RESULT	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

Does the annulus pressure build back up after the test? Yes No