



February 23, 2001

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
ATTN: Lisha Cordova
P.O. Box 145601
Salt Lake City, UT 84114-5801

RE: Applications for Permits to Drill

Dear Lisha:

Please find attached Applications for Permits to Drill (APDs) the following wells:

Greater Boundary Unit #3-27-8-17
Greater Boundary Unit #5-27-8-17
Greater Boundary Unit #12-27-8-17

Please send approved APDs to Brad Mecham at Inland's field office in Pleasant Valley.
Contact me at (970) 481-1202 if you have any questions or require additional information.
Thank you for your assistance with these APDs.

Respectfully,

Jon D. Holst
Permitting Agent
Inland Production Company

RECEIVED

FEB 28 2001

**DIVISION OF
OIL, GAS AND MINING**

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

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. UTU-76241
1b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A
2. NAME OF OPERATOR Inland Production Company		7. UNIT AGREEMENT NAME Greater Boundary
3. ADDRESS OF OPERATOR 410 - 17th Street, Suite 700, Denver, CO 80202 Phone: (303) 893-0102		8. FARM OR LEASE NAME WELL NO. #5-27-8-17
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. *) At Surface SW/NW 555' FWL & 1823' FNL <i>4420156 N 505208 E</i>		9. API WELL NO.
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 14.2 miles southeast of Myton, Utah		10. FIELD AND POOL OR WILDCAT Monument Butte
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to Approx. 1823' f/lse line)	16. NO. OF ACRES IN LEASE 1760	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA SW/NW Sec. 27, T8S, R17E
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT. Approx. 1320'	19. PROPOSED DEPTH 6500'	12. County Duchesne
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 5178' GR		13. STATE UT
22. APPROX. DATE WORK WILL START*		

23. **PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	SIZE OF CASING	WEIGHT/FOOT	SETTING DEPTH	QUANTITY OF CEMENT
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.

Draft Conditions of Approval are attached.

RECEIVED

FEB 28 2001

DIVISION OF OIL, GAS AND MINING

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 *[Signature]* TITLE **Permitting Agent** DATE *2/23/01*

(This space for Federal or State office use)

PERMIT NO. *43-013-32225* APPROVAL DATE

Application approval does not warrant or certify that the applicant holds legal or equitable rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY *[Signature]* TITLE **BRADLEY G. HILL** DATE *03-05-01*
RECLAMATION SPECIALIST III

***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.

INLAND PRODUCTION COMPANY

Plastic Cap
LS #189377

N89°58'W - 80.00 (G.L.O.)

N89°52'13"W - 2644.36' (Meas.)

N89°58'29"W - 2631.45' (Meas.)

Fence
Corner

1910
Brass Cap

N00°13'45"E - 2648.78' (Meas.)

1823'

N00°1'W (G.L.O.) Basis of Bearings
2645.59' (Measured)

WELL LOCATION:
GBU #5-27-8-17

ELEV. UNGRADED GROUND = 5183.3'

1910
Brass Cap

DRILLING
WINDOW

27

1910
Brass Cap

N00°1'W - (G.L.O.)

N0°02'W - (G.L.O.)

N00°03'44"E - 2644.56' (Meas.)

1910
Brass Cap

1910
Brass Cap

1910
Brass Cap

N00°02'37"E - 2641.22' (Meas.)

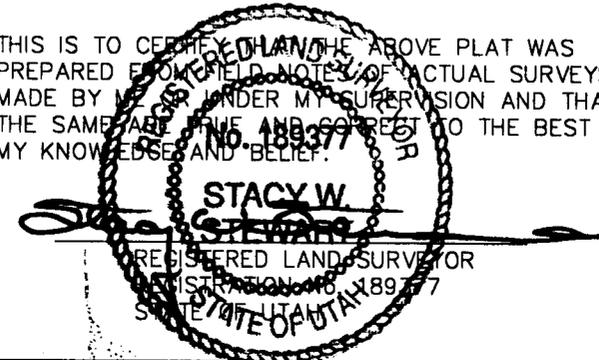
S89°59'06"W - 2644.61' (Meas.)

N89°58'16"W - 2643.41' (Meas.)

N89°59'W - 80.02 (G.L.O.)

N

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



◆ = SECTION CORNERS LOCATED

BASIS OF ELEV; U.S.G.S. 7-1/2 min QUAD (PARIETTE DRAW SW)

TRI STATE LAND SURVEYING & CONSULTING

38 WEST 100 NORTH - VERNAL, UTAH 84078

(435) 781-2501

SCALE: 1" = 1000'

SURVEYED BY: C.D.S. R.J.

DATE: 1-25-01

WEATHER: COLD

NOTES:

FILE #

CONDITIONS OF APPROVAL
APPLICATION FOR PERMIT TO DRILL

Company/Operator: Inland Production Company

Well Name & Number: Greater Boundary 5-27-8-17

API Number:

Lease Number: UTU-76241

Location: SWNW Section 27, T8S R17E

GENERAL

Access well location from the northwest, off of the existing gas pipeline maintenance road.

CULTURAL RESOURCES

See *CONDITIONS OF APPROVAL FOR INLAND RESOURCES MONUMENT BUTTE-MYTON BENCH WATERFLOOD ENVIRONMENTAL ASSESSMENT DUCHESNE AND UINTAH COUNTIES, UTAH EA NUMBER 1996-61.*

PALEONTOLOGICAL RESOURCES

See *CONDITIONS OF APPROVAL FOR INLAND RESOURCES MONUMENT BUTTE-MYTON BENCH WATERFLOOD ENVIRONMENTAL ASSESSMENT DUCHESNE AND UINTAH COUNTIES, UTAH EA NUMBER 1996-61.*

SOILS, WATERSHEDS, AND FLOODPLAINS

See *CONDITIONS OF APPROVAL FOR INLAND RESOURCES MONUMENT BUTTE-MYTON BENCH WATERFLOOD ENVIRONMENTAL ASSESSMENT DUCHESNE AND UINTAH COUNTIES, UTAH EA NUMBER 1996-61.*

WILDLIFE AND FISHERIES

See *CONDITIONS OF APPROVAL FOR INLAND RESOURCES MONUMENT BUTTE-MYTON BENCH WATERFLOOD ENVIRONMENTAL ASSESSMENT DUCHESNE AND UINTAH COUNTIES, UTAH EA NUMBER 1996-61.*

BURROWING OWL: Due to the proximity of the location to active prairie dog towns, there is the potential to encounter nesting burrowing owls between April 1 and July 15. If new construction or surface disturbing activities are scheduled between April 1 and July 15, pre-construction surveys will be conducted to detect the presence of nesting burrowing owls within 0.5 mile of any new construction or surface disturbing activity (see Vernal BLM Field Office Protocol). No new construction or

surface disturbing activities will be allowed between April 1 and July 15 within a 0.5 mile radius of any active burrowing owl nest.

THREATENED, ENDANGERED, AND OTHER SENSITIVE SPECIES

See CONDITIONS OF APPROVAL FOR INLAND RESOURCES MONUMENT BUTTE-MYTON BENCH WATERFLOOD ENVIRONMENTAL ASSESSMENT DUCHESNE AND UINTAH COUNTIES, UTAH EA NUMBER 1996-61.

MOUNTAIN PLOVER: If new construction or surface disturbing activities are scheduled to occur between March 15 and August 15, detailed surveys of the area within 0.5 mile of the proposed location and within 300 feet of proposed access routes must be conducted to detect the presence of mountain plovers. All surveys must be completed prior to initiating new construction or surface disturbing activities (see Survey Protocol COAs EA Number 1996-61).

OTHER

Installation of the surface gas pipeline and any subsequent buried gas or water pipelines will follow the conditions of approval outlined above.

Except as specified in the APD, the installation of the surface gas line and any subsequent buried pipelines will follow the edge of the existing roadways without interfering with the normal travel and maintenance of the roadway.

The installation of any buried pipelines will disturb as little surface as possible and will not exceed 60 feet in width. Reclamation of the water line area will be completed within 10 days after installation. The surface will be recontoured to natural or near natural contours. Reseeding will be with the same seed mixture specified for reclamation of the well site. The interface of the buried line disturbance area and the edge of any adjacent access roads will be constructed with a borrow ditch and road berm to minimize vehicular travel along the water line route.

INLAND PRODUCTION COMPANY
GREATER BOUNDARY #5-27-8-17
SW/NW SECTION 27, T8S, R17E
DUCHESNE 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' – 1640'
Green River	1640'
Wasatch	6500'

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

Green River Formation 1640' – 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 2000 psi. It is not anticipated that abnormal temperatures will be encountered.

10. ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:

Please refer to the Monument Butte Field SOP.

**INLAND PRODUCTION COMPANY
GREATER BOUNDARY #5-27-8-17
SW/NW SECTION 27, T8S, R17E
DUCHESNE 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 Greater Boundary # 5-27-8-17 located in the SW 1/4 NW 1/4 Section 27, T8S, R17E, Duchesne County, Utah:

Proceed southwesterly out of Myton, Utah along Highway 40 - 1.6 miles \pm to the junction of this highway and UT State Hwy 53; proceed southerly along Hwy 53 – 9.1 miles \pm to the beginning of the proposed access road to the east; proceed east and then south 3.5 mile \pm along the proposed access road to the proposed well location.

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.

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).

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 and Paleontological Resource Surveys for this area are attached.

Inland Production Company requests a 60' ROW for the Greater Boundary #5-27-8-17 to allow for construction of a 6" gas gathering line, and a 3" poly fuel gas line. Both lines will tie in to the existing pipeline infrastructure. Refer to Topographic Map "C."

Inland Production Company also requests a 60' ROW be granted for the Greater Boundary #3-27-8-17 to allow for construction of a 3" steel water injection line and a 3" poly water return line. Refer to Topographic Map "C."

13. LESSEE'S OR OPERATORS REPRESENTATIVE AND CERTIFICATION

Representative

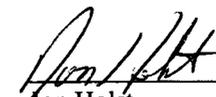
Name: Jon Holst
Address: 2507 Flintridge Place
Fort Collins, CO 80521
Telephone: (970) 481-1202

Certification

Please be advised that INLAND PRODUCTION COMPANY is considered to be the operator of well #5-27-8-17 SW/NW Section 27, Township 8S, Range 17E: Lease UTU-76241 Duchesne 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.

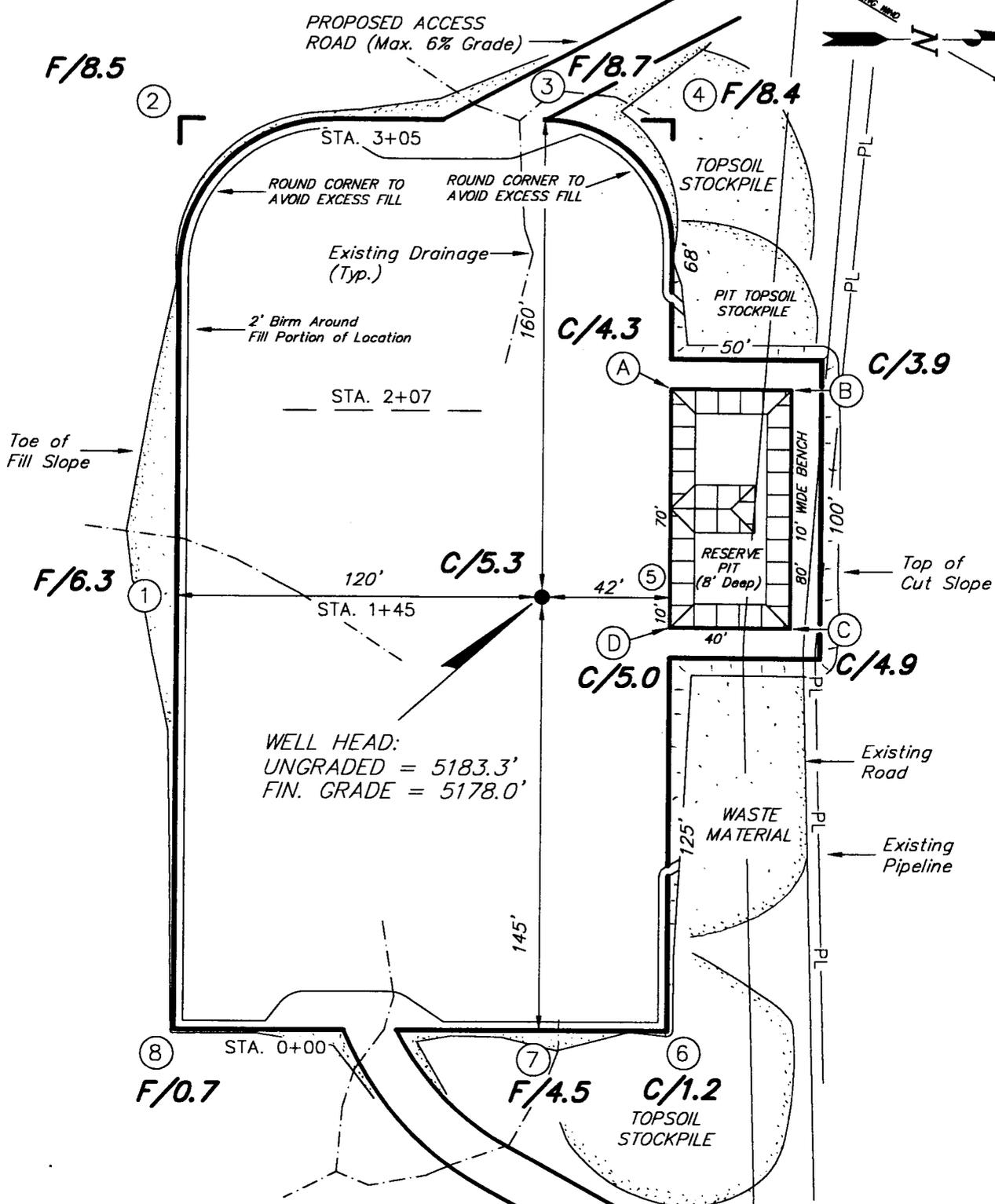
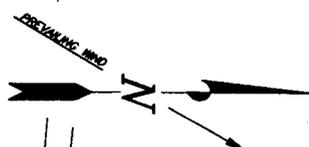
2/23/01
Date



Jon Holst
Permitting Agent

INLAND PRODUCTION COMPANY

GBU #5-27-8-17
 SEC. 27, T8S, R17E, S.L.B.&M.



WELL HEAD:
 UNGRADED = 5183.3'
 FIN. GRADE = 5178.0'

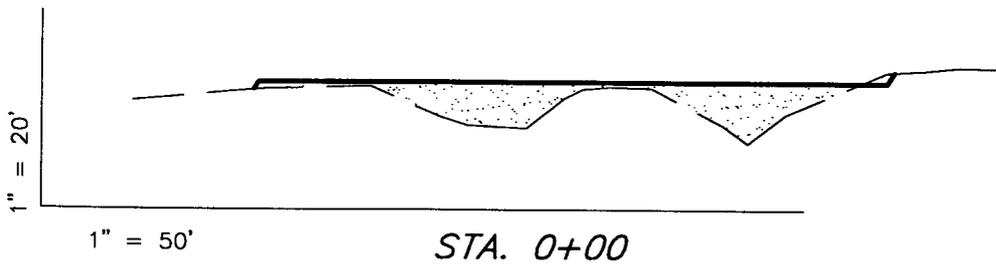
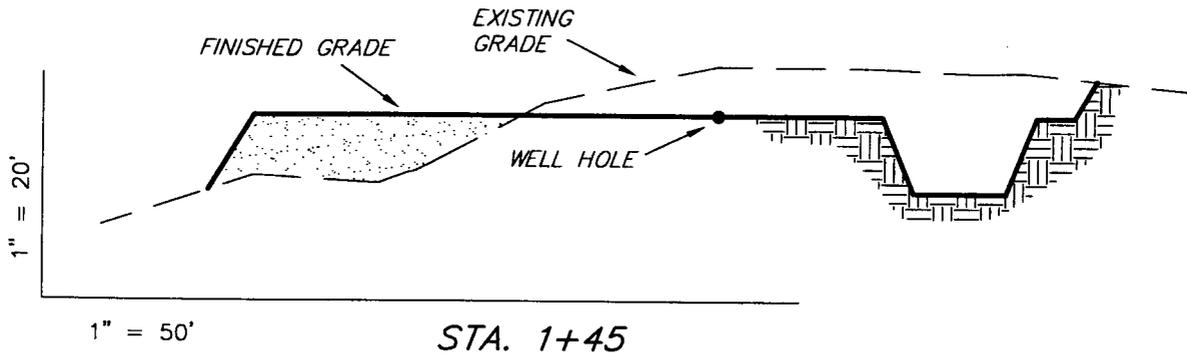
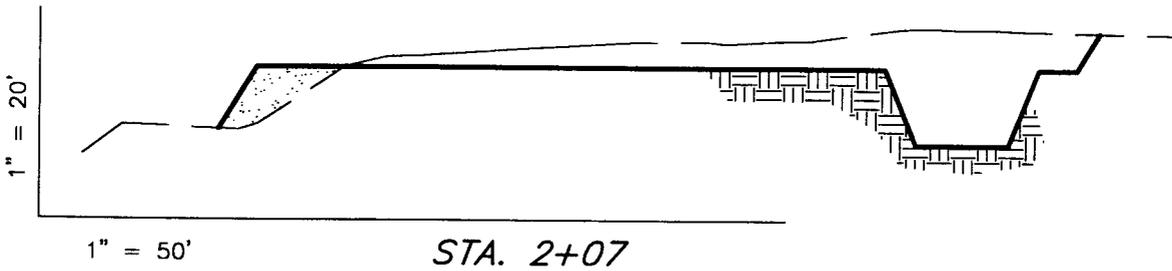
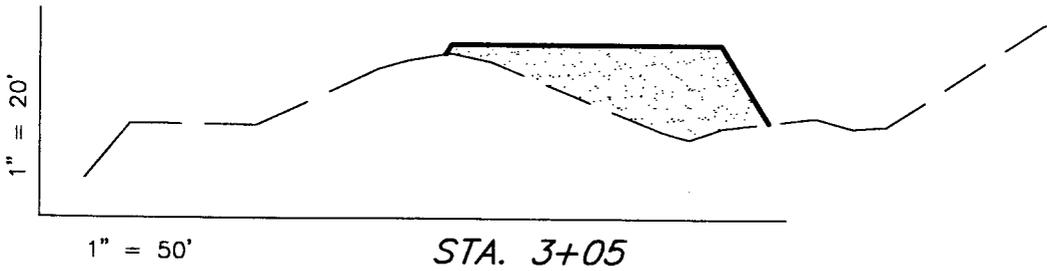
REFERENCE POINTS
 195' EAST = 5172.0'
 245' EAST = 5177.6'

SURVEYED BY: C.D.S.	SCALE: 1" = 50'	<p>Tri State Land Surveying, Inc. 38 WEST 100 NORTH VERNAL, UTAH 84078 (435) 781-2501</p>
DRAWN BY: J.R.S.	DATE: 1-25-01	

INI AND PRODUCTION COMPANY

CROSS SECTIONS

GBU #5-27-8-17



APPROXIMATE YARDAGES

CUT = 2,670 Cu. Yds.

FILL = 2,670 Cu. Yds.

PIT = 640 Cu. Yds.

6" TOPSOIL = 1,010 Cu. Yds.

SURVEYED BY: C.D.S.

SCALE: 1" = 50'

DRAWN BY: J.R.S.

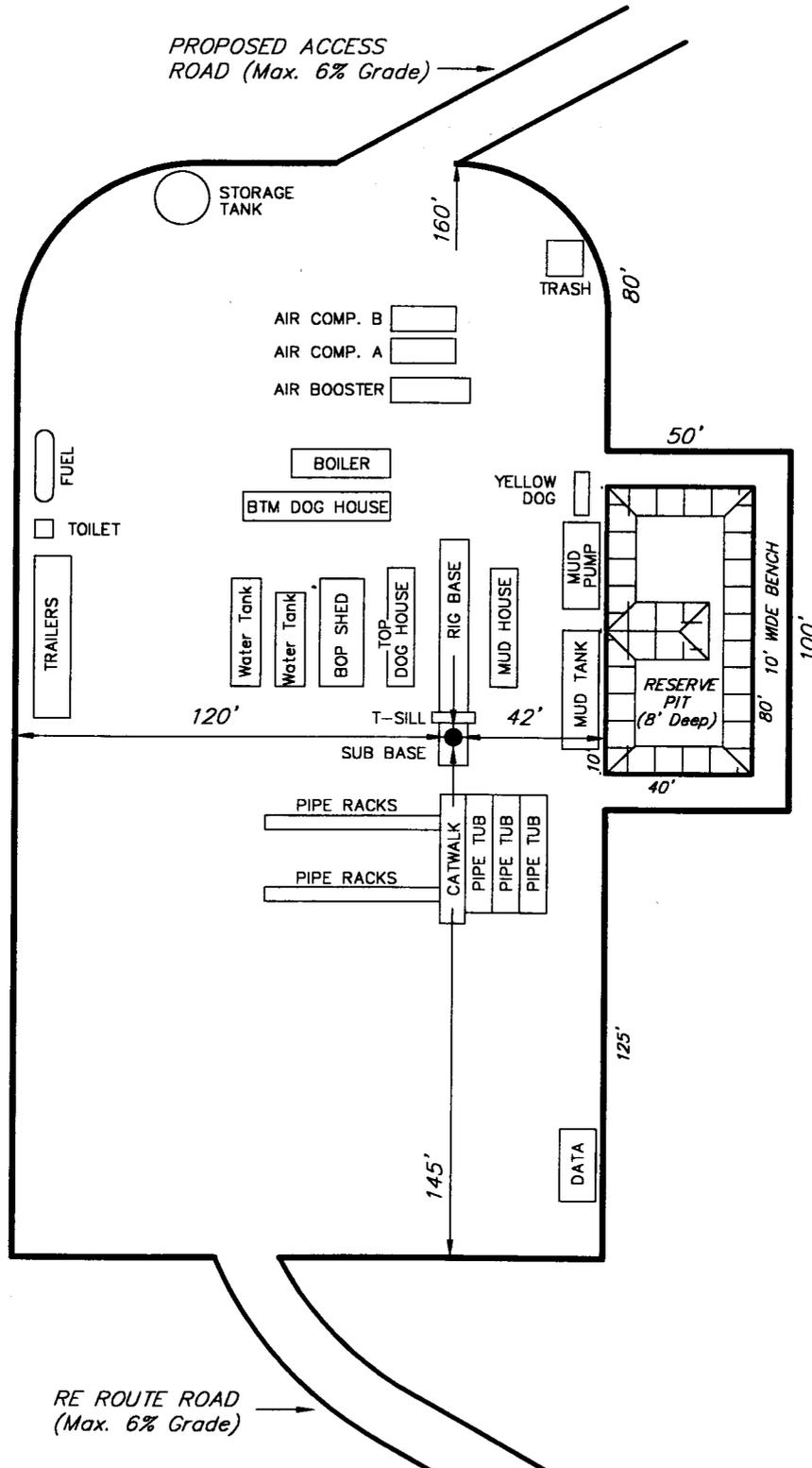
DATE: 1-25-01

Tri State (435) 781-2501
Land Surveying, Inc.
38 WEST 100 NORTH VERNAL, UTAH 84078

INLAND PRODUCTION COMPANY

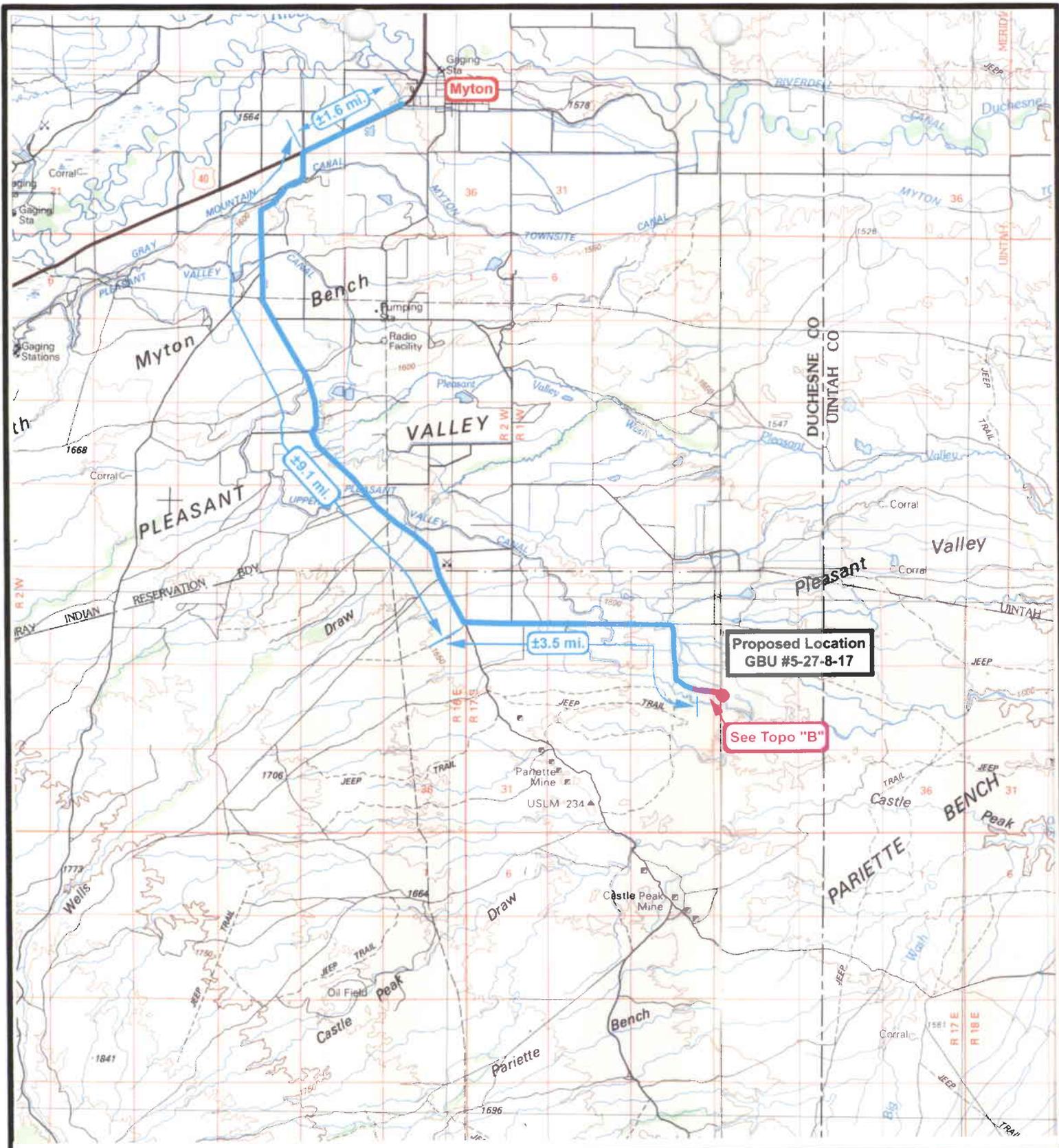
TYPICAL RIG LAYOUT

GBU #5-27-8-17



SURVEYED BY: C.D.S.	SCALE: 1" = 50'
DRAWN BY: J.R.S.	DATE: 1-25-01

Tri State Land Surveying, Inc. (435) 781-2501
 38 WEST 100 NORTH VERNAL, UTAH 84078



**Proposed Location
GBU #5-27-8-17**

See Topo "B"



RESOURCES INC.

**GREATER BOUNDARY UNIT #5-27-8-17
SEC. 27, T8S, R17E, S.L.B.&M.**

TOPOGRAPHIC MAP "A"



Drawn By: bgm

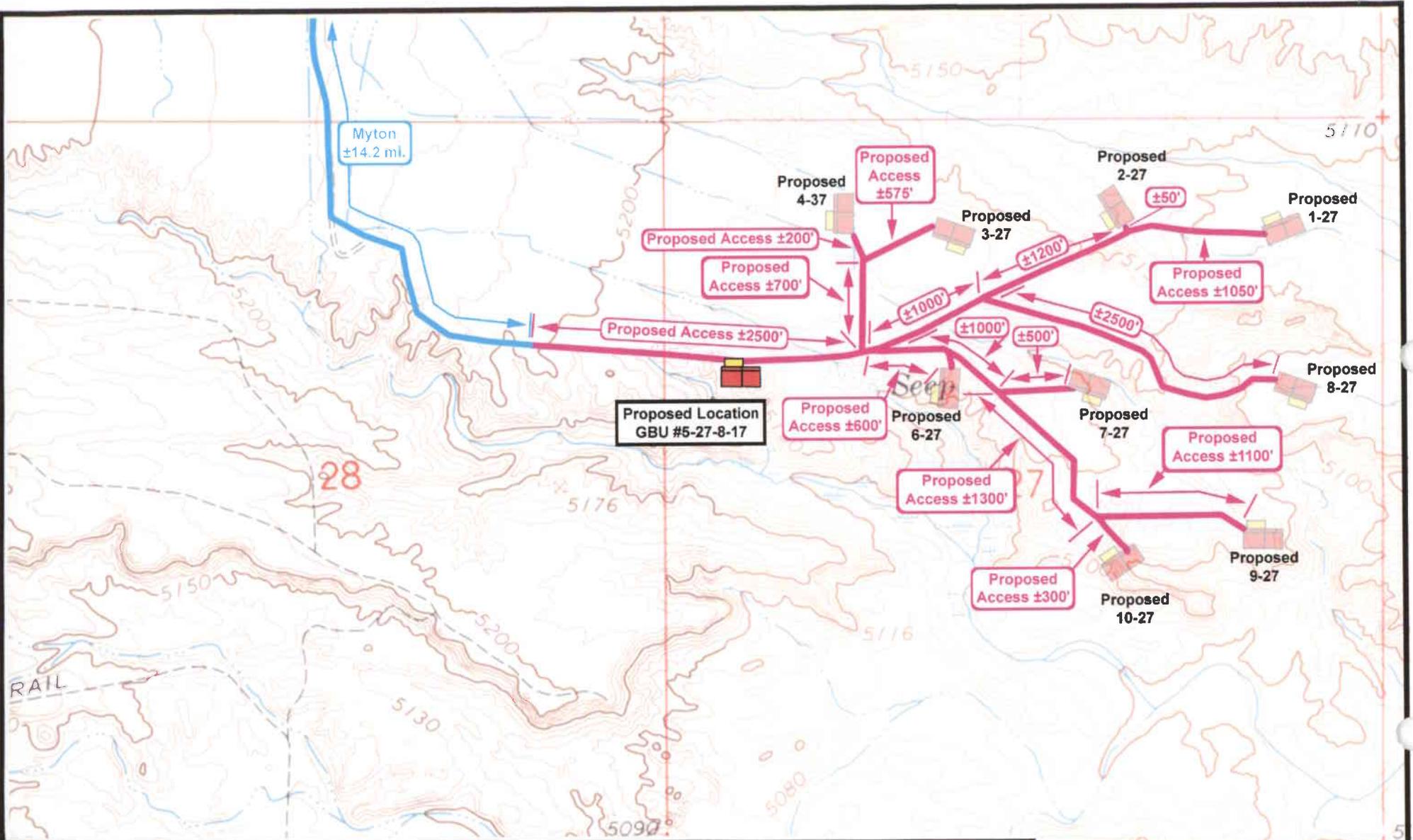
Revision:

Scale: 1 : 100,000

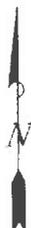
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Date: 02-01-2001

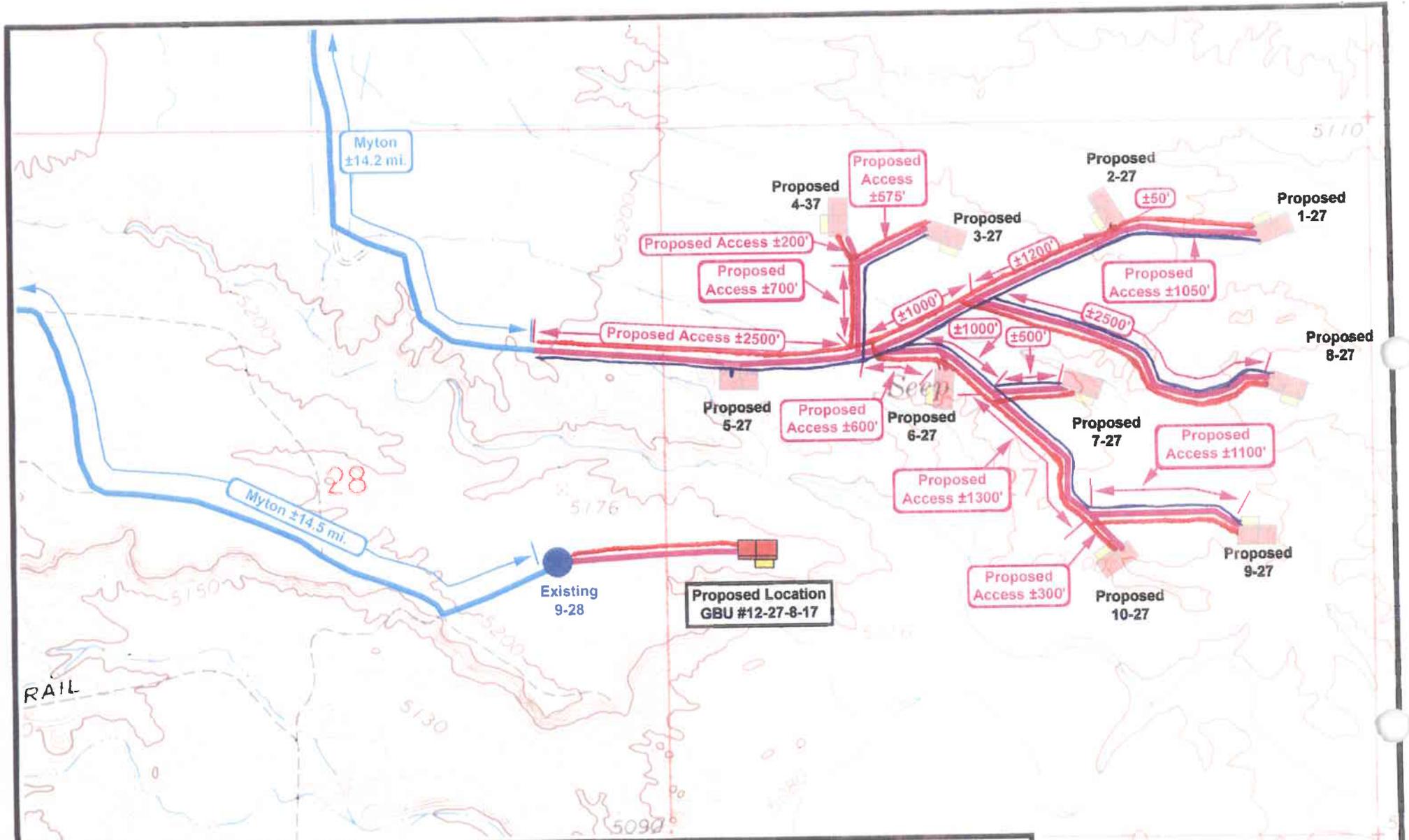
**Tri-State Land Surveying Inc.
P.O. Box 533, Vernal, UT 84078
435-781-2501 Fax 435-781-2518**



GREATER BOUNDARY #5-27-8-17
SEC. 27, T8S, R17E, S.L.B.&M.
TOPOGRAPHIC MAP "B"



Drawn By: bgm	Revision:
Scale: 1" : 1000'	File:
Date: 01-29-2001	
Tri-State Land Surveying Inc. P.O. Box 533, Vernal, UT 84078 435-781-2501 Fax 435-781-2518	

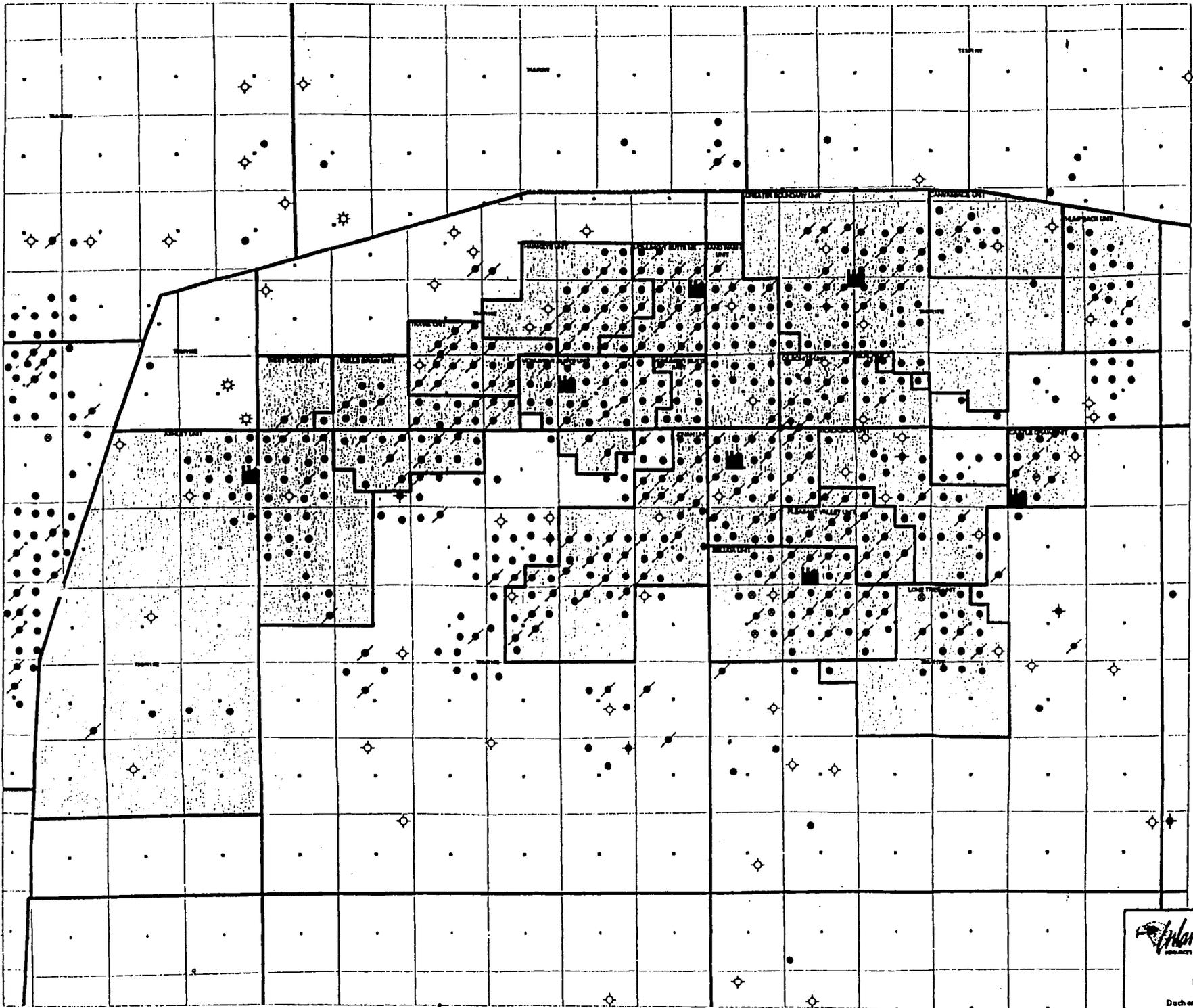


Proposed Gas and Water Pipelines
Greater Boundary Unit Section 27, T8S, R17E
Topographic Map "C"

— = GAS PIPELINE — = WATER PIPELINE

Drawn By: bgm	Revision:
Scale: 1" : 1000'	File:
Date: 02-08-2001	
Tri-State Land Surveying Inc. P.O. Box 533, Vernal, UT 84078 435-781-2501 Fax 435-781-2518	

EXHIBIT "C"



Well Categories

- ◆ INJ
- ⊕ WTR
- ◆ SWD
- OIL
- ⊛ GAS
- ◇ DRY
- ↘ SHUTIN
- ⊙ SUSPENDED
- ⊕ ABND
- Injection Stations
- ▭ Unit Sections

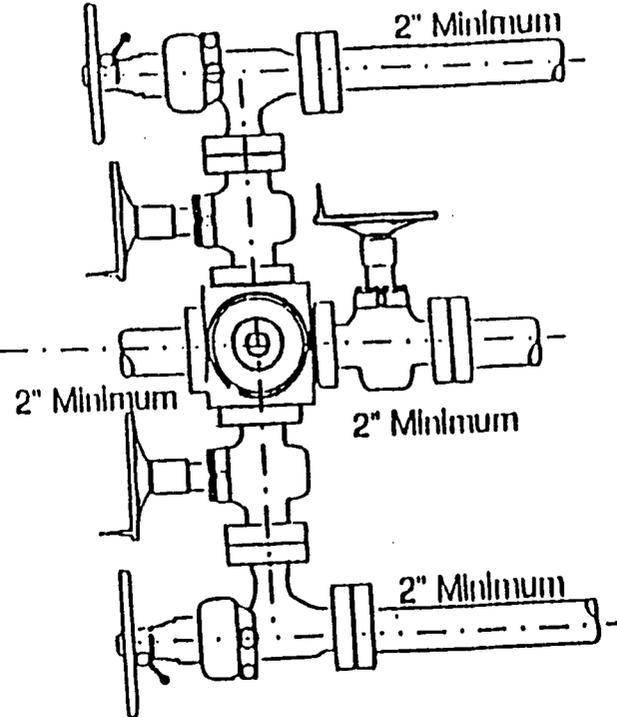
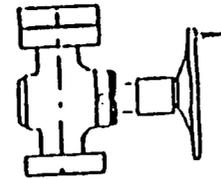
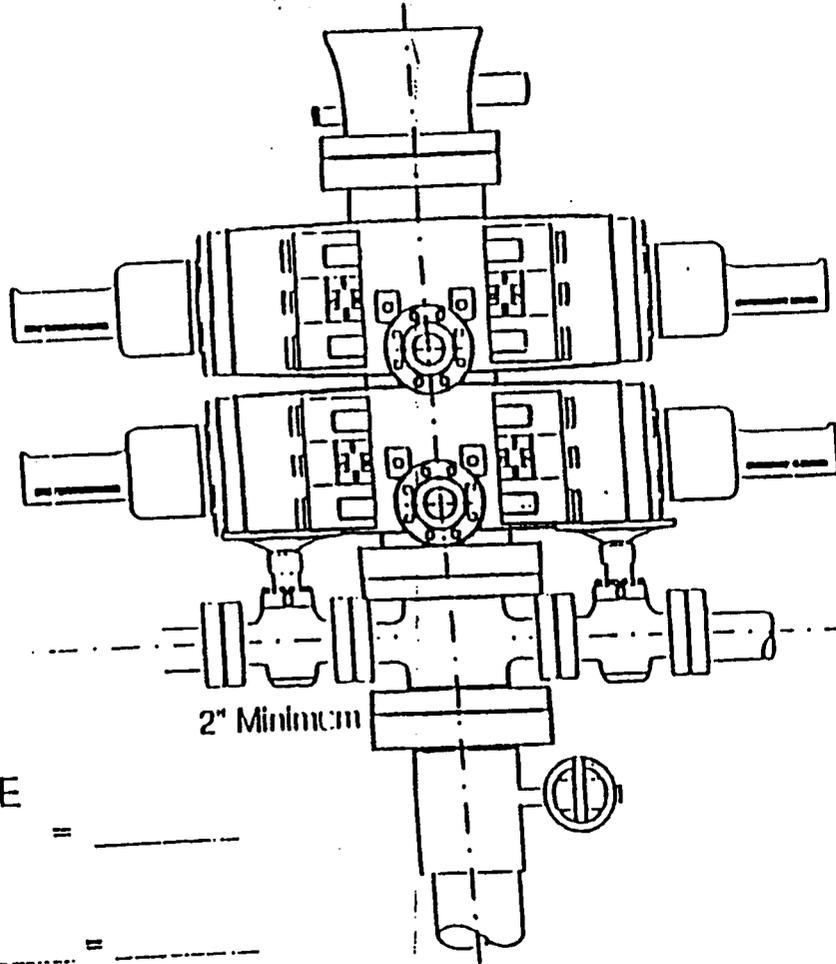

 #117 Street Suite 700
 Denver, Colorado 80202
 Phone: (303) 993-0100

UINTA BASIN
 Duchesne & Uintah Counties, Utah

0.5 0 0.5 Miles

B.O.P.

2-M SYSTEM



O CLOSE
ar BOP = _____
ype BOP
rams x _____ = _____
= _____ Gal.

_____ x 2 = _____ Total Gal.

...rounding off to the next higher
...ment of 10 gal. would require
... Gal. (total fluid & nitro volume)

**Miller Consulting
2871 Indian Hills Drive
Provo, Utah 84604
(801) 375-5058
INLAND RESOURCES, INC.**

**PALEONTOLOGICAL SURVEY OF PROPOSED
PRODUCTION DEVELOPMENT AREAS,
SOUTHEASTERN DUCHESNE COUNTY, UTAH**

(Section 27, T 8 S, R 17 E; Section 11, T 9 S, R 15 E;
Sections 7&8, T 9 S, R 16 E; Section 27, T 8 S, R 16 E)

REPORT OF SURVEY

Prepared for:

Inland Resources, Inc.

Prepared by:

Wade E. Miller
Consulting Paleontologist
November 6, 2000

Report of Paleontological Survey

INTRODUCTION

Over the past several years, Mr. Jon Holst of Inland Resources, Inc. has fulfilled requirements for Bureau of Land Management (BLM) leased lands by seeing that the proper surveys were conducted before developing new well sites. For approximately the last two and one-half years the needed paleontological surveys were mostly performed by Wade Miller, consulting paleontologist. Reports of the finished paleontological surveys have been sent to Mr. Jon Holst and to Mr. Blaine Phillips of the BLM's Vernal, Utah office.

As per other surveys, topographic maps showing the new areas to be covered were first obtained. These were taken into the field and used in locating the newly proposed drilling areas. Since geologic maps covering the areas surveyed in the past two and one-half years have only shown the Eocene age Uinta Formation and patchy Pleistocene deposits, mostly in arroyos, these were no longer necessary to use. As has been reported earlier, important Pleistocene fossils might occur anywhere these age deposits are exposed. Many have been found in various areas throughout Utah. It was also reported in similar reports to this one that the Eocene Age Uinta Formation includes many very important vertebrate fossils, mostly reptiles and mammals, but also fish and some birds. While the first of these finds were reported many years ago, more are continually coming to light as paleontologists further collect in the formation in eastern Utah. Thanks to Mr. Jon Holst, partially exposed crocodile jaws were reported within the currently considered oil and gas field being operated by Inland Resources, Inc. When the find was reported to me earlier in the year, I arranged to take two paleontology majors from Brigham Young University into the area with me to collect this important fossil. This was successfully done, a skull was also found, and now the specimen is nearly completely prepared.

Paleontological Field Survey

At the end of last month Mr. Jon Holst of Inland Resources, Inc. Denver, Colorado, sent both e-mail messages and facsimiles over a period of a week requesting that Wade Miller perform a paleontological survey on several newly proposed well sites in southeastern Duchesne County, Utah. These pertain to sites in the general area where previous surveys have been performed and reported on. This report covers the paleontological survey just completed. The specific sites that were surveyed include the SW & NE 1/4, NW 1/4, and NW 1/4, SW 1/4, Sec. 27, T 8 S, R 17 E, located on the Pariette Draw SW 7.5' USGS topographic map; the Eastern one-half of Sec. 11, T 9 S, R 15 E; the eastern 1/4 of Sec. 7, and the NW 1/4, SW 1/4 & NE 1/4, NW 1/4, Sec. 8, T 9 S, R 16 E located on the Myton SW 7.5' USGS topographic map; and the NE 1/4, NE 1/4, Sec. 27 & the SW 1/4 & NE 1/4, SW 1/4, and SE 1/4, NW 1/4, Sec. 23, T 8S, R 16 E located on the Myton SE 7.5' USGS topographic map.

Again it is emphasized that in any area where the Uinta Formation is exposed, there is the potential to have important vertebrate fossils present. So, when any land disturbance activity is considered, a paleontological survey should be performed in order to determine what fossils might be present at that particular locality. It is repeated here that Inland Resources should again be commended for adhering to guidelines requiring surveys to be conducted before any drilling or excavating activity is begun. Although few markers were present at the above sites to indicate proposed access roads as well as proposed well pads, the areas were well enough surveyed to determine whether any fossils are present.

All the above sites listed on three separate 7.5' topographic maps were paleontologically surveyed on Saturday, November 4, 2000. In order to adequately accomplish a survey over such a widespread area in one day, it was necessary to have assistance. Two paleontology majors in

the Geology Department at Brigham Young University aided in the present survey under the direct supervision of Wade Miller. Both of these students, Allen Shaw and Stephen Sandau, have done considerable fossil collecting in the past and are knowledgeable in the fields of geology and paleontology. Both in fact assisted me in the removal of the crocodile fossil collected in the area last summer. Not only were the exposed jaws collected, but the entire skull.

The designated quarter, quarter sections in Section 27, T 8 S, R 17 E, have a short, broad arroyo running west to east through much of the area. Extensive exposures of the Uinta Formation occur here. Visible units range from medium to coarse grained, crossbedded channel sandstones to overbank thin, fine grained sandstone to mudstones and shales. The entire suite of sediments is variegated in color. These range from brown to gray to red and green and are sharply demarked. Occasional invertebrate borings of an unidentified animal were seen in some of the finer sandstones. Two partial turtle shells were found *in situ* in the SW 1/4 SW 1/4, NW 1/4, Sec. 27, T 8 S, R 17 E. These were the only fossils observed in the area. Above this arroyo the ground was soil and plant covered; no exposures of the Uinta Formation present.

In the eastern half of Section 11, T 9 S, R 15 E the southern two-thirds mostly consists of soil covered hill slopes with occasional thin exposures of Uinta Formation. The units here are gray siltstones to brown fine to medium grained sandstones. Only sparse worm trails were seen in the siltstones. Toward the north end of the surveyed area, an arroyo runs west to east, with tributary southwest to northeast channels. Brown sandstones in one of these tributaries at the NW 1/4, SW 1/4, NE 1/4 contain fragmented plant stems and leaves. It is probable that this sandstone in nearby areas (outside the present area of consideration) also contains similar plant fossils.

The quarter, quarter sections listed above in Sections 7 and 8, T 9 S, R 16 E were also carefully surveyed. One traverse made was along the bottom of Wells Draw where Pleistocene deposits up to 25 feet thick border it. No traces of fossils were found. Some minor outcrops of Uinta Formation occur along the inside of the draw, but no fossils were seen in them. However, a small

outcropping of this formation exists in the NE corner of the NE 1/4, NE 1/4, Sec. 7. A few very poorly preserved plant fragments were found here. The hills immediately east of Wells Draw within the surveyed area of Section 7 were also inspected. These hills are all comprised of sandstone and shale units within the Uinta Formation. A brown sandstone unit near the base of the hills, probably correlates with the one containing plant debris in Section 11 T 9 S, R 15 E mentioned above. In the SW 1/4, SW 1/4, NW 1/4, Sec. 8, T 9 S, R 16 E, isolated skull bones and scales of a gar pike were found associated with plant fragments. Two leaf imprints were observed that show venation. About one-quarter mile to the northeast (NW 1/4, SW 1/4, NW 1/4, Sec. 8, T 9 S, R 16 E) another fossil plant site was found in the brown sandstone unit as above. On the hill tops and upper slopes, soil/plant cover exists. While a few limited outcrops were observed in this area, no other fossils were seen.

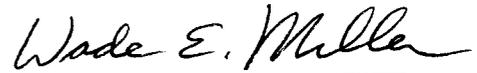
The last area checked in the present survey was the NE 1/4, NE 1/4, Sec. 27, the SW 1/4, SW 1/4, the NE 1/4, SW 1/4 & SE 1/4, NW 1/4, Sec. 23, T 8 S, R 16 E. This entire area is covered with soil and rock rubble, even extending down slopes into Wells Draw. As a result, there were no Uinta Formation outcrops to check.

Results of Survey

As noted above, fossils were found at several widespread localities on three different 7.5' topographic maps. These included partial turtle shells, gar pike bones, worm trails and invertebrate burrow structures as well as plant material. A sample of rocks showing the best plant material, including leaf imprints, and gar pike bones, scales and impressions (molds) thereof, were collected and are presently located at Brigham Young University. These finds were reported to the Utah State Paleontology Office of the Utah Geological Survey in Salt Lake City by phone. Numbers were assigned to the sites (two) where significant fossils were collected. This consists of those above bearing vertebrates (turtles and gar pike). The two accompanying 'Paleontological Attachments' bear these numbers as well as the site descriptions.

Recommended Mitigation

While various types of fossils were found on the survey reported here, only two sites yielded significant fossils. These consist of the two partial turtle shells found in the SW 1/4, SW 1/4, NW 1/4, Sec. 27, T 8 S, R 17 E., and the gar pike bones as well as leaf imprints in the SW 1/4, SW 1/4, NW 1/4 Sec. 8, T 9 S, R 16 E. If any excavation projects are anticipated for these two sites, then a qualified paleontologist should be on hand when work is done. Fossils found at the other sites are not considered significant. But as always, whenever a geological formation that is known to contain fossils is excavated, there is a chance of uncovering important material. If any fossils are noted during excavation or drilling processes, they should be reported to a paleontologist as quickly as possible.

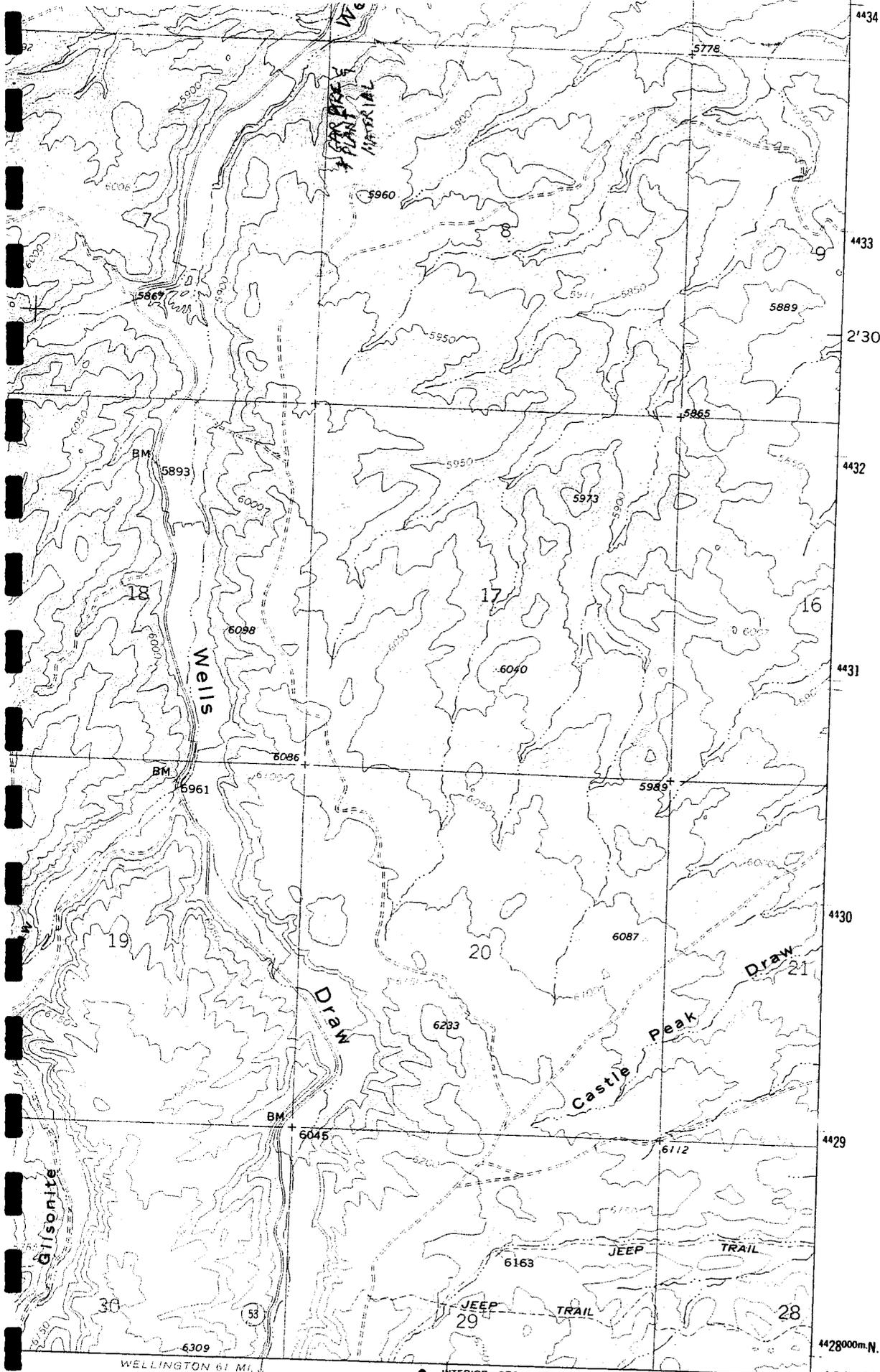


Wade E. Miller

11/6/00

MYTON SW 7.5' QUADRANGLE
1964

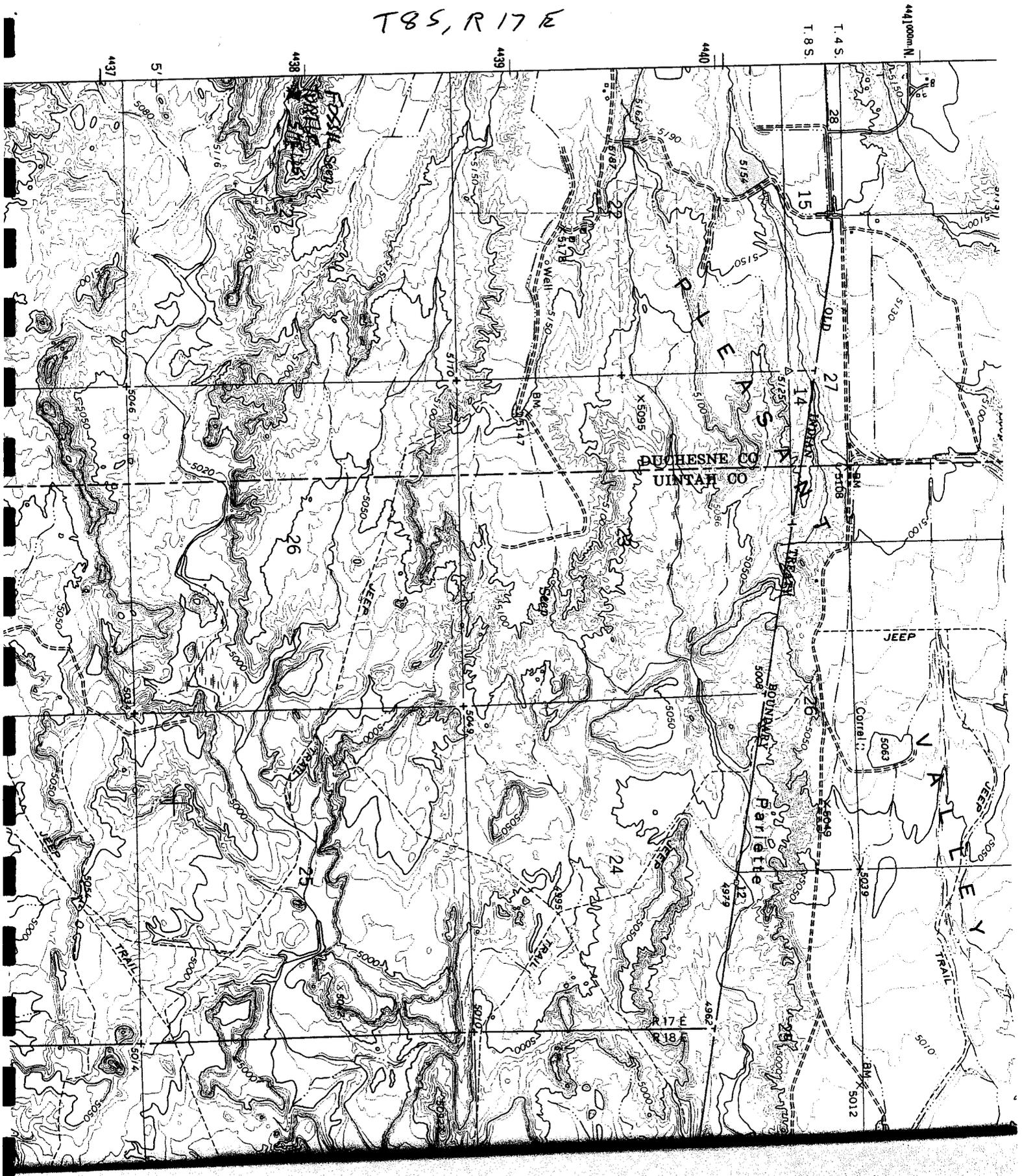
T9S, R16E



WELLINGTON 61 MI.

F. ZIETTE DRAW SW 4 D. 1964

T8S, R17E



PALEONTOLOGY ATTACHMENT

Locality No(s) 42-DC338

1. Type of Locality: Invertebrate Plant Vertebrate Trace Other

2. Formation/Horizon/Geologic Age: UNTA FM - EOCENE

3. Description of Geology and Topography: INTERBEDDED SANDSTONES AND SHALES ON HILLSLOPE ADJACENT WALLS DRAW

4. Location of Outcrop: SOUTHEAST DUCHESNE COUNTY SOUTHWEST OF MYTON, UTAH IN OIL & GAS FIELDS OF INLAND PRODUCTION CO.

5. Map Ref.: USGS Quad: MYTON SW 7.5' QUAD Ed.

SW1/4, SSW1/4, NW1/4 Sec. 8 T. 9S R. 16E Meridian

6. County DUCHESNE

7. Ownership: Priv. State BLM USFS NPS Ind. Mil. Other

8. Federal Admin.. Unit(s)

9. Specimens Collected and field Accession No. 2 SMALL ROCK SAMPLES WITH BONE & BONE IMPRESSIONS & SCALES; PLANT FRAGMENTS WITH LEAF IMPRESSIONS

10. Repository: BRIGHAM YOUNG UNIVERSITY FOSSIL COLLECTIONS

11. Specimens Observed and Disposition: GAR PIKE SKULL BONES/MOLDS, SCALES/MOLDS; ANGIOSPERM LEAVES

12. Recommendations for Further Work or Mitigation: AREA TO BE PALEONTOLOGICALLY MONITORED IF ANY EXCAVATIONS TAKE PLACE

13. Type of Map Made by Recorder: COPY OF QUAD SECTIONS

14. Published References:

15. Remarks:

16. Sensitivity: Sensitive Non-Sensitive

17. Recorded By: WADE E. MILLER

PALEONTOLOGY ATTACHMENT

Locality No(s) 42-DC-337 V

1. Type of Locality: Invertebrate Plant Vertebrate Trace Other

2. Formation/Horizon/Geologic Age: VINTA FM - EOCENE

3. Description of Geology and Topography: SHORT, BROAD ARROYO EXPOSING SEVERAL VINTA FM UNITS

4. Location of Outcrop: SOUTHEAST DUCHESNE COUNTY, SOUTHWEST OF MYTOM, UTAH IN OIL & GAS FIELDS OF TALLMAN PRODUCTION CO.

5. Map Ref.: USGS Quad: PARIETTE DRAW SW Ed. _____

SW 1/4, SW 2/4, NW 1/4 Sec. 27 T. 8S R. 17E Meridian

6. County DUCHESNE

7. Ownership: Priv. State BLM USFS NPS Ind. Mil. Other

8. Federal Admin. Unit(s) _____

9. Specimens Collected and field Accession No. NONE

10. Repository: _____

11. Specimens Observed and Disposition: TWO PARTIAL TURTLE SHELLS, BROKEN BUT IN SITU

12. Recommendations for Further Work or Mitigation: OBSERVE AREA WHEN OR IF EXCAVATIONS MADE

13. Type of Map Made by Recorder: COPY OF QUAD SECTIONS

14. Published References: _____

15. Remarks: _____

16. Sensitivity: Sensitive Non-Sensitive

17. Recorded By: WADE E. MILLER

**CULTURAL RESOURCE INVENTORY OF INLAND PRODUCTION'S
WELLS DRAW 760 ACRE PARCEL
IN PLEASANT VALLEY, DUCHESNE COUNTY, UTAH**

by

**Keith R. Montgomery
and
Sarah Ball**

Prepared For:

**Bureau of Land Management
Vernal Field Office**

Prepared Under Contract With:

**Inland Production Company
2507 Flintridge Place
Fort Collins CO 80521**

Prepared By:

**Montgomery Archaeological Consultants
P.O. Box 147
Moab, Utah 84532**

December 12, 2000

MOAC Report No. 00-102

**United States Department of Interior (FLPMA)
Permit No. 00-UT-60122**

**State of Utah Antiquities Project (Survey)
Permit No. U-00-MQ-0731b**

ABSTRACT

In November, 2000, a cultural resource inventory of a 760 acre parcel for well development including access roads and pipelines was performed by Montgomery Archaeological Consultants for Inland Production. The project area is situated in the Pleasant Valley region of the Uintah Basin, in the Wells Draw vicinity and includes four inventory areas; a 40 acre in the NE1/4 of the NE1/4 of Sec. 27, T 8S, R 16E; a forty acre in the SW1/4 of the SW1/4 of Sec. 23, T 8S, R 16E; a 40 acre in the NE1/4 of the SW1/4 of 23, T 8S, R 16E; and a 640 acre in Sec. 27, T 8S, R 17E. A total of 760 acres was inventoried for cultural resources located on public lands administered by the Bureau of Land Management (BLM), Vernal Field Office.

The archaeological survey resulted in the documentation of four historic temporary camps (42Dc1321, 42Dc1322, 42Dc1323, and 42Dc1324), two prehistoric temporary camps (42Dc1325 and 42Dc1355), six prehistoric lithic scatters (42Dc1347, 42Dc1348, 42Dc1349, 42Dc1350, 42Dc1353, and 42Dc1354), one prehistoric lithic and ceramic scatter (42Dc1352), one multi-component site consisting of a prehistoric lithic scatter and historic trash scatter (42Dc1351), and 17 isolated finds of artifacts (IF-A through IF-Q). Five of these sites are recommended as eligible to the NRHP: 42Dc1325, 42Dc1347, 42Dc1348, 42Dc1351, and 42Dc1355. Site 42Dc1325 is a prehistoric temporary camp with a fire cracked rock feature. Sites 42Dc1347 and 42Dc1348 are lithic scatters located in aeolian dunes. Site 42Dc1351 is a lithic scatter and historic trash scatter, also located on aeolian dunes. Site 42Dc1355 is a prehistoric temporary camp with two hearth features. All of these sites are recommended as eligible under criterion (D), due to the potential for buried cultural remains. Additional investigations at the site could provide significant data concerning site function, chronology, subsistence, and material culture.

Four historic sites, 42Dc1321, 42Dc 1322, 42Dc1323 and 42Dc1324 represent temporary range camps having a limited range of cultural materials. Additional investigations at these sites would fail to provide information relevant to historic research domains of the area. The prehistoric sites, 42Dc1349, 42Dc1350, 42Dc1352, 42Dc1353 and 42Dc1354 are recommended as not eligible for NRHP inclusion since they have an absence of additional diagnostic artifacts or features. Further research of these sites would not provide pertinent information to the prehistory of the area. The isolated finds of artifacts are also considered not eligible to the NRHP since they lack additional research potential.

The eligible sites (42Dc1325, 42Dc1347, 42Dc1348, 42Dc1351 and 42Dc1355) need to be avoided by future development within the parcels. Based on adherence to this recommendation, a determination of "no historic properties affected" is recommended for this project pursuant to Section 106, CFR 800.

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INTRODUCTION

In November 2000, a cultural resource inventory was conducted by Montgomery Archaeological Consultants (MOAC) for Inland Production's Wells Draw 760 Acre Parcel in Pleasant Valley, Duchesne County, Utah. The project area is proposed for well development, access roads and pipelines. The survey was implemented at the request of Mr. John Holst, Permitting Agent, Inland Production Company. The project area occurs on land administered by the Bureau of Land Management (BLM), Vernal Field Office.

The objective of the inventory was to locate, document and evaluate any cultural resources within the project area pursuant to a determination of "no effect" to historic properties in accord with Section 106 of 36 CFR 800, the National Historic Preservation Act of 1966 (as amended). Also, the inventory was implemented to attain compliance with a number of federal and state mandates, including the National Environmental and Historic Preservation Act of 1969, the Archaeological and Historic Conservation Act of 1972, the Archaeological Resources Protection Act of 1979 and the American Indian Religious Freedom Act of 1978.

The fieldwork was performed by Keith R. Montgomery, Principal Investigator for Montgomery Archaeological Consultants, aided in the field by Stan Ferris, Jay Willans, and Michael Wolfe. The inventory was conducted under the auspices of U.S.D.I. (FLPMA) Permit No. 00-UT-60122 and State of Utah Antiquities Project (Survey) No. U-00-MQ-0731b.

A file search for previous projects and documented cultural resources was conducted by Keith Montgomery at the BLM Vernal Field Office on October 30, 2000 and at the Utah Division of State History on November 3, 2000. These consultations indicated that no archaeological projects have been conducted in the immediate project area. However, various archaeological projects have been completed nearby. Archeological-Environmental Research Corporation (AERC) completed two surveys for Equitable Resources Energy Company in 1996, in T 9S, R 16E, Sec. 1 and 2, and T 8S, R 17E, Sec. 36, locating no new cultural resources (Hauck 1996a; 1996b). In 1997 AERC conducted an inventory for Inland Production in T 9S, R 17E Sec. 15 and 22, locating no cultural resources (Hauck and Hadden 1997). Sagebrush Consultants performed an inventory in 1997 for Inland Production in T 8S, R 17E, Sec. 28 and 29, documenting six prehistoric sites (42Dc1134 through 42Dc1139) and one historic site (42Dc1140) (Ellis 1997). In 1998 Sagebrush conducted another survey for Inland Production in T 9S, R 17E, Sec 3 and 10, locating two prehistoric sites (42Dc1191 and 42Dc1192), and one historic site (42Dc1190) (Polk 1998). JBR Environmental Consultants completed a survey for Inland Resources in 1998 situated in T 9S, R 17E, Sec. 1, locating no archaeological sites (Crosland and Billat 1998). In 1998 AERC performed an inventory for Inland Resources in several nearby sections, documenting 28 prehistoric sites (42Dc1149, 42Dc1150, 42Dc1155 through 42Dc1166, 42Dc1171, 42Dc1174 through 42Dc1177, 42Un 2532 through 42Un2538, 42Un2552, 42Un2566) (Hauck 1998). In summary, no archaeological sites have been documented in the immediate project area, however, a number of inventories near the project area have been performed, resulting in the documentation of both prehistoric and historic cultural resources.

DESCRIPTION OF PROJECT AREA

Environmental Setting

The project area lies in the Pleasant Valley area of the Uinta Basin, to the south of Myton, Utah. The inventory area consists of a 760 acre parcel, allocated for development of well locations, access roads and pipelines. Three adjoining 40 acre parcels occur to the southeast of Wells Draw, approximately 6.5 miles southwest of Myton, Utah. The legal description for these parcels is T 8S, R 16E, Sections 23 and 27 (Figure 1). A 640 acre parcel lies about 4.5 miles to the east of this, along both sides of a tributary of Pariette Draw. The legal description for this parcel is T 8S, R 17E, Section 27 (Figure 2). Topographically, this area consists of highly dissected sandstone and mudstone rock formations and broad sandy silt ridges (Stokes 1986). The elevation ranges from 5550 to 5020 feet a.s.l. Pariette Draw is a major water source in the area, as is Wells Draw although it is ephemeral. The project area lies within the Upper Sonoran life zone, dominated by a shadscale community intermixed with low sagebrush, snakeweed, prickly pear cactus and a variety of low grasses. A riparian zone exists along the washes, and includes cottonwood, Russian olive, cattail, and tamarisk. Modern disturbances to the landscape include well locations, access roads, pipelines, and livestock grazing.

Cultural Overview

The cultural-chronological sequence represented in the study area includes the Paleoindian, Archaic, Fremont, Protohistoric, and Euro-American stages. The earliest inhabitants of the region are representative of the Paleoindian stage (ca. 12,000-8,000 B.P.). This stage is characterized by the adaptation to terminal Pleistocene environments and by the exploitation of big game fauna. The presence of Paleoindian hunters in the Uinta Basin region is implied by the discovery of Clovis and Folsom fluted points (ca. 12,000 B.P. - 10,000 B.P.), as well as the more recent Plano Complex lanceolate points (ca. 10,000 B.P. - 7,000 B.P.). However, no such artifacts have been recovered in stratigraphic or chronometrically controlled contexts in northeastern Utah.

The Archaic stage (ca. 8,000 B.P. - 1,500 B.P.) is characterized by peoples depending on a foraging subsistence strategy, seasonally exploiting a wide spectrum of plant and animal species in different ecozones. The shift to an Archaic lifeway was marked by the appearance of new projectile point types perhaps reflecting the development of the atlatl in response to a need to pursue smaller and faster game (Holmer 1986). In the Uinta Basin, evidence of widespread Early Archaic exploitation is relatively sparse compared to the subsequent Middle and Late Archaic periods. Early Archaic (ca. 6000-3000 B.C.) sites in the basin include sand dune sites and rockshelters clustered mainly in the lower White River drainage as well as along the Green River in the Browns Park and Flaming Gorge (Spangler 1995:373). Projectile points recovered from Uinta Basin contexts include Pinto Series, Humboldt, Elko Series, Northern Side-notched, Hawken Side-notched, Sudden Side-notched and Rocker Base Side-notched points. Excavated sites in the area with Early Archaic components include Deluge Shelter in Dinosaur National Monument, and open campsites along the Green River and on the Diamond Mountain plateau (Spangler 1995:374). The Middle Archaic period (ca. 3000-500 B.C.) is characterized by improved climatic conditions and increased human populations on the northern Colorado Plateau. Several stratified Middle Archaic sites have been excavated and dozens of sites have been documented in the Uinta Basin. Middle Archaic sites in the area reflect cultural influences from the Plains, although a Great Basin and/or northern Colorado Plateau influence is represented in the continuation of the Elko

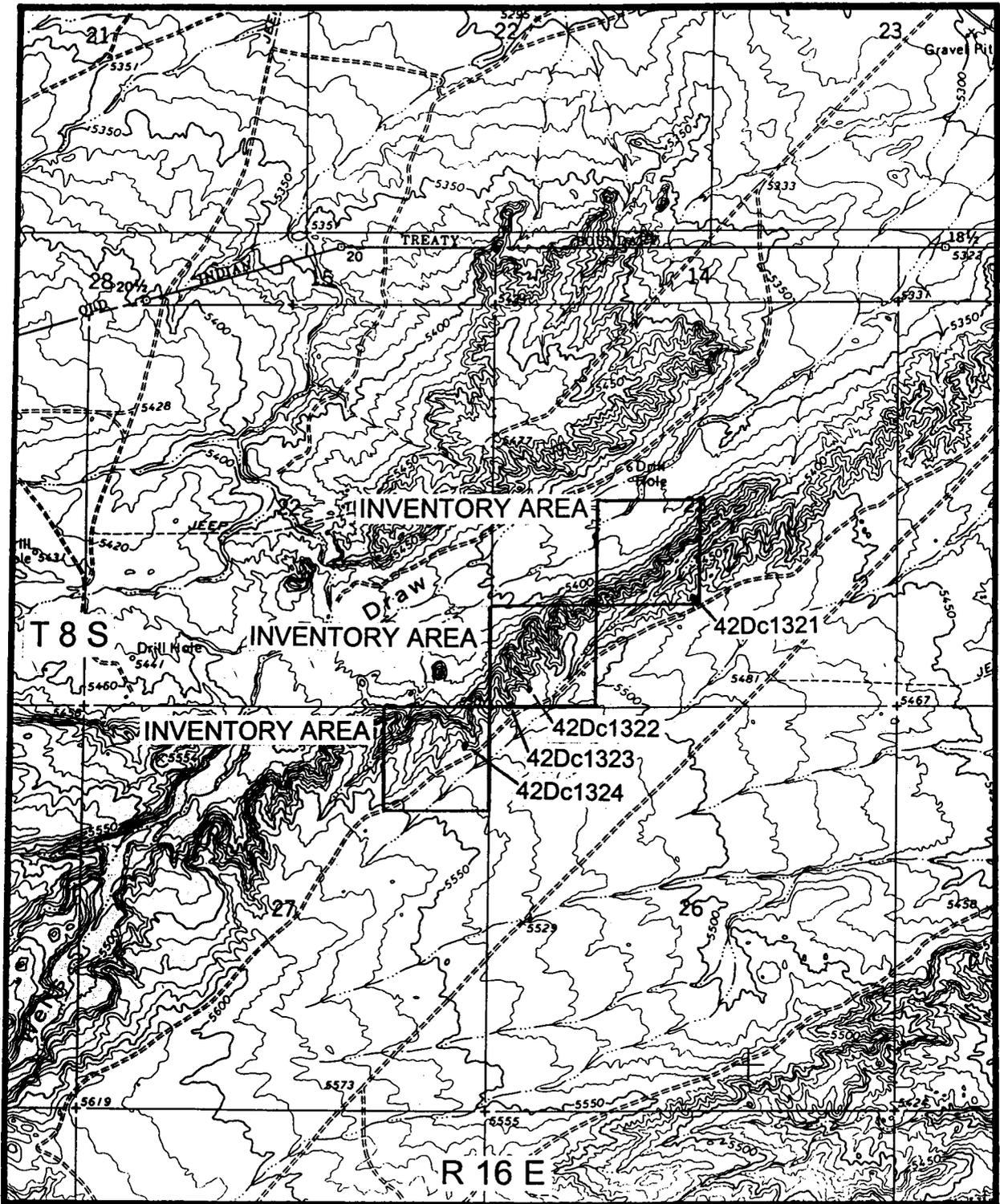


Figure 1. Inventory Area of Inland Production's Wells Draw 760 Acre Parcel in Pleasant Valley with Cultural Resources, Duchesne County, UT. USGS 7.5' Myton SE, UT 1964. Scale 1:24000.

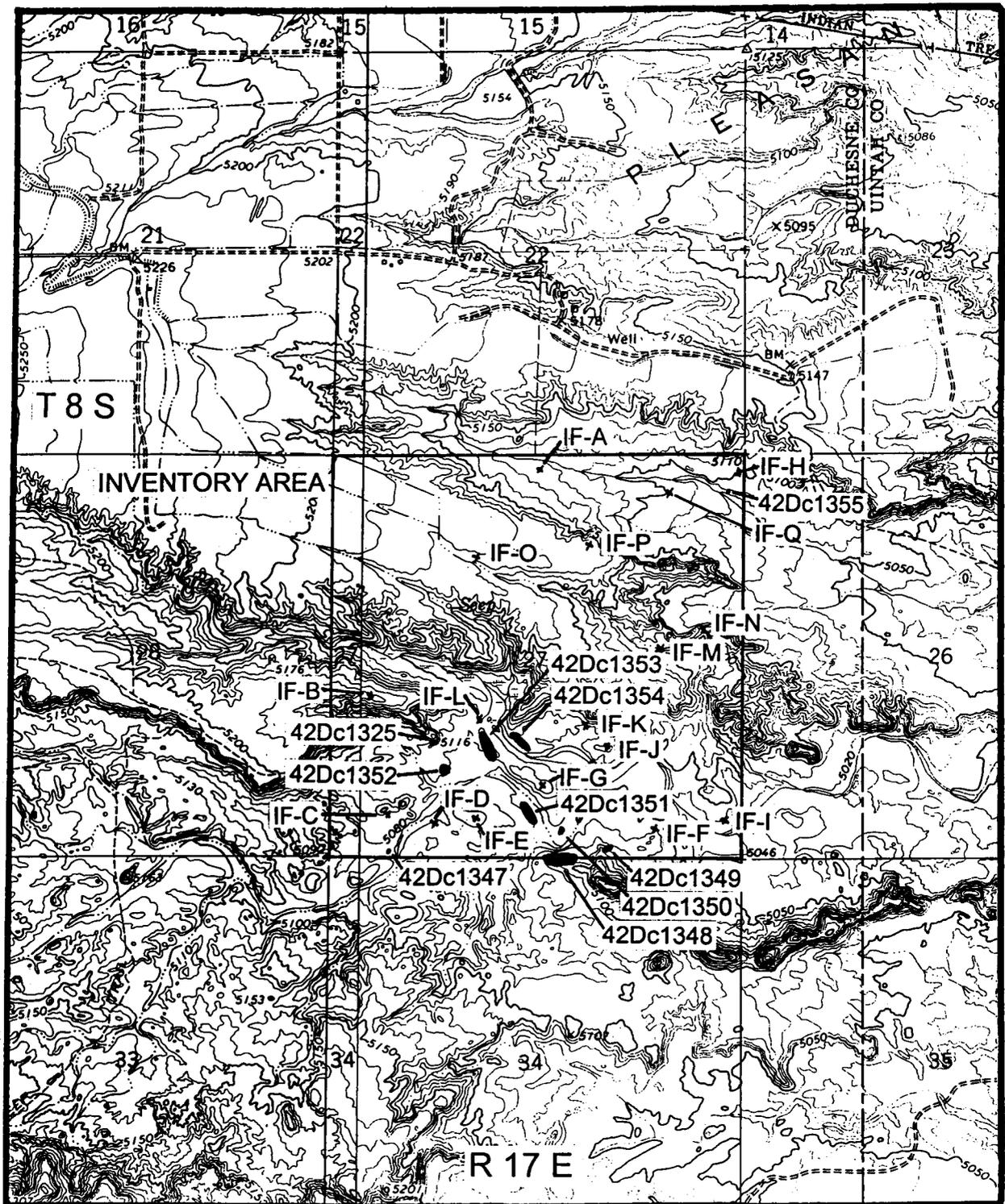


Figure 2. Inventory Area of Inland Production's Wells Draw 760 Acre Parcel in Pleasant Valley with Cultural Resources, Duchesne County, UT. USGS 7.5' Pariette Draw SW, UT 1964. Scale 1:24000.

Series projectile points. Subsistence data from Middle Archaic components indicate gathering and processing of plants as well as faunal exploitation (e.g., mule deer, antelope, bighorn sheep, cottontail rabbit, muskrat, prairie dog, beaver and birds). The Late Archaic period (ca. 500 B.C.-A.D. 550) in the Uinta Basin is distinguished by the continuation of Elko Series atlatl points with the addition of semi-subterranean residential structures at base camps. By about A.D. 100, maize horticulture and Rose Springs arrow points had been added to the Archaic lifeway. In the Uinta Basin, the earliest evidence of Late Archaic architecture occurs at the Cockleburr Wash Site (42Un1476) where a temporary structure, probably a brush shelter, yielded a date of 316 B.C. The structure was probably associated with seasonal procurement of wild floral resources gathered along Cliff Creek (Tucker 1986).

The Formative stage (A.D. 500-1300) is recognized in the area by the Uinta Fremont as first termed by Marwitt (1970). This stage is characterized by reliance upon domesticated corn and squash, increasing sedentism, and in its later periods, substantial habitation structures, pottery, and bow and arrow weapon technology. Based on the evidence from Caldwell Village, Boundary Village, Deluge Shelter, Mantles Cave and others, the temporal range of the Uinta Fremont appears to be from A.D. 650 to 950. This variant is characterized by shallow, saucer-shaped pithouse surface structures with randomly placed postholes and off-center firepits, some of which were adobe-rimmed. Traits considered unique or predominate to the Uinta Basin include calcite-tempered pottery, two-handled wide-mouth vessels, Utah type metates, the use of gilsonite for pottery repair, settlement on tops of buttes and large-shouldered bifaces (Shields 1970).

Archaeological evidence suggests that Numic peoples appeared in east-central Utah at approximately A.D. 1100 or shortly before the disappearance of Formative-stage peoples (Reed 1994). The archaeological remains of Numic-speaking Utes consist primarily of lithic scatters with low quantities of brown ware ceramics, rock art, and occasional wickiups. The brown ware ceramics appear to be the most reliable indicator of cultural affiliation, as Desert Side-notched and Cottonwood Triangular points were manufactured by other cultural groups beside the Ute (Horn, Reed, and Chandler 1994:130). The Ute appear to have been hunter and gatherers exploiting various fauna and flora resources. According to macrobotanical and faunal data from dated components deer, elk, pronghorn, bison, and small game were acquired (Reed 1994:191). Plant materials thought to have been exploited for food include goosefoot, grass seeds, pinyon nuts, juniper berries, squawbush berries and leaves, hackberry seeds and possibly saltbush seeds, knotweed, chokecherry, and chickweed (Ibid 191).

The cultural history of the Eastern Ute, comprising the bands living east of the Green River, has been divided into four phases (Reed 1988). The earliest and most tenuous phase is the Chipeta Phase, dated between ca. 1250 and 1400. Diagnostic artifacts include Desert Side-notched, Cottonwood Triangular, and small corner-notched arrow points and possibly Shoshonean knives. The Canalla phase (ca. A.D. 1400-1650) designates the period between the appearance of well-dated Uncompahgre brown ware ceramics and the adoption of an equestrian lifeway. Diagnostic artifacts include Uncompahgre Brown Ware ceramics, Desert Side-notched and Cottonwood Triangular points, and Shoshonean knives. The pedestrian hunter and gatherers probably lived in wickiups. Near the end of the phase, some groups may have obtained trade items from Spanish settlements in New Mexico (Horn, Reed, and Chandler 1994:131). The Antero phase (ca. A.D. 1650-1881) represents a shift to a fully equestrian lifestyle and integration of Euroamerican trade goods into Ute material culture. The horse permitted hunting of bison on the Plains and led to an increase in the importance of raiding for economic gain (Ibid 131). Euroamerican trade goods became important, and tepees as well as wickiups were inhabited.

The early Utes in Uintah County were Uinta-ats, a small band of a few hundred members (Burton 1996:20). In pre-horse days, Ute family groups lived largely independently of others with key gathering, hunting, and fishing sites being communal and granted to all, within both the local and extralocal Ute communities (Ibid 340). According to Smith's (1974) informants both deer and buffalo were important game for the White River Ute band. Before the buffalo became extinct in the Uintah Basin in the 1830s, the Ute would make trips northeast of Fort Bridger in the vicinity of what is now Rock Springs and Green River, Wyoming using the horse to surround and drive the buffalo over a precipice (Callaway, Janetski, and Stewart 1986; Smith 1974). All Ute groups made tripod or conical houses with a three or four-pole foundation and a circular ground plan some 10 to 15 feet in diameter with covering brush or bark.

The first Euro-Americans in the Uinta Basin were Spanish missionaries, traveling between Sante Fe, New Mexico up through western Colorado, towards the Utah Valley, and on to California. In 1776, under the leadership of Fray Francisco Atanasio Dominguez and Fray Silvestre Velez de Escalante, the Spanish commenced to explore a northern route from Santa Fe to the garrison of Monterey on the California coast (Spangler et al. 1995). Euro-American traders were another early factor in the history of the Uinta Basin. Some of these were Spaniards, who continued to visit the region until the Mexican war of independence in 1821, when most Spanish were expelled from the Southwest. It was the beaver trade in the early part of the nineteenth century, that cemented trade with Ute and Shoshone in the area, and resulted in the establishment of trading posts along the major rivers in the area, including the Duchesne, Green, and Uinta (Spangler et al. 1995).

The settlement of the Uinta Basin differs from that of much of Utah in that early settlement in the area occurred around Indian "agencies" assigned to the Uinta and Ouray Reservations, rather than under the direction of the Mormon church (Spangler et al. 1995). These agencies consisted of cabins and a trading post with farms cropping up around the agency, and were directed by a government Indian agent. The first agency was constructed at the mouth of Daniels Canyon in 1864, and was moved several times before 1868. The Mormon church, under Brigham Young consigned survey parties to the Uinta Basin in the early 1860s, determining that the land was not very suitable for cultivation. For this reason, Mormon occupation of the area occurred later than in many parts of the state. By 1876, only a handful of ranchers, had settled the area, to be joined that year by a group of Mormons. They formed a settlement around the ranch of Pardon Dodds, an Indian agent, located in Dry Fork Canyon; later to become known as Old Ashley Town. Another small group of Mormon settlers arrived in 1878, camping near the confluence of Ashley Creek, and naming their settlement Incline. In 1878, additional Mormon settlers ventured into the area; locating near what is today Vernal. With agrarian pursuits being the focus of the majority of the Mormon communities in the region, water became a leading priority. In 1880 the Rock Point Canal and Irrigation Company built a six-mile long canal from the mouth of Ashley Canyon to various homesteads in the region. The Ashley Upper Irrigation Canal was constructed in 1880 with the purpose of yielding water from the Ashley Creek to Bingham Corner. Settlement increased rapidly, and many different water projects were initiated. Most of the canals and reservoirs in the region were built after 1905 by the Uintah Irrigation Project and the Dry Gulch Irrigation Company (Ibid 809-12).

SURVEY METHODOLOGY

An intensive pedestrian survey was performed for this project which is considered 100% coverage. The 760 acre parcel was examined for cultural resources by the archaeologists walking parallel transects spaced no more than 10 m apart. Ground visibility was considered good. A total of 760 acres was inventoried on BLM administered land, Vernal Field Office.

Cultural resources were recorded as an archaeological site or isolated find of artifacts. Archaeological sites were defined as spatially definable areas with features and/or ten or more artifacts. Sites were documented by the archaeologists walking transects across the site, spaced no more than 3 m apart, and marking the locations of cultural materials with pinflags. This procedure allowed clear definition of site boundaries and artifact concentrations. At the completion of the surface inspection, a Brunton compass was employed to point-provenience diagnostic artifacts and other relevant features in reference to the site datum, a steel rebar stamped with a temporary site number. Archaeological sites were plotted on a 7.5' USGS quadrangle, photographed, with site data entered on an Intermountain Antiquities Computer System (IMACS, 1990 version) inventory form (Appendix A). Isolated finds are defined as individual artifacts or light scatter of items, which lack sufficient material culture to warrant IMACS forms, or to derive interpretation of human behavior in a cultural and temporal context. All isolated artifacts were plotted on a 7.5' USGS map and are described in this report.

INVENTORY RESULTS

The inventory of Inland Production's 760 acre parcel in Pleasant Valley resulted in the documentation of 14 newly-found archaeological sites (42Dc1321, 42Dc1322, 42Dc1323, 42Dc1324, 42Dc1325, 42Dc1347, 42Dc1348, 42Dc1349, 42Dc1350, 42Dc1351, 42Dc1352, 42Dc1353, 42Dc1354, and 42Dc1355), and 17 isolated finds of artifacts (IF-A through IF-Q).

Archaeological Sites

Smithsonian Site No.: 42Dc1321

Temporary Site No.: 610-3

Legal Description: T 8S, R 16E, Sec. 23

Jurisdiction: BLM, Vernal Field Office

Description: This is a historic temporary camp dating between 1917 and 1945. It consists of a tin can scatter and a concentration of axe-cut wood fragments, possibly representing a firewood pile. The pile measures 4 meters by 2 meters and is located in the western portion of the site. The majority of artifacts are tin cans. These are dominated by hole in top evaporated milk cans. Of these, seven are stamped with "PUNCH HERE" (1935-1945). Eight sanitary cans are observed, including: a cut-around commodity stamped with an oval on the base, a cut-around commodity, a smashed, cut-around commodity with "CANCO" on the base (ca. 1923), a lard bucket, and a pry-lid commodity can. A rectangular pepper can, a key-opened coffee can, a coffee can lid, a piece of 3 1/2" horse tack, some bailing wire, and black rubber shoe sole fragments are also observed. The site occurs in an area of shallow soil and is evaluated as not eligible to the NRHP since it lacks potential for additional functional or temporal information.

Smithsonian Site No.: 42Dc1322
Temporary Site No.: 610-4
Legal Description: T. 8S, R. 16E, Sec. 23
Jurisdiction: BLM, Vernal District Office

Description: This is a historic temporary camp dating between 1910 and 1950. The majority the artifacts are tin cans. These are dominated by five crushed, hole in top evaporated milk cans with two concentric raised rings on top and four hinged lid tobacco tins. Most of the other cans are sanitary and include: a cut-around commodity can lid; a crushed can fragment stamped with "840813" on the base; a crushed, cut-around sanitary can; a tuna or meat can; a pry-lid baking powder tin with a bail handle; and a 3/4" wide strip of a key-opened coffee can lid. One cut-around, hole in cap can is observed. Nine pieces of glass are noted, including: two rim fragments of a clear glass domestic vessel; three pieces of a small purple vessel of undetermined function; and four pieces of a brown patent medicine bottle with a patent finish and a linear design embossed on the shoulder. Also observed are a 2" long cartridge shell stamped with "Peters 25-36", one piece of bailing wire, a chunk of gilsonite, and a modern aluminum ointment tube with a screw lid. Two possible firewood collection piles are observed. Feature 1 (F-1) is a 7 meter x 8 meter concentration of 75+ pieces of axe-cut juniper wood. Feature 2 (F-2) is a smaller (4 meter x 4 meter) sparse concentration of axe-cut juniper fragments. The site is located in an area of shallow soil and is evaluated as not eligible to the NRHP since it lacks potential for additional functional or temporal information.

Smithsonian Site No.: 42Dc1323
Temporary Site No.: 610-5
Legal Description: T 8S, R 16E, Sec. 23
Jurisdiction: BLM, Vernal Field Office

Description: This is a historic temporary camp consisting of a light scatter of glass and tin cans along with a small concentration of axe-cut juniper pieces, possibly a firewood collection pile. Approximately 30 pieces of clear glass are observed, including 10 fragments of a tubular-shaped Alka-Seltzer container, 10 pieces each of two different small screw finish bottles; one with a rectangular base embossed with "DES Pat 35925" and an unidentified trademark, and the other with a round base. The majority of the tin cans are hinged-lid tobacco tins (n=7). Other tin cans include: a crushed, sanitary, cut-around; a crushed, sanitary cut-around stamped with an oval shape on the top; a crushed, sanitary, cut-around fruit can; and a 1 lb. key-opened coffee can. Also observed are: an alarm clock back, a modern toothpaste tube and four pieces of bailing wire. The site is located in an area of shallow soil and lacks features with potential for depth, and hence is evaluated as not eligible to the NRHP since it lacks potential for additional functional or temporal information.

Smithsonian Site No.: 42Dc1324
Temporary Site No.: 610-6
Legal Description: T 8S, R 16E, Sec. 27
Jurisdiction: BLM, Vernal Field Office

Description: This is a historic temporary camp dating between 1908 and 1945, and consists of a tin can scatter, rock alignment, and firewood pile, along with a few other artifacts. The majority of artifacts are tin cans. These are dominated by 14 evaporated milk cans, four of which are stamped with "PUNCH HERE" (1935-1945). Other tin cans include: four crushed, hinged-lid tobacco tins; a crushed Hershey Cocoa tin with a pry-lid; six cut-around sanitary cans of various

sizes; and three galvanized oil or gas cans with screw-lids and spouts, that have had the bottoms cut out. Also observed are: two pieces of clear window glass; six pieces of bailing wire; a piece of black leather with a round-head nail attached; three pieces of a leather boot including nine eyelets and four fast loops; and a center fire cartridge marked with "WRA Co 44 W.C.F" (post 1908). Feature 1 (F-1) is a rock alignment of unknown function, consisting of two sandstone rocks (20"x15" average size), and a sandstone slab (2" thick). A concentration of small, axe-cut pieces of juniper in an area measuring 4 meters x 3 meters is observed, as is a 8 meter x 16 meter area that exhibits an abundance of weeds, and is notably devoid of native plants, and may have been used for grazing.

Smithsonian Site No.: 42Dc1325
Temporary Site No.: 610-7
Legal Description: T 8S, R 17E, Sec. 27
Jurisdiction: BLM, Vernal Field Office

Description: This is a temporary camp located around an outcrop of large boulders (Figures 3 and 4). The site consists of a fire cracked rock concentration and 29 lithic tools . The majority of tools are unprepared chert cores. Other tools include: four hammerstones, one biface, three Stage I bifaces, three manos or mano fragments, and a slab metate. Also observed are approximately 150 pieces of lithic debitage with all reduction stages common. The materials utilized include various kinds of chert along with siltstone and quartzite. Feature 1 is a concentration of fire cracked rock located on the east side of a large boulder. The feature includes approximately 75 fire cracked and oxidized medium grained sandstone rock fragments (up to 25x15x10cm) scattered in an irregular configuration. No charcoal is visible, however a one meter diameter ash stain is apparent. A shallow (30 cm deep) drainage intersects the east margin of the feature. A petroglyph panel, possibly Archaic, is observed on a large boulder in the central portion of the site (Figure 5). The panel includes two solidly pecked figures, an anthropomorph and an elk, and measures 1.2 meters in length by 78 cm in height. A historic inscription occurs on a large boulder, incised with: "V O NEILSON", "1932", "VICK ROSS", "LEON".



Figure 3. 42Dc1325. Site overview. Photo is viewed to the southeast. Roll 610/3:11.

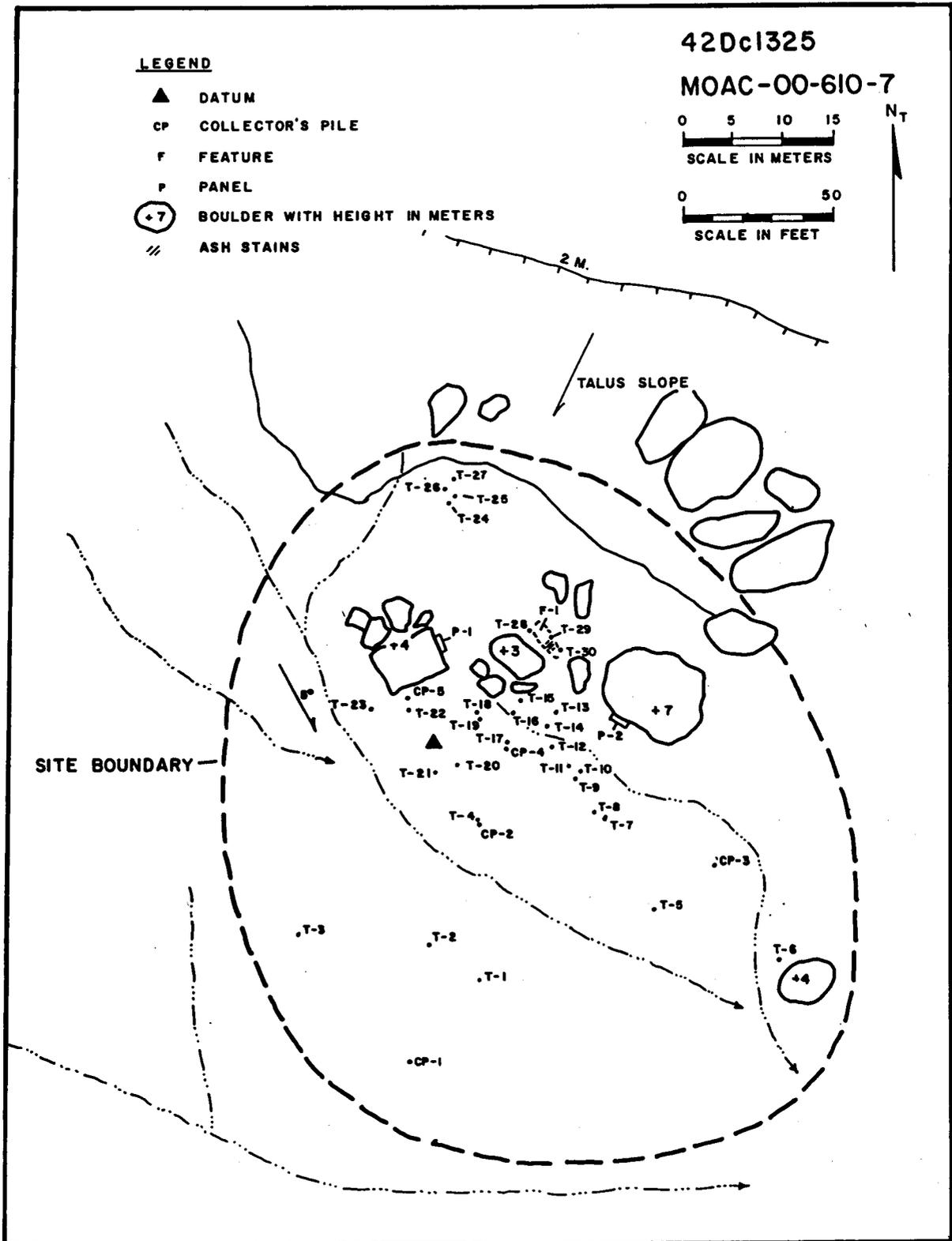
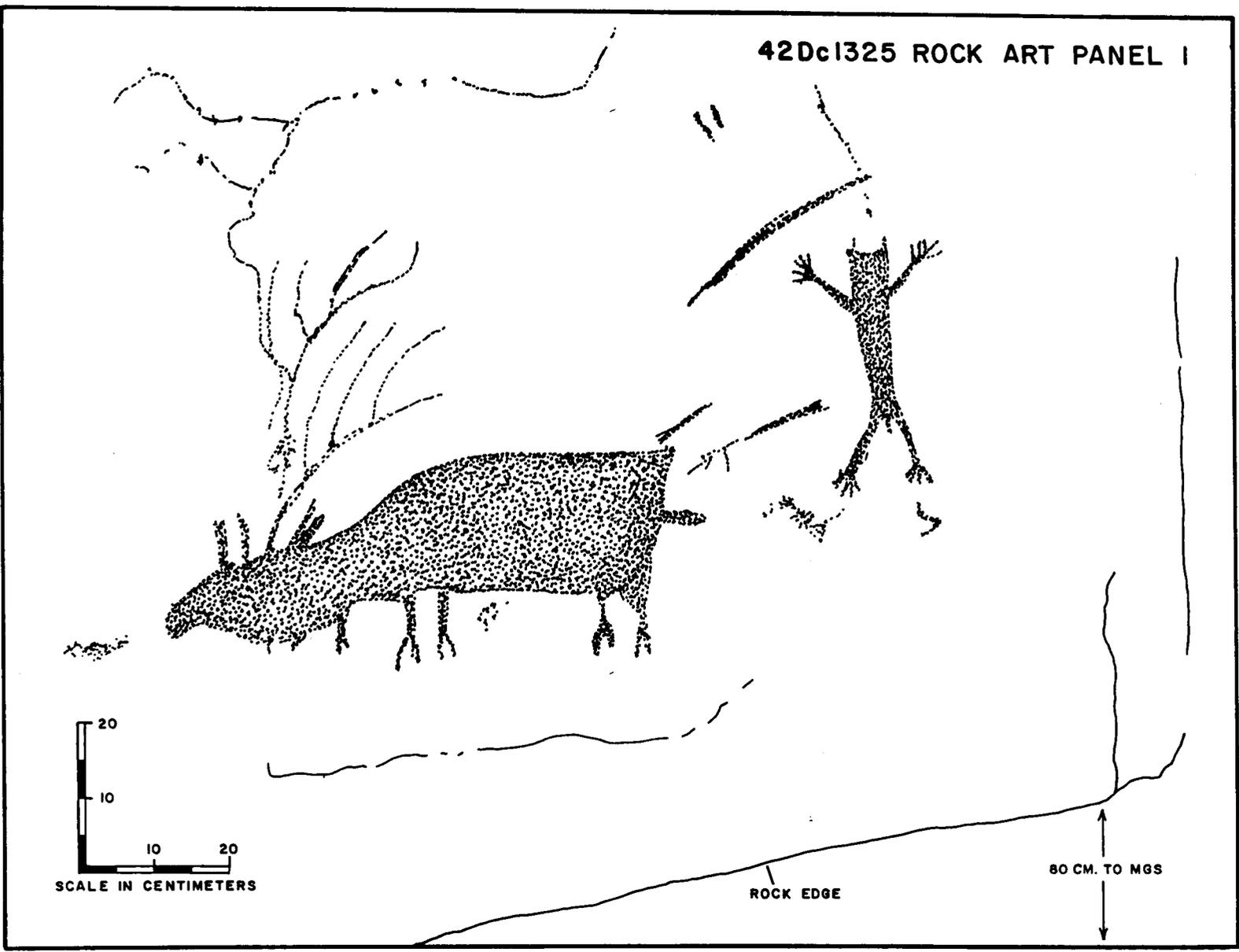


Figure 4. Site Map 42Dc1325.

Figure 5. 42Dc1325. Rock Art Panel 1.



Smithsonian Site No.: 42Dc1347
Temporary Site No.: 731-1
Legal Description: T 8S, R 17E, Sec. 27
Jurisdiction: BLM, Vernal Field Office

Description: The site is a lithic scatter of unknown cultural affiliation, located in a valley, within an area of sand dunes (Figures 6 and 7). Artifacts are dominated by secondary reduction stage flakes of various chert materials (n=118). The majority of flakes are located in a concentration towards the central portion of the site, as well as in two collector's piles, one of which contains 10 chert flakes, and the other 20 chert flakes. Several tools are observed, including two Stage II bifaces, a Stage III biface, two unprepared cores, and a single-handed cobble mano. An oxidized sandstone rock is located approximately one meter to the northwest of Tool 4. Due to the location in sand dunes, the site exhibits good potential for buried cultural remains and is recommended as eligible under criterion (D).



Figure 6. 42Dc1347. Site overview. Photo is viewed to the east. Roll 731/1:4.

Smithsonian Site No.: 42Dc1348
Temporary Site No.: 731-2
Legal Description: T 8S, R 17E, Sec. 27
Jurisdiction: BLM, Vernal Field Office

Description: The site is a lithic scatter of unknown cultural affiliation, located in a valley, within an area of sand dunes (Figure 8). Artifacts at the site are dominated by secondary reduction stage flakes of various chert materials, with all other reduction stages represented (n=165). Tools include: five unprepared cores, three scrapers, two choppers, a Stage I and Stage II biface, a single-handed mano, two slab metates, and a ground stone fragment. Due to the location in sand dunes, the site exhibits good potential for buried cultural remains and is recommended as eligible under criterion (D).

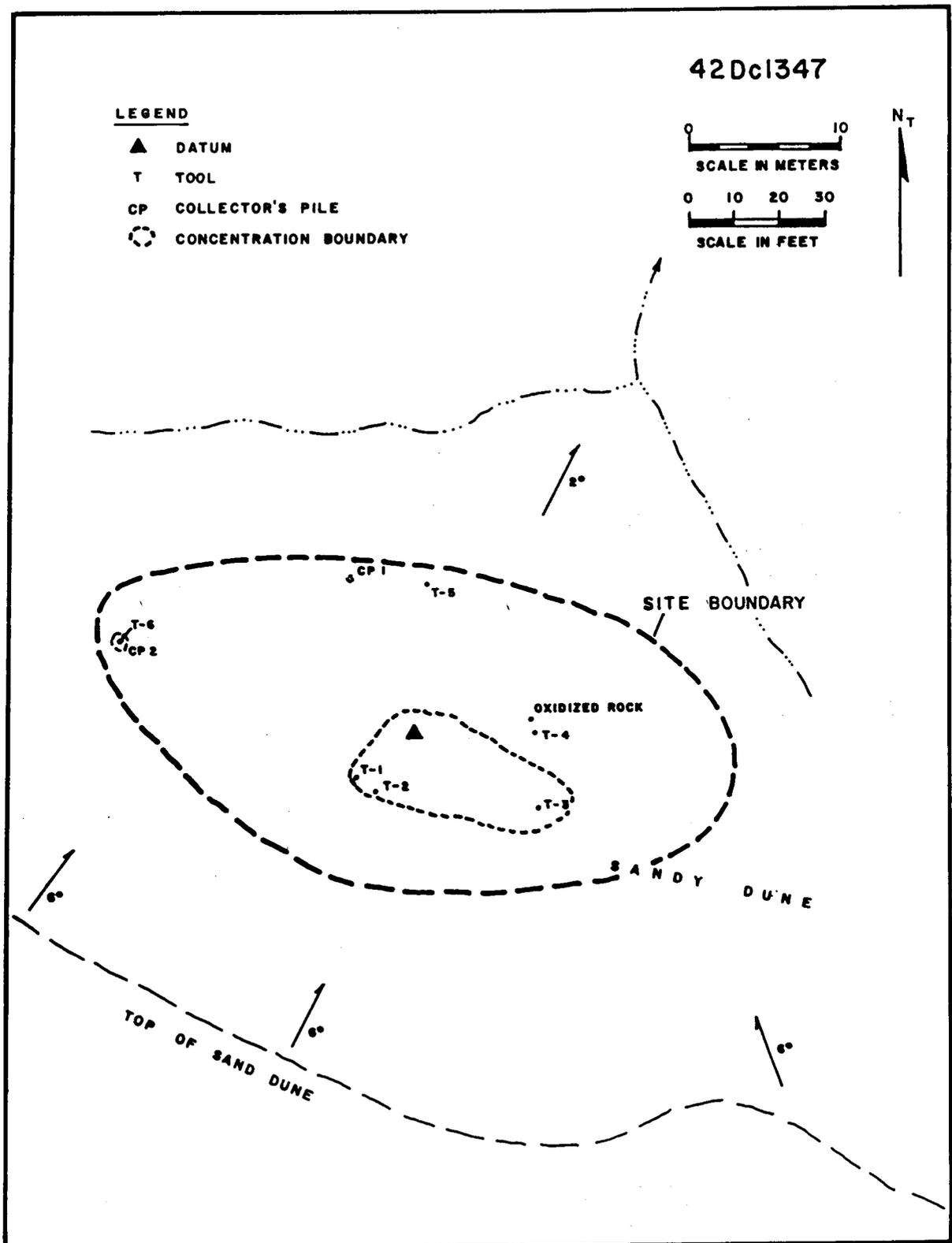
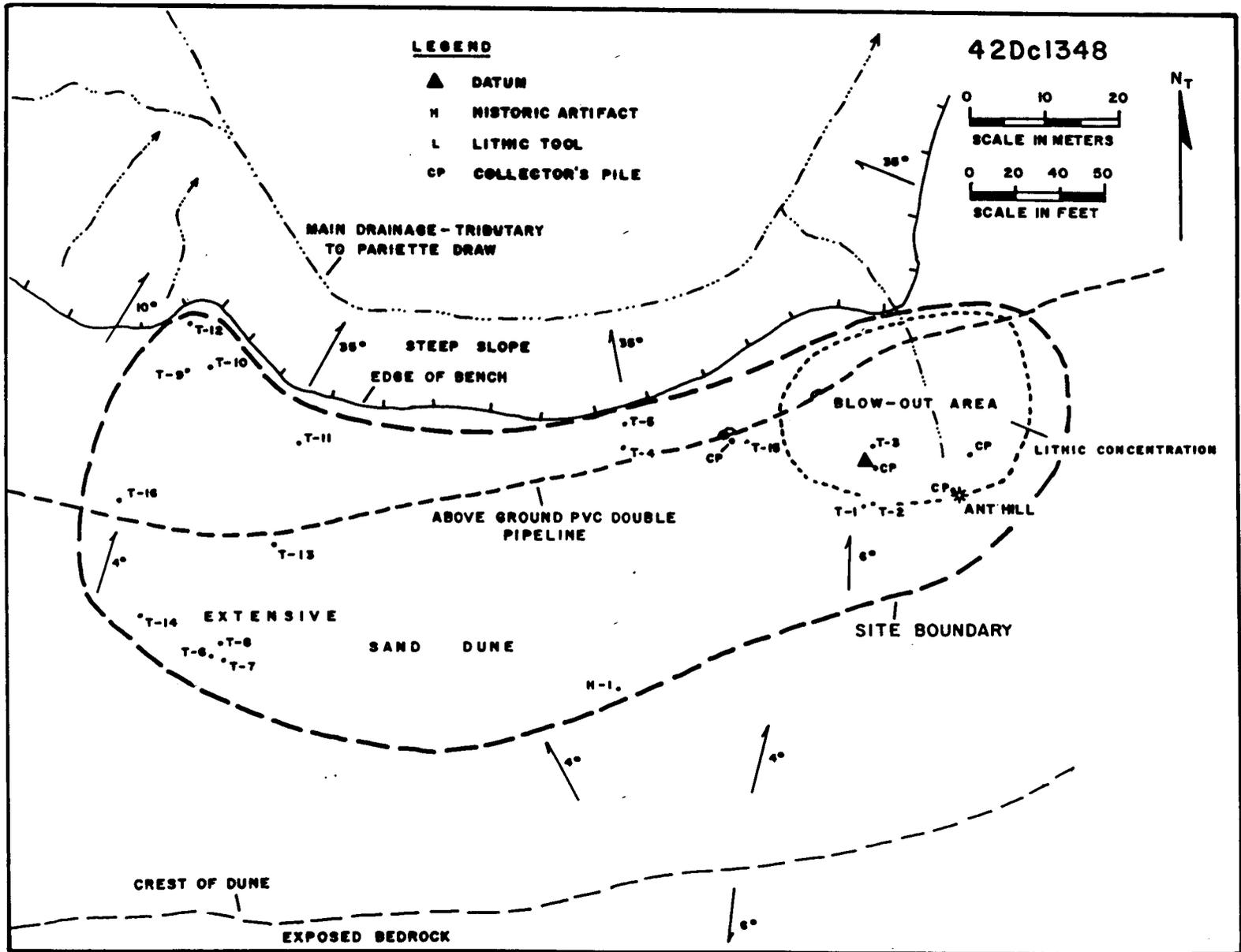


Figure 7. Site map 42Dc1347.

Figure 8. Site map 42Dc1348.



Smithsonian Site No.: 42Dc1349
Temporary Site No.: 731-3
Legal Description: T 8S, R 17E, Sec. 27
Jurisdiction: BLM, Vernal Field Office

Description: The site is a lithic scatter of unknown cultural affiliation, located on a terrace in a valley, in an area of thin residual soils covered with a veneer of small rocks. Artifacts are dominated by secondary reduction stage flakes of various chert materials, with primary flakes also represented (n=48). Tools include: a scraper, a prepared core, an unprepared core, two Stage I biface fragments, and two utilized flakes. Due to its location on thin deposits of soil, and the lack of cultural features which would provide potential for depth of cultural remains, the site is recommended as not eligible to the NRHP.

Smithsonian Site No.: 42Dc1350
Temporary Site No.: 731-4
Legal Description: T 8S, R 17E, Sec. 27
Jurisdiction: BLM, Vernal Field Office

Description: The site is a lithic scatter of unknown cultural affiliation, located on a terrace in a valley, in an area of thin, residual soils covered with a veneer of small rocks. Artifacts are dominated by secondary reduction stage flakes of various chert materials, with primary flakes also represented (n=48). Tools include: a scraper, a prepared core, an unprepared core, two Stage I biface fragments, and two utilized flakes. Due to its location on thin deposits of soil, and the lack of cultural features which would provide potential for depth of cultural remains, the site is recommended as not eligible to the NRHP.

Smithsonian Site No.: 42Dc1351
Temporary Site No.: 731-5
Legal Description: T 8S, R 17E, Sec. 27
Jurisdiction: BLM, Vernal Field Office

Description: This is a multi-component site consisting of a lithic scatter of unknown cultural affiliation and a historic trash scatter, located on a sand dune above an intermittent stream (Figures 9 and 10). Lithic debitage is dominated by secondary reduction stage flakes of various chert materials, with all reduction stages represented (n=27). Tools include an unprepared core, a spent core and a Stage II biface fragment. Feature 1 (F-1) is a concentration of 30+ fire cracked tabular-shaped sandstone rocks (up to 15x10x2cm). It is located in a 1.6 m by 1.0 m area and is eroding from a dune. No ash staining or charcoal is observed. Two sandstone slabs (up to 30x25cm) are located approximately two meters to the northwest of the feature. The historic artifacts are limited to a scatter of tin cans, dominated by five hole in top evaporated milk can fragments, along with one sanitary commodity can. Also observed are a deteriorated wash basin or bucket (H-1) and a large, rusted bucket or drum (H-10). The site exhibits good potential for buried cultural remains and is evaluated as eligible under criterion (D).

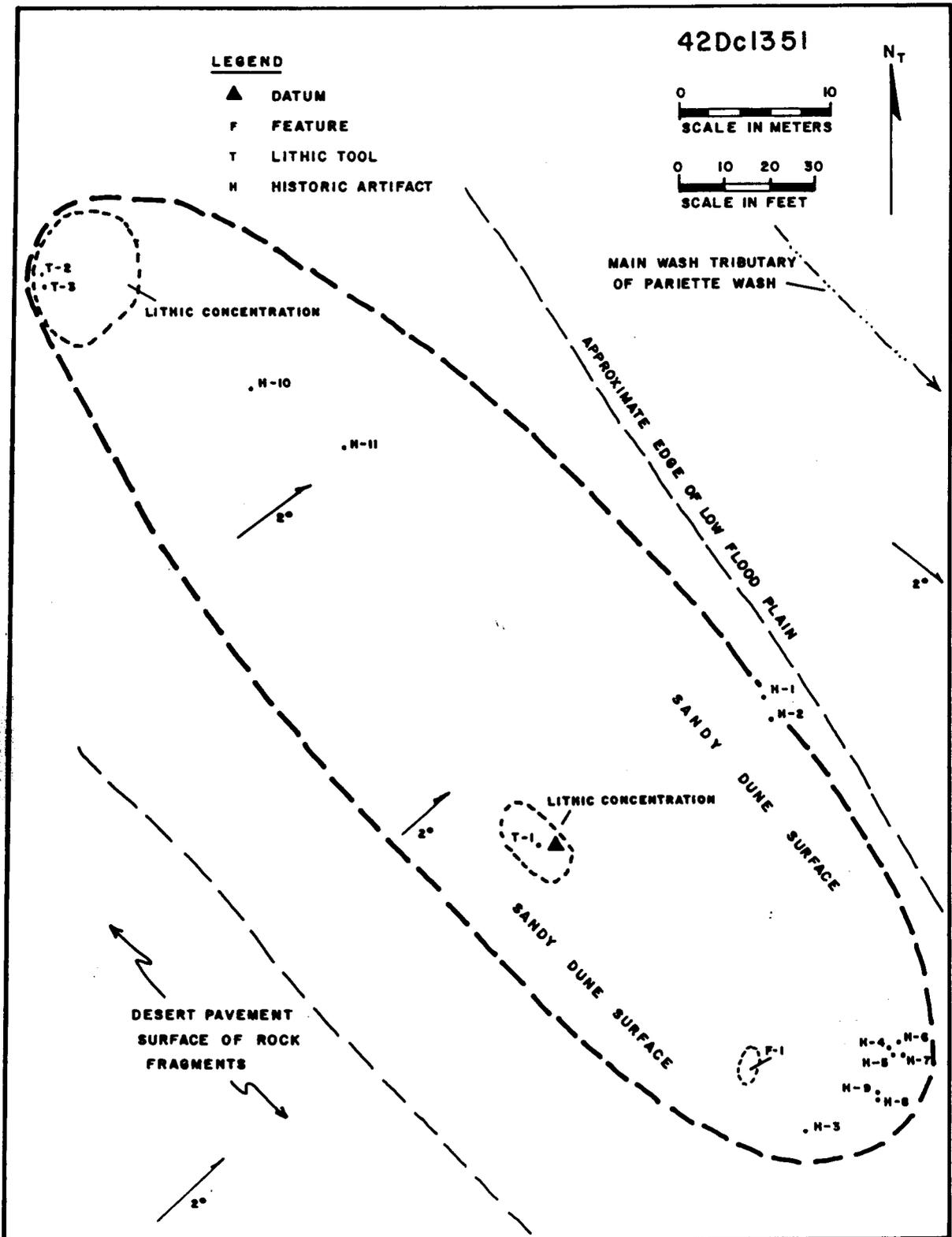


Figure 9. Site map 42Dc1351.



Figure 10. 42Dc1351. Site overview. Photo is viewed to the east. Roll 731/1:6.

Smithsonian Site No.: 42Dc1352
Temporary Site No.: 731-9
Legal Description: T 8S, R 17E, Sec. 27
Jurisdiction: BLM, Vernal Field Office

Description: This is a low density lithic and ceramic scatter situated on a southeast-trending slope of desert pavement near a tributary of Pariette Draw. It consists of 18 flakes of chert and quartzite material, 11 lithic tools, and a single Numic finger-indented brownware body sherd. The debitage includes 10 primary reduction stage flakes, and several secondary reduction stage flakes. Lithic tools consist of two scrapers, a single-handed mano fragment, and eight cores. The site is situated on desert pavement and shows little potential for buried cultural remains. It does not meet any of the eligibility criteria for inclusion to the NRHP, and the research potential has been exhausted by this documentation.

Smithsonian Site No.: 42Dc1353
Temporary Site No.: 731-6
Legal Description: T 8S, R 17E, Sec. 27
Jurisdiction: BLM, Vernal Field Office

Description: The site is a lithic scatter of unknown cultural affiliation, located on a bench above a tributary of Pariette Draw. Lithic debitage includes a nearly equal amount of secondary and primary reduction stage flakes of various chert materials (n=23). Tools include: six scrapers, four unprepared cores, four test cores, three choppers, three Stage I bifaces, one Stage III biface, one single-handed mano, and one hammerstone. Due to its location on thin deposits of soil, and the lack of cultural features which would provide potential for depth of cultural remains, the site is recommended as not eligible to the NRHP.

Smithsonian Site No.: 42Dc1354
Temporary Site No.: 731-7
Legal Description: T 8S, R 17E, Sec. 27
Jurisdiction: BLM, Vernal Field Office

Description: The site is a low density lithic scatter of unknown cultural affiliation, located on a bench above a tributary of Pariette Draw. Lithic debitage is dominated by secondary reduction flakes of tan opaque chert and tan and brown opaque chert, with primary flakes also represented. One rose-colored quartzite primary flake is also noted. A high percentage of cobble cores occur on the site including: four unprepared cores, three test cores, and three prepared cores. Also documented are three choppers and a Stage I biface. Due to its location on thin deposits of soil, and the lack of cultural features which would provide potential for depth of cultural remains, the site is recommended as not eligible to the NRHP.

Smithsonian Site No.: 42Dc1355
Temporary Site No.: 731-8
Legal Description: T 8S, R 17E, Sec. 27
Jurisdiction: BLM, Vernal Field Office

Description: This is a temporary camp of unknown cultural affiliation situated on a southeast-facing bench near an unnamed stream (Figures 11 and 12). The site consists of a sparse, low density lithic scatter (10 flakes), five lithic tools, and two hearth features. The debitage is manufactured from chert and quartzite, and is dominated by primary reduction flakes. Lithic tools include two hammerstones and three cores. Feature 1 is a concentration of oxidized quartzite and sandstone cobble rocks (n=37), ranging in size from 7 to 17 cm diameter. The feature measures 1.0 by 4.5 m, and no ash or charcoal-stained soils are observed. Feature 2 is a scatter of oxidized quartzite rock fragments and cobbles (n=40), ranging in size from 5 to 15 cm diameter. The feature measures 3 m in diameter and no ash or charcoal-stained soils are observed. The thermal features lie on colluvial soils with potential for buried cultural materials. Thus, the site is evaluated as eligible for inclusion to the NRHP under criterion D, since it could yield additional information relevant to the prehistory of the area.



Figure 11. 42Dc1355. Site overview. Photo is viewed to the northeast. Roll 731/2:9.

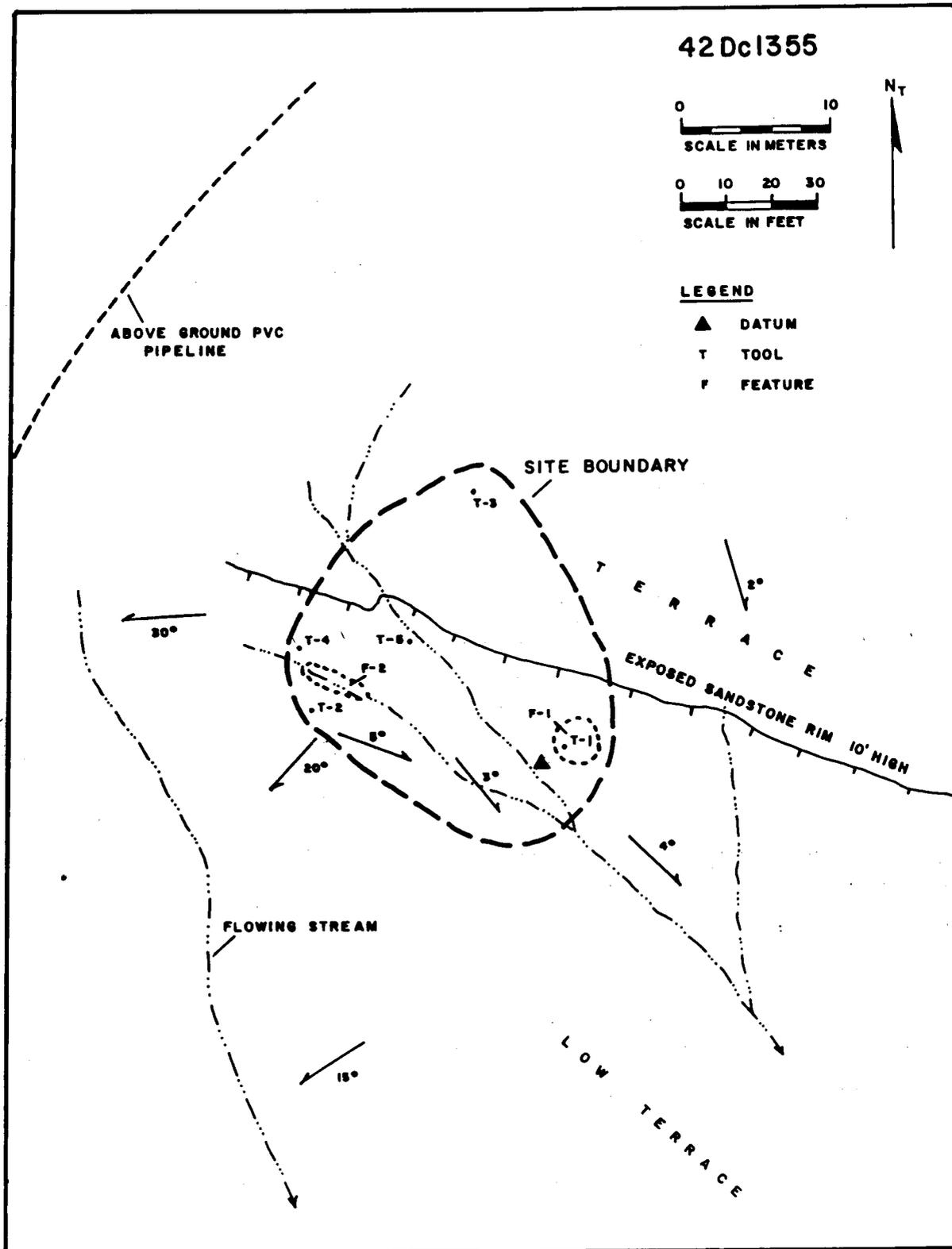


Figure 12. Site map 42Dc1355.

Isolated Finds of Artifacts

Isolated Find A (IF-A) is located in the NE/NE/NW of S. 27, T 8S, R 17E (UTM 585940E-4438550N). It is a brown and tan opaque chert tabular prepared core with 30+ flakes detached from narrow margins (8x7x2cm).

Isolated Find B (IF-B) is located in the NW/NW/SW of S. 27, T 8S, R 17E (UTM 585300E-4437740N). It consists of two tan opaque chert secondary flakes.

Isolated Find C (IF-C) is located in the SE/SW/SW of Sec. 27, T 8S, R 17E (UTM 585370E-4437280N). It is a brownish-yellow opaque chert cobble hammerstone with battering on two poles (8x7x6cm).

Isolated Find D (IF-D) is located in the SW/SE/SW of Sec. 27, T 8S, R 17E (UTM 585560E-4437230N). It is a light gray opaque chert secondary flake.

Isolated Find E (IF-E) is located in the SW/SE/SW of Sec. 27, T 8S, R 17E (UTM 585720E-4437360N). It is a light gray opaque chert secondary flake.

Isolated Find F (IF-F) is located in the SW/SE/SE of Sec. 27, T 8S, R 17E (UTM 586410E-4437210N). It consists of two light gray opaque chert secondary flakes and one primary flake of the same material.

Isolated Find G (IF-G) is located in the NW/SW/SE of Sec. 27, T 8S, R 17E (UTM 585980E-4437400N). It includes three light gray opaque chert secondary flakes.

Isolated Find H (IF-H) is located in the NE/NE/NE of Sec. 27, T 8S, R 17E (UTM 586710E-4438640N). It is a gray opaque chert unprepared core with dark brown cortex and 5 flakes removed from narrow margins (9x8x3cm).

Isolated Find I (IF-I) is located in the SE/SE/SE of Sec. 27, T 8S, R 17E (UTM 585680E-4437260N). It consists of two light gray opaque chert secondary flakes.

Isolated Find J (IF-J) is located in the SE/NW/SE of Sec. 27, T 8S, R 17E (UTM 586220E-4437540N). It is a large secondary blank (13x8x3cm).

Isolated Find K (IF-K) is located in the SW/NW/SE of Sec. 27, T 8S, R 17E (UTM 586140-4437640N). It is a large ovate Stage II biface preform 18x6x4cm).

Isolated Find L (IF-L) is located in the SW/NESW of Sec. 27, T 8S, R 17E (UTM 585720E-4437630N). It consists of a two light gray opaque chert secondary flakes and a brown opaque chert unprepared core with 3 flakes removed from narrow margins (6x4x21cm).

Isolated Find M (IF-M) is located in the SW/SE/NE of Sec. 27, T 8S, R 17E (UTM 586440E-4437920N). It is a light gray opaque chert unprepared core with dark brown cortex and four flakes detached from wide margins (8x6x3.5cm).

Isolated Find N (IF-N) is located in the SE/SE/NE of Sec. 27, T 8S, R 17E (UTM 586580E-4438000N). It is an ovate-shaped, light gray opaque chert unprepared core with dark brown cortex and 20+ flakes removed from narrow and wide margins (7.0x5.5x2.5cm).

Isolated Find O (IF-O) is located in the NW/SE/NW of Sec. 27, T 8S, R 17E (UTM 585710E-4438300N). It includes two light gray opaque chert secondary flakes.

Isolated Find P (IF-P) is located in the SW/NW/NE of Sec. 27, T 8S, R 17E (UTM 586140E-4438360N). It is a light gray opaque chert decortication flake.

Isolated Find Q (IF-Q) is located in the NW/NE/NE of Sec. 27, T 8S, R 17E (UTM 586430E-4438660N). It is a light gray opaque chert unprepared core with dark brown cortex and 4 flakes removed from narrow margins (7x5x2cm).

NATIONAL REGISTER OF HISTORIC PLACES EVALUATION

The National Register Criteria for Evaluation of Significance and procedures for nominating cultural resources to the National Register of Historic Places (NRHP) are outlined in 36 CFR 60.4 as follows:

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, material, workmanship, feeling, and association, and that they:

- a)...are associated with events that have made a significant contribution to the broad patterns of our history; or
- b)...are associated with the lives of persons significant to our past; or
- c)...embody the distinctive characteristics of a type, period, or method of construction; or that represents the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d)...have yielded or may be likely to yield information important in prehistory or history.

The inventory of the Inland Production's 760 acre parcel in Pleasant Valley resulted in the documentation of four historic temporary camps (42Dc1321, 42Dc1322, 42Dc1323, and 42Dc1324), two prehistoric temporary camps (42Dc1325 and 42Dc1355), six prehistoric lithic scatters (42Dc1347, 42Dc1348, 42Dc1349, 42Dc1350, 42Dc1353, and 42Dc1354), one prehistoric lithic and ceramic scatter (42Dc1352), and one multi-component site consisting of a prehistoric lithic scatter and historic trash scatter (42Dc1351). Five of these sites are recommended as eligible to the NRHP under criterion (D): 42Dc1325, 42Dc1347, 42Dc1348, 42Dc1351, and 42Dc1355. Site 42Dc1325 is a prehistoric temporary camp with a fire cracked rock feature. Sites 42Dc1347 and 42Dc1348 are lithic scatters located in aeolian dunes. Site 42Dc1351 is a lithic scatter and historic trash scatter, also located on aeolian deposition. Site 42Dc1355 is a prehistoric temporary camp with two hearth features. All of these sites are recommended as eligible due to the potential for buried cultural remains. Additional investigations at these sites could provide significant data concerning site function, chronology, subsistence, and material culture.

Four historic sites, 42Dc1321, 42Dc1322, 42Dc1323 and 42Dc1324 represent temporary livestock camps having a limited range of cultural materials. Additional investigations at these sites would fail to provide information relevant to historic research domains of the area. Five

prehistoric sites (42Dc1349, 42Dc1350, 42Dc1352, 42Dc1353, and 42Dc1354) are recommended as not eligible for NRHP inclusion since they have an absence of additional diagnostic artifacts or features. Further research of these sites would not provide pertinent information to the prehistory of the area. The isolated finds of artifacts are also considered not eligible to the NRHP since they lack additional research potential.

MANAGEMENT RECOMMENDATIONS

The inventory resulted in the documentation of five sites that are recommended as eligible to the NRHP. These include: two prehistoric temporary camps (42Dc1325 and 42Dc1355); two lithic scatters (42Dc1347 and 42Dc1348); and one multi-component site consisting of a lithic scatter and historic trash scatter (42Dc1351). All of these sites need to be avoided by the future development within the parcel. Based on these findings, a determination of "no historic properties affected" is recommended for this project pursuant to Section 106, CFR 800.

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APPENDIX A
INTERMOUNTAIN ANTIQUITIES COMPUTER SYSTEM (IMACS)
SITE INVENTORY FORMS

On File At:

U.S. Bureau of Land Management
Vernal Field Office
Vernal, Utah

**WORKSHEET
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 02/28/2001

API NO. ASSIGNED: 43-013-32225

WELL NAME: GBU 5-27-8-17
 OPERATOR: INLAND PRODUCTION (N5160)
 CONTACT: JON HOLST

PHONE NUMBER: 970-481-1202

PROPOSED LOCATION:

SWNW 27 080S 170E
 SURFACE: 1823 FNL 0555 FWL
 BOTTOM: 1823 FNL 0555 FWL
 DUCHESNE
 MONUMENT BUTTE (105)

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

LEASE TYPE: 1-Federal
 LEASE NUMBER: UTU-76241
 SURFACE OWNER: 1-Federal

PROPOSED FORMATION: GRRV

RECEIVED AND/OR REVIEWED:

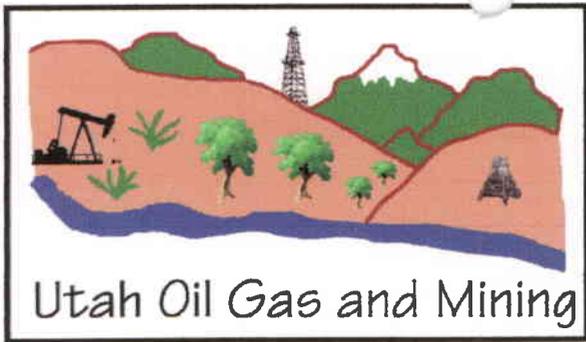
Flat
 Bond: Fed Ind Sta Fee
 (No. 4488944)
 Potash (Y/N)
 Oil Shale (Y/N) *190-5 (B) or 190-3
 Water Permit
 (No. MUNICIPAL)
 RDCC Review (Y/N)
 (Date:)
 Fee Surf Agreement (Y/N)

LOCATION AND SITING:

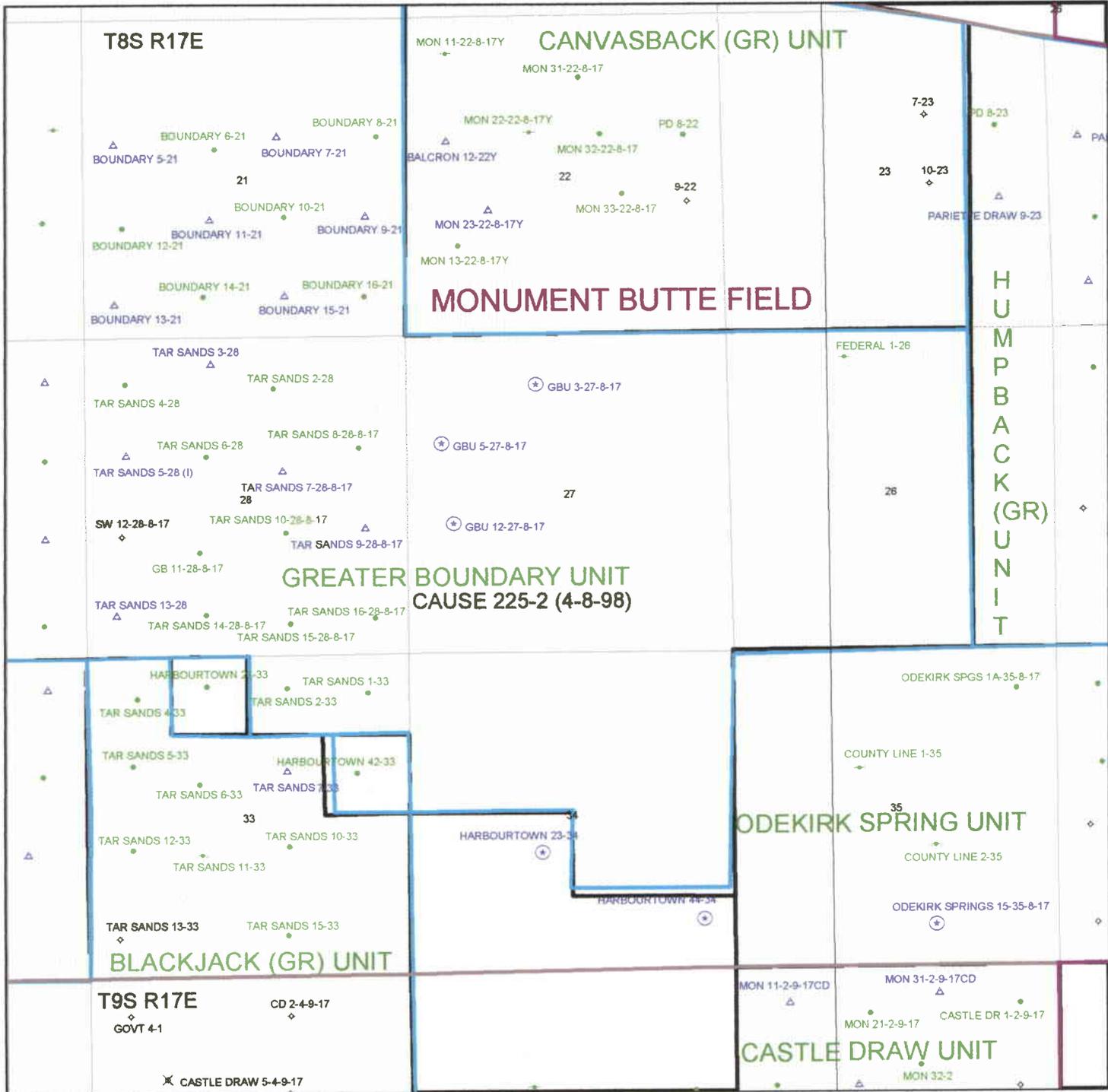
R649-2-3. Unit GREATER BOUNDARY
 R649-3-2. General
 Siting: 460 From Qtr/Qtr & 920' Between Wells
 R649-3-3. Exception
 Drilling Unit
 Board Cause No: 225-2 * Unit E. Enb. Rec.
 Eff Date: 4-8-98
 Siting: 460' fr. Unit Boundary
 R649-3-11. Directional Drill

COMMENTS: Mon. Butte Field, SOP, separate file.

STIPULATIONS: ① FEDERAL APPROVAL



OPERATOR: INLAND PROD CO (N5160)
 FIELD: MONUMENT BUTTE (105)
 SEC. 27, T8S, R17E,
 COUNTY: DUCHESNE UNIT: GREATER BOUNDARY
 CAUSE: 225-2/ENH REC





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

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Lowell P. Braxton
Division Director

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Salt Lake City, Utah 84114-5801

801-538-5340

801-359-3940 (Fax)

801-538-7223 (TDD)

March 5, 2001

Inland Production Company
410 - 17th St, Suite 700
Denver, CO 80202

Re: Greater Boundary Unit 5-27-8-17 Well, 1823' FNL, 555' FWL, SW NW, Sec. 27,
T. 8 South, R. 17 East, 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 43-013-32225.

Sincerely,

A handwritten signature in black ink that reads "John R. Baza". The signature is written in a cursive style.

John R. Baza
Associate Director

er

Enclosures

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

Operator: Inland Production Company
Well Name & Number Greater Boundary Unit 5-27-8-17
API Number: 43-013-32225
Lease: UTU-76241

Location: SW NW **Sec.** 27 **T.** 8 South **R.** 17 East

Conditions of Approval

1. General

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

2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

- Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

- Contact Dan Jarvis at (801) 538-5338

3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

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

UNITED STATES
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 a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No.
UTU-76241

6. If Indian, Allottee or Tribe Name
NA

7. If Unit or CA, Agreement Designation
Greater Boundry

8. Well Name and No.
5-27-8-17

9. API Well No.
43-013-3222⁵

10. Field and Pool, or Exploratory Area
Monument Butte

11. County or Parish, State
Duchesne, Utah.

SUBMIT IN TRIPLICATE

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
INLAND PRODUCTION COMPANY

3. Address and Telephone No.
Rt. 3 Box 3630, Myton Utah, 84052 435-646-3721

4. Location of Well (Footage, Sec., T., R., m., or Survey Description)
555' FWL & 1823' FN SW/NW Sec.27, T8S, R17E

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

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent <input type="checkbox"/> Subsequent Report <input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Abandonment <input type="checkbox"/> Recompletion <input type="checkbox"/> Plugging Back <input type="checkbox"/> Casing Repair <input type="checkbox"/> Altering Casing <input checked="" type="checkbox"/> Other Weekly Status <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 <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.)*

Weekly Status Report for the period of 4/29/01 thru 5/06/01.

MIRU Union #14 on 5/3/01. Set equipment. Weld 3' extension to conductor pipe (13-3/8") for a 23' total length. Drill mouse & rat hole. Drill 321' of 12-1/4" hole. C & C hole. TOH with drill string, & BHA. PU & MU, TIH w/ 7 Jt's 85/8" J-55 24# csgn. Set @ 302.31/KB. Cement with 160 sks of Class "G" w/ 3% CaCL2 + 1/4# sk Cello-Flake Mixed @ 15.8 ppg > 1.17 cf/sk yeild. No cement to surface. Top off surface thru 1" pipe set @ 40' with 100 sks of Class "G" w/ 3% CaCL2 + 1/4# sk Cello-Flake Mixed @ 15.8 ppg > 1.17 cf/sk yeild. 6 bbls cement on 2nd stage cement returned to surface. Cement level did not fall. WOC time of 4 hours. Nipple up BOP's. Test BOP's, Choke manifold, Kelly, TIW. To 2,000 psi. Test 85/8" csgn to 1,500 psi. State office of DOGM, & Vernal office of the BLM were notified of the test. PU drill string & BHA. Tag cement top @ 251'. Drill out cement & shoe.

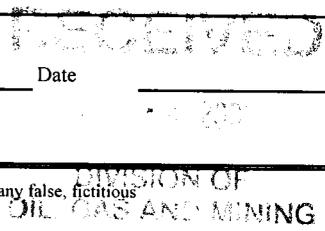
14. I hereby certify that the foregoing is true and correct

Signed Pat Wisener Title Drilling Foreman Date 05/07/2001
 Pat Wisener

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____

Conditions of approval, if any: _____



INLAND PRODUCTION COMPANY - CASING & CEMENT REPORT

8 5/8 CASING SET AT 302.31

LAST CASING 8 5/8" SET AT _____
 DATUM 10' KB
 DATUM TO CUT OFF CASING _____
 DATUM TO BRADENHEAD FLANGE _____
 TD DRILLER 325' LOGGER _____
 HOLE SIZE 12 1/4

OPERATOR Inland Production Company
 WELL Greater Boundry 5-27-8-16
 FIELD/PROSPECT Monument Butte
 CONTRACTOR & RIG # Union #14

LOG OF CASING STRING:

PIECES	OD	ITEM - MAKE - DESCRIPTION	WT / FT	GRD	THREAD	CONDT	LENGTH
		Lading Jt					14.4
		shjt 33.67					
		WHI - 92 csg head			8rd	A	0.95
7	8 5/8"	Maverick ST&C csg	24#	J-55	8rd	A	290.46
		GUIDE shoe			8rd	A	0.9

CASING INVENTORY BAL.	FEET	JTS	TOTAL LENGTH OF STRING	306.71
TOTAL LENGTH OF STRING	306.71	7	LESS CUT OFF PIECE	14.4
LESS NON CSG. ITEMS	16.25		PLUS DATUM TO T/CUT OFF CSG	10
PLUS FULL JTS. LEFT OUT	0		CASING SET DEPTH	302.31
TOTAL	290.46	7		

TOTAL CSG. DEL. (W/O THRDS)	290.46	7	}	COMPARE
TIMING	1ST STAGE	2ND STAGE		
BEGIN RUN CSG.	1:30 PM		GOOD CIRC THRU JOB	Yes
CSG. IN HOLE	4:45 PM		Bbls CMT CIRC TO SURFACE	6 (stage 2)
BEGIN CIRC	4:47 PM		RECIPROCATED PIPE FOR _____ THRU _____ FT STROKE	
BEGIN PUMP CMT	4:54 PM	7:52 PM	DID BACK PRES. VALVE HOLD ?	N/A
BEGIN DSPL. CMT	5:09 PM		BUMPED PLUG TO _____ 450 _____ PSI	
PLUG DOWN	5:18 PM	8:02 PM		

CEMENT USED		CEMENT COMPANY- BJ
STAGE	# SX	CEMENT TYPE & ADDITIVES
1	165	Class "G" w/ 3% CaCL2 + 1/4#/sk Cello-Flake mixed @ 15.8 ppg 1.17 cf/sk yield
2	100	Class "G" w/ 3% CaCL2 + 1/4#/sk Cello-Flake mixed @ 15.8 ppg 1.17 cf/sk yield (pumped dn 40' of 1")

CENTRALIZER & SCRATCHER PLACEMENT	SHOW MAKE & SPACING
Centralizers - Middle first, top second & third for 3	
RECEIVED	

P. 02/02
 FAX NO. 435 846 3031
 INLAND PRODUCTION CO
 MAY-08-01 TUE 08:30 AM

STATE OF UTAH
 DIVISION OF OIL, GAS AND MINING
 ENTITY ACTION FORM - FORM 6

OPERATOR: INLAND PRODUCTION COMPANY
 ADDRESS: RT. 3 BOX 3630
MYTON, UT 84052

OPERATOR ACCT NO N5160

ACTION CODE	CURRENT ENTITY NO	NEW ENTITY NO	AP NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					CG	SC	TP	RS	COUNTY		
A	99999	12391	43-013-32224	Boundary #3-27-8-17	NE/NW	27	8S	17E	Duchesne	April 16, 2001	04/16/01

WELL 1 COMMENTS
 5-8-01

ACTION CODE	CURRENT ENTITY NO	NEW ENTITY NO	AP NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					CG	SC	TP	RS	COUNTY		
A	99999	12391	43-013-32225	Boundary #5-27-8-17	SW/NW	27	8S	17E	Duchesne	April 19, 2001	04/19/01

WELL 2 COMMENTS
 5-8-01

ACTION CODE	CURRENT ENTITY NO	NEW ENTITY NO	AP NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					CG	SC	TP	RS	COUNTY		
A	99999	12391	43-013-32231	Boundary #6-27-8-17	SE/NW	27	8S	17E	Duchesne	April 20, 2001	04/20/2001

WELL 3 COMMENTS
 5-8-01

ACTION CODE	CURRENT ENTITY NO	NEW ENTITY NO	AP NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					CG	SC	TP	RS	COUNTY		
A	99999	12391	43-013-32232	Boundary #7-27-8-17	SW/NE	27	8S	17E	Duchesne	April 25, 2001	04/25/01

WELL 4 COMMENTS
 5-8-01

ACTION CODE	CURRENT ENTITY NO	NEW ENTITY NO	AP NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					CG	SC	TP	RS	COUNTY		

WELL 5 COMMENTS

- ACTION CODES - (See instructions on back of form)
- A - Submit new entry for a well being drilled
 - B - Add new name existing well (copy of name)
 - C - Reassign well to another entity (copy of name)
 - D - Reassign well from one existing entity to another
 - E - Other (explain in comments section)

Kathie Jones
 Signature
 Production Clerk
 T&E
 May 8, 2001
 ESM

NOTE: Use COMMENT section to identify each Action Code was selected

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 a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

Oil Well Gas Well Other

2. Name of Operator

INLAND PRODUCTION COMPANY

3. Address and Telephone No.

Rt. 3 Box 3630, Myton Utah, 84052 435-646-3721

4. Location of Well (Footage, Sec., T., R., m., or Survey Description)

555' FWL & 1823' FN SW/NW Sec.27, T8S, R17E

5. Lease Designation and Serial No.

UTU-76241

6. If Indian, Allottee or Tribe Name

NA

7. If Unit or CA, Agreement Designation

Greater Boundry

8. Well Name and No.

5-27-8-17

9. API Well No.

43-013-322⁵₂₄

10. Field and Pool, or Exploratory Area

Monument Butte

11. County or Parish, State

Duchesne, Utah.

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

TYPE OF SUBMISSION

Notice of Intent
 Subsequent Report
 Final Abandonment Notice

TYPE OF ACTION

Abandonment
 Recompletion
 Plugging Back
 Casing Repair
 Altering Casing
 Other **Spud**

Change of Plans
 New Construction
 Non-Routine Fracturing
 Water Shut-Off
 Conversion to Injection
 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.)*

On 4/19/01 MIRU Ross #14. Drill 20 ' of 17 3/8" hole. Insert 20 ' 13 3/8" conductor pipe. Drill to 55' hit water flow. Pump 100 sks of Class "G" w/ 3% CaCL2 + 1/4# sk Cello-Flake Mixed @ 15.8 ppg > 1.17 cf/sk yeild. 3 bbls cement returned to surface. Drilled thru cement @ 45'. Could not keep hole open, or clear. Rig down and move off. Wait on drilling rig.

File not there

4/16/2001

~~4/16/2001~~

14. I hereby certify that the foregoing

Signed

Pat
Pat Wise

man

Date

04/22/2001

(This space for Federal or State _____)

Approved by _____

Title _____

Date _____

Conditions of approval, if any:

**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 a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No.
UTU-76241

6. If Indian, Allottee or Tribe Name
NA

7. If Unit or CA, Agreement Designation
Greater Boundry

8. Well Name and No.
5-27-8-17

9. API Well No.
43-013-32224

10. Field and Pool, or Exploratory Area
Monument Butte

11. County or Parish, State
Duchesne, Utah.

SUBMIT IN TRIPLICATE

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
INLAND PRODUCTION COMPANY

3. Address and Telephone No.
Rt. 3 Box 3630, Myton Utah, 84052 435-646-3721

4. Location of Well (Footage, Sec., T., R., m., or Survey Description)
555' FWL & 1823' FN SW/NW Sec.27, T8S, R17E

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

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent <input type="checkbox"/> Subsequent Report <input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Abandonment <input type="checkbox"/> Recompletion <input type="checkbox"/> Plugging Back <input type="checkbox"/> Casing Repair <input type="checkbox"/> Altering Casing <input checked="" type="checkbox"/> Other Spud
	<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.)*

On 4/19/01 MIRU Ross #14. Drill 20 ' of 17 3/8" hole. Insert 20 ' 13 3/8" conductor pipe. Drill to 55' hit water flow. Pump 100 sks of Class "G" w/ 3% CaCL2 + 1/4# sk Cello-Flake Mixed @ 15.8 ppg > 1.17 cf/sk yeild. 3 bbls cement returned to surface. Drilled thru cement @ 45'. Could not keep hole open, or clear. Rig down and move off. Wait on drilling rig.

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

Signed Pat Wisener Title Drilling Foreman Date 04/22/2001
 Pat Wisener

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____

Conditions of approval, if any:

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well name and number: Greater Boundry 5-27-8-17

API number: 43-013-32225

Well Location: QQ SW/NW Section 27 Township 8S Range 17E County Duchesne

Well Operator: INLAND PRODUCTION COMPANY

Address: Route 3 Box 3630

Myton, Utah 84052 Phone: 435-646-3721

Drilling Contractor: Ross Well Service

Address: P.O. Box.

Roosevelt, Utah 84066 Phone: 435-722-4469

Water encountered (attach additional pages as needed):

DEPTH		VOLUME (FLOW RATE OR HEAD)	QUALITY (FRESH OR SALTY)
FROM	TO		
45'	55'	No flow to surface	(salty)

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

Formation Tops: Surface (Uinta) _____

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

I hereby certify that this report is true and complete to the best of my knowledge. Date: 04/20/01

Name & Signature: *Pat Wisner* Time: 10:00 AM

UNICHEM

A Division of BJ Services

P.O. Box 217
Roosevelt, Utah 84066

Office (435) 722-5066
Fax (435) 722-5727

WATER ANALYSIS REPORT

Company Inland Address _____ Date 4/20/01

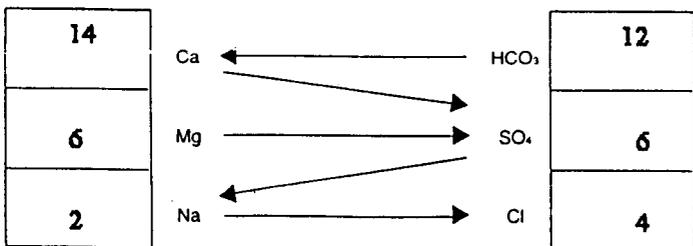
Source GBU 527 Date Sampled _____ Analysis No. _____
55 Foot Deep

Analysis	mg/l(ppm)	*Meg/l
1. PH	<u>7.5</u>	
2. H ₂ S (Qualitative)	<u>0.0</u>	
3. Specific Gravity	<u>1.002</u>	
4. Dissolved Solids	<u>1,571</u>	
5. Alkalinity (CaCO ₃)	CO ₃ <u>0</u>	÷ 30 <u>0</u> CO ₃
6. Bicarbonate (HCO ₃)	HCO ₃ <u>730</u>	÷ 61 <u>12</u> HCO ₃
7. Hydroxyl (OH)	OH <u>0</u>	÷ 17 <u>0</u> OH
8. Chlorides (Cl)	Cl <u>142</u>	÷ 35.5 <u>4</u> Cl
9. Sulfates (SO ₄)	SO ₄ <u>300</u>	÷ 48 <u>6</u> SO ₄
10. Calcium (Ca)	Ca <u>280</u>	÷ 20 <u>14</u> Ca
11. Magnesium (Mg)	MG <u>73</u>	÷ 12.2 <u>6</u> Mg
12. Total Hardness (CaCO ₃)	<u>1,100</u>	
13. Total Iron (Fe)	<u>2.0</u>	
14. Manganese		
15. Phosphate Residuals		

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

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION



Compound	Equiv. Wt.	X	Meg/l	=	Mg/l
Ca(HCO ₃) ₂	81.04		<u>12</u>		<u>973</u>
CaSO ₄	68.07		<u>2</u>		<u>136</u>
CaCl ₂	55.50				
Mg(HCO ₃) ₂	73.17				
MgSO ₄	60.19		<u>4</u>		<u>241</u>
MgCl ₂	47.62		<u>2</u>		<u>95</u>
NaHCO ₃	84.00				
Na ₂ SO ₄	71.03				
NaCl	58.46		<u>2</u>		<u>117</u>

Saturation Values	Distilled Water 20°C
CaCO ₃	13 Mg/l
CaSO ₄ · 2H ₂ O	2,090 Mg/l
MgCO ₃	103 Mg/l

REMARKS _____

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: INLAND PRODUCTION COMPANY

Well Name: GBU 5-27-8-17

Api No.. 43-013-32225 LEASE TYPE: FEDERAL

Section 27 Township 08S Range 17E County DUCHESNE

Drilling Contractor LEON ROSS DRILLING RIG # 14

SPUDDED:

Date 04//19/2001

Time 8:00 AM

How DRY

Drilling will commence _____

Reported by PAT WISENER

Telephone # 1-435-823-7468

Date 04/19/2001 Signed: CHD

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

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

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

5. LEASE DESIGNATION AND SERIAL NO.
UTU-76241

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

7. UNIT AGREEMENT NAME
Greater Boundary

8. FARM OR LEASE NAME WELL NO
#5-27-8-17

9. API WELL NO.

10. FIELD AND POOL OR WILDCAT
Monument Butte

11. SEC., T., R., M., OR BLK.
AND SURVEY OR AREA
**SW/NW
Sec. 27, T8S, R17E**

12. County
Duchesne

13. STATE
UT

2. NAME OF OPERATOR
Inland Production Company

3. ADDRESS OF OPERATOR
410 - 17th Street, Suite 700, Denver, CO 80202 Phone: (303) 893-0102

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At Surface **SW/NW 555' FWL & 1823' FNL**
 At proposed Prod. Zone

**RECEIVED
FEB 28 2001**

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

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to Approx. 1823' f/lse line	16. NO. OF ACRES IN LEASE 1760	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. Approx. 1320'	19. PROPOSED DEPTH 6500'	20. ROTARY OR CABLE TOOLS Rotary
--	------------------------------------	--

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
5178' GR

22. APPROX. DATE WORK WILL START*

23. **PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	SIZE OF CASING	WEIGHT/FOOT	SETTING DEPTH	QUANTITY OF CEMENT
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.

Draft Conditions of Approval are attached.

RECEIVED

APR 11 2001

DIVISION OF
OIL, GAS AND MINING

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 *[Signature]* TITLE **Permitting Agent** DATE *2/23/01*

(This space for Federal or State office use)
NOTICE OF APPROVAL **CONDITIONS OF APPROVAL ATTACHED**

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 **Assistant Field Manager Mineral Resources** DATE *04/06/2001*

*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.

DOB M

CONDITIONS OF APPROVAL
APPLICATION FOR PERMIT TO DRILL

Company/Operator: Inland Production Company

Well Name & Number: Greater Boundary 5-27-8-17

API Number: 43-013-32225

Lease Number: U - 76241

Location: SWNW Sec. 27 T. 08S R. 17E

Agreement: Greater Boundary GR SR

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. Casing Program and Auxiliary Equipment

As a minimum, the usable water resources and other resources shall be isolated and/or protected by having a cement top for the production casing at least 200 ft. above the top of the Green River Formation, identified at $\pm 1,805$ ft.

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

Plans For Reclamation of Location:

All seeding for reclamation operations at this location shall use the following seed mixture:

shadscale	Atriplex conflertifolia	4 lbs/acre
gardners saltbush	Atriplex gardneri	4 lbs/acre
galleta grass	Hilaria jamesii	4 lbs/acre

If the seed mixture is to be aeriaily broadcasted, the pounds per acre shall be doubled. All seed poundages are in Pure Live Seed.

Immediately after construction the stockpiled top soil will be seeded and the seed worked into the soil by "walking" the pile with caterpillar tracks.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well name and number: Greater Boundry 5-27-8-17

API number: 43-013-32225

Well Location: QQ SW/NW Section 27 Township 8S Range 17E County Duchesne

Well Operator: INLAND PRODUCTION COMPANY

Address: Route 3 Box 3630
Myton, Utah 84052 Phone: 435-646-3721

Drilling Contractor: Union Drilling

Address: Drawer 40
Buckhannon, WV 26201 Phone: 304-472-4610

Water encountered (attach additional pages as needed):

DEPTH		VOLUME (FLOW RATE OR HEAD)	QUALITY (FRESH OR SALTY)
FROM	TO		
2000'	2015'	No flow to surface	(salty)

Formation Tops: Surface (Uinta)

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

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

I hereby certify that this report is true and complete to the best of my knowledge. Date: 05/10/01

Name & Signature: Pat Wisner Time: 10:00 AM

UNICHEM

A Division of BJ Services

P.O. Box 217
Roosevelt, Utah 84066

Office (435) 722-5066
Fax (435) 722-5727

MAY 10 2001

INLAND
PRODUCTION CO.

WATER ANALYSIS REPORT

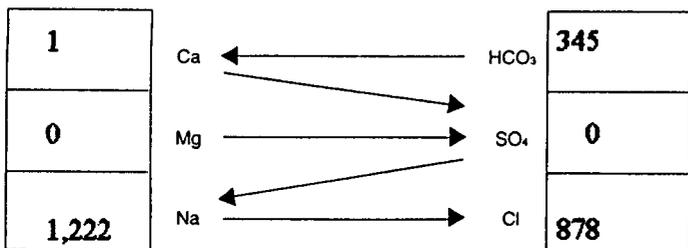
Company INLAND PRODUCTION Address _____ Date 5/8/01

Source Greater Boundry 5-27 2000 Ft. Date Sampled _____ Analysis No. _____

	Analysis	mg/l(ppm)	*Meg/l
1. PH	<u>9.8</u>		
2. H ₂ S (Qualitative)	<u>0.0</u>		
3. Specific Gravity	<u>1.055</u>		
4. Dissolved Solids		<u>75,975</u>	
5. Alkalinity (CaCO ₃)		<u>4,200</u>	÷ 30 <u>140</u> CO ₃
6. Bicarbonate (HCO ₃)		<u>12,505</u>	÷ 61 <u>205</u> HCO ₃
7. Hydroxyl (OH)		<u>0</u>	÷ 17 <u>0</u> OH
8. Chlorides (Cl)		<u>31,150</u>	÷ 35.5 <u>878</u> Cl
9. Sulfates (SO ₄)		<u>0</u>	÷ 48 <u>0</u> SO ₄
10. Calcium (Ca)		<u>10</u>	÷ 20 <u>1</u> Ca
11. Magnesium (Mg)		<u>4</u>	÷ 12.2 <u>0</u> Mg
12. Total Hardness (CaCO ₃)		<u>40</u>	
13. Total Iron (Fe)		<u>3.6</u>	
14. Manganese			
15. Phosphate Residuals			

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION



Compound	Equiv. Wt.	X	Meg/l	=	Mg/l
Ca(HCO ₃) ₂	81.04		<u>1</u>		<u>81</u>
CaSO ₄	68.07				
CaCl ₂	55.50				
Mg(HCO ₃) ₂	73.17				
MgSO ₄	60.19				
MgCl ₂	47.62				
NaHCO ₃	84.00		<u>344</u>		<u>28,896</u>
Na ₂ SO ₄	71.03				
NaCl	58.46		<u>878</u>		<u>51,328</u>

Saturation Values	Distilled Water 20°C
CaCO ₃	13 Mg/l
CaSO ₄ · 2H ₂ O	2,090 Mg/l
MgCO ₃	103 Mg/l

REMARKS

Found @ 2,000'

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

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 a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

Oil Well Gas Well Other

2. Name of Operator

INLAND PRODUCTION COMPANY

3. Address and Telephone No.

Rt. 3 Box 3630, Myton Utah, 84052 435-646-3721

4. Location of Well (Footage, Sec., T., R., m., or Survey Description)

555' FWL & 1823' FNL SW/NW Section 27, T8S, R17E

5. Lease Designation and Serial No.

UTU-76241

6. If Indian, Allottee or Tribe Name

NA

7. If Unit or CA, Agreement Designation

Greater Boundry

8. Well Name and No.

#5-27-8-17

9. API Well No.

43-013-32224

10. Field and Pool, or Exploratory Area

Monument Butte

11. County or Parish, State

Duchesne County, Utah

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
 Recompletion
 Plugging Back
 Casing Repair
 Altering Casing
 Other **Status Report**

Change of Plans
 New Construction
 Non-Routine Fracturing
 Water Shut-Off
 Conversion to Injection
 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.)*

Status report for time period 6/18/01 through 6/24/01.

Subject well had completion procedures initiated in the Green River formation on 6/19/01. A total of six (6) Green River intervals were perforated W/ 4 JSPF. Four intervals were hydraulically fracture treated W/ 20/40 mesh sand. Two intervals were broken down with KCL water only (no proppant). Well awaits bridge plug removal & swabbing for sand cleanup at present time.

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

Signed

Gary Dietz
Gary Dietz

Title

Completion Foreman

Date

25-Jun-01

CC: UTAH DOGM

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

CC: Utah DOGM

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 a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No.

UTU-76241

6. If Indian, Allottee or Tribe Name

NA

7. If Unit or C.A. Agreement Designation

Greater Boundry

8. Well Name and No.

#5-27-8-17

9. API Well No.

43-013-32224

10. Field and Pool, or Exploratory Area

Monument Butte

11. County or Parish, State

Duchesne County, Utah

SUBMIT IN TRIPLICATE

1. Type of Well

Oil Well Gas Well Other

2. Name of Operator

INLAND PRODUCTION COMPANY

3. Address and Telephone No.

Rt. 3 Box 3630, Myton Utah, 84052 435-646-3721

4. Location of Well (Footage, Sec., T., R., m., or Survey Description)

555' FWL & 1823' FNL SW/NW Section 27, T8S, R17E

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
 Recompletion
 Plugging Back
 Casing Repair
 Altering Casing
 Other **Status Report**

Change of Plans
 New Construction
 Non-Routine Fracturing
 Water Shut-Off
 Conversion to Injection
 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.)*

Status report for time period 6/25/01 through 7/1/01.

Subject well had completion procedures initiated in the Green River formation on 6/19/01. A total of six (6) Green River intervals were perforated W/ 4 JSPF. Four intervals were hydraulically fracture treated W/ 20/40 mesh sand. Two intervals were broken down with KCL water only (no proppant). Bridge plugs and sand plugs were removed from wellbore. Zones were swab tested to clean up sand. Production equipment was ran in well. Well began producing on pump on 6/30/01.

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

Signed

Gary Dietz
Gary Dietz

Title

Completion Foreman

Date

01-Jul-01

CC: UTAH DOGM

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

CC: Utah DOGM

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

(See instructions on reverse side)

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WORK

OIL WELL GAS WELL DRY Other _____

1b. TYPE OF WELL

NEW WELL WORK OVER DEEPEN PLUG BACK DIFF RESVR. Other _____

2. NAME OF OPERATOR

INLAND RESOURCES INC.

3. ADDRESS AND TELEPHONE NO.

410 17th St. Suite 700 Denver, CO 80202

4. LOCATION OF WELL (Report locations clearly and in accordance with any State requirements.)*

At Surface 555' FWL & 1823' FNL (SW/NW) Sec. 27, T8S R17E

At top prod. Interval reported below

At total depth

14. API NO. 43-013-32225	DATE ISSUED 4/6/2001	12. COUNTY OR PARISH Duchesne	13. STATE UT
-----------------------------	-------------------------	----------------------------------	-----------------

15. DATE SPUNDED 4/20/01	16. DATE T.D. REACHED 5/10/01	17. DATE COMPL. (Ready to prod.) 6/30/01	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 5178' GR 5188' KB	19. ELEV. CASINGHEAD
-----------------------------	----------------------------------	---	--	----------------------

20. TOTAL DEPTH, MD & TVD 6176 KB	21. PLUG BACK T.D., MD & TVD 6174 KB	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY ----->	ROTARY TOOLS X	CABLE TOOLS
--------------------------------------	---	-----------------------------------	------------------------------------	-------------------	-------------

24. PRODUCING INTERVAL(S), OF THIS COMPLETION--TOP, BOTTOM, NAME (MD AND TVD)*
Lower Green River 4541'-6094'

25. WAS DIRECTIONAL SURVEY MADE
No

26. TYPE ELECTRIC AND OTHER LOGS RUN
DIGI/SP/CDL/GR/Gal CBL/GR/CCL-6-15-01

27. WAS WELL CORED
No

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

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24#	302'	12-1/4"	To surface with 265 sx Class "G" cmt	
5-1/2"	15.5#	6174'	7-7/8"	475 sx Premlite II and 400 sx 50/50 Poz	

29. LINER RECORD

30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-7/8"	EOT @ 6064'	TA @ 5963'

31. PERFORATION RECORD (Interval, size and number)

INTERVAL	SIZE	NUMBER
(CP1,2,3) 6090-94', 6084-86', 6021-33'		
5980-85', 5969-72'	0.38"	108
(LODC) 5694-5766'	0.38"	288
(A-1, C, D-2) 5565-69', 5260-78', 5144-48'	0.38"	104
(D-1, GB2,6) 5026-32', 4649-54', 4541-48'	0.38"	72

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5968'-6094'	Frac with 104,030# 20/40 sand and 755 bbl fluid
5694-5766'	Frac with 405,030# 20/40 sand and 2273 bbl fluid
5260'-5278' *	Frac with 122,540# 20/40 sand and 751 bbl fluid
4541'-5032'	Frac with 48,280# 20/40 sand and 367 bbl fluid

*Note: A-1 (5565-69') and D-2 (5144-48') would not break

33. PRODUCTION

DATE FIRST PRODUCTION 6/30/01	PRODUCTION METHOD (Flowing, gas lift, pumping--size and type of pump) 2-1/2" x 1-1/2" x 15' RHAC Pump				WELL STATUS (Producing or shut-in) PRODUCING		
DATE OF TEST 10 day ave	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD ----->	OIL--BBL. 209.8	GAS--MCF. 172.4	WATER--BBL. 47.9	GAS-OIL RATIO 822
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE ----->	OIL--BBL.	GAS--MCF.	WATER--BBL.	OIL GRAVITY-API (CORR.)	

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

TEST WITNESSED BY _____

35. LIST OF ATTACHMENTS

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

SIGNED Kevin S. Weller TITLE Manager of Development Operations DATE 7/18/01

BDH

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

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

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	GEOLOGIC MARKERS		
				NAME	TOP	
				MEAS. DEPTH	TRUE VERT. DEPTH	
			Greater Boundary #5-27-8-17	Garden Gulch Mkr	4097	
				Garden Gulch 2	4398	
				Point 3 Mkr	4668	
				X Mkr	4898	
				Y-Mkr	4934	
				Douglas Creek Mkr	5066	
				BiCarbonate Mkr	5318	
				B Limestone Mkr	5416	
				Castle Peak	5926	
				Basal Carbonate		
			Total Depth (LOGGERS)	6186		



August 3, 2001

State of Utah, Division of Oil, Gas and Mining
Attn: Ms. Carol Daneils
P.O. Box 145801
Salt Lake City, Utah 84144-5801

Attn: Ms. Carol Daneils

Greater Boundary Unit #5-27-8-17
Greater Boundary Unit #6-27-8-17
Duchesne County, UT

Dear Ms. Carol Daneils

Enclosed is a Well Completion or Recompletion Report and Log form (Form 3160-4). We are no longer sending Log copies since Dave Jull of Phoenix Surveys is already doing so.

If you should have any questions, please contact me at (303) 893-0102 ext. 1449

Sincerely,

Brian Harris
Engineering Tech

Enclosures

cc: Bureau of Land Management
Vernal District Office, Division of Minerals
Attn: Edwin I. Forsman
170 South 500 East
Vernal, Utah 84078

Well File – Denver
Well File – Roosevelt
Patsy Barreau/Denver
Bob Jewett/Denver



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155
<http://www.blm.gov>



IN REPLY REFER TO:
3106
(UT-924)

September 16, 2004

Memorandum

To: Vernal Field Office
From: Acting Chief, Branch of Fluid Minerals
Subject: Merger Approval

Attached is an approved copy of the name change recognized by the Utah State Office. We have updated our records to reflect the merger from Inland Production Company into Newfield Production Company on September 2, 2004.

Michael Coulthard
Acting Chief, Branch of
Fluid Minerals

Enclosure

1. State of Texas Certificate of Registration

cc: MMS, Reference Data Branch, James Sykes, PO Box 25165, Denver CO 80225
State of Utah, DOGM, Attn: Earlene Russell, PO Box 145801, SLC UT 84114
Teresa Thompson
Joe Incardine
Connie Seare

UTSL-	15855	61052	73088	76561	
071572A	16535	62848	73089	76787	
065914	16539	63073B	73520A	76808	
	16544	63073D	74108	76813	
	17036	63073E	74805	76954	63073X
	17424	63073O	74806	76956	63098A
	18048	64917	74807	77233	68528A
UTU-	18399	64379	74808	77234	72086A
	19267	64380	74389	77235	72613A
02458	26026A	64381	74390	77337	73520X
03563	30096	64805	74391	77338	74477X
03563A	30103	64806	74392	77339	75023X
04493	31260	64917	74393	77357	76189X
05843	33992	65207	74398	77359	76331X
07978	34173	65210	74399	77365	76788X
09803	34346	65635	74400	77369	77098X
017439B	36442	65967	74404	77370	77107X
017985	36846	65969	74405	77546	77236X
017991	38411	65970	74406	77553	77376X
017992	38428	66184	74411	77554	78560X
018073	38429	66185	74805	78022	79485X
019222	38431	66191	74806	79013	79641X
020252	39713	67168	74826	79014	80207X
020252A	39714	67170	74827	79015	81307X
020254	40026	67208	74835	79016	
020255	40652	67549	74868	79017	
020309D	40894	67586	74869	79831	
022684A	41377	67845	74870	79832	
027345	44210	68105	74872	79833	
034217A	44426	68548	74970	79831	
035521	44430	68618	75036	79834	
035521A	45431	69060	75037	80450	
038797	47171	69061	75038	80915	
058149	49092	69744	75039	81000	
063597A	49430	70821	75075		
075174	49950	72103	75078		
096547	50376	72104	75089		
096550	50385	72105	75090		
	50376	72106	75234		
	50750	72107	75238		
10760	51081	72108	76239		
11385	52013	73086	76240		
13905	52018	73087	76241		
15392	58546	73807	76560		



Office of the Secretary of State

The undersigned, as Secretary of State of Texas, does hereby certify that the attached is a true and correct copy of each document on file in this office as described below:

Newfield Production Company
Filing Number: 41530400

Articles of Amendment

September 02, 2004

In testimony whereof, I have hereunto signed my name officially and caused to be impressed hereon the Seal of State at my office in Austin, Texas on September 10, 2004.



A handwritten signature in black ink, appearing to read "G. Connor".

Secretary of State

ARTICLES OF AMENDMENT
TO THE
ARTICLES OF INCORPORATION
OF
INLAND PRODUCTION COMPANY

FILED
In the Office of the
Secretary of State of Texas
SEP 02 2004
Corporations Section

Pursuant to the provisions of Article 4.04 of the Texas Business Corporation Act (the "TBCA"), the undersigned corporation adopts the following articles of amendment to the articles of incorporation:

ARTICLE 1 – Name

The name of the corporation is Inland Production Company.

ARTICLE 2 – Amended Name

The following amendment to the Articles of Incorporation was approved by the Board of Directors and adopted by the shareholders of the corporation on August 27, 2004.

The amendment alters or changes Article One of the Articles of Incorporation to change the name of the corporation so that, as amended, Article One shall read in its entirety as follows:

"ARTICLE ONE – The name of the corporation is Newfield Production Company."

ARTICLE 3 – Effective Date of Filing

This document will become effective upon filing.

The holder of all of the shares outstanding and entitled to vote on said amendment has signed a consent in writing pursuant to Article 9.10 of the TBCA, adopting said amendment, and any written notice required has been given.

IN WITNESS WHEREOF, the undersigned corporation has executed these Articles of Amendment as of the 1st day of September, 2004.

INLAND RESOURCES INC.

By: Susan G. Riggs
Susan G. Riggs, Treasurer

OPERATOR CHANGE WORKSHEET

ROUTING

1. GLH
2. CDW
3. FILE

Change of Operator (Well Sold)

Designation of Agent/Operator

X Operator Name Change

Merger

The operator of the well(s) listed below has changed, effective:

9/1/2004

FROM: (Old Operator):
 N5160-Inland Production Company
 Route 3 Box 3630
 Myton, UT 84052
 Phone: 1-(435) 646-3721

TO: (New Operator):
 N2695-Newfield Production Company
 Route 3 Box 3630
 Myton, UT 84052
 Phone: 1-(435) 646-3721

CA No.

Unit:

GREATER BOUNDARY (GR)

WELL(S)

NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
GBU 3-27-8-17	27	080S	170E	4301332224	12391	Federal	WI	A
GBU 5-27-8-17	27	080S	170E	4301332225	12391	Federal	OW	P
GBU 12-27-8-17	27	080S	170E	4301332226	12391	Federal	OW	P
GBU 1-27-8-17	27	080S	170E	4301332228	12391	Federal	OW	P
GBU 2-27-8-17	27	080S	170E	4301332229	12391	Federal	OW	P
GBU 4-27-8-17	27	080S	170E	4301332230	12391	Federal	OW	P
GBU 6-27-8-17	27	080S	170E	4301332231	12391	Federal	OW	P
GBU 7-27-8-17	27	080S	170E	4301332232	12391	Federal	OW	P
GBU 8-27-8-17	27	080S	170E	4301332233	12391	Federal	OW	P
GBU 9-27-8-17	27	080S	170E	4301332234	12391	Federal	OW	P
GBU 10-27-8-17	27	080S	170E	4301332235	12391	Federal	OW	P
GBU 11-27-8-17	27	080S	170E	4301332243	12391	Federal	OW	P
GBU 13-27-8-17	27	080S	170E	4301332244	12391	Federal	OW	P
GBU 14-27-8-17	27	080S	170E	4301332245	12391	Federal	OW	P
TAR SANDS FED 9-28-8-17	28	080S	170E	4301332067	12391	Federal	WI	A
TAR SANDS FED 8-28-8-17	28	080S	170E	4301332068	12391	Federal	OW	P
TAR SANDS FED 7-28-8-17	28	080S	170E	4301332069	12391	Federal	WI	A
TAR SANDS FED 15-28-8-17	28	080S	170E	4301332109	12391	Federal	WI	A
TAR SANDS FED 16-28-8-17	28	080S	170E	4301332111	12391	Federal	OW	P
GREATER BOUNDARY 11-28-8-17	28	080S	170E	4301332134	12391	Federal	WI	A

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 9/15/2004
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 9/15/2004
- The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 2/23/2005
- Is the new operator registered in the State of Utah: YES Business Number: 755627-0143
- If **NO**, the operator was contacted contacted on:

6a. (R649-9-2)Waste Management Plan has been received on: IN PLACE
6b. Inspections of LA PA state/fee well sites complete on: waived

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

8. **Federal and Indian Units:**
The BLM or BIA has approved the successor of unit operator for wells listed on: n/a

9. **Federal and Indian Communization Agreements ("CA"):**
The BLM or BIA has approved the operator for all wells listed within a CA on: na/

10. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 2/23/2005

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database** on: 2/28/2005
2. Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 2/28/2005
3. Bond information entered in RBDMS on: 2/28/2005
4. Fee/State wells attached to bond in RBDMS on: 2/28/2005
5. Injection Projects to new operator in RBDMS on: 2/28/2005
6. Receipt of Acceptance of Drilling Procedures for APD/New on: waived

FEDERAL WELL(S) BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: UT 0056

INDIAN WELL(S) BOND VERIFICATION:

1. Indian well(s) covered by Bond Number: 61BSBDH2912

FEE & STATE WELL(S) BOND VERIFICATION:

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number 61BSBDH2919

2. The **FORMER** operator has requested a release of liability from their bond on: n/a*
The Division sent response by letter on: n/a

LEASE INTEREST OWNER NOTIFICATION:

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

COMMENTS:

*Bond rider changed operator name from Inland Production Company to Newfield Production Company - received 2/23/05



4301332225

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>

MAR 24 2005

Ref: 8P-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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

RECEIVED
MAR 28 2005
DIV. OF OIL, GAS & MINING

RE: ADDITIONAL WELL TO AREA PERMIT
Boundary Area Permit: UT20702-00000
Greater Boundary No. 5-27-8-17
Well ID: 20702-06417
SW NW Sec. 27 - T8S - 17E
Duchesne County, Utah

Dear Mr. Guinn:

The Newfield Production Co. (Newfield) request to convert a former Green River Formation oil well, the Greater Boundary No. 5-27-8-17, to a Garden Gulch-Douglas Creek-Basal Carbonate Members of the Green River Formation enhanced recovery injection well in the Boundary Area Permit is hereby authorized. The proposed Greater Boundary No. 5-27-8-17 Class II enhanced recovery injection well is within the exterior boundary of the Boundary Area Permit UT20702-00000; 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 Greater Boundary No. 5-27-8-17.

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. 4 (b), (Injection Pressure Limitation), Greater Boundary Area Permit (UT20702-00000) , cites the method by which the maximum allowable injection pressure (MAIP) shall be calculated for each Additional Well to the Boundary Area Permit. As a result, the MAIP for the Greater Boundary No. 5-27-8-17 shall not exceed **1220 psig**. The Boundary Area Permit, Part II. C. 4., provides an opportunity for the permittee to request an increase, or decrease, in the initial maximum surface injection pressure.

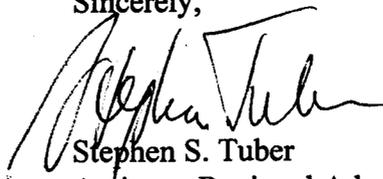
Because the Cement Bond Log (CBL) submitted for this well did not show any 80% bond index cement bond within the Confining Zone overlying the Garden Gulch Member, **the operator shall be required to demonstrate Part II (External) Mechanical Integrity within a 180-Day Limited Authorization to Inject period**. This demonstration may be made by a Temperature Survey, Noise Log, or Oxygen Activation Log, and Region 8 may accept the results from a Radioactive Tracer Survey (RATS) under certain circumstances. A limited period of authorization to inject is for the purpose of stabilizing the injection zone prior to this demonstration.

Current copies of Guidances for conducting Part II (External) Mechanical Integrity Tests will be submitted upon request.

Please be aware that Newfield does not have authorization to begin injection into the Greater Boundary No. 5-27-8-17 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



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
BOUNDARY AREA PERMIT: UT20702-00000**

The Environmental Protection Agency (EPA) authorizes the inclusion of an additional enhanced recovery injection well to the Boundary Area Permit No. UT20702-00000, as authorized by 40 CFR § 144.33 (c). The additional well is described as:

WELL NAME: GREATER BOUNDARY NO. 5-27-8-17

WELL PERMIT NUMBER: UT20702-06417

**SURFACE LOCATION: 555' FWL & 1823' FNL (SW NW)
Sec. 27 - T8S - R17E
Duchesne County, Utah.**

This well is subject to all provisions of the original Boundary Area Permit No. UT20702-00000, 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 175 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 **302 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 Greater Boundary No. 5-27-8-17 there are no reservoirs, streams, springs or wells.

WATER ANALYSES:

Produced Green River Formation Water: (4/29/04) 15,395 mg/l TDS.

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

Blended Injectate: (5/3/04) 8451 mg/l TDS.



CONFINING ZONE REVIEW: GREATER BOUNDARY NO. 5-27-8-17.

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 Boundary Area Permit. Overlying the top of the Garden Gulch Member (4092 feet), in the Greater Boundary No. 5-27-8-17, are ninety-two (92) feet of Green River Formation black, slightly silty, impervious shale which forms an effective lithologic **confining zone 4000 feet to 4092 feet.**

INJECTION ZONE REVIEW: GREATER BOUNDARY NO. 5-27-8-17.

The Greater Boundary No. 5-27-8-17 Final Area Permit (Effective February 8, 1994) authorized injection into the Douglas Creek Member of the Green River Formation. By Major Permit Modification No. 3 (Effective May 19, 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 Greater Boundary No. 5-27-8-17 will be from the Garden Gulch Member (4092 feet) to the top of the Wasatch Formation (Estimated to be 6455 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: GREATER BOUNDARY NO. 5-27-8-17.

SURFACE CASING: 8-5/8 inch casing is set at 302 feet in a 12-1/4 inch hole, using 265 sacks of Class "G" cement circulated to the surface. The base of the USDW is less than ninety-two (92) feet from ground level.

LONGSTRING CASING: 5-1/2 inch casing is set at 6174 feet kelly bushing (KB) in a 7-7/8 inch hole, and cemented with 475 sacks of Premium Lite II mixed and 400 sacks of 50/50 Pozmix.

The operator identifies the top of cement at 770 feet.

The EPA analysis of the CBL/GR identifies 80% cement bond index from 4856 feet to 4996 feet.

An EPA analysis of the Greater Boundary No. 5-27-8-17 CBL/GR did not 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 not provide an effective barrier to upward movement of fluids through vertical channels adjacent to the wellbore, pursuant to 40 CFR 146.8 (a) (2). The permittee will be required to demonstrate Part II Mechanical Integrity (MI) within a 180-day period of limited authorization to inject**

PART II. A. CONSTRUCTION REQUIREMENTS FOR ADDITIONAL WELLS

Tubing and Packer:

(Condition 3)

For injection purposes, the **Greater Boundary No. 5-27-8-17** 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 **Greater Boundary No. 5-27-8-17**, 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 **Greater Boundary No. 5-27-8-17** 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.

has been resolved, and renewed injection has been approved in writing by the Director.

<u>Tar Sands Federal No. 8-28-8-17:</u>	SE NE Sec. 28-T8S-R17E
Top Garden Gulch Member:	4080 feet
Garden Gulch Confining Zone:	4023 feet to 4080 feet
Top 80% EPA Cement Bond:	4430 feet to 4458 feet
Top Douglas Creek Member:	5110 feet
Total Depth (Driller):	6200 feet in Douglas Creek Member

The 57-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 Greater Boundary No. 5-27-8-17 Permit.** The Greater Boundary No. 5-27-8-17 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>Greater Boundary No. 6-27-8-17:</u>	SE NW Sec. 27-T8S-R17E
Top Garden Gulch Member:	4096 feet
Garden Gulch Confining Zone:	4033 feet to 4096 feet
Top 80% EPA Cement Bond:	4366 feet to 4440 feet
Top Douglas Creek Member:	5048 feet
Total Depth (Driller):	6218 feet in Douglas Creek Member

The 63-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 Greater Boundary No. 5-27-8-17 Permit.** The Greater Boundary No. 5-27-8-17 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. B.Corrective Action

As of March 2005, there are five (5) active Green River oil wells within the one-quarter (1/4) mile radius around the Greater Boundary No. 5-27-8-17. No wells need Corrective Action.

Garden Gulch-Douglas Creek Members Oil Well:

<u>Greater Boundary No. 12-27-8-17:</u>	NW SW Sec. 27 -T8S-R17E
Top Garden Gulch Member:	4044 feet
Garden Gulch Confining Zone:	4006 feet to 4044 feet
Top 80% EPA Cement Bond:	4260 feet - 4291 feet
Top Douglas Creek Member:	5030 feet
Total Depth (Driller):	6302 feet in Douglas Creek Member

The 38-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 Greater Boundary No. 5-27-8-17 Permit.** The Greater Boundary No. 5-27-8-17 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>Greater Boundary No. 4-27-8-17:</u>	NW NW Sec. 27-T8S-R17E
Top Garden Gulch Member:	4144 feet
Garden Gulch Confining Zone:	4096 feet to 4144 feet
Top 80% EPA Cement Bond:	4224 feet to 4242 feet
Top Douglas Creek Member:	5112 feet
Total Depth (Driller):	6287 feet in Douglas Creek Member

The 48-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 Greater Boundary No. 5-27-8-17 Permit.** The Greater Boundary No. 5-27-8-17 shall suspend operations immediately, and will stay suspended until the noncompliance

Douglas Creek Member Oil Well:

<u>Greater Boundary No. 1-28-8-17:</u>	NE NE Sec. 28-T8S-R17E
Top Garden Gulch Member:	4145 feet
Garden Gulch Confining Zone:	4071 feet to 4145 feet
Top 80% EPA Cement Bond:	4092 feet to 4112 feet
Top Douglas Creek Member:	5124 feet
Total Depth (Driller):	6300 feet in Douglas Creek Member

The 74-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 Greater Boundary No. 5-27-8-17 Permit.** The Greater Boundary No. 5-27-8-17 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)

Greater Boundary No. 5-27-8-17: 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).

Confirmation that the injectate will be confined to the authorized injection zone: It has been determined that the annulus cement in this well may not provide an effective barrier to significant upward movement of fluids through vertical channels adjacent to the wellbore (Part II MI), pursuant to 40 CFR §146.8 (a) (2). Within a *180-day Limited Authorization to Inject Period*, the permittee/operator shall demonstrate **Part II (External) Mechanical Integrity**

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 4092 feet (KB) to the top of the Wasatch Formation, estimated to be 6455 feet (KB).

Injection Pressure Limitation

(Condition 4)

Pursuant to Final Area Permit UT20702-00000, Part II. Section C. 4. (b). the maximum allowable injection pressure (MAIP) shall not exceed 1800 psig. Until such time that a Step-Rate Test (SRT) has been performed, reviewed and approved by the EPA, the initial MAIP for the Greater Boundary No. 5-27-8-17 shall not exceed **1545 psig**.

A fracture gradient (FG) of **0.700 psi/ft** is the minimum value FG calculated from four (4) sand/frac treatments. A review of FG values within Section 27 and proximate to Section 27 indicate that a FG of 0.700 is lower than any sand/frac derived FG . The FG of 0.700 will be used for the calculation of the **initial MAIP** for the Greater Boundary No. 5-27-8-17.

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 **Greater Boundary No. 13-27-8-17** shall not exceed **1220 psig**.

$$\text{MAIP} = [\text{FG} - (0.433)(\text{SG}) \text{ D}$$

$$\text{FG} = 0.700 \text{ psi/ft}$$

$$\text{SG} = 1.005$$

$$\text{D} = 4541 \text{ feet. Top perforation.}$$

$$\text{MAIP} = [0.700 - (0.433)(1.005)] 4541$$

$$\text{MAIP} = 1218 \text{ psig, but rounded up to } \mathbf{1220 \text{ psig.}}$$

Part II. C. 4. (b) Final Area Permit (UT20702-00000), 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 Greater Boundary No. 5-27-8-17 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 4445 feet. Place 100 feet of Class "G" cement on top of CIBP.

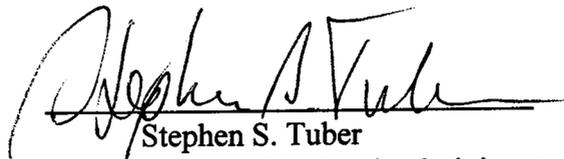
PLUG NO. 2: Set a cement plug inside of the 5-1/2 inch casing from 2000 feet to 2200 feet over a water zone.

Perforate 4 JSPF at 352 feet.

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

This authorization for well conversion of the Greater Boundary No. 5-27-8-17 to an injection well becomes effective upon signature.

Date: MAR 24 2005



Stephen S. Tuber

Assistant Regional Administrator

Office of Partnerships and Regulatory Assistance



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	psig
End of test pressure	psig	psig	psig	psig
CASING/TUBING ANNULUS PRESSURE				
0 minutes	psig	psig	psig	psig
5 minutes	psig	psig	psig	psig
10 minutes	psig	psig	psig	psig
15 minutes	psig	psig	psig	psig
20 minutes	psig	psig	psig	psig
25 minutes	psig	psig	psig	psig
30 minutes	psig	psig	psig	psig
minutes	psig	psig	psig	psig
minutes	psig	psig	psig	psig
RESULT	<input type="checkbox"/> Pass <input type="checkbox"/> Fail			

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

Greater Boundary Unit #5-27-8-17

Spud Date: 4/20/2001
 Put on Production: 6/30/2001
 GL: 5178' KB: 5188'

Initial Production: 209.8 BOPD, 172.4 MCFD,
 47.9 BWPD

Proposed Injection Wellbore Diagram

SURFACE CASING

CSG SIZE: 8-5/8"
 GRADE: J-55
 WEIGHT: 24#
 LENGTH: 7 jts. (306.71')
 DEPTH LANDED: 302.3' *Base USDN's < 675'*
 HOLE SIZE: 12-1/4"
 CEMENT DATA: 265 sxs Class "G" cmt.
 CEMENT TOP AT: 770'

PRODUCTION CASING

CSG SIZE: 5-1/2"
 GRADE: J-55
 WEIGHT: 15.5#
 LENGTH: 147 jts. (6178.46')
 DEPTH LANDED: 6174.06'
 HOLE SIZE: 7-7/8"
 CEMENT DATA: 475 sk Prem. Lite II mixed & 400 sxs 50/50 POZ

TUBING

SIZE/GRADE/WT.: 2-7/8" / J-55 / 6.5#
 NO. OF JOINTS: 184 jts (5953.34')
 TUBING ANCHOR: 5963.34'
 SEATING NIPPLE: 2-7/8" (1.10')
 TOTAL STRING LENGTH: EOT @ 6064.52'
 SN LANDED AT: 6030.77' KB

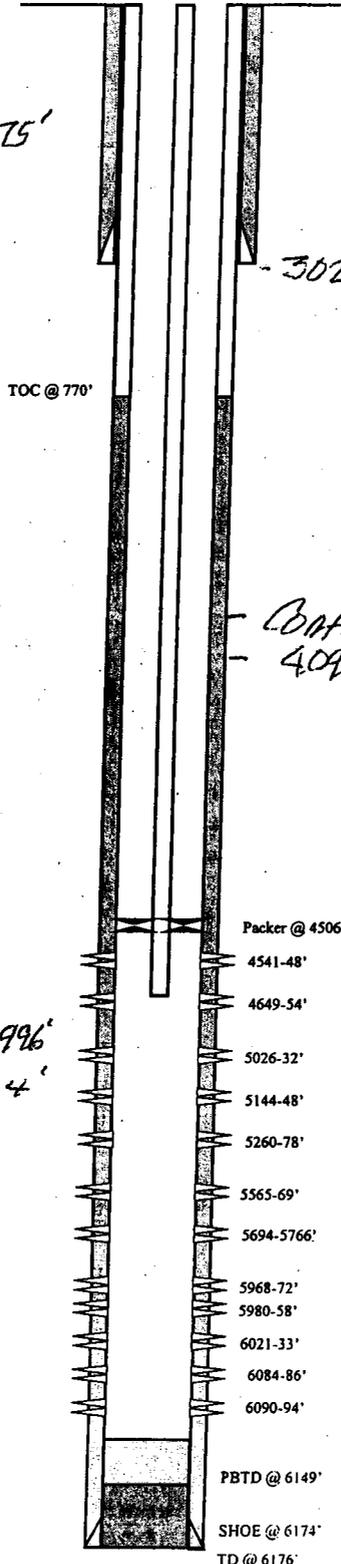
FRAC JOB

6/20/01 5968'-6086' **Frac CP sands as follows:**
 104,030# 20/40 sand in 755 bbls Viking I-25 fluid. Treated @ avg press of 1200 psi w/avg rate of 30.8 BPM. ISIP 1580 psi. Flowed for 8 hrs and died.

6/21/01 5694'-5766' **Frac LODC sands as follows:**
 405,030# 20/40 sand in 2273 bbls Viking I-25 fluid. Treated @ avg press of 1850 psi w/avg rate of 30.3 BPM. ISIP 2170 psi. Flowed for 15 hrs and died.

6/22/01 5260'-5278' **Frac C sands as follows:**
 122,540# 20/40 sand in 751 bbls Viking I-25 fluid. Treated @ avg press of 1550 psi w/avg rate of 31.3 BPM. ISIP 2625 psi. Flowed for 7.5 hrs and died.
 *Note: A-1 (5565-69') and D-2 (5144-48') did not break. Left unfraced.

6/25/01 4541'-5032' **Frac GB & D-1 sands as follows:**
 48,280# 20/40 sand in 367 bbls Viking I-25 fluid. Treated @ avg press of 2000 psi w/avg rate of 26.1 BPM. ISIP 1900 psi. Flowed for 2.5 hrs and died.



PERFORATION RECORD

6/19/01	6090'-6094'	4 JSPF	16 holes
6/19/01	6084'-6086'	4 JSPF	8 holes
6/19/01	6021'-6033'	4 JSPF	48 holes
6/19/01	5980'-5985'	4 JSPF	20 holes
6/19/01	5968'-5972'	4 JSPF	16 holes
6/21/01	5694'-5766'	4 JSPF	288 holes
6/22/01	5565'-5569'	4 JSPF	16 holes
6/22/01	5260'-5278'	4 JSPF	72 holes
6/22/01	5144'-5148'	4 JSPF	16 holes
6/25/01	5026'-5032'	4 JSPF	24 holes
6/25/01	4649'-4654'	4 JSPF	20 holes
6/25/01	4541'-4548'	4 JSPF	28 holes

Inland Resources Inc.
 Greater Boundary #5-27-8-17
 555' FWL & 1823' FNL
 SW/NW Section 27-T8S-R17E
 Duchesne Co, Utah
 API #43-013-32225; Lease #UTU-76241

*Est. 6330' Basal Carbonate
 Est. 6455' Wasatch fm.*

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

5. LEASE DESIGNATION AND SERIAL NUMBER:
UTU76241

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME:
GREATER BOUNDARY II

1. TYPE OF WELL: OIL WELL GAS WELL OTHER

8. WELL NAME and NUMBER:
GREATER BOUNDARY 5-27-8-17

2. NAME OF OPERATOR:
Newfield Production Company

9. API NUMBER:
4301332225

3. ADDRESS OF OPERATOR:
Route 3 Box 3630 CITY Myton STATE UT ZIP 84052

PHONE NUMBER
435.646.3721

10. FIELD AND POOL, OR WILDCAT:
Monument Butte

4. LOCATION OF WELL:
FOOTAGES AT SURFACE: 1823 FNL 555 FWL

COUNTY: Duchesne

QTR/OTR. SECTION. TOWNSHIP. RANGE. MERIDIAN: SW/NW, 27, T8S, R17E

STATE: Utah

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

TYPE OF ACTION SubDate

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARITLY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of Work Completion: 06/10/2005	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/STOP)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: - Injection Conversion
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

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

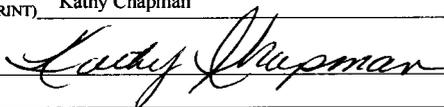
The subject well was converted from a producing to a injection well on 5-12-05. The rods and tubing anchor were removed and a packer was inserted in bottom hole assembly at 4477'. On 5-13-05 Dan Jackson with the EPA was contacted concerning the initial MIT on the above listed well. Permission was given at that time to perform the test on 6-2-05. On 6-2-05 the csg was pressured up to 1630 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The Tbg pressure was 350 psig during the test. There was not an EPA representative available to witness the test. EPA # UT20852-06417 API #43-047-32225.

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

NAME (PLEASE PRINT) Kathy Chapman

TITLE Office Manager

SIGNATURE



DATE 06/13/2005

(This space for State use only)

RECEIVED

JUN 15 2005

DIV. OF OIL, GAS & MINING

Mechanical Integrity Test

Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency
Underground Injection Control Program
999 18th Street, Suite 500 Denver, CO 80202-2466

EPA Witness: _____ Date: 06/02/05
 Test conducted by: Dale Giles
 Others present: _____

Well Name: <u>Greater Boundary 5-27-8-17</u>	Type: ER SWD	Status: AC TA UC
Field: <u>Greater Boundary II Unit</u>		
Location: _____	Sec: <u>27 T 8 N 10 R 17 E</u> / W	County: <u>Duchesne</u> State: <u>UT</u>
Operator: <u>Newfield Production Co.</u>		
Last MIT: <u>1</u> / <u>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: 0 psig

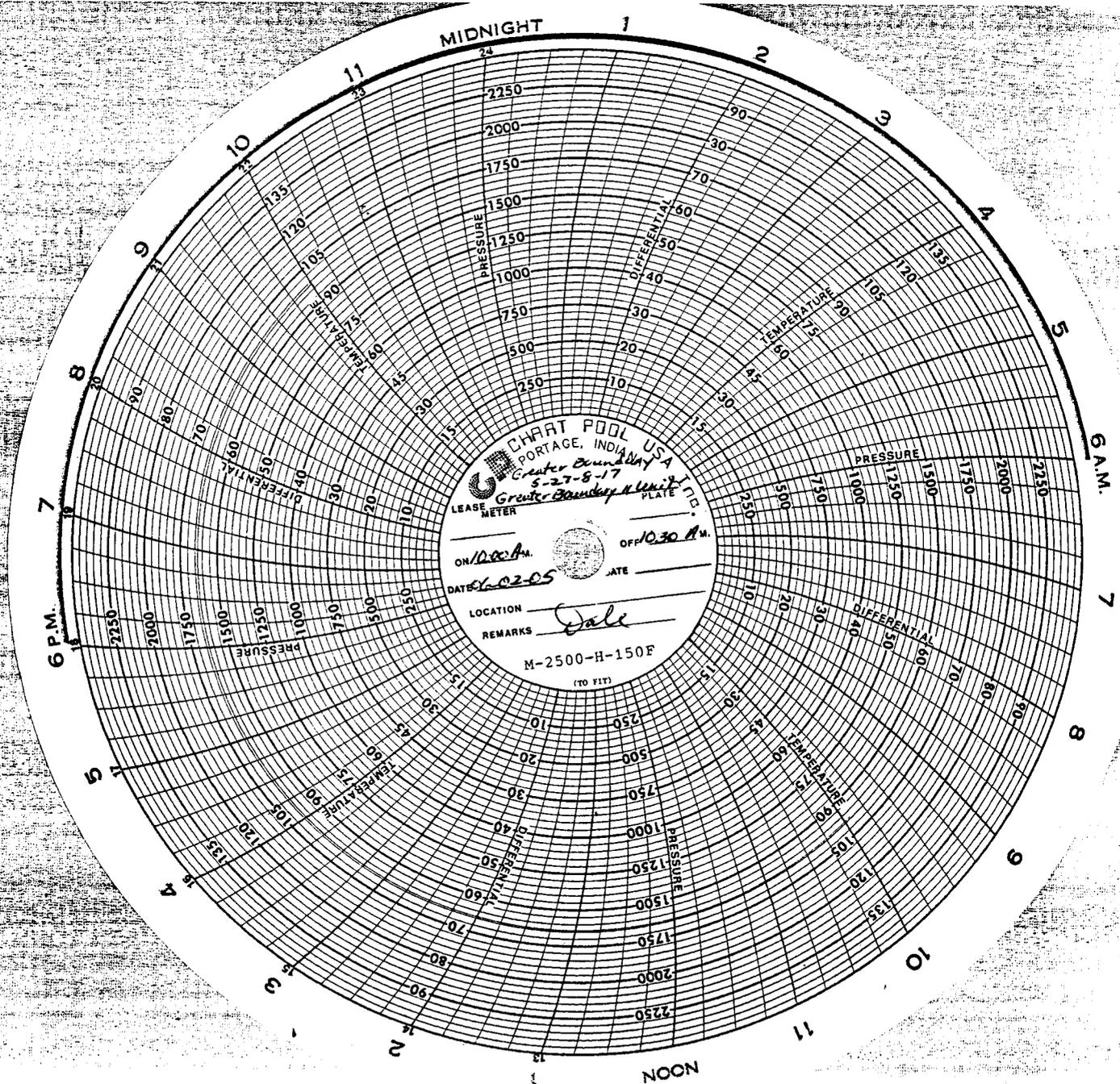
MIT DATA TABLE	Test #1	Test #2	Test #3
TUBING PRESSURE			
Initial Pressure	<u>350</u> psig	psig	psig
End of test pressure	<u>350</u> psig	psig	psig
CASING/TUBING ANNULUS PRESSURE			
0 minutes	<u>1630</u> psig	psig	psig
5 minutes	<u>1630</u> psig	psig	psig
10 minutes	<u>1630</u> psig	psig	psig
15 minutes	<u>1630</u> psig	psig	psig
20 minutes	<u>1630</u> psig	psig	psig
25 minutes	<u>1630</u> psig	psig	psig
30 minutes	<u>1630</u> 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

MECHANICAL INTEGRITY PRESSURE TEST

Additional comments for mechanical integrity pressure test, such as volume of fluid added to annulus and bled back at end of test, reason for failing test (casing head leak, tubing leak, other), etc.:

Signature of Witness: _____



MIDNIGHT

6 P.M.

6 A.M.

NOON

PRESSURE
2250
2000
1750
1500
1250
1000
750
500
250

DIFFERENTIAL
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30
20
10

TEMPERATURE
90
80
70
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50

PRESSURE
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2000
1750
1500
1250
1000
750
500
250

DIFFERENTIAL
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20
10

TEMPERATURE
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PRESSURE
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1750
1500
1250
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750
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DIFFERENTIAL
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TEMPERATURE
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PRESSURE
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2000
1750
1500
1250
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750
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DIFFERENTIAL
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TEMPERATURE
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PRESSURE
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DIFFERENTIAL
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TEMPERATURE
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PRESSURE
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1250
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750
500
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DIFFERENTIAL
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TEMPERATURE
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DIFFERENTIAL
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TEMPERATURE
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PRESSURE
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TEMPERATURE
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PRESSURE
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TEMPERATURE
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50

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires January 31, 2004

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

SUBMIT IN TRIPLICATE - Other Instructions on reverse side

1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other Injection well		5. Lease Serial No. UTU76241
2. Name of Operator Newfield Production Company		6. If Indian, Allottee or Tribe Name.
3a. Address Route 3 Box 3630 Myton, UT 84052	3b. Phone No. (include are code) 435.646.3721	7. If Unit or CA/Agreement, Name and/or No. GREATER BOUNDARY II
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 1823 FNL 555 FWL SW/NW Section 27 T8S R17E		8. Well Name and No. GREATER BOUNDARY 5-27-8-17
		9. API Well No. 4301332225
		10. Field and Pool, or Exploratory Area Monument Butte
		11. County or Parish, State Duchesne, UT

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production(Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug & Abandon	<input type="checkbox"/> Temporarily Abandon	Change Status, Put Well on Injection
	<input checked="" type="checkbox"/> Convert to Injector	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

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

The above referenced well was put on injection at 8:30 a.m. on 7/5/05.

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

RECEIVED
JUL 0 / 2005
DIV. OF OIL, GAS & MINING

I hereby certify that the foregoing is true and correct	Title
Name (Printed/Typed) Mandie Crozier	Regulatory Specialist
Signature <i>Mandie Crozier</i>	Date 07/05/2005

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious and fraudulent statements or representations as to any matter within its jurisdiction

(Instructions on reverse)

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

5. LEASE DESIGNATION AND SERIAL NUMBER:
UTU76241

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME:
GREATER BOUNDARY II

1. TYPE OF WELL: OIL WELL GAS WELL OTHER Injection well

8. WELL NAME and NUMBER:
GREATER BOUNDARY 5-27-8-17

2. NAME OF OPERATOR:
Newfield Production Company

9. API NUMBER:
4301332225

3. ADDRESS OF OPERATOR:
Route 3 Box 3630 CITY Myton STATE UT ZIP 84052 PHONE NUMBER 435.646.3721

10. FIELD AND POOL, OR WILDCAT:
Monument Butte

4. LOCATION OF WELL:
FOOTAGES AT SURFACE: 1823 FNL 555 FWL

COUNTY: Duchesne

OTR/OTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SW/NW, 27, T8S, R17E

STATE: Utah

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

TYPE OF ACTION SubDate

TYPE OF SUBMISSION	TYPE OF ACTION	TYPE OF ACTION	TYPE OF ACTION
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of Work Completion: 12/14/2005	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLAIR
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/STOP)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: - Step Rate Test
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

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

A step rate test was conducted on the subject well on December 13, 2005. Results from the test indicate that the fracture gradient is .682 psi/ft. Therefore, Newfield is requesting that the maximum allowable injection pressure (MAIP) be changed to 1120 psi.

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

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

NAME (PLEASE PRINT) Cheyenne Batemen

TITLE Well Analyst Foreman

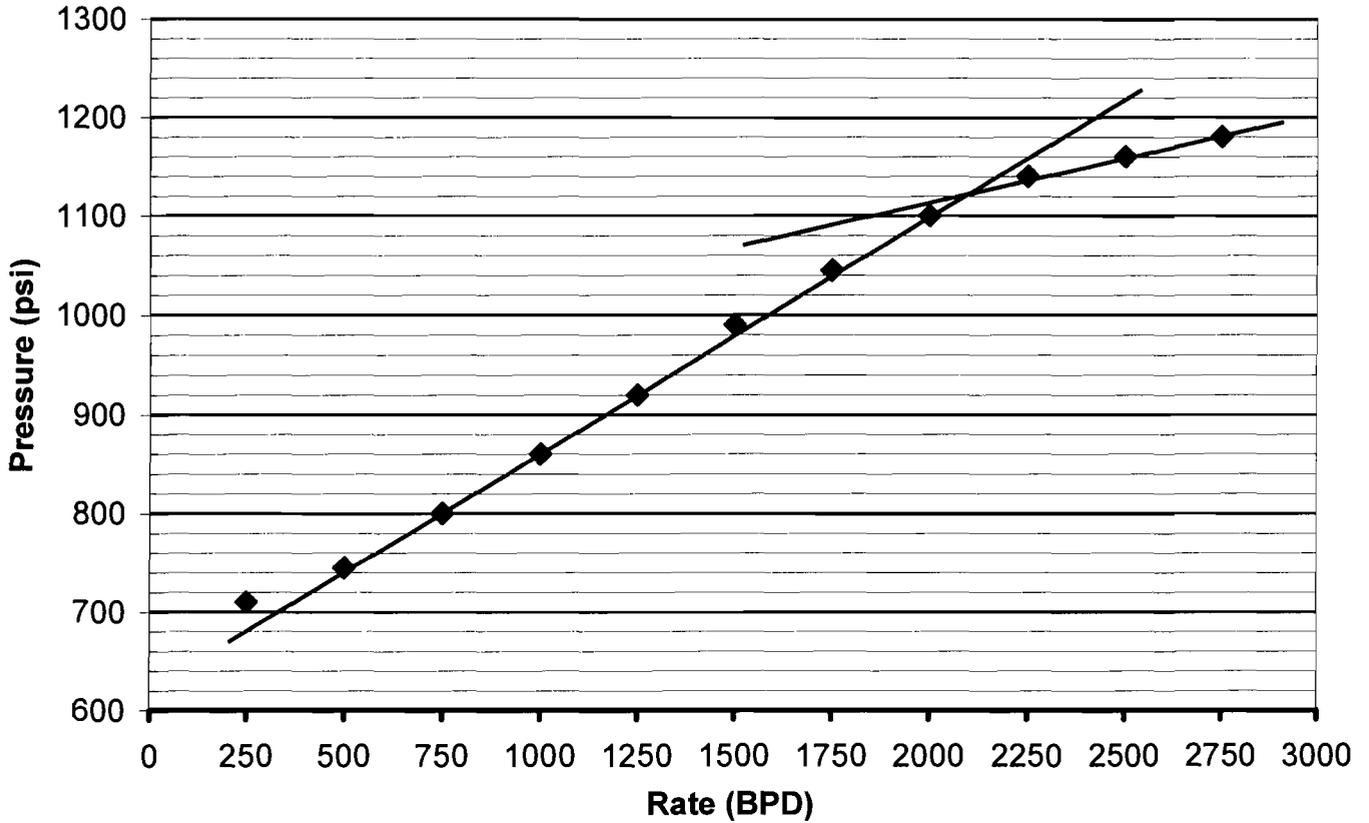
SIGNATURE 

DATE 12/14/2005

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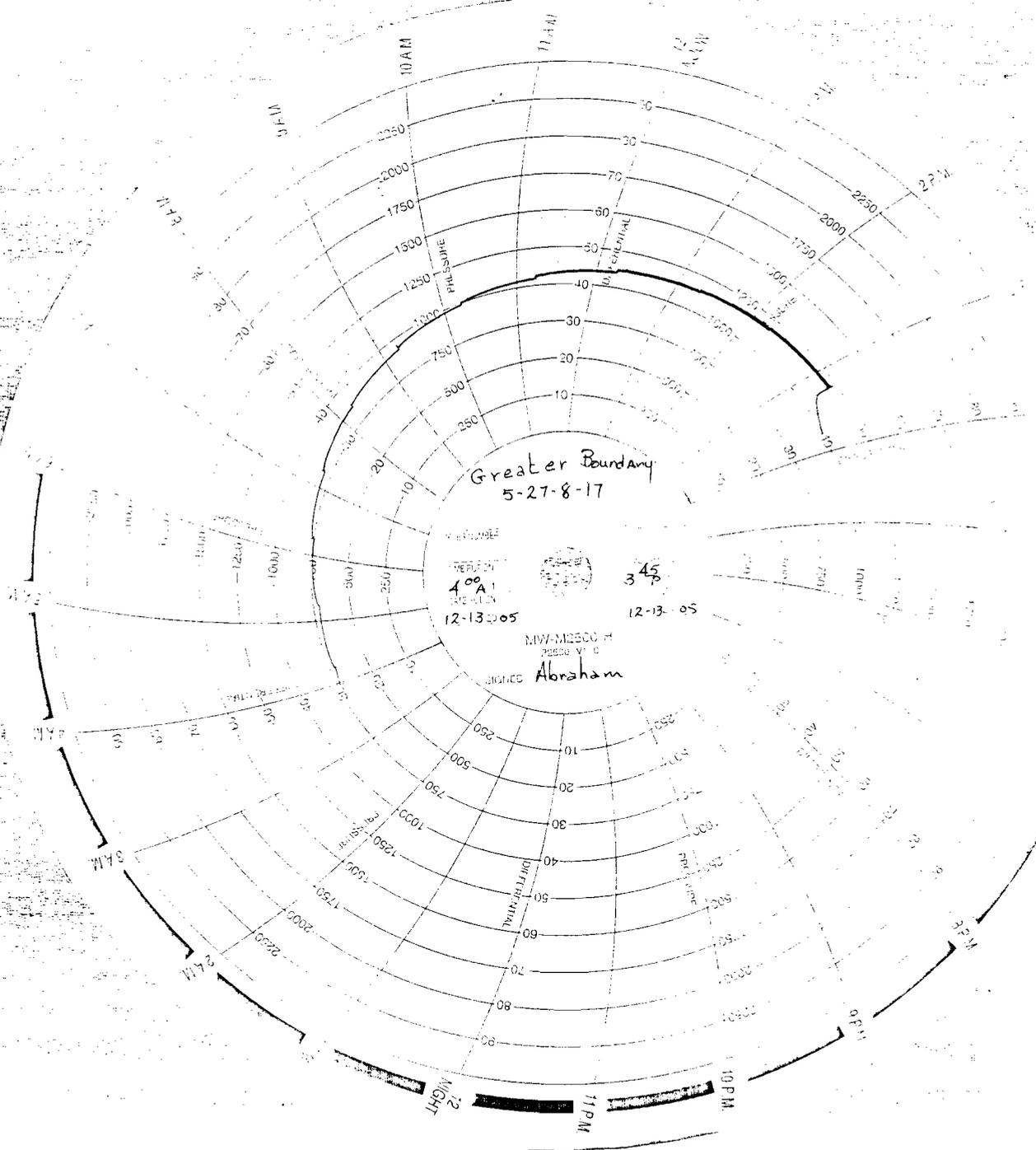
RECEIVED
DEC 15 2005
DIV. OF OIL, GAS & MINING

**Greater Boundary 5-27-8-17
Greater Boundary II Unit
Step Rate Test
December 13, 2005**



Start Pressure: 700 psi
Instantaneous Shut In Pressure (ISIP): 1120 psi
Top Perforation: 4541 feet
Fracture pressure (P_{fp}): 1120 psi
FG: 0.682 psi/ft

Step	Rate(bpd)	Pressure(psi)
1	250	710
2	500	745
3	750	800
4	1000	860
5	1250	920
6	1500	990
7	1750	1045
8	2000	1100
9	2250	1140
10	2500	1160
11	2750	1180



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

5. LEASE DESIGNATION AND SERIAL NUMBER:
USA UTU-76241

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME:
GMBU

1. TYPE OF WELL:
OIL WELL GAS WELL OTHER

8. WELL NAME and NUMBER:
GREATER BOUNDARY 5-27-8-17

2. NAME OF OPERATOR:
NEWFIELD PRODUCTION COMPANY

9. API NUMBER:
4301332225

3. ADDRESS OF OPERATOR:
Route 3 Box 3630 CITY Myton STATE UT ZIP 84052

PHONE NUMBER
435.646.3721

10. FIELD AND POOL, OR WILDCAT:
GREATER MB UNIT

4. LOCATION OF WELL:
FOOTAGES AT SURFACE: 1823 FNL 555 FWL

COUNTY: DUCHESNE

OTR/OTR. SECTION. TOWNSHIP. RANGE. MERIDIAN: SWNW, 27, T8S, R17E

STATE: UT

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of Work Completion: 04/22/2010	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/STOP)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: - Five Year MIT
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

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

On 04/14/2010 Nathan Wiser with the EPA was contacted concerning the 5 year MIT on the above listed well. On 04/22/2010 the casing was pressured up to 1410 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tubing pressure was 1030 psig during the test. There was not an EPA representative available to witness the test.

EPA# UT20702-06417 API# 43-013-32225

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

NAME (PLEASE PRINT) Lucy Chavez-Naupoto

TITLE Administrative Assistant

SIGNATURE 

DATE 04/23/2010

(This space for State use only)

**RECEIVED
APR 27 2010
DIV. OF OIL, GAS & MINING**

Mechanical Integrity Test

Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency
Underground Injection Control Program
999 18th Street, Suite 500 Denver, CO 80202-2466

EPA Witness: _____ Date: 04 122 12016
 Test conducted by: Lynn Monson
 Others present: _____

Well Name: <u>Greater Boundary 5-27-8-17</u>	Type: ER SWD	Status: AC TA UC
Field: <u>Monument Butte</u>		
Location: <u>SW/NW</u> Sec: <u>27</u> T <u>8</u> N <u>15</u> R <u>17</u> E/W	County: <u>Duchesne</u>	State: <u>Ut</u>
Operator: <u>New Field</u>		
Last MIT: <u>06 1 02 12005</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: 0 psig

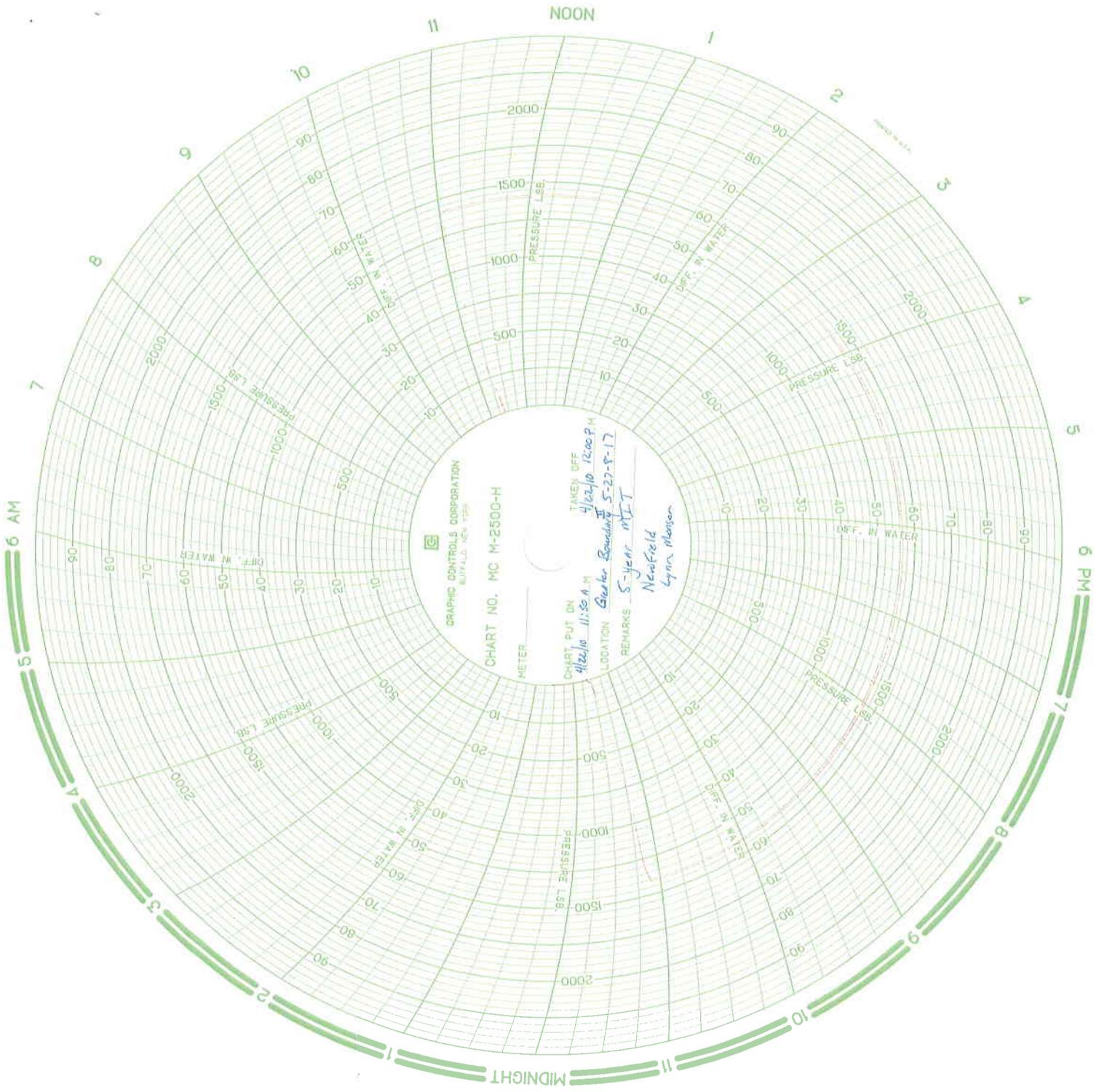
MIT DATA TABLE	Test #1	Test #2	Test #3
TUBING PRESSURE			
Initial Pressure	<u>1030</u> psig	psig	psig
End of test pressure	<u>1030</u> psig	psig	psig
CASING / TUBING ANNULUS PRESSURE			
0 minutes	<u>1410</u> psig	psig	psig
5 minutes	<u>1410</u> psig	psig	psig
10 minutes	<u>1410</u> psig	psig	psig
15 minutes	<u>1410</u> psig	psig	psig
20 minutes	<u>1410</u> psig	psig	psig
25 minutes	<u>1410</u> psig	psig	psig
30 minutes	<u>1410</u> psig	psig	psig
_____ minutes	_____ psig	psig	psig
_____ minutes	_____ psig	psig	psig
RESULT	<input checked="" 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

MECHANICAL INTEGRITY PRESSURE TEST

Additional comments for mechanical integrity pressure test, such as volume of fluid added to annulus and bled back at end of test, reason for failing test (casing head leak, tubing leak, other), etc.:

Signature of Witness: _____



GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK

CHART NO. MC M-2500-H

METER _____

CHART PUT ON 4/22/10 11:50 A M
TAKEN OFF 4/23/10 12:00 P M

LOCATION Greater Boulding 5-27-8-17

REMARKS 5-year M.I.T.
Newfield
Lynn Hanson

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-76241
		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
		7. UNIT or CA AGREEMENT NAME: GMBU (GRRV)
1. TYPE OF WELL Water Injection Well		8. WELL NAME and NUMBER: GBU 5-27-8-17
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY		9. API NUMBER: 43013322250000
3. ADDRESS OF OPERATOR: Rt 3 Box 3630 , Myton, UT, 84052		9. FIELD and POOL or WILDCAT: MONUMENT BUTTE
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1823 FNL 0555 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 27 Township: 08.0S Range: 17.0E Meridian: S		COUNTY: DUCHESNE
		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 3/17/2015	<input type="checkbox"/> ALTER CASING	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CASING REPAIR	
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE TUBING	
	<input type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> CONVERT WELL TYPE	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> NEW CONSTRUCTION	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input type="checkbox"/> PLUG BACK	
	<input type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> TEMPORARY ABANDON	
	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> WATER DISPOSAL	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input checked="" type="checkbox"/> OTHER	
	OTHER: <input style="width: 100px;" type="text" value="5 YR MIT"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
5 YR MIT performed on the above listed well. On 03/17/2015 the casing was pressured up to 1380 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tbg pressure was 1175 psig during the test. There was not an EPA representative available to witness the test. EPA #UT22197-06417		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY March 24, 2015		
NAME (PLEASE PRINT) Lucy Chavez-Naupoto	PHONE NUMBER 435 646-4874	TITLE Water Services Technician
SIGNATURE N/A		DATE 3/23/2015

Mechanical Integrity Test Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency
Underground Injection Control Program
999 18th Street, Suite 500 Denver, CO 80202-2466

EPA Witness: _____ Date: 3 / 17 / 2015
 Test conducted by: Shannon Hazenby
 Others present: _____

Well Name: <u>Greater Boundary 5-278-17</u>	Type: ER SWD	Status: AC TA UC
Field: <u>Greater Monument Butte</u>		
Location: <u>SW/WW</u> Sec: <u>27</u> T <u>SS</u> N/S R <u>17</u> E/W County: <u>Duchesne</u> State: <u>ut</u>		
Operator: <u>Shannon Hazenby</u>		
Last MIT: <u> / / </u>	Maximum Allowable Pressure: <u>1319</u>	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: 0/1175 psig

MIT DATA TABLE	Test #1	Test #2	Test #3
TUBING PRESSURE			
Initial Pressure	1175 psig	psig	psig
End of test pressure	1175 psig	psig	psig
CASING/TUBING ANNULUS PRESSURE			
0 minutes	1380 psig	psig	psig
5 minutes	1380 psig	psig	psig
10 minutes	1381 psig	psig	psig
15 minutes	1380 psig	psig	psig
20 minutes	1380 psig	psig	psig
25 minutes	1380 psig	psig	psig
30 minutes	1380 psig	psig	psig
_____ minutes	psig	psig	psig
_____ minutes	psig	psig	psig
RESULT	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

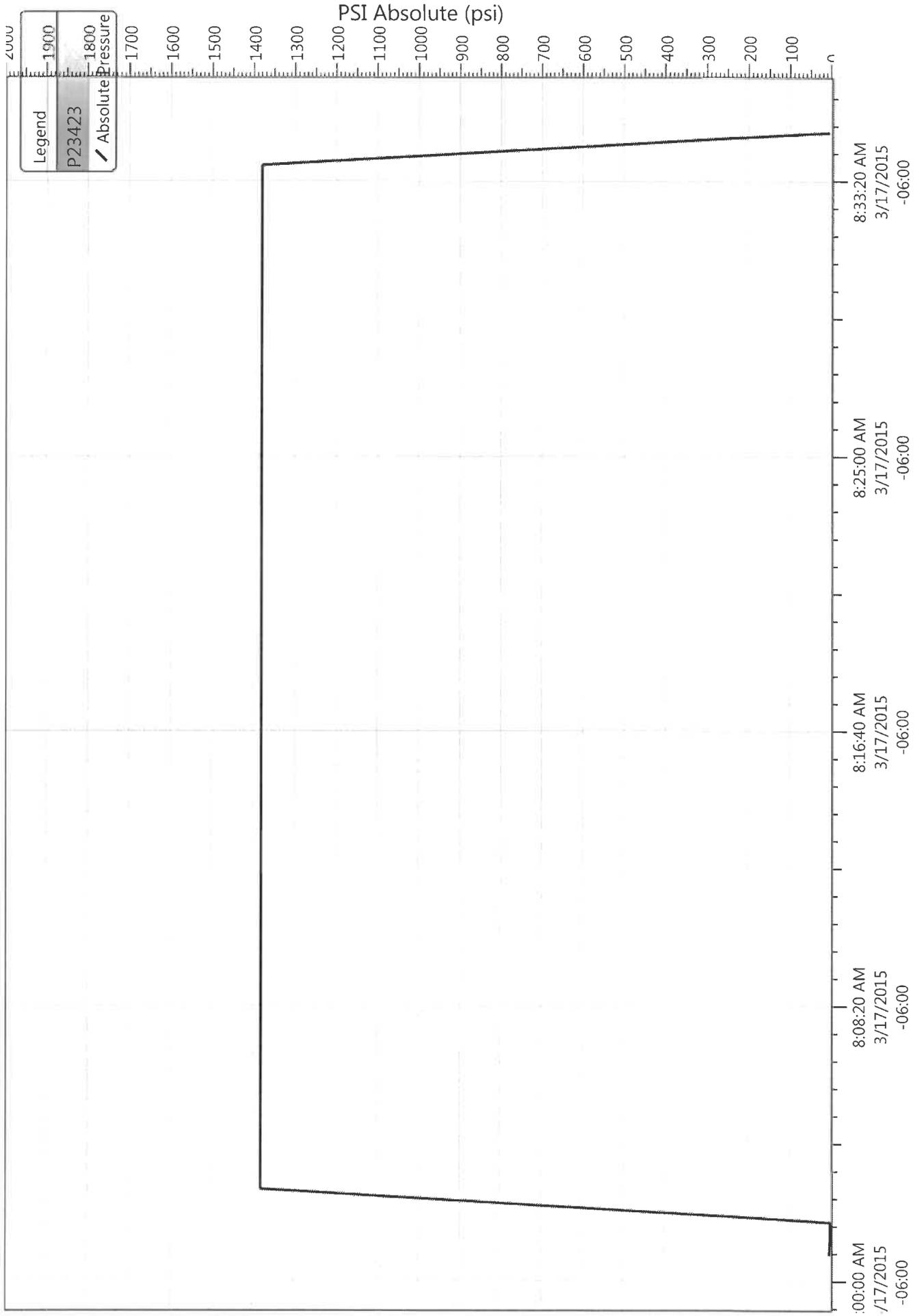
Does the annulus pressure build back up after the test? Yes No

MECHANICAL INTEGRITY PRESSURE TEST

Additional comments for mechanical integrity pressure test, such as volume of fluid added to annulus and bled back at end of test, reason for failing test (casing head leak, tubing leak, other), etc.:

Signature of Witness: _____

5-27-8-17 5 yr. MIT
3/17/2015 7:59:49 AM



Greater Boundary Unit 5-27-8-17

Spud Date: 4/20/2001
 Put on Production: 6/30/2001
 GL: 5178' KB: 5188'

Initial Production: 209.8 BOPD, 172.4 MCFD,
 47.9 BWPD

SURFACE CASING

CSG SIZE: 8-5/8"
 GRADE: J-55
 WEIGHT: 24#
 LENGTH: 7 jts. (306.71')
 DEPTH LANDED: 302.31'
 HOLE SIZE: 12-1/4"
 CEMENT DATA: 265 sxs Class "G" cmt.
 CEMENT TOP AT: 770'

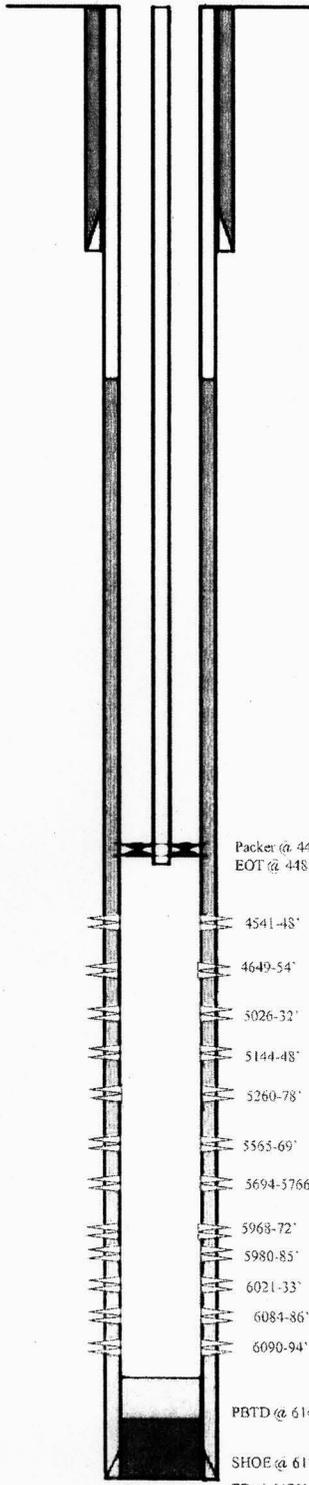
PRODUCTION CASING

CSG SIZE: 5-1/2"
 GRADE: J-55
 WEIGHT: 15.5#
 LENGTH: 147 jts. (6178.46')
 DEPTH LANDED: 6174.06'
 HOLE SIZE: 7-7/8"
 CEMENT DATA: 475 sk Prem. Lite II mixed & 400 sxs 50/50 POZ

TUBING

SIZE/GRADE/WT. 2-7/8" J-55
 NO. OF JOINTS: 138 jts (4463')
 SEATING NIPPLE: 2-7/8" (1.10')
 SN LANDED AT: 4474.10' KB
 CE @ 4477.35'
 TOTAL STRING LENGTH: EOT @ 4481.55' KB

Injection
Wellbore Diagram



FRAC JOB

6/20/01 5963'-6086' 6/21/01 5694'-5766' 6/22/01 5260'-5278' 6/25/01 4541'-5032' 6-2-05 04/22/10	Frac CP sands as follows: 104,030# 20/40 sand in 755 bbls Viking I-25 fluid. Treated @ avg press of 1200 psi w/avg rate of 30.8 BPM. ISIP 1580 psi. Flowed for 8 hrs and died. Frac LODC sands as follows: 405,030# 20/40 sand in 2273 bbls Viking I-25 fluid. Treated @ avg press of 1850 psi w/avg rate of 30.3 BPM. ISIP 2170 psi. Flowed for 15 hrs and died. Frac C sands as follows: 122,540# 20/40 sand in 751 bbls Viking I-25 fluid. Treated @ avg press of 1550 psi w/avg rate of 31.3 BPM. ISIP 2625 psi. Flowed for 7.5 hrs and died. *Note: A-1 (5565-69') and D-2 (5144-48') did not break. Left unfraced. Frac GB & D-1 sands as follows: 48,280# 20/40 sand in 367 bbls Viking I-25 fluid. Treated @ avg press of 2000 psi w/avg rate of 26.1 BPM. ISIP 1900 psi. Flowed for 2.5 hrs and died. Converted to injection 5 YR MIT
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PERFORATION RECORD

6/19/01	6090'-6094'	4 JSPF	16 holes
6/19/01	6084'-6086'	4 JSPF	8 holes
6/19/01	6021'-6033'	4 JSPF	48 holes
6/19/01	5980'-5985'	4 JSPF	20 holes
6/19/01	5963'-5972'	4 JSPF	16 holes
6/21/01	5694'-5766'	4 JSPF	288 holes
6/22/01	5565'-5569'	4 JSPF	16 holes
6/22/01	5260'-5278'	4 JSPF	72 holes
6/22/01	5144'-5148'	4 JSPF	16 holes
6/25/01	5026'-5032'	4 JSPF	24 holes
6/25/01	4649'-4654'	4 JSPF	20 holes
6/25/01	4541'-4548'	4 JSPF	28 holes

NEWFIELD

Greater Boundary 5-27-8-17
 555' FWL & 1823' FNL
 SW/NW Section 27-T8S-R17E
 Duchesne Co, Utah
 API #43-013-32225; Lease #UTU-76241