



September 9, 2003

State of Utah  
Division of Oil, Gas & Mining  
Attn: Diana Mason  
1594 West North Temple - Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

RE: Applications for Permit to Drill: Federal 9-6-9-18, 11-6-9-18, and 15-6-9-18.

Dear Diana:

Enclosed find APD's on the above referenced wells. If you have any questions, feel free to give either Brad or myself a call.

Sincerely,

  
Mandie Crozier  
Regulatory Specialist

mc  
enclosures

RECEIVED

SEP 10 2003

DIV. OF OIL, GAS & MINING

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0136  
Expires January 31, 2004

001

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. UTU-74835
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator Inland Production Company		7. If Unit or CA Agreement, Name and No. N/A
3a. Address Route #3 Box 3630, Myton UT 84052		8. Lease Name and Well No. Federal 15-6-9-18
3b. Phone No. (include area code) (435) 646-3721		9. API Well No. 43-047-95185
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface SW/SE 660' FSL 1980' FEL 4434145Y 40.05453 At proposed prod. zone 590989X -109.93324		10. Field and Pool, or Exploratory Eight Mile Flat
14. Distance in miles and direction from nearest town or post office* Approximatley 18.8 miles southeast of Myton, Utah		11. Sec., T., R., M., or Blk. and Survey or Area SW/SE Sec. 6, T9S R18E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) Approx. 660' f/lease, NA f/unit	16. No. of Acres in lease 238.98	12. County or Parish Uintah
17. Spacing Unit dedicated to this well 40 Acres	13. State UT	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 1320'	19. Proposed Depth 6500'	20. BLM/BIA Bond No. on file #4488944
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5035' GR	22. Approximate date work will start* 4th Quarter 2003	23. Estimated duration Approximately seven (7) days from spud to rig release.

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification.
- Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature <i>Manda Crozier</i>	Name (Printed/Typed) Manda Crozier	Date 9/9/03
Title Regulatory Specialist		
Approved by (Signature) <i>Bradley G Hill</i>	Name (Printed/Typed) BRADLEY G. HILL	Date 09-15-03
Title ENVIRONMENTAL SCIENTIST III	DIV. OF OIL, GAS & MINING	

Application approval does not warrant or certify 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, are attached.

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

\*(Instructions on reverse)

# T9S, R18E, S.L.B.&M.

N89°59'E - 79.40 (G.L.O.)

N89°56'05"E - 2597.21' (Meas.)

N89°56'05"E - 2636.76' (Meas.)

Corner Missing:  
(Position Double  
Proportioned)

Corner  
Missing

1910  
Brass Cap

N00°04'35"W - 2641.81' (Meas.)

Lot 4

Lot 3

Lot 2

Lot 1

**WELL LOCATION:  
FEDERAL 15-6-9-18**

ELEV. UNGRADED GROUND = 5034.8

Lot 5

1910  
Brass Cap

1910  
Brass Cap

Lot 6

**6**

S00°07'18"E - 2649.42' (Meas.)

S0°03'E - 79.98 (G.L.O.)

NORTH (G.L.O.)

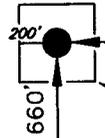
2642.58' (Measured)  
NORTH G.L.O. (Basis of Bearings)

Lot 7

1910  
Brass Cap

1910  
Brass Cap

1910  
Brass Cap



DRILLING  
WINDOW

N89°59'19"E - 2606.84' (Meas.)

N89°57'04"E - 2641.05' (Meas.)

N89°58'E - 79.50 (G.L.O.)

◆ = SECTION CORNERS LOCATED

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

## INLAND PRODUCTION COMPANY

WELL LOCATION, FEDERAL 15-6-9-18,  
LOCATED AS SHOWN IN THE SW 1/4 SE  
1/4 SECTION 6, T9S, R18E, S.L.B.&M.  
UINTAH COUNTY, UTAH.



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

STACY W.  
STEWART

REGISTERED LAND SURVEYOR  
REGISTRATION NO. 18957 OF UTAH  
STATE OF UTAH

### TRI STATE LAND SURVEYING & CONSULTING

38 WEST 100 NORTH - VERNAL, UTAH 84078  
(435) 781-2501

SCALE: 1" = 1000'	SURVEYED BY: G.S.
DATE: 6-5-03	DRAWN BY: R.V.C.
NOTES:	FILE #

**INLAND PRODUCTION COMPANY  
FEDERAL #15-6-9-18  
SW/SE SECTION 6, T9S, R18E  
UINTAH COUNTY, UTAH**

**ONSHORE ORDER NO. 1**

**DRILLING PROGRAM**

**1. GEOLOGIC SURFACE FORMATION:**

Uinta formation of Upper Eocene Age

**2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:**

Uinta	0' – 1640'
Green River	1640'
Wasatch	6050'

**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 "C".

**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  
FEDERAL #15-6-9-18  
SW/SE SECTION 6, T9S, R18E  
UINTAH COUNTY, UTAH**

**ONSHORE ORDER NO. 1**

**MULTI-POINT SURFACE USE & OPERATIONS PLAN**

**1. EXISTING ROADS**

See attached Topographic Map "A"

To reach Inland Production Company well location site Federal #15-6-9-18 located in the SW 1/4 SE 1/4 Section 6, T9S, R18E, Uintah 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 southeasterly along Hwy 53 - 11.7 miles  $\pm$  to it's junction with an existing road to the southeast; proceed southeasterly - 3.6 miles  $\pm$  to it's junction with an existing road to the northeast; proceed northeasterly - 0.9 miles  $\pm$  to it's junction with the beginning of a two track road to be upgraded; proceed along the two track - 5,240'  $\pm$  to it's junction with the beginning of the proposed access road; proceed southeasterly along the proposed access road 970'  $\pm$  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 "B".

**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 "A".

**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**

See attached Location Layout Diagram.

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 Paleontological Resource Survey and Archaeological Resource Survey for this area have been previously submitted and are on file with the Bureau of Land Management, Vernal Field Office. MOAC Report #01-164, 12/7/01. Paleontological Resource Survey prepared by, Wade E. Miller, 5/8/03. See attached report cover pages, Exhibit "D".

Inland Production Company requests a 60' ROW for the Federal #15-6-9-18 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." For a ROW plan of development, please refer to the Monument Butte Field SOP.

Inland Production Company also requests a 60' ROW be granted for the Federal #15-6-9-18 to allow for construction of a 3" steel water injection line and a 3" poly water return line. Refer to Topographic Map "C." For a ROW plan of development, please refer to the Monument Butte Field SOP.

**Water Disposal**

Please refer to the Monument Butte Field SOP.

**Reserve Pit Liner**

Please refer to the Monument Butte Field SOP.

**Location and Reserve Pit Reclamation**

Please refer to the Monument Butte Field SOP.

The following seed mixture will be used on the topsoil stockpile, the recontoured surface of the reserve pit, and for final reclamation: (All poundages are in pure live seed)

Shadscale	<i>Atriplex centertifolia</i>	4 lbs/acre
Galleta grass	<i>Hilaria jamesii</i>	4 lbs/acre
Gardner saltbush	<i>Atriplex gardneri</i>	4 lbs/acre

13. **LESSEE'S OR OPERATORS REPRESENTATIVE AND CERTIFICATION**

**Representative**

Name: Brad Mecham

Address: Route #3 Box 3630  
Myton, UT 84052

Telephone: (435) 646-3721

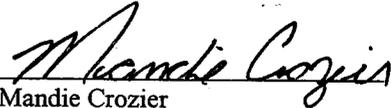
Certification

Please be advised that INLAND PRODUCTION COMPANY is considered to be the operator of well #15-6-9-18 SW/SE Section 6, Township 9S, Range 18E: Lease UTU-74835 Uintah County, Utah: and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by Hartford Accident #4488944.

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

9/9/03

Date

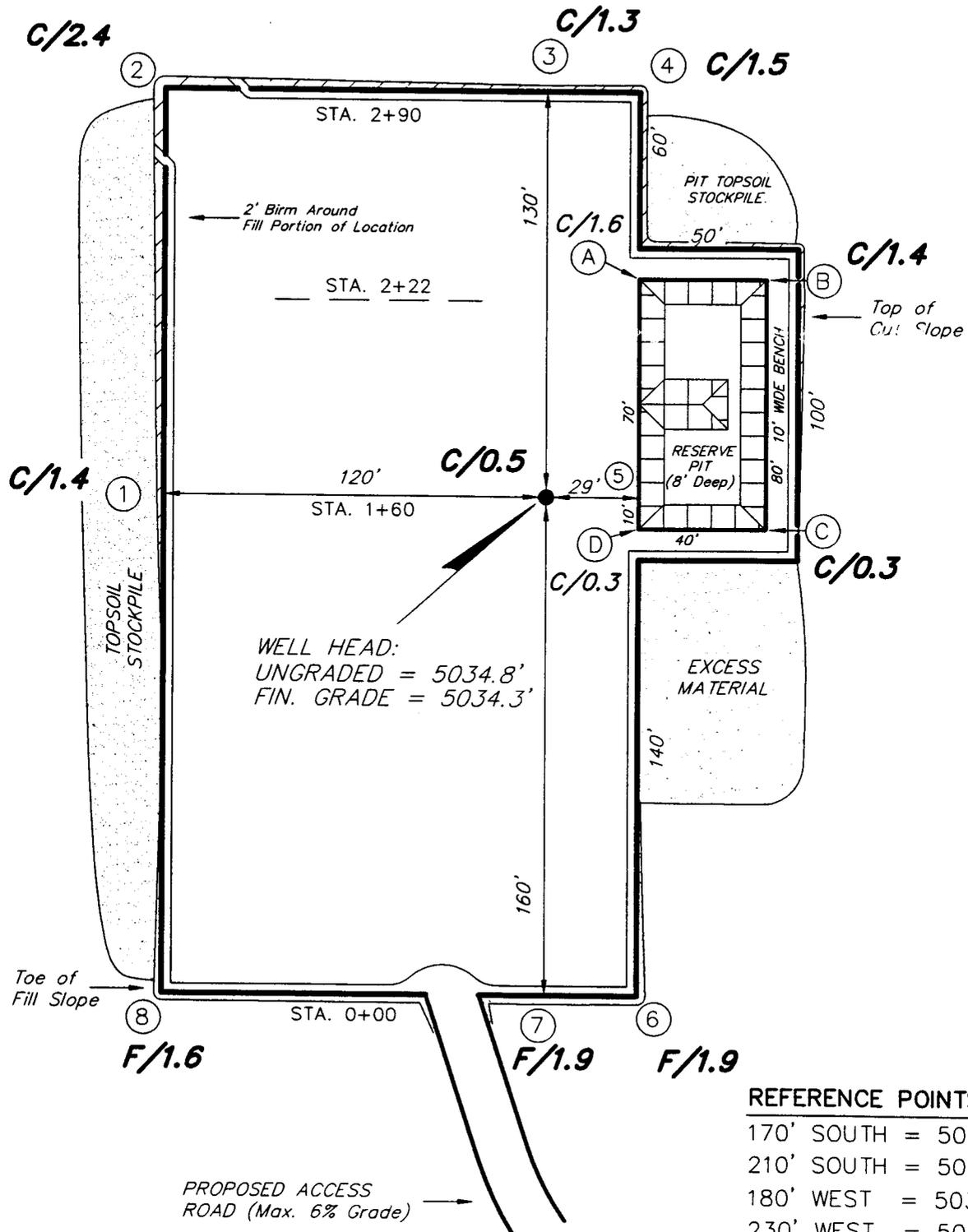
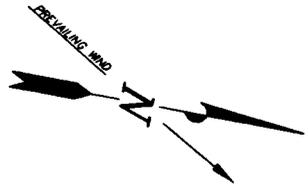


Mandie Crozier  
Regulatory Specialist

# INLAND PRODUCTION COMPANY

FEDERAL 15-6-9-18

Section 6, T9S, R18E, S.L.B.&M.



WELL HEAD:  
UNGRADED = 5034.8'  
FIN. GRADE = 5034.3'

### REFERENCE POINTS

- 170' SOUTH = 5036.1'
- 210' SOUTH = 5035.9'
- 180' WEST = 5033.1'
- 230' WEST = 5025.2'

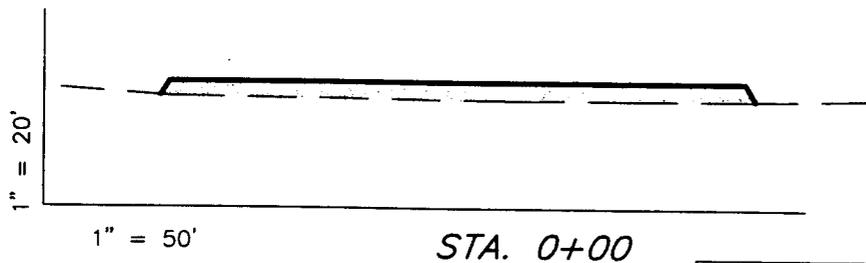
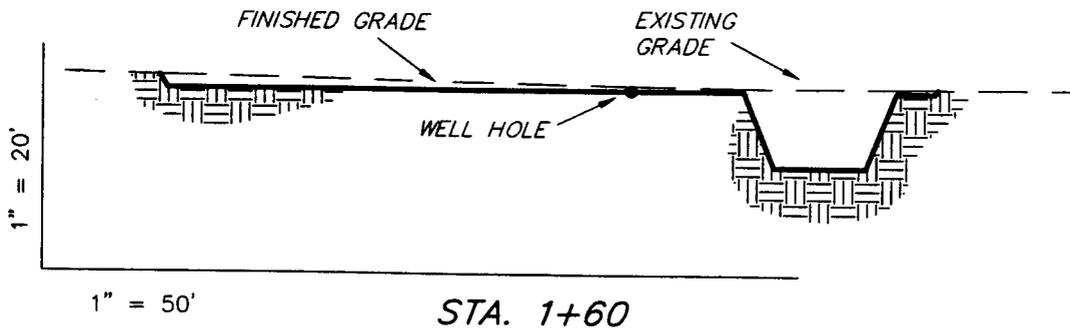
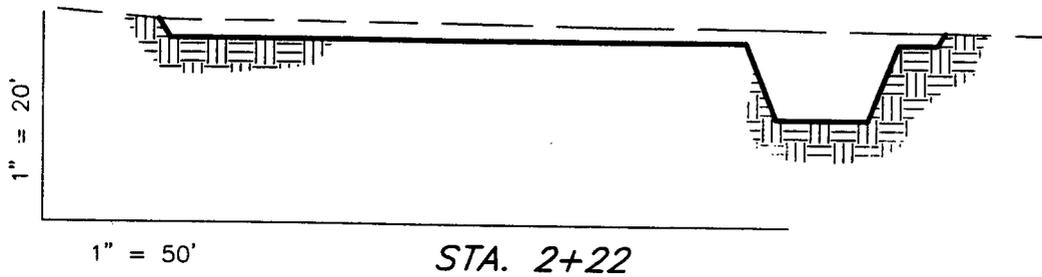
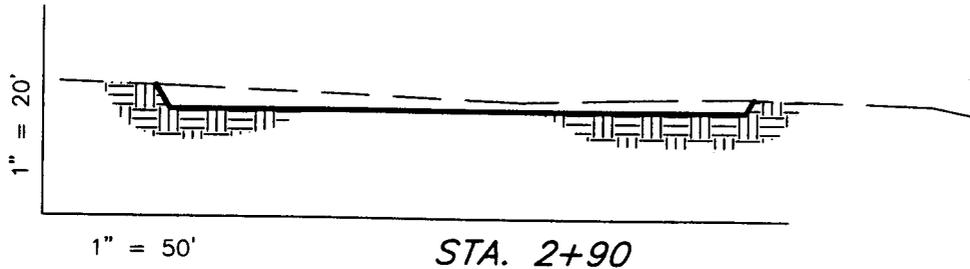
SURVEYED BY: G.S.	SCALE: 1" = 50'
DRAWN BY: R.V.C.	DATE: 6-6-03

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

# INLAND PRODUCTION COMPANY

## CROSS SECTIONS

FEDERAL 15-6-9-18



NOTE:  
UNLESS OTHERWISE NOTED  
ALL CUT/FILL SLOPES ARE  
AT 1.5:1

ESTIMATED EARTHWORK QUANTITIES				
(Expressed in Cubic Yards)				
ITEM	CUT	FILL	6" TOPSOIL	EXCESS
PAD	900	900	Topsail is not included in Pad Cut	0
PIT	640	0		640
TOTALS	1,540	900	890	640

SURVEYED BY: G.S.

SCALE: 1" = 50'

DRAWN BY: R.V.C.

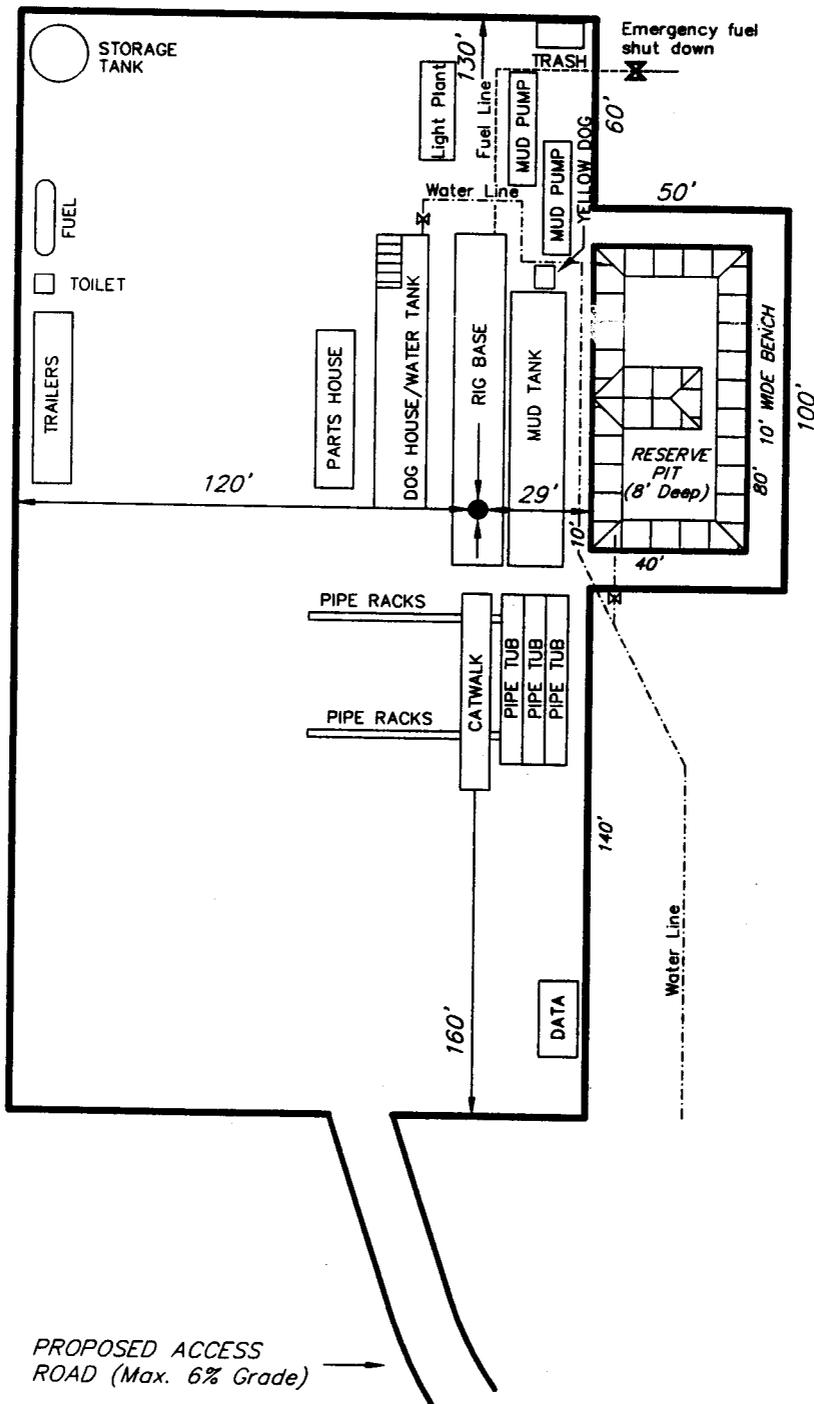
DATE: 6-6-03

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

# INLAND PRODUCTION COMPANY

## TYPICAL RIG LAYOUT

### FEDERAL 15-6-9-18



SURVEYED BY: G.S.

SCALE: 1" = 50'

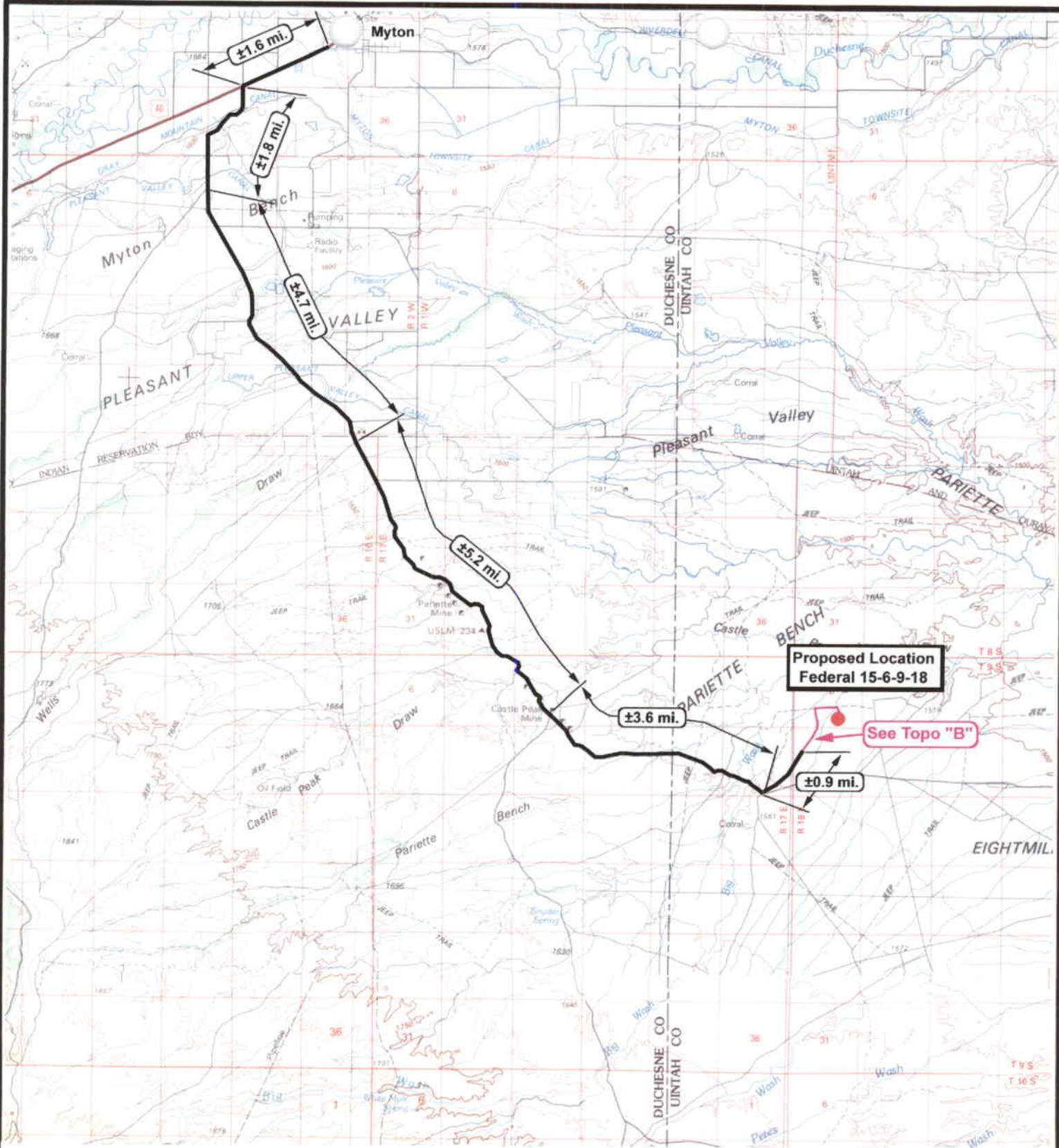
DRAWN BY: R.V.C.

DATE: 6-6-03

**Tri State**  
Land Surveying, Inc.

(435) 781-2501

38 WEST 100 NORTH VERNAL, UTAH 84078



RESOURCES INC.

**Federal 15-6-9-18**  
**SEC. 6, T9S, R18E, S.L.B.&M.**



**Tri-State**  
*Land Surveying Inc.*  
 (435) 781-2501  
 180 North Vernal Ave. Vernal, Utah 84078

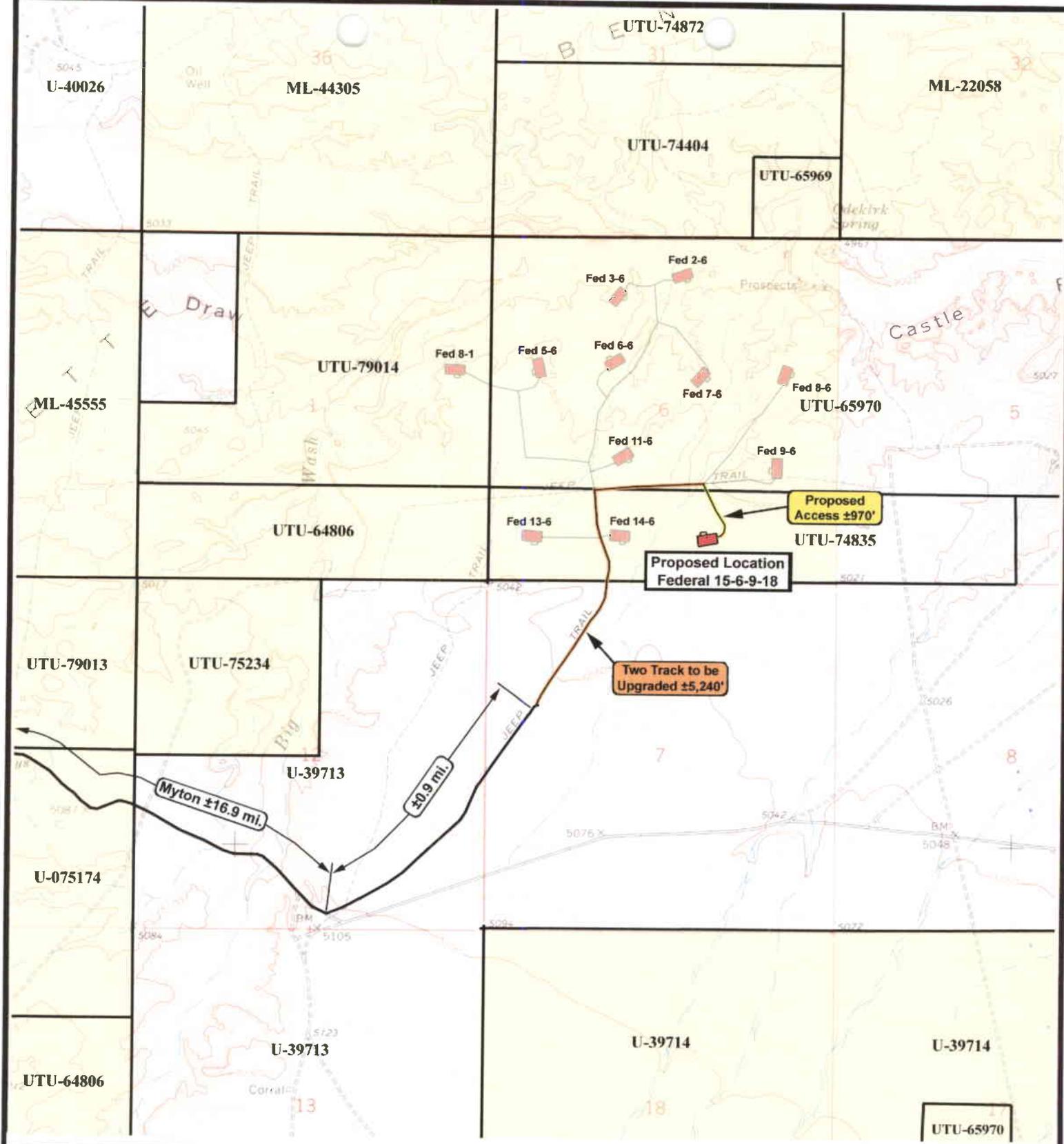
SCALE: 1 = 120,000  
 DRAWN BY: R.A.B.  
 DATE: 06-09-2003

**Legend**

— Existing Road  
 — Proposed Access

TOPOGRAPHIC MAP

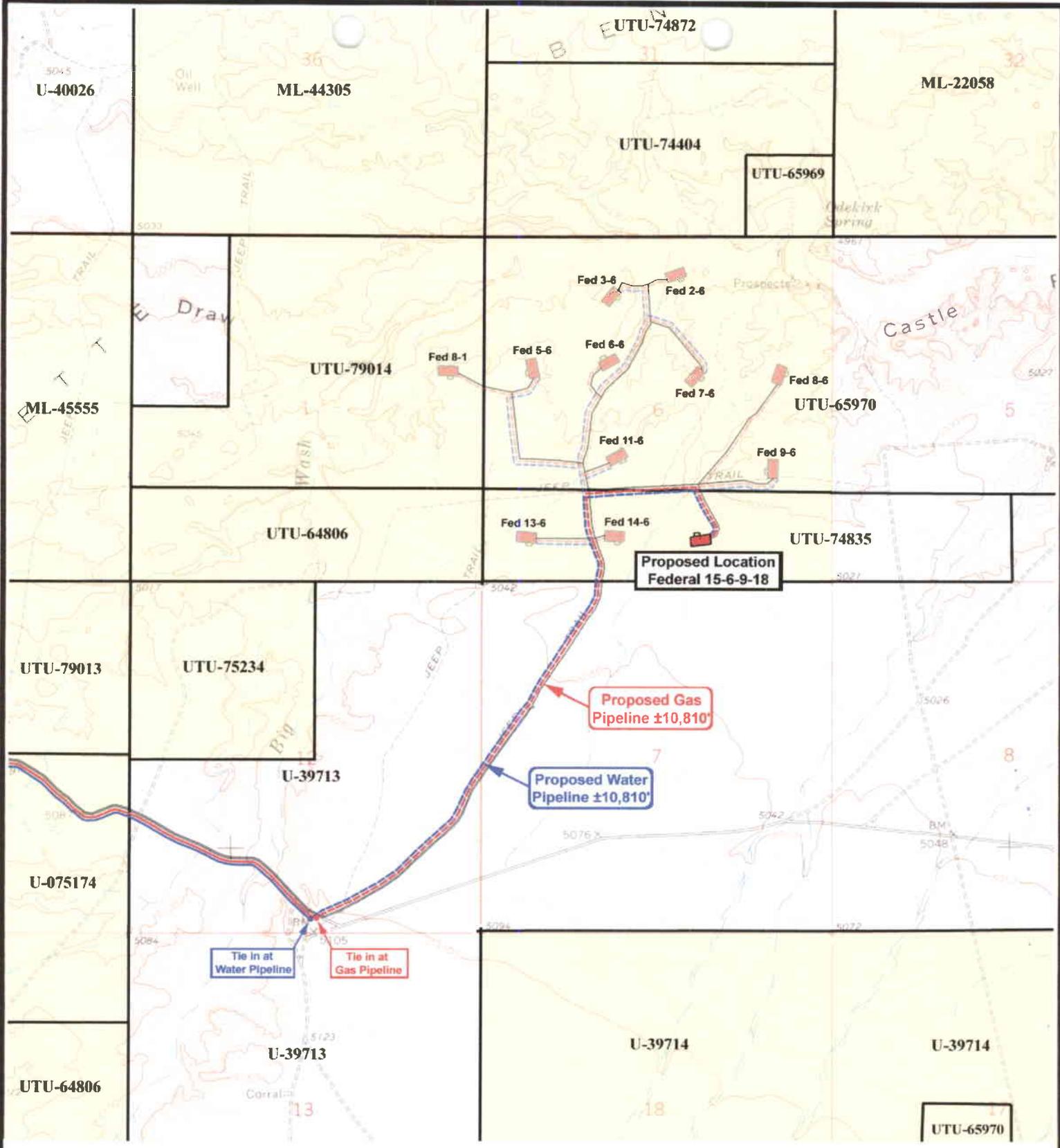
**"A"**



  
**Federal 15-6-9-18**  
**SEC. 6, T9S, R18E, S.L.B.&M.**

  
  
 Tri-State  
 Land Surveying Inc.  
 (435) 781-2501  
 180 North Vernal Ave. Vernal, Utah 84078  
**SCALE: 1" = 2,000'**  
**DRAWN BY: R.A.B.**  
**DATE: 06-09-2003**

Legend	
	Existing Road
	Proposed Access
	Upgraded Access
<b>TOPOGRAPHIC MAP</b>	
<b>"B"</b>	



**Gas and Water Pipelines  
Federal 15-6-9-18  
SEC. 6, T9S, R18E, S.L.B.&M.**

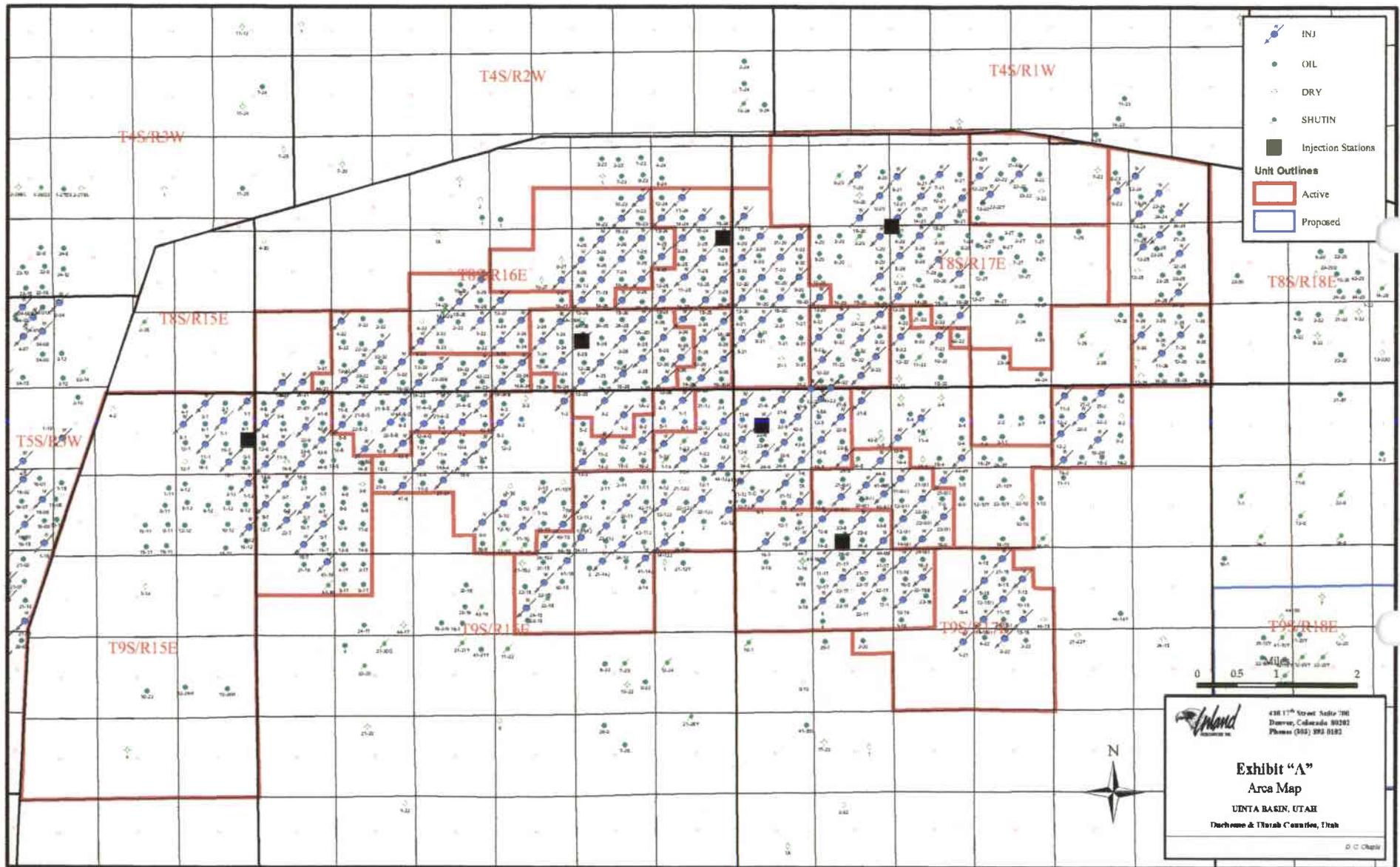


*Tri-State  
Land Surveying Inc.*  
(435) 781-2501  
180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1" = 2,000'  
DRAWN BY: R.A.B.  
DATE: 06-09-2003

Legend	
	Roads
	Existing Gas Line
	Proposed Gas Line
	Existing Water Line
	Proposed Water Line

TOPOGRAPHIC MAP  
**"C"**



January 15, 2003

ML-44305

UTU-74872

ML-22058

UTU-74404

UTU-79014

UTU-65970

UTU-64806

UTU-74835

Proposed Location  
Federal 15-6-9-18

UTU-75234



Federal 15-6-9-18  
SEC. 6, T9S, R18E, S.L.B.&M.



Tri-State  
Land Surveying Inc.  
(435) 781-2501  
180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1" = 2,000'  
DRAWN BY: R.A.B.  
DATE: 06-09-2003

Legend

- Well Locations
- One-Mile Radius

Exhibit "B"



CULTURAL RESOURCE INVENTORY OF  
INLAND RESOURCES' 1170 ACRE ODEKIRK UNIT, IN  
TOWNSHIP 8S, RANGE 18E, SECTION 31,  
AND TOWNSHIP 9S, RANGE 18E, SECTION 6,  
UINTAH COUNTY, UTAH

by

Keith R. Montgomery  
and  
Sarah Ball

Prepared For:

Bureau of Land Management  
Vernal Field Office  
Vernal, Utah

Prepared Under Contract With:

Jon D. Holst & Associates  
for  
Inland Resources  
2507 Flintridge Place  
Fort Collins, CO 80521

Prepared By:

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

MOAC Report No. 01-164

December 7, 2001

United States Department of Interior (FLPMA)  
Permit No. 01-UT-60122

State of Utah Antiquities Project (Survey)  
Permit No. U-01-MQ-0787b

**INLAND RESOURCES, INC.**

**PALEONTOLOGICAL FIELD SURVEY OF PROPOSED  
PRODUCTION DEVELOPMENT AREAS,  
DUCHESNE AND UINTAH COUNTIES, UTAH**

(South ½ Section 6, T 9 S, R 18 E; South ½ Section 1, T 9 S, R 17 E;  
all of Sections 11 and 12, the NW, SE & NE quarters of the SW ¼ Section 10,  
the NE ¼ & SE ¼ of the SE ¼ Section 9, T 9 S, R 17 E and the SE ¼, SW ¼,  
NE ¼ and SE ¼ of the SE ¼, Section 33, T 8 S, R 17 E.)

**REPORT OF SURVEY**

Prepared for:

**Inland Resources, Inc.**

Prepared by:

Wade E. Miller  
Consulting Paleontologist  
May 8, 2003

WORKSHEET  
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 09/10/2003

API NO. ASSIGNED: 43-047-35185

WELL NAME: FEDERAL 15-6-9-18  
OPERATOR: INLAND PRODUCTION ( N5160 )  
CONTACT: MANDIE CROZIER

PHONE NUMBER: 435-646-3721

PROPOSED LOCATION:  
SWSE 06 090S 180E  
SURFACE: 0660 FSL 1980 FEL  
BOTTOM: 0660 FSL 1980 FEL  
UINTAH  
8 MILE FLAT NORTH ( 590 )

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

LEASE TYPE: 1 - Federal  
LEASE NUMBER: UTU-74835  
SURFACE OWNER: 1 - Federal

LATITUDE: 40.05453  
LONGITUDE: 109.93324

PROPOSED FORMATION: GRRV

RECEIVED AND/OR REVIEWED:

Plat

Bond: Fed[1] Ind[] Sta[] Fee[]  
(No. 4488944 )

Potash (Y/N)

Oil Shale 190-5 (B) or 190-3 or 190-13

Water Permit  
(No. MUNICIPAL )

RDCC Review (Y/N)  
(Date: )

NA Fee Surf Agreement (Y/N)

LOCATION AND SITING:

R649-2-3.

Unit \_\_\_\_\_

R649-3-2. General  
Siting: 460 From Qtr/Qtr & 920' Between Wells

R649-3-3. Exception

Drilling Unit  
Board Cause No: \_\_\_\_\_  
Eff Date: \_\_\_\_\_  
Siting: \_\_\_\_\_

R649-3-11. Directional Drill

COMMENTS: Sop, Separate file

STIPULATIONS: 1- Federal approval  
2- Spacing STIP



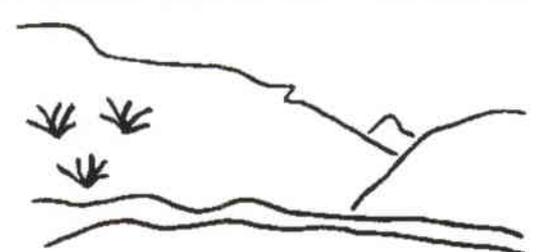
OPERATOR: INLAND PRODUCTION CO (N5160)

SEC. 6 T.9S, R.18E

FIELD: EIGHT MILE NORTH FLAT (590)

COUNTY: UINTAH

SPACING: R649-3-2 / GENERAL SITING



Utah Oil Gas and Mining

**Wells**

- GAS INJECTION
- GAS STORAGE
- LOCATION ABANDONED
- NEW LOCATION
- PLUGGED & ABANDONED
- PRODUCING GAS
- PRODUCING OIL
- SHUT-IN GAS
- SHUT-IN OIL
- TEMP. ABANDONED
- TEST WELL
- WATER INJECTION
- WATER SUPPLY
- WATER DISPOSAL

**Unit Status**

- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PENDING
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

**Field Status**

- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- PROPOSED
- STORAGE
- TERMINATED



PREPARED BY: DIANA MASON  
DATE: 12-SEPTEMBER-2003



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

1594 West North Temple, Suite 1210  
PO Box 145801  
Salt Lake City, Utah 84114-5801  
(801) 538-5340 telephone  
(801) 359-3940 fax  
(801) 538-7223 TTY  
www.nr.utah.gov

Michael O. Leavitt  
Governor

Robert L. Morgan  
Executive Director

Lowell P. Braxton  
Division Director

September 15, 2003

Inland Production Company  
Route #3, Box 3630  
Myton, UT 84052

Re: Federal 15-6-9-18 Well, 660' FSL, 1980' FEL, SW SE, Sec. 6, T. 9 South, R. 18 East, Uintah County, Utah

Gentlemen:

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

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-35185.

Sincerely,

A handwritten signature in black ink, appearing to read 'John R. Baza'.

JB John R. Baza  
Associate Director

pab  
Enclosures

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

Operator: Inland Production Company

Well Name & Number Federal 15-6-9-18

API Number: 43-047-35185

Lease: UTU-74835

Location: SW SE                      Sec. 6                      T. 9 South                      R. 18 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.

5. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

RECEIVED

APR 12 2004

DIV. OF OIL, GAS & MINING

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.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
B	99999	12299	43-013-32342	Canvasback 4-23-8-17	NWNW	23	8S	17E	Duchesne	April 6, 2004	4/15/04
WELL 1 COMMENTS: <i>GRRV</i>											
B	99999	12299	43-047-34588	Canvasback 6-23-8-17	SE/NW	23	8S	17E	Uintah	April 8, 2004	4/15/04
WELL 2 COMMENTS: <i>GRRV</i>											
A	99999	14120	43-047-35185	Federal 15-6-8-18	SWSE	6	9S	18E	Uintah	April 10, 2004	4/15/04
WELL 3 COMMENTS: <i>GRRV</i>											
WELL 4 COMMENTS:											
WELL 5 COMMENTS:											

K

K

K

*Kebble S. Jones*  
Signature

Kebble S. Jones

Production Clerk  
Title

April 12, 2004  
Date

ACTION CODES (See instructions on back of form)  
A - Establish new entity for new well. (single well only)  
B - Add new well to existing entity (group or unit well)  
C - Re-assign well from one existing entity to another existing entity  
D - Re-assign well from one existing entity to a new entity  
E - Other (explain in comments section)  
NOTE: Use COMMENT section to explain why each Action Code was selected.

007

SEP 10 2003

Form 3160-3  
(September 2001)

FORM APPROVED  
OMB No. 1004-0136  
Expires January 31, 2004

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. UTU-74835
6. If Indian, Allottee or Tribe Name N/A
7. If Unit or CA Agreement, Name and No. N/A
8. Lease Name and Well No. Federal 15-6-9-18
9. API Well No. 43-047-35185
10. Field and Pool, or Exploratory Eight Mile Flat
11. Sec., T., R., M., or Blk. and Survey or Area SW/SE Sec. 6, T9S R18E
12. County or Parish Uintah
13. State UT

1a. Type of Work:  DRILL  REENTER

1b. Type of Well:  Oil Well  Gas Well  Other  Single Zone  Multiple Zone

2. Name of Operator  
Inland Production Company

3a. Address  
Route #3 Box 3630, Myton UT 84052

3b. Phone No. (include area code)  
(435) 646-3721

4. Location of Well (Report location clearly and in accordance with any State requirements. \*)  
At surface SW/SE 660' FSL 1980' FEL  
At proposed prod. zone

14. Distance in miles and direction from nearest town or post office\*  
Approximatley 18.8 miles southeast of Myton, Utah

15. Distance from proposed\* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) Approx. 660' f/lse, NA f/unit

16. No. of Acres in lease  
238.98

17. Spacing Unit dedicated to this well  
40 Acres

18. Distance from proposed location\* to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 1320'

19. Proposed Depth  
6500'

20. BLM/BIA Bond No. on file  
#4488944

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
5035' GR

22. Approximate date work will start\*  
4th Quarter 2003

23. Estimated duration  
Approximately seven (7) days from spud to rig release.

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- |   |  |
|---|--|
| 1. Well plat certified by a registered surveyor.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.   | 5. Operator certification.   |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature *Mandie Crozier* Name (Printed/Typed) Mandie Crozier Date 9/19/03

Title Regulatory Specialist

Approved by (Signature) *Edwin J Fersman* Name (Printed/Typed) EDWIN J FERSMAN Date 4/5/04

Title Assistant Field Manager Office Mineral Resources

Application approval does not warrant or certify the 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, are attached.

NOTICE OF APPROVAL

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

\*(Instructions on reverse)

RECEIVED

APR 15 2004

DIV. OF OIL, GAS & MINING

CONDITIONS OF APPROVAL ATTACHED

CONDITIONS OF APPROVAL  
APPLICATION FOR PERMIT TO DRILL

Company/Operator: Inland Production Company  
Well Name & Number: FEDERAL 15-6-9-18  
API Number: 43-047-35185  
Lease Number: UTU – 74835  
Location: SWSE Sec. 06 TWN: 09S RNG: 18E  
Agreement: N/A

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.

**Submit an electronic copy of all logs run on this well in LAS format. This submission will replace the requirement for submittal of paper logs to the BLM.**

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 and oil shale resources shall be isolated and/or protected by having a cement top for the production casing at least 200 ft. above the top of the Green River Formation, identified at  $\pm 2,545$ ft.

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

-No construction or drilling shall be allowed during the burrowing owl nesting season (April 1 to Aug. 15), without first consulting the BLM biologist. If no nesting owls are found, drilling will be allowed.

-Mountain Plover surveys would have to be conducted in accordance with the U.S. Fish and Wildlife Service Mountain Plover Survey Guidelines.

-To reduce noise levels in the area, a hospital muffler or multi-cylinder engine shall be installed on the pumping unit.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

008

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)

660 FSL 1980 FEL SW/SE Section 6, T9S R18E

5. Lease Designation and Serial No.

UTU-74835

6. If Indian, Allottee or Tribe Name

NA

7. If Unit or CA, Agreement Designation

N/A

8. Well Name and No.

FEDERAL 15-6-9-18

9. API Well No.

43-047-35185

10. Field and Pool, or Exploratory Area

EIGHT MILE FLAT NORTH

11. County or Parish, State

UINTAH COUNTY, UT

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 Weekly 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.)\*

On 4-14-04 MIRU Eagle # 1. Set equipment. Pressure test Bop's, Kelly, & TIW to 2,000 psi. Test 85/8" csgn to 1,500 psi. Vernal BLM office was notified of test. Kade Taylor was present. PU BHA and tag cement @ 270'. Drill out cement & shoe. Continue to drill a 77/8" hole with fresh water to a depth of 5935'. Lay down drill string, BHA. Open hole log from TD to surface. PU & MU guide shoe, 1 jt 51/2" J-55 15.5 # csgn. Float collar, & 133 Jt's 51/2" J-55 15.5# csgn. Set @ 5922' KB. Cement with 300 sks Prem Lite II w/ 3% KCL, 8 % Gel, 5#"s sk CSE, 3#"s sk Korseal, .8% Sms, 1/2# sks Celloflake. Mixed @ 11.0 ppg, >3.42 yld. Followed by 400 sks 50/50 Poz w/ 3% KCL, 2% Gel, .05% Static free, 1/2# sk Celloflake. Mixed @ 14.4 ppg, > 1.24 yld. Returned 20 bbls cement to pit. Nipple down BOP's. Drop slips @ 78,000 # 's tension. Clean pit's & release rig on 4-18-04

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

Signed Pat Wisener Title Drilling Foreman Date 4/18/2004  
Pat Wisener

CC: UTAH DOGM

(This space for Federal or State office use)

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

Conditions of approval, if any:

CC: Utah DOGM

RECEIVED

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.

APR 21 2004

DIV. OF OIL, GAS & MINING

# INLAND PRODUCTION COMPANY - CASING & CEMENT REPORT

5 1/2" CASING SET AT 5922.32

Flt cllr @ 5900'

LAST CASING 8 5/8" SET AT 310'

OPERATOR Inland Production Company

DATUM 12' KB

WELL Federal 15-6-9-18

DATUM TO CUT OFF CASING 12

FIELD/PROSPECT Monument Butte

DATUM TO BRADENHEAD FLANGE \_\_\_\_\_

CONTRACTOR & RIG # Eagle # 1

TD DRILLER 5935 LOGGER \_\_\_\_\_

HOLE SIZE 7 7/8"

**LOG OF CASING STRING:**

PIECES	OD	ITEM - MAKE - DESCRIPTION	WT / FT	GRD	THREAD	CONDT	LENGTH
		Landing Jt					14
		<b>5.61' @ 3949</b>					
<b>133</b>	<b>5 1/2"</b>	IPS LT & C casing	<b>15.5#</b>	<b>J-55</b>	<b>8rd</b>	<b>A</b>	5888.27
		Float collar					0.6
<b>1</b>	<b>5 1/2"</b>	IPS LT&C csg	<b>15.5#</b>	<b>J-55</b>	<b>8rd</b>	<b>A</b>	20.8
		<b>GUIDE</b> shoe			<b>8rd</b>	<b>A</b>	0.65

CASING INVENTORY BAL.	FEET	JTS	TOTAL LENGTH OF STRING	5924.32
TOTAL LENGTH OF STRING	5924.32	134	LESS CUT OFF PIECE	14
LESS NON CSG. ITEMS	15.25		PLUS DATUM TO T/CUT OFF CSG	12
PLUS FULL JTS. LEFT OUT	44.28	1	CASING SET DEPTH	<b>5922.32</b>

TOTAL	<b>5953.35</b>	135	}	COMPARE
TOTAL CSG. DEL. (W/O THRDS)	5953.35	135		

TIMING	1ST STAGE	2nd STAGE	
BEGIN RUN CSG.	10:00pm		GOOD CIRC THRU JOB <u>Yes</u>
CSG. IN HOLE	1:00am		Bbls CMT CIRC TO SURFACE <u>20 bbls</u>
BEGIN CIRC	1:05am	2:14am	RECIPROCATED PIPE I N/A <u>THRUSTROKE</u>
BEGIN PUMP CMT	2:24am		DID BACK PRES. VALVE HOLD ? <u>Yes</u>
BEGIN DSPL. CMT	2:56am		BUMPED PLUG TO <u>1580</u> PSI
PLUG DOWN	<b>3:47am</b>		

CEMENT USED \_\_\_\_\_ CEMENT COMPANY- **B. J.**

STAGE	# SX	CEMENT TYPE & ADDITIVES
<b>1</b>	<b>300</b>	Premlite II w/ 10% gel + 3 % KCL, 3#s /sk CSE + 2# sk/kolseal + 1/2#s/sk Cello Flake mixed @ 11.0 ppg W / 3.43 cf/sk yield
<b>2</b>	<b>400</b>	50/50 poz W/ 2% Gel + 3% KCL, .5%EC1,1/4# sk C.F. 2% gel. 3% SM mixed @ 14.4 ppg W/ 1.24 YLD

CENTRALIZER & SCRATCHER PLACEMENT \_\_\_\_\_ SHOW MAKE & SPACING \_\_\_\_\_

Centralizers - Middle first, top second & third. Then every third collar for a total of 20.

COMPANY REPRESENTATIVE Ray Herrera

DATE 4/18/2004

**RECEIVED**

**APR 21 2004**

DIV. OF OIL, GAS & MINING

**DIVISION OF OIL, GAS AND MINING****SPUDDING INFORMATION**Name of Company: INLAND PRODUCTION COMPANYWell Name: FEDERAL 15-6-9-18Api No: 43-047-35185 Lease Type: FEDERALSection 06 Township 09S Range 18E County UINTAHDrilling Contractor LEON ROSS RIG # 15**SPUDDED:**Date 04/09/04Time 5:30 PMHow DRY**Drilling will commence:** \_\_\_\_\_Reported by RAY HERRERATelephone # 1-435-823-1990Date 04129/2004 Signed CHD

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**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  
 Oil Well  Gas Well  Other

2. Name of Operator  
Inland Production Company

3a. Address Route 3 Box 3630  
Myton, UT 84052

3b. Phone No. (include are code)  
435.646.3721

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
660 FSL 1980 FEL  
SW/SE Section 6 T9S R18E

5. Lease Serial No.  
UTU74835

6. If Indian, Allottee or Tribe Name.

7. If Unit or CA/Agreement, Name and/or No.  
EIGHT MILE FLAT AREA

8. Well Name and No.  
FEDERAL 15-6-9-18

9. API Well No.  
4304735185

10. Field and Pool, or Exploratory Area  
Monument Butte

11. County or Parish, State  
Uintah, UT

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" 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 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	Water Disposal _____
	<input type="checkbox"/> Convert to Injector	<input type="checkbox"/> Plug Back	<input checked="" 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 deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work 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 re multiple completion or recomple 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 requirement including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Formation water is produced to a steel storage tank. If the production water meets quality guidelines, it is transported to the Ashley, Monument Butte, Jonah, and Beluga water injection facilities by company or contract trucks. Subsequently, the produced water is injected into approved Class II wells to enhance Inland's secondary recovery project. Water not meeting quality criteria, is disposed at Inland's Pariette #4 disposal well (Sec. 7, T9S R19E) or at State of Utah approved surface disposal facilities.

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

I hereby certify that the foregoing is true and correct

Name (Printed/ Typed)  
Mandie Crozier

Title  
Regulatory Specialist

Signature

*Mandie Crozier*

Date  
5/20/2004

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by  
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.

Title \_\_\_\_\_ Date \_\_\_\_\_  
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

MAY 21 2004

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

009

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

**SUBMIT IN TRIPLICATE - Other Instructions on reverse side**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. UTU74835
2. Name of Operator Inland 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. EIGHT MILE FLAT AREA
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 660 FSL 1980 FEL SW/SE Section 6 T9S R18E		8. Well Name and No. FEDERAL 15-6-9-18
		9. API Well No. 4304735185
		10. Field and Pool, or Exploratory Area Monument Butte
		11. County or Parish, State Uintah, 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 checked="" 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	Weekly Status Report _____
	<input 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 deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work 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 requires 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.)

Status report for time period 5/3/2004-5/14/2004

Subject well had completion procedures initiated in the Green River formation on 5/3/2004 without the use of a service rig over the well. A cement bond log was run and a total of five Green River intervals were perforated and hydraulically fracture treated with 20/40 mesh sand. Perforated intervals are as follows: Stage #1: (5814-5820'), (5717-5732'); Stage #2: (5217-5227'), (5186-5194'), (5148-5162'); Stage #3: (4864-4878'); Stage #4: (4755-4779'); Stage #5: (4249-4260'), (4209-4215'). All perforations were 4 JSPF. Composite flow-through frac plugs were used between stages. Fracs were flowed back through chokes. A service rig was moved over well 5/7/2004. Bridge plugs were drilled out and well was cleaned to PBDT (5902'). Zones were swab tested for sand cleanup. A BHA and production tubing string were run and anchored in well. End of tubing string @ 5782'. A new 1 1/2" bore rod pump was run in well on sucker rods. Well was placed on production via rod pump on 5/14/2004.

RECEIVED  
JUN 10 2004

I hereby certify that the foregoing is true and correct Name (Printed/ Typed) Matt Richmond	Title Production Clerk	DIV. OF OIL, GAS & MINING
Signature 	Date 6/9/2004	

**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)

(See other instructions on reverse side)

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

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

**010**

5. LEASE DESIGNATION AND SERIAL NO.

UTU-74835

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

NA

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.

Federal 15-6-9-18

9. WELL NO.

<sup>047</sup>  
43-013-35185

10. FIELD AND POOL OR WILDCAT

Monument Butte

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

Sec. 6, T9S, R18E

12. COUNTY OR PARISH

Uintah

13. STATE

UT

**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.

1401 17th St. Suite 1000 Denver, CO 80202

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

At Surface 660' FSL & 1980' FEL (SWSE) Sec. 6, Twp 9S, Rng 18E

At top prod. Interval reported below

At total depth

14. API NO. 43-013-35185 DATE ISSUED 11/15/2003

15. DATE SPUNDED

4/10/2004

16. DATE T.D. REACHED

4/18/2004

17. DATE COMPL. (Ready to prod.)

5/13/2004

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

5035' GL

19. ELEV. CASINGHEAD

5047' KB

20. TOTAL DEPTH, MD & TVD

5935'

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

5902'

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)\*

Green River 4209'-5820'

25. WAS DIRECTIONAL SURVEY MADE

No

26. TYPE ELECTRIC AND OTHER LOGS RUN

Dual Induction Guard,  SP Compensated Density,  Compensated Neutron,  GR,  Caliper,  Cement Bond Log

27. WAS WELL CORED

No

23. 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" - J-55	24#	315'	12-1/4"	To surface with 150 sx Class "G" cmt	
5-1/2" - J-55	15.5#	5922'	7-7/8"	300 sx Premlite II and 400 sx 50/50 Poz	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-7/8"	EOT @ 5782'	TA @ 5681'

31. PERFORATION RECORD (Interval, size and number)

INTERVAL	SIZE	SPF/NUMBER	DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
(CP3,4) 5717-32', 5814-20'	.41"	4/84	5717'-5820'	Frac w/ 54,600# 20/40 sand in 470 bbls fluid
(A1,3) 5148-62', 5186-94', 5217-27'	.41"	4/128	5148'-5227'	Frac w/ 104,771# 20/40 sand in 744 bbls fluid
(C-sd) 4864'-4878'	.41"	4/56	4868'-4878'	Frac w/ 52,369# 20/40 sand in 419 bbls fluid
(D2) 4755'-4779'	.41"	4/96	4755'-4779'	Frac w/ 99,575# 20/40 sand in 697 bbls fluid
(GB4,6) 4209'-15', 4249'-60'	.41"	4/68	4209'-4260'	Frac w/ 57,893# 20/40 sand in 451 bbls fluid

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

33.\* PRODUCTION

DATE FIRST PRODUCTION 5/13/2004	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. 107	GAS--MCF. 40	WATER--BBL. 11	GAS-OIL RATIO 374
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE ----->	OIL--BBL.	GAS--MCF.	WATER--BBL.	OIL GRAVITY (API CORP.)	

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

Sold & Used for Fuel

TEST WITNESSED BY

JUN 11 2004

35. LIST OF ATTACHMENTS

DIV. OF OIL, GAS & MINING

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

SIGNED Brian Harris TITLE Engineering Technician DATE 6/9/2004

Brian Harris

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);

38. GEOLOGIC MARKERS

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
			Well Name Federal 15-6-9-18	Garden Gulch Mkr	3736'	
				Garden Gulch 1	3906'	
				Garden Gulch 2	4025'	
				Point 3 Mkr	4289'	
				X Mkr	4510'	
				Y-Mkr	4552'	
				Douglas Creek Mkr	4681'	
				BiCarbonate Mkr	4929'	
				B Limestone Mkr	5054'	
				Castle Peak	5484'	
				Basal Carbonate	5896'	
				Total Depth (LOGGERS)	5935'	

RECEIVED  
 JUN 11 2004  
 DIV. OF OIL, GAS & MINING

# Inland Resources Inc.

---

June 9, 2004

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

Attn: Ms. Carol Daniels

Federal 15-6-9-18 (43-047-35185)  
Uintah County, Utah

Dear Ms. Carol Daniels

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

If you should have any questions, please contact me at (303) 382-4449.

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  
Matt Richmond/Roosevelt

RECEIVED  
JUN 11 2004  
DIV. OF OIL, GAS & MINING

---

Alamo Plaza Building  
1401 Seventeenth Street, Suite 1000  
Denver, CO 80202  
303-893-0102 • Fax: 303-893-0103



## 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 1<sup>st</sup> day of September, 2004.

INLAND RESOURCES INC.

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



# 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		

**OPERATOR CHANGE WORKSHEET**

ROUTING	
1. GLH	
2. CDW	
3. FILE	

**011** 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:		<b>9/1/2004</b>
<b>FROM:</b> (Old Operator): N5160-Inland Production Company Route 3 Box 3630 Myton, UT 84052 Phone: 1-(435) 646-3721	<b>TO:</b> ( New Operator): N2695-Newfield Production Company Route 3 Box 3630 Myton, UT 84052 Phone: 1-(435) 646-3721	

**CA No. Unit:**

**WELL(S)**

NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS	
FEDERAL 13-1-9-17	01	090S	170E	4304735181	14101	Federal	OW	P	K
FEDERAL 15-1-9-17	01	090S	170E	4304735182	14094	Federal	OW	P	K
FEDERAL 3-11-9-17	11	090S	170E	4304735295	14258	Federal	OW	P	K
FEDERAL 5-5-9-18	05	090S	180E	4304735290		Federal	OW	NEW	K
FEDERAL 7-5-9-18	05	090S	180E	4304735291		Federal	OW	APD	K
FEDERAL 9-5-9-18	05	090S	180E	4304735292	14554	Federal	OW	DRL	K
FEDERAL 11-5-9-18	05	090S	180E	4304735293		Federal	OW	APD	K
FEDERAL 13-5-9-18	05	090S	180E	4304735294		Federal	OW	APD	K
FEDERAL 9-6-9-18	06	090S	180E	4304735183	14153	Federal	OW	P	K
FEDERAL 11-6-9-18	06	090S	180E	4304735184	14127	Federal	OW	P	K
FEDERAL 15-6-9-18	06	090S	180E	4304735185	14120	Federal	OW	P	K
FEDERAL 1-6-9-18	06	090S	180E	4304735296		Federal	OW	NEW	K
FEDERAL 1-7-9-18	07	090S	180E	4304735447		Federal	OW	APD	K
FEDERAL 3-7-9-18	07	090S	180E	4304735448		Federal	OW	APD	K
FEDERAL 5-7-9-18	07	090S	180E	4304735449		Federal	OW	APD	K
FEDERAL 7-7-9-18	07	090S	180E	4304735450		Federal	OW	APD	K
FEDERAL 11-7-9-18	07	090S	180E	4304735451		Federal	OW	APD	K
FEDERAL 13-7-9-18	07	090S	180E	4304735452		Federal	OW	APD	K
FEDERAL 10-7-9-18	07	090S	180E	4304735453		Federal	OW	APD	K
FEDERAL 14-7-9-18	07	090S	180E	4304735454		Federal	OW	APD	K

**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 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 Communitization 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

Entity Form 6  
 "C" Change from one existing entity to another existing entity

API	Well	Sec	Twsp	Rng	Entity	Entity Eff Date
4304734937	FEDERAL 14-6-9-18	06	090S	180E	14064 to 14844	9/20/2005
4304735183	FEDERAL 9-6-9-18	06	090S	180E	14153 to 14844	9/20/2005
4304735184	FEDERAL 11-6-9-18	06	090S	180E	14127 to 14844	9/20/2005
4304735185	FEDERAL 15-6-9-18	06	090S	180E	14120 to 14844	9/20/2005
4304735751	FEDERAL 16-6-9-18	06	090S	180E	14623 to 14844	9/20/2005
4304735752	FEDERAL 12-6-9-18	06	090S	180E	14649 to 14844	9/20/2005
4304735753	FEDERAL 10-6-9-18	06	090S	180E	14622 to 14844	9/20/2005
4304731126	FEDERAL 6-7-9-18	07	090S	180E	14599 to 14844	9/20/2005
4304731202	FEDERAL 15-7-9-18	07	090S	180E	564 to 14844	9/20/2005
4304735448	FEDERAL 3-7-9-18	07	090S	180E	14661 to 14844	9/20/2005
4304735449	FEDERAL 5-7-9-18	07	090S	180E	14662 to 14844	9/20/2005
4304735451	FEDERAL 11-7-9-18	07	090S	180E	14768 to 14844	9/20/2005
4304735452	FEDERAL 13-7-9-18	07	090S	180E	14755 to 14844	9/20/2005
4304735454	FEDERAL 14-7-9-18	07	090S	180E	14767 to 14844	9/20/2005
4304735503	FEDERAL 12-7-9-18	07	090S	180E	14663 to 14844	9/20/2005
4304731274	FEDERAL 7-8-9-18	08	090S	180E	554 to 14844	9/20/2005
4304731545	FEDERAL 4-8-9-18	08	090S	180E	10275 to 14844	9/20/2005
4304731546	FEDERAL 12-8-9-18	08	090S	180E	10975 to 14844	9/20/2005
4304731547	FEDERAL 15-8-9-18	08	090S	180E	10972 to 14844	9/20/2005
4304735811	STATE 1-16-9-18	16	090S	180E	14390 to 14844	9/20/2005
4304735813	STATE 3-16-9-18	16	090S	180E	14565 to 14844	9/20/2005
4304735819	STATE 9-16-9-18	16	090S	180E	14566 to 14844	9/20/2005
4304735822	STATE 11-16-9-18	16	090S	180E	14577 to 14844	9/20/2005
4304731142	FEDERAL 4-18-9-18	18	090S	180E	14600 to 14844	9/20/2005



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, UT 84145-0155



IN REPLY REFER TO  
3180  
UT-922

June 30, 2005

Newfield Production Company  
Attn: Kelly L. Donohoue  
1401 Seventeenth Street, Suite 1000  
Denver, Colorado 80202

Gentlemen:

The Sundance (Green River) Unit Agreement, Uintah County, Utah, was approved June 30, 2005. This agreement has been designated No. UTU82472X, and is effective July 1, 2005. The unit area embraces 11,143.86 acres, more or less.

Pursuant to regulations issued and effective June 17, 1988, all operations within the Sundance (Green River) Unit will be covered by your nationwide (Utah) oil and gas bond No. 0056.

The following leases embrace lands included within the unit area:

UTU0075174	UTU39713	UTU65970*	UTU79013*
UTU16539*	UTU39714	UTU74404	UTU79014*
UTU16540	UTU44429	UTU74835	UTU80915
UTU17424*	UTU64806*	UTU74872*	UTU82205
UTU18043	UTU65969	UTU75234	

\* Indicates lease to be considered for segregation by the Bureau of Land Management pursuant to Section 18 (g) of the unit agreement and Public Law 86-705.

All lands and interests by State of Utah, Cause No. 228-08 are fully committed.

Approval of this agreement does not warrant or certify that the operator thereof and other holders of operating rights hold legal or equitable title to those rights in the subject leases which are committed hereto.

RECEIVED

JUL 0 / 2005

DIV. OF OIL, GAS & MINING

*Docket No  
2005-009*

We are of the opinion that the agreement is necessary and advisable in the public interest and for the purpose of more properly conserving natural resources. Certification-Determination, signed by the School and Institutional Trust Land Administration for the State of Utah, is attached to the enclosed agreement. We request that you furnish the State of Utah and all other interested principals with appropriate evidence of this approval.

Sincerely,

/s/ Terry Catlin

Terry Catlin  
Acting Chief, Branch of Fluid Minerals

**Enclosure**

bcc: Mary Higgins w/enclosure  
MMS - Data Management Division (Attn: James Sykes)  
Trust Lands Administration  
Division of Oil, Gas and Mining  
Field Manager - Vernal w/enclosure  
File - Sundance (Green River) Unit w/enclosure  
Agr. Sec. Chron  
Fluid Chron  
Central Files

UT922:TAThompson:tt:06/30/2005



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8
1595 WYNKOOP STREET
DENVER, CO 80202-1129
http://www.epa.gov/region8

APR 18 2008

Ref: 8P-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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

Eric Sundberg
Regulatory Analyst
Newfield Production Company
1401 Seventeenth Street, Suite 1000
Denver, CO 80202

Re: Final Permit
EPA UIC Permit UT21086-07307
Federal 15-6-9-18
Uintah County, Utah
API#43-047-65185

Dear Mr. Sundberg:

Handwritten notes: 9S 18E 6

Enclosed is your copy of the FINAL Underground Injection Control (UIC) Permit for the proposed Federal 15-6-9-18 injection well. A Statement of Basis that discusses the conditions and requirements of this EPA UIC Permit, is also included.

The Public Comment period for this Permit ended on MAR 7 2008. No comments on the Draft Permit were received during the Public Notice period; therefore the Effective Date for this EPA UIC Permit is the date of issuance. All conditions set forth herein refer to Title 40 Parts 124, 144, 146, and 147 of the Code of Federal Regulations (CFR) and are regulations that are in effect as of the Effective Date of this Permit.

Please note that under the terms and conditions of this Final Permit you are authorized only to construct the proposed injection well. Prior to commencing injection, you first must fulfill all "Prior to Commencing Injection" requirements of the Final Permit, Part II Section C Subpart 1, and obtain written Authorization to Inject from the EPA. It is your responsibility to be familiar with and to comply with all provisions of your Final Permit.

This EPA UIC Permit is issued for the operating life of the well unless terminated (Part III, Section B). The EPA may review this Permit at least every five (5) years to determine whether any action is warranted pursuant to 40 CFR § 144.36(a).

RECEIVED

APR 29 2008

If you have any questions on the enclosed Final Permit or Statement of Basis, please call Emmett Schmitz of my staff at (303) 312-6174, or toll-free at (800) 227-8917, ext. 312-6174.

RECORDED  
INDEXED  
OCTOBER 2007

Sincerely,



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

enclosure: Final UIC Permit  
Statement of Basis  
Form 7520-7 Application to Transfer Permit  
Form 7520-11 Monitoring Report  
Form 7520-12 Well Rework Record  
Form 7520-13 Plugging Record

cc: Letter:  
  
Uintah & Ouray Business Committee, Ute Indian Tribe:  
Curtis Cesspooch, Chairman  
Irene Cuch, Vice-Chairwoman  
Frances Poowegup, Councilwoman  
Ronald Groves, Councilman  
Phillip Chimburas, Councilman  
Steven Cesspooch, Councilman

Chester Mills, Superintendent  
U.S. Bureau of Indian Affairs  
Uintah & Ouray Indian Agency

cc: all enclosures:  
  
Michael Guinn  
District Manager  
Newfield Production Company  
Myton, Utah

Shaun Chapoose  
Director  
Land Use Dept.  
Ute Indian Tribe

Gilbert Hunt  
Assistant Director  
State of Utah - Natural Resources

Fluid Minerals Engineering Dept.  
U.S. Bureau of Land Mangement  
Vernal, Utah





**UNDERGROUND INJECTION CONTROL PROGRAM  
PERMIT**

PREPARED: March 2008

**Permit No. UT21086-07307**

Class II Enhanced Oil Recovery Injection Well

**Federal 15-6-9-18  
Uintah County, UT**

Issued To

**Newfield Production Company**

1401 Seventeenth Street, Suite 1000

Denver, CO 80202

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## Part I. AUTHORIZATION TO CONSTRUCT AND OPERATE

Under the authority of the Safe Drinking Water Act and Underground Injection Control (UIC) Program regulations of the U. S. Environmental Protection Agency (EPA) codified at Title 40 of the Code of Federal Regulations (40 CFR) Parts 2, 124, 144, 146, and 147, and according to the terms of this Permit,

Newfield Production Company  
1401 Seventeenth Street, Suite 1000  
Denver, CO 80202

is authorized to construct and to operate the following Class II injection well or wells:

Federal 15-6-9-18  
660' FSL and 1980' FEL, SWSE S6, T9S, R18E  
Uintah County, UT

EPA regulates the injection of fluids into injection wells so that injection does not endanger underground sources of drinking water (USDWs). EPA UIC Permit conditions are based on authorities set forth at 40 CFR Parts 144 and 146, and address potential impacts to USDWs.

Under 40 CFR Part 144, Subpart D, certain conditions apply to all UIC Permits and may be incorporated either expressly or by reference. General permit conditions for which the content is mandatory and not subject to site-specific differences are not discussed in this document. Issuance of this Permit does not convey any property rights of any sort or any exclusive privilege, nor does it authorize injury to persons or property or invasion of other private rights, or any infringement of other Federal, State or local laws or regulations. (40 CFR §144.35) An EPA UIC Permit may be issued for the operating life of the injection well or project unless terminated for reasonable cause under 40 CFR §§144.39, 144.40 and 144.41, and may be reviewed at least once every five (5) years to determine if action is required under 40 CFR §144.36(a).

This Permit is issued for the life of the well(s) unless modified, revoked and reissued, or terminated under 40 CFR 144.39 or 144.40. This EPA Permit may be adopted, modified, revoked and reissued, or terminated if primary enforcement authority for a UIC Program is delegated to an Indian Tribe or State. Upon the effective date of delegation, reports, notifications, questions and other correspondence should be directed to the Indian Tribe or State Director.

Issue Date: APR 18 2008

Effective Date APR 18 2008



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

\*NOTE: The person holding this title is referred to as the "Director" throughout this Permit.

## PART II. SPECIFIC PERMIT CONDITIONS

### Section A. WELL CONSTRUCTION REQUIREMENTS

These requirements represent the approved minimum construction standards for well casing and cement, injection tubing, and packer.

Details of the approved well construction plan are incorporated into this Permit as APPENDIX A. Changes to the approved plan that may occur during construction must be approved by the Director prior to being physically incorporated.

#### **1. Casing and Cement.**

The well or wells shall be cased and cemented to prevent the movement of fluids into or between underground sources of drinking water. The well casing and cement shall be designed for the life expectancy of the well and of the grade and size shown in APPENDIX A. Remedial cementing may be required if shown to be inadequate by cement bond log or other attempted demonstration of Part II (External) mechanical integrity.

#### **2. Injection Tubing and Packer.**

Injection tubing is required, and shall be run and set with a packer at or below the depth indicated in APPENDIX A. The packer setting depth may be changed provided it remains below the depth indicated in APPENDIX A and the Permittee provides notice and obtains the Director's approval for the change.

#### **3. Sampling and Monitoring Devices.**

The Permittee shall install and maintain in good operating condition:

- (a) a "tap" at a conveniently accessible location on the injection flow line between the pump house or storage tanks and the injection well, isolated by shut-off valves, for collection of representative samples of the injected fluid; and
- (b) one-half (1/2) inch female iron pipe fitting, isolated by shut-off valves and located at the wellhead at a conveniently accessible location, for the attachment of a pressure gauge capable of monitoring pressures ranging from normal operating pressures up to the Maximum Allowable Injection Pressure specified in APPENDIX C:
  - (i) on the injection tubing; and
  - (ii) on the tubing-casing annulus (TCA); and
- (c) a pressure actuated shut-off device attached to the injection flow line set to shut-off the injection pump when or before the Maximum Allowable Injection Pressure (MAIP) specified in APPENDIX C is reached at the wellhead; and
- (d) a non-resettable cumulative volume recorder attached to the injection line.

#### **4. Well Logging and Testing**

Well logging and testing requirements are found in APPENDIX B. The Permittee shall ensure the log and test requirements are performed within the time frames specified in APPENDIX B. Well logs and tests shall be performed according to current EPA-approved procedures. Well log and test results shall be submitted to the Director within sixty (60) days of completion of the logging or testing activity, and shall include a report describing the methods used during logging or testing and an interpretation of the test or log results.

#### **5. Postponement of Construction or Conversion**

The Permittee shall complete well construction within one year of the Effective Date of the Permit, or in the case of an Area Permit within one year of Authorization of the additional well. Authorization to construct and operate shall expire if the well has not been constructed within one year of the Effective Date of the Permit or Authorization and the Permit may be terminated under 40 CFR 144.40, unless the Permittee has notified the Director and requested an extension prior to expiration. Notification shall be in writing, and shall state the reasons for the delay and provide an estimated completion date. Once Authorization has expired under this part, the complete permit process including opportunity for public comment may be required before Authorization to construct and operate may be reissued.

#### **6. Workovers and Alterations**

Workovers and alterations shall meet all conditions of the Permit. Prior to beginning any addition or physical alteration to an injection well that may significantly affect the tubing, packer or casing, the Permittee shall give advance notice to the Director and obtain the Director's approval. The Permittee shall record all changes to well construction on a Well Rework Record (EPA Form 7520-12), and shall provide this and any other record of well workover, logging, or test data to EPA within sixty (60) days of completion of the activity.

A successful demonstration of Part I MI is required following the completion of any well workover or alteration which affects the casing, tubing, or packer. Injection operations shall not be resumed until the well has successfully demonstrated mechanical integrity and the Director has provided written approval to resume injection.

### **Section B. MECHANICAL INTEGRITY**

The Permittee is required to ensure each injection well maintains mechanical integrity at all times. The Director, by written notice, may require the Permittee to comply with a schedule describing when mechanical integrity demonstrations shall be made.

An injection well has mechanical integrity if:

- (a) There is no significant leak in the casing, tubing, or packer (Part I); and
- (b) There is no significant fluid movement into an underground source of drinking water through vertical channels adjacent to the injection well bore (Part II).

### **1. Demonstration of Mechanical Integrity (MI).**

The operator shall demonstrate MI prior to commencing injection and periodically thereafter. Well-specific conditions dictate the methods and the frequency for demonstrating MI and are discussed in the Statement of Basis. The logs and tests are designed to demonstrate both internal (Part I) and external (Part II) MI as described above. The conditions present at this well site warrant the methods and frequency required in Appendix B of this Permit.

In addition to these regularly scheduled demonstrations of MI, the operator shall demonstrate internal (Part I) MI after any workover which affects the tubing, packer or casing.

The Director may require additional or alternative tests if the results presented by the operator are not satisfactory to the Director to demonstrate there is no movement of fluid into or between USDWs resulting from injection activity. Results of MI tests shall be submitted to the Director as soon as possible but no later than sixty (60) days after the test is complete.

### **2. Mechanical Integrity Test Methods and Criteria**

EPA-approved methods shall be used to demonstrate mechanical integrity. Ground Water Section Guidance No. 34 "Cement Bond Logging Techniques and Interpretation", Ground Water Section Guidance No. 37, "Demonstrating Part II (External) Mechanical Integrity for a Class II injection well permit", and Ground Water Section Guidance No. 39, "Pressure Testing Injection Wells for Part I (Internal) Mechanical Integrity" are available from EPA and will be provided upon request.

The Director may stipulate specific test methods and criteria best suited for a specific well construction and injection operation.

### **3. Notification Prior to Testing.**

The Permittee shall notify the Director at least 30 days prior to any scheduled mechanical integrity test. The Director may allow a shorter notification period if it would be sufficient to enable EPA to witness the mechanical integrity test. Notification may be in the form of a yearly or quarterly schedule of planned mechanical integrity tests, or it may be on an individual basis.

### **4. Loss of Mechanical Integrity.**

If the well fails to demonstrate mechanical integrity during a test, or a loss of mechanical integrity becomes evident during operation (such as presence of pressure in the TCA, water flowing at the surface, etc.), the Permittee shall notify the Director within 24 hours (see Part III Section E Paragraph 11(e) of this Permit) and the well shall be shut-in within 48 hours unless the Director requires immediate shut-in.

Within five days, the Permittee shall submit a follow-up written report that documents test results, repairs undertaken or a proposed remedial action plan.

Injection operations shall not be resumed until after the well has successfully been repaired and demonstrated mechanical integrity, and the Director has provided approval to resume injection.

## **Section C. WELL OPERATION**

### **INJECTION BETWEEN THE OUTERMOST CASING PROTECTING UNDERGROUND SOURCES OF DRINKING WATER AND THE WELL BORE IS PROHIBITED.**

Injection is approved under the following conditions:

#### **1. Requirements Prior to Commencing Injection.**

Well injection, including for new wells authorized by an Area Permit under 40 CFR 144.33 (c), may commence only after all well construction and pre-injection requirements herein have been met and approved. The Permittee may not commence injection until construction is complete, and

- (a) The Permittee has submitted to the Director a notice of completion of construction and a completed EPA Form 7520-10 or 7520-12; all applicable logging and testing requirements of this Permit (see APPENDIX B) have been fulfilled and the records submitted to the Director; mechanical integrity pursuant to 40 CFR 146.8 and Part II Section B of this Permit has been demonstrated; and
  - (i) The Director has inspected or otherwise reviewed the new injection well and finds it is in compliance with the conditions of the Permit; or
  - (ii) The Permittee has not received notice from the Director of his or her intent to inspect or otherwise review the new injection well within 13 days of the date of the notice in Paragraph 1a, in which case prior inspection or review is waived and the Permittee may commence injection.

#### **2. Injection Interval.**

Injection is permitted only within the approved injection interval, listed in APPENDIX C. Additional individual injection perforations may be added provided that they remain within the approved injection interval and the Permittee provides notice to the Director in accordance with Part II, Section A, Paragraph 6.

#### **3. Injection Pressure Limitation**

- (a) The permitted Maximum Allowable Injection Pressure (MAIP), measured at the wellhead, is found in APPENDIX C. Injection pressure shall not exceed the amount the Director determines is appropriate to ensure that injection does not initiate new fractures or propagate existing fractures in the confining zone adjacent to USDWs. In no case shall injection pressure cause the movement of injection or formation fluids into a USDW.
- (b) The Permittee may request a change of the MAIP, or the MAIP may be increased or decreased by the Director in order to ensure that the requirements in Paragraph (a) above are fulfilled. The Permittee may be required to conduct a step rate injection test or other suitable test to provide information for determining the fracture pressure of the injection zone. Change of the permitted MAIP by the Director shall be by modification of this Permit and APPENDIX C.

#### **4. Injection Volume Limitation.**

Injection volume is limited to the total volume specified in APPENDIX C.

#### **5. Injection Fluid Limitation.**

Injected fluids are limited to those identified in 40 CFR 144.6(b)(2) as fluids used for enhanced recovery of oil or natural gas, including those which are brought to the surface in connection with conventional oil or natural gas production that may be commingled with waste waters from gas plants which are an integral part of production operations unless those waters are classified as a hazardous waste at the time of injection, pursuant to 40 CFR 144.6(b). Non-exempt wastes, including unused fracturing fluids or acids, gas plant cooling tower cleaning wastes, service wastes and vacuum truck wastes, are NOT approved for injection. This well is NOT approved for commercial brine injection, industrial waste fluid disposal or injection of hazardous waste as defined by CFR 40 Part 261. The Permittee shall provide a listing of the sources of injected fluids in accordance with the reporting requirements in Part II Section D Paragraph 4 and APPENDIX D of this Permit.

#### **6. Tubing-Casing Annulus (TCA)**

The tubing-casing annulus (TCA) shall be filled with water treated with a corrosion inhibitor, or other fluid approved by the Director. The TCA valve shall remain closed during normal operating conditions and the TCA pressure shall be maintained at zero (0) psi.

If TCA pressure cannot be maintained at zero (0) psi, the Permittee shall follow the procedures in Ground Water Section Guidance No. 35 "Procedures to follow when excessive annular pressure is observed on a well."

### **Section D. MONITORING, RECORDKEEPING, AND REPORTING OF RESULTS**

#### **1. Monitoring Parameters, Frequency, Records and Reports.**

Monitoring parameters are specified in APPENDIX D. Pressure monitoring recordings shall be taken at the wellhead. The listed parameters are to be monitored, recorded and reported at the frequency indicated in APPENDIX D even during periods when the well is not operating.

Monitoring records must include:

- (a) the date, time, exact place and the results of the observation, sampling, measurement, or analysis, and;
- (b) the name of the individual(s) who performed the observation, sampling, measurement, or analysis, and;
- (c) the analytical techniques or methods used for analysis.

#### **2. Monitoring Methods.**

- (a) Monitoring observations, measurements, samples, etc. taken for the purpose of complying with these requirements shall be representative of the activity or condition being monitored.

- (b) Methods used to monitor the nature of the injected fluids must comply with analytical methods cited and described in Table 1 of 40 CFR 136.3 or Appendix III of 40 CFR 261, or by other methods that have been approved in writing by the Director.
- (c) Injection pressure, annulus pressure, injection rate, and cumulative injected volumes shall be observed and recorded at the wellhead under normal operating conditions, and all parameters shall be observed simultaneously to provide a clear depiction of well operation.
- (d) Pressures are to be measured in pounds per square inch (psi).
- (e) Fluid volumes are to be measured in standard oil field barrels (bbl).
- (f) Fluid rates are to be measured in barrels per day (bbl/day).

### **3. Records Retention.**

- (a) Records of calibration and maintenance, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained for a period of AT LEAST THREE (3) YEARS from the date of the sample, measurement, report, or application. This period may be extended anytime prior to its expiration by request of the Director.
- (b) Records of the nature and composition of all injected fluids must be retained until three (3) years after the completion of any plugging and abandonment (P&A) procedures specified under 40 CFR 144.52(a)(6) or under Part 146 Subpart G, as appropriate. The Director may require the Permittee to deliver the records to the Director at the conclusion of the retention period. The Permittee shall continue to retain the records after the three (3) year retention period unless the Permittee delivers the records to the Director or obtains written approval from the Director to discard the records.
- (c) The Permittee shall retain records at the location designated in APPENDIX D.

### **4. Annual Reports.**

Whether the well is operating or not, the Permittee shall submit an Annual Report to the Director that summarizes the results of the monitoring required by Part II Section D and APPENDIX D.

The first Annual Report shall cover the period from the effective date of the Permit through December 31 of that year. Subsequent Annual Reports shall cover the period from January 1 through December 31 of the reporting year. Annual Reports shall be submitted by February 15 of the year following data collection. EPA Form 7520-11 may be copied and shall be used to submit the Annual Report, however, the monitoring requirements specified in this Permit are mandatory even if EPA Form 7520-11 indicates otherwise.

## **Section E. PLUGGING AND ABANDONMENT**

### **1. Notification of Well Abandonment, Conversion or Closure.**

The Permittee shall notify the Director in writing at least forty-five (45) days prior to: 1) plugging and abandoning an injection well, 2) converting to a non-injection well, and 3) in the case of an Area Permit, before closure of the project.

### **2. Well Plugging Requirements**

Prior to abandonment, the injection well shall be plugged with cement in a manner which isolates the injection zone and prevents the movement of fluids into or between underground sources of drinking water, and in accordance with 40 CFR 146.10 and other applicable Federal, State or local law or regulations. Tubing, packer and other downhole apparatus shall be removed. Cement with additives such as accelerators and retarders that control or enhance cement properties may be used for plugs; however, volume-extending additives and gel cements are not approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.6 lb/gal shall be placed between all plugs. A minimum 50 ft surface plug shall be set inside and outside of the surface casing to seal pathways for fluid migration into the subsurface. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. Prior to placement of the cement plug(s) the well shall be in a state of static equilibrium with the mud weight equalized top to bottom, either by circulating the mud in the well at least once or by a comparable method prescribed by the Director.

### **3. Approved Plugging and Abandonment Plan.**

The approved plugging and abandonment plan is incorporated into this Permit as APPENDIX E. Changes to the approved plugging and abandonment plan must be approved by the Director prior to beginning plugging operations. The Director also may require revision of the approved plugging and abandonment plan at any time prior to plugging the well.

### **4. Forty Five (45) Day Notice of Plugging and Abandonment.**

The Permittee shall notify the Director at least forty-five (45) days prior to plugging and abandoning a well and provide notice of any anticipated change to the approved plugging and abandonment plan.

### **5. Plugging and Abandonment Report.**

Within sixty (60) days after plugging a well, the Permittee shall submit a report (EPA Form 7520-13) to the Director. The plugging report shall be certified as accurate by the person who performed the plugging operation. Such report shall consist of either:

- (a) A statement that the well was plugged in accordance with the approved plugging and abandonment plan; or
- (b) Where actual plugging differed from the approved plugging and abandonment plan, an updated version of the plan, on the form supplied by the Director, specifying the differences.

### **6. Inactive Wells.**

After any period of two years during which there is no injection the Permittee shall plug and abandon the well in accordance with Part II Section E Paragraph 2 of this Permit unless the Permittee:

- (a) Provides written notice to the Director;
- (b) Describes the actions or procedures the Permittee will take to ensure that the well will not endanger USDWs during the period of inactivity. These actions and procedures shall include compliance with mechanical integrity demonstration, Financial Responsibility and all other permit requirements designed to protect USDWs; and
- (c) Receives written notice by the Director temporarily waiving plugging and abandonment requirements.

## PART III. CONDITIONS APPLICABLE TO ALL PERMITS

### Section A. EFFECT OF PERMIT

The Permittee is allowed to engage in underground injection in accordance with the conditions of this Permit. The Permittee shall not construct, operate, maintain, convert, plug, abandon, or conduct any other activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR 142 or may otherwise adversely affect the health of persons. Any underground injection activity not authorized by this Permit or by rule is prohibited. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of any other Federal, State or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any enforcement action brought under the provisions of Section 1431 of the Safe Drinking Water Act (SDWA) or any other law governing protection of public health or the environment, for any imminent and substantial endangerment to human health or the environment, nor does it serve as a shield to the Permittee's independent obligation to comply with all UIC regulations. Nothing in this Permit relieves the Permittee of any duties under applicable regulations.

### Section B. CHANGES TO PERMIT CONDITIONS

#### **1. Modification, Reissuance, or Termination.**

The Director may, for cause or upon a request from the Permittee, modify, revoke and reissue, or terminate this Permit in accordance with 40 CFR 124.5, 144.12, 144.39, and 144.40. Also, this Permit is subject to minor modification for causes as specified in 40 CFR 144.41. The filing of a request for modification, revocation and reissuance, termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any condition of this Permit.

#### **2. Conversions.**

The Director may, for cause or upon a written request from the Permittee, allow conversion of the well from a Class II injection well to a non-Class II well. Conversion may not proceed until the Permittee receives written approval from the Director. Conditions of such conversion may include but are not limited to, approval of the proposed well rework, follow up demonstration of mechanical integrity, well-specific monitoring and reporting following the conversion, and demonstration of practical use of the converted configuration.

#### **3. Transfer of Permit.**

Under 40 CFR 144.38, this Permit is transferable provided the current Permittee notifies the Director at least thirty (30) days in advance of the proposed transfer date (EPA Form 7520-7) and provides a written agreement between the existing and new Permittees containing a specific date for transfer of Permit responsibility, coverage and liability between them. The notice shall adequately demonstrate that the financial responsibility requirements of 40 CFR 144.52(a)(7) will be met by the new Permittee. The Director may require modification or revocation and reissuance of the Permit to change the name of the Permittee and incorporate such other requirements as may be necessary under the Safe Drinking Water Act; in some cases, modification or revocation and reissuance is mandatory.

#### **4. Permittee Change of Address.**

Upon the Permittee's change of address, or whenever the operator changes the address where monitoring records are kept, the Permittee must provide written notice to the Director within 30 days.

#### **5. Construction Changes, Workovers, Logging and Testing Data**

The Permittee shall give advance notice to the Director, and shall obtain the Director's written approval prior to any physical alterations or additions to the permitted facility. Alterations or workovers shall meet all conditions as set forth in this permit. The Permittee shall record any changes to the well construction on a Well Rework Record (EPA Form 7520-12), and shall provide this and any other record of well workovers, logging, or test data to EPA within sixty (60) days of completion of the activity.

Following the completion of any well workovers or alterations which affect the casing, tubing, or packer, a successful demonstration of mechanical integrity (Part III, Section F of this Permit) shall be made, and written authorization from the Director received, prior to resuming injection activities.

### **Section C. SEVERABILITY**

The Provisions of this Permit are severable, and if any provision of this Permit or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit shall not be affected thereby.

### **Section D. CONFIDENTIALITY**

In accordance with 40 CFR Part 2 and 40 CFR 144.5, information submitted to EPA pursuant to this Permit may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the validity of the claim will be assessed in accordance with the procedures in 40 CFR Part 2 (Public Information). Claims of confidentiality for the following information will be denied:

- The name and address of the Permittee, and
- information which deals with the existence, absence or level of contaminants in drinking water.

### **Section E. GENERAL PERMIT REQUIREMENTS**

#### **1. Duty to Comply.**

The Permittee must comply with all conditions of this Permit. Any noncompliance constitutes a violation of the Safe Drinking Water Act (SDWA) and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application; except that the Permittee need not comply with the provisions of this Permit to the extent and for the duration such noncompliance is authorized in an emergency permit under 40 CFR 144.34. All violations of the SDWA may subject the Permittee to penalties and/or criminal prosecution as specified in Section 1423 of the SDWA.

## **2. Duty to Reapply.**

If the Permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, under 40 CFR 144.37 the Permittee must apply for a new permit prior to the expiration date.

## **3. Need to Halt or Reduce Activity Not a Defense.**

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

## **4. Duty to Mitigate.**

The Permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Permit.

## **5. Proper Operation and Maintenance.**

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Permit.

## **6. Permit Actions.**

This Permit may be modified, revoked and reissued or terminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

## **7. Property Rights.**

This Permit does not convey any property rights of any sort, or any exclusive privilege.

## **8. Duty to Provide Information.**

The Permittee shall furnish to the Director, within a time specified, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Director, upon request, copies of records required to be kept by this Permit. The Permittee is required to submit any information required by this Permit or by the Director to the mailing address designated in writing by the Director.

## **9. Inspection and Entry.**

The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- (a) Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;

- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and,
- (d) Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the SDWA, any substances or parameters at any location.

**10. Signatory Requirements.**

All applications, reports or other information submitted to the Director shall be signed and certified according to 40 CFR 144.32. This section explains the requirements for persons duly authorized to sign documents, and provides wording for required certification.

**11. Reporting Requirements.**

- (a) **Planned changes.** The Permittee shall give notice to the Director as soon as possible of any planned changes, physical alterations or additions to the permitted facility, and prior to commencing such changes.
- (b) **Anticipated noncompliance.** The Permittee 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.
- (c) **Monitoring Reports.** Monitoring results shall be reported at the intervals specified in this Permit.
- (d) **Compliance schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted no later than 30 days following each schedule date.
- (e) **Twenty-four hour reporting.** The Permittee shall report to the Director any noncompliance which may endanger human health or the environment, including:
  - (i) Any monitoring or other information which indicates that any contaminant may cause endangerment to a USDW; or
  - (ii) Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between USDWs.

Information shall be provided, either directly or by leaving a message, within twenty-four (24) hours from the time the permittee becomes aware of the circumstances by telephoning (800) 227-8917 and requesting EPA Region VIII UIC Program Compliance and Technical Enforcement Director, or by contacting the EPA Region VIII Emergency Operations Center at (303) 293-1788.

In addition, a follow up written report shall be provided to the Director within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

- (f) **Oil Spill and Chemical Release Reporting:** The Permittee shall comply with all reporting requirements related to the occurrence of oil spills and chemical releases by contacting the National Response Center (NRC) at (800) 424-8802, (202) 267-2675, or through the NRC website <http://www.nrc.uscg.mil/index.htm>.
- (g) **Other Noncompliance.** The Permittee shall report all instances of noncompliance not reported under paragraphs Part III, Section E Paragraph 11(b) or Section E, Paragraph 11(e) at the time the monitoring reports are submitted. The reports shall contain the information listed in Paragraph 11(e) of this Section.
- (h) **Other information.** Where the Permittee becomes aware that it 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 Permittee shall promptly submit such facts or information to the Director.

## **Section F. FINANCIAL RESPONSIBILITY**

### ***1. Method of Providing Financial Responsibility.***

The Permittee shall maintain continuous compliance with the requirement to maintain financial responsibility and resources to close, plug, and abandon the underground injection well(s). No substitution of a demonstration of financial responsibility shall become effective until the Permittee receives written notification from the Director that the alternative demonstration of financial responsibility is acceptable. The Director may, on a periodic basis, require the holder of a permit to revise the estimate of the resources needed to plug and abandon the well to reflect changes in such costs and may require the Permittee to provide a revised demonstration of financial responsibility.

### ***2. Insolvency.***

In the event of:

- (a) the bankruptcy of the trustee or issuing institution of the financial mechanism; or
- (b) suspension or revocation of the authority of the trustee institution to act as trustee; or

- (c) the institution issuing the financial mechanism losing its authority to issue such an instrument

the Permittee must notify the Director in writing, within ten (10) business days, and the Permittee must establish other financial assurance or liability coverage acceptable to the Director within sixty (60) days after any event specified in (a), (b), or (c) above.

The Permittee must also notify the Director by certified mail of the commencement of voluntary or involuntary proceedings under Title 11 (Bankruptcy), U.S. Code naming the owner or operator as debtor, within ten (10) business days after the commencement of the proceeding. A guarantor, if named as debtor of a corporate guarantee, must make such a notification as required under the terms of the guarantee.

## APPENDIX A

### WELL CONSTRUCTION REQUIREMENTS

See diagram

The Federal No.15-6-9-18 was drilled to a total depth of 5935 feet (KB) feet in the Basal Carbonate Member of the Green River Formation.

Surface casing (8-5/8 inch) was set at a depth of 311 feet in a 12-1/4 inch hole using 150 sacks of Class "G" cement which was circulated to the surface.

Production casing (5-1/2 inch) was set at a depth of 5922 feet (KB) in a 7-7/8 inch hole with 300 sacks of Premium Lite II and 400 sacks of 50/50 poz mix. This well construction is considered adequate to protect USDWs.

The EPA calculates the top of cement as 1398 feet from the surface. The Cement Bond Log (CBL) identifies top of cement at surface. CBL analysis does identify adequate 80% bond index cement bond within the Confining Zone.

The schematic diagram shows enhanced recovery injection perforations in the Garden Gulch and Douglas Creek Members of the Green River Formation. Additional perforations may be added at a later time between the depths of 3736 feet and the top of the Wasatch Formation (Estimated to be 6021 feet) provided the operator first notifies the Director and later submits an updated well completion report (EPA Form 7520-12) and schematic diagram.

The packer will be set no higher than 100 feet above the top perforation.

UT21086-07307

Federal #15-6-9-18

Spud Date: 4/10/04

Put on Production: 5/14/04

GL: 5035' KB: 5047'

Initial Production: 107 BOPD.  
40 MCFD, 11 BWPD

Proposed Injection Wellbore Diagram

SURFACE CASING

CSG SIZE: 8-5/8" *Base USDWs* **L275'**  
 GRADE: J-55  
 WEIGHT: 24#  
 LENGTH: 7 jts (300.98')  
 DEPTH LANDED: 310.98' *TOC/EPA* **1398'**  
 HOLE SIZE: 12-1/4" *Green River* **1418'**  
 CEMENT DATA: 150 sxs class G cmt, est 5 bbls cmt. to surface.

PRODUCTION CASING

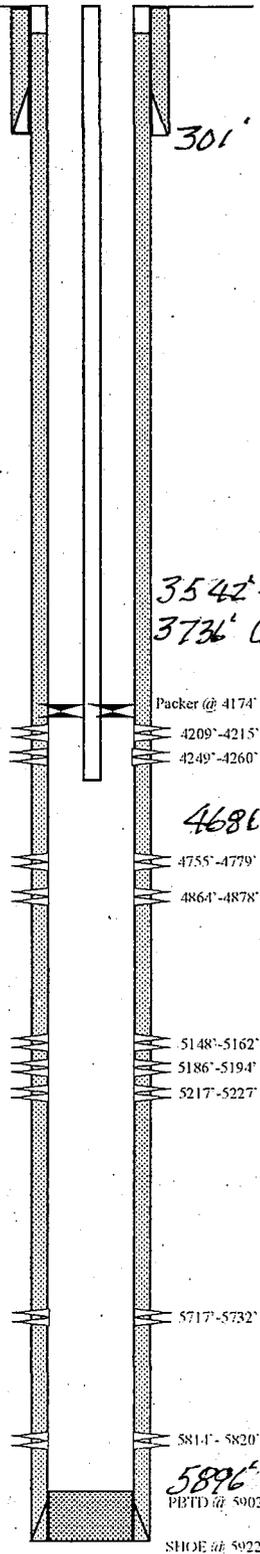
CSG SIZE: 5-1/2"  
 GRADE: J-55 *Tiona* **2906'**  
 WEIGHT: 15.5#  
 LENGTH: 134 jts. (5924.32') *Mahogany* **2946' - '64'**  
 DEPTH LANDED: 5922.32'  
 HOLE SIZE: 7-7/8"  
 CEMENT DATA: 300 sxs Premilite II and 400 sxs 50/50 POZ.  
 CEMENT TOP AT: surface *80% Bond* **3434' - 3666'**

TUBING

SIZE/GRADE/WT.: 2-7/8" / J-55 / 6.5#  
 NO. OF JOINTS: 175 jts (5669.22')  
 TUBING ANCHOR: 5681.22' KB  
 NO. OF JOINTS: 1 jt (32.23')  
 SN LANDED AT: 5716.25' KB  
 NO. OF JOINTS: 2 jts (64.59')  
 TOTAL STRING LENGTH: 5782.39'

FRAC JOB

- 05/05/04 5717'-5820' **Frac CP4 and CP3 sands as follows:**  
54,600# 20/40 sand in 470 bbls Lightning 17 frac fluid. Treated @ avg pressure of 1420 psi w/avg rate of 24.9 BPM. ISIP-1625. Calc. flush: 5715 gals. Actual flush: 5712 gals.
- 05/05/04 5148'-5227' **Frac A3 and A1 sands as follows:**  
104,771# 20/40 sand in 744 bbls Lightning 17 frac fluid. Treated @ avg pressure of 1285 psi w/avg rate of 25.2 BPM. ISIP-1740. Calc. flush: 5146 gals. Actual flush: 5145 gals.
- 05/05/04 4755'-4779' **Frac D2 sands as follows:**  
99,575# 20/40 sand in 697 bbls Lightning 17 frac fluid. Treated @ avg pressure of 1800 psi w/avg rate of 25 BPM. ISIP-1975. Calc. flush: 4753 gals. Actual flush: 4754 gals.
- 05/05/04 4209'-4260' **Frac GB6 and GB4 sands as follows:**  
57,893# 20/40 sand in 451 bbls Lightning 17 frac fluid. Treated @ avg pressure of 2360 psi w/avg rate of 25 BPM. ISIP-2375. Calc. flush: 4207 gals. Actual flush: 4116 gals.
- 05/11/04 4864'-4878' **Frac C sands as follows:**  
52,369# 20/40 sand in 419 bbls Lightning 17 frac fluid. Treated @ avg pressure of 3202 psi w/avg rate of 14.5 BPM. ISIP-1742. Calc. flush: 1239 gals. Actual flush: 1147 gals.



*3542' - 3736' Confiner Zone*  
*3736' Garden Gulch*

*4686' Douglas Creek*

*5896' Basal Carbonate*

*Castle Peak* **5984' - 5498'**

PERFORATION RECORD

Date	Depth Range	Tool	Holes
05/03/04	5814' - 5820'	4 JSPF	24 holes
05/03/04	5717' - 5732'	4 JSPF	60 holes
05/05/04	5217' - 5227'	4 JSPF	40 holes
05/05/04	5186' - 5194'	4 JSPF	32 holes
05/05/04	5148' - 5162'	4 JSPF	56 holes
05/05/04	4864' - 4878'	4 JSPF	56 holes
05/05/04	4755' - 4779'	4 JSPF	96 holes
05/05/04	4249' - 4260'	4 JSPF	44 holes
05/05/04	4209' - 4215'	4 JSPF	24 holes

**NEWFIELD**

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**Federal #15-6-9-18**

660' FSL & 1980' FEL

SW/SE Section 6-T9S-R18E

Utah County, Utah

API #43-047-35185; Lease #UTL-74835

*Est. W. 1/4 Sec 602'*

## APPENDIX B

### LOGGING AND TESTING REQUIREMENTS

#### Logs.

Logs will be conducted according to current UIC guidance. It is the responsibility of the Permittee to obtain and use guidance prior to conducting any well logging required as a condition of this permit.

#### NO LOGGING REQUIREMENTS

#### Tests.

Tests will be conducted according to current UIC guidance. It is the responsibility of the Permittee to obtain and use guidance prior to conducting any well test required as a condition of this permit.

<b>WELL NAME:</b> Federal 15-6-9-18	
<b>TYPE OF TEST</b>	<b>DATE DUE</b>
Standard Annulus Pressure	Prior to receiving authorization to inject and at least once every five years following the last successful test.
Pore Pressure	Prior to receiving authorization to inject.

## APPENDIX C

### OPERATING REQUIREMENTS

#### MAXIMUM ALLOWABLE INJECTION PRESSURE:

Maximum Allowable Injection Pressure (MAIP) as measured at the surface shall not exceed the pressure(s) listed below.

WELL NAME	MAXIMUM ALLOWED INJECTION PRESSURE (psi)
	ZONE 1 (Upper)
Federal 15-6-9-18	1,180

#### INJECTION INTERVAL(S):

Injection is permitted only within the approved injection interval listed below. Injection perforations may be altered provided they remain within the approved injection interval and the Permittee provides notice to the Director in accordance with Part II, Section A, Paragraph 6. Specific injection perforations can be found in Appendix A.

WELL NAME: Federal 15-6-9-18	APPROVED INJECTION INTERVAL (KB, ft)		FRACTURE GRADIENT (psi/ft)
	TOP	BOTTOM	
FORMATION NAME			
Green River	3,736.00	6,021.00	0.720

#### ANNULUS PRESSURE:

The annulus pressure shall be maintained at zero (0) psi as measured at the wellhead. If this pressure cannot be maintained, the Permittee shall follow the procedures listed under Part II, Section C. 6. of this permit.

#### MAXIMUM INJECTION VOLUME:

There is no limitation on the number of barrels per day (bbls/day) of water that shall be injected into this well, provided further that in no case shall injection pressure exceed that limit shown in Appendix C.

## APPENDIX D

### MONITORING AND REPORTING PARAMETERS

This is a listing of the parameters required to be observed, recorded, and reported. Refer to the permit Part II, Section D, for detailed requirements for observing, recording, and reporting these parameters.

OBSERVE MONTHLY AND RECORD AT LEAST ONCE EVERY THIRTY DAYS	
<b>OBSERVE AND RECORD</b>	Injection pressure (psig)
	Annulus pressure(s) (psig)
	Injection rate (bbl/day)
	Fluid volume injected since the well began injecting (bbls)

ANNUALLY	
<b>ANALYZE</b>	Injected fluid total dissolved solids (mg/l)
	Injected fluid specific gravity
	Injected fluid specific conductivity
	Injected fluid pH

ANNUALLY	
<b>REPORT</b>	Each month's maximum and averaged injection pressures (psig)
	Each month's maximum and minimum annulus pressure(s) (psig)
	Each month's injected volume (bbl)
	Fluid volume injected since the well began injecting (bbl)
	Written results of annual injected fluid analysis
	Sources of all fluids injected during the year

Records of all monitoring activities must be retained and made available for inspection at the following location:

**Newfield Production Company**  
**1401 Seventeenth Street - Suite 1000**  
**Denver, CO 80202**

## APPENDIX E

### PLUGGING AND ABANDONMENT REQUIREMENTS

See diagram.

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

**PLUG NO. 1: Seal Injection Zone:** Set a cast iron bridge plug (CIBP) no more than fifty (50) feet above the top injection perforation. Place at least twenty (20) feet of cement plug on top of the CIBP.

**PLUG NO. 2: Seal Mahogany Shale and Trona intervals:** Squeeze a cement plug on the backside of the 5-1/2 inch casing across the Trona Zone and the Mahogany Shale approximately 2850 feet to 3010 feet (unless pre-existing backside cement precludes cement-squeezing this interval) followed by a minimum 160-foot balanced cement plug inside the 5-1/2 inch casing across the Trona Zone and the Mahogany Shale, approximately 2850 feet to 3010 feet.

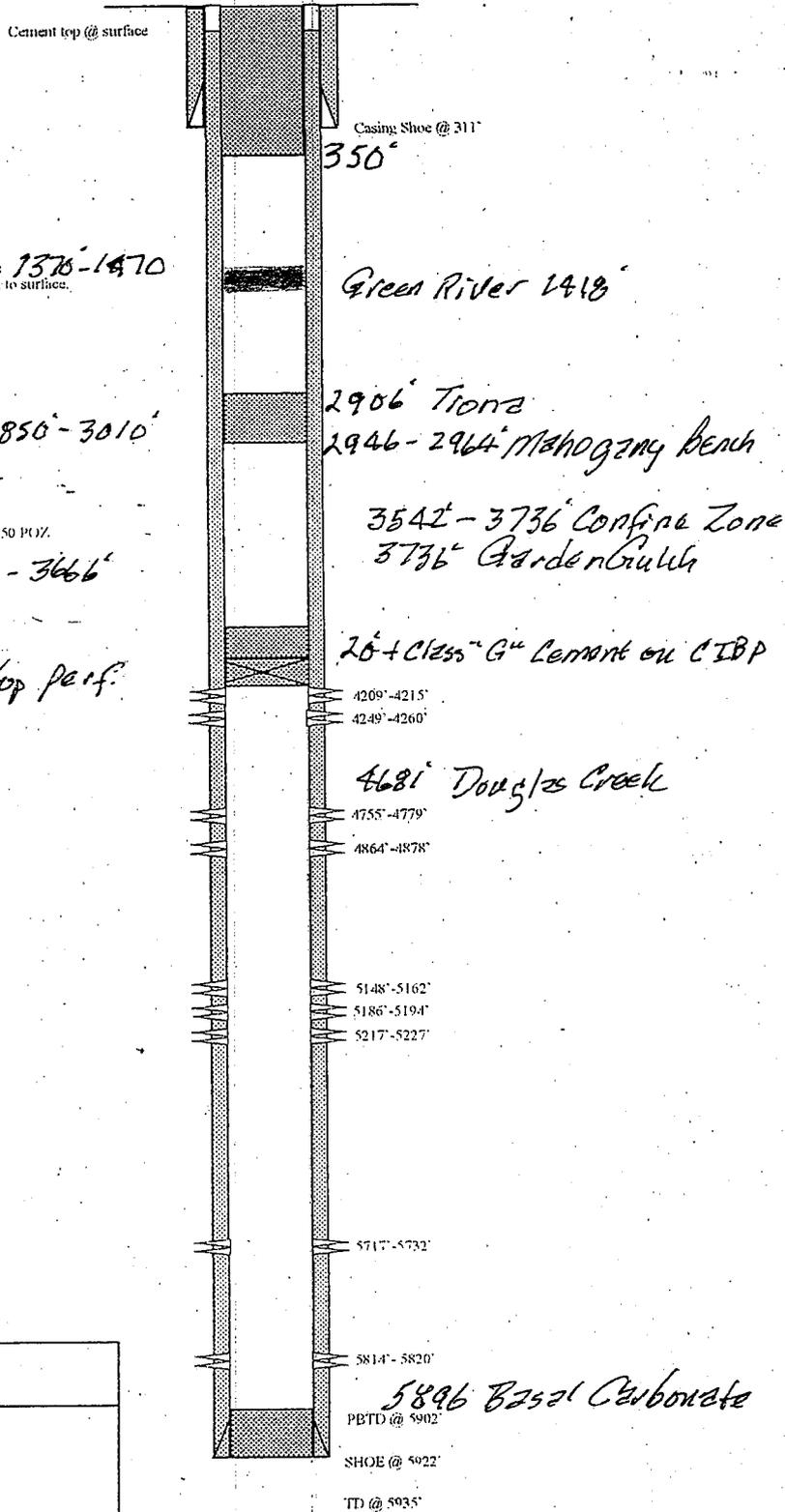
**PLUG NO. 3: Seal USDWs:** Squeeze a cement plug (1370 feet - 1470 feet) on the backside of the 5-1/2 inch casing across the base of the Uinta formation (unless pre-existing backside cement precludes cement-squeezing this interval), followed by a minimum 100-foot balanced cement plug inside the 5-1/2 inch casing across the base of the Uinta Formation, approximately 1300 feet to 1400 feet.

**PLUG NO.4: Seal Surface:** Set a Class "G" cement plug within the 5-1/2 inch casing to 350 feet and up the 5-1/2 inch by 8-5/8 inch casings annulus to the surface.

Federal #15-6-9-18

Spud Date: 4/10/04  
 Put on Production: 5/14/04  
 GL: 5035' KB: 5047'

Proposed P & A  
 Wellbore Diagram



SURFACE CASING

CSG SIZE: 8-5/8"  
 GRADE: J-55  
 WEIGHT: 24#  
 LENGTH: 7 jts (300.98')  
 DEPTH LANDED: 310.98'  
 HOLE SIZE: 12-1/4"  
 CEMENT DATA: 150 sxs class G cement, est 5 bbls cirt. to surface.  
*Cement Plug 1376-1470*

PRODUCTION CASING

CSG SIZE: 5-1/2"  
 GRADE: J-55  
 WEIGHT: 15.5#  
 LENGTH: 134 jts (5924.32')  
 DEPTH LANDED: 5922.32'  
 HOLE SIZE: 7-7/8"  
 CEMENT DATA: 300 sxs Prem-lite II and 400 sxs 50/50 POZ.  
 CEMENT TOP AT: surface  
*80% 3434-3666'*

*CIBP 50' above top perf.*

<p><b>Federal #15-6-9-18</b>                  660' FSL &amp; 1980' FEL                  SW/SE Section 6-T9S-R18E                  Uintah County, Utah                  API #43-047-35185; Lease #UTU-74835</p>

*Est. Inlet Feb 6021*

## APPENDIX F

### CORRECTIVE ACTION REQUIREMENTS

No Corrective Action required.

# **STATEMENT OF BASIS**

**NEWFIELD PRODUCTION COMPANY**

**FEDERAL 15-6-9-18  
UINTAH COUNTY, UT**

**EPA PERMIT NO. UT21086-07307**

***CONTACT:*** Emmett Schmitz  
U. S. Environmental Protection Agency  
Ground Water Program, 8P-W-GW  
1595 Wynkoop Street  
Denver, Colorado 80202-1129  
Telephone: 1-800-227-8917 ext. 312-6174

This STATEMENT OF BASIS gives the derivation of site-specific UIC Permit conditions and reasons for them. Referenced sections and conditions correspond to sections and conditions in the Permit.

EPA UIC permits regulate the injection of fluids into underground injection wells so that the injection does not endanger underground sources of drinking water. EPA UIC permit conditions are based upon the authorities set forth in regulatory provisions at 40 CFR Parts 144 and 146, and address potential impacts to underground sources of drinking water. Under 40 CFR 144.35 Issuance of this permit does not convey any property rights of any sort or any exclusive privilege, nor authorize injury to persons or property of invasion of other private rights, or any infringement of other Federal, State or local laws or regulations. Under 40 CFR 144 Subpart D, certain conditions apply to all UIC Permits and may be incorporated either expressly or by reference. General Permit conditions for which the content is mandatory and not subject to site-specific differences (40 CFR Parts 144, 146 and 147) are not discussed in this document.

Upon the Effective Date when issued, the Permit authorizes the construction and operation of injection wells so that the injection does not endanger underground sources of drinking water, governed by the conditions specified in the Permit. The Permit is issued for the operating life of the injection well or project unless terminated for reasonable cause under 40 CFR 144.39, 144.40 and 144.41. The Permit is subject to EPA review at least once every five (5) years to determine if action is required under 40 CFR 144.36(a).

## PART I. General Information and Description of Facility

Newfield Production Company  
1401 Seventeenth Street, Suite 1000  
Denver, CO 80202

on

July 12, 2006

submitted an application for an Underground Injection Control (UIC) Program Permit or Permit Modification for the following injection well or wells:

Federal 15-6-9-18  
660' FSL and 1980' FEL, SWSE S6, T9S, R18E  
Uintah County, UT

Regulations specific to Uintah-Ouray Indian Reservation injection wells are found at 40 CFR 147 Subpart TT.

The application, including the required information and data necessary to issue or modify a UIC Permit in accordance with 40 CFR Parts 144, 146 and 147, was reviewed and determined by EPA to be complete.

The Permit will expire upon delegation of primary enforcement responsibility (primacy) for applicable portions of the UIC Program to the Ute Indian Tribe or the State of Utah unless the delegated agency has the authority and chooses to adopt and enforce this Permit as a Tribal or State Permit.

TABLE 1.1 shows the status of the well or wells as "New", "Existing", or "Conversion" and for Existing shows the original date of injection operation. Well authorization "by rule" under 40 CFR Part 144 Subpart C expires automatically on the Effective Date of an issued UIC Permit.

The Federal No. 15-6-9-18 is currently an active Green River Formation oil well with production perforations in the Garden Gulch and Douglas Creek Members. It is the initial intent of the applicant to use current production perforations for Class II enhanced recovery injection. The Federal No. 15-6-9-18 has total depth in the Basal Carbonate Member.

<b>NEW WELLS</b>		
<b>Well Name</b>	<b>Well Status</b>	<b>Date of Operation</b>
Federal 15-6-9-18	New	N/A

## PART II. Permit Considerations (40 CFR 146.24)

### Hydrogeologic Setting

Water wells for domestic supply in this area, when present, generally are completed into the shallow alluvium, the Duchesne River Formation, or the underlying Uinta Formation, and the water generally contains approximately 500 to 1,500 mg/l and higher total dissolved solids.

The Uinta-Animas aquifer in the Uinta Basin is present in water-yielding beds of sandstone, conglomerate, and siltstone of the Duchesne River and Uinta Formations, the Renegade Tongue of the Wasatch Formation, and the Douglas Creek Member of the Green River Formation. The Renegade Tongue of the Wasatch Formation and the Douglas Creek Member of the Green River Formation contain an aquifer along the southern and eastern margins of the basin where the rocks primarily consist of fluvial, massive, irregularly bedded sandstone and siltstone. Water-yielding units in the Uinta-Animas aquifer in the Uinta Basin commonly are separated from each other and from the underlying Mesaverde aquifer by units of low permeability composed of claystone, shale, marlstone, or limestone. In the Uinta Basin, for example, the part of the aquifer in the Duchesne River and Uinta Formations ranges in thickness from 0 feet at the southern margin of the aquifer to as much as 9,000 feet in the north-central part of the aquifer. Ground-water recharge to the Uinta-Animas aquifer generally occurs in the areas of higher altitude along the margins of the basin. Ground water is discharged mainly to streams, springs, and by transpiration from vegetation growing along stream valleys. The rate of ground-water withdrawal is small, and natural discharge is approximately equal to recharge. Recharge occurs near the southern margin of the aquifer, and discharge occurs near the White and Green Rivers (from USGS publication HA 730-C). Water samples from Mesaverde sands in the nearby Natural Buttes Unit yielded highly saline water.

### Geologic Setting (TABLE 2.1)

The proposed enhanced oil recovery injection well is located in the Greater Monument Butte Field, T7-9S and R15-19E, which lies near the center of the broad, gently northward dipping south flank of the Uinta Basin. More than 450 million barrels of oil (63 MT) have been produced from sediments of the Uinta Basin. The Uinta Basin is a topographic and structural trough encompassing an area of more than 9300 square mi (14,900 km) in northeast Utah. The basin is sharply asymmetrical, with a steep north flank bounded by the east-west-trending Uinta Mountains, and a gently dipping south flank. The Uinta Basin was formed in Paleocene to Eocene time, creating a large area of internal drainage which was filled by the ancestral Lake Uinta. The lacustrine, or fresh water lake-formed, sediments deposited in and around Lake Uinta make up the Uintah and Green River Formations. The southern shore of Lake Uinta was very broad and flat, resulting in large cyclic shifts of the location of the shoreline during the many repeated transgressive and regressive cycles caused by the climatic and tectonic-induced rise and fall of water levels of the lake. Distributary-mouth bars, distributary channels, and near-shore bars are the primary oil producing sandstone reservoirs in the area. (Ref: "Reservoir Characterization of the Lower Green River Formation, Southwest Uinta Basin, Utah Biannual Technical Progress Report, 4/1/99-9/30/99", by C. D. Morgan, Program Manager, November 1999, Contract DE-AC26-98BC15103).

The Duchesne River Formation is absent in this area. Shale and siltstone of the Uintah Formation outcrop and compose the surface rock throughout the area. The lower 600 feet to 800 feet of the Uinta Formation, consisting generally of shale interbedded with occasionally water-bearing sandstone lenses between 5 feet to 20 feet thick, is underlain by the Green River Formation. The

Green River Formation is further subdivided into several Member and local marker units. The cyclic nature of Green River deposition in the southern shore area resulted in numerous stacked, intertonguing deltaic and near-shore sand and silt deposits. Red alluvial shale and siltstone deposits that intertongue with the Green River sediments are of the Colton and Wasatch Formations. Under the Wasatch Formation is the Mesaverde Formation, which consists primarily of continental-origin deposits of interbedded shale, sandstone, and coal.

The geologic dip is about 200 feet per mile, and there are no known surface faults in this area. Veins of gilsonite, a natural resinous hydrocarbon occasionally mined as a resource, occurs in the greater Uintah Basin though it is predominantly found on the eastern margin of the basin near the Colorado border. Vertical veins, generally between 2 ft to 6 ft wide but up to 28 ft wide, may extend many miles in length and occasionally extend as deep as 2000 ft. In this area within the Greater Monument Butte Field there is one known gilsonite vein. This vein is not considered to present a pathway for migration of fluid out of the injection zone because it terminates at depth of about 2000 ft, far above the protective confining layer and much deeper injection zone. Newfield and the owner of this former gilsonite mine have agreed to conditions for operation near this vein to ensure no potential for impact to this vein or to ground water from enhanced oil recovery operations.

**TABLE 2.1  
GEOLOGIC SETTING  
Federal 15-6-9-18**

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Lithology
Uinta	0	275	< 10,000	Predominantly fluvial sand and shale with some lacustrine sand, shale and carbonate.
Uinta	275	1,418		Interbedded lacustrine sand, shale and carbonate with fluvial sand and shale.
Green River	1,418	3,736		Interbedded lacustrine sand, shale and carbonate with fluvial sand and shale.
Green River: Trona and Mahogany Bench	2,906	2,964	10,000	Evaporite and oil shale
Green River: Garden Gulch Member	3,746	4,681	> 10,000	Interbedded lacustrine sand, shale and carbonate with fluvial sand and shale.
Green River: Douglas Creek Member	4,681	5,896	> 10,000	Interbedded lacustrine sand, shale and carbonate with fluvial sand and shale.
Green River: Basal Carbonate Member	5,896	6,021		Carbonate

**Proposed Injection Zone(s) (TABLE 2.2)**

An injection zone is a geological formation, group of formations, or part of a formation that receives fluids through a well. The proposed injection zones are listed in TABLE 2.2.

Injection will occur into an injection zone that is separated from USDWs by a confining zone which is free of known open faults or fractures within the Area of Review.

The Environmental Protection Agency (EPA) approved interval for Class II enhanced recovery injection in the Federal No. 15-6-9-18 is located between the top of the Garden Gulch Member

(3736 feet) and the top of the Wasatch Formation estimated to be 6021 feet,

**TABLE 2.2  
INJECTION ZONES  
Federal 15-6-9-18**

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Fracture Gradient (psi/ft)	Porosity	Exempted?*
Green River	3,736	6,021	> 10,000	0.720		N/A

\* C - Currently Exempted  
E - Previously Exempted  
P - Proposed Exemption  
N/A - Not Applicable

**Confining Zone(s) (TABLE 2.3)**

A confining zone is a geological formation, part of a formation, or a group of formations that limits fluid movement above the injection zone. The confining zone or zones are listed in TABLE 2.3.

The 194-foot shale and thin impervious, argillaceous silt Confining Zone (3542 feet - 3736 feet) directly overlies the Garden Gulch Member.

**TABLE 2.3  
CONFINING ZONES  
Federal 15-6-9-18**

Formation Name	Formation Lithology	Top (ft)	Base (ft)
Green River	Shale with intermittent thin argillaceous silt intervals.	3,542	3,736

**Underground Sources of Drinking Water (USDWs) (TABLE 2.4)**

Aquifers or the portions thereof which contain less than 10,000 mg/l total dissolved solids (TDS) and are being or could in the future be used as a source of drinking water are considered to be USDWs. The USDWs in the area of this facility are identified in TABLE 2.4.

Throughout the Greater Monument Butte Field area undergoing enhanced oil recovery operations, water analyses of the Green River Formation generally exhibit total dissolved solids (TDS) content well in excess of 10,000 mg/l. However, some recent water analyses from the field showed lower TDS values closer to 10,000 mg/l. While rain and surface water recharge into Green River Formation outcrops further south along the Book Cliffs/Roan Cliffs in effect "freshens" the Green River Formation water near those outcrops, in this area of the Monument Butte Field the observed occasional 'freshening' is ascribed to the effective dilution of the originally in-place high TDS water from injection of relatively fresh water for enhanced oil recovery operations. Water samples from deeper Mesaverde Formation sands in the nearby Natural Buttes Unit yield highly saline water.

The State of Utah "Water Wells and Springs" identifies no public water supply wells within the one-quarter (1/4) mile Area-of-Review (AOR) around the Federal No. 15-6-9-18.

Technical Publication No. 92: State of Utah, Department of Natural Resources, cites the base of Underground Sources of Drinking Water (USDW) in the Uinta Formation approximately 275 feet from the surface. However, absent definitive information relative to the water quality of the Uinta Formation, from the depth of 275 feet to the base of the Uinta Formation (1418 feet), the EPA will require, during plugging and abandonment, a cement plug at the base of the Uinta Formation to protect contamination of possible Uinta USDWs.

**TABLE 2.4**  
**UNDERGROUND SOURCES OF DRINKING WATER (USDW)**  
**Federal 15-6-9-18**

Formation Name	Formation Lithology	Top (ft)	Base (ft)	TDS (mg/l)
Uinta	Determined from Publication No. 92. Fluvial sand and shale.	0	275	< 10,000
Uinta	TDS unknown. Interbedded lacustrine sand, shale and carbonate with fluvial sand and shale.	275	1,418	

### PART III. Well Construction (40 CFR 146.22)

The Federal No.15-6-9-18 was drilled to a total depth of 5935 feet (KB) feet in the Basal Carbonate Member of the Green River Formation.

Surface casing (8-5/8 inch) was set at a depth of 311 feet in a 12-1/4 inch hole using 150 sacks of Class "G" cement which was circulated to the surface.

Production casing (5-1/2 inch) was set at a depth of 5922 feet (KB) in a 7-7/8 inch hole with 300 sacks of Premium Lite II and 400 sacks of 50/50 poz mix. This well construction is considered adequate to protect USDWs.

The EPA calculates the top of cement as 1398 feet from the surface. The Cement Bond Log (CBL) identifies top of cement at surface. CBL analysis does identify adequate 80% bond index cement bond within the Confining Zone.

The schematic diagram shows enhanced recovery injection perforations in the Garden Gulch and Douglas Creek Members of the Green River Formation. Additional perforations may be added at a later time between the depths of 3736 feet and the top of the Wasatch Formation (Estimated to be 6021 feet) provided the operator first notifies the Director and later submits an updated well completion report (EPA Form 7520-12) and schematic diagram.

The packer will be set no higher than 100 feet above the top perforation.

**TABLE 3.1**  
**WELL CONSTRUCTION REQUIREMENTS**  
**Federal 15-6-9-18**

Casing Type	Hole Size (in)	Casing Size (in)	Cased Interval (ft)	Cemented Interval (ft)
Production	7.88	5.50	0 - 5,922	0 - 5,935
Surface	12.25	8.63	0 - 301	0 - 301

The approved well completion plan will be incorporated into the Permit as APPENDIX A and will be binding on the Permittee. Modification of the approved plan is allowed under 40 CFR 144.52(a)(1) provided written approval is obtained from the Director prior to actual modification.

**Casing and Cementing (TABLE 3.1)**

The well construction plan was evaluated and determined to be in conformance with standard practices and guidelines that ensure well injection does not result in the movement of fluids into USDWs. Well construction details for this "new" injection well is shown in TABLE 3.1.

Remedial cementing may be required if the casing cement is shown to be inadequate by cement bond log or other demonstration of Part II (External) mechanical integrity.

**Tubing and Packer**

Injection tubing is required to be installed from a packer up to the surface inside the well casing. The packer will be set above the uppermost perforation. The tubing and packer are designed to prevent injection fluid from coming into contact with the outermost casing.

**Tubing-Casing Annulus (TCA)**

The TCA allows the casing, tubing and packer to be pressure-tested periodically for mechanical integrity, and will allow for detection of leaks. The TCA will be filled with fresh water treated with a corrosion inhibitor or other fluid approved by the Director.

The tubing/casing annulus must be kept closed at all times so that it can be monitored as required under conditions of the Permit.

**Monitoring Devices**

The permittee will be required to install and maintain wellhead equipment that allows for monitoring pressures and providing access for sampling the injected fluid. Required equipment may include but is not limited to: 1) shut-off valves located at the wellhead on the injection tubing and on the TCA; 2) a flow meter that measures the cumulative volume of injected fluid; 3) fittings or pressure gauges attached to the injection tubing and the TCA for monitoring the injection and TCA pressure; and 4) a tap on the injection line, isolated by shut-off valves, for sampling the injected fluid.

All sampling and measurement taken for monitoring must be representative of the monitored activity.

## PART IV. Area of Review, Corrective Action Plan (40 CFR 144.55)

**TABLE 4.1  
AOR AND CORRECTIVE ACTION**

Well Name	Type	Status (Abandoned Y/N)	Total Depth (ft)	TOC Depth (ft)	CAP Required (Y/N)
Federal No. 10-6-9-18	Other	No	5,970	400	No
Federal No. 14-6-9-18	Producer	No	5,945	230	No
Federal No. 16-6-9-18	Producer	No	5,950	610	No
Federal No. 9-6-9-18	Injector	No	5,942	76	No

TABLE 4.1 lists the wells in the Area of Review ("AOR") and shows the well type, operating status, depth, top of casing cement ("TOC") and whether a Corrective Action Plan ("CAP") is required for the well.

### Area Of Review

Applicants for Class I, II (other than "existing" wells) or III injection well Permits are required to identify the location of all known wells within the injection well's Area of Review (AOR) which penetrate the injection zone, or in the case of Class II wells operating over the fracture pressure of the formation, all known wells within the area of review that penetrate formations which may be affected by increased pressure. Under 40 CFR 146.6 the AOR may be a fixed radius of not less than one quarter (1/4) mile or a calculated zone of endangering influence. For Area Permits, a fixed width of not less than one quarter (1/4) mile for the circumscribing area may be used.

### Corrective Action Plan

For wells in the AOR which are improperly sealed, completed, or abandoned, the applicant shall develop a Corrective Action Plan (CAP) consisting of the steps or modifications that are necessary to prevent movement of fluid into USDWs.

The CAP will be incorporated into the Permit as APPENDIX F and become binding on the permittee.

## PART V. Well Operation Requirements (40 CFR 146.23)

**TABLE 5.1  
INJECTION ZONE PRESSURES  
Federal 15-6-9-18**

Formation Name	Depth Used to Calculate MAIP (ft)	Fracture Gradient (psi/ft)	Initial MAIP (psi)
Green River	4,209	0.720	1,180

The approved injection fluid is limited to Class II injection well fluids pursuant to 40 CFR § 144.6(b). For disposal wells injecting water brought to the surface in connection with natural gas storage operations, or conventional oil or natural gas production, the fluid may be commingled and the well used to inject other Class II wastes such as drilling fluids and spent well completion, treatment and stimulation fluid. Injection of non-exempt wastes, including unused fracturing fluids or acids, gas plant cooling tower cleaning wastes, service wastes, and vacuum truck and drum rinsate from trucks and drums transporting or containing non-exempt waste, is prohibited.

The proposed injectate will be a blend of culinary-quality water from the Johnson Water District reservoir and/or Green River pipeline water, and Green River Formation produced water from wells proximate to the Federal No. 15-6-9-18.

### **Injection Pressure Limitation**

Injection pressure, measured at the wellhead, shall not exceed a maximum calculated to assure that the pressure used during injection does not initiate new fractures or propagate existing fractures in the confining zones adjacent to the USDWs.

The applicant submitted injection fluid density and injection zone data which was used to calculate a formation fracture pressure and to determine the maximum allowable injection pressure (MAIP), as measured at the surface, for this Permit.

TABLE 5.1 lists the fracture gradient for the injection zone and the approved MAIP, determined according to the following formula:

$$FP = [fg - (0.433 * sg)] * d$$

- FP = formation fracture pressure (measured at surface)
- fg = fracture gradient (from submitted data or tests)
- sg = specific gravity (of injected fluid)
- d = depth to top of injection zone (or top perforation)

### **Injection Volume Limitation**

Cumulative injected fluid volume limits are set to assure that injected fluids remain within the boundary of the exempted area. Cumulative injected fluid volume is limited when injection occurs into an aquifer that has been exempted from protection as a USDW.

There will be no restrictions on the cumulative or daily volume of water injected into the approved Green River Formation interval. The Permittee will not exceed the maximum authorized surface injection pressure.

### **Mechanical Integrity (40 CFR 146.8)**

An injection well has mechanical integrity if:

1. there is no significant leak in the casing, tubing, or packer (Part I); and
2. there is no significant fluid movement into a USDW through vertical channels adjacent to the injection well bore (Part II).

The Permit prohibits injection into a well which lacks mechanical integrity.

The Permit requires that the well demonstrate mechanical integrity prior to injection and

periodically thereafter. A demonstration of mechanical integrity includes both internal (Part I) and external (Part II). The methods and frequency for demonstrating Part I and Part II mechanical integrity are dependent upon well-specific conditions as explained below.

Well construction and site-specific conditions dictate the following requirements for Mechanical Integrity (MI) demonstrations:

**PART I MI:** Internal MI will be demonstrated prior to beginning injection. Since this well is constructed with a standard casing, tubing, and packer configuration, a successful mechanical integrity test (MIT) is required to take place at least once every five (5) years. A demonstration of Part I MI is also required prior to resuming injection following any workover operation that affects the casing, tubing or packer. Part I MI may be demonstrated by a standard tubing-casing annulus pressure test using the maximum permitted injection pressure or 1000 psi, which ever is less, with a ten (10) percent or less pressure loss over thirty (30) minutes.

## **PART VI. Monitoring, Recordkeeping and Reporting Requirements**

### **Injection Well Monitoring Program**

At least once a year the permittee must analyze a sample of the injected fluid for total dissolved solids (TDS), specific conductivity, pH, and specific gravity. This analysis shall be reported to EPA annually as part of the Annual Report to the Director. Any time a new source of injected fluid is added, a fluid analysis shall be made of the new source.

Instantaneous injection pressure, injection flow rate, cumulative fluid volume and TCA pressures must be observed on a weekly basis. A recording, at least once every thirty (30) days, must be made of the injection pressure, annulus pressure, monthly injection flow rate and cumulative fluid volume. This information is required to be reported annually as part of the Annual Report to the Director.

## **PART VII. Plugging and Abandonment Requirements (40 CFR 146.10)**

See Schematic Diagram:

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

**PLUG NO. 1: Seal Injection Zone:** Set a cast iron bridge plug (CIBP) no more than fifty (50) feet above the top injection perforation. Place at least twenty (20) feet of cement plug on top of the CIBP.

**PLUG NO. 2: Seal Mahogany Shale and Trona intervals:** Squeeze a cement plug on the backside of the 5-1/2 inch casing across the Trona Zone and the Mahogany Shale approximately 2850 feet to 3010 feet (unless pre-existing backside cement precludes cement-squeezing this interval) followed by a minimum 160-foot balanced cement plug inside the 5-1/2 inch casing across the Trona Zone and the Mahogany Shale, approximately 2850 feet to 3010 feet.

**PLUG NO. 3: Seal USDWs:** Squeeze a cement plug (1370 feet - 1470 feet) on the backside of the 5-1/2 inch casing across the base of the Uinta formation (unless pre-existing backside cement precludes cement-squeezing this interval), followed by a minimum 100-foot balanced cement plug inside the 5-1/2 inch casing across the base of the Uinta Formation, approximately 1300 feet to 1400 feet.

**PLUG NO.4: Seal Surface:** Set a Class "G" cement plug within the 5-1/2 inch casing to 350 feet and up the 5-1/2 inch by 8-5/8 inch casings annulus to the surface.

### **Plugging and Abandonment Plan**

Prior to abandonment, the well shall be plugged in a manner that isolates the injection zone and prevents movement of fluid into or between USDWs, and in accordance with any applicable Federal, State or local law or regulation. Tubing, packer and other downhole apparatus shall be removed. Cement with additives such as accelerators and retarders that control or enhance cement properties may be used for plugs; however, volume-extending additives and gel cements are not approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.6 lb/gal shall be placed between all plugs. A minimum 50 ft surface plug shall be set inside and outside of the surface casing to seal pathways for fluid migration into the subsurface. Within sixty (60) days after plugging the owner or operator shall submit Plugging Record (EPA Form 7520 13) to the Director. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. The plugging and abandonment plan is described in Appendix E of the Permit.

## **PART VIII. Financial Responsibility (40 CFR 144.52)**

### **Demonstration of Financial Responsibility**

The permittee is required to maintain financial responsibility and resources to close, plug, and abandon the underground injection operation in a manner prescribed by the Director. The permittee shall show evidence of such financial responsibility to the Director by the submission of a surety bond, or other adequate assurance such as financial statements or other materials acceptable to the Director. The Regional Administrator may, on a periodic basis, require the holder of a lifetime permit to submit a revised estimate of the resources needed to plug and abandon the well to reflect inflation of such costs, and a revised demonstration of financial responsibility if necessary. Initially, the operator has chosen to demonstrate financial responsibility with:

Financial Statement that was reviewed and approved by the EPA January 11, 2008.

Financial Statement, received April 22, 2005

Evidence of continuing financial responsibility is required to be submitted to the Director annually.



# Mechanical Integrity Test

## Casing or Annulus Pressure Mechanical Integrity Test

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

EPA Witness: \_\_\_\_\_ Date: 8/1/2010  
 Test conducted by: Trefley J. Raza  
 Others present: \_\_\_\_\_

Well Name: <u>Fed. 15-6-9-18</u>	Type: ER SWD	Status: AC TA UC
Field: <u>MONUMENT BUTTE</u>		
Location: <u>SUISE</u> Sec: <u>6</u> T <u>9</u> N <u>18</u> R <u>18E1</u> W County: <u>VINTAH</u> State: <u>VT</u>		
Operator: <u>Newfield</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

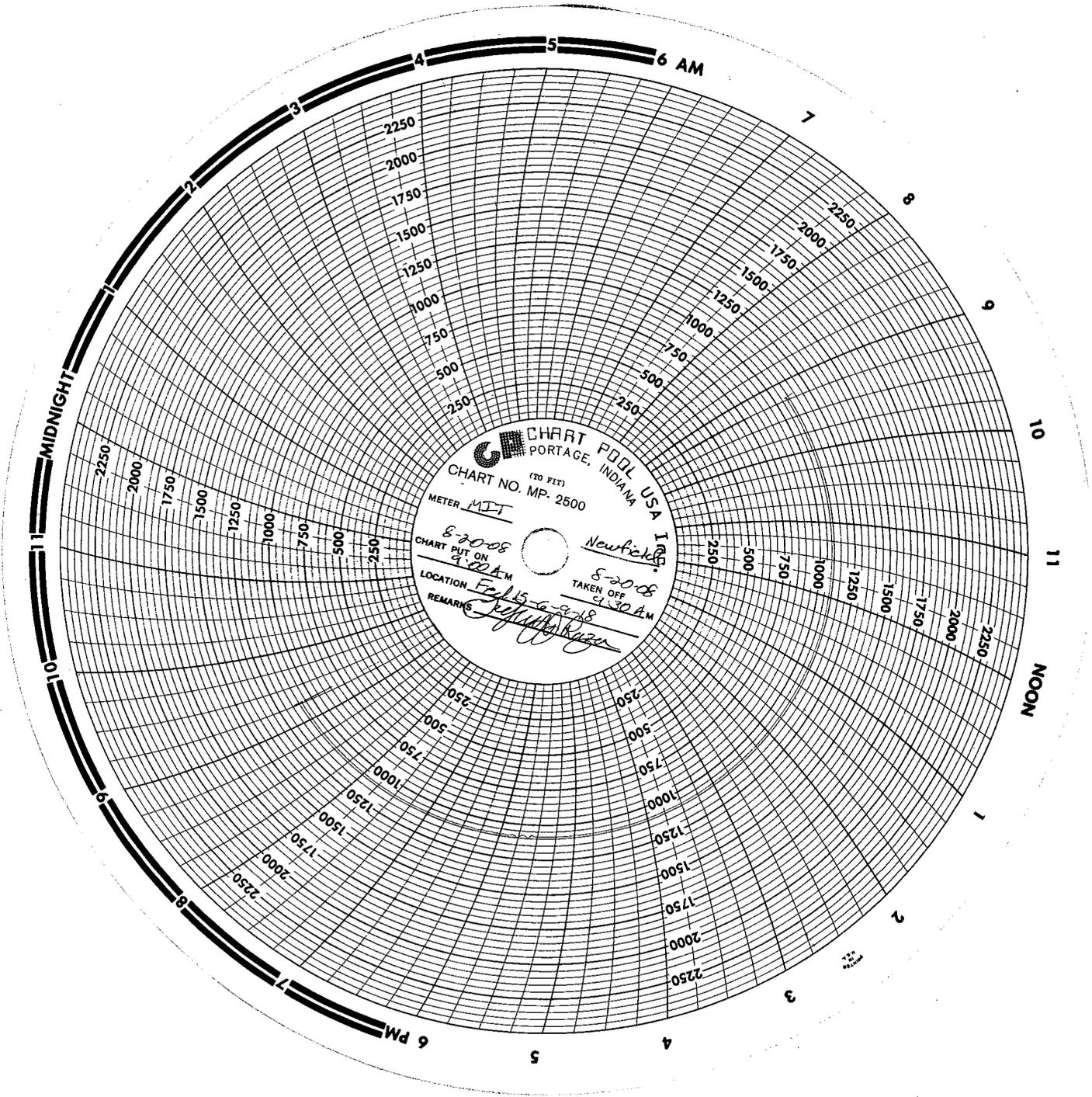
MIT DATA TABLE	Test #1	Test #2	Test #3
<b>TUBING PRESSURE</b>			
Initial Pressure	<u>270</u> psig	psig	psig
End of test pressure	<u>270</u> psig	psig	psig
<b>CASING / TUBING ANNULUS PRESSURE</b>			
0 minutes	<u>1080</u> psig	psig	psig
5 minutes	<u>1080</u> psig	psig	psig
10 minutes	<u>1080</u> psig	psig	psig
15 minutes	<u>1080</u> psig	psig	psig
20 minutes	<u>1080</u> psig	psig	psig
25 minutes	<u>1080</u> psig	psig	psig
30 minutes	<u>1080</u> psig	psig	psig
_____ minutes	<u>—</u> psig	psig	psig
_____ minutes	<u>—</u> psig	psig	psig
<b>RESULT</b>	<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**    RECEIVED  
AUG 25 2008

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.:  
DIV OF OIL, GAS & MINING

Signature of Witness: \_\_\_\_\_



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**FEDERAL 15-6-9-18**  
**6/1/2008 To 10/30/2008****8/5/2008 Day: 1****Conversion**

Basin #2 Swabbing on 8/4/2008 - MIRU Basin #2. RU HO trk & pump 70 BW dn annulus @ 250°F. RD pumping unit & PU on rod string--parted. TOH W/ rods. Found body break on #61. TIH W/ overshot on rods. Latch onto fish. Slips off @ 8K over (several tries). TOH W/ rods & inspect overshot. MU new overshot & TIH on rods. Latch onto fish. Still slipping off. TOH & LD rods & overshot. ND wellhead & release TA @ 5681'. NU BOP. TOH W/ 12 jts tbg (found fluid). Broke each connection, clean & inspect pins and apply Liquid O-ring to pins. (Pumped add'l 105 BW dn annulus during fishing). SIFN.

---

**8/6/2008 Day: 2****Conversion**

Basin #2 Swabbing on 8/5/2008 - Con't TOH & talley production tbg. Broke each connection, clean & inspect pins and apply Liquid O-ring to pins. Found rods. Unseat pump. Flush tbg & rods W/ 40 BW @ 250°F. Finish LD rod string & pump. Con't TOH & talley production tbg. Broke each connection, clean & inspect pins and apply Liquid O-ring to pins. Out W/ 97 jts total. SIFN.

---

**8/7/2008 Day: 3****Conversion**

Basin #2 Swabbing on 8/6/2008 - TOH & talley production tbg. LD btm 50 jts and BHA. Flushed tbg W/ 30 BW on TOH. TIH W/ injection as follows: new Weatherford 5 1/2" Arrowset 1-X pkr (W/ hardened steel slips & W.L. re-entry guide), new SN & 128 jts 2 7/8 8rd 6.5# J-55 tbg. RU HO trk & pump 10 bbl pad. Drop standing valve & pump to SN. Pressure test tbg to 3000 psi. Bled air & repressured several times. Final test held 3000 psi for 30 minutes. RIH W/ overshot on sandline. ND BOP & land tbg on flange. Mix 15 gals Multi-Chem C-6031 & 5 gals B-8625 in 70 bbls fresh wtr. RU HO trk & pump dn annulus @ 90°F. PU on tbg & set pkr W/ SN @ 4156', CE @ 4160' & EOT @ 4165'. Land tbg W/ 16,000# tension. NU wellhead. Pressure test casing & pkr to 1400 psi. Held solid for 30 minutes. RDMOSU. Well ready for MIT.

---

**8/21/2008 Day: 4****Conversion**

Rigless on 8/20/2008 - On 8/13/08 Margo Smith with the EPA was contacted concerning the initial MIT on the above listed well (Fed 15-6-9-18). Permission was given at that time to perform the test on 8/20/08. On 8/20/08 the csg was pressured up to 1080 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tbg pressure was 270 psig during the test. There was not an EPA representative available to witness the test. EPA# UT21086-07307 API# 43-047-35185



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8

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

Ref: 8P-W-GW

SEP 09 2008

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

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

Michael Guinn  
District Manager  
Newfield Production Company  
Route 3 - Box 3630  
Myton, UT 84052

95 18E 6

RE: Authority to Commence Injection  
EPA UIC Permit UT21086-07307  
Well: Federal 15-6-9-18  
Uintah County, Utah  
API #: 43-047-35185

Dear Mr. Guinn:

Newfield Production Company (Newfield) has satisfactorily completed Environmental Protection Agency (EPA) **Prior to Commencing Injection** requirements for Final Permit UT21086-07307, effective April 18, 2008. The Part I (Internal) Mechanical Integrity Test (MIT), Well Rework Record (EPA Form No. 7520-12), schematic diagram, and pore pressure, were reviewed and approved by EPA on September 4, 2008.

As of the date of this letter, Newfield is authorized to commence injection into Federal 15-6-9-18 at a maximum authorized injection pressure (MAIP) of **1180 psig**. Until such time as the Permittee demonstrates through a Step Rate Test (SRT) that the Fracture Gradient (FG) is other than 0.72 psi/ft, Federal 15-6-9-18 shall be operated at a MAIP no greater than **1180 psig**.

As of this approval, responsibility for permit compliance and enforcement is transferred to Region 8 UIC Technical Enforcement Program office. Therefore, please direct all monitoring

RECEIVED

SEP 15 2008

DIV. OF OIL, GAS & MINING

and compliance correspondence to the following address, referencing your well name and UIC Permit number on all correspondence regarding this well to:

Mr. Nathan Wisner  
Technical Enforcement Program – UIC  
U.S. EPA Region 8: Mail Code 8ENF-UFO  
1595 Wynkoop Street  
Denver, CO 80202-1129

Or, you may reach Mr. Wisner by telephone at 303-312-6211, or 1 800-227-8927, ext. 312-6211.

Please remember that it is your responsibility to be aware of and to comply with all conditions of injection well Permit UT21086-07307.

If you have questions regarding the above action, please call Margo Smith at 303-312-6318 or 1-800-227-8917, ext. 312-312-6318.

Sincerely,



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

cc: Uintah & Ouray Business Committee, Ute Indian Tribe  
Curtis Cesspooch, Chairman  
Ronald Groves, Councilman  
Irene Cuch, Vice-Chairwoman  
Steven Cesspooch, Councilman  
Phillip Chimburas, Councilman  
Frances Poowegup, Councilwoman

Larry Love, Director  
Energy and Minerals Department  
Ute Indian Tribe

Daniel Picard, Superintendent  
BIA - Uintah & Ouray Indian Agency

Shawn Chapoose, Director  
Land Use Department  
Ute Indian Tribe

Gil Hunt  
Assistant Director  
Utah Division of Oil, Gas, and Mining

Fluid Minerals Engineering Office  
BLM - Vernal Office

Eric Sundberg  
Regulatory Analyst  
Newfield Exploration Company

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

5. LEASE DESIGNATION AND SERIAL NUMBER:  
USA UTU-74835

**SUNDRY NOTICES AND REPORTS ON WELLS**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:  
SUNDANCE UNIT

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.

1. TYPE OF WELL: OIL WELL  GAS WELL  OTHER

8. WELL NAME and NUMBER:  
FEDERAL 15-6-9-18

2. NAME OF OPERATOR:  
NEWFIELD PRODUCTION COMPANY

9. API NUMBER:  
4304735185

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: 660 FSL 1980 FEL  
OTR/OTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWSE, 6, T9S, R18E

COUNTY: UINTAH  
STATE: UT

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will <u>10/01/2008</u>	<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"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of Work Completion: _____	<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 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: - Change status, put well on injection
	<input checked="" type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  
The above reference well was put on injection at 2:00 PM on 10-1-08.

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

NAME (PLEASE PRINT) Kathy Chapman TITLE Office Manager

SIGNATURE *Kathy Chapman* DATE 10/02/2008

(This space for State use only)

**RECEIVED  
OCT 06 2008  
DIV. OF OIL, GAS & MINING**

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

5. LEASE DESIGNATION AND SERIAL NUMBER:  
USA UTU-74835

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:  
GMBU

8. WELL NAME and NUMBER:  
FEDERAL 15-6-9-18

9. API NUMBER:  
4304735185

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

**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.

1. TYPE OF WELL: OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR:  
NEWFIELD PRODUCTION COMPANY

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

4. LOCATION OF WELL:  
FOOTAGES AT SURFACE: 660 FSL 1980 FEL COUNTY: UINTAH  
OTR/TR. SECTION. TOWNSHIP. RANGE. MERIDIAN: SWSE, 6, T9S, R18E STATE: UT

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

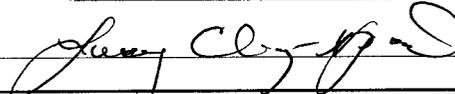
TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> 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:	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
08/02/2010	<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 August 2, 2010. Results from the test indicate that the fracture gradient is .792 psi/ft. Therefore, Newfield is requesting that the maximum allowable injection pressure (MAIP) be changed from 1180 psi to 1480 psi.

EPA: UT21086-07307 API: 43-047-35185

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

NAME (PLEASE PRINT) Lucy Chavez-Naupoto TITLE Administrative Assistant

SIGNATURE  DATE 08/06/2010

(This space for State use only)

**RECEIVED**  
**AUG 11 2010**  
DIV. OF OIL, GAS & MINING

## Step Rate Test (SRT) Analysis

Date: 08/04/2010

Operator:

Newfield Production Company

Well:

Federal 15-6-9-18

Permit #:

UT21086-07307

**Enter the following data :**

Specific Gravity (sg) of injectate =	<u>1.015</u>	g/cc	
Depth to top perforation (D) =	<u>4209</u>	feet	4209
Top of permitted injection zone depth (blank=use top perforation to calculate fg) =		feet	
Estimated Formation Parting Pressure (P <sub>fp</sub> ) from SRT chart =	<u>1485</u>	psi	
Instantaneous Shut In Pressure (ISIP) from SRT =	<u>1493</u>	psi	1485
Bottom Hole Parting Pressure (P <sub>bhp</sub> ) from downhole pressure recorder =		psi	no downhole

### Part One - Calculation of Fracture Gradient (fg)

**Calculated Fracture Gradient = 0.792 psi/ft.**

where: fg = P<sub>bhp</sub> / D (Note: this formula uses the downhole recorded bottom hole parting pressure if available) = 1493

D = depth used = 4209

P<sub>bhp</sub> used = 3335

**Calculated Bottom Hole Parting Pressure (P<sub>bhp</sub>) = 3335 psi**

3334.834

to calculate Bottom Hole Parting Pressure (P<sub>bhp</sub>) = Formation Fracture Pressure (ISIP or P<sub>fp</sub>) + (0.433 \* SG \* D)

(Uses lesser of ISIP or P<sub>fp</sub>) Value used = 1485

### Part Two - Calculation of Maximum Allowable Injection Pressure (MAIP)

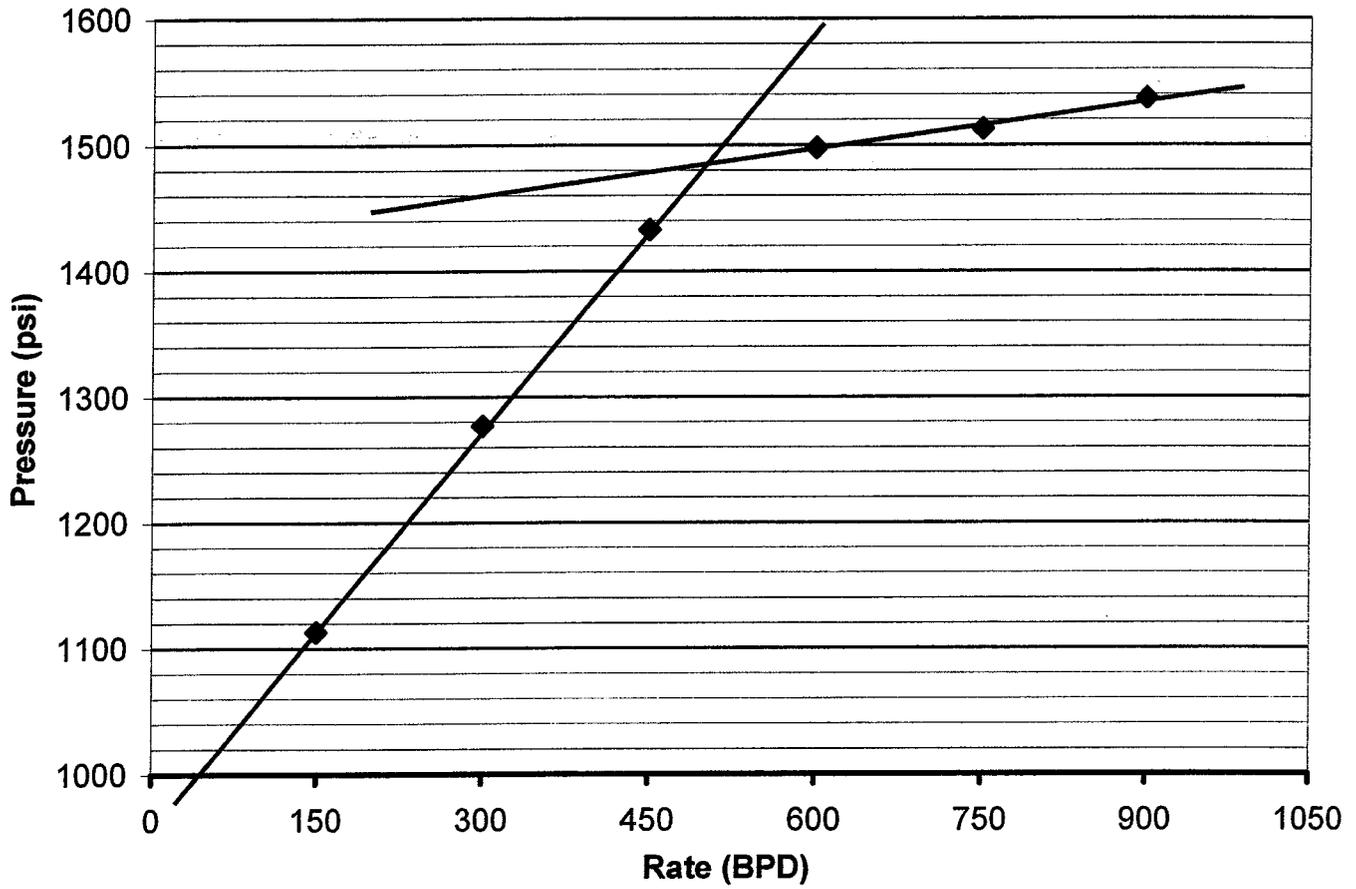
**Maximum Allowable Injection Pressure (MAIP) = 1480 psig**

D = depth used = 4209

MAIP = [fg \* (0.433 \* SG)] \* D = 1483.694

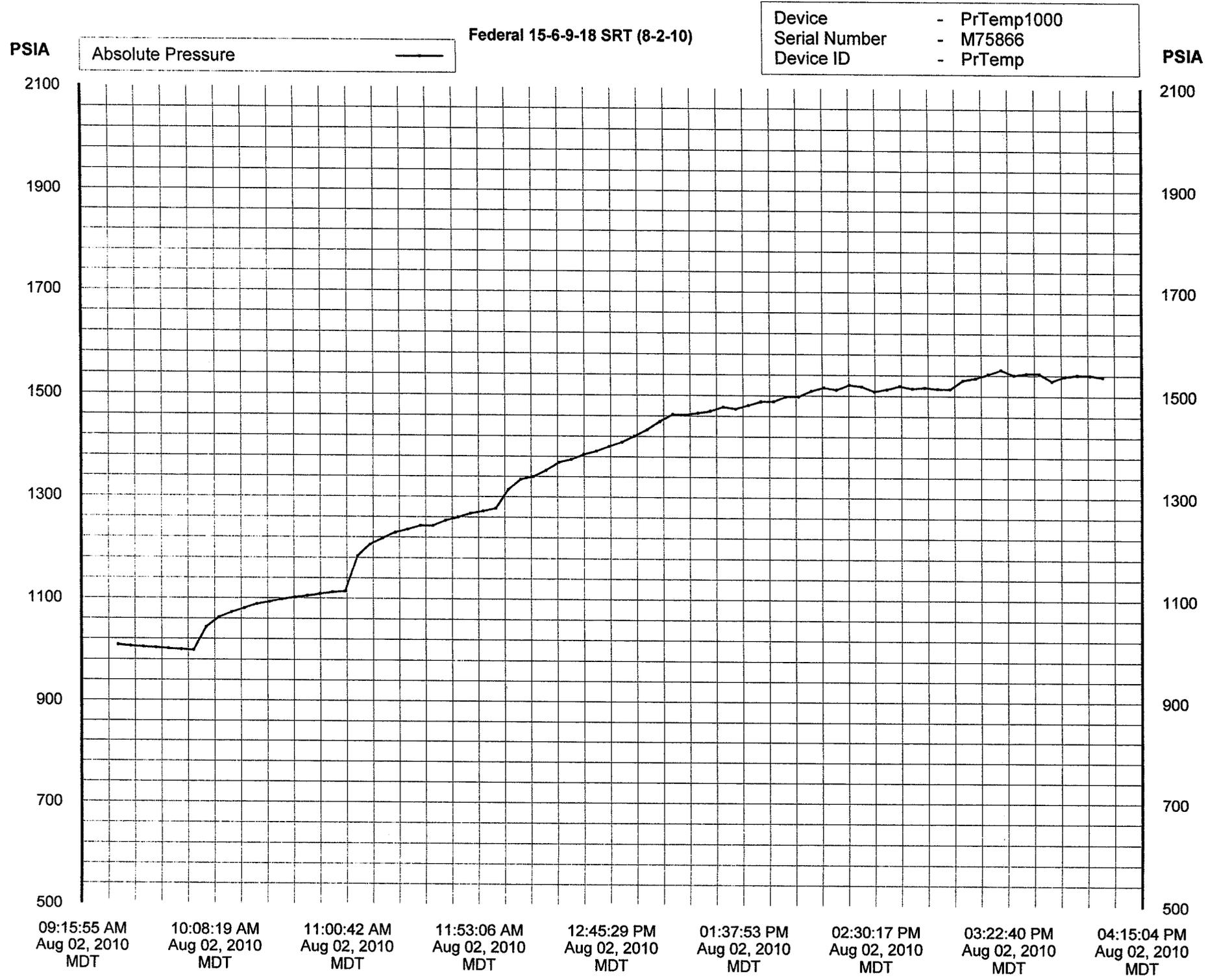
(rounded down to nearest 5 psig)

**Federal 15-6-9-18  
Greater Monument Butte Unit  
Step Rate Test  
August 2, 2010**



**Start Pressure:** 998 psi  
**Instantaneous Shut In Pressure (ISIP):** 1493 psi  
**Top Perforation:** 4209 feet  
**Fracture pressure (Pfp):** 1485 psi  
**FG:** 0.792 psi/ft

<b>Step</b>	<b>Rate(bpd)</b>	<b>Pressure(psi)</b>
1	150	1113
2	300	1277
3	450	1433
4	600	1498
5	750	1513
6	900	1537



Report Name: PrTemp1000 Data Table  
 Report Date: Aug 03, 2010 11:10:46 AM MDT  
 File Name: C:\Program Files\PTC@ Instruments 2.00\Federal 15-6-9-18 SRT (8-2-10).csv  
 Title: Federal 15-6-9-18 SRT (8-2-10)  
 Device: PrTemp1000 - Temperature and Pressure Recorder  
 Hardware Revision: REV2C (64K)  
 Serial Number: M75866  
 Device ID: PrTemp  
 Data Start Date: Aug 02, 2010 09:30:00 AM MDT  
 Data End Date: Aug 02, 2010 03:59:59 PM MDT  
 Reading Rate: 2 Seconds  
 Readings: 1 to 79 of 79  
 Last Calibration Date: May 22, 2009  
 Next Calibration Date: May 22, 2010

<u>Reading</u>	<u>Date and Time (MDT)</u>	<u>Absolute Pressure</u>	<u>Annotation</u>
1	Aug 02, 2010 09:30:00 AM	1008.200	PSIA
2	Aug 02, 2010 09:35:00 AM	1006.000	PSIA
3	Aug 02, 2010 09:40:00 AM	1004.400	PSIA
4	Aug 02, 2010 09:44:59 AM	1003.000	PSIA
5	Aug 02, 2010 09:49:59 AM	1001.200	PSIA
6	Aug 02, 2010 09:55:00 AM	999.600	PSIA
7	Aug 02, 2010 10:00:00 AM	998.200	PSIA
8	Aug 02, 2010 10:04:59 AM	1043.400	PSIA
9	Aug 02, 2010 10:09:59 AM	1061.600	PSIA
10	Aug 02, 2010 10:14:59 AM	1071.800	PSIA
11	Aug 02, 2010 10:19:59 AM	1080.000	PSIA
12	Aug 02, 2010 10:24:59 AM	1087.800	PSIA
13	Aug 02, 2010 10:29:59 AM	1092.400	PSIA
14	Aug 02, 2010 10:35:00 AM	1097.600	PSIA
15	Aug 02, 2010 10:39:59 AM	1101.200	PSIA
16	Aug 02, 2010 10:44:59 AM	1104.400	PSIA
17	Aug 02, 2010 10:49:59 AM	1108.200	PSIA
18	Aug 02, 2010 10:54:59 AM	1111.400	PSIA
19	Aug 02, 2010 10:59:59 AM	1113.400	PSIA
20	Aug 02, 2010 11:05:00 AM	1183.400	PSIA
21	Aug 02, 2010 11:10:00 AM	1206.200	PSIA
22	Aug 02, 2010 11:15:00 AM	1218.400	PSIA
23	Aug 02, 2010 11:20:00 AM	1229.000	PSIA
24	Aug 02, 2010 11:25:00 AM	1235.400	PSIA
25	Aug 02, 2010 11:30:00 AM	1242.400	PSIA
26	Aug 02, 2010 11:35:00 AM	1242.600	PSIA
27	Aug 02, 2010 11:39:59 AM	1253.000	PSIA
28	Aug 02, 2010 11:44:59 AM	1259.600	PSIA
29	Aug 02, 2010 11:50:00 AM	1266.800	PSIA
30	Aug 02, 2010 11:55:00 AM	1271.400	PSIA
31	Aug 02, 2010 12:00:00 PM	1277.000	PSIA
32	Aug 02, 2010 12:04:59 PM	1313.600	PSIA
33	Aug 02, 2010 12:09:59 PM	1334.400	PSIA
34	Aug 02, 2010 12:14:59 PM	1339.600	PSIA
35	Aug 02, 2010 12:19:59 PM	1352.000	PSIA
36	Aug 02, 2010 12:25:00 PM	1367.800	PSIA
37	Aug 02, 2010 12:30:00 PM	1374.000	PSIA
38	Aug 02, 2010 12:35:00 PM	1384.000	PSIA
39	Aug 02, 2010 12:39:59 PM	1390.400	PSIA
40	Aug 02, 2010 12:44:59 PM	1399.800	PSIA
41	Aug 02, 2010 12:50:00 PM	1408.400	PSIA
42	Aug 02, 2010 12:54:59 PM	1420.200	PSIA
43	Aug 02, 2010 01:00:00 PM	1432.800	PSIA
44	Aug 02, 2010 01:05:00 PM	1449.200	PSIA
45	Aug 02, 2010 01:10:00 PM	1462.400	PSIA
46	Aug 02, 2010 01:15:00 PM	1461.800	PSIA
47	Aug 02, 2010 01:19:59 PM	1465.400	PSIA
48	Aug 02, 2010 01:24:59 PM	1469.400	PSIA
49	Aug 02, 2010 01:30:01 PM	1477.200	PSIA
50	Aug 02, 2010 01:34:59 PM	1473.600	PSIA
51	Aug 02, 2010 01:40:00 PM	1481.000	PSIA
52	Aug 02, 2010 01:44:59 PM	1488.200	PSIA
53	Aug 02, 2010 01:49:59 PM	1488.400	PSIA
54	Aug 02, 2010 01:54:59 PM	1497.800	PSIA
55	Aug 02, 2010 01:59:59 PM	1498.000	PSIA
56	Aug 02, 2010 02:05:00 PM	1509.000	PSIA
57	Aug 02, 2010 02:09:59 PM	1515.600	PSIA
58	Aug 02, 2010 02:14:59 PM	1511.400	PSIA
59	Aug 02, 2010 02:19:59 PM	1520.800	PSIA
60	Aug 02, 2010 02:24:59 PM	1517.800	PSIA

61	Aug 02, 2010 02:29:59 PM	1508.400	PSIA
62	Aug 02, 2010 02:34:59 PM	1512.400	PSIA
63	Aug 02, 2010 02:39:59 PM	1519.200	PSIA
64	Aug 02, 2010 02:44:59 PM	1514.400	PSIA
65	Aug 02, 2010 02:49:59 PM	1516.000	PSIA
66	Aug 02, 2010 02:54:59 PM	1513.800	PSIA
67	Aug 02, 2010 02:59:59 PM	1513.400	PSIA
68	Aug 02, 2010 03:04:59 PM	1530.400	PSIA
69	Aug 02, 2010 03:09:59 PM	1534.400	PSIA
70	Aug 02, 2010 03:14:59 PM	1542.000	PSIA
71	Aug 02, 2010 03:19:59 PM	1550.600	PSIA
72	Aug 02, 2010 03:24:59 PM	1540.400	PSIA
73	Aug 02, 2010 03:29:59 PM	1543.400	PSIA
74	Aug 02, 2010 03:34:59 PM	1543.400	PSIA
75	Aug 02, 2010 03:39:59 PM	1529.600	PSIA
76	Aug 02, 2010 03:45:00 PM	1538.400	PSIA
77	Aug 02, 2010 03:49:59 PM	1541.000	PSIA
78	Aug 02, 2010 03:55:00 PM	1540.600	PSIA
79	Aug 02, 2010 03:59:59 PM	1537.200	PSIA

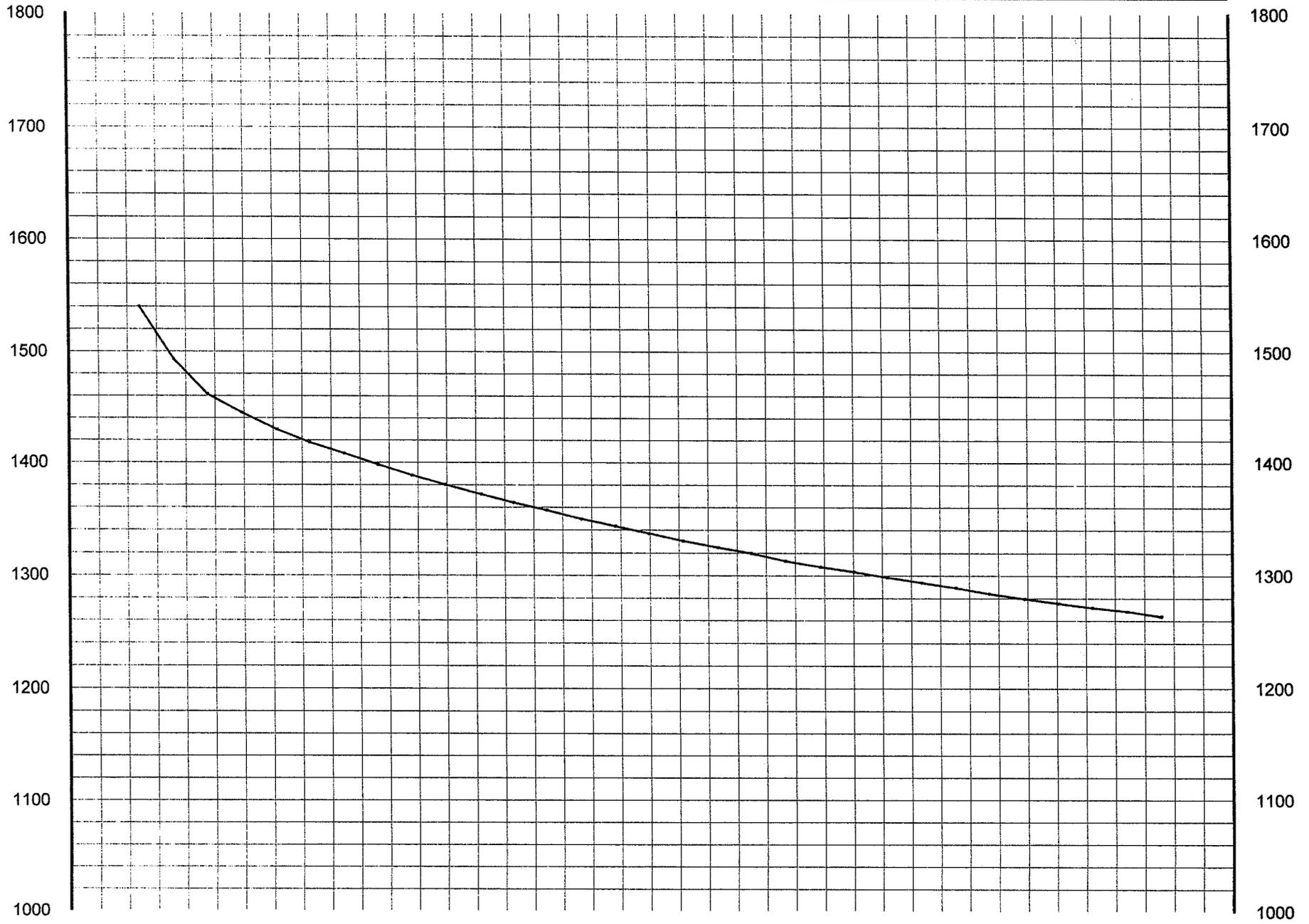
Federal 15-6-9-18 ISIP (8-2-10)

Device - PrTemp1000  
Serial Number - M75866  
Device ID - PrTemp

PSIA

Absolute Pressure

PSIA



03:58:10 PM Aug 02, 2010 MDT    04:02:26 PM Aug 02, 2010 MDT    04:06:42 PM Aug 02, 2010 MDT    04:10:58 PM Aug 02, 2010 MDT    04:15:14 PM Aug 02, 2010 MDT    04:19:31 PM Aug 02, 2010 MDT    04:23:47 PM Aug 02, 2010 MDT    04:28:03 PM Aug 02, 2010 MDT    04:32:19 PM Aug 02, 2010 MDT

Report Name: PrTemp1000 Data Table  
 Report Date: Aug 03, 2010 11:10:38 AM MDT  
 File Name: C:\Program Files\PTC@ Instruments 2.00\Federal 15-6-9-18 ISIP (8-2-10).csv  
 Title: Federal 15-6-9-18 ISIP (8-2-10)  
 Device: PrTemp1000 - Temperature and Pressure Recorder  
 Hardware Revision: REV2C (64K)  
 Serial Number: M75866  
 Device ID: PrTemp  
 Data Start Date: Aug 02, 2010 04:00:14 PM MDT  
 Data End Date: Aug 02, 2010 04:30:15 PM MDT  
 Reading Rate: 2 Seconds  
 Readings: 1 to 31 of 31  
 Last Calibration Date: May 22, 2009  
 Next Calibration Date: May 22, 2010

<u>Reading</u>	<u>Date and Time (MDT)</u>	<u>Absolute Pressure</u>	<u>Annotation</u>
1	Aug 02, 2010 04:00:14 PM	1539.800	PSIA
2	Aug 02, 2010 04:01:14 PM	1492.800	PSIA
3	Aug 02, 2010 04:02:13 PM	1461.400	PSIA
4	Aug 02, 2010 04:03:13 PM	1444.800	PSIA
5	Aug 02, 2010 04:04:15 PM	1429.600	PSIA
6	Aug 02, 2010 04:05:13 PM	1417.800	PSIA
7	Aug 02, 2010 04:06:14 PM	1407.800	PSIA
8	Aug 02, 2010 04:07:14 PM	1397.800	PSIA
9	Aug 02, 2010 04:08:14 PM	1388.400	PSIA
10	Aug 02, 2010 04:09:13 PM	1380.200	PSIA
11	Aug 02, 2010 04:10:17 PM	1371.600	PSIA
12	Aug 02, 2010 04:11:14 PM	1364.200	PSIA
13	Aug 02, 2010 04:12:13 PM	1357.600	PSIA
14	Aug 02, 2010 04:13:14 PM	1349.800	PSIA
15	Aug 02, 2010 04:14:14 PM	1343.400	PSIA
16	Aug 02, 2010 04:15:13 PM	1337.000	PSIA
17	Aug 02, 2010 04:16:13 PM	1330.400	PSIA
18	Aug 02, 2010 04:17:14 PM	1324.800	PSIA
19	Aug 02, 2010 04:18:13 PM	1319.800	PSIA
20	Aug 02, 2010 04:19:13 PM	1313.000	PSIA
21	Aug 02, 2010 04:20:15 PM	1307.600	PSIA
22	Aug 02, 2010 04:21:14 PM	1303.200	PSIA
23	Aug 02, 2010 04:22:13 PM	1298.400	PSIA
24	Aug 02, 2010 04:23:14 PM	1293.600	PSIA
25	Aug 02, 2010 04:24:14 PM	1289.200	PSIA
26	Aug 02, 2010 04:25:13 PM	1284.000	PSIA
27	Aug 02, 2010 04:26:15 PM	1279.600	PSIA
28	Aug 02, 2010 04:27:15 PM	1275.400	PSIA
29	Aug 02, 2010 04:28:14 PM	1271.800	PSIA
30	Aug 02, 2010 04:29:15 PM	1268.400	PSIA
31	Aug 02, 2010 04:30:15 PM	1263.800	PSIA

## *Federal 15-6-9-18 Rate Sheet (8-2-10)*

<i>Step # 1</i>	Time	10:05	10:10	10:15	10:20	10:25	10:30
	Rate	150.6	150.6	150.5	150.5	150.5	150.4
	Time	10:35	10:40	10:45	10:50	10:55	11:00
	Rate	150.4	150.4	150.4	150.3	150.3	150.3
<i>Step # 2</i>	Time	11:05	11:10	11:15	11:20	11:25	11:30
	Rate	300.4	300.4	300.4	300.4	300.4	300.3
	Time	11:35	11:40	11:45	11:50	11:55	12:00
	Rate	300.3	300.3	300.3	300.3	300.3	300.2
<i>Step # 3</i>	Time	12:05	12:10	12:15	12:20	12:25	12:30
	Rate	450.4	450.4	450.4	450.3	450.3	450.3
	Time	12:35	12:40	12:45	12:50	12:55	1:00
	Rate	450.3	450.3	450.3	450.2	450.2	450.2
<i>Step # 4</i>	Time	1:05	1:10	1:15	1:20	1:25	1:30
	Rate	600.6	600.6	600.6	600.6	600.4	600.4
	Time	1:35	1:40	1:45	1:50	1:55	2:00
	Rate	600.3	600.3	600.3	600.2	600.2	600.2
<i>Step # 5</i>	Time	2:05	2:10	2:15	2:20	2:25	2:30
	Rate	750.5	750.5	750.5	750.5	750.4	750.4
	Time	2:35	2:40	2:45	2:50	2:55	3:00
	Rate	750.4	750.4	750.3	750.3	750.3	750.3
<i>Step # 6</i>	Time	3:05	3:10	3:15	3:20	3:25	3:30
	Rate	900.5	900.5	900.4	900.4	900.4	900.4
	Time	3:35	3:40	3:45	3:50	3:55	4:00
	Rate	900.4	900.4	900.3	900.3	900.3	900.3
	Time						
	Rate						
	Time						
	Rate						
	Time						
	Rate						
	Time						
	Rate						



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8

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

SEP 03 2010

Ref: 8P-W-GW

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Mr. Michael Guinn  
District Manager  
Newfield Production Company  
Route 3-Box 3630  
Myton, UT 84502

RE: Underground Injection Control (UIC)  
Minor Permit Modification  
Authorization to Continue Injection  
EPA UIC Permit UT21086-07307  
Well: Federal 15-6-9-18  
SWSE Sec. 6 T9S-R18E  
Uintah County, UT  
API No.: 43-047-35185

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

Dear Mr. Guinn:

The Environmental Protection Agency Region 8 (EPA) has received Newfield Production Company's (Newfield) August 6, 2010, letter with enclosures requesting an increase in the Maximum Allowable Injection Pressure (MAIP) for the Federal 15-6-9-18 well. The enclosed Step Rate Test (SRT) results were reviewed and approved by EPA. Therefore, the MAIP for UIC Permit UT21086-07307 is hereby increased to 1,480 psig from the 1,180 psig previously authorized.

As of the date of this letter, EPA authorizes continued injection into the Federal 15-6-9-18 well under the terms and conditions of UIC Permit UT21086-07307 at the MAIP of 1,480 psig.

You may apply for a higher MAIP at a later date. Your application should be accompanied by the interpreted results of a SRT that measures the fracture parting pressure and determines the fracture gradient at the injection depth and location. A current copy of EPA guidelines for running and interpreting a SRT will be sent upon request.

**RECEIVED**

**SEP 15 2010**

**DIV. OF OIL, GAS & MINING**

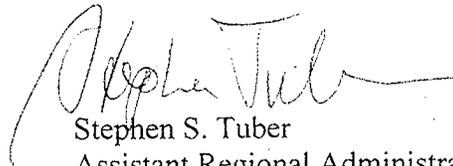
As of this approval, responsibility for permit compliance and enforcement is transferred to the EPA Region 8 UIC Technical Enforcement Program Office. Therefore, please direct all future notification, reporting, monitoring and compliance correspondence to the following address, referencing the well name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

US EPA, Region 8  
Attn: Nathan Wisler  
MC: ENF-UFO  
1595 Wynkoop Street  
Denver, CO 80202

For questions regarding notification, testing, monitoring, reporting or other permit requirements, Nathan Wisler of the UIC Technical Enforcement Program may be reached by calling 800-227-8917 (ext. 312-6211). Please be reminded that it is your responsibility to be aware of and to comply with all conditions of your Permit.

If you have any questions regarding this approval, please call Tom Aalto at 303-312-6949 or 800-227-8917 (ext. 312-6949).

Sincerely,



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

cc: Uintah & Ouray Business Committee:  
Curtis Cesspooch, Chairman  
Frances Poowegup, Vice-chairwoman  
Phillip Chimburas, Councilman  
Stewart Pike, Councilman  
Irene Cuch, Councilwoman  
Richard Jenks, Jr., Councilman

Daniel Picard  
BIA - Uintah & Ouray Indian Agency

Mike Natchees  
Environmental Coordinator  
Ute Indian Tribe

Manual Myore  
Director of Energy & Minerals Dept.  
Ute Indian Tribe

Brad Hill  
Acting Associate Director  
Utah Division of Oil, Gas, and Mining

Fluid Minerals Engineering Office  
BLM - Vernal Office

Eric Sundberg, Regulatory Analyst  
Newfield Production Company

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU-74835
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
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.		<b>7. UNIT or CA AGREEMENT NAME:</b> GMBU (GRRV)
<b>1. TYPE OF WELL</b> Water Injection Well		<b>8. WELL NAME and NUMBER:</b> FEDERAL 15-6-9-18
<b>2. NAME OF OPERATOR:</b> NEWFIELD PRODUCTION COMPANY		<b>9. API NUMBER:</b> 43047351850000
<b>3. ADDRESS OF OPERATOR:</b> Rt 3 Box 3630 , Myton, UT, 84052	<b>PHONE NUMBER:</b> 435 646-4825 Ext	<b>9. FIELD and POOL or WILDCAT:</b> 8 MILE FLAT NORTH
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0660 FSL 1980 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SWSE Section: 06 Township: 09.0S Range: 18.0E Meridian: S		<b>COUNTY:</b> UINTAH
		<b>STATE:</b> UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:  <input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 7/19/2013  <input type="checkbox"/> SPUD REPORT Date of Spud:  <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <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"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> WILDCAT WELL DETERMINATION <input checked="" type="checkbox"/> OTHER	
		<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION 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 07/19/2013 the casing was pressured up to 1400 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tbq pressure was 1050 psig during the test. There was not an EPA representative available to witness the test. EPA #UT22197-07307		<b>Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY August 21, 2013</b>
<b>NAME (PLEASE PRINT)</b> Lucy Chavez-Naupoto	<b>PHONE NUMBER</b> 435 646-4874	<b>TITLE</b> Water Services Technician
<b>SIGNATURE</b> N/A		<b>DATE</b> 7/23/2013

## Mechanical Integrity Test Casing or Annulus Pressure Mechanical Integrity Test

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

EPA Witness: \_\_\_\_\_ Date: 7/19/13  
 Test conducted by: BART Stubbs  
 Others present: \_\_\_\_\_

-07307

Well Name: <u>Fed 15-6-9-18</u>	Type: ER SWD	Status: AC TA UC
Field: <u>Monument Butte</u>		
Location: <u>15</u> Sec: <u>6</u> T <u>9</u> N <u>(S)</u> R <u>18</u> <u>(E)</u> W County: <u>Uintah</u> State: <u>Utah</u>		
Operator: <u>Newfield Production</u>		
Last MIT: <u>1</u> / <u>1</u>		Maximum Allowable Pressure: <u>1180</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: 0/1050 psig

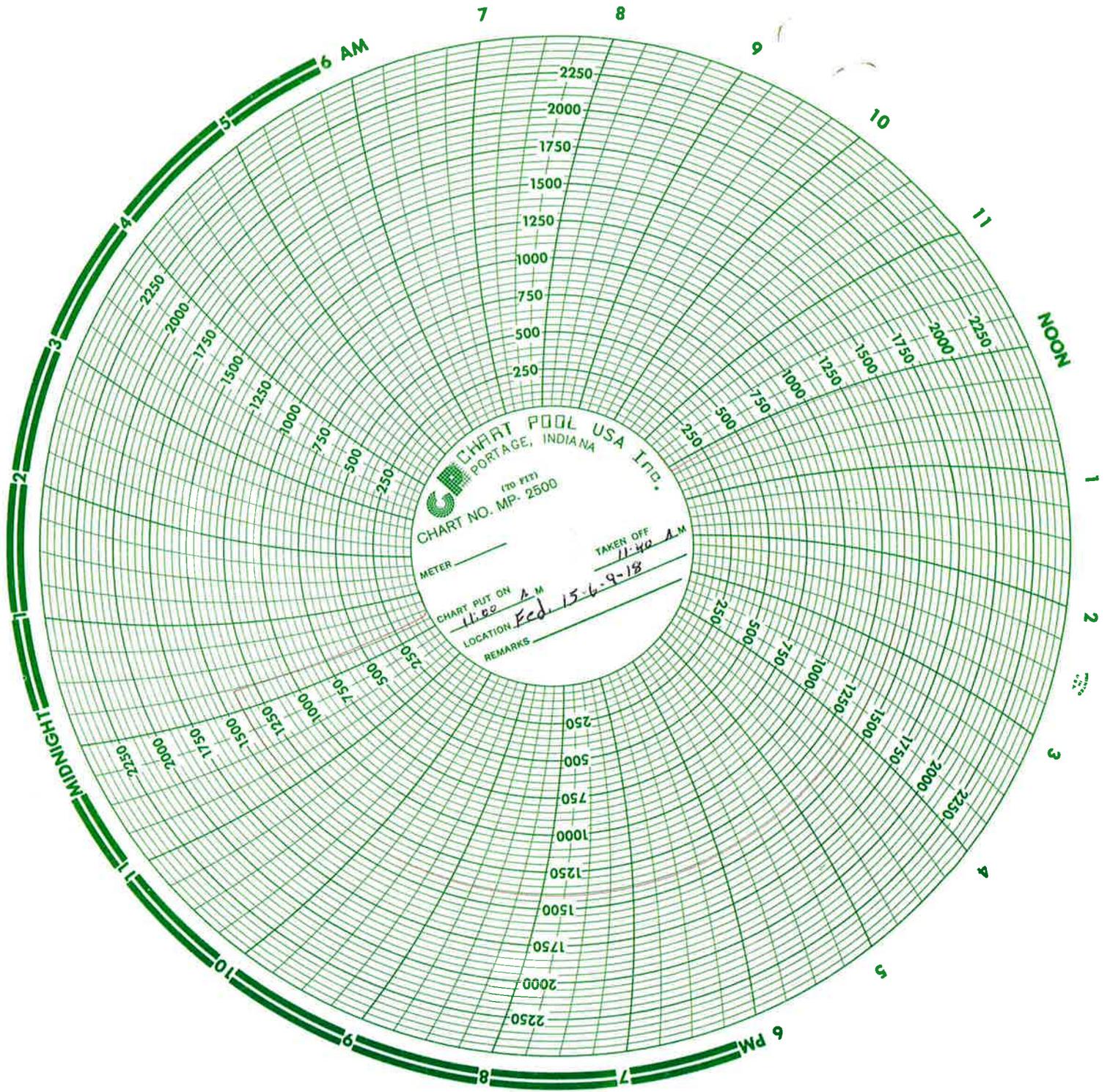
MIT DATA TABLE	Test #1	Test #2	Test #3
<b>TUBING PRESSURE</b>			
Initial Pressure	<u>1050</u> psig	psig	psig
End of test pressure	<u>1050</u> psig	psig	psig
<b>CASING / TUBING ANNULUS PRESSURE</b>			
0 minutes	<u>1400</u> psig	psig	psig
5 minutes	<u>1400</u> psig	psig	psig
10 minutes	<u>1400</u> psig	psig	psig
15 minutes	<u>1400</u> psig	psig	psig
20 minutes	<u>1400</u> psig	psig	psig
25 minutes	<u>1400</u> psig	psig	psig
30 minutes	<u>1400</u> psig	psig	psig
_____ minutes	psig	psig	psig
_____ minutes	psig	psig	psig
<b>RESULT</b>	<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: \_\_\_\_\_



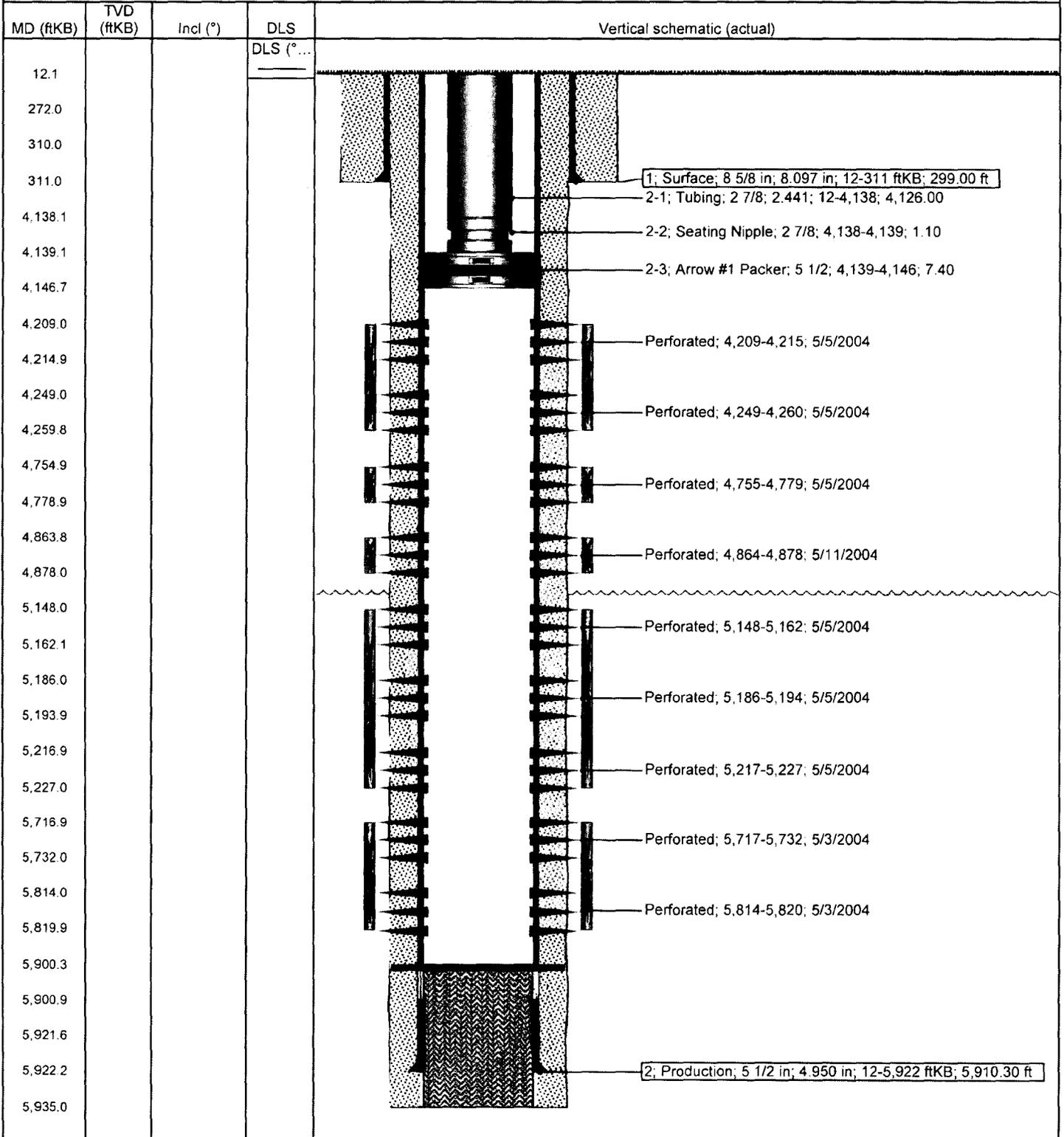
43-047-35185

**Well Name: Federal 15-6-9-18**

Surface Legal Location 06-9S-18E		API/OWI 43047351850000	Well RC 500151307	Lease	State/Province Utah	Field Name GMBU CTB10	County UINTAH
Spud Date 4/10/2004	Rig Release Date 4/18/2004	On Production Date 5/13/2004	Original KB Elevation (ft) 5,047	Ground Elevation (ft) 5,035	Total Depth All (TVD) (ftKB)	PBTD (All) (ftKB) Original Hole - 5,900.3	

<b>Most Recent Job</b>				
Job Category Testing	Primary Job Type	Secondary Job Type N/A	Job Start Date 7/19/2013	Job End Date 7/19/2013

**TD: 5,935.0** Vertical - Original Hole, 3/30/2016 9:45:15 AM



# NEWFIELD



## Newfield Wellbore Diagram Data Federal 15-6-9-18

Surface Legal Location 06-9S-18E		API/UWI 43047351850000		Lease	
County UINTAH		State/Province Utah		Basin	
Well Start Date 4/10/2004		Spud Date 4/10/2004		Final Rig Release Date 4/18/2004	
Original KB Elevation (ft) 5,047		Ground Elevation (ft) 5,035		Total Depth (ftKB) 5,935.0	
				Total Depth All (TVD) (ftKB)	
				PBTD (All) (ftKB) Original Hole - 5,900.3	

### Casing Strings

Csg Des	Run Date	OD (in)	ID (in)	Wt/Len (lb/ft)	Grade	Set Depth (ftKB)
Surface	4/10/2004	8 5/8	8.097	24.00	J-55	311
Production	4/18/2004	5 1/2	4.950	15.50	J-55	5,922

### Cement

#### String: Surface, 311ftKB 4/10/2004

Cementing Company BJ Services Company		Top Depth (ftKB) 12.0	Bottom Depth (ftKB) 311.0	Full Return?	Vol Cement Ret (bbl)
Fluid Description Class "G" w/ 2% CaCL2 + 1/4#/sk Cello-Flake mixed @ 15.8 ppg 1.17 cf/sk yield		Fluid Type Lead	Amount (sacks) 150	Class G	Estimated Top (ftKB) 12.0

#### String: Production, 5,922ftKB 4/18/2004

Cementing Company BJ Services Company		Top Depth (ftKB) 12.0	Bottom Depth (ftKB) 5,935.0	Full Return?	Vol Cement Ret (bbl)
Fluid Description Premite II w/ 10% gel + 3% KCL, 3#'s/sk CSE + 2# sk/kolseal + 1/2#'s/sk Cello Flake		Fluid Type Lead	Amount (sacks) 300	Class PL II	Estimated Top (ftKB) 12.0
Fluid Description 50/50 poz W/ 2% Gel + 3% KCL, .5%EC1, 1/4# sk C.F. 2% gel. 3% SM mixed @ 14.4 ppg W/ 1.24 YLD		Fluid Type *COPY* Lead	Amount (sacks) 400	Class 50/50 Poz	Estimated Top (ftKB) 12.0

### Tubing Strings

Tubing Description Tubing		Run Date 8/4/2008		Set Depth (ftKB) 4,146.5				
Item Des	Jts	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Top (ftKB)	Blm (ftKB)
Tubing	128	2 7/8	2.441	6.50	J-55	4,126.00	12.0	4,138.0
Seating Nipple		2 7/8				1.10	4,138.0	4,139.1
Arrow #1 Packer		5 1/2				7.40	4,139.1	4,146.5

### Rod Strings

Rod Description		Run Date		Set Depth (ftKB)			
Item Des	Jts	OD (in)	Wt (lb/ft)	Grade	Len (ft)	Top (ftKB)	Blm (ftKB)

### Perforation Intervals

Stage#	Zone	Top (ftKB)	Blm (ftKB)	Shot Dens (shots/ft)	Phasing (")	Norm Hole Dia (in)	Date
5	GB4, Original Hole	4,209	4,215	4			5/5/2004
5	GB6, Original Hole	4,249	4,260	4			5/5/2004
4	D2, Original Hole	4,755	4,779	4			5/5/2004
3	C, Original Hole	4,864	4,878	4			5/11/2004
2	A1, Original Hole	5,148	5,162	4			5/5/2004
2	A3, Original Hole	5,186	5,194	4			5/5/2004
2	A3, Original Hole	5,217	5,227	4			5/5/2004
1	CP3, Original Hole	5,717	5,732	4			5/3/2004
1	CP4, Original Hole	5,814	5,820	4			5/3/2004

### Stimulations & Treatments

Stage#	ISIP (psi)	Frac Gradient (psi/ft)	Max Rate (bbl/min)	Max PSI (psi)	Total Clean Vol (bbl)	Total Slurry Vol (bbl)	Vol Recov (bbl)
1	1,625	0.72	25.2	1,755			
2	1,740	0.77	25.2	1,540			
4	1,975	0.85	25.2	2,080			
5	2,375	0.99	25.0	2,720			
3	1,742	0.79	14.8	3,577			

### Proppant

Stage#	Total Prop Vol Pumped (lb)	Total Add Amount
1		Proppant Bulk sand 54600 lbs
2		Proppant Bulk sand 104771 lbs
4		Proppant Bulk sand 99575 lbs
5		Proppant Bulk sand 57893 lbs
3		Proppant Bulk sand 52369 lbs