



October 2, 2003

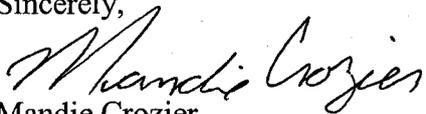
State of Utah  
Division of Oil, Gas & Mining  
Attn: Diana Mason  
1594 West North Temple - Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

RE: Applications for Permit to Drill: Blackjack Federal 2-10-9-17, 4-10-9-17, 11-10-9-17, 12-10-9-17, 13-10-9-17, 15-10-9-17, and Federal 9-10-9-17.

Dear Diana:

Enclosed find APD's on the above referenced wells. The 4-10-9-17 and 13-10-9-17 are Exception Locations. You will be receiving Exception Locations Letters from our Land Department shortly. If you have any questions, feel free to give either Brad or myself a call.

Sincerely,

  
Mandie Crozier  
Regulatory Specialist

mc  
enclosures

RECEIVED  
OCT 03 2003  
DIV. OF OIL, GAS & MINING

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. <b>U-075174</b>
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 9-10-9-17
3b. Phone No. (include area code) (435) 646-3721		9. API Well No. <b>43-013-32502</b>
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface NE/SE 1815' FSL 647' FEL <b>4432837Y 46,04321</b> At proposed prod. zone <b>586604X - 109,98482</b>		10. Field and Pool, or Exploratory Monument Butte
14. Distance in miles and direction from nearest town or post office* Approximatley 15.2 miles southeast of Myton, Utah		11. Sec., T., R., M., or Blk. and Survey or Area NE/SE Sec. 10, T9S R17E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) Approx. 673' f/lse, NA f/unit	16. No. of Acres in lease 720.00	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. 1498'	19. Proposed Depth 6500'	20. BLM/BIA Bond No. on file #4488944
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5127' GR	22. Approximate date work will start* 1st Quarter 2004	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>Mandie Crozier</i>	Name (Printed/Typed) Mandie Crozier	Date 10/2/03
Title Regulatory Specialist		
Approved by (Signature) <i>Bradley G. Hill</i>	Name (Printed/Typed) BRADLEY G. HILL	Date 10-14-03
Title ENVIRONMENTAL SCIENTIST III		

**Federal Approval of this Action is Necessary**

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, 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.

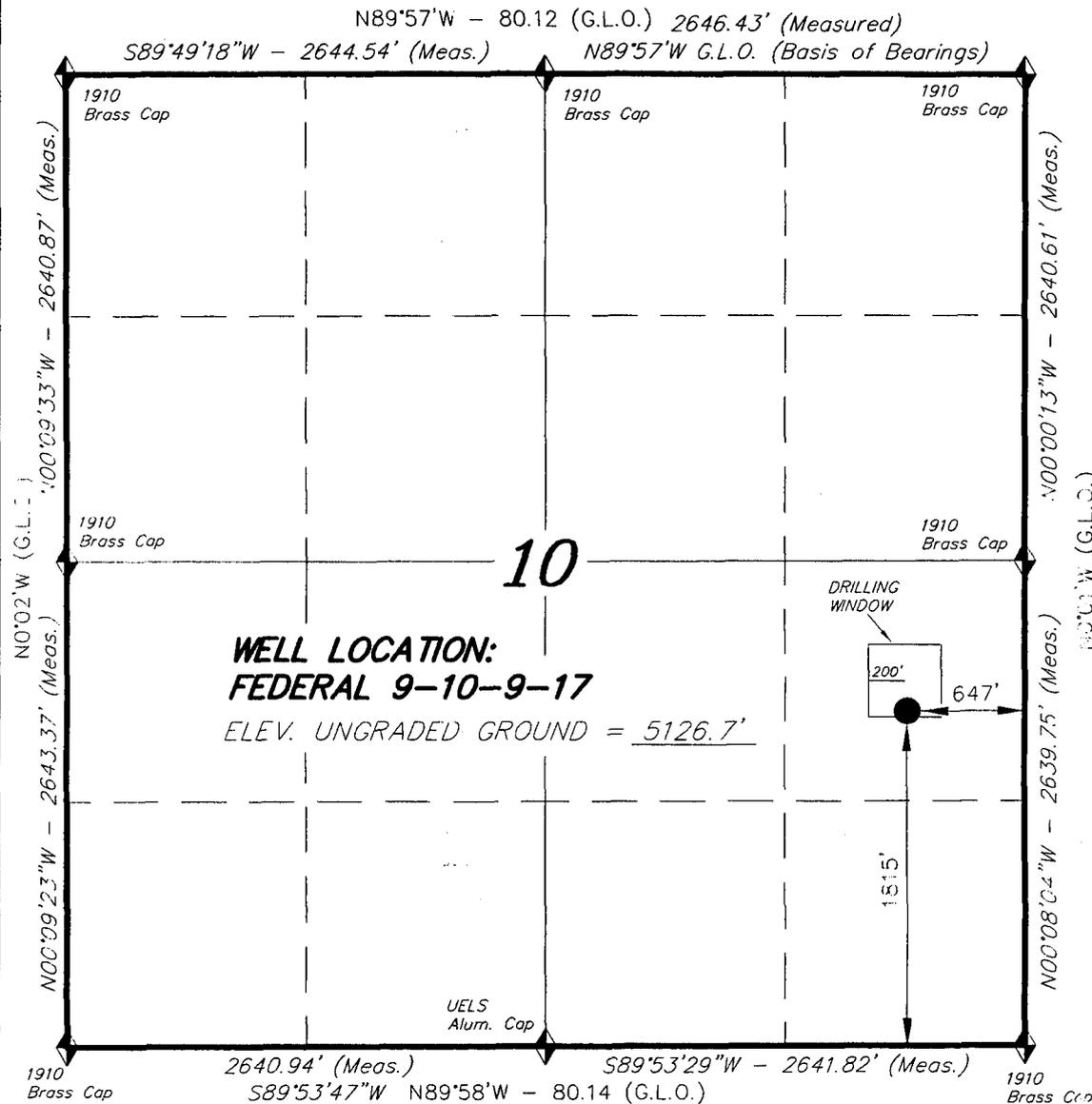
\*(Instructions on reverse)

RECEIVED  
OCT 03 2003  
DIV. OF OIL, GAS & MINING

# T9S, R17E, S.L.B.&M.

# INLAND PRODUCTION COMPANY

WELL LOCATION, FEDERAL 9-10-9-17,  
 LOCATED AS SHOWN IN THE NE 1/4 SE  
 1/4 OF SECTION 10, T9S, R17E,  
 S.L.B.&M. DUCHESNE COUNTY, UTAH.



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

**REGISTERED LAND SURVEYOR**  
**STEWART**  
*Aene Stewart*  
 REGISTERED LAND SURVEYOR  
 REGISTRATION No. 144102  
 STATE OF UTAH

<b>TRI STATE LAND SURVEYING &amp; CONSULTING</b> 180 NORTH VERNAL AVE. - VERNAL, UTAH 84078 (435) 781-2501	
SCALE: 1" = 1000'	SURVEYED BY: D.J.S.
DATE: 8-25-03	DRAWN BY: J.R.S.
NOTES:	FILE #

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

**INLAND PRODUCTION COMPANY  
FEDERAL #9-10-9-17  
NE/SE SECTION 10, T9S, R17E  
DUCHESNE COUNTY, UTAH**

**ONSHORE ORDER NO. 1**

**DRILLING PROGRAM**

**1. GEOLOGIC SURFACE FORMATION:**

Uinta formation of Upper Eocene Age

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

Uinta	0' – 1640'
Green River	1640'
Wasatch	5850'

**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 #9-10-9-17  
NE/SE SECTION 10, T9S, R17E  
DUCHESNE COUNTY, UTAH**

**ONSHORE ORDER NO. 1**

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

**1. EXISTING ROADS**

See attached Topographic Map "A"

To reach Inland Production Company well location site Federal #9-10-9-17 located in the NE 1/4 SE 1/4 Section 10, T9S, R17E, Duchesne County, Utah:

Proceed southwesterly out of Myton, Utah along Highway 40 - 1.6 miles ± to the junction of this highway and UT State Hwy 53; proceed southeasterly along Hwy 53 - 13.3 miles ± to its junction with an existing road to the south; proceed southerly 0.3 miles ± to its junction with the beginning of the proposed access road; proceed northeasterly along the proposed access road 160' ± 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 Archaeological Resource Survey for this area is attached. Archaeological Report #99-26, 3/27/00. The Paleontological Resource Survey will be forthcoming. See attached report cover page, Exhibit "D".

Inland Production Company requests a 60' ROW for the Federal #9-10-9-17 to allow for construction of a 6" gas gathering line, and a 3" poly fuel gas line. Both lines will tie in to the existing pipeline infrastructure. Refer to Topographic Map "C." 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 #9-10-9-17 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)

Gardner Saltbush	<i>Atriplex gardneri</i>	4 lbs/acre
Galleta Grass	<i>Hilaria jamesii</i>	4 lbs/acre
Kochia Americana		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

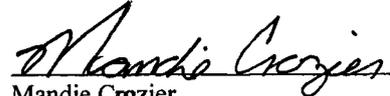
Certification

Please be advised that INLAND PRODUCTION COMPANY is considered to be the operator of well #9-10-9-17 NE/SE Section 10, Township 9S, Range 17E: Lease U-075174

Duchesne County, Utah: and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by Hartford Accident #4488944.

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

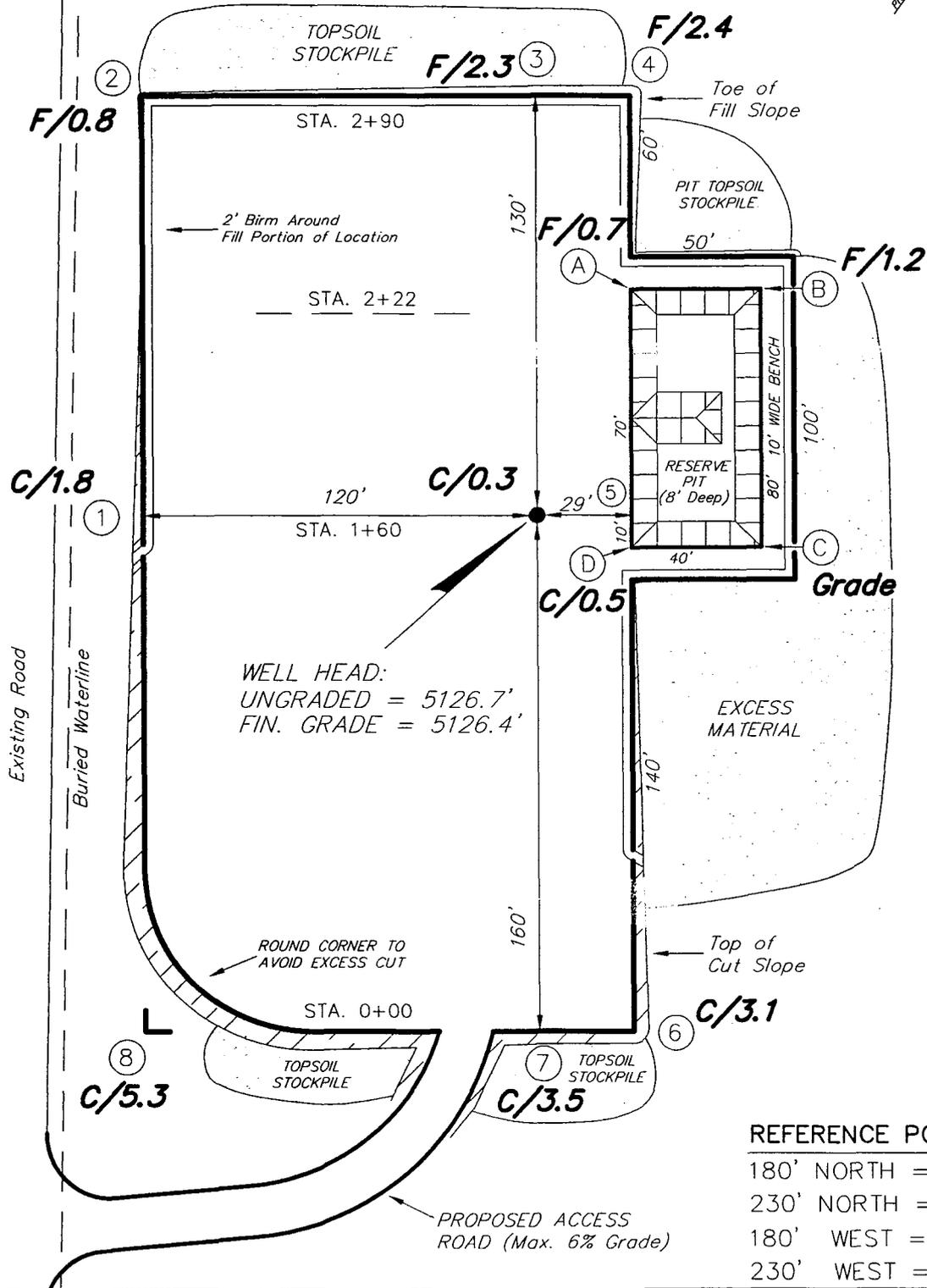
10/2/03  
Date

  
Mandie Crozier  
Regulatory Specialist

# INLAND PRODUCTION COMPANY

FEDERAL 9-10-9-17

Section 10, T9S, R17E, S.L.B.&M.



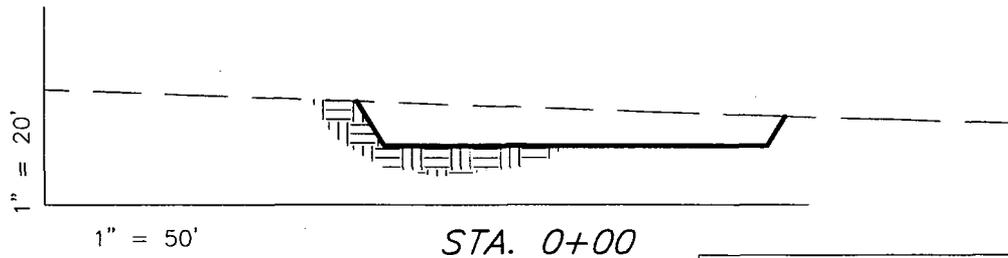
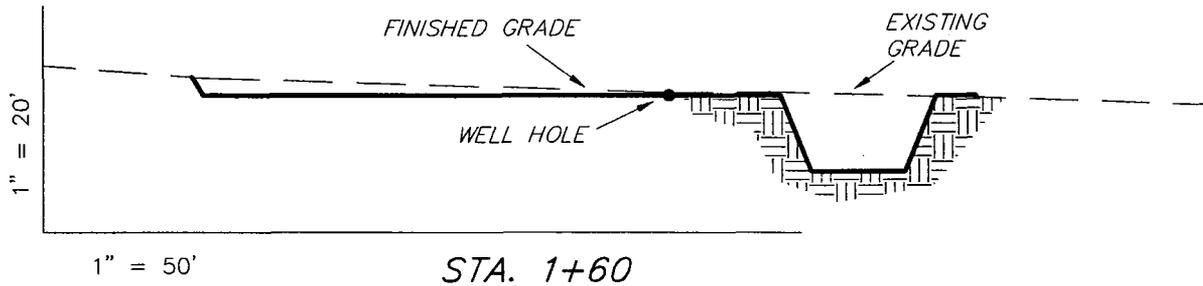
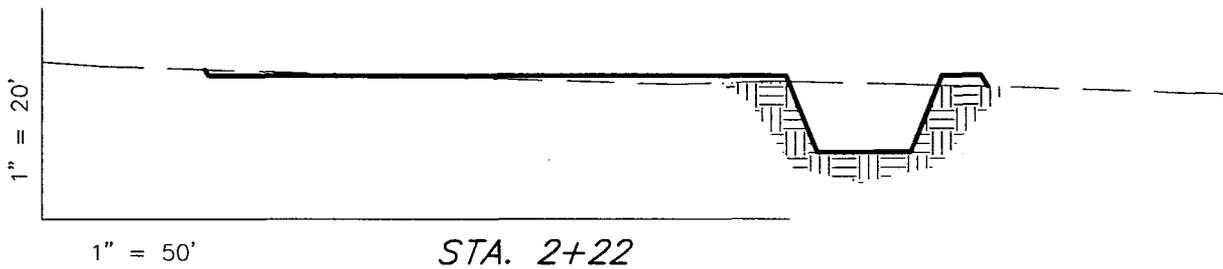
SURVEYED BY: D.J.S.	SCALE: 1" = 50'
DRAWN BY: J.R.S.	DATE: 8-25-03

**Tri State**  
 Land Surveying, Inc.  
 180 NORTH VERNAL AVE. VERNAL, UTAH 84078  
 (435) 781-2501

# INLAND PRODUCTION COMPANY

## CROSS SECTIONS

### FEDERAL 9-10-9-17



ESTIMATED EARTHWORK QUANTITIES				
(Expressed in Cubic Yards)				
ITEM	CUT	FILL	6" TOPSOIL	EXCESS
PAD	1,820	790	Topsoil is not included in Pad Cut	1,030
PIT	640	0		640
TOTALS	2,460	790	890	1,670

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

SURVEYED BY: D.J.S.	SCALE: 1" = 50'
DRAWN BY: J.R.S.	DATE: 8-25-03

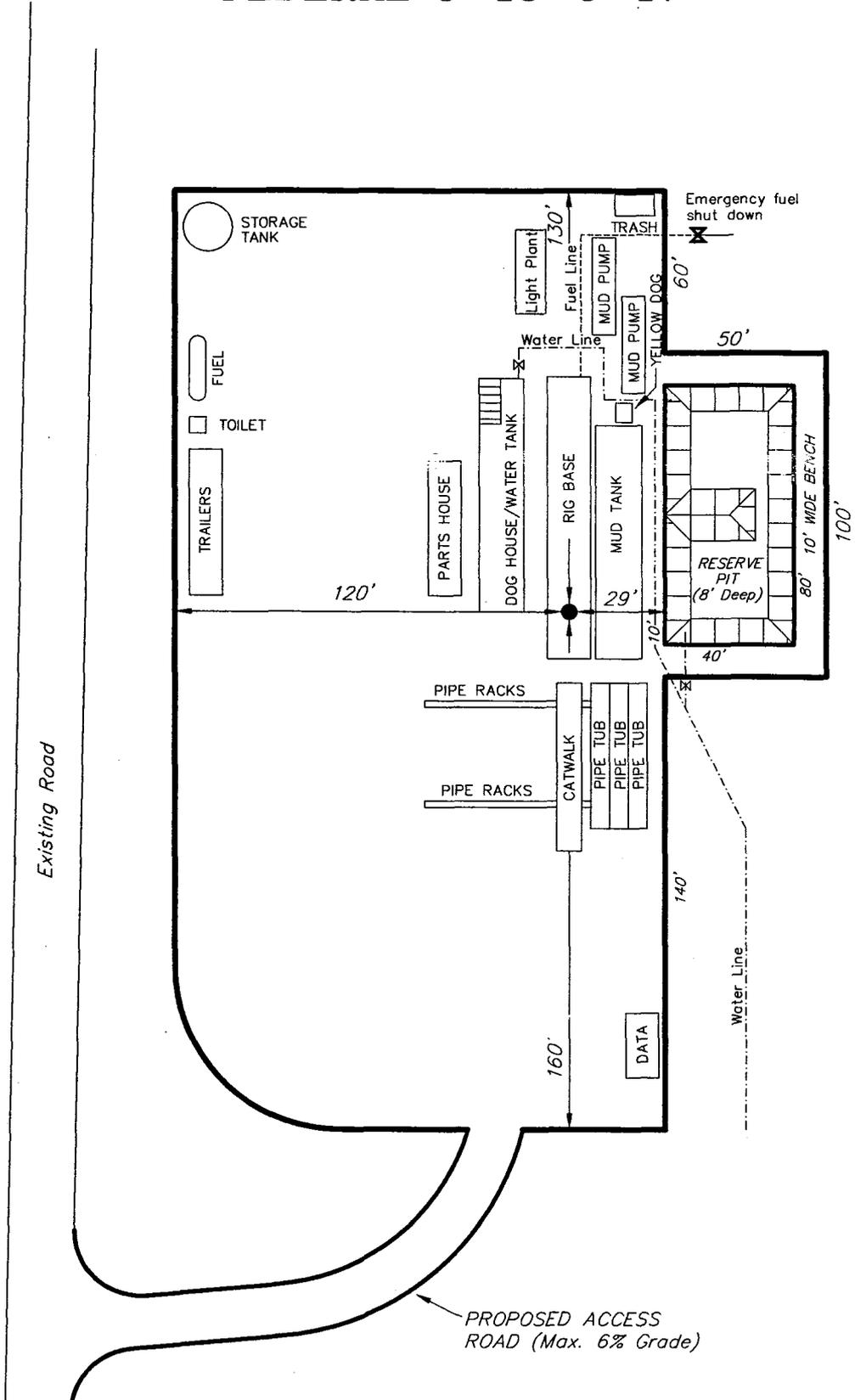
(435) 781-2501

**Tri State**  
Land Surveying, Inc.  
180 NORTH VERNAL AVE. VERNAL, UTAH 84078

# INLAND PRODUCTION COMPANY

## TYPICAL RIG LAYOUT

FEDERAL 9-10-9-17



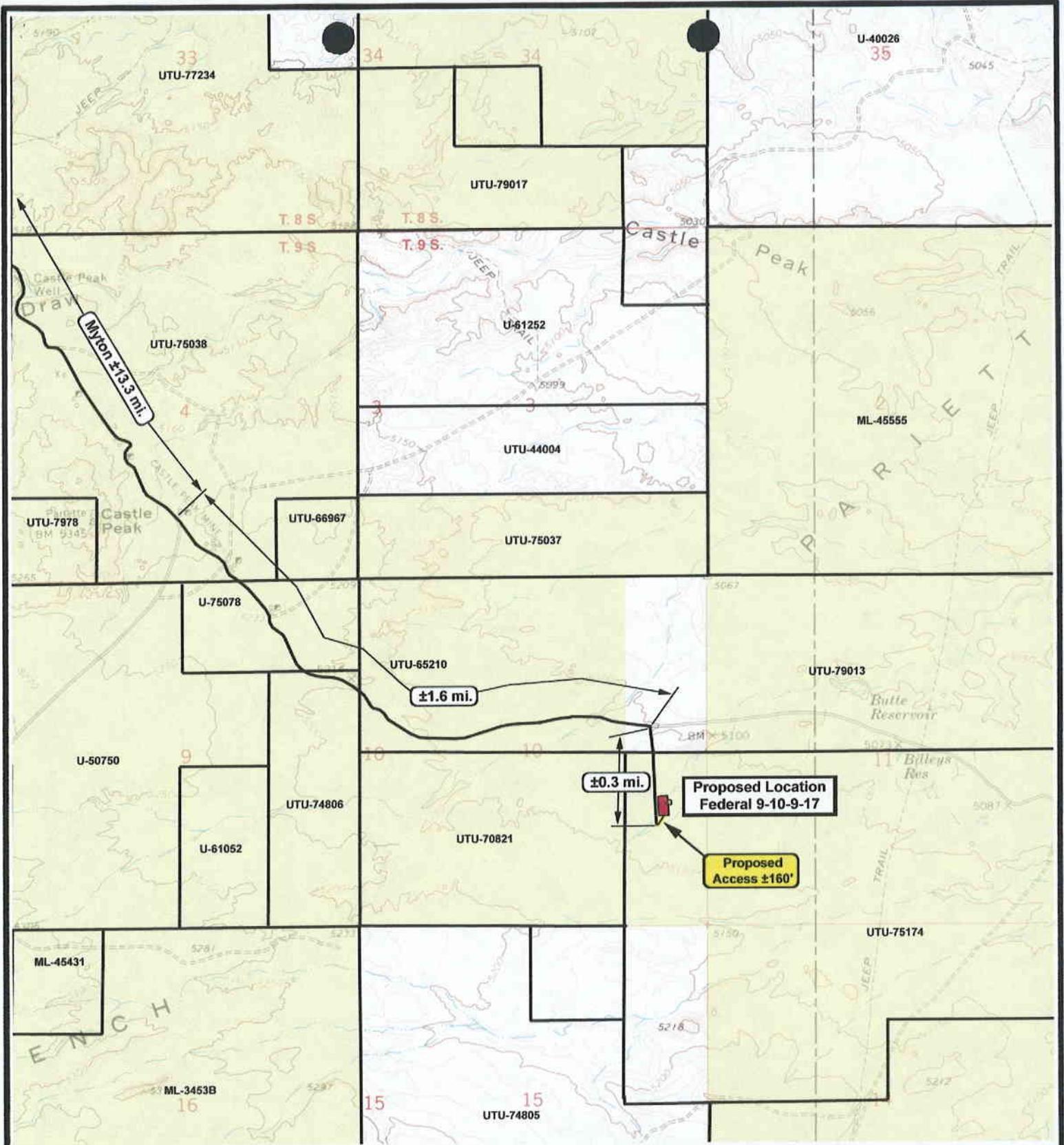
SURVEYED BY: D.J.S.	SCALE: 1" = 50'
DRAWN BY: J.R.S.	DATE: 8-25-03

(435) 781-2501

**Tri State**  
Land Surveying, Inc.

180 NORTH VERNAL AVE. VERNAL, UTAH 84078





**Federal 9-10-9-17**  
**SEC. 10, T9S, R17E, S.L.B.&M.**



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

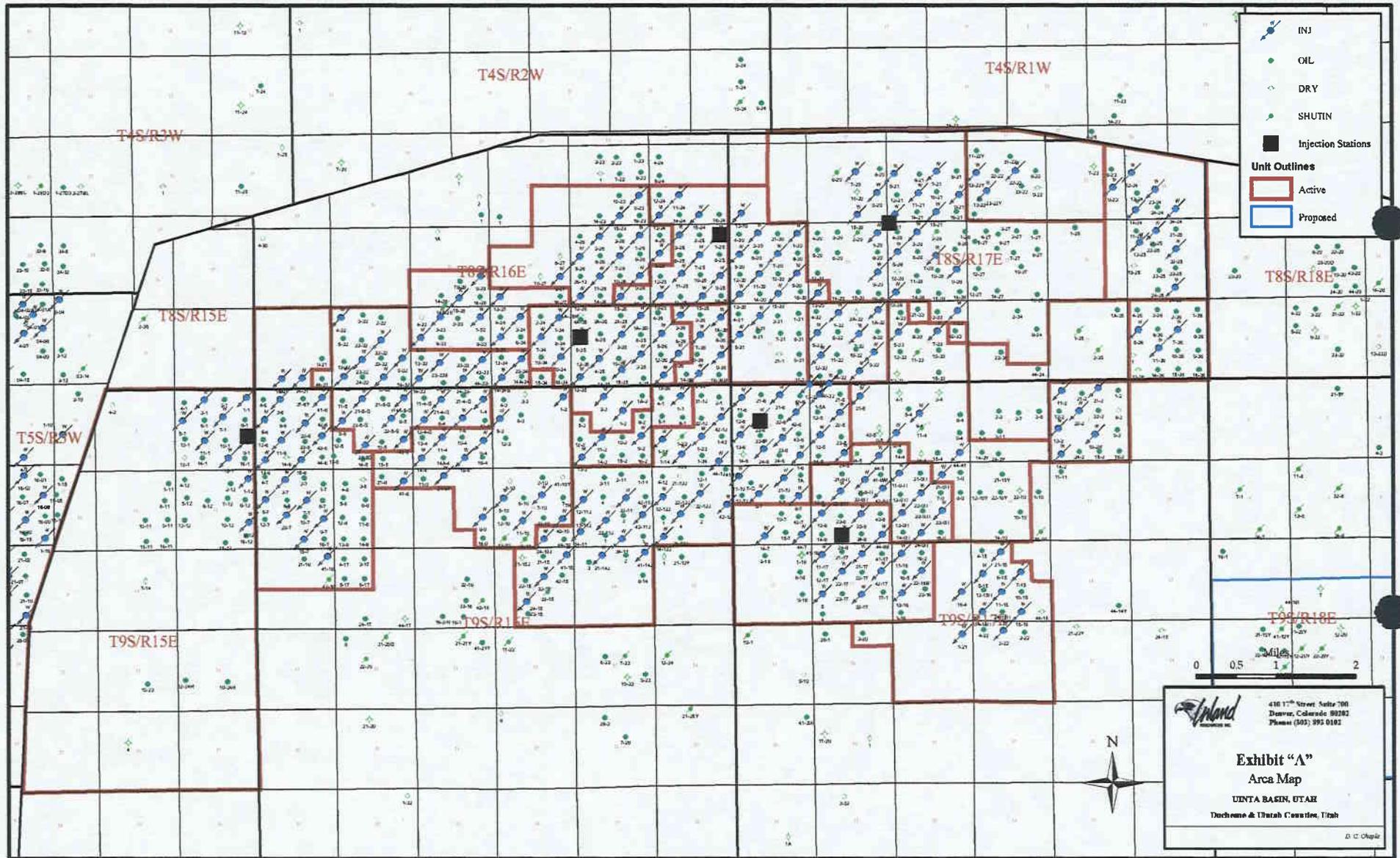
SCALE: 1" = 2,000'  
 DRAWN BY: R.A.B.  
 DATE: 08-22-2003

**Legend**

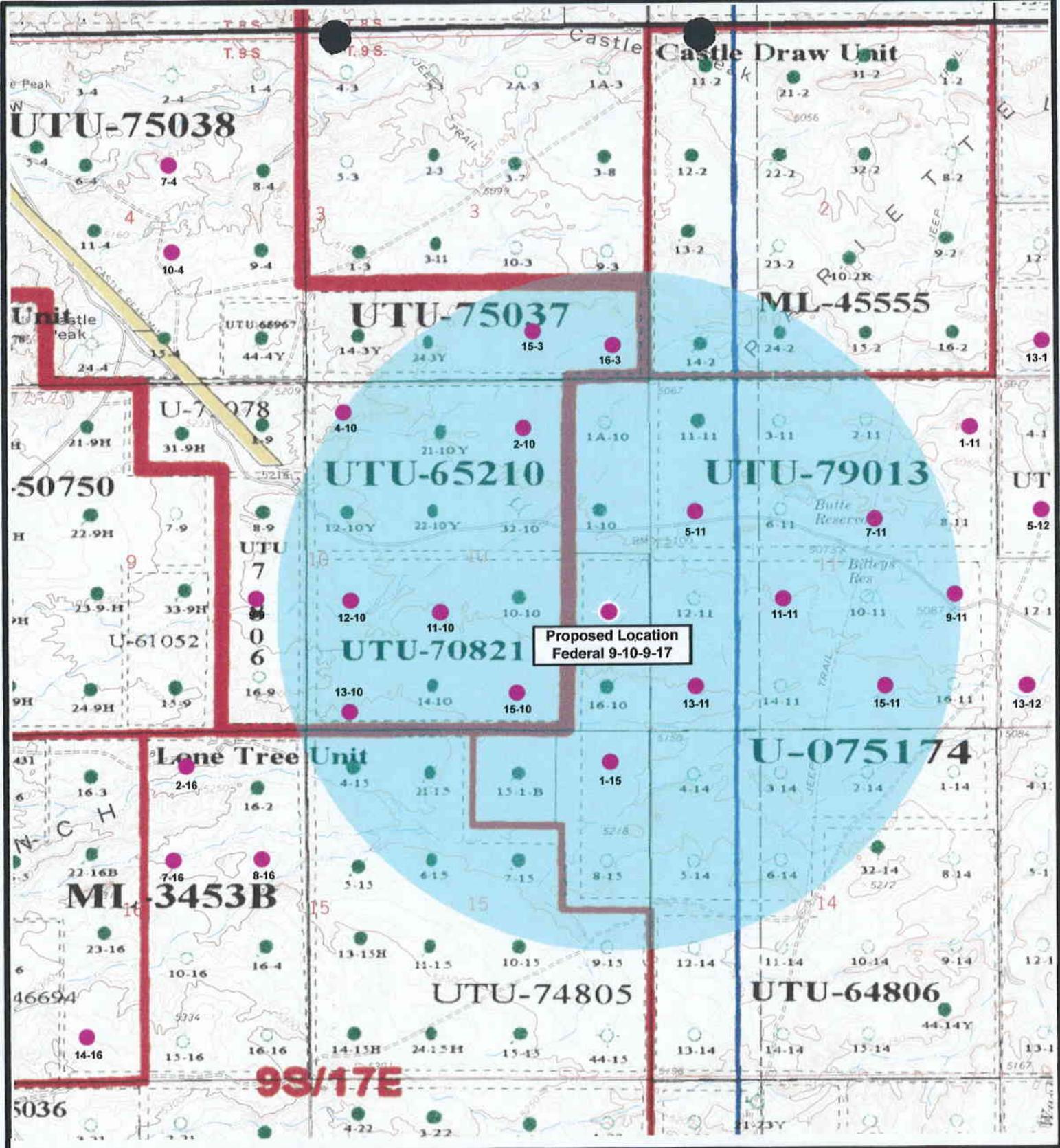
- Existing Road
- Proposed Access

TOPOGRAPHIC MAP  
**"B"**





January 15, 2003



Proposed Location  
Federal 9-10-9-17



**Federal 9-10-9-17**  
**SEC. 10, T9S, R17E, 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: 08-22-2002

**Legend**

- Well Locations
- One-Mile Radius

**Exhibit "B"**

# 2-M SYSTEM

Blowout Prevention Equipment Systems

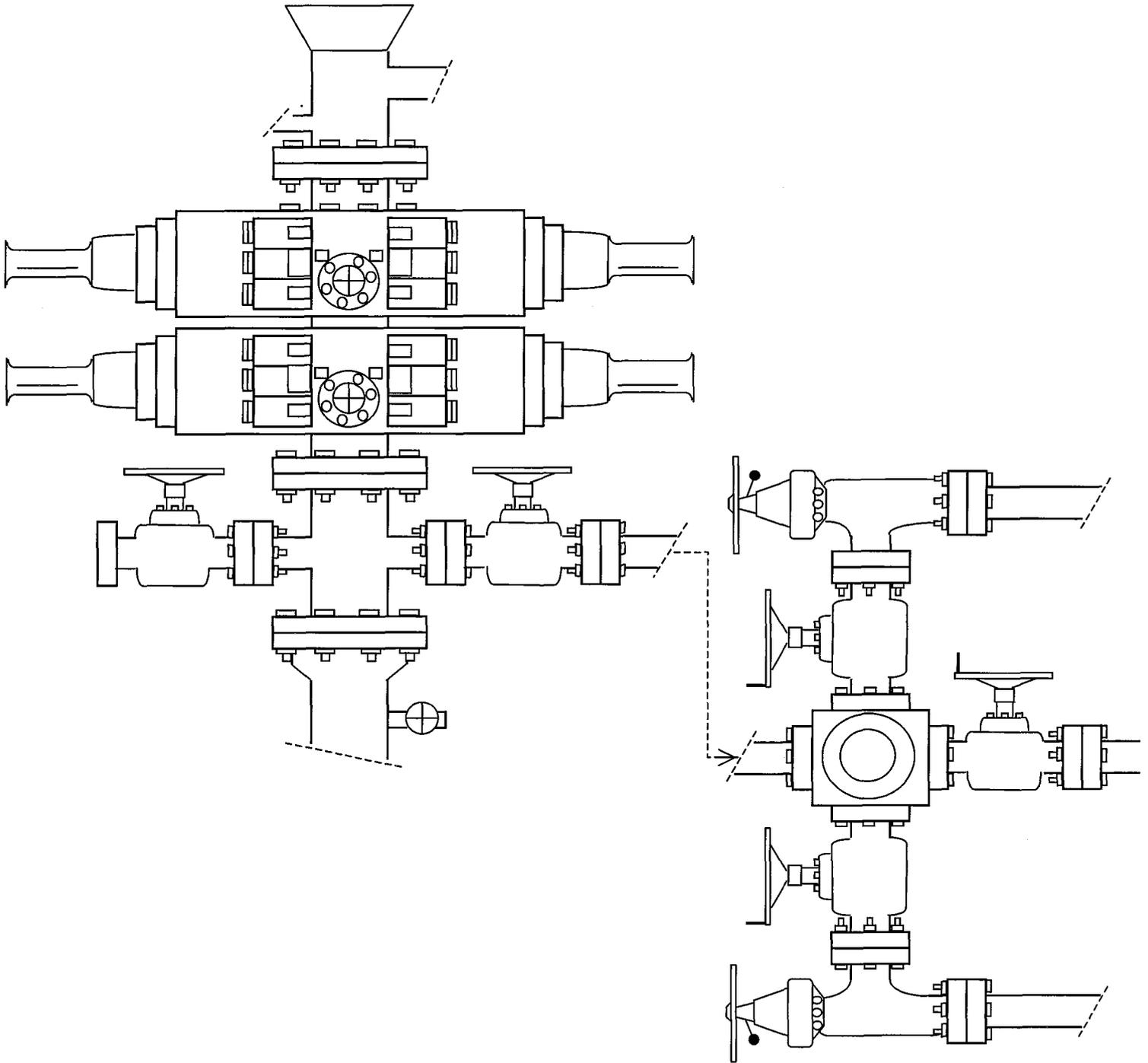


EXHIBIT C

**CULTURAL RESOURCE INVENTORY OF  
NINE WELL PADS AND IN-FILL  
LOCATIONS IN THE ASHLEY, LONE TREE,  
BLACK JACK, WELLS DRAW EXPANSION,  
AND CASTLE DRAW UNITS  
DUCHESNE AND UINTAH COUNTIES, UTAH**

*JBR Cultural Resource Report 99-26*

by  
*Richard Crosland*

prepared for  
**Inland Resources Inc.**  
**Denver, Colorado**

*submitted by*  
**JBR Environmental Consultants Inc.**  
**Springville, UT**

March 27, 2000

Federal BLM Permit No. 99UT55134  
Utah State Project Authorization No. U-99-JB-0331bs

WORKSHEET  
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 10/03/2003

API NO. ASSIGNED: 43-013-32502

WELL NAME: FEDERAL 9-10-9-17  
OPERATOR: INLAND PRODUCTION ( N5160 )  
CONTACT: MANDIE CROZIER

PHONE NUMBER: 435-646-3721

PROPOSED LOCATION:  
NESE 10 090S 170E  
SURFACE: 1815 FSL 0647 FEL  
BOTTOM: 1815 FSL 0647 FEL  
DUCHESNE  
MONUMENT BUTTE ( 105 )

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

LEASE TYPE: 1 - Federal  
LEASE NUMBER: U-075174  
SURFACE OWNER: 1 - Federal

LATITUDE: 40.04321  
LONGITUDE: 109.98482

PROPOSED FORMATION: GRRV

RECEIVED AND/OR REVIEWED:

Plat

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

N Potash (Y/N)

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

Water Permit  
(No. MUNICIPAL )

N 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

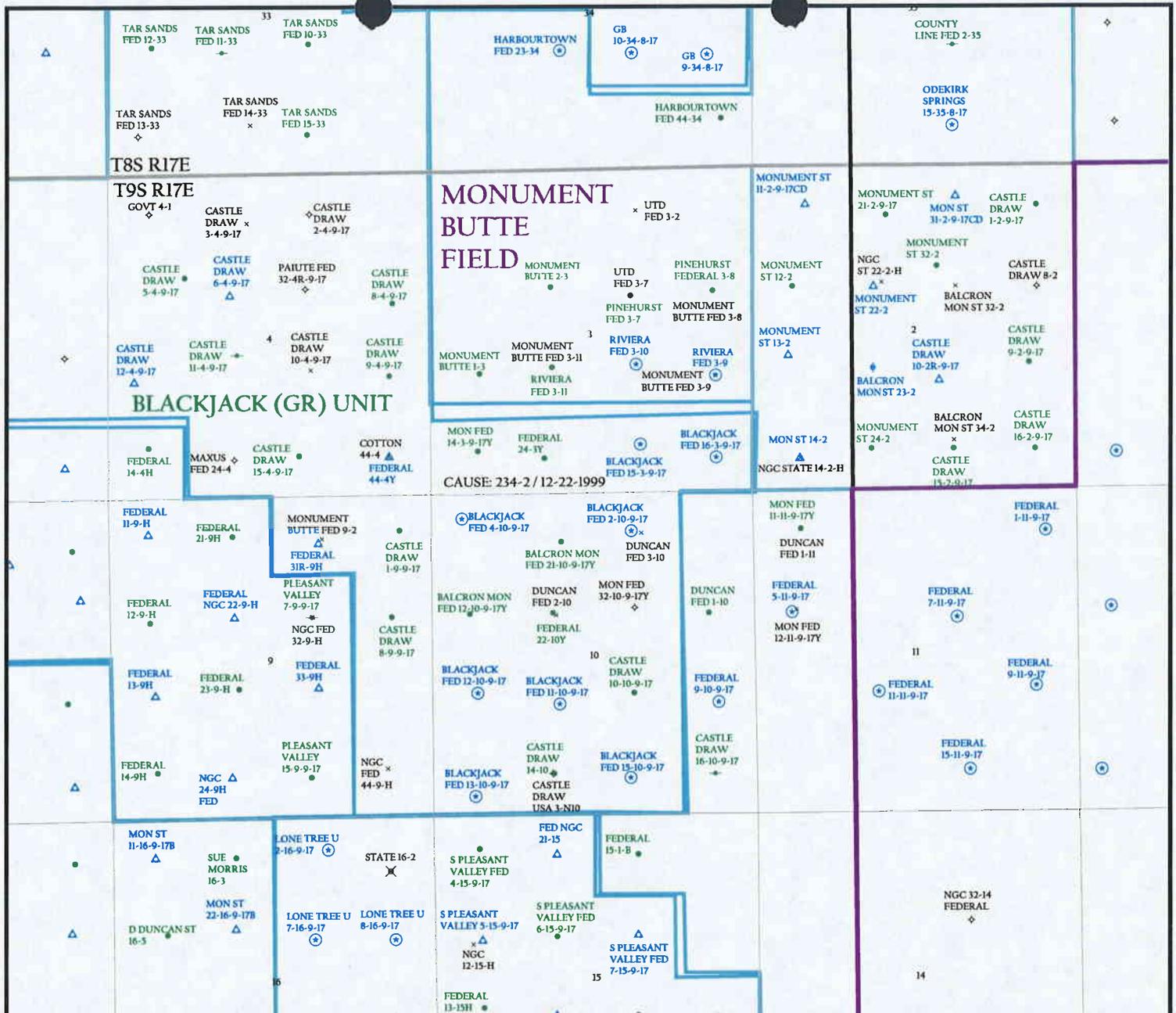
\_\_\_ R649-3-3. Exception

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

\_\_\_ R649-3-11. Directional Drill

COMMENTS: Sep, Separate file

STIPULATIONS: 1- Federal approval  
2- Spacing strip



OPERATOR: INLAND PRODUCTION CO (N5160)

SEC. 10 T.9S, R.17E

FIELD: MONUMENT BUTTES (105)

COUNTY: DUCHESNE

CAUSE: 234-2 / 12-22-1999

**Wells**

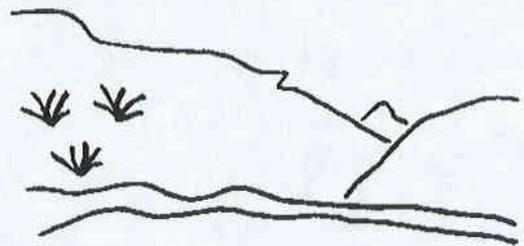
- ▲ GAS INJECTION
- GAS STORAGE
- LOCATION ABANDONED
- ⊙ NEW LOCATION
- ⊖ PLUGGED & ABANDONED
- PRODUCING GAS
- PRODUCING OIL
- SHUT-IN GAS
- SHUT-IN OIL
- × TEMP. ABANDONED
- ▲ TEST WELL
- ▲ WATER INJECTION
- ▲ WATER SUPPLY
- ▲ WATER DISPOSAL

**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



Utah Oil Gas and Mining



PREPARED BY: DIANA MASON  
DATE: 10-OCTOBER-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

October 14, 2003

Inland Production Company  
Rt. #3, Box 3630  
Myton, UT 84052

Re: Federal 9-10-9-17 Well, 1815' FSL, 647' FEL, NE SE, Sec. 10, T. 9 South, R. 17 East,  
Duchesne County, Utah

Gentlemen:

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

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-013-32502.

Sincerely,

(for)   
John R. Baza  
Associate Director

pab  
Enclosures

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

Operator: Inland Production Company

Well Name & Number Federal 9-10-9-17

API Number: 43-013-32502

Lease: U-075174

Location: NE SE                      Sec. 10                      T. 9 South                      R. 17 East

### Conditions of Approval

1. General

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

2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

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

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

- Contact Dan Jarvis at (801) 538-5338

3. Reporting Requirements

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

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

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.

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.  
U-075174  
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 9-10-9-17

9. API Well No.  
43-013-32502

10. Field and Pool, or Exploratory  
Monument Butte

11. Sec., T., R., M., or Blk. and Survey or Arca  
NE/SE Sec. 10, T9S R17E

12. County or Parish  
Duchesne  
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 NE/SE 1815' FSL 647' FEL  
At proposed prod. zone  
OCT - 3 2003

14. Distance in miles and direction from nearest town or post office\*  
Approximatley 15.2 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. 673' fl/le, NA f/unit  
16. No. of Acres in lease  
720.00  
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. 1498'  
19. Proposed Depth  
6500'  
20. BLM/BIA Bond No. on file  
#4488944 ULT0056

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
5127' GR  
22. Approximate date work will start\*  
1st Quarter 2004  
23. Estimated duration  
Approximately seven (7) days from spud to rig release.

24. Attachments

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- 1. Well plat certified by a registered surveyor.
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- 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- 5. Operator certification.
- 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 10/2/03

Title Regulatory Specialist

Approved by (Signature) *Howard R. Cleary* Name (Printed/Typed) Office Date 04/13/2004

Title Assistant Field Manager 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.  
**CONDITIONS OF APPROVAL 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)

RECEIVED

APR 15 2004

NOTICE OF APPROVAL

DIV. OF OIL, GAS & MINING

CONDITIONS OF APPROVAL  
APPLICATION FOR PERMIT TO DRILL

Company/Operator: Inland Production Company.  
Well Name & Number: Federal 9-10-9-17  
API Number: 43-013-32502  
Lease Number: U-075174  
Location: NESE Sec. 10 T. 9S R. 17E  
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.

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.

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

In the event after-hours approvals are necessary, you must contact one of the following individuals:

Ed Forsman (435) 828-7874  
Petroleum Engineer

Kirk Fleetwood (435) 828-7875  
Petroleum Engineer

BLM FAX Machine (435) 781-4410

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

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 will have to be conducted in accordance with the U.S. Fish & 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.

A BLM approved paleontologist shall monitor all areas of bedrock exposure during the construction of the access road and well pad.

A Right-of-Way will be required for the gas pipeline.

**DIVISION OF OIL, GAS AND MINING****SPUDDING INFORMATION**Name of Company: INLAND PRODUCTION COMPANYWell Name: FEDERAL 9-10-9-17Api No: 43-013-32502 Lease Type: FEDERALSection 10 Township 09S Range 17E County DUCHESNEDrilling Contractor NDSI RIG # S1**SPUDDED:**Date 09/30/04Time 9:30 AMHow DRY**Drilling will commence:** \_\_\_\_\_Reported by FLOYD MITCHELLTelephone # 1-435-823-3610Date 09/30/2004 Signed CHD

007

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

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

OPERATOR ACCT. NO. N5690  
N2695

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OCT 01 2004

DIV. OF OIL, GAS & MINING

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
A	99999	14324	43-047-34503	Federal 13-31-8-18	SW/SW	31	8S	18E	Uintah	September 27, 2004	10/6/04

WELL 1 COMMENTS: GRU

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	14325	43-013-32502	Federal 9-10-9-17	NE/SE	10	9S	17E	Duchesne	September 30, 2004	10/6/04

WELL 2 COMMENTS: GRU

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		

WELL 3 COMMENTS:

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		

WELL 4 COMMENTS:

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		

WELL 5 COMMENTS:

ACTION CODES (See instructions on back of form)

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

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

(489)

*Kebbia S. Jones*  
 Signature: Kebbia S. Jones  
 Production Clerk  
 Date: October 1, 2004

PAGE 02

INLAND

4356463031

07:25

10/01/2004

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**COPY**

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

008

**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  
 Newfield Production Company

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

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

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
 1815 FSL 647 FEL  
 NE/SE Section 10 T9S R17E

5. Lease Serial No.  
 UTU075174

6. If Indian, Allottee or Tribe Name.

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.  
 FEDERAL 9-10-9-17

9. API Well No.  
 4301332502

10. Field and Pool, or Exploratory Area  
 Monument Butte

11. County or Parish, State  
 Duchesne, UT

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production(Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug & Abandon	<input type="checkbox"/> Temporarily Abandon	Spud Notice _____
	<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 to 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 will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

On 9-30-04 MIRU NDSI NS # 1. Spud well @ 9:30 AM. Drill 335' of 12 1/4" hole with air mist. TIH W/ 8 Jt's 8 5/8" J-55 24 # csgn. Set @ 336' KB On 10-02-04 cement with 150 sks of class "G" w/ 3% CaCL2 + 1/4# sk Cello- Flake Mixed @ 15.8 ppg > 1.17 cf/ sk yeild. Returned 3 bbls cement to pit. WOC.

I hereby certify that the foregoing is true and correct Name (Printed/ Typed) Floyd Mitchell	Title Drilling Supervisor
Signature <i>Floyd Mitchell</i>	Date 10/4/2004

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)

**RECEIVED**  
**OCT 08 2004**

DIV. OF OIL, GAS & MINING

# INLAND PRODUCTION COMPANY - CASING & CEMENT REPORT

8 5/8 CASING SET AT 336.63

LAST CASING 8 5/8" SET AT 336.63'  
 DATUM 12' KB  
 DATUM TO CUT OFF CASING \_\_\_\_\_  
 DATUM TO BRADENHEAD FLANGE \_\_\_\_\_  
 TD DRILLER 335' LOGGER \_\_\_\_\_  
 HOLE SIZE 12 1/4

OPERATOR Inland Production Company  
 WELL Federal 9-10-9-17  
 FIELD/PROSPECT Monument Butte  
 CONTRACTOR & RIG # NDSI NS#1

LOG OF CASING STRING:							
PIECES	OD	ITEM - MAKE - DESCRIPTION	WT / FT	GRD	THREAD	CONDT	LENGTH
		40.71' sh jt' shjt					
		WHI - 92 csg head			8rd	A	0.95
8	8 5/8"	Maverick ST&C csg	24#	J-55	8rd	A	324.78
		<b>GUIDE</b> shoe			8rd	A	0.9
CASING INVENTORY BAL.		FEET	JTS	TOTAL LENGTH OF STRING			326.63
TOTAL LENGTH OF STRING		326.63	8	LESS CUT OFF PIECE			2
LESS NON CSG. ITEMS		1.85		PLUS DATUM TO T/CUT OFF CSG			12
PLUS FULL JTS. LEFT OUT		0		CASING SET DEPTH			<b>336.63</b>
TOTAL		324.78	8	} COMPARE			
TOTAL CSG. DEL. (W/O THRDS)		324.78	8				
TIMING		1ST STAGE					
BEGIN RUN CSG.	Spud	9/30/2004	9:30 AM	GOOD CIRC THRU JOB <u>Yes</u>			
CSG. IN HOLE		10/1/2004	5:00 PM	Bbls CMT CIRC TO SURFACE <u>3</u>			
BEGIN CIRC		10/2/2004	10:05 AM	RECIPROCATED PIPE FOR _____ THRU _____ FT STROKE			
BEGIN PUMP CMT		10/2/2004	10:20 AM	DID BACK PRES. VALVE HOLD ? <u>N/A</u>			
BEGIN DSPL. CMT		10/2/2004	10:33 AM	BUMPED PLUG TO _____ 400 _____ PSI			
PLUG DOWN		10/2/2004	10:47 AM				
CEMENT USED		CEMENT COMPANY- <b>B. J.</b>					
STAGE	# SX	CEMENT TYPE & ADDITIVES					
1	150	Class "G" w/ 2% CaCL2 + 1/4#/sk Cello-Flake mixed @ 15.8 ppg 1.17 cf/sk yield					
CENTRALIZER & SCRATCHER PLACEMENT		SHOW MAKE & SPACING					
Centralizers - Middle first, top second & third for 3							

COMPANY REPRESENTATIVE Floyd Mitchell

DATE 10/2/2004 **OCT 08 2004**

DIV. OF OIL, GAS & MINING

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

DEC 09 2004

FORM APPROVED  
OMB No. 1004-015  
Expires January 31, 2004

**COPY**

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.

5. Lease Serial No.  
U075174

6. If Indian, Allottee or Tribe Name.

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.  
FEDERAL 9-10-9-17

9. API Well No.  
4301332502

10. Field and Pool, or Exploratory Area  
Monument Butte

11. County or Parish, State  
Duchesne, UT

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

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
Newfield Production Company

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

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

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
1815 FSL 647 FEL  
NE/SE Section 10 T9S R17E

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production(Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug & Abandon	<input type="checkbox"/> Temporarily Abandon	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 to 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 will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Status report for time period 11/24/04 – 12/07/04

Subject well had completion procedures initiated in the Green River formation on 11/24/04 without the use of a service rig over the well. A cement bond log was run and a total of three Green River intervals were perforated and hydraulically fracture treated w/ 20/40 mesh sand. Perf intervals were #1 (5403-5416'), (5384-5390'), (5338-5352') (ALL 4 JSPF); #2 (4967-4970'), (4957-4960'), (4920-4928') (ALL 4 JSPF); #3 (4801-4810') (4 JSPF). Composite flow-through frac plugs were used between stages. Fracs were flowed back through chokes. A service rig was moved on well on 12/02/04. Bridge plugs were drilled out. Well was cleaned out to PBSD @ 5692'. Zones were swab tested for sand cleanup. A BHA & production tubing string were run in and anchored in well. End of tubing string @ 5623.02'. A new 1 1/2" bore rod pump was run in well on sucker rods. Well was placed on production via rod pump on 12/07/04.

I hereby certify that the foregoing is true and correct	Title
Name (Printed/Typed) Renee Palmer	Production Clerk
Signature 	Date 12/7/2004

**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)

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

010

**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  
 Newfield Exploration

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 1815' FSL & 647' FEL (NESE) Sec. 10, Twp 9S, Rng 17E  
 At top prod. Interval reported below  
 At total depth

14. API NO. 43-013-32502 DATE ISSUED 10/14/2003  
 12. COUNTY OR PARISH Duchesne 13. STATE UT

15. DATE SPUDDED 9/30/2004 16. DATE T.D. REACHED 11/11/2004  
 17. DATE COMPL. (Ready to prod.) 12/7/2004 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\* 5127' GL 5139' KB  
 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 5771' 21. PLUG BACK T.D., MD & TVD 5692'  
 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 4801'-5416'  
 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#	337'	12-1/4"	To surface with 150 sx Class "G" cmt	
5-1/2" - J-55	15.5#	5736'	7-7/8"	300 sx Premlite II and 400 sx 50/50 Poz	

29. LINER RECORD 30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-7/8"	EOT @ 5623'	TA @ 5520'

31. PERFORATION RECORD (Interval, size and number) 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

INTERVAL	SIZE	SPF/NUMBER	DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
(CP1,2,3) 5338-52', 5384-90', 5403-40'	.41"	4/132	5338'-5416'	Frac w/ 99,311# 20/40 sand in 717 bbls fluid.
(A1) 4920-28', 4957-60', 4967-70'	.41"	4/56	4920'-4970'	Frac w/ 29,737# 20/40 sand in 306 bbls fluid.
(B2) 4801'-4810'	.41"	4/36	4801'-4810'	Frac w/ 32,039# 20/40 sand in 330 bbls fluid.
(B2) 4807'-4812'	.41"	4/20	4807'-4812'	Frac w/ 15,893# 20/40 sand in 232 bbls fluid.

33.\* PRODUCTION

DATE FIRST PRODUCTION 12/7/2004 PRODUCTION METHOD (Flowing, gas lift, pumping--size and type of pump) 2-1/2" x 1-1/2" x 14' 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. 42 GAS--MCF. 112 WATER--BBL. 7 GAS-OIL RATIO 2667

FLOW. TUBING PRESS. CASING PRESSURE CALCULATED 24-HOUR RATE OIL--BBL. GAS--MCF. WATER--BBL. OIL GRAVITY-API (CORR.)

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

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from a direct examination of the original records.  
 SIGNED Brian Harris TITLE Engineering Technician DATE 1/11/2005

RECEIVED  
JAN 13 2005

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

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	38. GEOLOGIC MARKERS
				TOP
				MEAS. DEPTH
				TRUE VERT. DEPTH
			Well Name Federal 9-10-9-17	Garden Gulch Mkr 3516' Garden Gulch 1 3703' Garden Gulch 2 3816' Point 3 Mkr 4076' X Mkr 4316' Y-Mkr 4350' Douglas Creek Mkr 4472' BiCarbonate Mkr 4710' B Limestone Mkr 4840' Castle Peak 5290' Basal Carbonate 5712' Total Depth (LOGGERS)

**NEWFIELD**



January 11, 2005

State of Utah, Division of Oil, Gas and Mining  
Attn: Ms. Carol Daniels  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

Attn: Ms. Carol Daniels

Federal 9-10-9-17 (43-047-32502)  
Ashley Fed. 9-14-9-15 (43-013-32400)  
Ashley Fed. 5-13-9-15 (43-013-32394)

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  
Renee Palmer/Roosevelt

**RECEIVED**

**JAN 13 2005**

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



# 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

Corporations Section  
P.O.Box 13697  
Austin, Texas 78711-3697



Geoffrey S. Connor  
Secretary of State

## 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

Come visit us on the internet at <http://www.sos.state.tx.us/>

PHONE(512) 463-5555  
Prepared by: SOS-WEB

FAX(512) 463-5709

TTY7-1-1

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

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**

**011**

Change of Operator (Well Sold)

Designation of Agent/Operator

**ROUTING**

1. GLH
2. CDW
3. FILE

**X Operator Name Change**

**Merger**

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

**9/1/2004**

<b>FROM: (Old Operator):</b> N5160-Inland Production Company Route 3 Box 3630 Myton, UT 84052 Phone: 1-(435) 646-3721	<b>TO: (New Operator):</b> 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 15-34-8-17	34	080S	170E	4301332628		Federal	OW	APD	K
FEDERAL 14-34-8-17	34	080S	170E	4301332629		Federal	OW	APD	K
FEDERAL 13-34-8-17	34	080S	170E	4301332630		Federal	OW	APD	K
FEDERAL 12-34-8-17	34	080S	170E	4301332631		Federal	OW	APD	K
FEDERAL 16-13-9-16	13	090S	160E	4301332647		Federal	OW	APD	K
FEDERAL 15-13-9-16	13	090S	160E	4301332648		Federal	OW	APD	K
FEDERAL 14-13-9-16	13	090S	160E	4301332649		Federal	OW	APD	K
FEDERAL 13-13-9-16	13	090S	160E	4301332650		Federal	OW	NEW	K
FEDERAL 12-13-9-16	13	090S	160E	4301332651		Federal	OW	APD	K
FEDERAL 11-13-9-16	13	090S	160E	4301332652		Federal	OW	APD	K
FEDERAL 10-13-9-16	13	090S	160E	4301332653		Federal	OW	APD	K
FEDERAL 9-13-9-16	13	090S	160E	4301332654		Federal	OW	APD	K
FEDERAL 8-13-9-16	13	090S	160E	4301332655		Federal	OW	APD	K
FEDERAL 7-13-9-16	13	090S	160E	4301332656		Federal	OW	APD	K
FEDERAL 11-20-9-16	20	090S	160E	4301332598		Federal	OW	APD	K
FEDERAL 1-22-9-16	22	090S	160E	4301332612		Federal	OW	NEW	K
FEDERAL 9-10-9-17	10	090S	170E	4301332502	14325	Federal	OW	DRL	K
FEDERAL 13-11-9-17	11	090S	170E	4301332510	14273	Federal	OW	P	K
FEDERAL 12-11-9-17	11	090S	170E	4301332544		Federal	OW	APD	K
FEDERAL 1-15-9-17	15	090S	170E	4301332596		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 Communization Agreements ("CA"):**  
The BLM or BIA has approved the operator for all wells listed within a CA on: na/

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

**DATA ENTRY:**

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

**FEDERAL WELL(S) BOND VERIFICATION:**

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

**INDIAN WELL(S) BOND VERIFICATION:**

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

**FEE & STATE WELL(S) BOND VERIFICATION:**

- 1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number 61BSBDH2919
- 2. The **FORMER** operator has requested a release of liability from their bond on: n/a\*  
The Division sent response by letter on: n/a

**LEASE INTEREST OWNER NOTIFICATION:**

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

**COMMENTS:**

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

## Entity Form 6

"C" Change from one existing entity to another existing entity

API	Well	Sec	Twsp	Rng	Entity	Entity Eff Date
4301316218	CASTLE DRAW 16-10-9-17	10	090S	170E	8120 to 14844	9/20/2005
4301330568	FEDERAL 8-10-9-17	10	090S	170E	8000 to 14844	9/20/2005
4301332502	FEDERAL 9-10-9-17	10	090S	170E	14325 to 14844	9/20/2005
4301331593	MON FED 11-11-9-17Y	11	090S	170E	11904 to 14844	9/20/2005
4301332486	FEDERAL 5-11-9-17	11	090S	170E	14285 to 14844	9/20/2005
4301332510	FEDERAL 13-11-9-17	11	090S	170E	14273 to 14844	9/20/2005
4301332544	FEDERAL 12-11-9-17	11	090S	170E	14613 to 14844	9/20/2005
4301332704	FEDERAL 12-14-9-17	14	090S	170E	14786 to 14844	9/20/2005
4301331023	FEDERAL 15-1-B	15	090S	170E	10201 to 14844	9/20/2005
4304734494	FEDERAL 1-31-8-18	31	080S	180E	13927 to 14844	9/20/2005
4304734495	FEDERAL 2-31-8-18	31	080S	180E	13959 to 14844	9/20/2005
4304734496	FEDERAL 3-31-8-18	31	080S	180E	13915 to 14844	9/20/2005
4304734497	FEDERAL 4-31-8-18	31	080S	180E	13942 to 14844	9/20/2005
4304734498	FEDERAL 5-31-8-18	31	080S	180E	13898 to 14844	9/20/2005
4304734499	FEDERAL 6-31-8-18	31	080S	180E	13960 to 14844	9/20/2005
4304734500	FEDERAL 7-31-8-18	31	080S	180E	13925 to 14844	9/20/2005
4304734501	FEDERAL 11-31-8-18	31	080S	180E	13924 to 14844	9/20/2005
4304734502	FEDERAL 12-31-8-18	31	080S	180E	13958 to 14844	9/20/2005
4304734503	FEDERAL 13-31-8-18	31	080S	180E	14324 to 14844	9/20/2005
4304734504	FEDERAL 8-31-8-18	31	080S	180E	13961 to 14844	9/20/2005
4304734930	FEDERAL 10-31-8-18	31	080S	180E	13986 to 14844	9/20/2005
4304734931	FEDERAL 9-31-8-18	31	080S	180E	13963 to 14844	9/20/2005
4304731116	NGC ST 33-32	32	080S	180E	6210 to 14844	9/20/2005
4304732500	STATE 31-32	32	080S	180E	11645 to 14844	9/20/2005
4304732685	SUNDANCE ST 5-32	32	080S	180E	11781 to 14844	9/20/2005
4304732740	SUNDANCE ST 1-32R-8-18	32	080S	180E	11886 to 14844	9/20/2005
4304732741	SUNDANCE ST 3-32	32	080S	180E	12059 to 14844	9/20/2005
4304732827	SUNDANCE ST 4-32	32	080S	180E	12106 to 14844	9/20/2005
4304734458	SUNDANCE 7-32-8-18	32	080S	180E	13987 to 14844	9/20/2005
4304734459	SUNDANCE 8-32-8-18	32	080S	180E	14047 to 14844	9/20/2005
4304734460	SUNDANCE 9-32-8-18	32	080S	180E	13988 to 14844	9/20/2005
4304734461	SUNDANCE 11-32-8-18	32	080S	180E	13962 to 14844	9/20/2005
4304734462	SUNDANCE 12-32-8-18	32	080S	180E	14031 to 14844	9/20/2005
4304734463	SUNDANCE 13-32-8-18	32	080S	180E	13964 to 14844	9/20/2005
4304734464	SUNDANCE 14-32-8-18	32	080S	180E	14046 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.

*Docket No  
2005-009*

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 07 2005

DIV. OF OIL, GAS & MINING

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  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

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

5. Lease Serial No.  
USA UTU-075174

6. If Indian, Allottee or Tribe Name.

7. If Unit or CA/Agreement, Name and/or  
SUNDANCE UNIT

8. Well Name and No.  
FEDERAL 9-10-9-17

9. API Well No.  
4301332502

10. Field and Pool, or Exploratory Area  
MONUMENT BUTTE

11. County or Parish, State  
DUCHESNE, UT

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

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
NEWFIELD PRODUCTION COMPANY

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

3b. Phone (include area code)  
435.646.3721

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
1815 FSL 647 FEL  
NESE Section 10 T9S R17E

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	<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	INC _____
	<input type="checkbox"/> Convert to	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	_____

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

The following is in reference to an incident of noncompliance dated 5/30/07. Newfield intends to convert the well to an injector. An injection permit was submitted to the EPA and is presently under review. Upon EPA approval, the well will be converted. Newfield is requesting permission to leave the well shut in for 60 days to complete the conversion.

RECEIVED  
JUL 09 2007

Accepted by the  
Utah Division of  
Oil, Gas and Mining  
For Record Only

DIV. OF OIL, GAS & MINING

I hereby certify that the foregoing is true and correct (Printed/ Typed)  
Mike Guinn

Signature 

Title  
District Manager

Date  
07/05/2007

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

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)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

JUL 26 2007

Ref: 8P-W-GW

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

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

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

43,013,32502  
Re: FINAL Permit  
EPA UIC Permit UT21051-07110  
Well: Federal 9-10-9-17  
Duchesne County, UT

Dear Mr. Gerbig:

Enclosed is your copy of the FINAL Underground Injection Control (UIC) Permit for the proposed Federal 9-10-9-17 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 JUL 13 2007. 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

AUG 16 2007

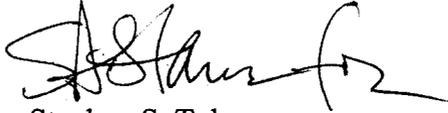
DIV. OF OIL, GAS & MINING



Printed on Recycled Paper

If you have any questions on the enclosed Final Permit or Statement of Basis, please call Margo Smith of my staff at (303) 312-6318, or toll-free at (800) 227-8917, ext. 312-6318.

Sincerely,



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

RECORDED  
INDEXED  
MAY 10 2007

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 7529-14 Plugging and Abandonment Plan

cc: Letter only:

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

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

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

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

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

Frances Poowegup, Concilwoman  
Uintah & Ouray Business Committee  
Ute Indian Tribe

Chester Mills, Superintendent  
BIA - Uintah & Ouray Indian Agency

All enclosures:

Mr. Michael Guinn  
District Manager  
Newfield Production Company  
Myton, Utah

Shawn Chapoose, Director  
Land Use Department  
Ute Indian Tribe

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

Fluid Minerals Engineering Office  
BLM - Vernal Office

Lynn Becker, Director  
Energy and Minerals Department  
Ute Indian Tribe





**UNDERGROUND INJECTION CONTROL PROGRAM  
PERMIT**

PREPARED: May 2007

**Permit No. UT21051-07110**

Class II Enhanced Oil Recovery Injection Well

**Federal 9-10-9-17  
Duchesne 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 9-10-9-17  
1815' FSL 647' FEL, SWSE S10, T9S, R17E  
Duchesne County, UT

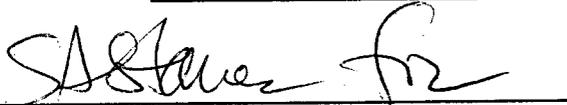
EPA regulates the injection of fluids into injection wells so that injection does not endanger underground sources of drinking water (USDWs). EPA UIC Permit conditions are based on authorities set forth at 40 CFR Parts 144 and 146, and address potential impacts to USDWs.

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: JUL 25 2007

Effective Date JUL 25 2007



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.

A radioactive tracer survey may be required if the cement bond log does not demonstrate the minimum 18 feet of cement of 80% bond in the confining zone. The permittee shall submit a new CBL that shows the travel time curve. If the new CBL is not able to identify adequate casing cement of at least eighteen (18) feet of effective 80% bond index cement bond across the Confining Zone, the RTS will be required within a 180-day period following commencement of injection.

#### **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.

The permittee shall demonstrate Part II MI by either 1) running and submitting a new CBL that shows the travel time curve, or 2) by conducting a Part II MI test using a Radioactive Tracer Survey (RTS) within a 180-day period following commencement of injection. Part II MI will be considered demonstrated 1) if the CBL results identify adequate casing cement of at least eighteen (18) feet of effective 80% bond index cement bond across the Confining Zone, or 2) if the RTS is able to demonstrate no fluid movement through vertical channels adjacent to the well bore. If the new CBL is not able to identify adequate casing cement of at least eighteen (18) feet of effective 80% bond index cement bond across the Confining Zone, the RTS will be required within a 180-day period following commencement of injection. If the RTS is used, a Part II MI demonstration, using a temperature log, noise log, or RTS is required at least once every five years thereafter.

### **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.

#### FORMATION DATA:

- \* Base of USDWs: 1202'
- \* Confining Zone: Green River Formation interval between 3340' - 3516'.
- \* Permitted Injection Zone: Green River Formation interval between 3516' - 5712'.
- \* Original Authorized Injection perforations: 4801' - 5416'.

#### WELL CONSTRUCTION:

- \* 9-5/8" 24# Surface casing in 12-1/4" hole to 337' with 300 sx cement
- \* 5-1/2" 15.5# Longstring casing in 7-7/8" hole to 5737' with 700 sx cement
- \* Perforations: Green River G-1 zone from 4801' - 5352'
- \* 2-7/8" injection tubing set in a packer at 5520'
- \* Well TD at 5771'
- \* The well construction schematic diagram identifies the production perforations in the Douglas Creek Member, which will be utilized during enhanced recovery injection.

#### WELLHEAD EQUIPMENT:

- \* Sampling tap located to enable sampling fluid in the injection tubing.
- \* Sampling tap located to enable sampling fluid in the 5-1/2" x 7 7/8" annulus.
- \* Pressure gauge isolated by 1/2" FIP shut-off valve or quick-connect and located to enable reading the pressure on the injection tubing.
- \* Pressure gauge isolated by 1/2" FIP shut-off valve or quick-connect and located to enable reading the pressure in the 5-1/2 x 7 7/8" annulus.
- \* Pressure-actuated shut off device located on the injection line, and set to prevent injection operations from exceeding the maximum allowable injection pressure.
- \* Non-resettable cumulative volume recorder located on the injection line.
- \* The packer shall be set no higher than 100 feet above the top perforation.

Federal #9-10-9-17

Spud Date: 9/30/2004  
 Put on Production: 12/07/2004  
 GL: 5127 KR: 5130

Initial Production: BOPD,  
 MCFD, BWPD

**SURFACE CASING**

CSG SIZE: 8.500"  
 GRADE: L-55  
 WEIGHT: 240  
 LENGTH: 8 jts (726.63')  
 DEPTH LANDED: 336.63'  
 HOLE SIZE: 12-1/4"  
 CEMENT DATA: 150 ccs Class 75 Cement, Est. 3 bbls cement to surface.

**PRODUCTION CASING**

CSG SIZE: 5.472"  
 GRADE: J-55  
 WEIGHT: 15.50  
 LENGTH: 134 jts (1170.60')  
 DEPTH LANDED: 576.85'  
 HOLE SIZE: 7-7/8"  
 CEMENT DATA: 300 ccs Openlite II and 400 ccs 50/50 POZ  
 CEMENT TOP AT: 275'

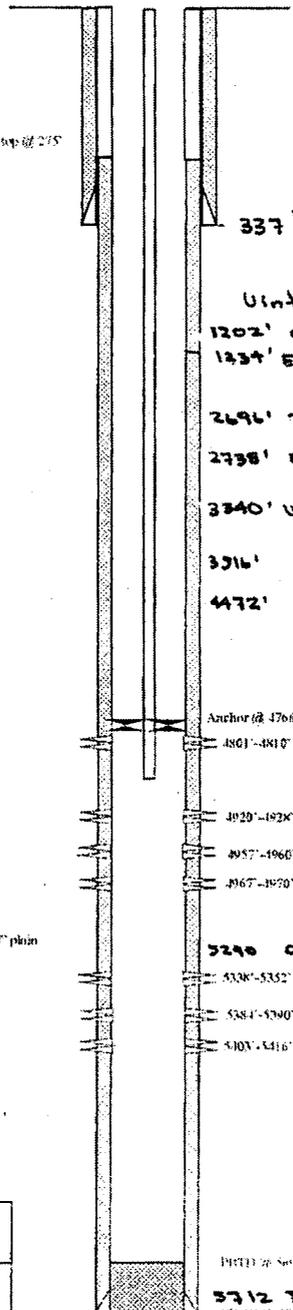
**TUBING**

SIZE/GRADE/WT: 2.380" (J-55) 4.60  
 NO. OF JOINTS: 151 jts (4634.40')  
 TUBING ANCHOR: 46-1/4-16" KB  
 NO. OF JOINTS: 1 jt (28.00')  
 SEATING nipple: 2.380" (1.10')  
 NN LANDED AT: 4676.42' KB  
 NO. OF JOINTS: 1 jt (29.00')  
 TOTAL STRING LENGTH: EOT @ 4704.80' w/ 10' KB

**SUCKER RODS**

POLISHED ROD: 1 1/8" x 22'  
 SUCKER RODS: 44 1/2" weight bars, 16-3/4" scraper rods, 85-3/4" plain rods, 88-7/8" scraper rods, 16" 1-1/4" x 57" pony rods.  
 PUMP SIZE: 2" x 1 1/2" x 16"  
 STROKE LENGTH: 74"  
 PUMP SPEED: SPM: 5  
 LOGS: OIL-SR GR. REC-CNL-BS-GR-CAL

**Proposed Injection Wellbore Diagram**



**FRAC JOB**

11/30/04 5303'-5316' Frac CP3, CP2 and CP 1 sands as follows:  
 99,319 of 20/40 sand in 71' bbls Lightning 17 fluid. Treated at avg. pressure of 1190 psi with average rate of 24.8 BPM. ISIP: 1500. Calculated flush: 5336 gals. Actual flush: 5334 gals.  
 11/30/04 4920'-4970' Frac A1 sands as follows:  
 29,737 of 20/40 sand in 306 bbls Lightning 17 fluid. Treated at avg. pressure of 1315 psi with average rate of 25.1 BPM. ISIP: 1505. Calculated flush: 4918 gals. Actual flush: 4950 gals.  
 12/01/04 4801'-4810' Frac B2 sands as follows:  
 32,038 of 20/40 sand in 330 bbls Lightning 17 fluid. Treated at avg. pressure of 1689 psi with average rate of 15.1 BPM. ISIP: 1900. Calculated flush: 4799 gals. Actual flush: 4704 gals.

CONFINING ZONE

INJECTION ZONE

3516' - 5837'

**PERFORATION RECORD**

11/2/04	5403'-5416'	4 SPT	52 holes
11/2/04	5384'-5390'	4 SPT	24 holes
11/2/04	5338'-5352'	1 SPT	56 holes
11/30/04	4967'-4970'	4 SPT	12 holes
11/30/04	4957'-4960'	4 SPT	12 holes
11/30/04	4920'-4928'	4 SPT	32 holes
12/01/04	4801'-4810'	1 SPT	36 holes

**NEWFIELD**

Federal #9-10-9-17  
 1815' ESE 1/4 647' NE1  
 NESE Section 16, P8S-R17E  
 Duchesne Co Utah  
 APN #44-013-3750, Lease #1710-074134

## 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.

<b>WELL NAME:</b> Federal 9-10-9-17	
<b>TYPE OF LOG</b>	<b>DATE DUE</b>
CBL/VDL/GAMMA RAY	Prior to receiving authorization to begin injection.

#### 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.

The permittee shall demonstrate Part II MI by either 1) running and submitting a new CBL that shows the travel time curve, or 2) by conducting a Part II MI test using a Radioactive Tracer Survey (RTS) within a 180-day period following commencement of injection. Part II MI will be considered demonstrated 1) if the CBL results identify adequate casing cement of at least eighteen (18) feet of effective 80% bond index cement bond across the Confining Zone, or 2) if the RTS is able to demonstrate no fluid movement through vertical channels adjacent to the well bore. If the new CBL is not able to identify adequate casing cement of at least eighteen (18) feet of effective 80% bond index cement bond across the Confining Zone, the RTS will be required within a 180-day period following commencement of injection. If the RTS is used, a Part II MI demonstration, using a temperature log, noise log, or RTS is required at least once every five years thereafter.

<b>WELL NAME:</b> Federal 9-10-9-17	
<b>TYPE OF TEST</b>	<b>DATE DUE</b>
Standard Annulus Pressure	Prior to authorization to inject and at least once every five (5) years after the last successful demonstration of Part I Mechanical Integrity.
Pore Pressure	Prior to receiving authorization to begin injection.

# 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 9-10-9-17	1,220

### 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 9-10-9-17	APPROVED INJECTION INTERVAL (KB, ft)		FRACTURE GRADIENT (psi/ft)
	TOP	BOTTOM	
FORMATION NAME			
Garden Gulch member to top Wasatch	3,516.00	5,837.00	0.690

### 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 averaged annulus pressure(s) (psig)
	Each month's averaged injection rate (bbl/day)
	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 17th Street, Suite 1000**  
**Denver, CO 80202**

## APPENDIX E

### PLUGGING AND ABANDONMENT REQUIREMENTS

See attached diagram.

The well shall be plugged in a manner that isolates the injection zone and prevents movement of fluids into or between USDWs, and in compliance with other federal, state and local 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. 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 1:** Remove tubing from the well, perform necessary clean out, and displace fluid in well with 9.6 lb. plugging gel or bentonite. Set a cast iron bridge plug (CIBP) no more than 50 ft above the top perforation with a minimum 20 ft cement plug on top of the CIBP.

**PLUG 2:** Set a minimum 200 ft cement plug from approximately 2646 to 2780 ft. Use of a balanced cement plug is approved for this plug.

**PLUG 3:** Set a minimum 100 ft cement plug across the base of the Uinta Formation at 1202 ft. Use of a balanced cement plug is approved for this plug.

**PLUG 4:** Seal pathways for fluid migration into the subsurface from the surface by, at a minimum, cementing the annulus of the surface casing-long string casing from surface to a depth of at least 20 ft below the surface casing shoe. If necessary, perforate the long string casing below the surface casing shoe.

**PLUG 5:** Seal pathways for fluid migration into the subsurface from the surface by, at a minimum, cementing the inside of the long string casing from surface to a depth of at least 50 ft.

Federal #9-10-9-17

Spud Date: 9/30/2004  
 Put on Production: 12/07/2004  
 GI: 5127 KH: 5139

Initial Production: BOPD,  
 MCFD, BWPD

SURFACE CASING

CSG SIZE: 8.58"  
 GRADE: J-55  
 WEIGHT: 24#  
 LENGTH: 8 jts (326.63')  
 DEPTH LANDED: 336.63'  
 HOLE SIZE: 12-1/4"  
 CEMENT DATA: 150 sac Class G Cement, Est. 3 bbls cement to surface.

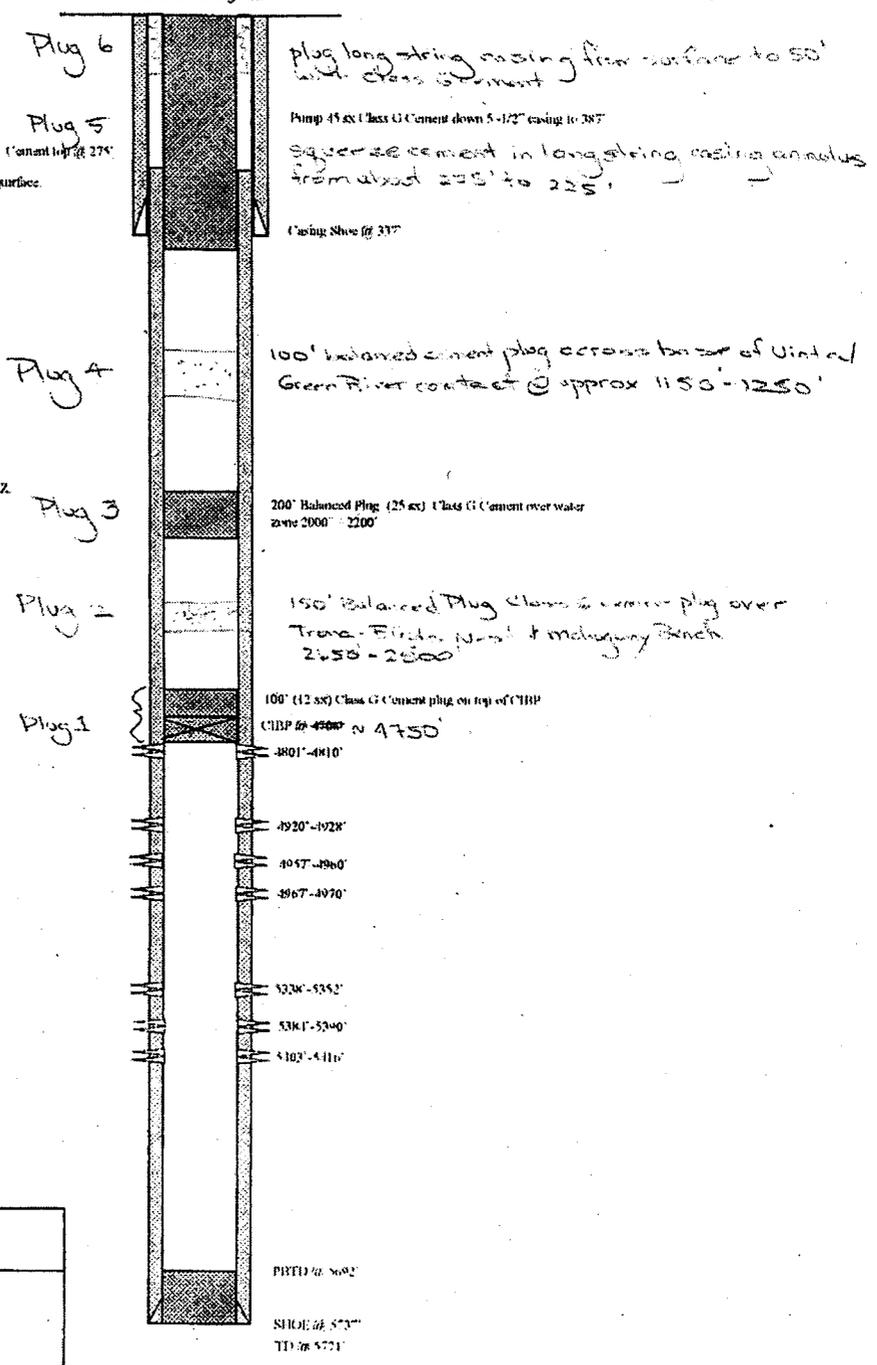
PRODUCTION CASING

CSG SIZE: 5-1/2"  
 GRADE: J-55  
 WEIGHT: 15.5#  
 LENGTH: 134 jts (5736.65')  
 DEPTH LANDED: 5736.65'  
 HOLE SIZE: 7-7/8"  
 CEMENT DATA: 300 sac Portland II and 400 sac 50/50 POZ.  
 CEMENT TRIP AT: 275'

TUBING

SIZE/GRADE/WT: 2 3/8" / J-55 / 4.6#  
 NO. OF JOINTS: 151 jts (4634.46')  
 TUBING ANCHOR: 4644.46' KB  
 NO. OF JOINTS: 1 jt (2000')  
 SEATING NIPPLE: 2 3/8" (1.10')  
 SN LANDED AT: 4676.43' KB  
 NO. OF JOINTS: 1 jt (29.95')  
 TOTAL STRING LENGTH: BOT @ 4704.38" w/ 10' KB

Proposed P & A  
 Wellbore Diagram



<b>Federal #9-10-9-17</b> 1815 ESI & 647 FEL NESE Section 16-T98-R17E Duchesne Co. Utah API #43-01632502, Lease #UT10075174

MCF 8016

## APPENDIX F

### CORRECTIVE ACTION REQUIREMENTS

None.

# STATEMENT OF BASIS

## NEWFIELD PRODUCTION COMPANY

FEDERAL 9-10-9-17  
DUCHESNE COUNTY, UT

EPA PERMIT NO. UT21051-07110

**CONTACT:** Margo Smith  
U. S. Environmental Protection Agency  
Ground Water Program, 8P-W-GW  
1595 Wynkoop Street  
Denver, Colorado 80202-1129  
Telephone: 1-800-227-8917 ext. 312-6318

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

February 15, 2006

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

Federal 9-10-9-17  
1815' FSL 647' FEL, SWSE S10, T9S, R17E  
Duchesne 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 9-10-9-17 is currently a Green River Formation (Garden Gulch-Douglas Creek members) oil well. The applicant intends to convert this facility to an enhanced recovery injection well.

**TABLE 1.1**

**WELL STATUS / DATE OF OPERATION**

**NEW WELLS**

<b>Well Name</b>	<b>Well Status</b>	<b>Date of Operation</b>
Federal 9-10-9-17	New	N/A

## 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, T9S and R17E, 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 ft to 800 ft of the Uinta Formation, consisting generally of shale interbedded with occasionally water-bearing sandstone lenses between 5 ft to 20 ft 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'/mile, and there are no known surface faults in this area. Veins of gilsonite, a natural resinous hydrocarbon occasionally mined as a resource, occur 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.

Throughout the Greater Monument Butte Field area undergoing enhanced oil recovery operations, water analyses of the Green River Formation generally exhibit total dissolved (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.

**TABLE 2.1**  
**GEOLOGIC SETTING**  
**Federal 9-10-9-17**

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Lithology
Uinta Fm	0	1,202	3,000 - 10,000	predominantly lenticular fluvial sand and shale, with minor lacustrine carbonates
Green River Fm	1,202	5,837	> 10,000	tight sandstone and interbedded shale forming confining layers between individual permeable lenticular sandstones
Trona - Bird's Nest	2,696	2,730	10,000	sodium carbonate
Mahogany Bench	2,738	2,755	10,000	oil shale
Garden Gulch to top Wasatch	3,516	5,837	8,653	lacustrine sand, shale, carbonate, interbedded with fluvial sand/shale
Castle Peak Marker	5,290	5,712	10,000	carbonate
Basal Carbonate	5,712	5,837	10,000	limestone
Wasatch Fm	5,837	5,962	10,000	mudstone, siltstone, lenticular sandstone and conglomerate

**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 approved interval for enhanced recovery injection is located between the top of the Green River Formation-Garden Gulch Member (3516 feet) and the top of the Wasatch Formation which is estimated to be 5837 feet.

**TABLE 2.2**  
**INJECTION ZONES**  
Federal 9-10-9-17

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Fracture Gradient (psi/ft)	Porosity	Exempted?*
Garden Gulch member to top Wasatch	3,516	5,837	8,653	0.690	10.00%	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 176-foot shale Confining Zone overlies the top of the Garden Gulch Member between the depths of 3340 to 3516 feet.

**TABLE 2.3**  
**CONFINING ZONES**  
Federal 9-10-9-17

Formation Name	Formation Lithology	Top (ft)	Base (ft)
upper Green River shale	shale	3,340	3,516

**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.

The State of Utah Division of Water Rights (<http://nrwt1.state.ut.us>), identifies no public water supply wells within the one-quarter (1/4) mile Area-of-Review (AOR) around the Federal 9-10-9-17.

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 27 feet below the ground surface.

**TABLE 2.4**  
**UNDERGROUND SOURCES OF DRINKING WATER (USDW)**  
**Federal 9-10-9-17**

Formation Name	Formation Lithology	Top (ft)	Base (ft)	TDS (mg/l)
Uinta Fm	predominantly fluvial sand and shale, with minor lacustrine carbonates	0	1,202	3,000 - 10,000

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

The Federal No. 9-10-9-17 was drilled to a total depth of 5771 feet (KB) in the Basal Carbonate member of the Green River Formation.

Surface casing (8-5/8 inch) was set at a depth of 337 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 5737 feet (KB) in a 7-7/8 inch hole with 300 sacks of Premium Lite II and 400 sacks of 50/50 poz mix. The CBL shows the top of cement at 275 feet from the surface.

The schematic diagram shows the 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 5416 feet and the top of the Wasatch Formation (estimated to be 5837 feet) provided the operator first notifies the Director and later submits an updated well completion report (EPA Form 7520-12) and schematic diagram.

**TABLE 3.1**  
**WELL CONSTRUCTION REQUIREMENTS**  
**Federal 9-10-9-17**

Casing Type	Hole Size (in)	Casing Size (in)	Cased Interval (ft)	Cemented Interval (ft)
Surface	12.25	8.63	0 - 336	0 - 340
Longstring	7.88	5.50	0 - 5,737	275 - 5,771

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.

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

**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)**

Well Name	Type	Status (Abandoned Y/N)	Total Depth (ft)	TOC Depth (ft)	CAP Required (Y/N)
Castle Draw 10-10-9-17	Producer	No	6,180	2,036	No
Castle Draw 16-10-9-17	Producer	No	6,300	2,628	No
Federal 12-11-9-17	Producer	No	5,766	260	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 9-10-9-17

Formation Name	Depth Used to Calculate MAIP (ft)	Fracture Gradient (psi/ft)	Initial MAIP (psi)
Garden Gulch member to top Wasatch	4,801	0.690	1,200

**Approved Injection Fluid**

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 is a blend of source water from the Johnson Water District reservoir and produced Green River water from wells proximate to the Federal No. 9-10-9-17. By agreement between the EPA and the Newfield Production Company, December 20, 2006, a specific gravity (SG) value of 1.015 will be used for all MAIP calculations, unless the injectate has an analyzed SG greater than 1.015. Newfield Production Company will so advise the EPA of a higher SG.

**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 volume of the authorized fluid injected into the Green River interval 3816 feet to the top of the Wasatch Formation which is estimated to be 5837 feet.

### **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).

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, whichever is less, with a ten (10) percent or less pressure loss over thirty (30) minutes.

**Part II MI:** Cement bond logs for this injection well do not show the minimum cement bond required to demonstrate isolation through the approved confining zone (at least 18 feet of continuous 80% bond, or better). Therefore the permittee will be required to demonstrate Part II MI by either 1) running and submitting a new CBL that shows the travel time curve, or 2) by conducting a Part II MI test using a Radioactive Tracer Survey (RTS) within a 180-day period following commencement of injection. Part II MI will be considered demonstrated 1) if the CBL results identify adequate casing cement of at least eighteen (18) feet of effective 80% bond index cement bond across the Confining Zone, or 2) if the RTS is able to demonstrate no fluid movement through vertical channels adjacent to the well bore. If the new CBL is not able to identify adequate casing cement of at least eighteen (18) feet of effective 80% bond index cement bond across the Confining Zone, the RTS will be required within a 180-day period following commencement of injection. If the RTS is used, a Part II MI demonstration, using a temperature log, noise log, or RTS is required at least once every five years thereafter.

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.

## **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, injection flow rate and cumulative fluid volume, and the maximum and average value for each must be determined for each month. 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)**

The well shall be plugged in a manner that isolates the injection zone and prevents movement of fluids into or between USDWs, and in compliance with other federal, state and local 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 9.2 lb/gal shall be placed between all plugs. A minimum 50 ft surface plug shall be set inside and outside of the surface casing to seal pathways for fluid migration into the subsurface. Within sixty (60) days after plugging the owner or operator shall submit a 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. Based on the proposed well completion, at a minimum the following plugs are required:

### **ISOLATE THE INJECTION ZONE:**

**PLUG 1:** Remove downhole apparatus from the well and perform necessary clean out; displace well fluid with plugging gel. Set a cast iron bridge plug (CIBP) no more than 50 ft above the top perforation with a minimum 20 ft cement plug on top of the CIBP.

### **ISOLATE THE TRONA / BIRDSNEST WATER ZONE AND MAHOGANY OIL SHALE:**

**PLUG 2:** Set a minimum 200 ft cement plug across the top of the Mahogany Oil Shale (at least 50 ft above and 50 ft below, and across the Trona-Bird's Nest water zone). This plug may be combined with Plug 3 below. Use of a balanced cement plug is approved for this plug

### **ISOLATE THE UINTA FORMATION (USDW)**

**PLUG 3:** Set a minimum 100 ft cement plug across the top of Green River/base of Uinta Formation. Use of a balanced cement plug is approved for this plug.

### **ISOLATE SURFACE FLUID MIGRATION PATHS:**

**PLUG 4:** Perforate casing at the surface casing shoe, squeeze cement up to surface and place a minimum 50 ft cement plug inside the casing across the squeeze perforations.

**PLUG 5:** Place a cement plug inside the long string casing from surface to a depth of at least 50 ft. below 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, received April 22, 2005
--

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



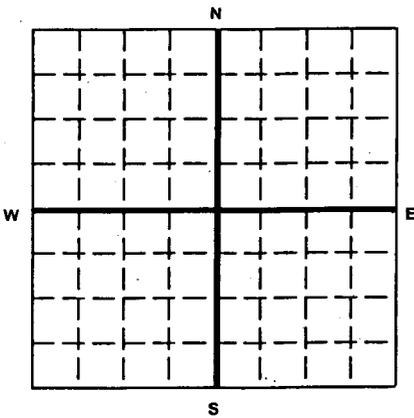
United States Environmental Protection Agency  
Washington, DC 20460

### Application To Transfer Permit

Name and Address of Existing Permittee

Name and Address of Surface Owner

Locate Well and Outline Unit on  
Section Plat - 640 Acres



State \_\_\_\_\_ County \_\_\_\_\_ Permit Number \_\_\_\_\_

Surface Location Description  
\_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 of Section \_\_\_\_\_ Township \_\_\_\_\_ Range \_\_\_\_\_

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface  
Location \_\_\_\_\_ ft. frm (N/S) \_\_\_\_\_ Line of quarter section  
and \_\_\_\_\_ ft. from (E/W) \_\_\_\_\_ Line of quarter section.

Well Activity	Well Status	Type of Permit
<input type="checkbox"/> Class I	<input type="checkbox"/> Operating	<input type="checkbox"/> Individual
<input type="checkbox"/> Class II	<input type="checkbox"/> Modification/Conversion	<input type="checkbox"/> Area
<input type="checkbox"/> Brine Disposal	<input type="checkbox"/> Proposed	Number of Wells _____
<input type="checkbox"/> Enhanced Recovery		
<input type="checkbox"/> Hydrocarbon Storage		
<input type="checkbox"/> Class III		
<input type="checkbox"/> Other		

Lease Number \_\_\_\_\_

Well Number \_\_\_\_\_

Name(s) and Address(es) of New Owner(s)

Name and Address of New Operator

**Attach to this application a written agreement between the existing and new permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them.**

**The new permittee must show evidence of financial responsibility by the submission of a surety bond, or other adequate assurance, such as financial statements or other materials acceptable to the Director.**

#### Certification

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

Name and Official Title (Please type or print)

Signature

Date Signed





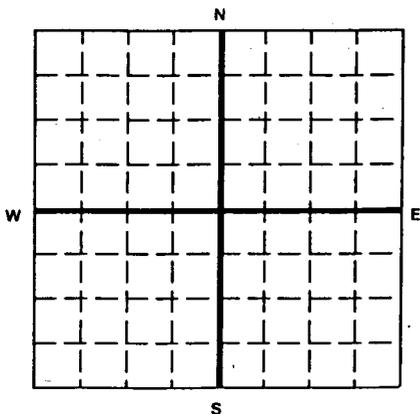
United States Environmental Protection Agency  
Washington, DC 20460

### WELL REWORK RECORD

Name and Address of Permittee

Name and Address of Contractor

Locate Well and Outline Unit on  
Section Plat - 640 Acres



State	County	Permit Number
Surface Location Description 1/4 of 1/4 of 1/4 of 1/4 of Section Township Range		
Locate well in two directions from nearest lines of quarter section and drilling unit Surface Location ft. frm (N/S) Line of quarter section and ft. from (E/W) Line of quarter section.		
WELL ACTIVITY <input type="checkbox"/> Brine Disposal <input type="checkbox"/> Enhanced Recovery <input type="checkbox"/> Hydrocarbon Storage  Lease Name	Total Depth Before Rework	TYPE OF PERMIT Individual Area Number of Wells
	Total Depth After Rework	
	Date Rework Commenced	Well Number
	Date Rework Completed	

#### WELL CASING RECORD -- BEFORE REWORK

Casing		Cement		Perforations		Acid or Fracture Treatment Record
Size	Depth	Sacks	Type	From	To	

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

Casing		Cement		Perforations		Acid or Fracture Treatment Record
Size	Depth	Sacks	Type	From	To	

DESCRIBE REWORK OPERATIONS IN DETAIL  
USE ADDITIONAL SHEETS IF NECESSARY

#### WIRE LINE LOGS, LIST EACH TYPE

	WIRE LINE LOGS, LIST EACH TYPE	
	Log Types	Logged Intervals

#### Certification

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

Name and Official Title (Please type or print)

Signature

Date Signed



United States Environmental Protection Agency  
Washington, DC 20460

### PLUGGING AND ABANDONMENT PLAN

Name and Address of Facility	Name and Address of Owner/Operator
------------------------------	------------------------------------

<p>Locate Well and Outline Unit on Section Plat - 640 Acres</p>	State _____	County _____	Permit Number _____
	Surface Location Description		
	1/4 of ___ 1/4 of ___ 1/4 of ___ 1/4 of Section ___ Township ___ Range		
	Locate well in two directions from nearest lines of quarter section and drilling unit		
Surface			
Location ___ ft. frm (N/S) ___ Line of quarter section			
and ___ ft. from (E/W) ___ Line of quarter section.			
TYPE OF AUTHORIZATION		WELL ACTIVITY	
<input type="checkbox"/> Individual Permit <input type="checkbox"/> Area Permit <input type="checkbox"/> Rule Number of Wells _____		<input type="checkbox"/> CLASS I <input type="checkbox"/> CLASS II <input type="checkbox"/> Brine Disposal <input type="checkbox"/> Enhanced Recovery <input type="checkbox"/> Hydrocarbon Storage <input type="checkbox"/> CLASS III	
Lease Name _____		Well Number _____	

CASING AND TUBING RECORD AFTER PLUGGING					METHOD OF EMPLACEMENT OF CEMENT PLUGS	
SIZE	WT (LB/FT)	TO BE PUT IN WELL (FT)	TO BE LEFT IN WELL (FT)	HOLE SIZE		
					<input type="checkbox"/> The Balance Method <input type="checkbox"/> The Dump Bailer Method <input type="checkbox"/> The Two-Plug Method <input type="checkbox"/> Other	

CEMENTING TO PLUG AND ABANDON DATA:							
	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Size of Hole or Pipe in which Plug Will Be Placed (inche)							
Depth to Bottom of Tubing or Drill Pipe (ft)							
Sacks of Cement To Be Used (each plug)							
Slurry Volume To Be Pumped (cu. ft.)							
Calculated Top of Plug (ft.)							
Measured Top of Plug (if tagged ft.)							
Slurry Wt. (Lb./Gal.)							
Type Cement or Other Material (Class III)							

LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)			
From	To	From	To

Estimated Cost to Plug Wells \_\_\_\_\_

**Certification**

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

Name and Official Title (Please type or print)	Signature	Date Signed
--	-----------	-------------

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

5. LEASE DESIGNATION AND SERIAL NUMBER:  
USA UTU-075174

**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.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:  
SUNDANCE UNIT

1. TYPE OF WELL: OIL WELL  GAS WELL  OTHER

8. WELL NAME and NUMBER:  
FEDERAL 9-10-9-17

2. NAME OF OPERATOR:  
NEWFIELD PRODUCTION COMPANY

9. API NUMBER:  
4301332502

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: 1815 FSL 647 FEL

COUNTY: DUCHESNE

OTR/OTR SECTION, TOWNSHIP, RANGE, MERIDIAN: NESE, 10, T9S, R17E

STATE: UT

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate)  Approximate date work will _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only)  Date of Work Completion: 01/11/2008	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLAIR
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input checked="" 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 type="checkbox"/> OTHER: -
	<input checked="" type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

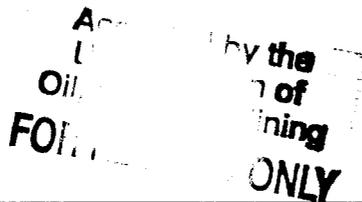
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The subject well has been converted from a producing oil well to an injection well on 1/11/2008. One new interval was added, the D sds 4546'-4568', 4 JSPF, 88 shots. Please see attached conversion work detail.

On 12/12/07 Dan Jackson with the EPA was contacted concerning the initial MIT on the above listed well. Permission was given at that time to perform the test on 1/15/08. On 1/15/08 the csg was pressured up to 1180 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tbg pressure was 280 psig during the test. There was not an EPA representative available to witness the test.

EPA# UT21051-07110

API# 43-013-32502



NAME (PLEASE PRINT) Callie Ross

TITLE Production Clerk

SIGNATURE *Callie Ross*

DATE 01/16/2008

# 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: 1/15/08  
 Test conducted by: David Chase  
 Others present: \_\_\_\_\_

Well Name: <u>Federal 9-10-9-17</u>	Type: ER SWD	Status: AC TA UC
Field: <u>Monument Butte</u>		
Location: <u>9-10-9-17</u> Sec: <u>10</u> T <u>9</u> N <input checked="" type="checkbox"/> R <u>17</u> E W County: <u>Duchess</u> State: <u>UT</u>		
Operator: <u>Newfield</u>		
Last MIT: <u>/ /</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>280</u> psig	psig	psig
End of test pressure	psig	psig	psig
<b>CASING/TUBING ANNULUS PRESSURE</b>			
0 minutes	<u>1180</u> psig	psig	psig
5 minutes	<u>1180</u> psig	psig	psig
10 minutes	<u>1180</u> psig	psig	psig
15 minutes	<u>1180</u> psig	psig	psig
20 minutes	<u>1180</u> psig	psig	psig
25 minutes	<u>1180</u> psig	psig	psig
30 minutes	<u>1180</u> psig	psig	psig
<u>X</u> minutes	psig	psig	psig
<u>X</u> 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: \_\_\_\_\_



## Daily Activity Report

Format For Sundry

FEDERAL 9-10-9-17

11/1/2007 To 3/29/2008

1/4/2008 Day: 1

Conversion

Western #2 on 1/3/2008 - MIRU Western #2. Bleed gas off well to swab tank. RU HO trk & pump 70 BW dn annulus @ 250°F. RD pumping unit & unseat pump. Flush tbg & rods W/ 40 BW. Reseat pump, soft joint rod string & strip off flow-T. Fill tbg W/ 5 BW & pressure test tbg to 3000 psi. Retrieve rod string & unseat pump. TOH and LD 115 rods. PU polished rod. Re-flush rods W/ 20 BW & SIFN.

1/5/2008 Day: 2

Conversion

Western #2 on 1/4/2008 - Bleed gas off well. Con't TOH & LD rods and pump. ND wellhead & release TA @ 5521'. NU BOP. TOH and talley production tbg--LD BHA. Broke even connections, clean & inspect pins and apply Liquid O-ring to pins. MU & TIH W/ 4 3/4" bit, 5 1/2" casing scraper and tbg to 5619'. TOH W/ 80 jts tbg. Broke odd connections, clean & inspect pins and apply Liquid O-ring to pins. SIFN W/ EOT @ 3011'.

1/8/2008 Day: 3

Conversion

Western #2 on 1/7/2008 - Bleed gas off well. Continue TOOH w/ tbg. Lay down bit & scraper. RU Perforators LLC WLT. RIH w/ Weatherford HE 5-1/2" plug. Set plug @ 4600'. Fill casing w/ 45 bbls to test plug to 2000 psi. RIH w/ 22' perf guns. Perforate D sds @ 4546-68' w/ 3-1/8" Slick Guns (19 gram, .49" HE, 120°) w/ 4 spf for total of 88 shots. RD WLT. RU BJ Services. BJ lost BOP stud down casing. RU Four Star magnet & try to fish bolt (2 runs w/ no bolt). Decision made to frac well. RU BJ w/ isolation tool & frac D sds down casing w/ 46,038#'s of 20/40 sand in 501 bbls of Lightning 17 frac fluid. Perfs broke down @ 3052 psi. Pump 30 gals of Techna Hib chemical. Treated @ ave pressure of 2138 w/ ave rate of 23.3 bpm w/ 8 ppg of sand. ISIP was 2115. Flow well back. Well flowed for 2 hours & died w/ 160 bbls rec'd. SIFN.

1/9/2008 Day: 4

Conversion

Western #2 on 1/8/2008 - Thaw well out. Open well w/ 350 psi on casing. Rec'd 30 bbls fluid. RD well head isolation tool. RU 1-3/8" graphel & TIH w/ tbg. Tag sand @ 4540'. RU swivel, pump & tanks. C/O to fish @ 4600'. Work graphel & never could get completely on. TOOH w/ tbg. LD tool. RIH w/ 3.25" magnet w/ sand line. Couldn't retrieve Bolt. Try different magnet then different graphel in morning. SIFN.

1/10/2008 Day: 5

Conversion

Western #2 on 1/9/2008 - Thaw well out. RIH w/ flat bottomed magnet on sandline. Did not catch bolt. RIH w/ 4" thin wall overshot w/ 1 3/8" grapple. Tag @ 4595'. RU powerswivel. C/O to plug @ 4600'. Worked overshot over plug top of plug. RD powerswivel. POOH w/ tbg. Did not catch bolt. RIH w/ flat bottomed magnet on sandline. Did not catch bolt. RIH w/ retrieving tool. Tag plug @ 4600'. RU powerswivel. Worked retrieving tool over top of plug. Could not get J-slots passed bolt. POOH w/ 86 jts. EOT @ 1800'. Drain pump & line. SWIFN.

1/11/2008 Day: 6

Conversion

Western #2 on 1/10/2008 - Thaw well out. POOH w/ tbg. LD BHA. RIH w/ 4 3/4" wash over shoe, bumper sub & tbg. Tag RBP @ 4600'. RU powerswivel. Mill uip bolt & lugs from RBP. Circulate well clean. POOH w/ tbg. LD BHA. RIH w/ overshot w/ 3" grapple. Catch RBP @ 4600'. Release plug. POOH w/ tbg. LD tools & HE plug. SWIFN.

---

1/12/2008 Day: 7

Conversion

Western #2 on 1/11/2008 - Thaw well out. 75 psi on well. PU & TIH w/ 5 1/2" AS1 pkr, SN & 147 jts of 2 7/8" tbg. Flush tbg w/ 30 BW. LD 10 jts of tbg. Circ SV to SN. Pressure test tbg to 3000 psi for 30 mins (Good test). RU sandline & fish SV. ND BOP. Land tbg on flange. Pumped 50 BW w/ pkr fluid. Unland tbg. Set TA w/ 18,000#'s tension @ 4481', SN @ 4477', EOT @ 4456'. Land tbg on flange. Pumped 15 BW w/ pkr fluid. Pressure test csg to 1400 psi (Good test). RDMO. FINAL REPORT. READY FOR MIT!!!!

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Pertinent Files: [Go to File List](#)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8

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

APR 28 2009

Ref: 8P-W-GW

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

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

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

RE: Underground Injection Control (UIC)  
Major Permit Modification No. 1 and  
180-Day Limited Authorization to Inject  
EPA UIC Permit UT21051-07110  
Well: Federal 9-10-9-17  
Duchesne County, Utah  
API # 43-013-32502

9S 17E 10

Dear Mr. Guinn:

The public comment period regarding your request for an aquifer exemption for the subject well ended April 17, 2009. No comments were received, and the enclosed final aquifer exemption is being issued as major modification #1 to Final Class II Underground Injection Control Permit UT21051-07110, which became effective July 25, 2007.

Newfield Production Company's (Newfield) letter with attached information was received by the Environmental Protection Agency (EPA), Region 8, on January 22, 2008. The submittal satisfactorily completed the Prior to Commencing Injection requirements, but the well could not be authorized to commence injection until an aquifer exemption was issued. The Part I (Internal) Mechanical Integrity Test (MIT), Well Rework Record (EPA Form No. 7520-12), schematic diagram, and calculated pore pressure were reviewed and approved by EPA on April 20, 2009.

As of the date of this letter, Newfield is authorized to commence injection into Federal 9-10-9-17 at a maximum allowable injection pressure (MAIP) of 1,135 psig for a limited period of time. The MAIP is decreased from the initial limit of 1,220 psig set in the permit because perforations were added at a shallower depth of 4,546 feet KB during the well conversion.

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MAY 04 2009

DIV. OF OIL, GAS & MINING

The cement bond log submitted for this well did not show an adequate interval of 80% or greater cement bond index through the confining zone above the injection zone. Therefore, a Radioactive Tracer Survey (RTS) is required to demonstrate no significant upward migration of injection fluids behind the casing from the injection zone. The RTS shall be run within a 180-day period from the date that injection begins. This 180-day period allows time for the injection zone to pressurize adequately prior to running the RTS. The RTS shall be repeated at least once every five years.

Newfield must receive prior authorization from the Director in order to inject at pressures greater than the permitted MAIP during any test. Please note that the maximum pressure used during the RTS may become the new MAIP because no significant upward migration of injection fluids behind the casing from the injection zone was demonstrated at that pressure. Therefore, it may be advantageous to run a step rate test in conjunction with the RTS. Should Newfield apply for an increase to the MAIP at a later date, an RTS must also be conducted at that time.

Please remember that it is Newfield's responsibility to be aware of and to comply with all conditions of Permit UT21051-07110 for the Federal 9-10-9-17 injection well.

If you have questions regarding the above action, please call Margo Smith at 303-312-6318 or 1-800-227-8917, ext. 312-6318. Results from the Part RTS should be mailed directly to the attention of Margo Smith, at the letterhead address citing Mail Code: 8P-W-GW very prominently.

Sincerely,



Eddie A. Sierra  
Acting Assistant Regional Administrator  
Office of Partnerships and Regulatory Assistance



Enclosure: Aquifer Exemption

cc:

Uintah & Ouray Business Committee:

Curtis Cesspooch, Chairman  
Ronald Groves, Councilman  
Irene Cuch, Vice-Chairwoman  
Steven Cesspooch, Councilman  
Phillip Chimburas, Councilman  
Frances Poowegup, Councilwoman

Daniel Picard  
BIA - Uintah & Ouray Indian Agency

Ferron Secakuku  
Director, Natural Resources  
Ute Indian Tribe

Larry Love  
Director of Energy & Minerals Dept.  
Ute Indian Tribe

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

Fluid Minerals Engineering Office  
BLM - Vernal Office

Eric Sundberg  
Regulatory Analyst  
Newfield Production Company  
Denver, CO

# UNDERGROUND INJECTION CONTROL PROGRAM

## AQUIFER EXEMPTION

EPA PERMIT NO. UT21051-07110

Newfield Production Company

**TABLE 1.1**  
**AQUIFER EXEMPTION PROPOSAL(S)**  
Federal 9-10-9-17

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)
Garden Gulch member to top Wasatch	3,516.00	5,837.00	8,653.00

The formation listed above is hereby exempted from protection as an underground source of drinking water (USDW) in compliance with provisions of the Safe Drinking Water Act as amended (42 USC 300f-300j-9, commonly known as the SDWA) and attendant regulations at Title 40 of the Code of Federal Regulations, within the subsurface interval shown and within a 1/4 mile radial distance from the surface location of the:

Federal 9-10-9-17  
Monument Butte (Duchesne)  
1815' FSL 647' FEL, NESE S10, T9S, R17E  
Duchesne County, UT

This aquifer exemption is granted in conjunction with an Underground Injection Control Permit issued for the injection of Class II fluids. This Aquifer Exemption has no expiration date.

The effective date of this exemption is **APR 28 2009**

  
Eddie A. Sierra  
Acting Assistant Regional Administrator  
Office of Partnerships and Regulatory Assistance

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: July 31, 2010

**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 page 2**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. USA UTU-075174
2. Name of Operator NEWFIELD PRODUCTION COMPANY		6. If Indian, Allottee or Tribe Name.
3a. Address    Route 3 Box 3630 Myton, UT 84052	3b. Phone    (include area code) 435.646.3721	7. If Unit or CA/Agreement, Name and/or SUNDANCE UNIT
4. Location of Well    (Footage, Sec., T., R., M., or Survey Description) 1815 FSL 647 FEL NESE Section 10 T9S R17E		8. Well Name and No. FEDERAL 9-10-9-17
		9. API Well No. 4301332502
		10. Field and Pool, or Exploratory Area MONUMENT BUTTE
		11. County or Parish, State DUCHESNE, UT

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input 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	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug & Abandon	<input type="checkbox"/> Temporarily Abandon	Change status put well on injection _____
	<input checked="" type="checkbox"/> Convert to Injector	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

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

The above reference well was put on injection at 9:00 AM on 5-11-09.

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

I hereby certify that the foregoing is true and correct (Printed/ Typed) Kathy Chapman	Title Office Manager
Signature 	Date 06/29/2009
<b>THIS SPACE FOR FEDERAL OR STATE OFFICE USE</b>	

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 page 2)

**RECEIVED**

**JUN 30 2009**

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

FORM APPROVED  
OMB No. 1004-0137  
Expires: July 31, 2010

**SUBMIT IN TRIPLICATE - Other Instructions on page 2**

1. Type of Well

Oil Well  Gas Well  Other

2. Name of Operator

NEWFIELD PRODUCTION COMPANY

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

3b. Phone (include are code)  
435.646.3721

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

1815 FSL 647 FEL

NESE Section 10 T9S R17E

5. Lease Serial No.

USA UTU-075174

6. If Indian, Allottee or Tribe Name.

7. If Unit or CA/Agreement, Name and/or

SUNDANCE UNIT

8. Well Name and No.

FEDERAL 9-10-9-17

9. API Well No.

4301332502

10. Field and Pool, or Exploratory Area

MONUMENT BUTTE

11. County or Parish, State

DUCHESNE, UT

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment	<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	Step Rate Test _____
	<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 to 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 will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

A step rate test was conducted on the subject well on October 21, 2009. Results from the test indicate that the fracture gradient is .665 psi/ft. Therefore, Newfield is requesting that the maximum allowable injection pressure (MAIP) be changed to 1025 psi.

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

I hereby certify that the foregoing is true and correct *Printed/ Typed*

Chevenne Bateman

Signature



Title

Well Analyst Foreman

Date

10/26/2009

**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

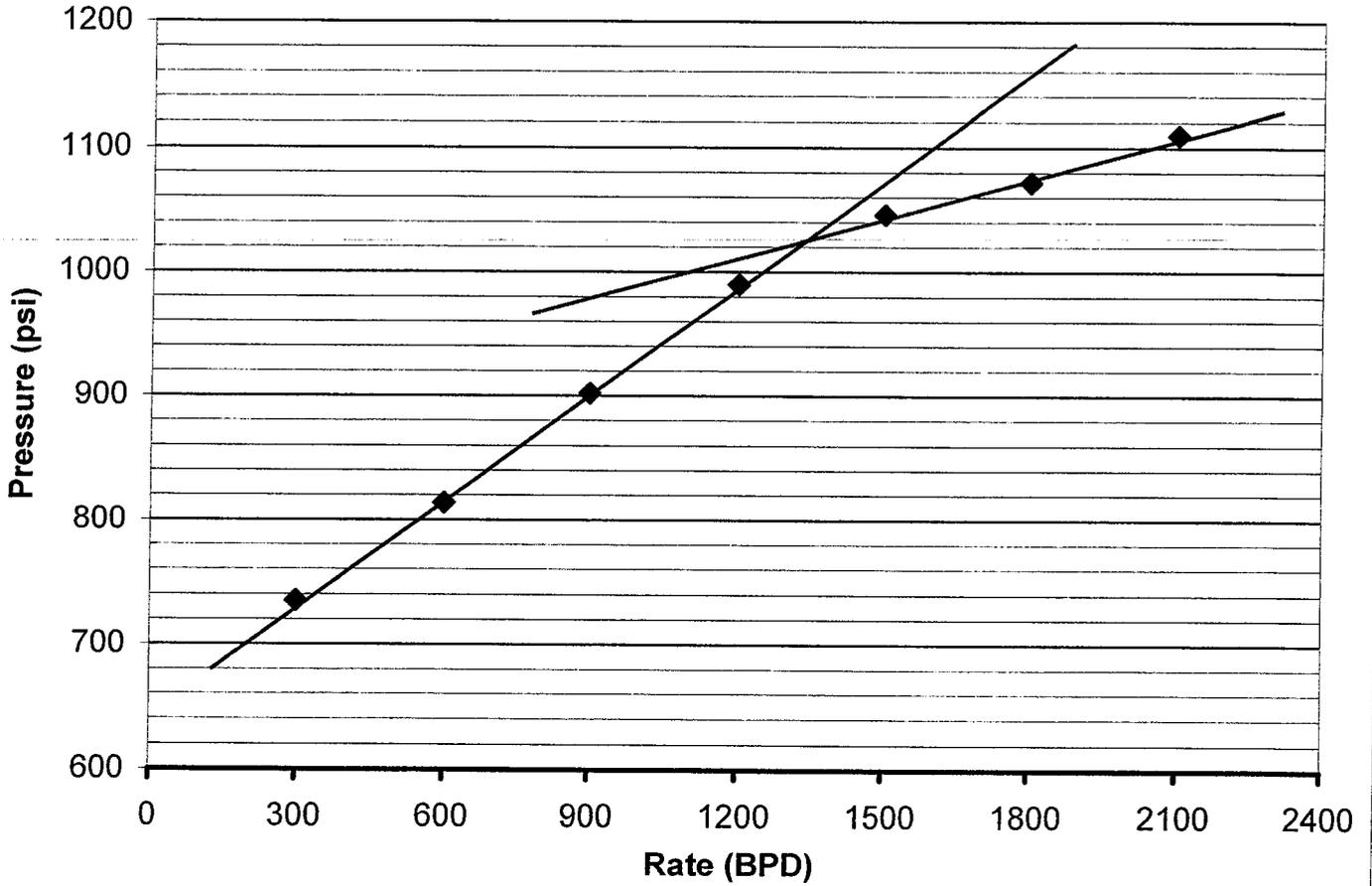
(Instructions on page 2)

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**OCT 27 2009**

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

Federal 9-10-9-17  
 Sundance Unit  
 Step Rate Test  
 October 21, 2009



Start Pressure: 676 psi  
 Instantaneous Shut In Pressure (ISIP): 1052 psi  
 Top Perforation: 4546 feet  
 Fracture pressure (Pfp): 1025 psi  
 FG: 0.665 psi/ft

Step	Rate(bpd)	Pressure(psi)
1	300	735
2	600	814
3	900	902
4	1200	990
5	1500	1046
6	1800	1072
7	2100	1110

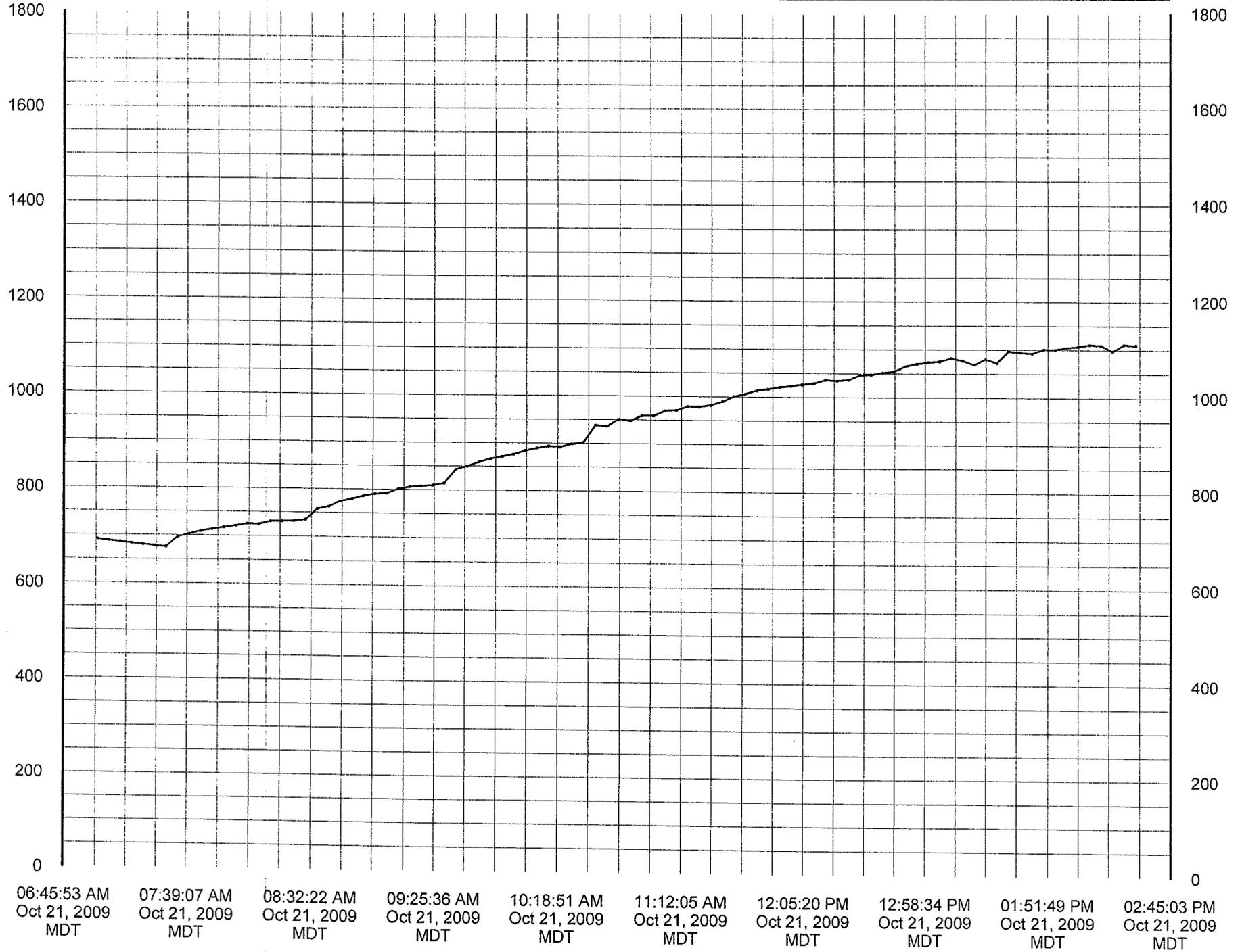
PSIA

Absolute Pressure

Federal 9-10-9-17 SRT (10-21-09)

Device - PrTemp1000  
Serial Number - M75866  
Device ID - PrTemp

PSIA



Report Name: PrTemp1000 Data Table  
 Report Date: Oct 23, 2009 07:07:08 AM MDT  
 File Name: C:\Program Files\PTC® Instruments 2.00\Federal 9-10-9-17 SRT (10-21-09).csv  
 Title: Federal 9-10-9-17 SRT (10-21-09)  
 Device: PrTemp1000 - Temperature and Pressure Recorder  
 Hardware Revision: REV2C (64K)  
 Serial Number: M75866  
 Device ID: PrTemp  
 Data Start Date: Oct 21, 2009 06:59:58 AM MDT  
 Data End Date: Oct 21, 2009 02:29:59 PM MDT  
 Reading Rate: 2 Seconds  
 Readings: 1 to 91 of 91  
 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	Oct 21, 2009 06:59:58 AM	690.800	PSIA
2	Oct 21, 2009 07:04:57 AM	688.200	PSIA
3	Oct 21, 2009 07:09:58 AM	685.800	PSIA
4	Oct 21, 2009 07:14:57 AM	683.000	PSIA
5	Oct 21, 2009 07:19:59 AM	680.600	PSIA
6	Oct 21, 2009 07:24:57 AM	678.200	PSIA
7	Oct 21, 2009 07:29:58 AM	676.000	PSIA
8	Oct 21, 2009 07:34:58 AM	696.600	PSIA
9	Oct 21, 2009 07:39:59 AM	702.600	PSIA
10	Oct 21, 2009 07:44:58 AM	708.600	PSIA
11	Oct 21, 2009 07:49:57 AM	713.200	PSIA
12	Oct 21, 2009 07:54:59 AM	717.200	PSIA
13	Oct 21, 2009 07:59:57 AM	720.600	PSIA
14	Oct 21, 2009 08:04:59 AM	725.200	PSIA
15	Oct 21, 2009 08:09:58 AM	724.400	PSIA
16	Oct 21, 2009 08:14:58 AM	730.600	PSIA
17	Oct 21, 2009 08:19:57 AM	731.200	PSIA
18	Oct 21, 2009 08:24:59 AM	731.800	PSIA
19	Oct 21, 2009 08:29:58 AM	735.000	PSIA
20	Oct 21, 2009 08:34:57 AM	757.400	PSIA
21	Oct 21, 2009 08:39:58 AM	763.000	PSIA
22	Oct 21, 2009 08:44:57 AM	774.400	PSIA
23	Oct 21, 2009 08:49:59 AM	779.200	PSIA
24	Oct 21, 2009 08:54:58 AM	786.400	PSIA
25	Oct 21, 2009 08:59:59 AM	790.600	PSIA
26	Oct 21, 2009 09:04:58 AM	791.800	PSIA
27	Oct 21, 2009 09:09:59 AM	801.200	PSIA
28	Oct 21, 2009 09:14:58 AM	805.800	PSIA
29	Oct 21, 2009 09:19:57 AM	807.400	PSIA
30	Oct 21, 2009 09:24:59 AM	809.400	PSIA
31	Oct 21, 2009 09:29:57 AM	814.200	PSIA
32	Oct 21, 2009 09:34:58 AM	843.400	PSIA
33	Oct 21, 2009 09:39:58 AM	850.000	PSIA
34	Oct 21, 2009 09:44:58 AM	859.000	PSIA
35	Oct 21, 2009 09:49:58 AM	866.200	PSIA
36	Oct 21, 2009 09:54:59 AM	871.200	PSIA
37	Oct 21, 2009 09:59:59 AM	876.200	PSIA
38	Oct 21, 2009 10:04:58 AM	884.000	PSIA
39	Oct 21, 2009 10:09:59 AM	889.400	PSIA
40	Oct 21, 2009 10:14:58 AM	893.400	PSIA
41	Oct 21, 2009 10:19:59 AM	892.000	PSIA
42	Oct 21, 2009 10:24:58 AM	898.400	PSIA
43	Oct 21, 2009 10:29:58 AM	901.600	PSIA
44	Oct 21, 2009 10:34:57 AM	937.800	PSIA
45	Oct 21, 2009 10:39:58 AM	936.200	PSIA
46	Oct 21, 2009 10:44:58 AM	950.800	PSIA
47	Oct 21, 2009 10:49:58 AM	948.000	PSIA
48	Oct 21, 2009 10:54:58 AM	958.800	PSIA
49	Oct 21, 2009 10:59:57 AM	958.800	PSIA
50	Oct 21, 2009 11:04:59 AM	969.800	PSIA
51	Oct 21, 2009 11:09:57 AM	970.800	PSIA
52	Oct 21, 2009 11:14:59 AM	979.200	PSIA
53	Oct 21, 2009 11:19:57 AM	978.600	PSIA
54	Oct 21, 2009 11:24:58 AM	982.000	PSIA
55	Oct 21, 2009 11:29:59 AM	990.000	PSIA
56	Oct 21, 2009 11:34:57 AM	1000.400	PSIA
57	Oct 21, 2009 11:39:59 AM	1006.400	PSIA
58	Oct 21, 2009 11:44:57 AM	1013.600	PSIA
59	Oct 21, 2009 11:49:59 AM	1016.800	PSIA
60	Oct 21, 2009 11:54:58 AM	1021.000	PSIA

61	Oct 21, 2009 11:59:58 AM	1023.200	PSIA
62	Oct 21, 2009 12:04:58 PM	1026.400	PSIA
63	Oct 21, 2009 12:09:59 PM	1029.200	PSIA
64	Oct 21, 2009 12:14:58 PM	1036.400	PSIA
65	Oct 21, 2009 12:19:58 PM	1034.800	PSIA
66	Oct 21, 2009 12:24:59 PM	1036.800	PSIA
67	Oct 21, 2009 12:29:58 PM	1046.400	PSIA
68	Oct 21, 2009 12:34:58 PM	1048.000	PSIA
69	Oct 21, 2009 12:39:58 PM	1051.800	PSIA
70	Oct 21, 2009 12:44:59 PM	1054.400	PSIA
71	Oct 21, 2009 12:49:58 PM	1065.200	PSIA
72	Oct 21, 2009 12:54:59 PM	1070.600	PSIA
73	Oct 21, 2009 12:59:59 PM	1073.600	PSIA
74	Oct 21, 2009 01:04:58 PM	1075.600	PSIA
75	Oct 21, 2009 01:09:59 PM	1082.400	PSIA
76	Oct 21, 2009 01:14:58 PM	1077.000	PSIA
77	Oct 21, 2009 01:19:59 PM	1069.000	PSIA
78	Oct 21, 2009 01:24:58 PM	1080.400	PSIA
79	Oct 21, 2009 01:29:59 PM	1072.400	PSIA
80	Oct 21, 2009 01:34:57 PM	1097.000	PSIA
81	Oct 21, 2009 01:39:58 PM	1095.000	PSIA
82	Oct 21, 2009 01:44:58 PM	1092.800	PSIA
83	Oct 21, 2009 01:49:57 PM	1101.400	PSIA
84	Oct 21, 2009 01:54:59 PM	1101.000	PSIA
85	Oct 21, 2009 01:59:58 PM	1105.200	PSIA
86	Oct 21, 2009 02:04:58 PM	1107.400	PSIA
87	Oct 21, 2009 02:09:58 PM	1111.400	PSIA
88	Oct 21, 2009 02:14:59 PM	1109.800	PSIA
89	Oct 21, 2009 02:19:57 PM	1097.800	PSIA
90	Oct 21, 2009 02:24:58 PM	1111.400	PSIA
91	Oct 21, 2009 02:29:59 PM	1110.400	PSIA

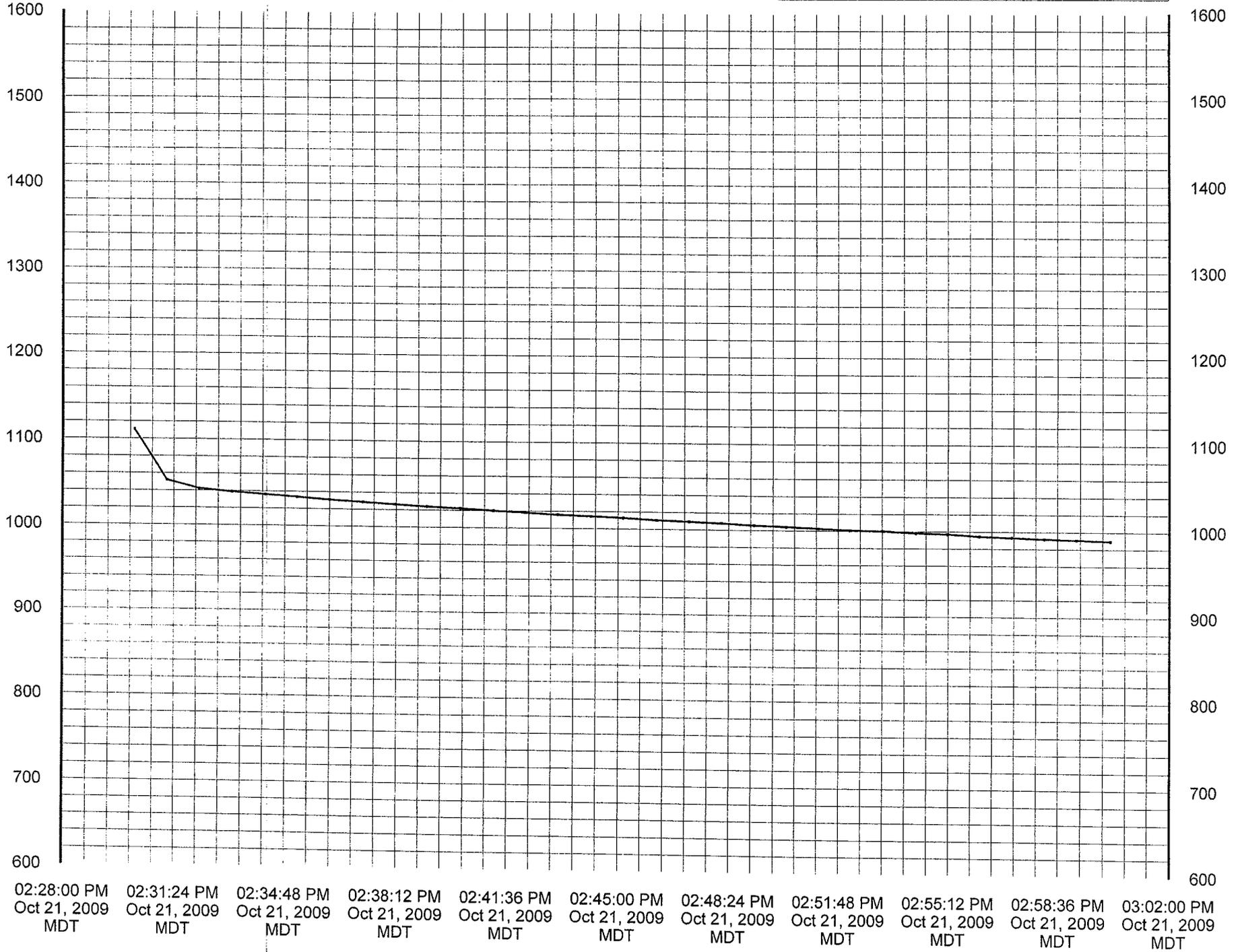
PSIA

Absolute Pressure

Federal 9-10-9-17 ISIP (10-21-09)

Device - PrTemp1000  
Serial Number - M75866  
Device ID - PrTemp

PSIA



Report Name: PrTemp1000 Data Table  
 Report Date: Oct 23, 2009 07:06:59 AM MDT  
 File Name: C:\Program Files\PTC® Instruments 2.00\Federal 9-10-9-17 ISIP (10-21-09).csv  
 Title: Federal 9-10-9-17 ISIP (10-21-09)  
 Device: PrTemp1000 - Temperature and Pressure Recorder  
 Hardware Revision: REV2C (64K)  
 Serial Number: M75866  
 Device ID: PrTemp  
 Data Start Date: Oct 21, 2009 02:30:10 PM MDT  
 Data End Date: Oct 21, 2009 03:00:12 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	Oct 21, 2009 02:30:10 PM	1110.800	PSIA
2	Oct 21, 2009 02:31:11 PM	1052.200	PSIA
3	Oct 21, 2009 02:32:10 PM	1042.400	PSIA
4	Oct 21, 2009 02:33:10 PM	1039.000	PSIA
5	Oct 21, 2009 02:34:12 PM	1036.200	PSIA
6	Oct 21, 2009 02:35:10 PM	1033.400	PSIA
7	Oct 21, 2009 02:36:10 PM	1030.800	PSIA
8	Oct 21, 2009 02:37:11 PM	1028.600	PSIA
9	Oct 21, 2009 02:38:11 PM	1026.200	PSIA
10	Oct 21, 2009 02:39:10 PM	1024.200	PSIA
11	Oct 21, 2009 02:40:10 PM	1022.400	PSIA
12	Oct 21, 2009 02:41:12 PM	1020.200	PSIA
13	Oct 21, 2009 02:42:10 PM	1018.400	PSIA
14	Oct 21, 2009 02:43:10 PM	1016.000	PSIA
15	Oct 21, 2009 02:44:11 PM	1014.400	PSIA
16	Oct 21, 2009 02:45:10 PM	1012.800	PSIA
17	Oct 21, 2009 02:46:10 PM	1010.600	PSIA
18	Oct 21, 2009 02:47:11 PM	1009.200	PSIA
19	Oct 21, 2009 02:48:11 PM	1007.800	PSIA
20	Oct 21, 2009 02:49:11 PM	1005.800	PSIA
21	Oct 21, 2009 02:50:11 PM	1004.400	PSIA
22	Oct 21, 2009 02:51:11 PM	1002.600	PSIA
23	Oct 21, 2009 02:52:10 PM	1000.800	PSIA
24	Oct 21, 2009 02:53:11 PM	1000.200	PSIA
25	Oct 21, 2009 02:54:12 PM	998.000	PSIA
26	Oct 21, 2009 02:55:11 PM	997.000	PSIA
27	Oct 21, 2009 02:56:11 PM	994.600	PSIA
28	Oct 21, 2009 02:57:11 PM	993.400	PSIA
29	Oct 21, 2009 02:58:11 PM	992.000	PSIA
30	Oct 21, 2009 02:59:10 PM	991.000	PSIA
31	Oct 21, 2009 03:00:12 PM	989.600	PSIA

# Federal 9-10-9-17 Rate Sheet (10-21-09)

<i>Step # 1</i>	Time:	7:35	7:40	7:45	7:50	7:55	8:00
	Rate:	300.5	300.5	300.5	300.5	300.4	300.3
	Time:	8:05	8:10	8:15	8:20	8:25	8:30
	Rate:	300.3	300.3	300.3	300.3	300.2	300.2
<i>Step # 2</i>	Time:	8:35	8:40	8:45	8:50	8:55	9:00
	Rate:	600.7	600.7	600.6	600.6	600.6	600.6
	Time:	9:05	9:10	9:15	9:20	9:25	9:30
	Rate:	600.6	600.5	600.5	600.5	600.5	600.5
<i>Step # 3</i>	Time:	9:35	9:40	9:45	9:50	9:55	10:00
	Rate:	900.4	900.4	900.4	900.4	900.4	900.3
	Time:	10:05	10:10	10:15	10:20	10:25	10:30
	Rate:	900.3	900.3	900.3	900.2	900.2	900.2
<i>Step # 4</i>	Time:	10:35	10:40	10:45	10:50	10:55	11:00
	Rate:	1200.4	1200.4	1200.3	1200.3	1200.2	1200.2
	Time:	11:05	11:10	11:15	11:20	11:25	11:30
	Rate:	1200.2	1200.2	1200.2	1200.2	1200.1	1200.1
<i>Step # 5</i>	Time:	11:35	11:40	11:45	11:50	11:55	12:00
	Rate:	1500.5	1500.4	1500.5	1500.4	1500.4	1500.3
	Time:	12:05	12:10	12:15	12:20	12:25	12:30
	Rate:	1500.2	1500.2	1500.2	1500.1	1500.1	1500.1
<i>Step # 6</i>	Time:	12:35	12:40	12:45	12:50	12:55	1:00
	Rate:	1800.4	1800.4	1800.4	1800.3	1800.3	1800.3
	Time:	1:05	1:10	1:15	1:20	1:25	1:30
	Rate:	1800.2	1800.2	1800.1	1800.1	1800.1	1800
<i>Step # 7</i>	Time:	1:35	1:40	1:45	1:50	1:55	2:00
	Rate:	2100.6	2100.6	2100.6	2100.6	2100.5	2100.5
	Time:	2:05	2:10	2:15	2:20	2:25	2:30
	Rate:	2100.5	2100.4	2100.4	2100.3	2100.3	2100.3
	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>

**DEC 18 2009**

Ref: 8P-W-GW

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

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

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

**RECEIVED**

**DEC 31 2009**

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

RE: Minor Permit Modification No. 1 and  
Authorization to Continue Injection  
EPA UIC Permit UT21051-07110  
Well: Federal 9-10-9-17  
SWSE Sec. 10-T9S-R17E  
Duchesne County, UT  
API No.: 43-013-32502

Dear Mr. Guinn:

The Environmental Protection Agency (EPA) received the results from the October 21, 2009, Step Rate Test (SRT) on the Federal 9-10-9-17 well. The test concluded the fracture gradient to be 0.665 psi/ft. Therefore, the maximum allowable injection pressure (MAIP) is decreased to 1,025 psig, from the 1,135 psig specified in Major Modification No. 1.

EPA also received the results of the October 26, 2009, Radioactive Tracer Survey (RTS) for the Federal 9-10-9-17. EPA has determined the test demonstrates there is adequate cement to prevent the upward migration of injection fluids from the injection zone at the MAIP of 1,025 psig. The results of the RTS were approved by EPA on December 7, 2009.

As of the date of this letter, the EPA hereby authorizes injection into the Federal 9-10-9-17 well under the terms and conditions of EPA UIC Permit UT21051-07110 at an MAIP of 1,025 psig.

You may apply for a higher maximum allowable injection pressure at a later date. Your application should be accompanied by the interpreted results from a Step Rate Test (SRT) that measures the formation fracture pressure and the fracture gradient at this location. A current copy of EPA Guidelines for running and interpreting a SRT will be sent upon request. Should the SRT result in approval of a higher maximum allowable injection pressure, a new RTS must

be run to show that the injected fluids will remain in the authorized injection interval at the higher pressure.

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

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

For questions regarding notification, testing, monitoring, reporting or other Permit requirements, Nathan Wiser 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 Sarah Bahrman at 303-312-6243 or 800-227-8917 (ext. 312-6243).

Sincerely,



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

cc:

Uintah & Ouray Business Committee:

Curtis Cesspooch, Chairman  
Ronald Groves, Councilman  
Irene Cuch, Vice-Chairwoman  
Steven Cesspooch, Councilman  
Phillip Chimburas, Councilman  
Frances Poowegup, Councilwoman

Daniel Picard  
BIA - Uintah & Ouray Indian Agency

Ferron Secakuku  
Director, Natural Resources  
Ute Indian Tribe

Larry Love  
Director of Energy & Minerals Dept.  
Ute Indian Tribe

Gil Hunt  
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

5. LEASE DESIGNATION AND SERIAL NUMBER:  
USA UTU-075174

**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.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:  
GMBU

1. TYPE OF WELL: OIL WELL  GAS WELL  OTHER *WI*

8. WELL NAME and NUMBER:  
FEDERAL 9-10-9-17

2. NAME OF OPERATOR:  
NEWFIELD PRODUCTION COMPANY

9. API NUMBER:  
4301332502

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

PHONE NUMBER  
435.646.3721

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

4. LOCATION OF WELL:  
FOOTAGES AT SURFACE: 1815 FSL 647 FEL

COUNTY: DUCHESNE

OTR/OTR. SECTION, TOWNSHIP, RANGE, MERIDIAN: NESE, 10, T9S, R17E

STATE: UT

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate)  Approximate date work will _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARITLY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only)  Date of Work Completion: 05/31/2011	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/STOP)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: - Step Rate Test
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

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

A step rate test was conducted on the subject well on May 31, 2011. Results from the test indicate that the fracture gradient is 0.724 psi/ft. Therefore, Newfield is requesting that the maximum allowable injection pressure (MAIP) be changed from 1025 psi to 1290 psi.

EPA: UT21051-07110

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

**RECEIVED  
JUN 30 2011  
DIV. OF OIL, GAS & MINING**

NAME (PLEASE PRINT) Lucy Chavez-Naupoto

TITLE Water Services Technician

SIGNATURE



DATE 06/28/2011

(This space for State use only)

# Step Rate Test (SRT) Analysis

Date: 05/06/2011

Operator:

Newfield Production Company

Well:

Federal 3-8-9-18

Permit #:

UT21121-07606

**Enter the following data :**

	Specific Gravity (sg) of injectate =	<u>1.015</u>	g/cc
	Depth to top perforation (D) =	<u>5076</u>	feet
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>1525</u>	psi
Instantaneous Shut In Pressure (ISIP) from SRT =		<u>1513</u>	psi
Bottom Hole Parting Pressure (P <sub>bhp</sub> ) from downhole pressure recorder =			psi

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

**Calculated Fracture Gradient = 0.738 psi/ft.**

where: fg = P<sub>bhp</sub> / D (Note: this formula uses the downhole recorded bottom hole parting pressure if available) = 1513

D = depth used = 5076

P<sub>bhp</sub> used = 3744

**Calculated Bottom Hole Parting Pressure (P<sub>bhp</sub>) = 3744 psi**

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 = 1513

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

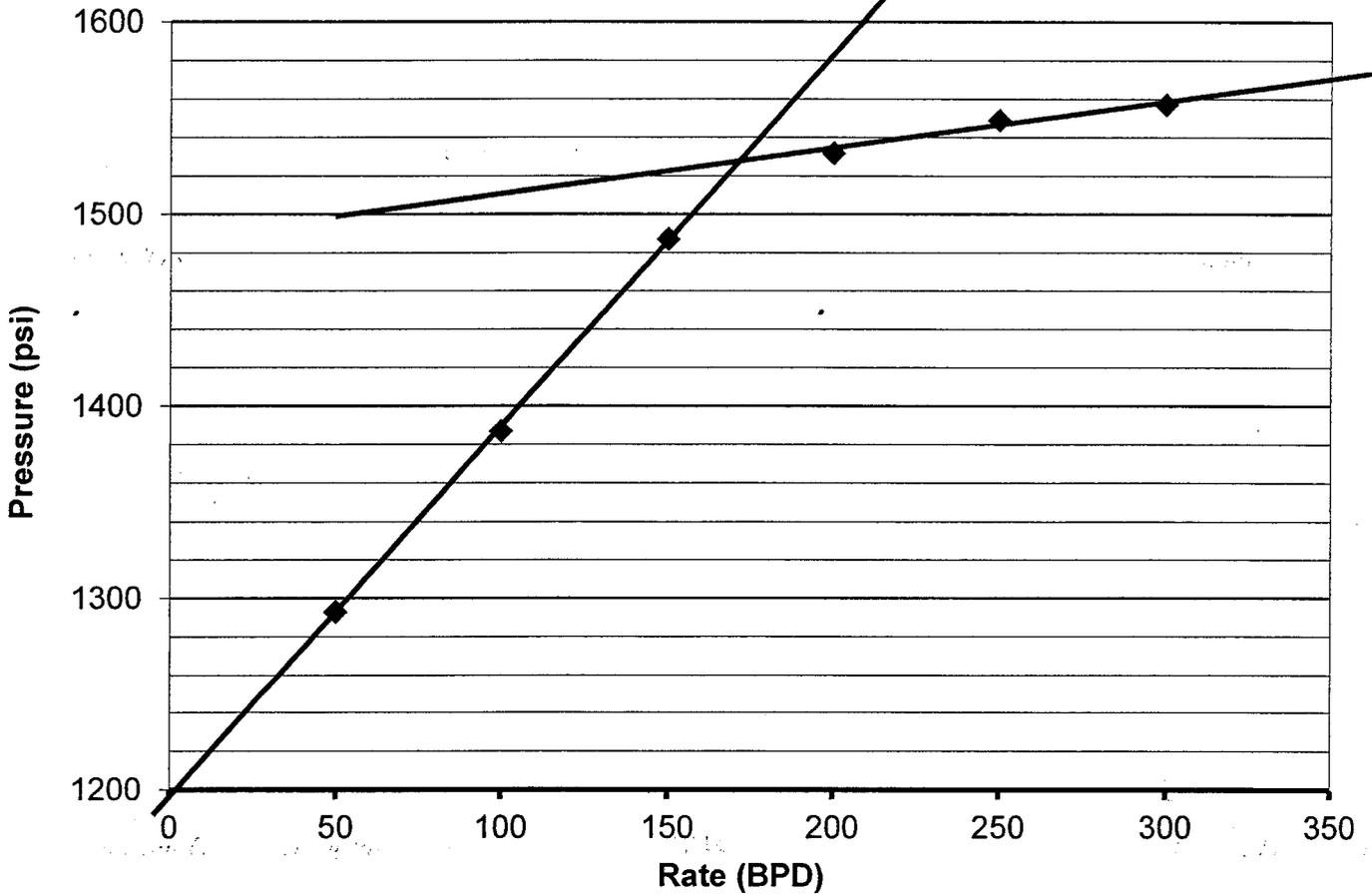
**Maximum Allowable Injection Pressure (MAIP) = 1515 psig**

D = depth used = 5076

MAIP = [fg \* (0.433 \* SG)] \* D = 1515.211

(rounded down to nearest 5 psig)

**Federal 3-8-9-18  
Greater Monument Butte Unit  
Step Rate Test  
May 5, 2011**



**Start Pressure:** 1222 psi  
**Instantaneous Shut In Pressure (ISIP):** 1513 psi  
**Top Perforation:** 5076 feet  
**Fracture pressure (Pfp):** 1525 psi  
**FG:** 0.740 psi/ft

<u>Step</u>	<u>Rate(bpd)</u>	<u>Pressure(psi)</u>
1	50	1293
2	100	1387
3	150	1487
4	200	1532
5	250	1549
6	300	1557

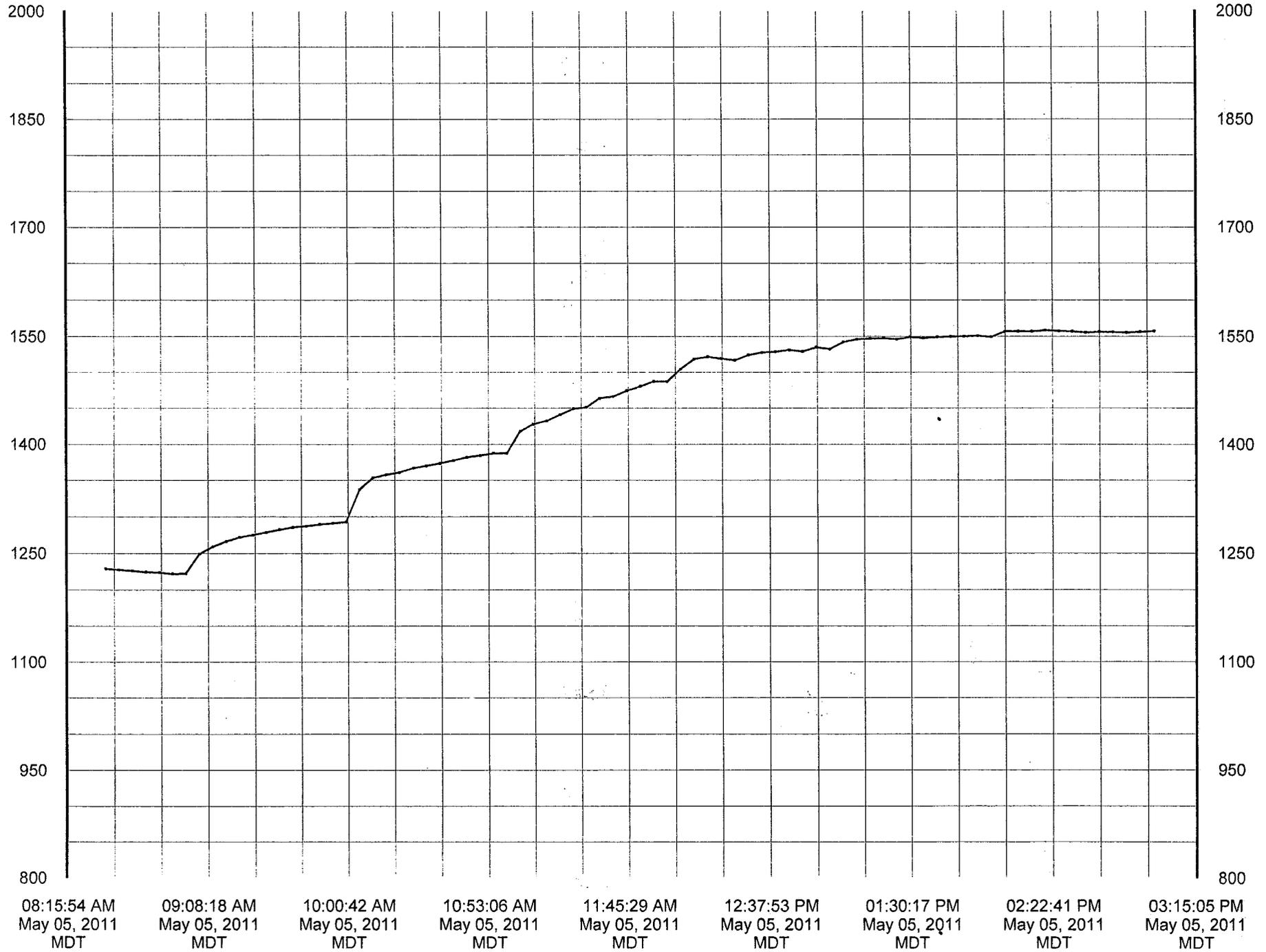
PSIA

Absolute Pressure

Federal 3-8-9-18 SRT (5-5-2011)

Device - PrTemp1000  
Serial Number - M75866  
Device ID - PrTemp

PSIA



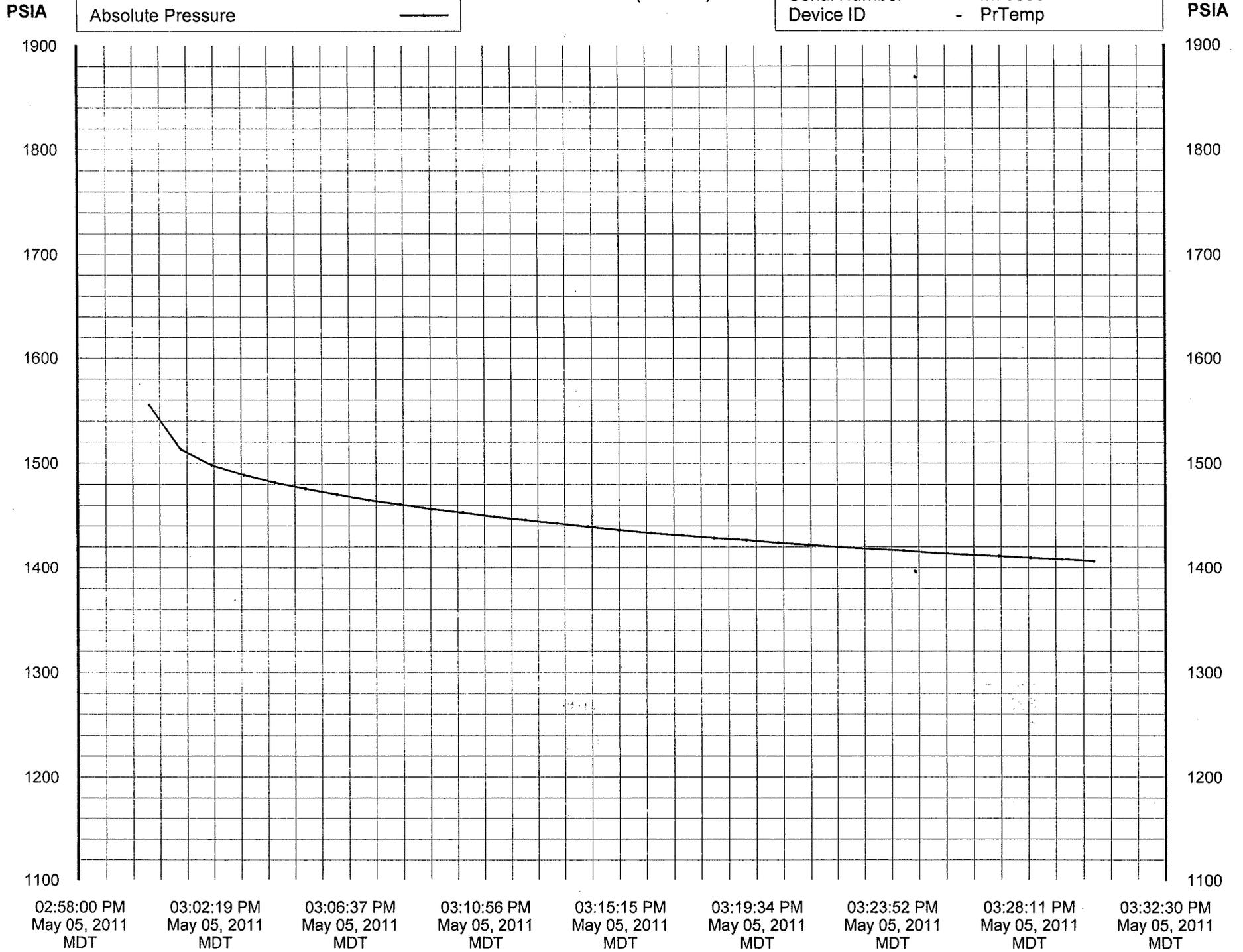
Report Name: PrTemp1000 Data Table  
 Report Date: May 06, 2011 12:38:11 PM MDT  
 File Name: C:\Program Files\PTC\Instruments 2.00\Federal 3-8-9-18 SRT (5-5-2011).csv  
 Title: Federal 3-8-9-18 SRT (5-5-2011)  
 Device: PrTemp1000 - Temperature and Pressure Recorder  
 Hardware Revision: REV2C (64K)  
 Serial Number: M75866  
 Device ID: PrTemp  
 Data Start Date: May 05, 2011 08:30:00 AM MDT  
 Data End Date: May 05, 2011 03:00:01 PM MDT  
 Reading Rate: 2 Seconds  
 Readings: 1 to 79 of 79  
 Last Calibration Date: Apr 12, 2011  
 Next Calibration Date: Apr 12, 2012

<u>Reading</u>	<u>Date and Time (MDT)</u>	<u>Absolute Pressure</u>	<u>Annotation</u>
1	May 05, 2011 08:30:00 AM	1228.800	PSIA
2	May 05, 2011 08:35:00 AM	1227.400	PSIA
3	May 05, 2011 08:40:00 AM	1226.000	PSIA
4	May 05, 2011 08:45:00 AM	1224.200	PSIA
5	May 05, 2011 08:50:01 AM	1223.600	PSIA
6	May 05, 2011 08:55:00 AM	1221.800	PSIA
7	May 05, 2011 09:00:01 AM	1222.200	PSIA
8	May 05, 2011 09:05:00 AM	1249.000	PSIA
9	May 05, 2011 09:10:01 AM	1259.000	PSIA
10	May 05, 2011 09:15:00 AM	1266.000	PSIA
11	May 05, 2011 09:20:00 AM	1271.600	PSIA
12	May 05, 2011 09:24:59 AM	1275.000	PSIA
13	May 05, 2011 09:30:00 AM	1278.600	PSIA
14	May 05, 2011 09:35:00 AM	1282.400	PSIA
15	May 05, 2011 09:40:00 AM	1285.600	PSIA
16	May 05, 2011 09:45:01 AM	1287.200	PSIA
17	May 05, 2011 09:50:00 AM	1289.400	PSIA
18	May 05, 2011 09:55:01 AM	1291.200	PSIA
19	May 05, 2011 10:00:00 AM	1292.800	PSIA
20	May 05, 2011 10:05:00 AM	1337.000	PSIA
21	May 05, 2011 10:10:00 AM	1353.400	PSIA
22	May 05, 2011 10:15:00 AM	1357.600	PSIA
23	May 05, 2011 10:20:00 AM	1361.000	PSIA
24	May 05, 2011 10:25:00 AM	1366.800	PSIA
25	May 05, 2011 10:30:01 AM	1370.200	PSIA
26	May 05, 2011 10:35:00 AM	1373.400	PSIA
27	May 05, 2011 10:40:01 AM	1377.400	PSIA
28	May 05, 2011 10:45:00 AM	1382.000	PSIA
29	May 05, 2011 10:50:00 AM	1384.400	PSIA
30	May 05, 2011 10:55:00 AM	1387.800	PSIA
31	May 05, 2011 11:00:00 AM	1387.400	PSIA
32	May 05, 2011 11:05:01 AM	1418.200	PSIA
33	May 05, 2011 11:10:00 AM	1428.000	PSIA
34	May 05, 2011 11:15:01 AM	1432.600	PSIA
35	May 05, 2011 11:20:00 AM	1441.200	PSIA
36	May 05, 2011 11:25:01 AM	1449.200	PSIA
37	May 05, 2011 11:30:00 AM	1451.200	PSIA
38	May 05, 2011 11:35:00 AM	1463.800	PSIA
39	May 05, 2011 11:40:00 AM	1466.400	PSIA
40	May 05, 2011 11:45:00 AM	1474.600	PSIA
41	May 05, 2011 11:50:01 AM	1480.800	PSIA
42	May 05, 2011 11:55:00 AM	1487.400	PSIA
43	May 05, 2011 12:00:01 PM	1487.000	PSIA
44	May 05, 2011 12:05:00 PM	1504.600	PSIA
45	May 05, 2011 12:10:01 PM	1518.600	PSIA
46	May 05, 2011 12:15:00 PM	1521.800	PSIA
47	May 05, 2011 12:20:00 PM	1519.400	PSIA
48	May 05, 2011 12:25:00 PM	1517.000	PSIA
49	May 05, 2011 12:30:00 PM	1524.200	PSIA
50	May 05, 2011 12:35:01 PM	1527.800	PSIA
51	May 05, 2011 12:40:00 PM	1528.800	PSIA
52	May 05, 2011 12:45:01 PM	1531.200	PSIA
53	May 05, 2011 12:50:00 PM	1529.200	PSIA
54	May 05, 2011 12:55:01 PM	1535.000	PSIA
55	May 05, 2011 01:00:00 PM	1532.400	PSIA
56	May 05, 2011 01:04:59 PM	1542.000	PSIA
57	May 05, 2011 01:09:59 PM	1546.000	PSIA
58	May 05, 2011 01:15:00 PM	1547.000	PSIA
59	May 05, 2011 01:20:01 PM	1547.600	PSIA
60	May 05, 2011 01:25:00 PM	1545.800	PSIA

61	May 05, 2011 01:30:01 PM	1549.200	PSIA
62	May 05, 2011 01:35:00 PM	1547.600	PSIA
63	May 05, 2011 01:40:01 PM	1549.200	PSIA
64	May 05, 2011 01:45:00 PM	1549.600	PSIA
65	May 05, 2011 01:50:00 PM	1550.000	PSIA
66	May 05, 2011 01:55:00 PM	1550.800	PSIA
67	May 05, 2011 02:00:00 PM	1549.200	PSIA
68	May 05, 2011 02:05:01 PM	1556.600	PSIA
69	May 05, 2011 02:10:00 PM	1556.800	PSIA
70	May 05, 2011 02:15:01 PM	1556.800	PSIA
71	May 05, 2011 02:20:00 PM	1558.200	PSIA
72	May 05, 2011 02:25:00 PM	1557.200	PSIA
73	May 05, 2011 02:30:00 PM	1556.800	PSIA
74	May 05, 2011 02:35:00 PM	1555.200	PSIA
75	May 05, 2011 02:40:00 PM	1556.200	PSIA
76	May 05, 2011 02:45:00 PM	1555.800	PSIA
77	May 05, 2011 02:50:01 PM	1555.200	PSIA
78	May 05, 2011 02:55:00 PM	1556.200	PSIA
79	May 05, 2011 03:00:01 PM	1557.000	PSIA

Federal 3-8-9-18 ISIP (5-5-2011)

Device - PrTemp1000  
Serial Number - M75866  
Device ID - PrTemp



Report Name: PrTemp1000 Data Table  
 Report Date: May 06, 2011 12:38:03 PM MDT  
 File Name: C:\Program Files\PTC® Instruments 2.00\Federal 3-8-9-18 ISIP (5-5-2011).csv  
 Title: Federal 3-8-9-18 ISIP (5-5-2011)  
 Device: PrTemp1000 - Temperature and Pressure Recorder  
 Hardware Revision: REV2C (64K)  
 Serial Number: M75866  
 Device ID: PrTemp  
 Data Start Date: May 05, 2011 03:00:15 PM MDT  
 Data End Date: May 05, 2011 03:30:15 PM MDT  
 Reading Rate: 2 Seconds  
 Readings: 1 to 31 of 31  
 Last Calibration Date: Apr 12, 2011  
 Next Calibration Date: Apr 12, 2012

<u>Reading</u>	<u>Date and Time (MDT)</u>	<u>Absolute Pressure</u>	<u>Annotation</u>
1	May 05, 2011 03:00:15 PM	1555.200	PSIA
2	May 05, 2011 03:01:15 PM	1513.200	PSIA
3	May 05, 2011 03:02:14 PM	1498.000	PSIA
4	May 05, 2011 03:03:15 PM	1489.000	PSIA
5	May 05, 2011 03:04:15 PM	1481.800	PSIA
6	May 05, 2011 03:05:14 PM	1475.800	PSIA
7	May 05, 2011 03:06:15 PM	1470.200	PSIA
8	May 05, 2011 03:07:15 PM	1465.000	PSIA
9	May 05, 2011 03:08:15 PM	1460.800	PSIA
10	May 05, 2011 03:09:15 PM	1456.200	PSIA
11	May 05, 2011 03:10:15 PM	1452.800	PSIA
12	May 05, 2011 03:11:15 PM	1449.000	PSIA
13	May 05, 2011 03:12:15 PM	1445.800	PSIA
14	May 05, 2011 03:13:15 PM	1442.600	PSIA
15	May 05, 2011 03:14:15 PM	1439.400	PSIA
16	May 05, 2011 03:15:15 PM	1436.400	PSIA
17	May 05, 2011 03:16:15 PM	1433.400	PSIA
18	May 05, 2011 03:17:15 PM	1431.200	PSIA
19	May 05, 2011 03:18:14 PM	1428.600	PSIA
20	May 05, 2011 03:19:15 PM	1426.600	PSIA
21	May 05, 2011 03:20:15 PM	1424.000	PSIA
22	May 05, 2011 03:21:14 PM	1422.000	PSIA
23	May 05, 2011 03:22:15 PM	1419.800	PSIA
24	May 05, 2011 03:23:15 PM	1417.800	PSIA
25	May 05, 2011 03:24:15 PM	1416.400	PSIA
26	May 05, 2011 03:25:15 PM	1414.000	PSIA
27	May 05, 2011 03:26:15 PM	1412.600	PSIA
28	May 05, 2011 03:27:15 PM	1411.200	PSIA
29	May 05, 2011 03:28:15 PM	1409.400	PSIA
30	May 05, 2011 03:29:15 PM	1408.000	PSIA
31	May 05, 2011 03:30:15 PM	1406.400	PSIA

# Federal 3-8-9-18 Rate Sheet (5-5-2011)

<i>Step # 1</i>	Time:	9:05	9:10	9:15	9:20	9:25	9:30
	Rate:	50.3	50.3	50.3	50.3	50.3	50.2
	Time:	9:35	9:40	9:45	9:50	9:55	10:00
	Rate:	50.2	50.1	50.1	50.1	50.1	50
<i>Step # 2</i>	Time:	10:05	10:10	10:15	10:20	10:25	10:30
	Rate:	100.5	100.6	100.5	100.5	100.5	100.5
	Time:	10:35	10:40	10:45	10:50	10:55	11:00
	Rate:	100.4	100.4	100.3	100.3	100.3	100.3
<i>Step # 3</i>	Time:	11:05	11:10	11:15	11:20	11:25	11:30
	Rate:	150.6	150.6	150.5	150.5	150.5	150.4
	Time:	11:35	11:40	11:45	11:50	11:55	12:00
	Rate:	150.4	150.4	150.4	150.3	150.3	150.3
<i>Step # 4</i>	Time:	12:05	12:10	12:15	12:20	12:25	12:30
	Rate:	200.6	200.6	200.5	200.4	200.4	200.4
	Time:	12:35	12:40	12:45	12:50	12:55	1:00
	Rate:	200.3	200.3	200.2	200.2	200.2	200.2
<i>Step # 5</i>	Time:	1:05	1:10	1:15	1:20	1:25	1:30
	Rate:	250.5	250.5	250.5	250.5	250.3	250.3
	Time:	1:35	1:40	1:45	1:50	1:55	2:00
	Rate:	250.3	250.2	250.2	250.2	250.2	250.2
<i>Step # 6</i>	Time:	2:05	2:10	2:15	2:20	2:25	2:30
	Rate:	300.4	300.4	300.4	300.3	300.3	300.3
	Time:	2:35	2:40	2:45	2:50	2:55	3:00
	Rate:	300.2	300.2	300.1	300.1	300	300
	Time:						
	Rate:						
	Time:						
	Rate:						
	Time:						
	Rate:						
	Time:						
	Rate:						

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>
		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU-075174
<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 9-10-9-17
<b>2. NAME OF OPERATOR:</b> NEWFIELD PRODUCTION COMPANY		<b>9. API NUMBER:</b> 43013325020000
<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> MONUMENT BUTTE
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 1815 FSL 0647 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NESE Section: 10 Township: 09.0S Range: 17.0E Meridian: S		<b>COUNTY:</b> DUCHESNE  <b>STATE:</b> UTAH

11.

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 12/11/2012	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="5 YR MIT"/>

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

On 12/10/2012 Sarah Roberts with the EPA was contacted concerning the 5 year MIT on the above listed well. On 12/11/2012 the casing was pressured up to 1340 psig and charted for 30 minutes with no pressure loss. The well was injecting during the test. The tubing pressure was 913 psig during the test. There was not an EPA representative available to witness the test. EPA# UT21051-07110

**Accepted by the  
Utah Division of  
Oil, Gas and Mining  
FOR RECORD ONLY  
January 07, 2013**

<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> 12/14/2012	

## 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: 12 / 11 / 2012

Test conducted by: Brendan Curry

Others present: \_\_\_\_\_

Well Name: <u>Federal 9-10-9-17</u>	Type: ER SWD	Status: AC TA UC
Field: <u>Greater Monument Butte</u>		
Location: <u>9</u> Sec: <u>10</u> T <u>9</u> N <u>10</u> R <u>17</u> W	County: <u>Duchesne</u> State: <u>UT</u>	
Operator: <u>Newfield production company</u>		
Last MIT: <u>    </u> / <u>    </u> / <u>    </u>	Maximum Allowable Pressure: <u>1025</u> PSIG	

UT 21051-0710

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>913</u> psig	psig	psig
End of test pressure	<u>913</u> psig	psig	psig
<b>CASING / TUBING ANNULUS PRESSURE</b>			
0 minutes	<u>1340</u> psig	psig	psig
5 minutes	<u>1340</u> psig	psig	psig
10 minutes	<u>1340</u> psig	psig	psig
15 minutes	<u>1340</u> psig	psig	psig
20 minutes	<u>1340</u> psig	psig	psig
25 minutes	<u>1340</u> psig	psig	psig
30 minutes	<u>1340</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: \_\_\_\_\_



# Federal 9-10-9-17

Spud Date: 9/30/2004  
 Put on Production: 12/07/2004  
 GL: 5127' KB: 5139'

## SURFACE CASING

CSG SIZE: 8-5/8"  
 GRADE: J-55  
 WEIGHT: 24#  
 LENGTH: 8 jts (324.78')  
 DEPTH LANDED: 336.63'  
 HOLE SIZE: 12-1/4"  
 CEMENT DATA: 150 sxs Class "G", circ. 3 bbls to surf.

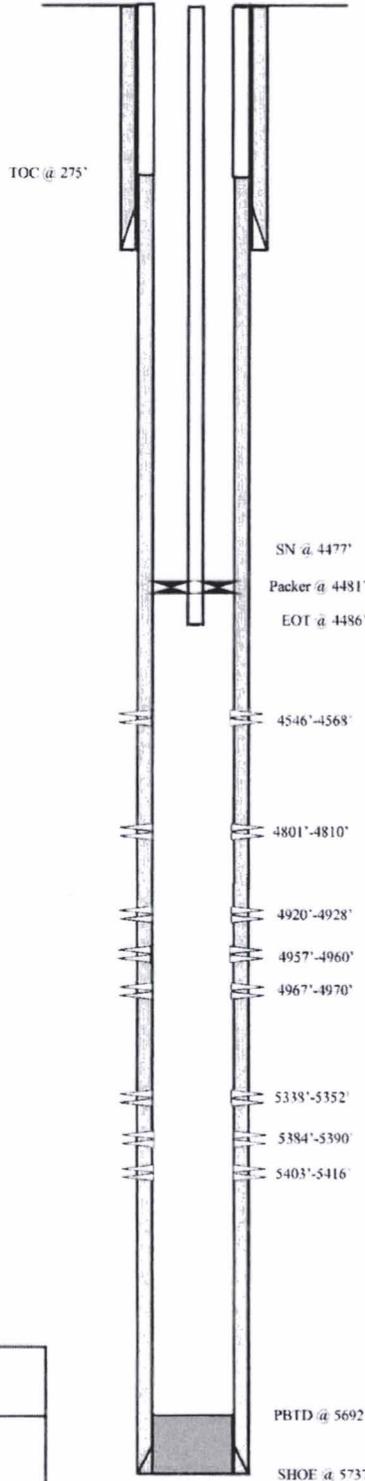
## PRODUCTION CASING

CSG SIZE: 5-1/2"  
 GRADE: J-55  
 WEIGHT: 15.5#  
 LENGTH: 134 jts (5738.65')  
 DEPTH LANDED: 5736.65'  
 HOLE SIZE: 7-7/8"  
 CEMENT DATA: 300 sxs Premilite II & 400 sxs 50/50 POZ.  
 CEMENT TOP AT: 275' per CBL 11/24/04

## TUBING (GI 1/16/08)

SIZE/GRADE/WT: 2 7/8" / J-55  
 NO. OF JOINTS: 137 jts (4465.05')  
 SEATING NIPPLE: 2-7/8" (1.10')  
 SN LANDED AT: 4477.05' KB  
 ASI PACKER CE: 4481.4'  
 TOTAL STRING LENGTH: EOT @ 4485.55'

## Injection Wellbore Diagram



## FRAC JOB

11/30/04	5338'-5416'	<b>Frac CP3, CP2 and CP 1 sands as follows:</b> 99,311# of 20/40 sand in 717 bbls Lightning 17 fluid. Treated at avg. pressure of 1196 psi with average rate of 24.8 BPM. ISIP - 1390. Calculated flush: 5336 gals. Actual flush: 5334 gals.
11/30/04	4920'-4970'	<b>Frac A1 sands as follows:</b> 29,737# of 20/40 sand in 306 bbls Lightning 17 fluid. Treated at avg. pressure of 1315 psi with average rate of 25.1 BPM. ISIP - 1565. Calculated flush: 4918 gals. Actual flush: 4956 gals.
12/01/04	4801'-4810'	<b>Frac B2 sands as follows:</b> 32,039# of 20/40 sand in 330 bbls Lightning 17 fluid. Treated at avg. pressure of 1609 psi with average rate of 15.1 BPM. ISIP - 1900. Calculated flush: 4799 gals. Actual flush: 4704 gals.
1/7/08	4546'-4568'	<b>Frac D sds as follows:</b> w/46,038# of 20/40 sand in 501 bbls of Lightning 17 frac fluid. Perfs broke down @ 3052 psi. Pump 30 gals of Technihib chemical. Treated @ ave pressure of 2138 w/ave rate of 23.3 bpm w/8 ppg of sand. ISIP was 2115
1/11/08		<b>Well converted to an injection well.</b>
1/16/08		<b>MIT completed and submitted.</b>

## PERFORATION RECORD

11/24/04	5403'-5416'	4 SPF	52 holes
11/24/04	5384'-5390'	4 SPF	24 holes
11/24/04	5338'-5352'	4 SPF	56 holes
11/30/04	4967'-4970'	4 SPF	12 holes
11/30/04	4957'-4960'	4 SPF	12 holes
11/30/04	4920'-4928'	4 SPF	32 holes
12/01/04	4801'-4810'	4 SPF	36 holes
1/7/08	4546'-4568'	4 SPF	88 holes

**NEWFIELD**

**Federal #9-10-9-17**  
 1815' FSL & 647' FEL  
 NE/SE Section 10-T9S-R17E  
 Duchesne Co, Utah  
 API #43-013-32502. Lease #UTU-075174

PBTD @ 5692'  
 SHOE @ 5737'  
 ID @ 5771'