

DATE IN 7/18/2016	SUSPENSE	ENGINEER m Amy	LOGGED IN 8/03/2016	TYPE FHZ	APP NO. Pam 1621642463
----------------------	----------	-------------------	------------------------	-------------	---------------------------

ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

**[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]**  
**[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]**  
**[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]**  
**[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]**  
**[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]**  
**[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]**

**[1] TYPE OF APPLICATION - Check Those Which Apply for [A]**

- [A] Location - Spacing Unit - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement  
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☐ SWD ☒ IPI ☐ EOR ☐ PPR

- [D] Other: Specify \_\_\_\_\_

**[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply**

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners  
 [B] ☐ Offset Operators, Leaseholders or Surface Owner  
 [C] ☐ Application is One Which Requires Published Legal Notice  
 [D] ☒ Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office  
 [E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,  
 [F] ☐ Waivers are Attached

**[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

**[4] CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

**Note:** Statement must be completed by an individual with managerial and/or supervisory capacity.

Toya Colvin

Print or Type Name

*Toya Colvin*  
 Signature

Regulatory Analyst

Title

07/13/16

Date

Toya.Colvin@bp.com  
 e-mail Address

*- FHZ 258-A*  
*- BP America Production Company*  
 2016 JUL 15 A 9 29  
 RECEIVED OOD  
 well  
*- Prichard*  
*SWD #1*  
*30-045-2835*  
*Pool*  
*- SWD*  
*ENTRADA*  
*BLM*  
*ENTRADA*  
*WBD*  
*DATA*  
*Surf + BHP*

Submit 1 Copy To Appropriate District Office  
District I - (575) 393-6161  
1625 N. French Dr., Hobbs, NM 88240  
District II - (575) 748-1283  
811 S. First St., Artesia, NM 88210  
District III - (505) 334-6178  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV - (505) 476-3460  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
Revised July 18, 2013

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO. 30-045-28351
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. Federal Lease NMNM013686
7. Lease Name or Unit Agreement Name Pritchard SWD
8. Well Number 1
9. OGRID Number 000778
10. Pool name or Wildcat SWD; Morrison Bluff Entrada

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☒ Other

2. Name of Operator  
BP America Production Company

3. Address of Operator  
737 North Eldridge Pkwy, 12.181A  
Houston, TX 77079

4. Well Location

Unit Letter C : 615 feet from the North line and 1840 feet from the West line  
Section 34 Township 31N Range 09W NMPM County San Juan

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
6061'

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐  
DOWNHOLE COMMINGLE ☐  
CLOSED-LOOP SYSTEM ☐  
OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐

OTHER: Step Rate Test Results: Increase Surface Injection Pressure ☒

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

BP requests to increase our max allowable surface injection pressure on the Pritchard SWD 1 to 1925 psi, based on the results of the Step Rate test performed 07/06/2016. Please see the attached documentation supporting our request.

SWD 405

Spud Date: 11/01/1990

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Toya Colvin TITLE Regulatory Analyst DATE 07/13/2016

Type or print name Toya Colvin E-mail address: Toya.Colvin@bp.com PHONE: 281-892-5369

For State Use Only

APPROVED BY: \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

Conditions of Approval (if any):

**PRITCHARD 001 SWD**

Entrada – Water injection

API# 30-045-28351

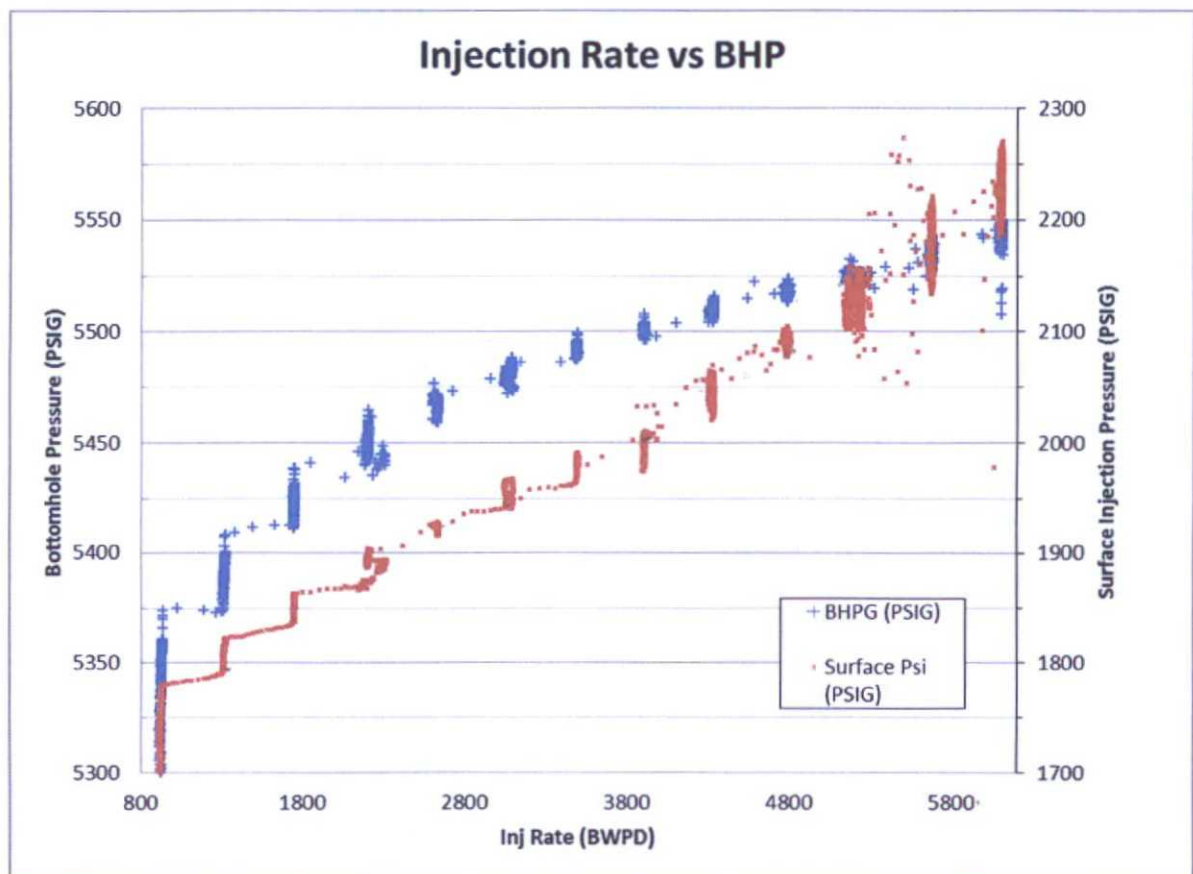
Unit C – Sec 34 – T31N – R09W

San Juan County, New Mexico

**Step Rate Test Results:**

On July 6, 2016, BP performed a step rate test on the Pritchard SWD 1 to evaluate well to increase maximum allowable surface injection pressure. Bottom hole gauges were set in the profile nipple at the EOT and pressure was collected throughout the test. An NMOCD representative was on site to witness the injection test. A bradenhead test was performed and showed no communication between the bradenhead, the intermediate, or the casing x tubing annulus.

Below are the results of the step rate test. Based on these results, BP requests permission to increase the maximum surface injection pressure to 1925 psi.



**BP America  
Pritchard SWD 1  
Step Rate**

Sales Order: 903411913

## **Post Job Report**

For: Clyde Lasster

Date: Wednesday, July 06, 2016

Treater: Brian McCann

Notice: Although the information contained in this report is based on sound engineering practices, the copyright owner(s) does (do) not accept any responsibility whatsoever, in negligence or otherwise, for any loss or damage arising from the possession or use of the report whether in terms of correctness or otherwise. The application, therefore, by the user of this report or any part thereof, is solely at the user's own risk.

**HALLIBURTON**

## Table of Contents

1.0	Pumping Schedule .....	3
1.1	Designed Pumping Schedule .....	3
2.0	Actual Stage Summary .....	4
2.1	Stage Summary.....	4
3.0	Performance Highlights.....	5
3.1	Job Summary .....	5
3.2	Job Stage Log .....	6
3.3	Job Event Log.....	6
4.0	Attachments .....	8
4.1	pressure test.....	8
4.2	treatment .....	9

**1.0 PUMPING SCHEDULE****1.1 Designed Pumping Schedule**

Stage Number	Description	Slurry Volume gal	Stage Time min
1	Step Rate Test	252	20.00
2	Step Rate Test	504	20.00
3	Step Rate Test	756	20.00
4	Step Rate Test	1008	20.00
5	Step Rate Test	1260	20.00
6	Step Rate Test	1512	20.00
7	Step Rate Test	1764	20.00
8	Step Rate Test	2016	20.00
9	Step Rate Test	2268	20.00
10	Step Rate Test	2520	20.00
11	Step Rate Test	2772	20.00
12	Step Rate Test	3024	20.00
13	Step Rate Test	3276	20.00
14	Step Rate Test	3528	20.00
15	Shut-In	0	0.00
Total		26460	280.00

**2.0 ACTUAL STAGE SUMMARY****2.1 Stage Summary**

Stage Number	Stage Time ucts	Start Time ucts	End Time ucts	Time min	Slurry Volume gal
1	06-Jul-16 13:08:41	13:04:57	06-Jul-16 13:08:41	3.75	29
2	06-Jul-16 13:26:53	13:08:42	06-Jul-16 13:26:53	18.21	500
3	06-Jul-16 13:46:11	13:26:54	06-Jul-16 13:46:11	19.30	749
4	06-Jul-16 14:05:33	13:46:12	06-Jul-16 14:05:33	19.34	994
5	06-Jul-16 14:24:49	14:05:34	06-Jul-16 14:24:49	19.29	1250
6	06-Jul-16 14:44:16	14:24:50	06-Jul-16 14:44:16	19.44	1497
7	06-Jul-16 15:03:42	14:44:17	06-Jul-16 15:03:42	19.44	1750
8	06-Jul-16 15:23:21	15:03:43	06-Jul-16 15:23:21	19.65	2006
9	06-Jul-16 15:43:07	15:23:22	06-Jul-16 15:43:07	19.77	2257
10	06-Jul-16 16:02:57	15:43:08	06-Jul-16 16:02:57	19.81	2508
11	06-Jul-16 16:22:44	16:02:58	06-Jul-16 16:22:44	19.80	2769
12	06-Jul-16 16:42:40	16:22:45	06-Jul-16 16:42:40	19.94	3021
13	06-Jul-16 17:02:28	16:42:41	06-Jul-16 17:02:28	19.79	3278
14	06-Jul-16 17:22:21	17:02:29	06-Jul-16 17:22:21	19.90	3529
15	06-Jul-16 17:42:46	17:22:22	06-Jul-16 17:42:46	20.41	0
Total					26136

### 3.0 PERFORMANCE HIGHLIGHTS

#### 3.1 Job Summary

Start Time	06-Jul-16 10:37:35	ucts
End Time	06-Jul-16 17:42:46	ucts
Start Averaging Time	06-Jul-16 13:04:57	ucts
End Averaging Time	06-Jul-16 17:42:40	ucts
Clean Volume	26136	gal
Slurry Volume	26136	gal
Gel Volume	26136	gal
Load to Recover	26136	gal
<b>Volumes Pumped</b>	<b>Total</b>	<b>Units</b>
TREATED WATER	26137	gal

**Disclaimer:** The average and maximum values (except volumes and bottom hole values) are based on the start and end averaging times.



## 3.2 Job Stage Log

Time ucts	Description	Comment
06-Jul-16 13:04:56	Stage 1	Step Rate Test
13:08:41	Stage 2	Step Rate Test
13:26:54	Stage 3	Step Rate Test
13:46:12	Stage 4	Step Rate Test
14:05:33	Stage 5	Step Rate Test
14:24:50	Stage 6	Step Rate Test
14:44:16	Stage 7	Step Rate Test
15:03:43	Stage 8	Step Rate Test
15:23:21	Stage 9	Step Rate Test
15:43:07	Stage 10	Step Rate Test
16:02:57	Stage 11	Step Rate Test
16:22:44	Stage 12	Step Rate Test
16:42:40	Stage 13	Step Rate Test
17:02:29	Stage 14	Step Rate Test
17:22:22	Stage 15	Shut-In

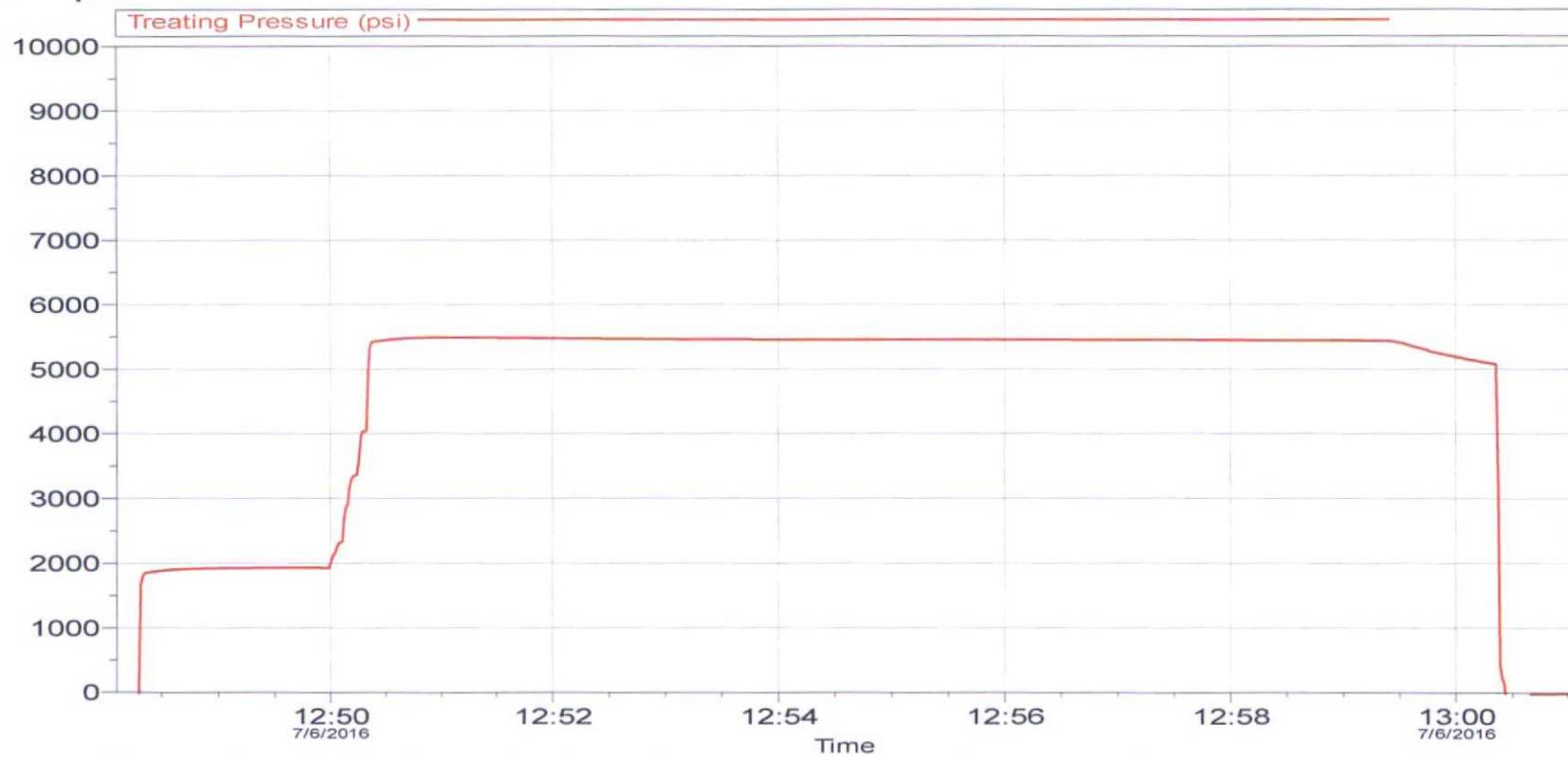
## 3.3 Job Event Log

Stage Number	Event Number	Time ucts	Description	Comment
	1	06-Jul-16 10:37:33	Start Job	Starting Job
	2	11:29:33	Pause	Suspending Job
	3	12:48:04	Resume	Resuming Job
1		13:04:56	Stage 1	Step Rate Test
		13:04:57	Start Averaging	Start Avg Trt 1
2		13:08:41	Stage 2	Step Rate Test
3		13:26:54	Stage 3	Step Rate Test

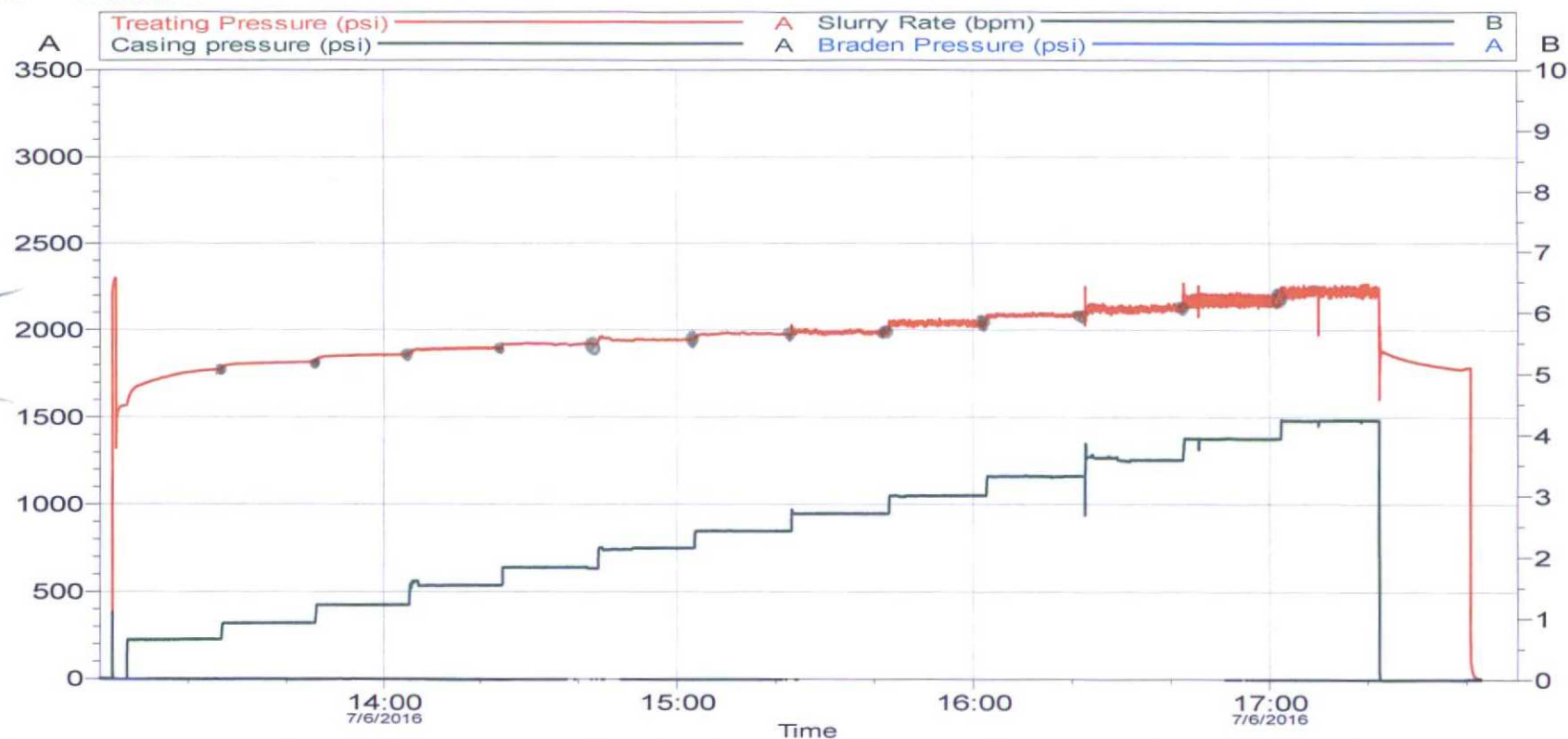
Stage Number	Event Number	Time ucts	Description	Comment
4		13:46:12	Stage 4	Step Rate Test
5		14:05:33	Stage 5	Step Rate Test
6		14:24:50	Stage 6	Step Rate Test
7		14:44:16	Stage 7	Step Rate Test
8		15:03:43	Stage 8	Step Rate Test
9		15:23:21	Stage 9	Step Rate Test
10		15:43:07	Stage 10	Step Rate Test
11		16:02:57	Stage 11	Step Rate Test
12		16:22:44	Stage 12	Step Rate Test
13		16:42:40	Stage 13	Step Rate Test
14		17:02:29	Stage 14	Step Rate Test
	4	17:22:19	ISIP	1615
15		17:22:22	Stage 15	Shut-In
	5	17:27:20	Shut-In Pressure @ 5 Minutes	1819
	6	17:32:20	Shut-In Pressure @ 10 Minutes	1807
	7	17:37:20	Shut-In Pressure @ 15 Minutes	1794
		17:42:40	End Averaging	End Avg Trt 1
	8	17:42:52	End Job	Ending Job

## 4.0 ATTACHMENTS

### 4.1 pressure test



## 4.2 treatment

Customer:  
Well Description:Job Date: 06-Jul-2016  
UWI:

Sales Order #: 903411913

HALLIBURTON

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2014

**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.  
NMNM013686

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE – Other instructions on page 2.**

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator  
BP America Production Company

3a. Address  
737 North Eldridge Parkway, 12.181A  
Houston, TX 77079

3b. Phone No. (include area code)  
281-892-5369

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

8. Well Name and No.  
Pritchard SWD 1

9. API Well No.  
30-045-28351

10. Field and Pool or Exploratory Area  
SWD; Morrison Bluff Entrada

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
Sec. 34 T31N R09W NENW 615FWL 1840FWL

11. County or Parish, State  
San Juan, NM

**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT 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 Increase Surface
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Injection Pressure
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	(Step Rate Test Results)

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 recompleat 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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

BP requests to increase our max allowable surface injection pressure on the Pritchard SWD 1 to 1925 psi, based on the results of the Step Rate test performed 07/06/2016. Please see the attached documentation supporting our request.

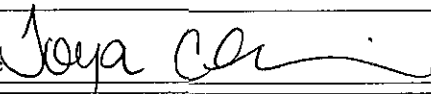
NMOCD Santa Fe Notified via C-103 form.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Toya Colvin

Title Regulatory Analyst

Signature



Date 07/13/2016

**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 or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> <li>■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>■ Print your name and address on the reverse so that we can return the card to you.</li> <li>■ Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>		A. Signature <b>X</b> <span style="float: right;"><input type="checkbox"/> Agent <input type="checkbox"/> Addressee</span>	
		B. Received by (Printed Name)	C. Date of Delivery
1. Article Addressed to: <b>Bureau of Land Management</b> <b>6251 College Blvd Suite A</b> <b>Farmington, NM 87402</b>		D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No	
		3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.	
2. Article Number (Transfer fee) <b>7008 1140 0001 9414 9719</b>		4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes	

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540



U.S. Postal Service™ CERTIFIED MAIL™ RECEIPT (Domestic Mail Only; No Insurance Coverage Provided)	
For delivery information visit our website at <a href="http://www.usps.com">www.usps.com</a>	
<b>OFFICIAL USE</b>	
Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$
Sent To <b>Bureau of Land Management</b> Street, Apt. No., or PO Box No. <b>6251 College Blvd. Suite A</b> City, State, ZIP+4 <b>Farmington, NM 87402</b>	
PS Form 3800, August 2006 <span style="float: right;">See Reverse for Instructions</span>	



Pritchard SWD #001  
Coal  
API # 30-045-26351  
Unit C - Sec 34 - T37N - R09W  
San Juan County, New Mexico

KB: 12'

20", 94#, H-40, STC Surface Casing @ 240'  
CMT: 475 SX to surface

13 3/8", 68#, K-55, STC Inter Casing @ 3203'  
CMT: to Surface

9 5/8", 43.5#, N-80, LTC Inter Casing @ 5545'  
CMT: 822 SX to 2800'

Hornet Packer, Ni plated @ 8294'

3.5" 9.3# N-80 TK-15 coated tbq @ 8308'

Perforations (Enxada Formation)			
Depth	Perforation	Diameter	Shots
8362-8440	W4 JSPF	.75"	232
8456-8466	W4 JSPF	.75"	40
8476-8528	W4 JSPF	.75"	200
8534-8600	W4 JSPF	.75"	264

7", 26#, N-80, STC Production Casing @ 8705'  
CMT: 175 SX to 7100'

PBTD: 8620'  
TD: 8705'

#### Formation Tops

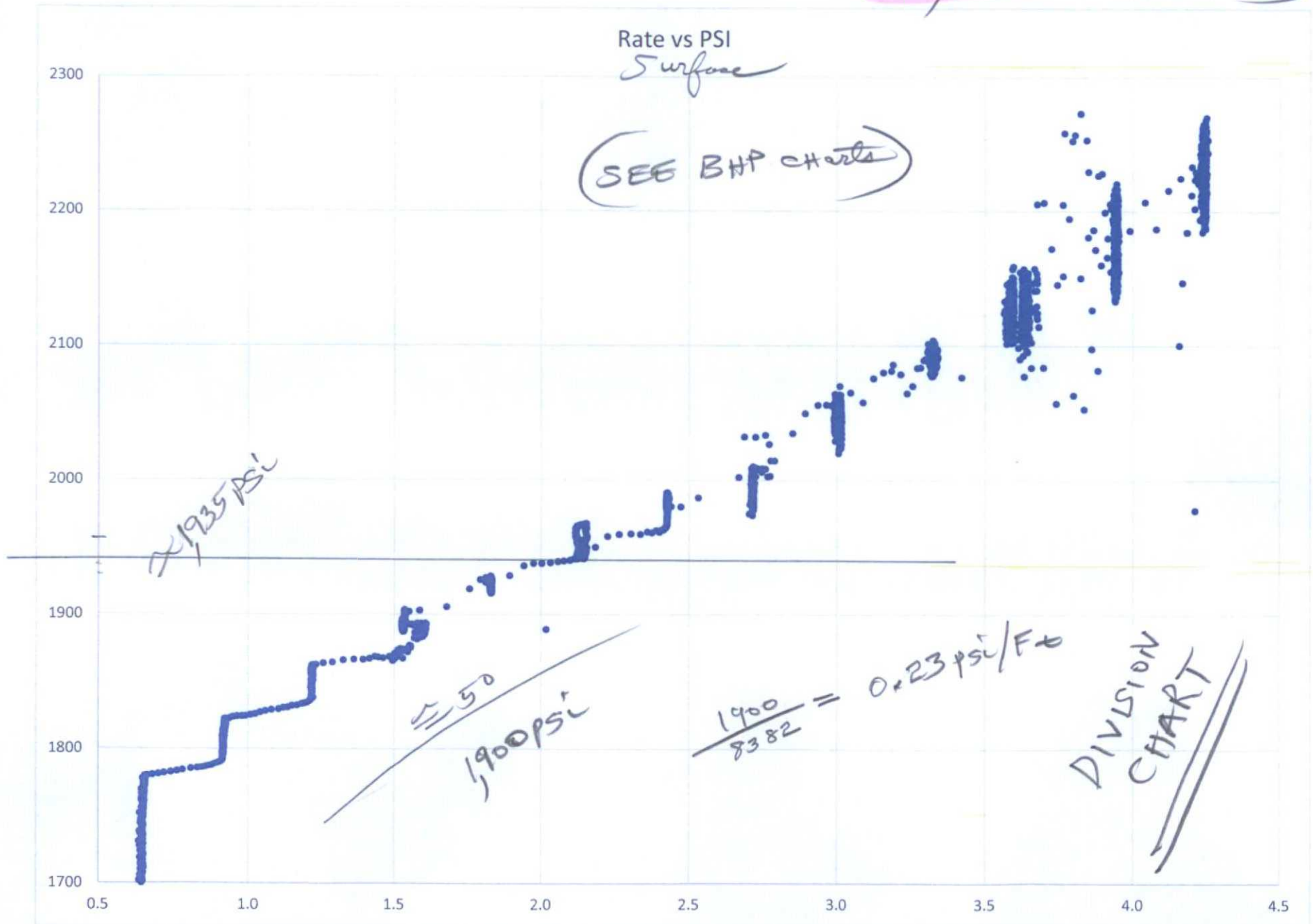
Ojo Alamo 1600'  
Fruitland 2600'  
Pictured Cliffs 2912'  
Lewis 3060'  
Mesaverde 4680'  
Manos 5475'  
Gallup 6262'  
Dakota 7280'  
Morrison 7525'  
Bluff 7323'  
Enxada 8377'

Length	Tubing Assembly (as run 1/11/2013)
(31 lbs) 3 1/2" EUE 8 RD N-80 TK-15 internally coated plastic tbq	
675	
10	Ni plated 3 1/2" EUE 8RD N-80 pup j
2	Ni plated 3 1/2" EUE 8RD N-80 pup j
(230 lbs) 3 1/2" EUE 8 RD N-80 TK-15 internally coated plastic tbq	
7286	
6X Profile nipple 3 1/2" EUE 8RD 9 chrome	
1.4	(2 812" ID)
6	Ni plated 3 1/2" EUE 8RD N-80 pup j
8	809-292 Mechanical set hornet packer ni
8	plated
4	Ni plated 3 1/2" EUE 8RD N-80 pup j
6XN Profile nipple 3 1/2" EUE 8RD 9 chrome	
1.85	(2.65" ID No-Gap)
0.5	HWL Entry guide

(1900 PSI New ALLOWABLE)

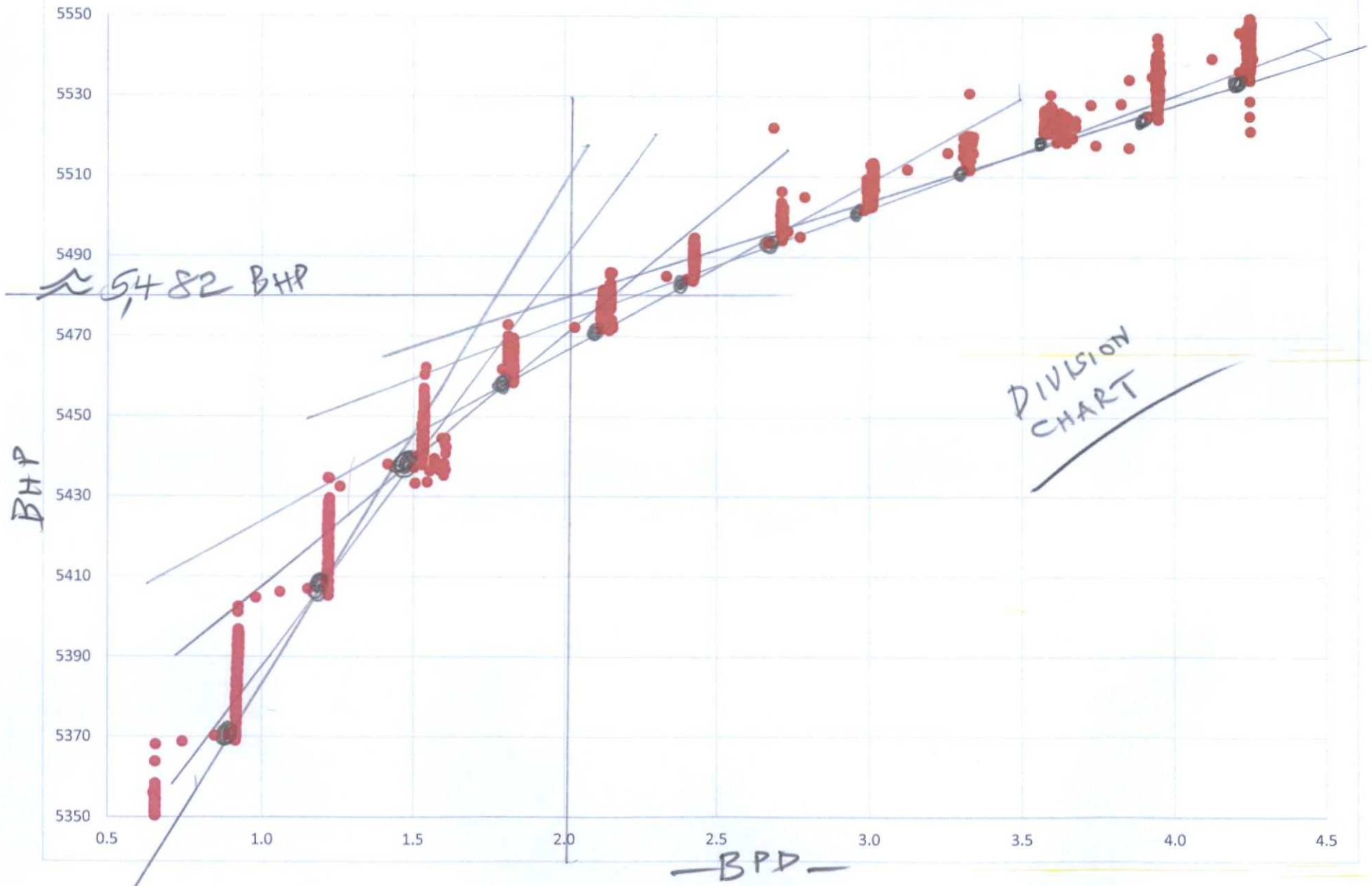
Rate vs PSI  
Surface

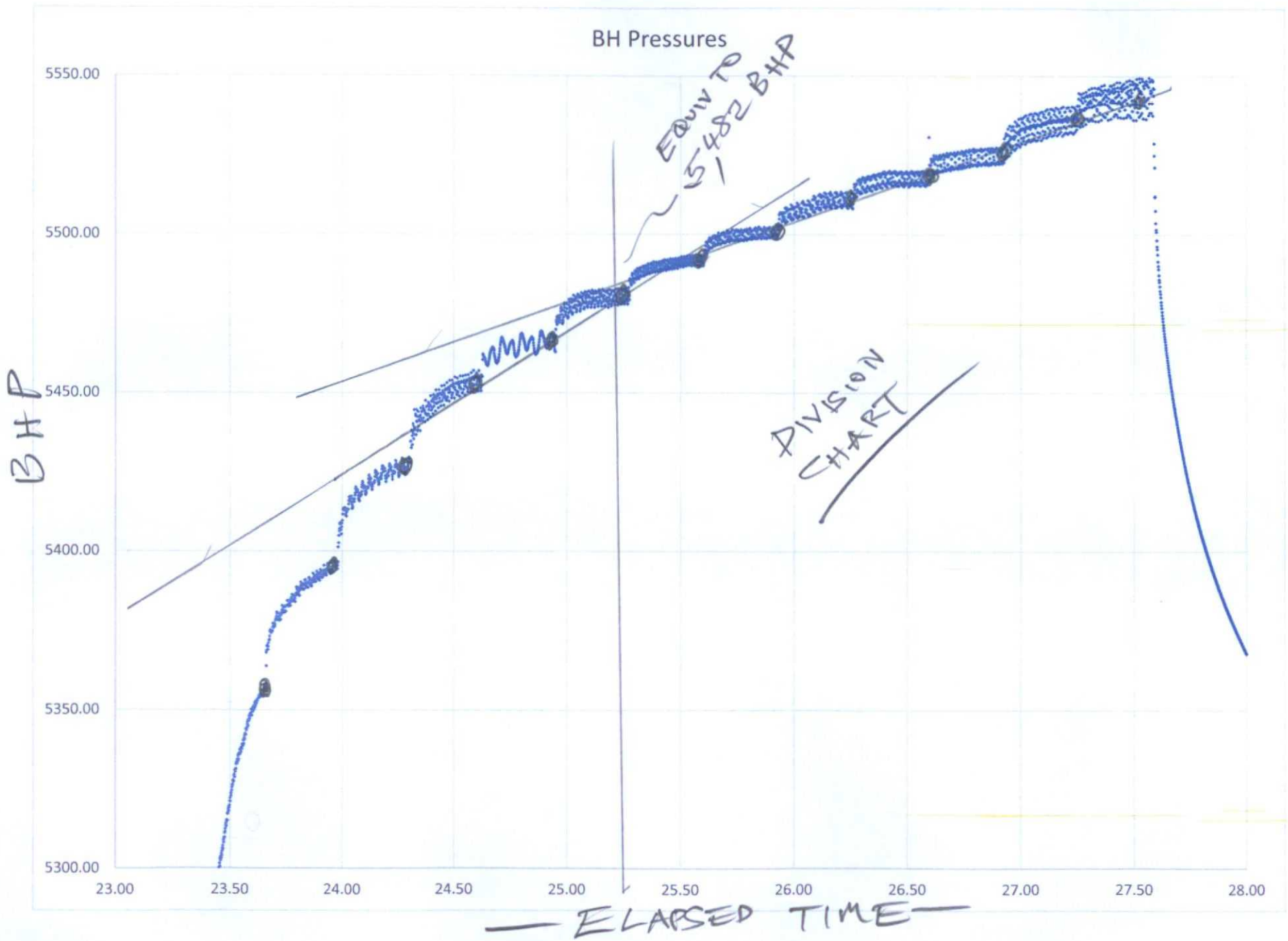
(SEE BHP charts)





Rate vs PSI  
BottomHole







Pritchard SWD #001  
Coal  
API # 30-045-28351  
Unit C - Sec 34 - T3N - R09W  
San Juan County, New Mexico

KB: 12'



Length	Tubing Assembly (as run 1/11/2013)
(31 lbs) 3 1/2" EUE 8 RD N-80 TK-15 internally coated plastic tbg	
675	
10	Ni plated 3 1/2" EUE BRD N-80 pup fl
2	Ni plated 3 1/2" EUE BRD N-80 pup fl
(230 lbs) 3 1/2" EUE 8 RD N-80 TK-15 internally coated plastic tbg	
7286	
1.4	8X Profile nipple 3 1/2" EUE BRD 9 chrome (2.812" ID)
6	Ni plated 3 1/2" EUE BRD N-80 pup fl
8	600-292 Mechanical set hornet packer ni plated
4	Ni plated 3 1/2" EUE BRD N-80 pup fl
1.65	8XN Profile nipple 3 1/2" EUE BRD 9 chrome (2.66" ID No-Go)
0.5	W/L Entry guide

Formation Tops:

Ojo Alamo	1600'
Fullsand	2600'
Pictured Cliffs	2912'
Levis	3060'
Mesaverde	4680'
Mancos	5475'
Gallup	6262'
Dakota	7280'
Horison	7525'
Bull	7929'
Ennada	8377'

Perforations (Ennada Formation)			
Depth	Perforation	Diameter	Spots
8382-8440	W/N JSPP	.76"	232
8456-8466	W/N JSPP	.76"	40
8476-8528	W/N JSPP	.76"	208
8534-8600	W/N JSPP	.76"	264

# **NORTH AMERICA - NORTH AMERICA GAS - BP**

**NEW MEXICO WEST NAD27**

**PRITCHARD SWD 1**

**PRITCHARD SWD 1**

**WORKOVER**

## **Operation Summary Report**

Disclaimer: Although the information contained in this report is based on sound engineering practices, the copyright owner(s) does (do) not accept any responsibility whatsoever, in negligence or otherwise, for any loss or damage arising from the possession or use of the report whether in terms of correctness or otherwise. The application, therefore, by the user of this report or any part thereof, is solely at the user's own risk.

## 1 General

### 1.1 Customer Information

Company	NORTH AMERICA - NORTH AMERICA GAS - BP
Representative	NA GAS
Address	

### 1.2 Well Information

Well	PRITCHARD SWD 1		
Project	NEW MEXICO WEST NAD27	Site	PRITCHARD SWD 1
Rig Name/No.	RIGLESS/	Event Type	WORKOVER
Start Date	7/5/2016	End Date	
Spud Date/Time	11/1/1990	UWI	615' FNL; 1840' FWL; S34 T31N R9W
Active datum	ROTARY KELLY BUSHING @6,073.0ft (above Mean Sea Level)		
Afe No./Description	1000053256 /		

## 2 Summary

### 2.1 Operation Summary

Date	Time Start-End	Hrs (hr)	Phase	Code	NPT	Task	NPT Depth (ft)	Operation
7/5/2016	7:00 8:00	1.00	INTERV	P		DHEQ P		WEATHERFORD, WSI, ANTELOPE, TRAVEL FROM BASE TO PRITCHARD SWD 1 LOCATION
	8:00 8:15	0.25	INTERV	P		DHEQ P		PWA. JSA. PERMIT, JOB PLAN REVIEW
	8:15 10:30	2.25	INTERV	P		DHEQ P		RU CRANE MOVE BARRIERS, PULL SIDE DOOR OFF WELL HEAD HOUSE, & SLIDE HOSE WEST AWAY FOR WELL HEAD.
	10:30 13:10	2.67	INTERV	P		DHEQ P		RI WH STAND, RD CROSS OVER LINE, RU WH FLANGE
	13:10 14:01	0.85	INTERV	P		DHEQ P		RU SLICKLINE, RU 2.813 X PUMP THROUGH PLUG & GAUGES PLUG IN GAUGE 1162 13.46.36 PLUG IN GAUGE 2 # 1163 @ 13:47.41, EQUALIZE WH
	14:01 16:10	2.15	INTERV	P		DHEQ P		RIH WITH X PLUG GAUGE HANGER TAG UP @ 2191, WORK THROUGH RIH TO 8297 WLM WORK TO SET GAUGE HANGER POH, OOH WITH GAUGES RESET SETTING TOOL
	16:10 18:58	2.80	INTERV	P		DHEQ P		RIH WITH GAUGE HANGER & GAUGES RESET GAUGES @ 7992 WLM LATCHING POH, SHUT IN WELL SECURE LOCATION
	18:58		INTERV	P		DHEQ P		TRAVEL FROM PRITCHARD SWD 1 LOCATION TO BASE
7/6/2016	6:00 8:00	2.00	INTERV	P		DHEQ P		HALLIBURTON, TRAVEL FROM BASE TO PRITCHARD SWD 1 LOCATION
	8:00 8:15	0.25	INTERV	P		DHEQ P		PWA. JSA, RIG UP
	8:15 9:40	1.42	INTERV	P		DHEQ P		RIG UP PUMPING UNIT 7 WATER LINE TO DISPOSAL TANKS BRADEND HEAD TEST FOR NMOCD BH 0 PSI INTERMEDIATE PSI 0, ANNULUS PSI 0
	9:40 10:15	0.58	INTERV	P		DHEQ P		PRIME UP PSI TEST LEAK ON TOP WH FLANGE THREADS 3 1/2 TIGHTEN CHANG OUT STILL LEAK
	10:15 12:34	2.32	INTERV	N	WAIT	DHEQ P		CONTACT WH COMPANY ORDER DIFFERENT TOP FLANGE
	12:34 13:05	0.52	INTERV	P		DHEQ P		CHANGE OUT FLANGE RIG UP LINE PSI TEST PUMP & LINE ( HELD)

## 2.1 Operation Summary (Continued)

Date	Time Start-End	Hrs (hr)	Phase	Code	NPT	Task	NPT Depth (ft)	Operation
	13:05 17:20	4.25	INTERV	P		DHEQ P		START STEP RATE TEST STEP 1&2 RATE .6 BPM BEGIN PSI 1625 ENDING PSI 1770 STEP 3 RATE .9 BPM BEGIN PSI 1725 ENDING PSI 1780 STEP 4 RATE 1.2 BPM BEGIN PSI 1791 ENDING PSI 1795 STEP 5 RATE 1.5 BPM BEGIN PSI 1806 ENDING PSI 1830 STEP 6 RATE 1.8 BPM BEGIN PSI 1843 ENDING PSI 1860 STEP 7 RATE 2.1 BPM BEGIN PSI 1889 ENDING PSI 1905 STEP 8 RATE 2.4 BPM BEGIN PSI 1920 ENDING PSI 1955 STEP 9 RATE 2.7 BPM BEGIN PSI 1955 ENDING PSI 1972 STEP 10 RATE 3.0 BPM BEGIN PSI 2003 ENDING PSI 2030 STEP 11 RATE 3.3 BPM BEGIN PSI 2047 ENDING PSI 2050 STEP 12 RATE 3.6 BPM BEGIN PSI 2072 ENDING PSI 2072 STEP 13 RATE 3.9 BPM BEGIN PSI 2138 ENDING PSI 2180 STEP 14 RATE 4.2 BPM BEGIN PSI 2197 ENDING PSI 2205 SHUT DOWN 1615 ISIP LOW 5MINUTE 1819 10 MINUTE 1817 15MINUTE 1794
	17:20 19:02	1.70	INTERV	P		DHEQ P		SHUT IN WELL START RIG DOWN SECURE LOCATION
	19:02 20:20	1.30	INTERV	P		DHEQ P		HALLIBURTON , TRAVEL FROM PRITCHARD SWD 1 LOCATION TO BASE
7/7/2016	6:00 7:00	1.00	INTERV	P		DHEQ P		EXPERT DH, WEATHERFORD, CROSSFIRE TRAVEL FROM BASE TO PRITCHARD SWD 1 LOCATION
	7:00 7:30	0.50	INTERV	P		DHEQ P		PWA,JSA, PERMIT, JOB PLAN
	7:30 8:10	0.67	INTERV	P		DHEQ P		RU CRANE & SLICKLINE
	8:10 9:35	1.42	INTERV	P		DHEQ P		RIH WITH GS PT, TAG @ 8292 PU & RI & TAG POH OOH NO GAUGES GS TOOL HAD SHEARED
	9:35 12:16	2.68	INTERV	P		DHEQ P		REDRESS GS PT, RIH TAG @ 8292 WLM LATCH POH OOH WAS NOT ABLE TO RETRIVE GAUGE HANGER CHECK GS TOOL RIH AGAI TAG @ 8292 WLM WORK DOWN TO GET A BETTER LATCH POH OOH GAUGE HANGER
	12:16 12:35	0.32	INTERV	P		DHEQ P		RD SLICKLINE & LUBRICATOR, UNPLUG GAUGE 1161 12:32 UNPLUG GAUGE 1163 12:33
	12:35 14:00	1.42	INTERV	P		DHEQ P		WASH WH OFF , RD WH STAND FINISH WASH WH OFF , RU PUSH WH HOUSE BACK IN TO PLACE OVER WELL HEAD INSTALL SIDE WALL RIG UP INSIDE OF WH HOUSE SHUT IN WELL PREP FOR HANDBACK
	14:00 15:00	1.00	INTERV	P		DHEQ P		WEATHERFORD , WSI, CROSSFIRE TRAVEL FROM PRITCHARD SWD 1 LOCATION TO BASE

Table of Contents

1	General.....	1
1.1	Customer Information.....	1
1.2	Well Information.....	1
2	Summary.....	1
2.1	Operation Summary.....	1



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

October 11, 2005

**Mark E. Fesmire, P.E.**

Director

Oil Conservation Division

Division Order No. IPI-258

BP America Production Company  
501 Westlake Park Blvd.  
Houston, Texas 77079

Attention: Mr. David Reese

**RE: Injection Pressure Increase  
Pritchard SWD Well No. 1  
San Juan County, New Mexico**

Dear Mr. Reese:

Reference is made to your request received by the Division on September 14, 2005, to increase the surface injection pressure on the Pritchard SWD Well No. 1. This request is based on a step rate test conducted on the well on December 12, 2003. The results of the step rate test show that an increase in the surface injection pressure for this well is justified and will not result in the fracturing of the injection formation and confining strata.

You are therefore authorized to increase the surface injection pressure on the following well:

<b>WELL NAME &amp; NUMBER</b>	<b>MAXIMUM SURFACE INJECTION PRESSURE</b>
Pritchard SWD Well No. 1 API No. 30-045-28351 Unit C, Section 34, T-31 North, R-9 West, NMPM, San Juan County, New Mexico	1843 PSIG

The Division Director may rescind this injection pressure increase if it becomes apparent that the injected fluid is not being confined to the injection zone or is endangering any fresh water aquifers.



*Injection Pressure Increase*  
*BP America Production Company*  
*October 11, 2005*  
*Page 2*

---

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark E. Fesmire', with a stylized flourish at the end.

Mark E. Fesmire, P.E.  
Division Director

cc: Oil Conservation Division - Aztec  
File: SWD-405