

DATE IN 5.10.12	SUSPENSE	ENGINEER TW	LOGGED IN 5.10.12	TYPE IPI	APP NO. 1213145255
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



Basic Energy Services
246368

State No. 1

ADMINISTRATIVE APPLICATION CHECKLIST

30-025-28468

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.

David H. Alvarado
Print or Type Name

Signature

SENM Area Superintendent
Title

Date

david.alvarado@basicenergyservices.com
e-mail Address

E-17195-36E

RECEIVED OGD
2012 MAY 10 AM 11:55

6409

Basic Energy Services LP

500 W. Illinois, Suite 100
Midland Texas 79702

May 8, 2012

New Mexico Oil Conservation Division
Engineering Bureau
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Attn: Terry G. Warnell, EMNRD

RE: Request for Increase in Maximum Allowable Surface Injection Pressure
State NO # 1
1980' FNL 660" FWL
Unit Letter "E", Sec.7, T19S R36E

Basic Energy Services LP respectfully requests approval to increase the maximum allowable surface injection pressure on the State NO # 1 SWD well.

Attached please find the following:

- 1) Step-rate test analysis
- 2) Current water disposal permit SWD- 864.
- 3) Log section covering the injection interval
- 4) Current wellbore schematic
- 5) Form C-103 request for increase in allowable surface injection pressure.

As shown with the attached analysis, it has been determined that no fracture extension pressure at surface of 2,299 psi. occurred. Applying a safety factor of 50 psi, Basic Energy Services LP respectfully requests approval to increase the maximum allowable surface injection pressure to 2,249 psi from the current maximum allowable pressure of 1,282 psi.

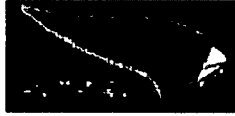
Thank you,



David Alvarado

Basic Energy Services LP
SENM District Fluids Manager

Step Rate Test



Cardinal Surveys Company

7-May-12

Basic Energy Services

Well: State "NO" No. 1SWD

Field;

County: Lee County, New Mexico

SC 60039

File No. 20780

NO PARTING PRESSURE FOUND AFTER REACHING MAX. RATE OF PUMP

Downhole PSI Tool Ser. No. CSC2601

Surface PSI Gauge Ser. No. CSC2701

Tool @ 6,800'

	Start	End	Rate
1	9:28 AM	9:45 AM	0 6,800'
2	9:45 AM	10:15 AM	200
3	10:15 AM	10:45 AM	300
4	10:45 AM	11:15 AM	700
5	11:15 AM	11:45 AM	1000
6	11:45 AM	12:15 PM	1300
7	12:15 PM	12:45 PM	1800
8	12:45 PM	1:15 PM	2300
9	1:15 PM	1:45 PM	2800
10	1:45 PM	2:15 PM	3800
11	2:15 PM	2:45 PM	4800
12	2:45 PM	3:15 PM	5800
13	3:15 PM	3:30 PM	0 15 MIN FALL OFF
14			
15			
16			
17			
18			

Step Rate Test
7-May-12

Basic Energy Services

Well: State "NO" No. 1 SWD

Field:

Location: Lee County, New Mexico

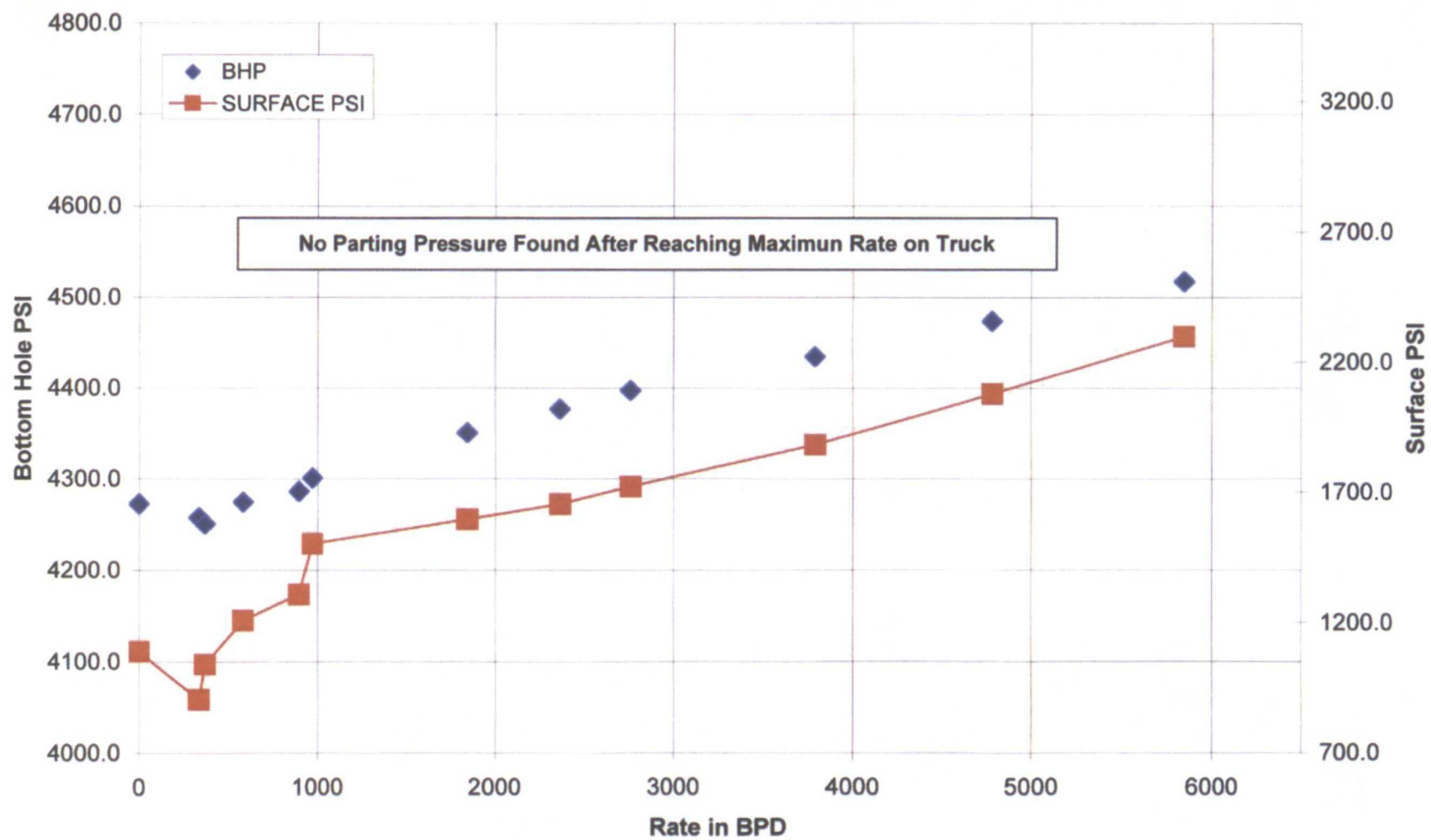


	S Time	E Time	D Time Min	Last Rate BPD	Step BPD	BHP PSIA	Surf PSIA	Cum BBL	Delta BBL	Avg. BPD	Lower Trend	Upper Trend
1	9:28 AM	9:45 AM	17	0	0	4272.5	1088.1	0	0	0		
2	9:45 AM	10:15 AM	30	200	200	4257.4	904.2	6.9	6.9	331		
3	10:15 AM	10:45 AM	30	300	100	4250.6	1039.2	14.5	7.6	365		
4	10:45 AM	11:15 AM	30	700	400	4274.5	1208.0	26.5	12	576		
5	11:15 AM	11:45 AM	30	1000	300	4286.4	1306.9	45.1	18.6	893		
6	11:45 AM	12:15 PM	30	1300	300	4301.2	1502.0	65.3	20.2	970		
7	12:15 PM	12:45 PM	30	1800	500	4350.6	1594.9	103.8	38.5	1848		
8	12:45 PM	1:15 PM	30	2300	500	4376.7	1652.8	153.1	49.3	2366		
9	1:15 PM	1:45 PM	30	2800	500	4397.2	1720.1	210.6	57.5	2760		
10	1:45 PM	2:15 PM	30	3800	1000	4434.5	1881.8	289.6	79	3792		
11	2:15 PM	2:45 PM	30	4800	1000	4473.5	2077.7	389.3	99.7	4786		
12	2:45 PM	3:15 PM	30	5800	1000	4517.4	2299.0	511.1	121.8	5846		
13	3:15 PM	3:30 PM	15	0	0	4323.3	1506.4	511.1	0	0		
14												
15												
16												

	0	0
	0	0
Intersect	#DIV/0!	BPD
BHP PSI	#DIV/0!	PSIA

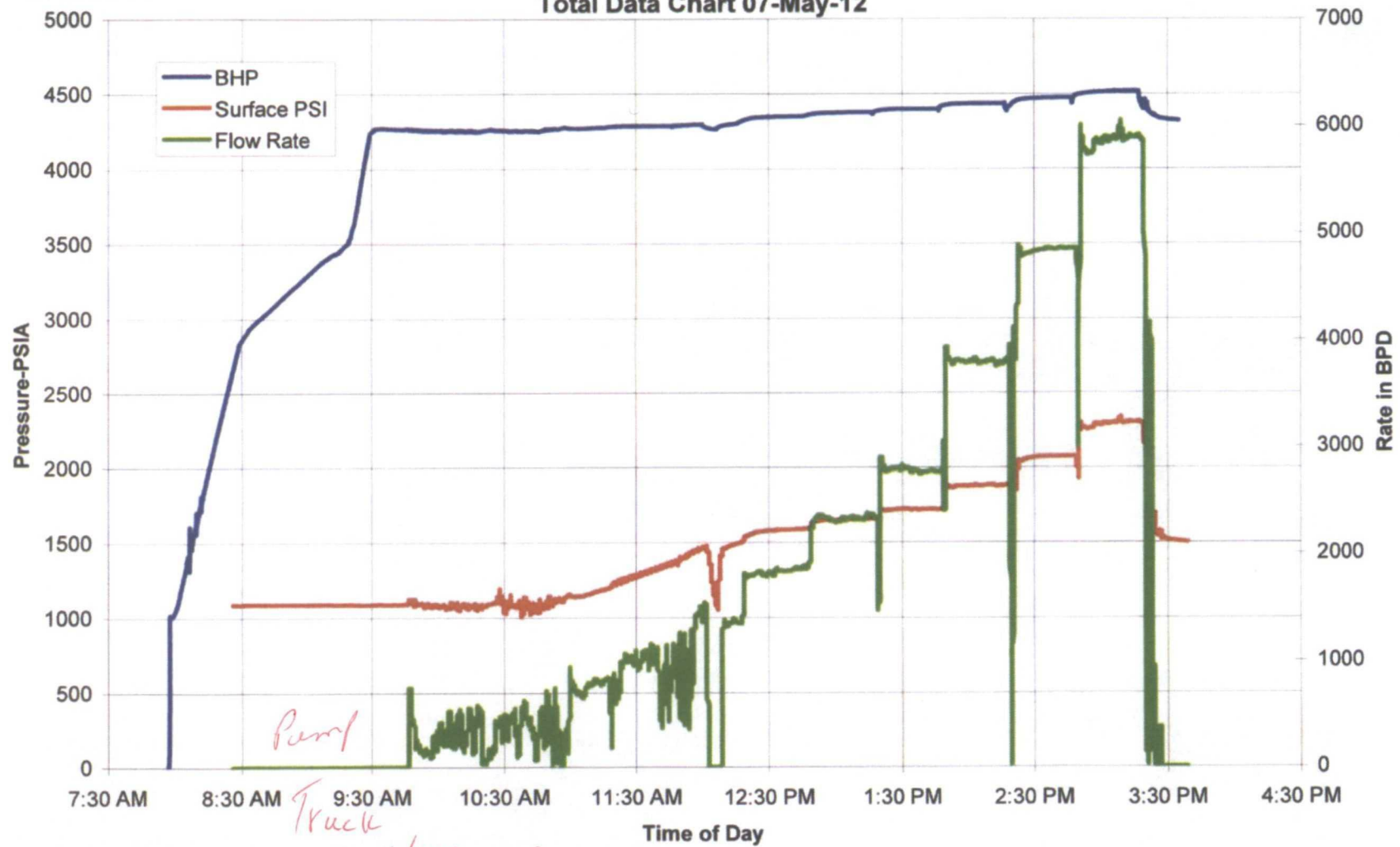


Basic Energy Services
State "NO" No. 1 SWD
Step Rate Chart 7-May-12





Basic Energy Services
State "NO" No. 1 SWD
Total Data Chart 07-May-12



Pump
Truck
problem
(pump operator)



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
BETTY RIVERA
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

ADMINISTRATIVE ORDER SWD-864

APPLICATION OF RAY WESTALL FOR SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO

ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Rule 701(B), Ray Westall made application to the New Mexico Oil Conservation Division on December 2, 2002, for permission to re-complete for produced water disposal its State "NO" Well No. 1 (API 30-025-28468) located 1980 feet from the North line and 660 feet from the West line (Unit E) of Section 7, Township 19 South, Range 36 East, NMPM, Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

- (1) The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations;
- (2) Satisfactory information has been provided that all offset operators and surface owners have been duly notified;
- (3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met; and
- (4) No objections have been received within the waiting period prescribed by said rule.

IT IS THEREFORE ORDERED THAT:

Ray Westall is hereby authorized to re-complete for produced water disposal its State "NO" Well No. 1 (API 30-025-28468) located 1980 feet from the North line and 660 feet from the West line (Unit E) of Section 7, Township 19 South, Range 36 East, NMPM, Lea County, New Mexico, in such a manner as to permit the injection of produced water for disposal purposes into the Delaware formation from a depth of approximately 6,409 feet to 7,248 feet through 2 7/8 inch plastic-lined tubing set in a packer located at approximately 6,309 feet.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

The casing-tubing annulus shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing, or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 1282 psi. ✓

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the injection formation. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Hobbs District Office of the Division of the date and time the mechanical integrity pressure test is conducted on the State "NO" Well No. 1 so that these operations may be witnessed.

The operator shall immediately notify the supervisor of the Hobbs District Office of the Division of the failure of the tubing, casing, or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

PROVIDED FURTHER THAT, jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Rule Nos. 706 and 1120 of the Division Rules and Regulations.

Administrative Order SWD-864

Ray Westall

December 18, 2002

Page 3

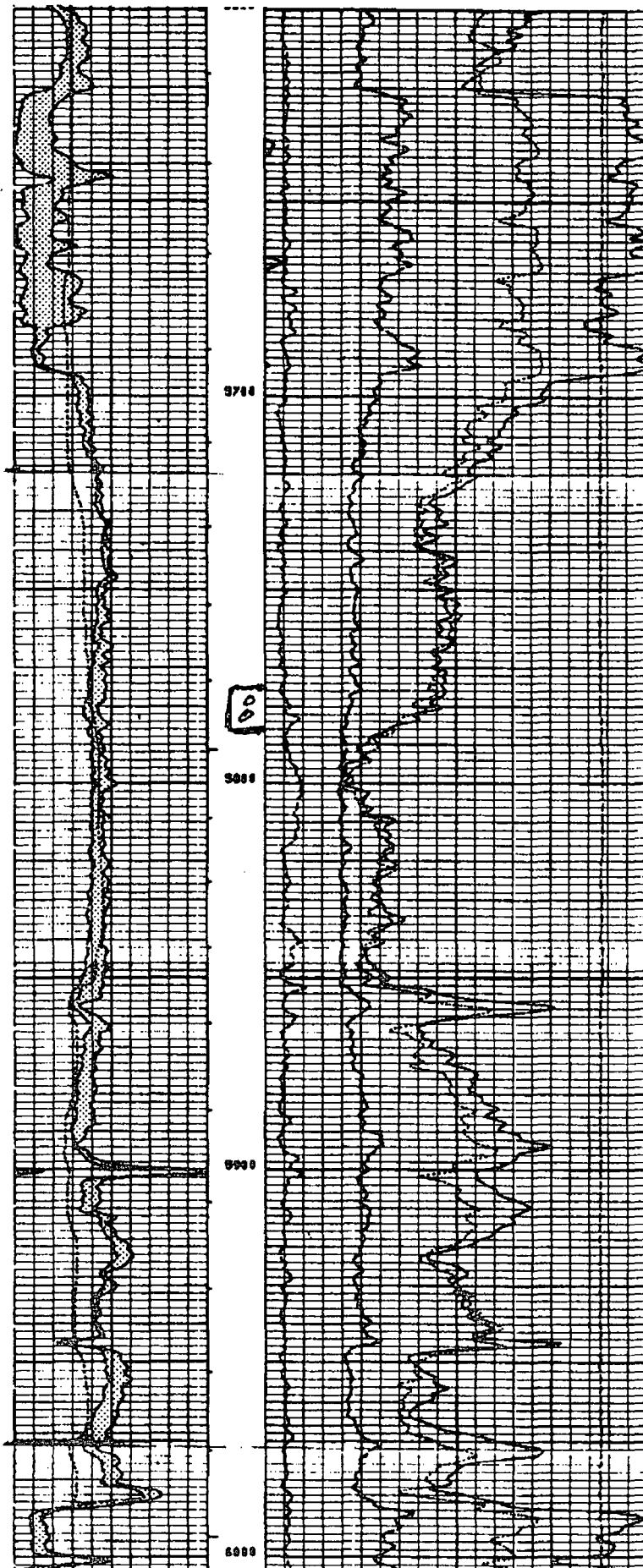
The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

Approved at Santa Fe, New Mexico, on this 18th day of December 2002.

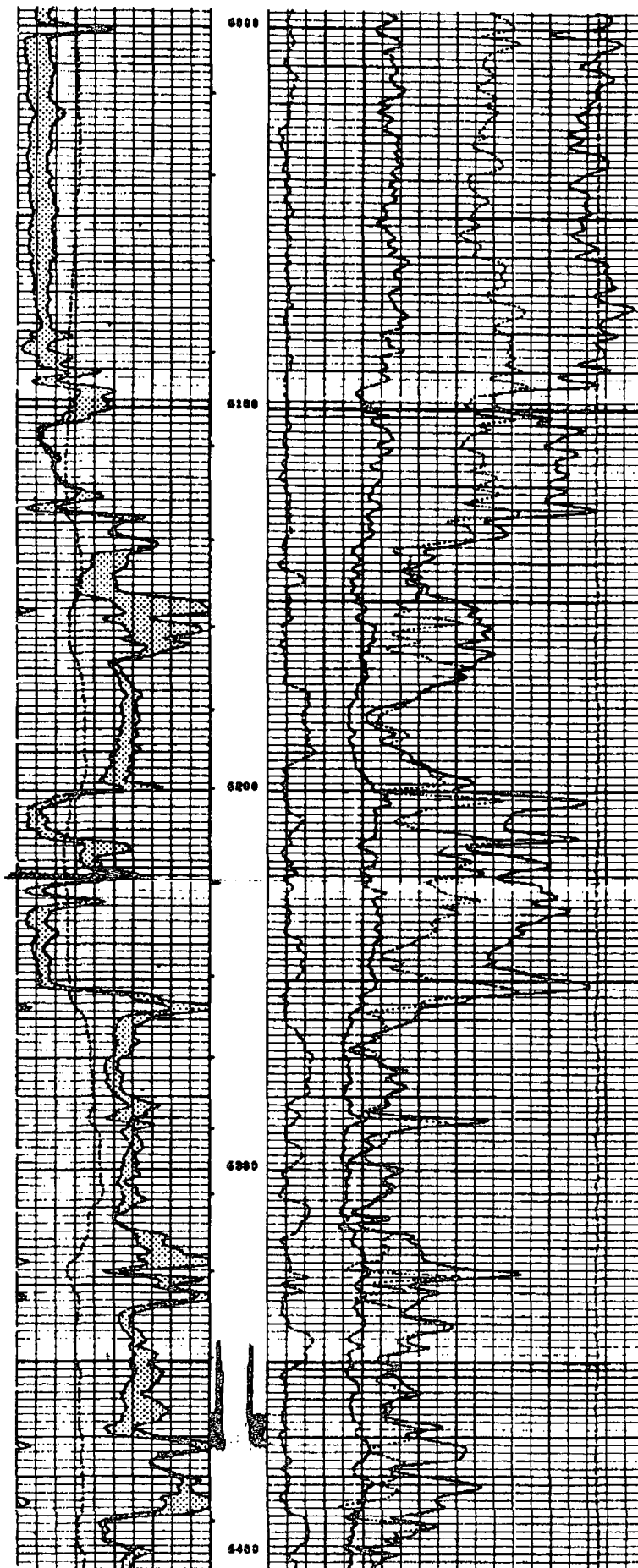
Lori Wrotenbery
LORI WROTENBERY
Director

LW/DRC

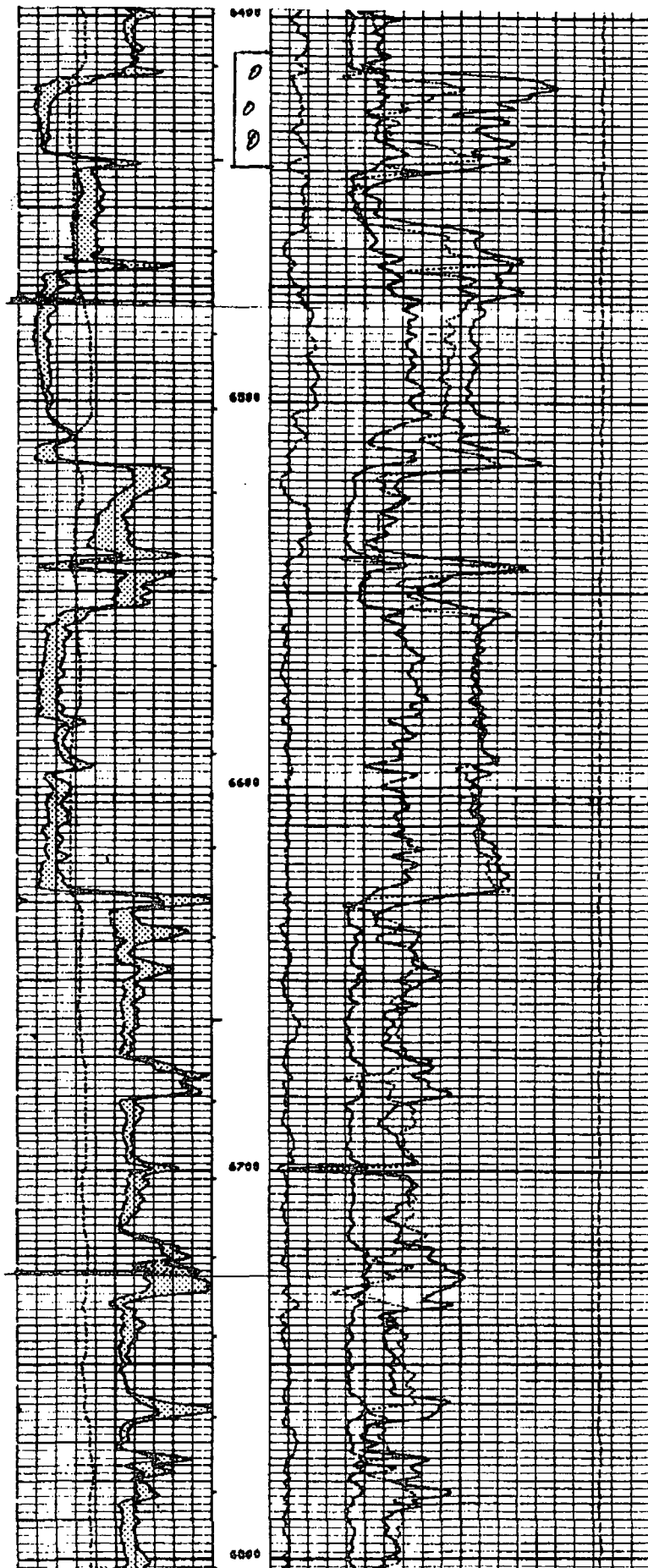
cc: Oil Conservation Division – Hobbs
State Land Office-Oil & Gas Division



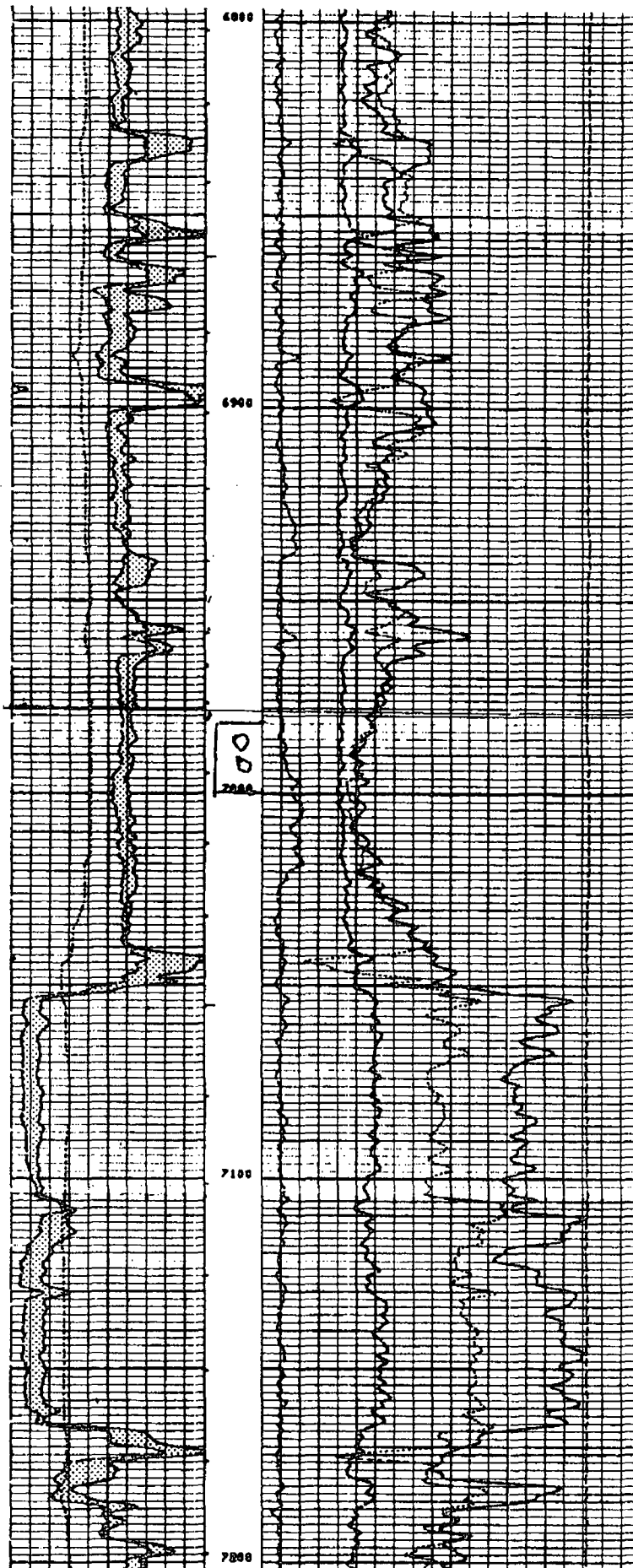
5775-5786
SQUEEZED 2008



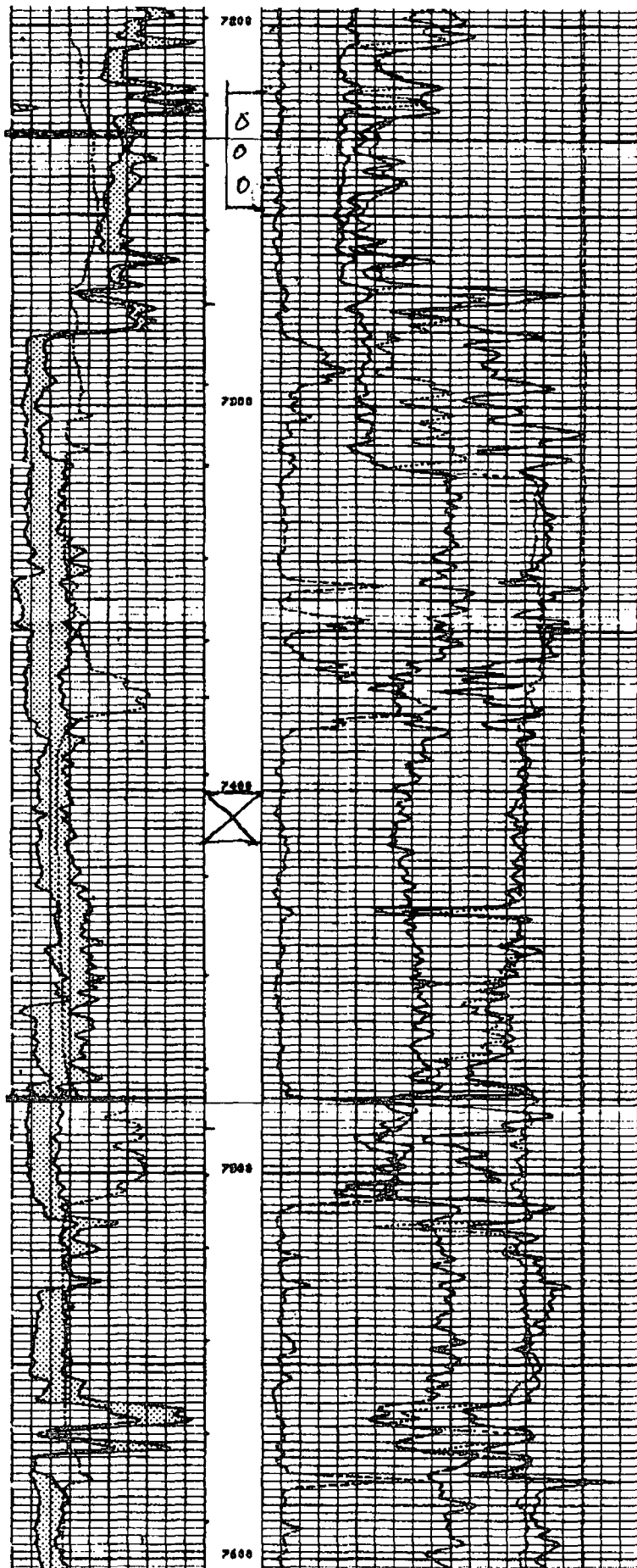
PRK. TOP @ 6,366'



6409' - 6439'



6,981' - 7,000'



7,217' - 7,248'

CIBP set @ 7,400' +
35' CMT 10/12/11

Basic Energy Services

State "NO" #1

1980' FNL. & 660' FWL Sec 7 T192-R36E

API #: 30-025-28468

Current

KB: 10'

Surface Hole

Bit Size: 17.5'

Inter. Hole

Bit Size: 11'

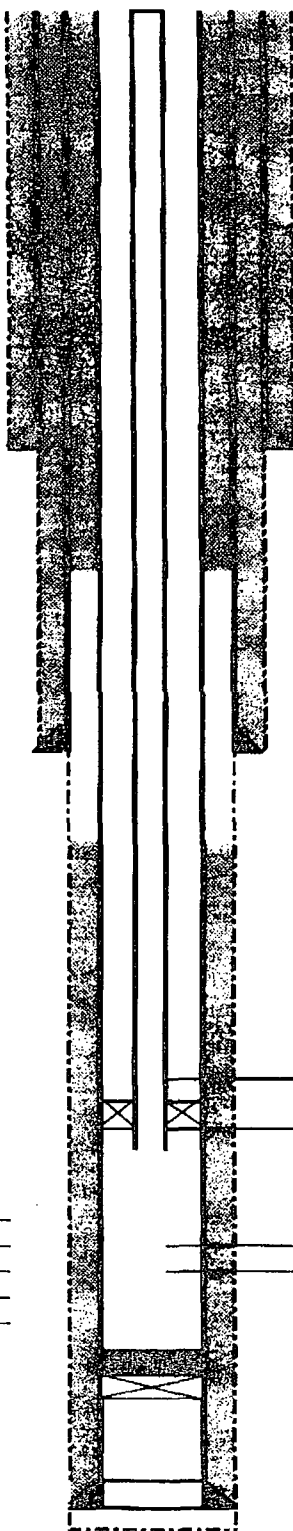
Cement Data:

Lead -

Tail -

Note -

Bit Size: 7-7/8'



TD @ 11,040'

Tree Connection: 2-7/8" 8rd

Surface Casing: 13-3/8" 48 & 72 # Csg

450 sks circulated

Setting Depth @ 429'

Squeeze 425 sks 2101' clt to surface

Squeeze 25 sks 4202'

Interm. Casing: 8-5/8" 32# & 24# Casing

2,400 sks circulated

Setting Depth: 4,140'

TOC - 5,900'

Squeeze 50 sks @ 5880'-5600'

TESD TO 600 PSI 10/11/11

(5775'-5786') Squeezed 2008 per C-103 Westall

2-7/8" J55 IPC set @ 6,366'

5 1/2 13-20# X 2 7/8 ASI-X W/CARBIDES
NICKLE PLATED 5 1/2 X 2 7/8 ON/OFF TOOL
W/SS TOP SUB 2 1/4 "F" SS PROFILE 2 7/8 FRAMEPerfs. @ 6,409' to 7,248' (6409'-6418') (6430'-6439)
(6981'-7000') (7217-7248)

PBTD: CIBP @ 7,400' 10/12/11

35' CMT on top of plug 10/12/11

Production Csg: 5-1/2" 17# & 15.5# Casing

975 sks w TOC 5,900' temp survey

Setting Depth @ 11,040'

Submit 1 Copy To Appropriate District
Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
October 13, 2009

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

WELL API NO.
30-025-28468

5. Indicate Type of Lease
STATE ☒ FEE ☐

6. State Oil & Gas Lease No.
VA-928

7. Lease Name or Unit Agreement Name
State NO

8. Well Number 1

9. OGRID Number 018862

10. Pool name or Wildcat SWD Delaware

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 SWD

2. Name of Operator Basic Energy Services, LP

3. Address of Operator
P.O Box 10460 Midland Tx, 79702

4. Well Location

Unit Letter E: 1980 feet from the N line and 660 feet from the W line
Section 7 Township 19 South Range 36 East NMPM County Lea

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

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 ☐

SUBSEQUENT REPORT OF:

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

OTHER

☒ Request Increase in Allowable Surface Injection Pressure

OTHER: ☐

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.

Accompanying this form are the results of a step-rate injection test performed on 5/7/12. The purpose of this test is to support a request for an increase in the maximum allowable surface injection pressure.

It has been determined that no fracture extension pressure occurred with the recording of 2,299 psi. Applying a safety factor of 50 psi. Basic Energy Services LP respectfully requests approval to increase the maximum allowable injection pressure to 2249 psi. Due to mechanical pump failure our test came to a stop at this point.

Spud Date:

Rig Release Date:

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

SIGNATURE  TITLE SENM District Fluid Area Superintendent DATE 5/9/12

Type or print name DAVID H. ALVARADO E-mail address: david.alvarado@basicenergyservices.com PHONE: 575.746.9663
For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____
Conditions of Approval (if any):