

DATE IN 01/08/2014	SUSPENSE	ENGINEER DG	LOGGED IN 01/10/2014	TYPE IPI	APP NO. PPRGI403857273
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ABOVE THIS LINE FOR DIVISION USE ONLY

462

**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 \_\_\_\_\_

*Chevron MidCont.  
 Central Vacuum Unit  
 #458  
 30-025-38640*

[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

2014 JAN 8 10 25 AM  
 PROPERTY CCD

[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.**

Carolyn Havnie  
 Print or Type Name

*Carolyn Havnie*  
 Signature

NM Petro Eng Tech Assistant  
 Title

1-6-14  
 Date

chay@chevron.com  
 e-mail Address



**Paul Brown**  
Petroleum Engineering

**MidContinent Business Unit**  
Chevron North America  
Exploration and Production  
Company  
15 Smith Road  
Midland, TX 79705  
Tel 432-687-7351  
Fax 432-687-7871  
PaulBrown@chevron.com

January 6, 2014

New Mexico Oil Conservation Division  
1200 South St. Francis Drive  
Santa Fe, NM 87505

Water Injection Pressure Increase Request

Injection Order WFX-835  
Maximum Wellhead Injection Pressure: 1,500 psi  
Central Vacuum Unit No. 458  
API No. 30-025-38640  
UL A, Sec 36-17S-34E, 1,153' FNL & 848' FEL  
Lea County, NM

Attn: Engineering Department:

Chevron respectfully requests that the maximum water allowable injection pressure for CVU Unit 458 be increased to 1,925 psi.

CVU Unit 458 was drilled as an injection well and is perforated from 4369' to 4781'. A step rate test was performed on the subject well and is attached for your review.

Chevron is requesting that the maximum water injection pressure be increased from its present rate of 1500 psi to 1,925 psi. Doing so will allow Chevron to utilize the full pressure capability of its injection facility. The maximum injection pressure on the CO2 will remain at 2200 psi. ✓

If additional information is required, please contact me at [PaulBrown@chevron.com](mailto:PaulBrown@chevron.com) or call me at 432-687-7351.

Sincerely,

Paul T. Brown  
Petroleum Engineer  
New Mexico Area  
Midland, TX

1925 psi  
- 50 psi / safety } water  
1875 psi } only

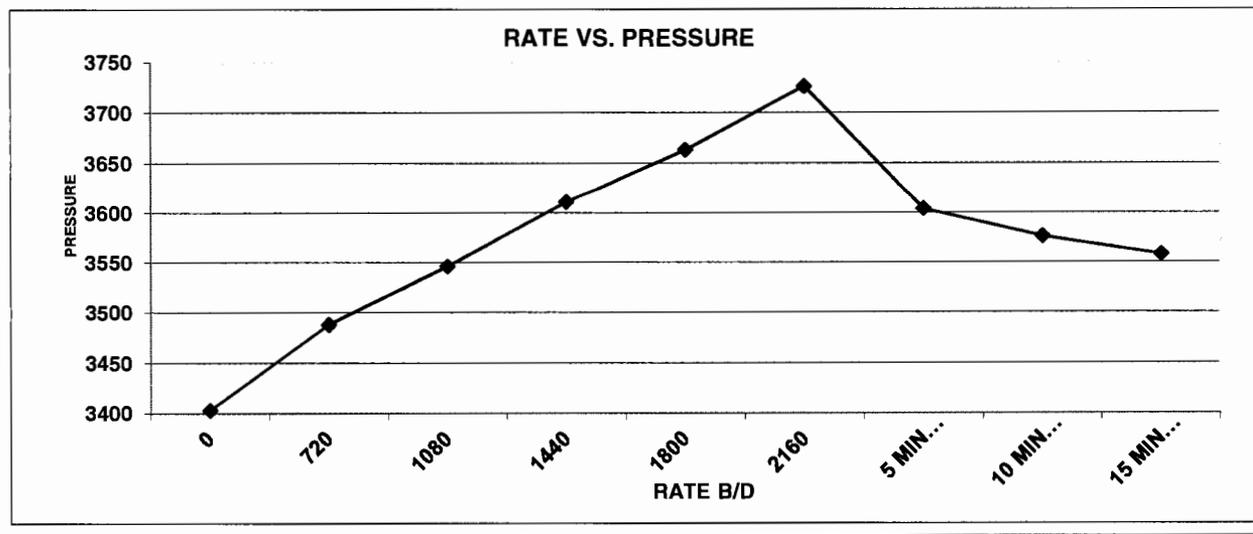
$$\frac{1875 \text{ psi}}{4369 \text{ ft}} = 0.43 \text{ psi/ft}$$



## STEP RATE TEST

graywsi2@aol.com

RATE B/D	Date	Time	BH PRESS	SURF. PRESS	Comments
0	12/18/2013	11:38 AM	3403	1400	
720	12/18/2013	11:55 AM	3488	1550	
1080	12/18/2013	12:10 PM	3546	1675	
1440	12/18/2013	12:26 PM	3611	1800	
1800	12/18/2013	12:41 PM	3663	1925	FRAC POINT
2160	12/18/2013	12:56 PM	3726	2075	
5 MIN FALL OFF	12/18/2013	1:01 PM	3604	1660	
10 MIN FALL OFF	12/18/2013	1:06 PM	3576	1630	
15 MIN FALL OFF	12/18/2013	1:11 PM	3558	1605	
Company:	CHEVRON			Recorded By:	T. STANCZAK
Well:	CENTRAL VACUUM UNIT # 458			Witnessed By:	
Field:	VACUUM			Truck Number:	104
County:	LEA			District:	LEVELLAND
State:	NEW MEXICO			Tool Number:	
Injecton	WATER			Test Type:	STEP RATE TESTS
Shut In Time:	1:01:00 PM			FRAC ACHIEVED @ 1800 B/D	
Total Shut In Time:	15 MIN.			3663 BOTTOM HOLE PRESSURE	
Tubing Size:	2.375"			1925 SURFACE PRESSURE	
Open Hole:	N/A				
Perforations:	4369'-4781'				
Plug Back Depth	4904'				



### CVU #458 Wellbore Diagram

Created: <u>01/08/09</u>	By: <u>BSPT</u>	Well #: <u>458</u>	St. Lse: <u>-</u>
Updated: <u>05/03/09</u>	By: <u>NCayce</u>	API: <u>30-025-38640</u>	
Updated: <u>06/04/09</u>	By: <u>N Cayce</u>		
Lease: <u>Central Vacuum Unit</u>		Unit Ltr.: <u>A</u>	Section: <u>36</u>
Field: <u>Vacuum Grayburg San Andres</u>		TSHP/Rng: <u>17S 34E</u>	
Surf. Loc.: <u>1153' FNL 848' FEL</u>		Unit Ltr.: _____	Section: _____
Bot. Loc.: _____		TSHP/Rng: _____	
County: <u>Lea</u> St.: <u>NM</u>		Directions: <u>Buckeye, NM</u>	
Status: <u>Injection well</u>		CHEVNO: <u>LC0823</u>	
		OGRID: <u>4323</u>	

**Surface Casing**

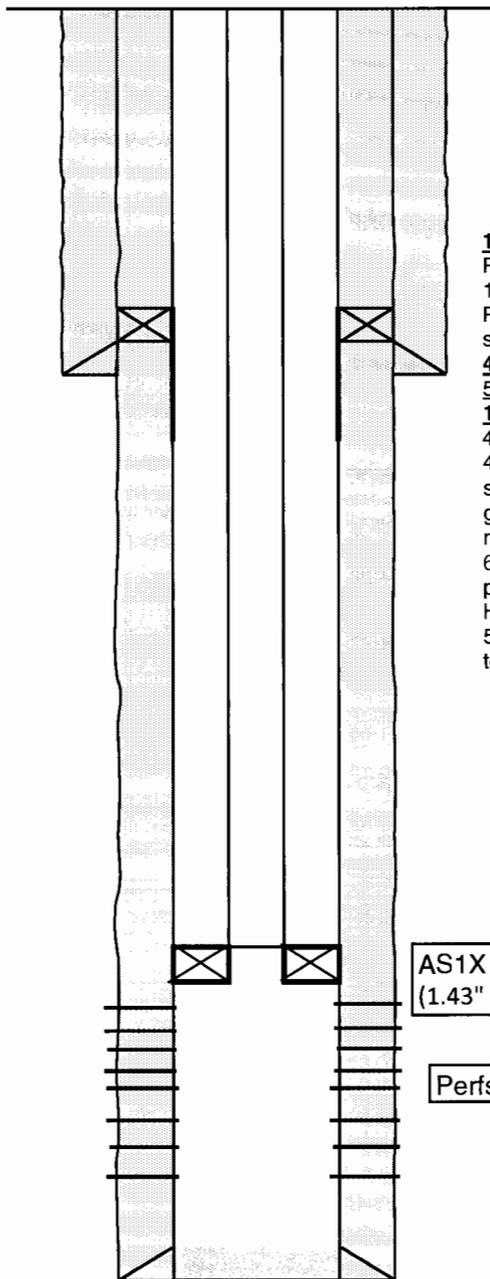
Size: <u>8 5/8"</u>
Wt., Grd.: <u>24#, J-55</u>
Depth: <u>1534'</u>
Sxs Cmt: <u>1,160</u>
Circulate: <u>360 sx</u>
TOC: <u>Surface</u>
Hole Size: <u>12 1/4"</u>

**Production Casing**

Size: <u>5 1/2"</u>
Wt., Grd.: <u>17#, J-55</u>
Depth: <u>5035'</u>
Sxs Cmt: <u>1,300</u>
Circulate: <u>470 sx</u>
TOC: <u>Surface</u>
Hole Size: <u>7 7/8"</u>

*Ryte-wrap csg f/ 1387'-1831'*  
*ECP @ ~1320*

2-3/8" Fiberline tbg  
 On/Off tool w/"F" 1.43 profile nipple



KB: <u>4,004</u>
DF: _____
GL: <u>3,993</u>
Ini. Spud: <u>11/17/08</u>
Ini. Comp.: <u>02/12/09</u>

**1/12/09 Perf & acidize:**

Perf 4369-4781. Acidize 4545-4624 w/6000 15% HCL w/175 ball sealers. Pump 10,000 gals 15% HCL w/300 ball sealers.

**4/09 Tag @ 4886'.** Tbg. press 1725.

**5/09 Tag @ 4889.** Tbg press 1795

**11/12 Re-Perf & Acidize:** Tag 4,930'. Perf 4764 - 82', 4746 - 60', 4728 - 36, 4708 - 20, 4464 - 71, 4454 - 64' (this is a guess report says 4464 - 94' which does not seem correct, gun are a max of 20' in length), 7th run not recorded, 4425 - 30', 4389 - 97', 4369 - 89 w/ 6 spf propellant charge (Stingun). Acidize perfs from 4,369 - 4,471' w/ 12,000g 15% HCl. Avg rate 7 BPM, avg press 3,360 psi. Set 5-1/2" AS1X pkr at 4,320' (1.43" PN & O/O tool).

AS1X Pkr @ 4320'  
(1.43" PN & O/O tool)

Perfs 4369-4781'

PBTD: <u>4,904</u>
TD: <u>5,035</u>