

ABOVE THIS LINE FOR DIVISION USE ONLY

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



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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 _____

Central Vacuum Unit
 30-025-41343
 CVU #170
 30-025-41344
 CVU #181
 Chevron

[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.

Carolyn Haynie
 Print or Type Name

Carolyn Haynie
 Signature

NM Petro Eng Tech Assistant
 Title

9.25.13
 Date

chay@chevron.com
 e-mail Address

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: X Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? Yes No

II. OPERATOR: CHEVRON U.S.A., INC.

ADDRESS: 15 SMITH ROAD; MIDLAND, TX 79705

CONTACT PARTY: CAROLYN HAYNIE PHONE: 432-687-7261

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? X Yes No
If yes, give the Division order number authorizing the project: R-5530-E

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review. ATTACHED

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail. ATTACHED

VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected; **2,000 BWPD and 4,000 MCFPD**
2. Whether the system is open or closed; **CLOSED**
3. Proposed average and maximum injection pressure; **1500 PSI, when injecting Water and, 2200 PSI when injection CO2.**
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and, **CO2 for Injection will either be purchased or CVU produced gas that is stripped of NGLs & Re-injected.**
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.). **Injection is not for disposal purposes, but for Oil production enhancement.**

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval. **Grayburg San Andres formation, Proposed Injection Zone, 4020' - 5100'.**

IX. Describe the proposed stimulation program, if any. **The Injection wells will be acid stimulated w/15% HCL.**

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

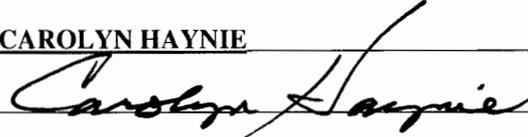
*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form. **Attached, (Hobbs News Sun).**

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: CAROLYN HAYNIE TITLE: Petro Eng. Tech Assistant

SIGNATURE:  DATE: 9-30-13

E-MAIL ADDRESS: chay@chevron.com If the information required under

Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

ATTACHED

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any. ATTACHED

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days. ATTACHED

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET

OPERATOR: CHEVRON U.S.A. INC.

WELL NAME & NUMBER: CENTRAL VACUUM UNIT # 170

WELL LOCATION: 2490' FSL & 500' FWL UNIT L; SEC. 36, T17S, R34E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

CVU 170

Created: 9/3/2013 By: Chay
 Updated: By:
 Updated: By:
 Updated: By:
 Lease: Central Vacuum Unit
 Field: Vacuum (Grayburg-San Andres)
 Surf. Loc.: 2490' FSL & 500' FWL
 Bot. Loc.: 2490' FSL & 500' FWL
 County: Lea St.: NM
 Status: New Water Injector

Well #: 170 St. Lse:
 API: 30-025-41343
 Unit Ltr.: L Section: 36
 TSHP/Rng: T17S & R34E
 Bottom Hole Location
 Unit Ltr.: L Section: 36
 TSHP/Rng: T17S & R34E
 CHEVNO: NW2154
 Directions: Buckeye, NM

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 14-3/4" Casing Size: 11-3/4"
 Cemented with: 1300 sx. *or* _____ ft³
 Top of Cement: Surface Method Determined: Circulation

Intermediate Casing

Hole Size: 11" Casing Size: 8-5/8"
 Cemented with: 750 sx. *or* _____ ft³
 Top of Cement: Surface Method Determined:

Production Casing

Hole Size: 7-7/8" Casing Size: 5-1/2'
 Cemented with: 1150 sx. *or* _____ ft³
 Top of Cement: Surface Method Determined: Circulation

Total Depth: 5300' Proposed

Injection Interval

4100' feet to 5100'

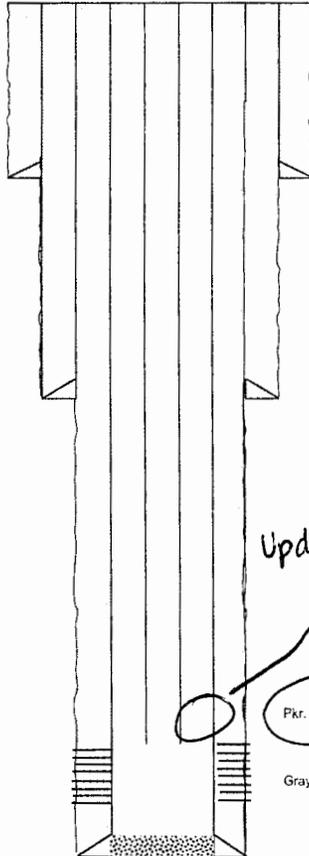
(New Well)

Proposed
Surface Casing
 Size: 11-3/4"
 Wt. Grd: 42#
 Depth: 1500'
 Sxs Cmt: 1300 sxs
 Circulate: Yes
 TOC: Surface
 Hole Size: 14-3/4"

Proposed
Intermediate Casing
 Size: 8 5/8"
 Wt. Grd: 32#
 Depth: 3200'
 Sxs Cmt: 750 sxs
 Circulate: Yes
 TOC: Surface
 Hole Size: 11"

Proposed
Production Casing
 Size: 5-1/2"
 Wt. Grd: 17#
 Depth: 5300'
 Sxs Cmt: 1150 sxs
 Circulate: Yes
 TOC: Surface
 Hole Size: 7-7/8"

Proposed Wellbore Diagram



KB
DF
GL 4001'
Ini Spud:
Ini Comp:

*Updated diagram
 10/22/13 attached*

INJECTION WELL DATA SHEET

Tubing Size: 2-3/8" Lining Material: Fiberglass

Type of Packer: 5-1/2" Nickel plated Internally plastic coated Inj pkr

Packer Setting Depth: +/- 10' Above Top perf

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? X Yes No

If no, for what purpose was the well originally drilled? _____

2. Name of the Injection Formation: Grayburg - San Andres

3. Name of Field or Pool (if applicable): Central Vacuum Unit

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.

No

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: _____

Glorieta (5850-6200')

CVU 170

Created:	9/3/2013	By:	Chay
Updated:	10/22/13	By:	Chay
Updated:		By:	
Updated:		By:	
Lease:	Central Vacuum Unit		
Field:	Vacuum (Grayburg-San Andres)		
Surf. Loc.:	2490' FSL & 500' FWL		
Bot. Loc.:	2490' FSL & 500' FWL		
County:	Lea	St.:	NM
Status:	New Water Injector		

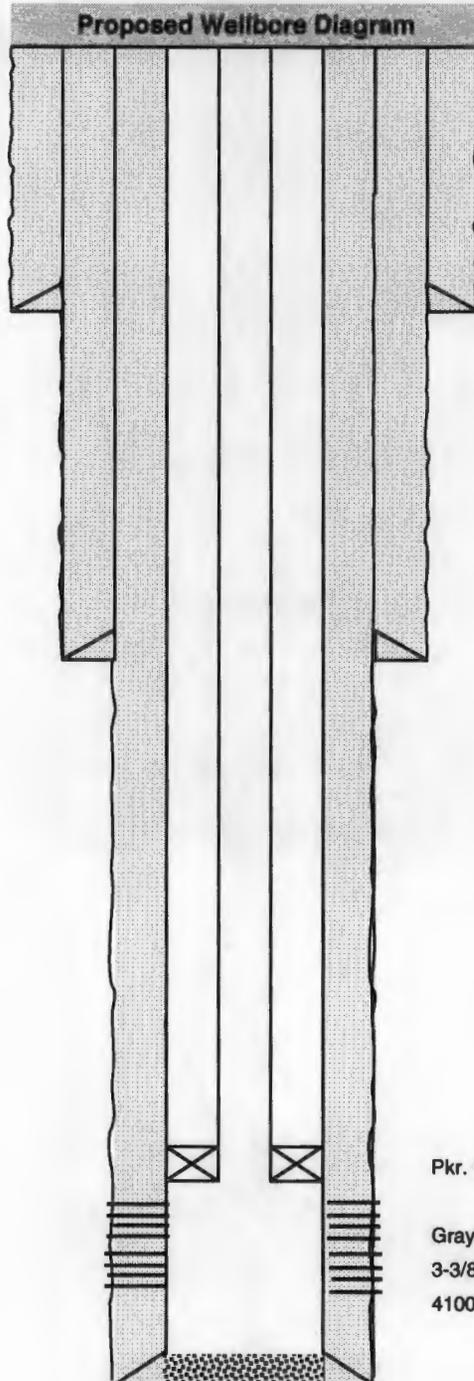
Well #:	170	St. Lse:	
API	30-025-41343		
Unit Ltr.:	L	Section:	36
TSHP/Rng:	T17S & R34E		

Bottom Hole Location			
Unit Ltr.:	L	Section:	36
TSHP/Rng:	T17S & R34E		
CHEVNO:	NW2154		
Directions:	Buckeye, NM		

Proposed	
Surface Casing	
Size:	11-3/4"
Wt., Grd.:	42#
Depth:	1500'
Sxs Cmt:	1300 sxs
Circulate:	Yes
TOC:	Surface
Hole Size:	14-3/4"

Proposed	
Intermediate Casing	
Size:	8 5/8"
Wt., Grd.:	32#
Depth:	3200'
Sxs Cmt:	750 sxs
Circulate:	Yes
TOC:	Surface
Hole Size:	11"

Proposed	
Production Casing	
Size:	5-1/2"
Wt., Grd.:	17#
Depth:	5300'
Sxs Cmt:	1150 sxs
Circulate:	Yes
TOC:	Surface
Hole Size:	7-7/8"



KB:	
DF:	
GL:	4001'
Ini. Spud:	11/6/2013-est
Ini. Comp.:	12/6/2013-est

Pkr. @ 4090' (10' above top perf)

Grayburg San Andres Perfs:
3-3/8" guns w/2 JSPF, 120 deg PH
4100' to 5100'

PBTD:
TD: 5300'

CVU 170

API No. 30-025-41343

Completion Procedure

1. RU PU
2. NU tubing head (if not completed by drilling rig)
3. RU wireline & log as follows:
 - a. SGR(spectral GR) - RAL (Radial Cement Bond Log) - CNL (Compensated Neutron) from PBTD to 2,800. Run the RAL log with 0 psi on the repeat pass & 1000 psi on the main pass.
 - b. From 2,800 – Surface, continue with the GR-CNL.
 - c. Run repeat section from TD to 4000’.
4. Perforate the 5-1/2” casing in the main pay interval as per the technical team recommendation using 3-3/8” guns w/ 2 JSPF @ 120 degree phasing (perfs will be within the interval of 4,020 – 5,100’).
5. Acidize perfs with 20,000 gallons 15% NEFE HCl.
6. TIH with 4-3/4” MT bit & 6 x 3-1/2” DC’s on 2-7/8” 6.5# L80 workstring and CO to float collar.
7. Circ hole clean.
8. TOH LD WS, DC’s & bit.
9. RIH with 2-3/8” Fiberlined injection tubing with on-off tool and 1.43” ID ‘F’ profile nipple and 5-1/2” Arrow Set IX. Set packer +/- 10’ above top perf.
10. Load annulus with packer fluid
11. Perform MIT.
12. RD PU
13. Put well on injection.



Chevron USA

Vacuum Field

Central Vacuum Unit 170

C-108 Half Mile Radius

Section 36, T17S R34E

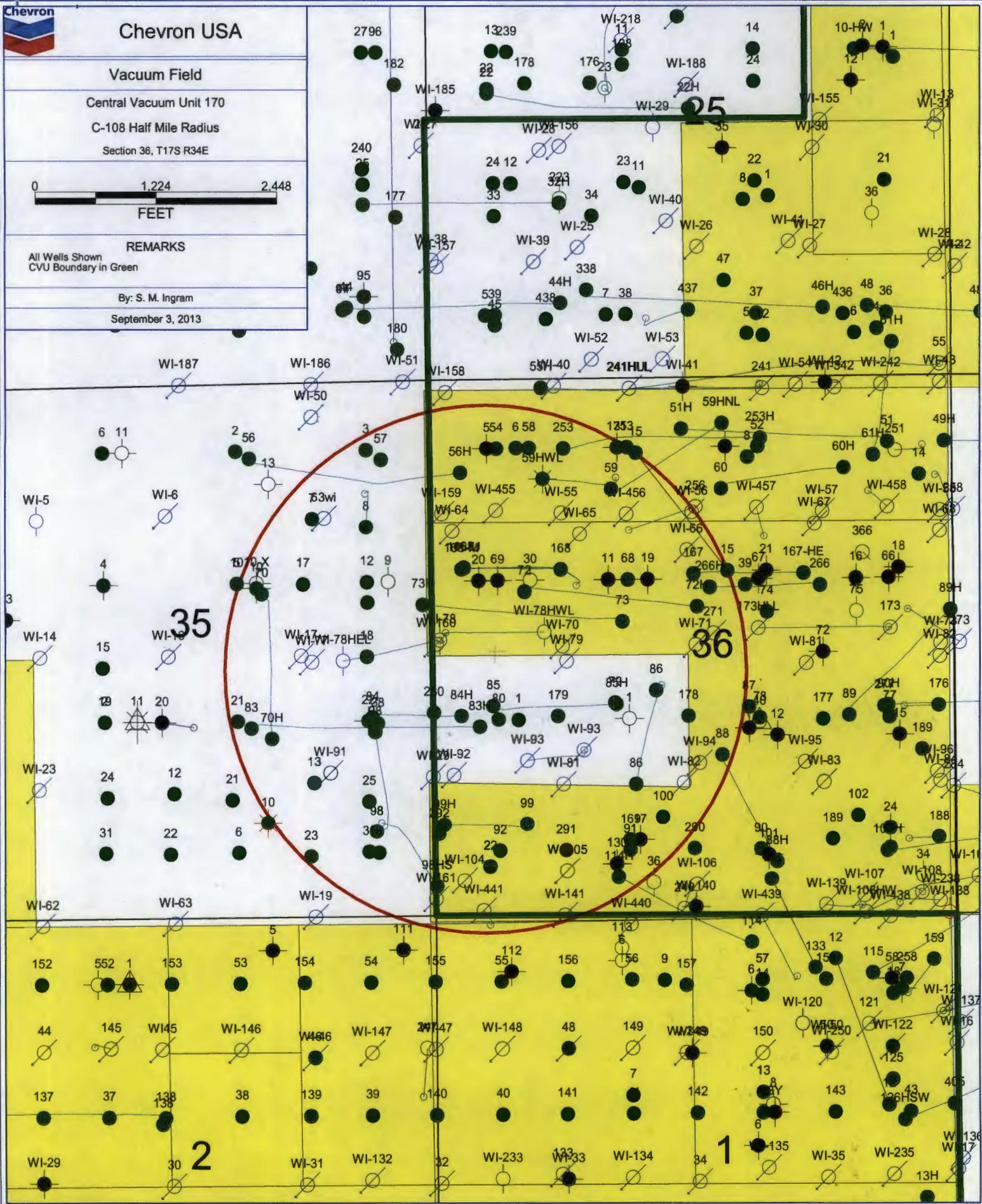


REMARKS

All Wells Shown
CVU Boundary in Green

By: S. M. Ingram

September 3, 2013





Chevron USA

Vacuum Field

Central Vacuum Unit 170

C-108 Two Mile Radius

Section 36, T17S R34E

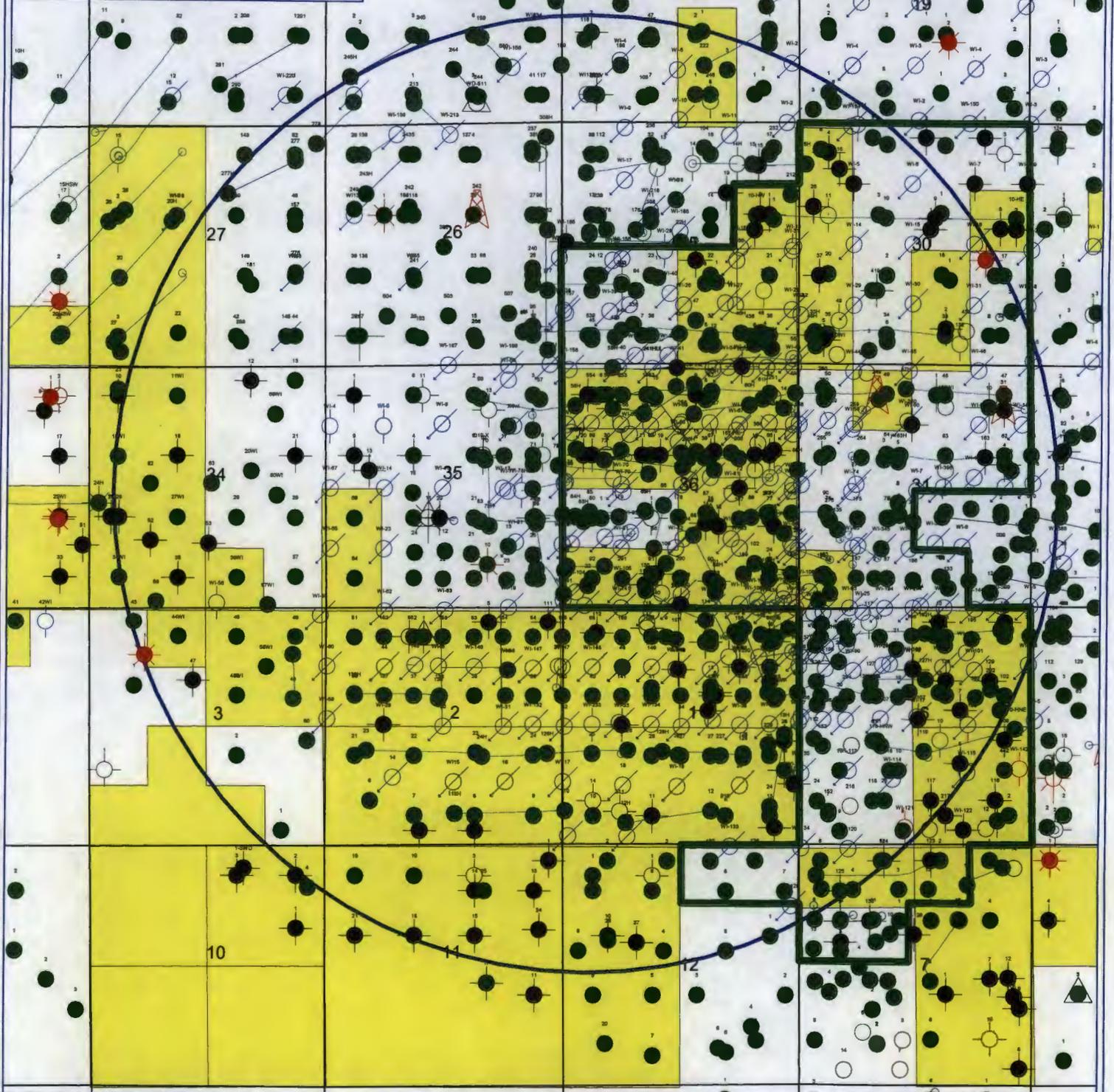


REMARKS

All Wells Shown
CVU Boundary in Green

By: S. M. Ingram

September 3, 2013



NOTIFICATION LIST

Prepared 9/3/2013 by Daniel Pequeno, Senior Land Representative

Application of Chevron U.S.A. Inc. for Administrative Approval of a Water Injection Well
Location:

Central Vacuum Unit Well No. 170, API #30-025-41343
2,490' FSL & 500' FWL of Section 36, T-17-S, R-34E, Unit Letter L
Lea County, New Mexico

Offset Operators, Leaseholders, Working Interest Owners, for E/2 of Section 35, T17S-R34E:

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

McGowan Working Interest Partners, Inc.
P. O. Box 55809
Jackson, MS 39296-5809

ConocoPhillips Petroleum Company
P. O. Box 2197
Houston, Texas 77252-2197

Offset Operators, Leaseholders, Working Interest Owners, for All of Section 36, T17S-R34E:

Mobil Producing Texas & New Mexico Inc.
c/o XTO Energy Inc.
Attn.: Permian Land
810 Houston Street
Fort Worth, Texas 76102

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

Offset Operators, Leaseholders, Working Interest Owners, for All of Section 1, T17S-R34E:

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

Surface Owner for All of Section 36, T-17-S-R35E:

State of New Mexico
Commissioner of Public Lands
P. O. Box 1148
Santa Fe, New Mexico 87504-1148

Signed by: Daniel Pequeno (signed)
Daniel Pequeno, Senior Landman

Date: September 3, 2013

INJECTION WELL DATA SHEET

OPERATOR: CHEVRON U.S.A. INC.

WELL NAME & NUMBER: CENTRAL VACUUM UNIT # 181

WELL LOCATION: 1420' FSL & 730' FWL UNIT L; SEC. 36, T17S, R34E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

CVU 181

Created: 9/3/2013 By: Chay
 Updated: By:
 Updated: By:
 Updated: By:
 Lease: Central Vacuum Unit
 Field: Vacuum (Grayburg-San Andres)
 Surf. Loc.: 1420' FSL & 730' FWL
 Bot. Loc.: 1420' FSL & 730' FWL
 County: Lea St.: NM
 Status: New Water Injector

Well #: 181 St. Lse:
 API: 30-025-41344
 Unit Ltr.: L Section: 36
 TSHP/Rng: T17S & R34E

Bottom Hole Location
 Unit Ltr.: L Section: 36
 TSHP/Rng: T17S & R34E
 CHEVNO: NW2155
 Directions: Buckeye, NM

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 14-3/4" Casing Size: 11-3/4"

Cemented with: 1300 sx. or _____ ft³

Top of Cement: Surface Method Determined: Circulation

Intermediate Casing

Hole Size: 11" Casing Size: 8-5/8"

Cemented with: 750 sx. or _____ ft³

Top of Cement: Surface Method Determined:

Production Casing

Hole Size: 7-7/8" Casing Size: 5-1/2'

Cemented with: 1150 sx. or _____ ft³

Top of Cement: Surface Method Determined: Circulation

Total Depth: 5300' Proposed

Injection Interval

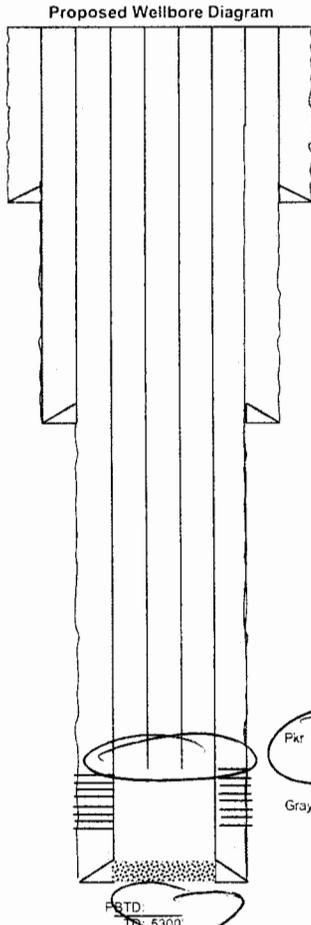
4100' feet to 5100'

(New Well)

Proposed
Surface Casing
 Size: 11-3/4"
 Wt. Grd: 42#
 Depth: 1500'
 Sxs Cmt: 1300 sxs
 Circulate: Yes
 TOC: Surface
 Hole Size: 14-3/4"

Proposed
Intermediate Casing
 Size: 8-5/8"
 Wt. Grd: 32#
 Depth: 3200'
 Sxs Cmt: 750 sxs
 Circulate: Yes
 TOC: Surface
 Hole Size: 11"

Proposed
Production Casing
 Size: 5-1/2"
 Wt. Grd: 17#
 Depth: 5300'
 Sxs Cmt: 1150 sxs
 Circulate: Yes
 TOC: Surface
 Hole Size: 7-7/8"



KB
DF
GL: 3992'
Ini Spud
Ini Comp

Need add to diagram

Pkt @

Grayburg San Andres Perfs.

P.B.T.D.
 TB: 5300'

INJECTION WELL DATA SHEET

Tubing Size: 2-3/8" Lining Material: Fiberglass

Type of Packer: 5-1/2" Nickel plated Internally plastic coated Inj pkr

Packer Setting Depth: +/- 10' Above Top perf

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? X Yes No

If no, for what purpose was the well originally drilled? _____

2. Name of the Injection Formation: Grayburg - San Andres

3. Name of Field or Pool (if applicable): Central Vacuum Unit

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.

No

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: _____

Glorieta (5850-6200')

CVU 181

Created:	9/3/2013	By:	Chay
Updated:	10/22/13	By:	Chay
Updated:		By:	
Updated:		By:	
Lease:	Central Vacuum Unit		
Field:	Vacuum (Grayburg-San Andres)		
Surf. Loc.:	1420' FSL & 730' FWL		
Bot. Loc.:	1420' FSL & 730' FWL		
County:	Lea	St.:	NM
Status:	New Water Injector		

Well #:	181	St. Lse:	
API	30-025-41344		
Unit Ltr.:	L	Section:	36
TSHP/Rng:	T17S & R34E		

Bottom Hole Location			
Unit Ltr.:	L	Section:	36
TSHP/Rng:	T17S & R34E		
CHEVNO:	NW2155		
Directions:	Buckeye, NM		

Proposed

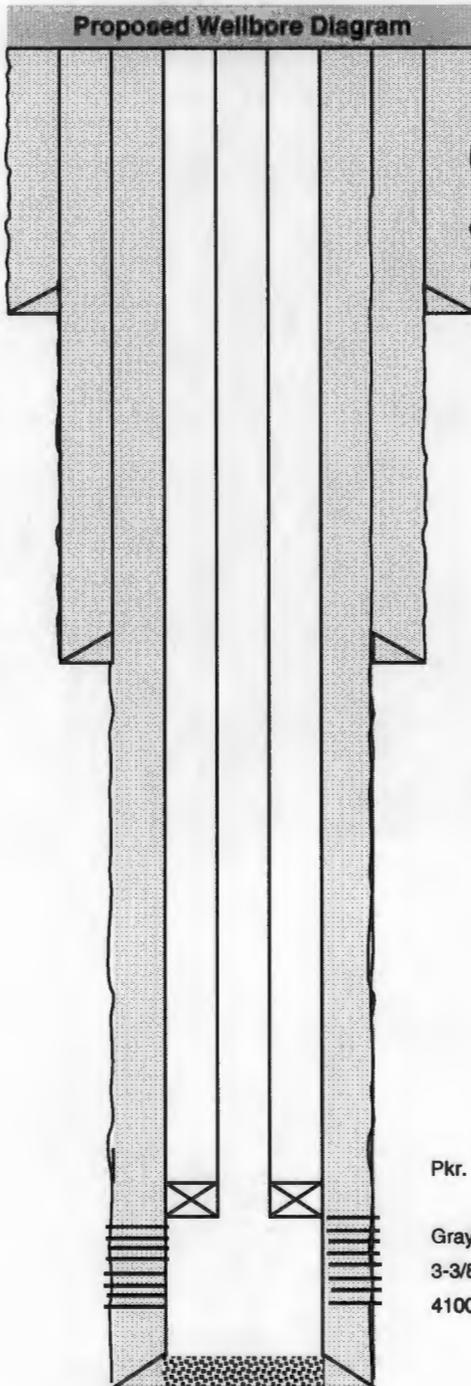
Surface Casing	
Size:	11-3/4"
Wt., Grd.:	42#
Depth:	1500'
Sxs Cmt:	1300 sxs
Circulate:	Yes
TOC:	Surface
Hole Size:	14-3/4"

Proposed

Intermediate Casing	
Size:	8 5/8"
Wt., Grd.:	32#
Depth:	3200'
Sxs Cmt:	750 sxs
Circulate:	Yes
TOC:	Surface
Hole Size:	11"

Proposed

Production Casing	
Size:	5-1/2"
Wt., Grd.:	17#
Depth:	5300'
Sxs Cmt:	1150 sxs
Circulate:	Yes
TOC:	Surface
Hole Size:	7-7/8"



KB:	
DF:	
GL:	3992'
Ini. Spud:	11-20-13-est
Ini. Comp.:	12-20-13-est

Pkr. @ 4090' (10' above top perf)

Grayburg San Andres Perfs:
 3-3/8" guns w/2 JSPF, 120 deg PH
 4100' to 5100'

PBTD:
 TD: 5300'

CVU 181

API No. 30-025-41344

Completion Procedure

1. RU PU
2. NU tubing head (if not completed by drilling rig)
3. RU wireline & log as follows:
 - a. SGR(spectral GR) - RAL (Radial Cement Bond Log) - CNL (Compensated Neutron) from PBTD to 2,800. Run the RAL log with 0 psi on the repeat pass & 1000 psi on the main pass.
 - b. From 2,800 – Surface, continue with the GR-CNL.
 - c. Run repeat section from TD to 4000’.
4. Perforate the 5-1/2” casing in the main pay interval as per the technical team recommendation using 3-3/8” guns w/ 2 JSPF @ 120 degree phasing (perfs will be within the interval of 4,020 – 5,100’).
5. Acidize perfs with 20,000 gallons 15% NEFE HCl.
6. TIH with 4-3/4” MT bit & 6 x 3-1/2” DC’s on 2-7/8” 6.5# L80 workstring and CO to float collar.
7. Circ hole clean.
8. TOH LD WS, DC’s & bit.
9. RIH with 2-3/8” Fiberlined injection tubing with on-off tool and 1.43” ID ‘F’ profile nipple and 5-1/2” Arrow Set IX. Set packer +/- 10’ above top perf.
10. Load annulus with packer fluid
11. Perform MIT.
12. RD PU
13. Put well on injection.



Chevron USA

Vacuum Field

Central Vacuum Unit 181

C-108 Two Mile Radius

Section 36, T17S R34E

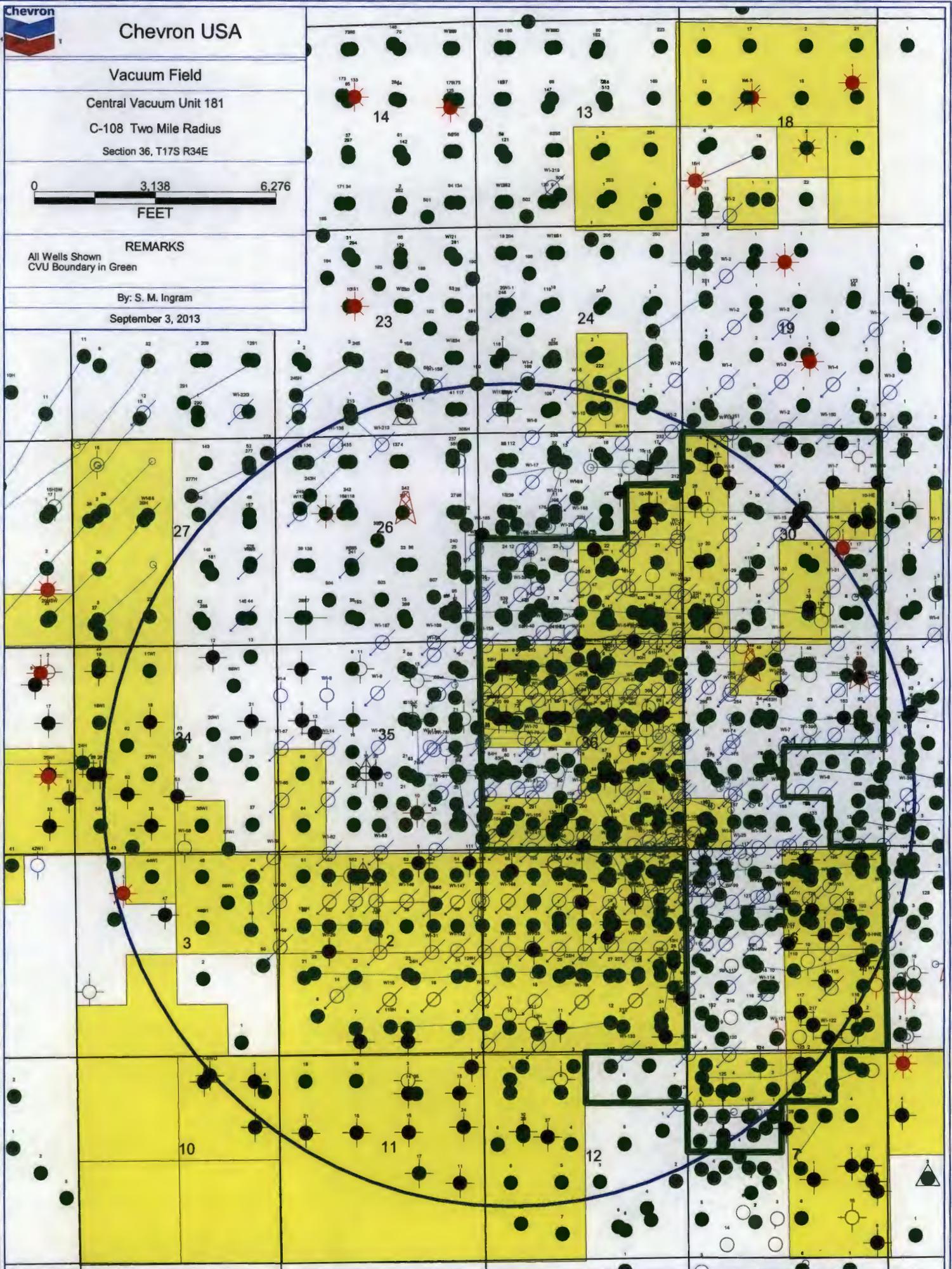


REMARKS

All Wells Shown
CVU Boundary in Green

By: S. M. Ingram

September 3, 2013



NOTIFICATION LIST

Prepared 9/3/2013 by Daniel Pequeno, Senior Land Representative

Application of Chevron U.S.A. Inc. for Administrative Approval of a Water Injection Well
Location:

Central Vacuum Unit Well No. 181, API #30-025-41344

1,420' FSL & 730' FWL of Section 36, T-17-S, R-34E, Unit Letter L
Lea County, New Mexico

Offset Operators, Leaseholders, Working Interest Owners, for E/2 of Section 35, T17S-R34E:

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

McGowan Working Interest Partners, Inc.
P. O. Box 55809
Jackson, MS 39296-5809

ConocoPhillips Petroleum Company
P. O. Box 2197
Houston, Texas 77252-2197

Offset Operators, Leaseholders, Working Interest Owners, for All of Section 36, T17S-R34E:

Mobil Producing Texas & New Mexico Inc.
c/o XTO Energy Inc.
Attn.: Permian Land
810 Houston Street
Fort Worth, Texas 76102

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

Offset Operators, Leaseholders, Working Interest Owners, for All of Section 1, T17S-R34E:

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

Surface Owner for All of Section 36, T-17-S-R35E:

State of New Mexico
Commissioner of Public Lands
P. O. Box 1148
Santa Fe, New Mexico 87504-1148

Signed by: Daniel Pequeno (signed)
Daniel Pequeno, Senior Landman

Date: September 3, 2013

News Wells Added within 1/2 Mile radius for Order R-5530-E													
Section 1 & Sec 36, T17S & T18S, R34E, Lea County, NM													
Well	Wells	API	Status	Lease	Pool	Unit Letter	Sec	Location	Twnshp	Rng	Co	TD	
Central Vacuum Unit # 170													
	CVU 455	30-025-38637	Active Injector	Central Vacuum Unit	VGSA	D	36	1310' FNL & 660' FWL	T17S	R34E	Lea	5320'	
	CVU 456	30-025-38638	Active Injector	Central Vacuum Unit	VGSA	F	36	1360' FNL & 1980' FWL	T17S	R34E	Lea	5010'	
	VGSAU 441	30-025-38788	Active Injector	Vacuum Grayburg San Andres Unit	VGSA	D	1	170' FNL & 710' FWL	T18S	R34E	Lea	5007'	
Central Vacuum Unit # 181													
	CVU 455	30-025-38637	Active Injector	Central Vacuum Unit	VGSA	D	36	1310' FNL & 660' FWL	T17S	R34E	Lea	5320'	
	VGSAU 440	30-025-38787	Active Injector	Vacuum Grayburg San Andres Unit	VGSA	C	1	100' FNL & 1980' FWL	T18S	R34E	Lea	5020'	
	VGSAU 441	30-025-38788	Active Injector	Vacuum Grayburg San Andres Unit	VGSA	D	1	170' FNL & 710' FWL	T18S	R34E	Lea	5007'	
	NM 'O' State (NCT-1) # 40	30-025-38140	Active Injector	New Mexico 'O' State NCT-1	Devonian	J	36	1885' FSL & 1978' FEL	T17S	R34E	Lea	13000'	

SWD-1051

CVU #455 Wellbore Diagram

Created: 06/18/08 By: NCayce
 Updated: 08/19/08 By: NCayce
 Updated: 11/06/08 By: Jcooper
 Lease: Central Vacuum Unit
 Field: Vacuum Grayburg San Andres
 Surf. Loc.: 1310' FNL 660' FWL
 Bot. Loc.: _____
 County: Lea St.: NM
 Status: Injector

Well #: 455 St. Lse: _____
 API: 30-025-38637
 Unit Ltr.: D Section: 36
 TSHP/Rng: 17S 34E
 Unit Ltr.: _____ Section: _____
 TSHP/Rng: _____
 Directions: Buckeye, NM
 Chevno: LC0286

Surface Casing

Size: 13 3/8"
 Wt., Grd.: 42# H-40
 Depth: 451'
 Sxs Cmt: 560
 Circulate: 200 sx
 TOC: Surface
 Hole Size: 17 1/2"

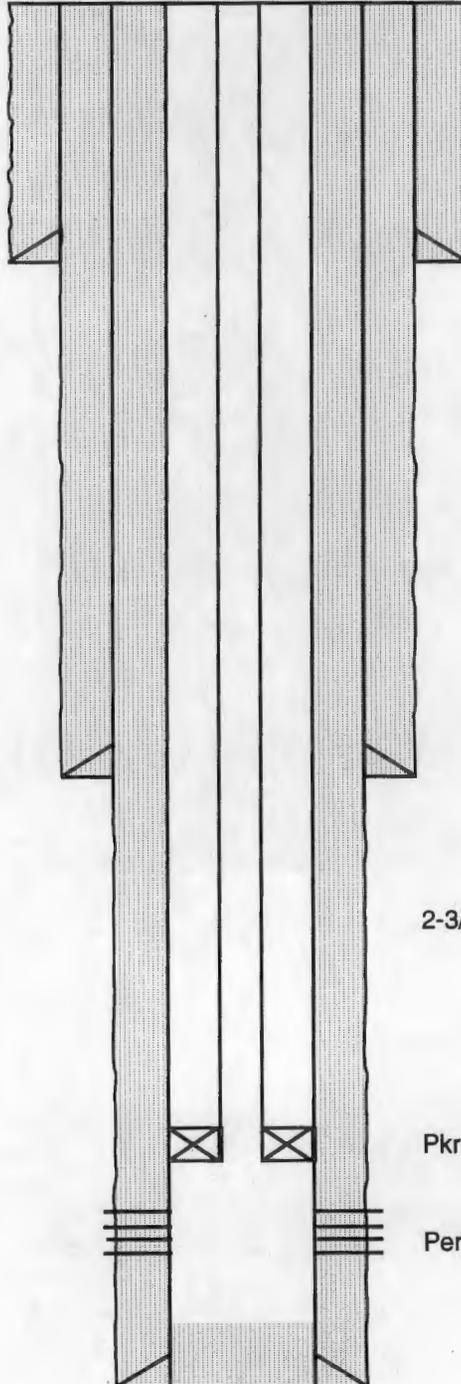
KB: 4033'
 DF: 4032'
 GL: 4008'
 Ini. Spud: 05/13/08
 Ini. Comp.: 06/16/08

Intermediate Casing

Size: 9 5/8"
 Wt., Grd.: 36# J-55
 Depth: 3190'
 Sxs Cmt: 1760
 Circulate: 465 sx
 TOC: Surface
 Hole Size: 12 1/4"

Production Casing

Size: 7"
 Wt., Grd.: 23# J-55
 Depth: 5312'
 Sxs Cmt: 1240
 Circulate: 110 sx
 TOC: Surface
 Hole Size: 8 1/2"



2-3/8" Fiberlined Inj. Tubing

Pkr w/ on-off tool (1.5" PN) @ 4345'

Perfs: 4393' - 4782'

PBTD: 5,045
 TVD: 5,320

CVU #456 Wellbore Diagram

Created: 07/01/08 By: NC
 Updated: 08/11/08 By: NC
 Updated: 11/06/08 By: Jcooper
 Updated: 12/04/08 By: NC
 Lease: Central Vacuum Unit
 Field: Central Vacuum Unit
 Surf. Loc.: 1360' FNL 1980' FWL
 Bot. Loc.: _____
 County: Lea St.: NM
 Status: Injector

Well #: 456 St. Lse: _____
 API: 30-025-38638

 Unit Ltr.: F Section: 36
 TSHP/Rng: 17S 34E
 Unit Ltr.: _____ Section: _____
 TSHP/Rng: _____
 Directions: Buckeye, NM
 CHEVNO: LC0285

Surface Casing

Size: 8 5/8"
 Wt., Grd.: 24# J-55
 Depth: 1625'
 Sxs Cmt: 1240
 Circulate: 350 sx
 TOC: Surface
 Hole Size: 12 1/4"

Production Casing

Size: 5 1/2"
 Wt., Grd.: 17# J-55
 Depth: 5010'
 Sxs Cmt: 1,100
 Circulate: 49 sx
 TOC: Surface
 Hole Size: 7 7/8"

KB: 4,026
 DF: 4,025
 GL: 4,003
 Ini. Spud: 06/19/08
 Ini. Comp.: 08/05/08

History

8/08 Completion: Perfs 4363-66,4388-96,4400-4405,4408-12,4437-40,4440-46,4454-56,4458-60,4468-74.' Acidize 4363-4478 w/4500 gals 15% HCL divert w/140 ball sealers. Balled out three times.
 Perfs: 4526-28, 4531-33, 4538-40, 4563-66, 4586-94, 4596-4606,4604-06,4612-16, 4628-34. Acidize 4526-4634' w/3500 gals 15% HCL w/130 ball sealers to divert. Balled out three times.
 Perfs: 4656-4660,4666-74,4684-91, 4695-4708,4712-20,4722-32,4740-48, 4755-64,4767-74,4778-82.' Acidize 4656-4785 w/8000 gals 15% HCL w/325 ball sealers for diverting. No ball action.
 C/O to 4720.'
 10/1/2008 Started CO2 injection

Tubing: 137 jts 2-7/8" J-55

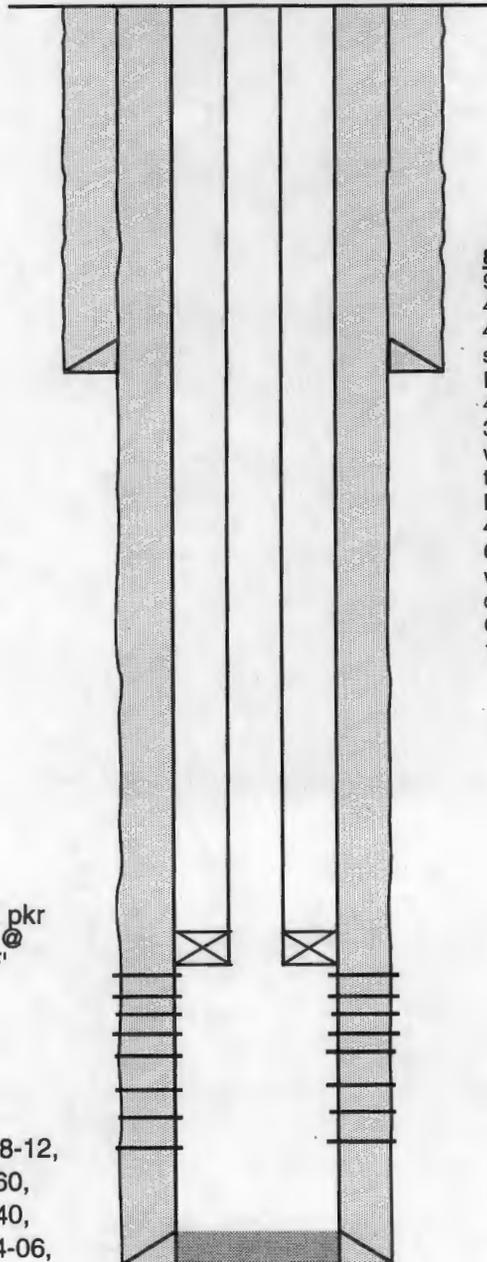
Arrowset 1-X pkr
 w/on-off tool @
 4300' (1.5" 'F'
 Profile)

Perf interval - 4363-4782'

Detailed Perfs:

4363-66, 4388-96, 4400-4405, 4408-12,
 4437-40, 4440-46, 4454-56, 4458-60,
 4468-74, 4526-28, 4531-33, 4538-40,
 4563-66, 4586-94,4596-4606, 4604-06,
 4612-16,
 4628-34, 4656-4660, 4666-74, 4684-91,
 4695-4708, 4712-20, 4722-32, 4740-48,

PBTD: 4900'
 TD: 5010'



VGSAU 441 Wellbore Diagram

Created: 04/24/09 By: B. Scott
 Updated: 06/03/09 By: N Cayce
 Lease: Vacuum Grayburg San Andres Unit
 Field: Vacuum Grayburg San Andres
 Surf. Loc.: 170' FNL 710' FWL
 Bot. Loc.: 10' FNL 650' FWL
 County: Lea St.: NM
 Status: CO2 Injector

Well #: 441 St. Lse: -
 API: 30-025-38788
 Unit Ltr.: A Section: 1
 TSHR/Rng: 18S & 34E
 Unit Ltr.: Section:
 TSHR/Rng:
 Directions: Buckeye, NM
 CHEVNO: LD9384
 OGRID: 4323

Surface Casing

Size: 11 3/4"
 Wt., Grd.: 42#, H-40
 Depth: 1500'
 Sxs Cmt: 1,050
 Circulate: Yes, 2 Sx
 TOC: Surface
 Hole Size: 14 3/4"

KB: 4024'
 DF:
 GL: 4002'
 Ini. Spud: 04/04/09
 Ini. Comp.: 04/21/09

WTF ECP on 5-1/2" @ 1307' (top)
 Ryte-Wrap csg 1325-1858' (12 jts)

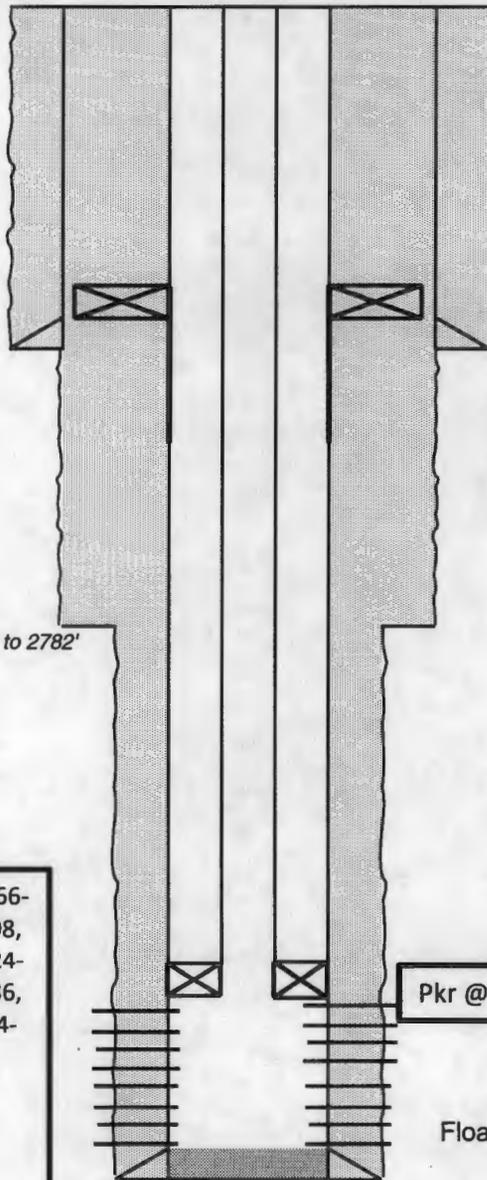
Well has Shallow Kick Off Slant
 Well Deviation: 4947' MD = 4940' TVD

Production Casing

Size: 5 1/2"
 Wt., Grd.: 17#, J-55
 Depth: 5007'
 Sxs Cmt: 2,100
 Circulate: 435 sx *Hole size 11" to 2782'
 TOC: Surface
 Hole Size: *7 7/8" *

Tubing detail:
 2-3/8" EUE 4.7# J-55 Fiberline
 131 jts. @ 4219'

Perf detail: 4289-4293, 4310-4318, 4366-4368, 4372-4374, 4378-4388, 4390-4398, 4402-4410, 4414-4416, 4420-4422, 4424-4426, 4428-4433, 4450-4455, 4476-4486, 4525-4528, 4530-4534, 4539-4542, 4544-4550, 4553-4556, 4558-4572, 4592-4594, 4648-4653, 4655-4657, 4659-4662, 4665-4674, 4676-4687, 4690-4698, 4701-4708, 4723-4727, 4730-4732, 4742-4745, 4748-4750, 4766-4770, 4774-4776, 4779-4782, 4789-4804, 4810-4818, 4826-4831, 4833-4836, 4838-4852'



*** ECP did not close while setting

History:
 5/5/09-5/11/09 Perf 4289-4852' in 11 runs. Acid 24,950 gals 15% HCL. Balled out. Set 5-1/2" pkr w/on-off tool on 2-3/8" Fiberline tbg @ 4240'.

Pkr @ 4240'

Float Collar @ 4919'

PBTD: 4918'
 TD: 5007'

VGSAU 440 Wellbore Diagram

Created: 04/15/09 By: CAYN
 Updated: 05/12/09 By: Cayce
 Lease: Vacuum Grayburg San Andres Unit
 Field: Vacuum Grayburg San Andres
 Surf. Loc.: 100' FNL 1980' FWL
 Bot. Loc.: _____
 County: Lea St.: NM
 Status: CO2 Injector

Well #: 440 St. Lse: _____
 API: 30-025-38787
 Unit Ltr.: C Section: 1
 TSHP/Rng: 18S 34E
 Unit Ltr.: _____ Section: _____
 TSHP/Rng: _____
 Directions: Buckeye, NM
 CHEVNO: LD9383
 OGRID: 4323

Surface Casing

Size: 11 3/4"
 Wt., Grd.: 42# H-40 STC
 Depth: 1500'
 Sxs Cmt: 950
 Circulate: yes, 349 sx
 TOC: Surface
 Hole Size: 14 3/4"

ECP on 8 5/8" @ 1376'
 Ryte-Wrap csg 1392-2368'

Intermediate Casing

Size: 8 5/8"
 Wt., Grd.: 24# J-55 STC
 Depth: 2962'
 Sxs Cmt: 1,140
 Circulate: yes, 168 sx
 TOC: surface
 Hole Size: 11"

ECP on 5 1/2" @ 2688'
 Ryte-Wrap csg 1308-1796'

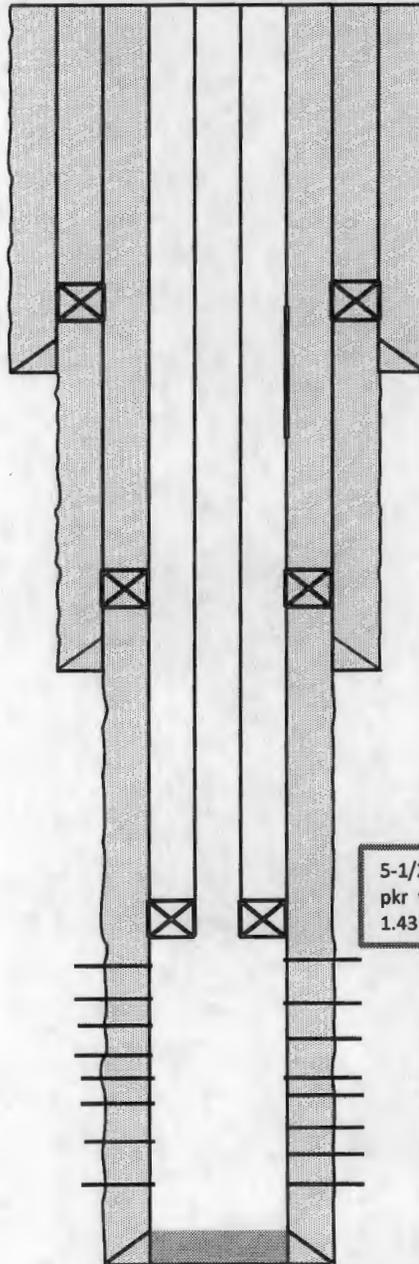
Tubing detail:

132 jts 2-3/8" x 4167' Fiberline tbg

Production Casing

Size: 5 1/2"
 Wt., Grd.: 17#, J-55 LTC
 Depth: 5018'
 Sxs Cmt: 1,050
 Circulate: yes, 334 sx
 TOC: Surface
 Hole Size: 7 7/8"

Perfs: 4294'-4860'



KB: 4018'
 DF: _____
 GL: 3996'
 Ini. Spud: 03/19/09
 Ini. Comp.: 04/01/09

History:

4/09 Spot w/500 gals 10% acetic acid.
 Perf 4294-4860'. Acidize w/25,000 gals
 15% HCL in one stage. Did not ballout.
 Set pkr @ 4219'.
 11/12 Repair MIT Failure. CO to 4,940'.

5-1/2" x 2-3/8" AS1X
 pkr w/ on-off tool &
 1.43" PN @ 4213'

Perfs detail:

4294-4299, 4306-4322, 4332-4348, 4354-
 4356, 4362-4366, 4410-4422, 4481-4488,
 4492-4496, 4498-4502, 4510-4514, 4516-
 4526, 4528-4536, 4596-4604, 4606-4618,
 4622-4625, 4639-4641, 4643-4646, 4650-
 4658, 4662-4673, 4676-4678, 4680-4692,
 4696-4700, 4704-4709, 4716-4724, 4750-
 4754, 4756-4762, 4768-4778, 4783-4795,
 4798-4808, 4816-4828, 4838-4840, 4844-
 4846, 4848-4850, 4852-4856, 4858-4860

PBTD: 4,940'

TD: 5020'

WELLBORE DIAGRAM

New Mexico O State Com #40

PROPOSED LOCATION

State	New Mexico
County	Lea
Surface Location	2300' FSL & 1880' FEL Sec 36, T 17S, R34E

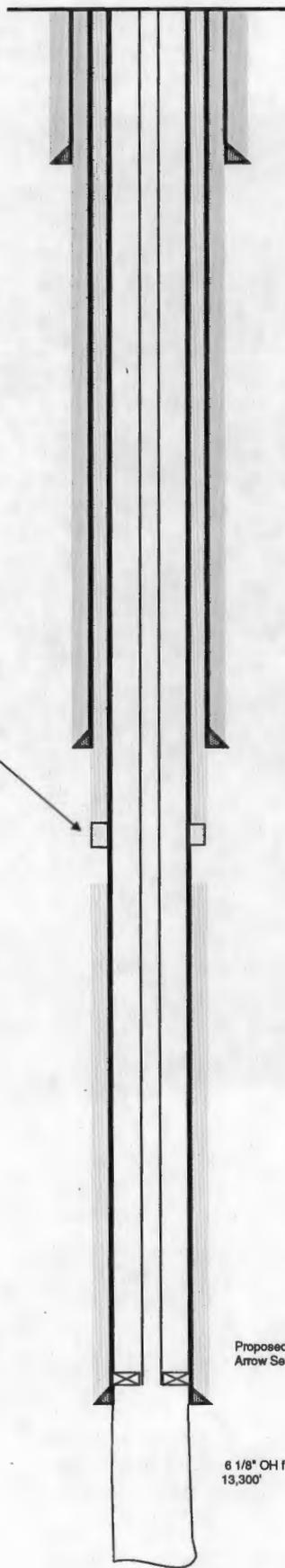
CASING DETAIL

Surface Cag.	
Size:	13-3/8"
Wt.:	48# H40
Set @:	1495'
Sxs cmt:	1505 sxs
TOC:	Surface circ 1060 sxs
Hole Size:	17 1/2"

Intermediate Cag.	
Size:	9-5/8"
Wt.:	40# K55 RYT wrapped/bare
Set @:	5840'
Sxs Cmt:	2615 sxs
TOC:	Surface, circ 980 sxs
Hole Size:	12 1/4"

Production Cag.	
Size:	7"
Wt.:	28# HCLB0
Set @:	12,250'
Sxs Cmt:	2080 sxs
TOC:	
Hole Size:	8 3/4"
DV Tool	7939'

1ST STAGE 1030 sxs, did not circ to surface
2nd STAGE 1050 sxs, circ 135 sxs to surface



Proposed 4 1/2" IPC injection tbg w/ 10K Arrow Set 1X injection packer set ~12,150'

6 1/8" OH from 12,200'-13,300'

TD 13,300'

Affidavit of Publication

State of New Mexico,
County of Lea.

I, DANIEL RUSSELL
PUBLISHER
of the Hobbs News-Sun, a
newspaper published at Hobbs, New
Mexico, do solemnly swear that the
clipping attached hereto was
published in the regular and entire
issue of said newspaper, and not a
supplement thereof for a period

of 1 issue(s).
Beginning with the issue dated
August 29, 2013
and ending with the issue dated
August 29, 2013



PUBLISHER

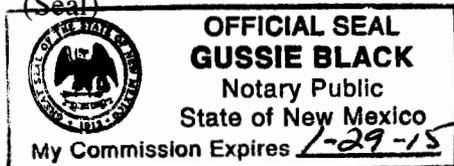
Sworn and subscribed to before me
this 29th day of
August, 2013



Notary Public

My commission expires
January 29, 2015

(Seal)



This newspaper is duly qualified to
publish legal notices or
advertisements within the meaning of
Section 3, Chapter 167, Laws of
1937 and payment of fees for said
publication has been made.

LEGAL

LEGAL NOTICE
August 29, 2013

Notice is hereby given of the
application of
CHEVRON U.S.A. INC.
15 Smith Road, Midland, TX
79705, to the Oil
Conservation of the State of
New Mexico, and the
Commissioner of Public
Lands, State of New Mexico
for approval to add the new
Central Vacuum Unit # 170
and Central Vacuum Unit
#181 as Water Alternating
CO2 Gas Injection well.
Injection into this well is
designed to enhance
production from the Vacuum
Grayburg San Andres Unit.
The CVU # 170, is located
2490' FSL & 500' FWL,
Unit Letter L, Sec. 36,
T17S, R34E; CVU # 181, is
located 1420' FSL & 730'
FWL, Unit Letter L, Sec 36,
T17S, R34E; both in Lea
County, New Mexico.

The injection interval is in
the Grayburg San Andres
formation from 4100'-5100',
thru perforations. The
maximum injection rate will
be 4,000 BWPDP, with a
maximum allowable amount
of 1500 PSI. CO2 and
produced gas injection will
be an expected maximum
rate of 8,000 MCF per day
and an expected maximum
surface pressure of 2200

PSI. Interested parties
should file objections or
requests for hearing with the
Oil Conservation Division,
1220 South St. Francis
Drive, Santa Fe, New
Mexico, 87505 within 15
days. Inquiries regarding
this application should be
directed to Chevron North
America, Attn: Ryan
Warmke, 15 Smith Rd.,
Midland TX 79705.
#28400

01102480

00121428

CHEVRON USA INC.
15 SMITH ROAD
MIDLAND, TX 79705



Carolyn Haynie
Petroleum Engineering
Technical Assistant

MidContinent Business Unit
Chevron North America
Exploration and Production
Company
15 Smith Road
Midland, TX 79705
Tel 432-687-7261
Fax 432-687-7871
chay@chevron.com

September 24, 2013

Water, Gas & CO2 Injection
Central Vacuum Unit # 171 & 180
Lea County, New Mexico

Offset Operators:

For your information, as an offset operator, Chevron U.S.A. Inc., operator of the Central Vacuum Unit has filed an application with the New Mexico Oil Conservation Division and to add two new wells as Water Alternating Gas Injection wells. Injection into these wells is designed to enhance the production from the Central Vacuum Unit.

Wells: CVU # 170, API # 30-025-41343; 2490' FSL & 500' FWL, L-36-T17S-R34E, Lea Co.
CVU # 181, API # 30-025-41344; 1420' FSL & 730' FWL, L-36-T17S-R34E, Lea Co.

Attached is the information relative to the application, with copies of the legal notice posted in the Hobbs News-Sun and a map highlighting the location of the referenced wells in relation to your offset operations.

Any objections to this application must be sent to the **New Mexico Oil Conservations Division, 1220 South St. Francis Dr., Santa Fe, New Mexico, 87505**, within 15 days of receipt of this notification. If additional information is required, please contact me at (432-687-7261), or the project engineer, Ryan Warmke, at (432-687-7452).

Sincerely,

A handwritten signature in black ink that reads "Carolyn Haynie".

Carolyn Haynie
Chevron Midcontinent
NM PE Technical Assistant

Enclosure

OFFSET OPERATORS:

**McGowan Working Interest Partners, Inc.
P.O. Box 55809
Jackson, MS 39296-5809**

**ConocoPhillips Petroleum Company
P.O. BOX 2197
Houston, TX 77252-2197**

**Mobil Producing TX & NM Inc.
c/o XTO Energy, Inc.
Attn: Permian Land
810 Houston Street
Ft Worth, TX 76102**

Surface Owner

**State of New Mexico
Commissioner of Public Lands
P.O. BOX 1148
Santa Fe, NM 87504-1148**



Carolyn Haynie
Petroleum Engineering
Technical Assistant

MidContinent Business Unit
Chevron North America
Exploration and Production
Company
15 Smith Road
Midland, TX 79705
Tel 432-687-7261
Fax 432-687-7871
chay@chevron.com

September 30, 2013

STATE OF NEW MEXICO
COMMISSIONER OF PUBLIC LANDS
P.O. BOX 1148
SANTA FE, NE 87504-1148

RE: Application for Authorization to Inject
OCD Form C-108
Central Vacuum Unit # 170 & # 181
Lea, County, New Mexico

Surface Owner:

For your information, Chevron U.S.A. Inc., operator of the Central Vacuum Unit has filed an application with the New Mexico Oil Conservation Division to add two new wells as Water Alternating Gas Injection wells. Injection into these wells is designed to enhance the production from the Central Vacuum Unit.

Wells: CVU # 170, API # 30-025-41343; 2490' FSL & 500' FWL, L-36-T17S-R34E, Lea Co.
CVU # 181, API # 30-025-41344; 1420' FSL & 730' FWL, L-36-T17S-R34E, Lea Co.

Attached is the information relative to the application, with copies of the legal notice posted in the Hobbs News-Sun and a map highlighting the location of the referenced wells in relation to your offset operations.

Any objections to this application must be sent to the **New Mexico Oil Conservations Division, 1220 South St. Francis Dr., Santa Fe, New Mexico, 87505**, within 15 days of receipt of this notification. If additional information is required, please contact me at (432-687-7261), or the project engineer, Ryan Warmke, at (432-687-7452).

Sincerely,

A handwritten signature in black ink that reads "Carolyn Haynie". The signature is written in a cursive, flowing style.

Carolyn Haynie
NM PE Technical Assistant

Enclosure



Carolyn Haynie
Petroleum Engineering
Technical Assistant

MidContinent Business Unit
Chevron North America
Exploration and Production
Company
15 Smith Road
Midland, TX 79705
Tel 432-687-7261
Fax 432-687-7871
chay@chevron.com

September 30, 2013

New Mexico Oil Conservations Division
1220 South San Francis Drive
Santa Fe, New Mexico 87504

RE: Application for Authorization to Inject
OCD Form C-108 for WAG
Order R-5530-E
Vacuum Grayburg San Andres
Lea, County, New Mexico

Chevron U.S.A. Inc., respectfully requests administrative approval to add two new wells, CVU # 170, API # 30-025-41343 and CVU # 181, API # 30-025-41344, as Water Alternating Gas Injection wells. Injection into these wells is designed to enhance the production from the Central Vacuum Unit.

The Injection interval in the Grayburg San Andres formation from 4020' to 5100', through perforations, with maximum injection rate of 4,000 BWPD per well, with a maximum allowable surface pressure of 1,500 PSI and CO₂ and produced gas injection will be at a maximum rate if 8,000 MCF per day, per well, with a maximum surface pressure of 2,200 PSI.

Hearing Order, R-5530-E, Paragraphs 5 & 6, permitted CO₂ injection, and also permitted re-injection of recycled produced gas. Attached is an OCD form C-108 and the information relative to this request.

If additional information is required, please contact me at (432-687-7261), or the project engineer, Ryan Warmke, at (432-687-7452).

Sincerely,

A handwritten signature in black ink that reads "Carolyn Haynie". The signature is written in a cursive, flowing style.

Carolyn Haynie
Chevron Midcontinent
NM PE Technical Assistant



C-108 Review Checklist: Received 10/02/13 Add. Request: 10/21/13 Reply Date: 10/24/13 Suspended: info (Ver 10)

PERMIT TYPE: WFX / PMX / SWD Number: 917 Permit Date: 11/08/13 Legacy Permits/Orders: R-5530

Well No. 170 Well Name(s): Central Vacuum Unit [Area permit - two wells] [Central Vacuum Press. Maint & EOR] as amended

API: 30-0 25-41343 Spud Date: TBD New or Old: New (UIC Class II Primacy 03/07/1982)

Footages 2490 FSL / 500 FWL Lot - Unit L Sec 36 Tsp 175 Rge 34E County Lea

General Location: Vacuum Field Pool: Vacuum; Grayburg San Andres No.: 62180

Operator: Chevron USA Inc. OGRID: 4323 Contact: Carolyn Haynie

COMPLIANCE RULE 5.9: Inactive Wells: 7 Total Wells: 2158 Fincl Assur: Yes Compl. Order? No IS 5.9 OK? Yes

Well File Reviewed Current Status: New - additional iWAG well

Well Diagrams: NEW: Proposed RE-ENTER: Before Conv. After Conv. Are Elogs in Imaging?: No new well

Planned Rehab Work to Well: NA

Well Construction Details:	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement SX or Cf	Cement Top and Determination Method
Planned <input type="checkbox"/> or Existing <input type="checkbox"/> Conductor	—	—	—	—
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/> Surface	<u>4 3/4 / 11 3/4</u>	<u>0 to 1500</u>	<u>1300</u>	<u>Cir. to surface</u>
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/> Interm/Prod	<u>11 / 8 5/8</u>	<u>0 to 3200</u>	<u>750</u>	<u>Cir. to surface</u>
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/> Prod/Interm	<u>7 7/8 / 5 1/2</u>	<u>0 to 5300</u>	<u>1150</u>	<u>Cir. to surface</u>
Planned <input type="checkbox"/> or Existing <input type="checkbox"/> Liner/Prod	—	—	—	—
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/> OH / PERE	<u>5 1/2</u>	<u>Approved Unitized form 4100-5100</u>	<u>Inj Length ~1000'</u>	—

Injection Stratigraphic Units:	Depths (ft)	Injection or Confining Units	Tops?	Completion/Operation Details:
Adjacent Unit: Litho. Struc. Por.	—	<u>7-Rivers</u>	—	Drilled TD <u>—</u> PBSD <u>—</u>
Confining Unit: Litho. Struc. Por.	—	<u>Queen</u>	—	NEW TD <u>5300</u> NEW PBSD <u>—</u>
Proposed Inj Interval TOP:	<u>4100</u>	<u>Grayburg</u>	<u>4020</u>	NEW Open Hole <input type="checkbox"/> or NEW Perfs <input checked="" type="checkbox"/>
Proposed Inj Interval BOTTOM:	<u>5100</u>	<u>San Andres</u>	<u>8000</u>	Tubing Size <u>2 3/8</u> in. Inter Coated? <u>Yes</u>
Confining Unit: Litho. Struc. Por.	—	<u>Glorieta</u>	<u>5100</u>	Proposed Packer Depth <u>4090</u> ft
Adjacent Unit: Litho. Struc. Por.	—	<u>Paddock</u>	—	Min. Packer Depth <u>4000</u> (100-ft limit)
				Proposed Max. Surface Press. <u>—</u> psi
				Admin. Inj. Press. <u>R-5530 F</u> (0.2 psi per ft)

AOR: Hydrologic and Geologic Information

POTASH: R-111-P NA Noticed? NA BLM Sec Ord NA WIPP NA Noticed? NA SALADO: T: — B: — CLIFF HOUSE NA

FRESH WATER: Formation Ogallala Max Depth ±300 Wells? 2 FW Analysis HYDROLOGIC AFFIRM By Qualified Person

Disposal Fluid: Formation Source(s) EOR project produced water Analysis? NA On Lease Operator Only or Commercial

Disposal Interval: Injection Rate (Avg/Max BWPD): 2000 BWPD / 4000 MCFPD seconds 2000 Protectable Waters: No CAPITAN REEF: thru adj NA

H/C Potential: Producing Interval? Yes Formerly Producing? Yes Recovery Project NA Method B Log / Mudlog / DST / Depleted / Other NA

AOR Wells: 1/2-M Radius Map? Yes Well List? Es Total No. Wells Penetrating Interval: 3 Horizontals? 0

Penetrating Wells: No. Active Wells 3 Num Repairs? 0 on which well(s)? 3 new injectors Diagrams? Yes

Penetrating Wells: No. P&A Wells 0 Num Repairs? 0 on which well(s)? 3 Order AOR included Diagrams? NA

NOTICE: Newspaper Date 08/29/13 Mineral Owner SLO Surface Owner SLO N. Date 09/24/13

RULE 26.7(A): Identified Tracts? Yes Affected Persons: Crook Phillips / McGowan Working / XTO N. Date 09/24/13

Permit Conditions: Issues: -None

Add Permit Cond: R-5530-F / 1500 psi water & 2200 psi Gas -no additional permits



C-108 Review Checklist: Received 10/21/13 Add. Request: 10/24/13 Reply Date: 10/22/13 Suspended: _____ [Ver 10]

PERMIT TYPE: (WFX) / PMX / SWD Number: 917 Permit Date: 11/08/13 Legacy Permits/Orders: R-5530

Well No. 181 Well Name(s): Central Vacuum Unit [Area permit - two wells] [Central Vacuum Pressure Maint + EOR] as amended

API: 30-0 25-41344 Spud Date: TBD New or Old: New (UIC Class II Primacy 03/07/1982)

Footages 1420 FSL / 730 FWL Lot - Unit L Sec 36 Tsp 17S Rge 34E County Lea

General Location: Vacuum Field Pool: Vacuum, Grayberg - San Andres Pool No.: 62180

Operator: Chevron USA Inc. OGRID: 4323 Contact: Carolyn Haynie

COMPLIANCE RULE 5.9: Inactive Wells: 7 Total Wells: 2158 Fincl Assur: Yes Compl. Order? NO IS 5.9 OK? Yes

Well File Reviewed Current Status: New - additional WAG well

Well Diagrams: NEW: Proposed RE-ENTER: Before Conv. After Conv. Are Elogs in Imaging?: No - new well

Planned Rehab Work to Well: NA

Well Construction Details:		Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement Sx or Cf	Cement Top and Determination Method
Planned <input type="checkbox"/> or Existing <input type="checkbox"/> Conductor					
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/> Surface		<u>14 3/4 / 11 3/4</u>	<u>0 to 1500</u>	<u>1300</u>	<u>Surface</u>
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/> Interm/Prod		<u>11 / 8 5/8</u>	<u>0 to 3200</u>	<u>750</u>	<u>Surface</u>
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/> Prod/Interm		<u>7 1/8 / 5 1/2</u>	<u>0 to 5300</u>	<u>1150</u>	<u>Surface</u>
Planned <input type="checkbox"/> or Existing <input type="checkbox"/> Liner/Prod					
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/> OH (PERF)		<u>5 1/2</u>	<u>Approx 4100 - 5100 *</u>	<u>Inj Length ± 1000</u>	

Injection Stratigraphic Units:		Depths (ft)	Injection or Confining Units	Tops?	Completion/Operation Details:	
Adjacent Unit: Litho. Struc. Por.		<u>-</u>	<u>7-Rivers</u>	<u>-</u>	Drilled TD <u>-</u>	PBTD <u>-</u>
Confining Unit: Litho. Struc. Por.		<u>-</u>	<u>Queen</u>	<u>-</u>	NEW TD <u>5300</u>	NEW PBTD <u>-</u>
Proposed Inj Interval TOP:		<u>4100</u>	<u>Grayberg</u>	<u>4020</u>	NEW Open Hole <input type="checkbox"/> or NEW Perfs <input checked="" type="checkbox"/>	
Proposed Inj Interval BOTTOM:		<u>5100</u>	<u>San Andres</u>	<u>± 500</u>	Tubing Size <u>2 3/8</u> in. Inter Coated? <u>Yes</u>	
Confining Unit: Litho. Struc. Por.		<u>-</u>	<u>Glorieta</u>	<u>5100</u>	Proposed Packer Depth <u>4090</u> ft	
Adjacent Unit: Litho. Struc. Por.		<u>-</u>	<u>Padlock</u>	<u>-</u>	Min. Packer Depth <u>4000</u> (100-ft limit)	
					Proposed Max. Surface Press. _____ psi	
					Admin. Inj. Press. <u>* R-5530-F</u> (0.2 psi per ft)	

AOR: Hydrologic and Geologic Information

POTASH: R-111-NA Noticed? NA BLM Sec Ord NA WIPP NA Noticed? NA SALADO: T: - B: - CLIFF HOUSE NA

FRESH WATER: Formation Agallala Max Depth +300 Wells? 2 FW Analysis: HYDROLOGIC AFFIRM By Qualified Person

Disposal Fluid: Formation Source(s) EOR project produced water Analysis? NA On Lease Operator Only or Commercial

Disposal Interval: Injection Rate (Avg/Max BWPD): 2200 BWPD / 4000 ACPD Protectable Waters: No CAPITAN REEF: thru adj NA

H/C Potential: Producing Interval? Yes NA Formerly Producing? NA Method: E Log / Mudlog / DST / Depleted / Other NA

AOR Wells: 1/2-M Radius Map? Yes Well List? Yes Total No. Wells Penetrating Interval: _____ Horizontals? No

Penetrating Wells: No. Active Wells 4 Num Repairs? 0 on which well(s)? _____ Diagrams? Yes

Penetrating Wells: No. P&A Wells 0 Num Repairs? 0 on which well(s)? _____ Diagrams? -

NOTICE: Newspaper Date 09/29/13 Mineral Owner SLO Surface Owner SLO N. Date 09/24/13

RULE 26.7(A): Identified Tracts? Yes Affected Persons: ConocoPhillips / McGowan Working / XTO N. Date 09/24/13

Permit Conditions: Issues: - None

Add Permit Cond: * R-5530-F / 1500 psi water & 2200 psi for CO2 - no additional cond.

- Proposed well diagram - complete

ABOVE THIS LINE FOR DIVISION USE ONLY

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



RECEIVED OGD

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 _____

*Conversion to WAG
 Injection authorized
 R-5530/only
 minor mod*

*R-5530-E - check well
 States - OK*

- [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

Only notice to district

2013 SEP 26 PM 8 57

[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 Haynie *Carolyn Haynie* NM Petro Engineering Technical Assistant 9-23-13
 Print or Type Name Signature Title Date

chay@chevron.com
 e-mail Address



Carolyn Haynie
Petroleum Engineering
Technical Assistant

MidContinent/Alaska SBU
Chevron North America
Exploration and Production
Company
15 Smith Road
Midland, TX 79705
Tel 432-687-7261
Fax 432-687-7703
chay@chevron.com

September 23, 2013

New Mexico Oil Conservations Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Application for Authorization to Inject
OCD Form C-108for WAG
Order R-4442-G
Central Vacuum Unit
Lea, County, New Mexico

Engineering Department:

Chevron U.S.A. Inc., respectfully requests administrative approval to place the CVU # 25, API # 30-025-25813, CVUI # 26, API # 30-025-25814, CVU # 27, API # 30-025-25815, CVU # 28, API # 30-025-25816, from Water Injection to Water Alternating Gas Injection wells. Injection into these wells is designed to enhance the production from the Central Vacuum Units.

The injection interval in the Grayburg San Andres will be through perforations within the "Unitized Formation" for the CVU which includes the correlative stratigraphic interval underlying the Unit Area in the Vacuum-Grayburg San Andres pool between the depths of 3,858' (+ 144' sub-sea) and 4858' (-856' sub-sea) on the Welex Acoustic Velocity Log, run on 11-13-63, in the Texaco Inc, State of NM "O" (NCT-1) well # 23, located: O-36-T17S-R34E, NMPM, Lea CO, NM. (now Vacuum Glorieta West Unit Well # 101).

The maximum injection rate will be 2,000 BWPD/well, with a maximum allowable surface pressure of 1,500 psi. CO₂ and produced gas injection will be at a maximum rate of 4,000 MCF per day/well, with a maximum surface pressure of 2,200 psi. Interested parties should file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505 within 15 days.

If additional information is required, please contact me at (432-687-7261), or the project engineer, Paul Brown, at (432-687-7351).

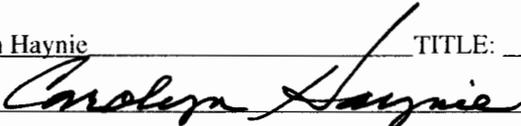
Sincerely,

Carolyn Haynie

NM PE Technical Assistant

2013 SEP 26 AM 8 57

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? Yes No
- II. OPERATOR: CHEVRON U.S.A. INC. (OGRID - 4323)
ADDRESS: 15 SMITH ROAD; MIDLAND, TX 79705
CONTACT PARTY: CAROLYN HAYNIE PHONE: 432-687-7261
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? Yes No
If yes, give the Division order number authorizing the project: Order # R-5530-E
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review. ATTACHED
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail. ATTACHED
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.). ATTACHED
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval. ATTACHED
- IX. Describe the proposed stimulation program, if any. ATTACHED
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted). PREVIOUSLY SUMITTED
- XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken. PREVIOUSLY SUMITTED
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water. ATTACHED
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form. ATTACHED
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: Carolyn Haynie TITLE: NM PETRO ENGINEERING TECH ASSISTANT
SIGNATURE:  DATE: 9-23-13
E-MAIL ADDRESS: chay@chevron.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

ATTACHED

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any. ATTACHED

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days. ATTACHED

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET

OPERATOR: CHEVRON U.S.A. INC.

WELL NAME & NUMBER: CENTRAL VACUUM UNIT # 25

WELL LOCATION: 1330' FSL & 1504' FWL UNIT K: SEC. 25. T17S. R34E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

CVU 25

WELL CONSTRUCTION DATA

Created	#####	By	NC
Updated	05/05/08	By	JSS
Updated	05/03/09	By	Cayce
Updated	07/08/1s	By	Chey
Lease	Central Vacuum Unit		
Field	Vacuum (Grayburg-San Andres)		
Surf. Loc	1330' FSL & 1504' FWL		
But. Loc			
County	Lea	St.	NM
Status	Active Water Injector		

Well #	25	St. Log	E-270b
API		30-025-14413	
Unit Ltr	K	Section	25
TSHP/Prod		S-17 E 34	
Unit Ltr		Section	
TSHP/Prod			
CHEVNO	EC00046		
Direction		Buckeye, NM	

Surface Casing

Hole Size: 12-1/4" Casing Size: 8-5/8"

Cemented with: 425 sx. or _____ ft³

Top of Cement: Surface Method Determined: Circulation

Intermediate Casing

Hole Size: _____ Casing Size: _____

Cemented with: _____ sx. or _____ ft³

Top of Cement: _____ Method Determined:

Production Casing

Hole Size: 7-7/8" Casing Size: 4-1/2"

Cemented with: 2100 sx. or _____ ft³

Top of Cement: Surface Method Determined: Circulation

Total Depth: 4800'

Injection Interval

4379' feet to 4709'

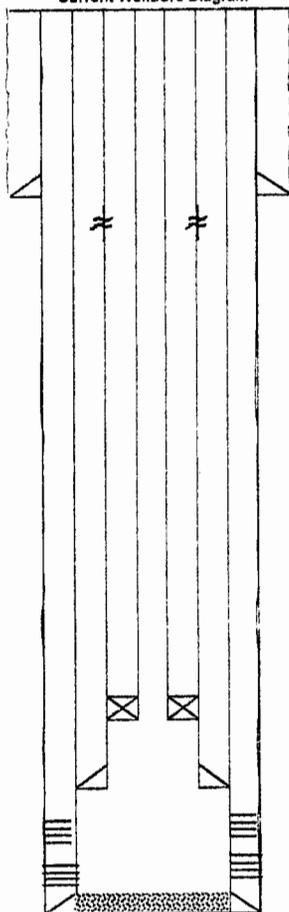
(Perfs)

Surface Casing

Size	8 5/8"
Wt. Grd.	248 K-55
Depth	490'
Sxs Cmt	425 sxs
Circulate	Yes
TOC	Surface
Hole Size	12 1/4"

Csg Lk Spz 478-50H

Current Wellbore Diagram



KB	4014'
DF	NA
GL	4004'
In. Spud	3/24/1978
In. Comp	4/25/1978

Perf. and Simulation History:

CVU #25
 4/17/78 Perf 4 1/2" esp w/2 JSPF @ 4374
 83, 4407 18, 23, 28, 80, 89, 4555, 59, 70
 4632 40 49 56 62 72 86 91 4709, 0V, 620
 shots
 4/26/78 Ran 2 3/8" RBP & Pkr @ 4722 &
 4002' Ac 3 cu perms, 4379-4709 w/7500 gal
 180 NFA Bore data in History Lab.
 4/28/78 Ran 141 lbs. (4331) 2 3/8" double lb
 w/baker 4 1/2" pkr set @ 4337' S I WW
 effective 4/24/78 VSA perf: 4379-4709
 waiting on installation of injection system
 12/11/78 Wil began
 5/27/83 Curtailed injection pressure to 800 psi
 pressure limit was 907 psi
 5/22/85 Permit to increase pressure to 2500
 psi
 7/13/84 @ 11:04 MIT Fish broken pkr isolated
 leak @ 4765-50H. Spz b limes. Run new 2 3/8"
 dual lb pkr and 4 1/2" nickel plated packer. No
 pkr at 4337'
 4/27 Tapped @ 4344 Tbl press 1575
 11-17-11 Failed MIT
 1/10/13 R/W w/4-1/2" Ultra FJ Csg Liner
 Bottom of Liner @ 4314' Acrd perf. wht/lt
 gals of 15' NE

2-1/2" IRC Tbl, TOT @ 4277'
 Parker W. O/O Test (1-43" 1" N) @ 4200'

3-1/2" Liner, EOL @ 4314'

Gray Lin San Andres Perfs
 4379'-4709' w/2 JSPF.

INJECTION WELL DATA SHEET

Tubing Size: 2-1/16" Lining Material: Plastic
Type of Packer: 3-1/2" Nickel plated Internally plastic coated Inj pkr
Packer Setting Depth: @ +/- 4300'
Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? Yes X No
If no, for what purpose was the well originally drilled? _____

2. Name of the Injection Formation: Grayburg - San Andres
3. Name of Field or Pool (if applicable): Central Vacuum Unit
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.

 No

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: _____
 Glorieta (5850-6200')

CVU 25

Created:	#####	By:	NC
Updated:	05/05/08	By:	JSS
Updated:	05/03/09	By:	Cayce
Updated:	07/08/13	By:	Chay
Lease:	Central Vacuum Unit		
Field:	Vacuum (Grayburg-San Andres)		
Surf. Loc.:	1330' FSL & 1504' FWL		
Bot. Loc.:			
County:	Lea	St.:	NM
Status:	Active Water Injector		

Well #:	25	St. Lse:	E-2706
API			30-025-25813
Unit Ltr.:	K	Section:	25
TSHP/Rng:			S-17 E-34
Unit Ltr.:		Section:	
TSHP/Rng:			
CHEVNO:			EQ0046
Directions:			Buckeye, NM

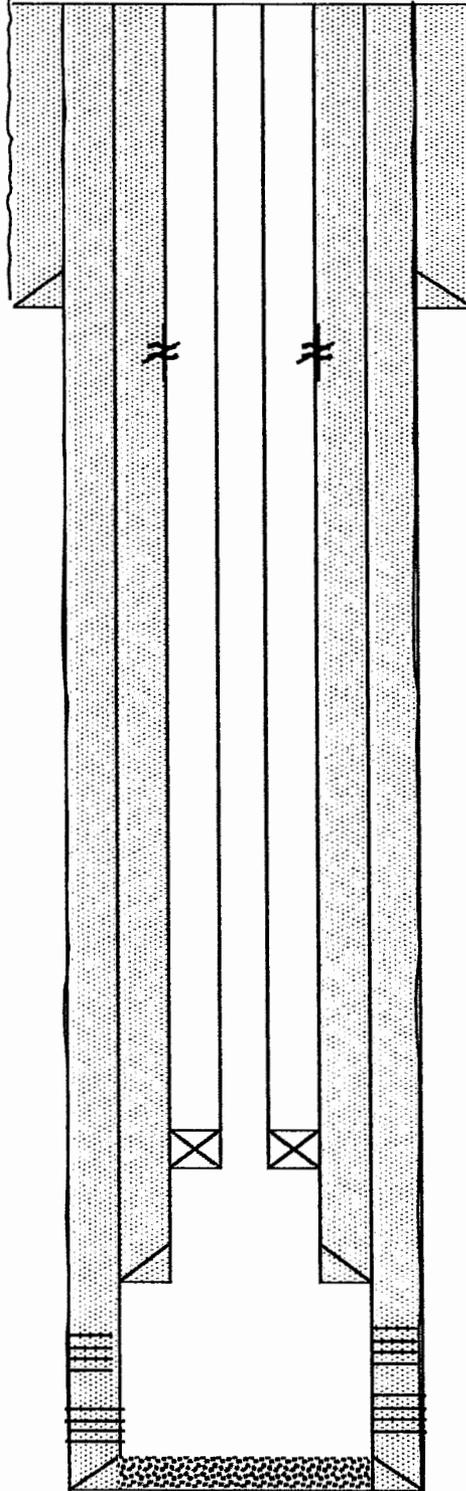
Current Wellbore Diagram

Surface Casing	
Size:	8 5/8"
Wt., Grd.:	24#, K-55
Depth:	400'
Sxs Cmt:	425 sxs
Circulate:	Yes
TOC:	Surface
Hole Size:	12 1/4"

Csg Lk Sqz: 476-508'

Production Liner	
Size:	3-1/2" Ultra
	F J Csg
	9.2#, L-80
Wt., Grd.:	SLF
Depth:	4313'
Sxs Cmt:	135 sxs
Circulate:	Yes, 12 bbls
TOC:	Surface
Hole Size:	4-1/2"

Production Casing	
Size:	4 1/2"
Wt., Grd.:	10.5#, K-55
Depth:	4800'
Sxs Cmt:	2100 sxs
Circulate:	Yes
TOC:	Surface
Hole Size:	7 7/8"



KB:	4014'
DF:	NA
GL:	4004'
Ini. Spud:	3/24/1978
Ini. Comp.:	4/25/1978

Perf. and Stimulation History:

CVU #25

4/17/78 Perf. 4 1/2" csg. w/2 JSPF @ 4379, 83, 4407, 18, 23, 28, 60, 69, 4555, 59, 70, 4632, 40, 49, 56, 62, 72, 86, 91, 4700, 09'. 660 shots.

4/25/78 Ran 2 3/8" RBP & Pkr. @ 4722 & 4602'. Acidize perms: 4379-4709' w/7300 gals 15% NEA. More detail in History tab.

4/26/78 Ran 141 jts. (4331') 2 3/8" duoline tbg w/baker 4 1/2" pkr. set @ 4337'. S.I. WIW effective 4/25/78. VSA perms: 4379-4709' waiting on installation of injection system.

12/11/78 WI began.

5/27/93 Curtailed injection pressure to 900 psi. pressure limit was 907 psi.

5/22/95 Permit to increase pressure to 2500 psig.

7/13/04-8/11/04 MIT. Fish broken pkr. isolated leaks f/476'-508'. Sqz 5 times. Run new 2 3/8" duoline tbg. and 4 1/2" nickel plated packer. Set pkr. at 4321'.

4/09 Tagged @4344. Tbg press 1575.

11-17-11: Failed MIT.

1/10/13: RIH w/3-1/2" Ultra FJ Csg Liner. Bottom of Liner @ 4314'. Acdz perms, w/6000 gals of 15% NE.

2-1/16" IPC Tbg, EOT @ 4277'

Packer w/ O/O Tool (1.43" F" N) @ 4290'

3-1/2" Liner, EOL @ 4314'

Grayburg San Andres Perfs:

4379'-4709' w/2 JSPF.

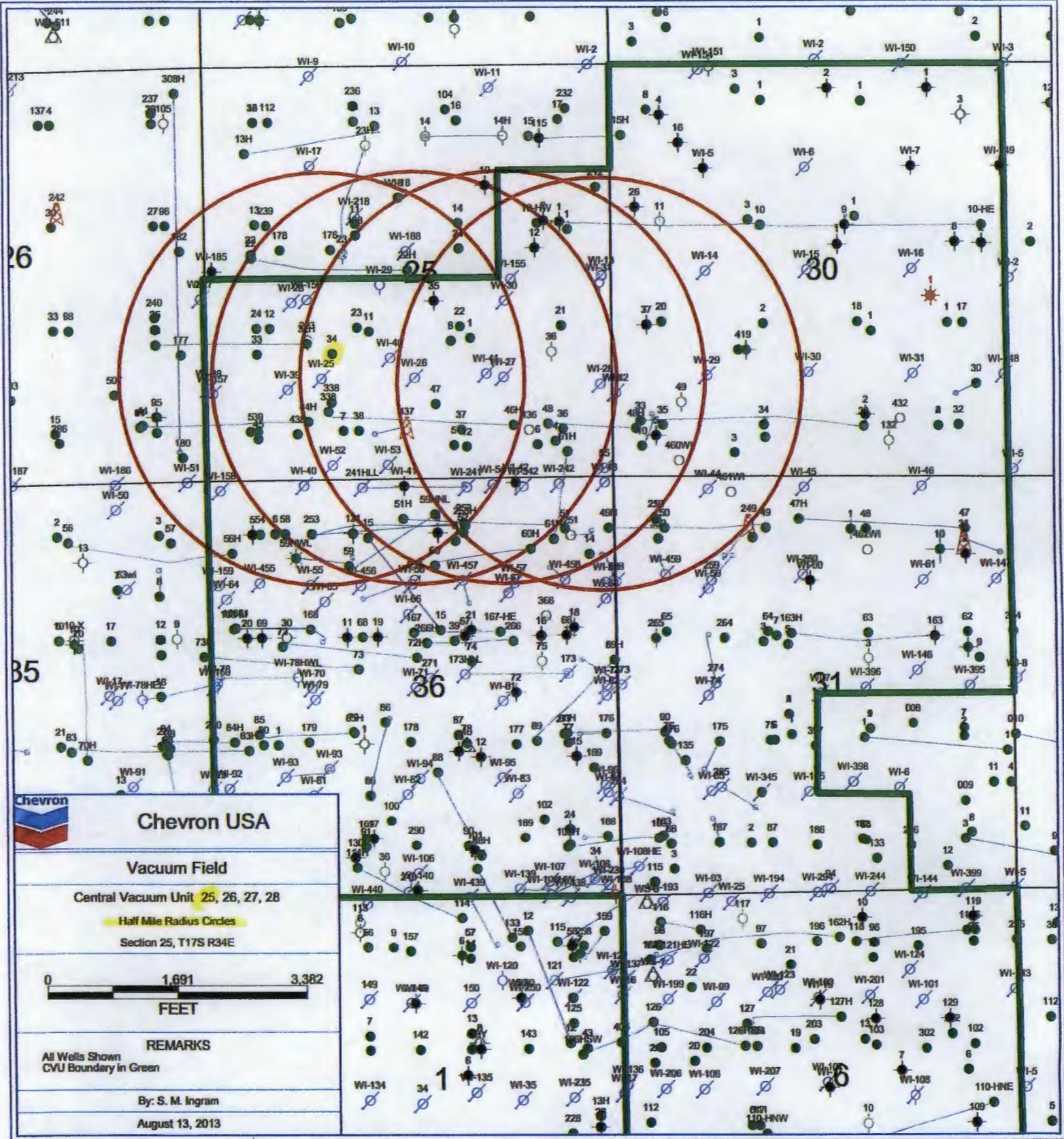
PBTD: 4760'
TD: 4800'

CVU 25

API No. 30-025-25813

Workover Procedure

1. Rig up pulling unit. TOH w/ packer and injection tubing.
2. TIH w/ treating packer on 2-3/8" workstring and set at 4300'
3. Acidize perms 4379'-4709' w/ 6,000 gallons 15% NEFE HCl.
4. TOH w/ workstring and packer.
5. Set 4-1/2" composite bridge plug at 4315' on wireline.
6. TIH w/ 3-1/2" flush joint liner and set at 4314'.
7. Cement liner with 135 sx Class "C" cement.
8. TIH w/ 2-3/4" bit and drill collars on 2-1/16" workstring.
9. Drill out cement, float equipment and composite bridge plug. Clean out to 4739'. TOH.
10. TIH w/ 3-1/2" injection packer and on-off tool on 2-1/16" L-80 IJ IPC tubing. Set packer at 4294'.
11. Load annulus with packer fluid.
12. Perform MIT.
13. Rig down pulling unit.
14. Return well to injection.



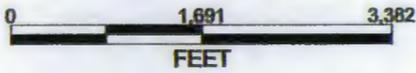
Chevron USA

Vacuum Field

Central Vacuum Unit 25, 26, 27, 28

Half Mile Radius Circles

Section 25, T17S R34E



REMARKS

All Wells Shown
CVU Boundary in Green

By: S. M. Ingram

August 13, 2013

INJECTION WELL DATA SHEET

OPERATOR: CHEVRON U.S.A. INC.

WELL NAME & NUMBER: CENTRAL VACUUM UNIT # 26

WELL LOCATION: 1330' FSL & 2577' FEL J 25. T17S. R34E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

Wellbore Diagram

CVU 26

Created:	7/3/2008	By:	JSS	Well #:	26	SI. Log:	B-1056
Updated:	5/4/2009	By:	Cayce	API:	30-028-26514		
Updated:	7/9/2013	By:	Chay				
Lease:	Central Vacuum Unit			Unit Ltr.:	J	Section:	25
Field:	Vacuum (Grayburg-San Andres)			TSHP/Rng.:	S-17 E-34		
Surf. Loc.:	1330' FSL, 2577' FEL			Unit Ltr.:	Section		
Bot. Loc.:							
County:	Lea	SI.	NM	CHEVNO:	EQ0047		
Status:	Injector			Directions:	Buckeye, NM		

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12-1/4" Casing Size: 8-5/8"
 Cemented with: 425 sx. or _____ ft³
 Top of Cement: Surface Method Determined: Circulation

Intermediate Casing

Hole Size: _____ Casing Size: _____
 Cemented with: _____ sx. or _____ ft³
 Top of Cement: _____ Method Determined: _____

Production Casing

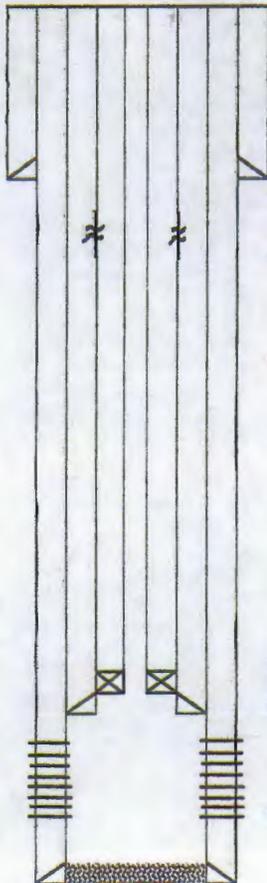
Hole Size: 7-7/8" Casing Size: 4-1/2"
 Cemented with: 2100 sx. or _____ ft³
 Top of Cement: Surface Method Determined: Circulation
 Total Depth: 4800'

Injection Interval

4384' feet to 4718'
 (Perfs)

Surface Casing

Size:	8 5/8"
WL. Grd.:	248, K-65
Depth:	402'
Size Cmt:	425 sx
Circulate:	Yes: 45 sx
TOC:	Surface
Hole Size:	12-1/4"



KB:	400'
DP:	NA
GL:	3967'
Ini. Spud:	3/3/1978
Ini. Comp.:	3/17/1978

RBP @ 400'

Spud 1053-1242' w/78 sx. Cmt.

Well History on History tab

2-1/16" L-80 IPC Tbg. EOT @ 4284'
 Packer w/ O/O Tool (1.43" P" N) @ 4290'
 3-1/2" Liner, EOL @ 4302'

San Andres Perfs: 4364-4718'

Production Liner

Size:	3-1/2" Liner
WL. Grd.:	9.26, L-80
Depth:	4302'
Size Cmt:	136 sx
Circulate:	Yes
TOC:	Surface
Hole Size:	4-1/2"

Production Casing

Size:	4 1/2"
WL. Grd.:	10.56, K-65
Depth:	4800'
Size Cmt:	2100 sx
Circulate:	Yes: 260 sx
TOC:	Surface
Hole Size:	7-7/8"

INJECTION WELL DATA SHEET

Tubing Size: 2-1/16" Lining Material: Plastic

Type of Packer: 3-1/2" Nickel plated Internally plastic coated Inj pkr

Packer Setting Depth: @ +/- 4300'

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? Yes X No

If no, for what purpose was the well originally drilled? _____

2. Name of the Injection Formation: Grayburg - San Andres

3. Name of Field or Pool (if applicable): Central Vacuum Unit

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.

No

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: _____

Glorieta (5850-6200')

2013 SEP 26 AM 8 57

Wellbore Diagram

CVU 26

Created:	7/3/2008	By:	JSS
Updated:	5/4/2009	By:	Cayce
Updated:	7/9/2013	By:	Chay
Lease:	Central Vacuum Unit		
Field:	Vacuum (Grayburg-San Andres)		
Surf. Loc.:	1330' FSL, 2577' FEL		
Bot. Loc.:			
County:	Lea	St.:	NM
Status:	Injector		

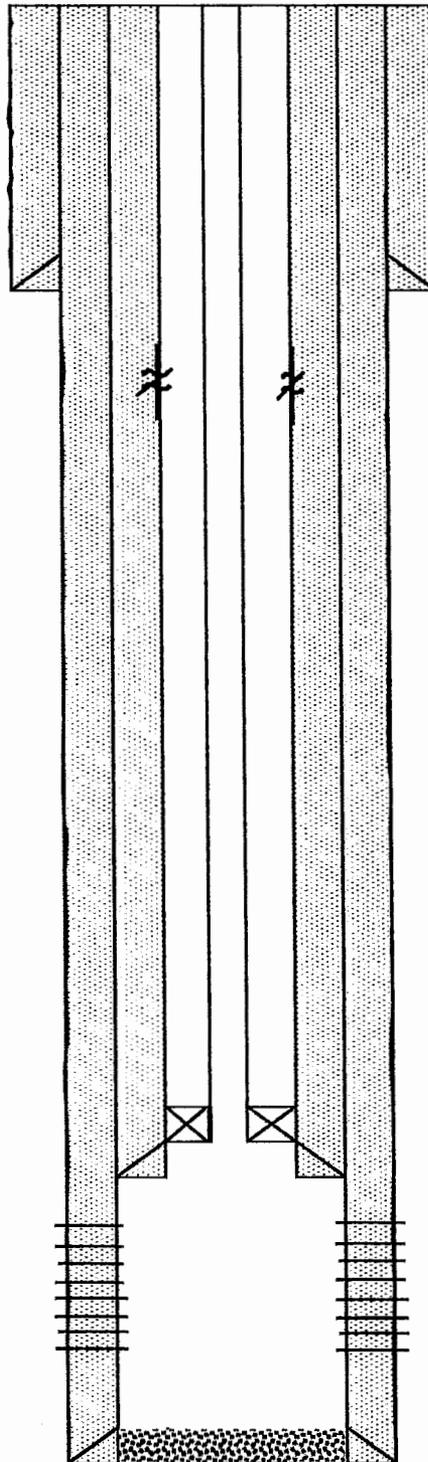
Well #:	26	St. Lse:	B-1056
API	30-025-25814		
Unit Ltr.:	J	Section:	25
TSHP/Rng:	S-17 E-34		
Unit Ltr.:			
TSHP/Rng:			
CHEVNO:	EQ0047		
Directions:	Buckeye, NM		

Surface Casing	
Size:	8 5/8"
Wt., Grd.:	24#, K-55
Depth:	402'
Sxs Cmt:	425 sxs
Circulate:	Yes; 45 sx
TOC:	Surface
Hole Size:	12-1/4"

KB:	4009'
DF:	NA
GL:	3997'
Ini. Spud:	3/3/1978
Ini. Comp.:	3/17/1978

Production Liner	
Size:	3-1/2" Liner
Wt., Grd.:	9.2#, L-80
Depth:	4302'
Sxs Cmt:	135 sxs
Circulate:	Yes
TOC:	Surface
Hole Size:	4-1/2"

Production Casing	
Size:	4 1/2"
Wt., Grd.:	10.5#, K-55
Depth:	4800'
Sxs Cmt:	2100 sxs
Circulate:	Yes; 250 sx
TOC:	Surface
Hole Size:	7-7/8"



RBP @ 400'

Sqz'd 1053-1242'
w/75 sx. Cmt

Well History on history tab

2-1/16" L-80 IPC Tbg. EOT @ 4284'
Packer w/ O/O Tool (1.43" F" N) @ 4290'
3-1/2" Liner, EOL @ 4302'

San Andres Perfs: 4384-4718

PBTD: 4782'

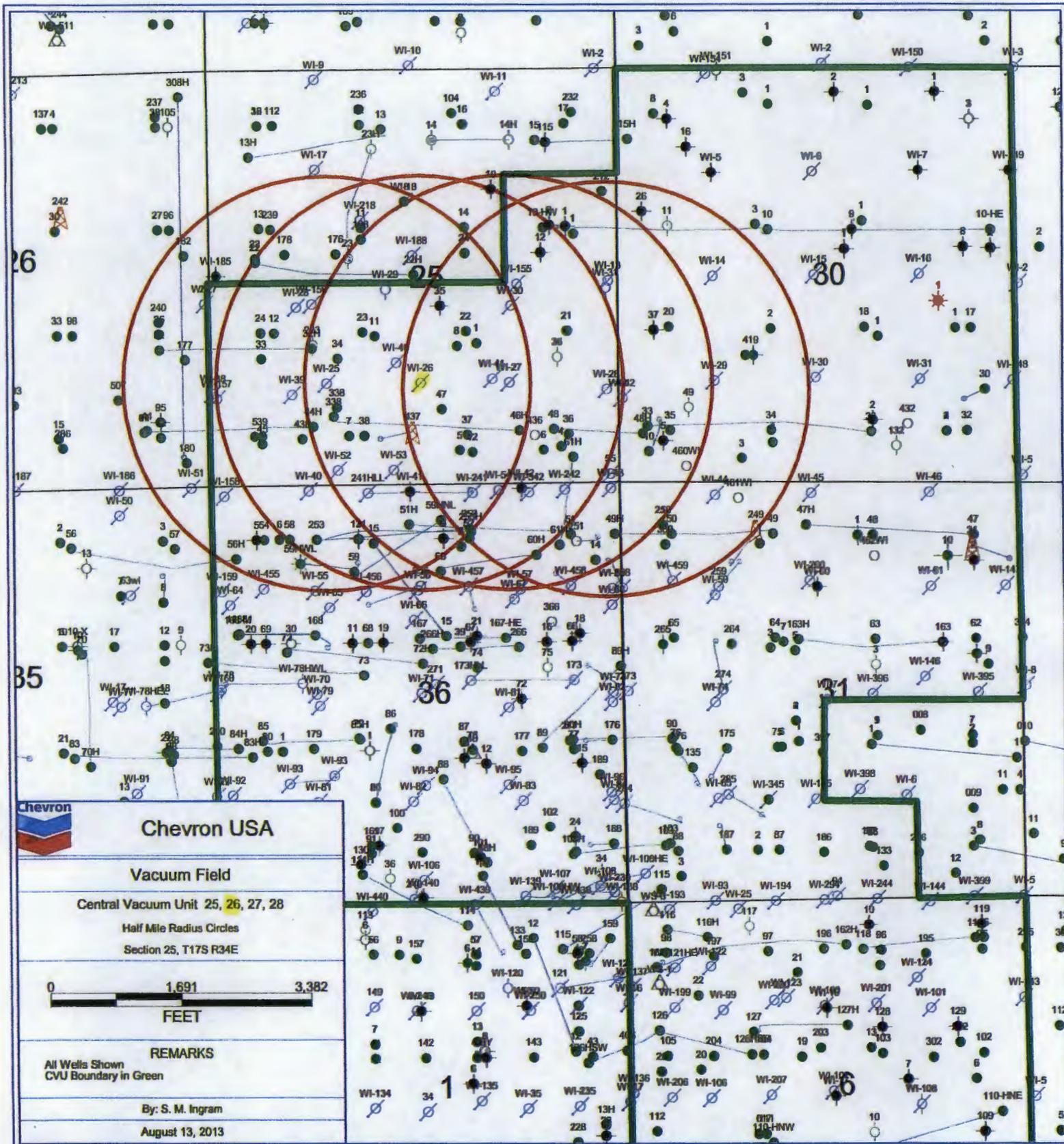
TD: 4800'

CVU 26

API No. 30-025-25814

Workover Procedure

1. Rig up pulling unit. TOH w/ packer and injection tubing.
2. TIH w/ treating packer on 2-3/8" workstring and set at 4300'
3. Acidize perms 4384'-4718' w/ 6,000 gallons 15% NEFE HCl.
4. TOH w/ workstring and packer.
5. Set 4-1/2" composite bridge plug at 4305' on wireline.
6. TIH w/ 3-1/2" flush joint liner and set at 4304'.
7. Cement liner with 135 sx Class "C" cement.
8. TIH w/ 2-3/4" bit and drill collars on 2-1/16" workstring.
9. Drill out cement, float equipment and composite bridge plug. Clean out to 4770'. TOH.
10. TIH w/ 3-1/2" injection packer and on-off tool on 2-1/16" L-80 IJ IPC tubing. Set packer at 4291'.
11. Load annulus with packer fluid.
12. Perform MIT.
13. Rig down pulling unit.
14. Return well to injection.



INJECTION WELL DATA SHEET

OPERATOR: CHEVRON U.S.A. INC.

WELL NAME & NUMBER: CENTRAL VACUUM UNIT # 27

WELL LOCATION: 1330' FSL & 1425' FEL J 25. T17S. R34E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

Wellbore Diagram

CVU 27

WELL CONSTRUCTION DATA
Surface Casing

Created:	7/3/2008	By:	JSS
Updated:	8/18/2009	By:	N Cayca
Updated:	7/9/2013	By:	CHAY
Lease:	Central Vacuum Unit		
Field:	Vacuum (Grayburg San Andres)		
Surf. Loc:	1330' FSL & 1425' FEL		
Bot. Loc:			
County:	Les	St.:	NM
Status:	Injector		

Well #:	27	St. Loc:	B-1056
API:	30-025-25815		
Unit Ltr.:	J	Section:	25
TSHPRng:	S-17 E-34		
Unit Ltr.:			
TSHPRng:			
CHEVNO:	EQ0048		
Directions:	Buckeye, NM		

Hole Size: 12-1/4" Casing Size: 8-5/8"
 Cemented with: 425 sx. or _____ ft³
 Top of Cement: Surface Method Determined: Circulation

Intermediate Casing

Hole Size: _____ Casing Size: _____
 Cemented with: _____ sx. or _____ ft³
 Top of Cement: _____ Method Determined: _____

Production Casing

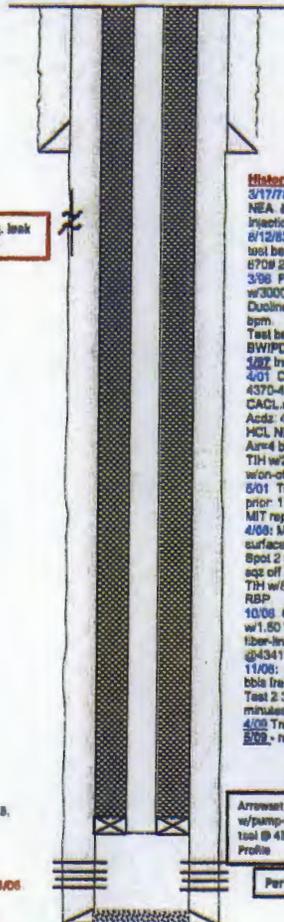
Hole Size: 7-7/8" Casing Size: 4-1/2"
 Cemented with: 2200 sx. or _____ ft³
 Top of Cement: Surface Method Determined: Circulation
 Total Depth: 4800'

Injection Interval

4386' feet to 4719'
 (Perforations)

<u>Surface Casing</u>	
Size:	8-5/8", K-55
Wt. Grd.:	24#
Depth:	420'
Sxs Cmt:	425
Circulate:	Yes
TOC:	Surface
Hole Size:	12 1/4"

Sq'd csg. leak
425-455'



KB:	4002'
DP:	NA
GL:	3990'
Int. Spud:	2/12/1978
Int. Comp.:	3/17/1978

History:
 3/17/78: Initial comp perfs: 4555-4719'. Acids w/3600 gals 15% NEA & perfs: 4386-4447'. Acids w/2400 gals 15% NEA
 Injection test after =172 BWIPD @ Vac 24 hr. inj
 5/12/83: Acids/bleach 4386-4719' w/500/500 gals acid/bleach
 test before: 1085 BWIPD @ 430#. test after: 1427 BWIPD @
 870# 24 hr. injection.
 3/98: Fish out inj pkr. C/O to 4750'. Acids perfs: 4386-4719'
 w/3000 gals 20% NEFE. TIH w/new AD-1 inj pkr on 2-3/8"
 Duoline inj. lbg. Set pkr @ 4346'. Max. press =2250#, Area 6
 bpm.
 Test before: 778 BWIPD @ 1270# 24 hr. inj. test after: 1479
 BWIPD @ 1092# 24 hr. inj.
 3/97: Increase surf. inj. pressure to 1500 psig
 4/31: Clean out. Tag fish @ 4340'. Tag fill @ 4370'. C/O scale
 4370-4580'. Sq'd csg. leak 425-455' w/400 sx. CL C w/2%
 CACL.erm.
 Acids: 4 1/2" csg. perfs. QBBA 4386-4719' w/10000 gals 15%
 HCL NEFE & 4000# RS. Max. =2170#, Min. =865#, Avg.=1250#.
 Area=4 bpm. ISIP=1240#. Total load 332 bbls.
 TIH w/2 3/8" 140 jts. duo-lined injection lbg. @ 4306'. Set pkr
 won-off tool @ 4324'.
 5/01: Test @ comp. status WW 1384 BWIPD @ 1447#. Test
 prior: 1185 BWIPD @ 1446#. MIT repair & C/O
 4/09: MIT rpr & C/O. Hole in lbg 70 jts out. Test csg 4317-
 surface. Would not hold. Isolated hole in 4-1/2" csg. @ 428-455'
 Spot 2 sx sand on RBP @ 4317'. Pmp 380 sx CL C neat cmt to
 eqs off holes. Tag fill @ 4336'. Wash & ream 4336-4750' PBTD
 TIH w/60 jts 2-3/8" lbg. Set RBP @ 4317'. Spot 2 sx sand on
 RBP
 10/08: GIH w/5 1/2" arrowst nickel plated pkr w/pmp out plug
 w/1.50 #"- nipple & on-off tool on 130 jts. Remove RBP. 2 3/8"
 fiber-lined lbg. set @ 4341'. **This cemented in place.** Land
 @ 4341'. Cmt. in 4-1/2" csg.
 11/08: Acids perfs: 4386-4719' w/2000 gals acid. Flush w/16
 bbls fresh wr. well on vac.
 Test 2 3/8" fiber-lined lbg. in 4 1/2" csg. @ 2500# for 36
 minutes ok. RTI
 4/09: Tread to lbg. Bad lbg. valve
 5/09: replace lbg valve Tag @ 4721'

Arrowst nickel-plated pkr
w/pmp-out plug & on/off
tool @ 4341' 1.50"
Profile

Perfs: 4386-4719'

<u>Production Casing</u>	
Size:	4-1/2", K65
Wt. Grd.:	10.5#
Depth:	4800'
Sxs Cmt:	2200
Circulate:	Yes
TOC:	Surface
Hole Size:	7 7/8"

Perforations:
 08, 09, 56, 4411,
 1, 20, 30, 47, 4588, 4611, 20, 48, 55, 70, 78,
 08, 4705, 4719'

Spine and Packer Details:
 1/2" 150 jts. Fiber-lined lbg. @ 4341' 10/31/08
 s. 4' 2 3/8" nickel plated sub.
 nd @ 4341' cmt. in 4 1/2" csg. 10/31/08

INJECTION WELL DATA SHEET

Tubing Size: 2-3/8" Lining Material: Fiberglass

Type of Packer: 4-1/2" Nickel plated Internally plastic coated Inj pkr

Packer Setting Depth: @ +/- 4300'

Other Type of Tubing/Casing Seal (if applicable): 4-1/2" x 2-3/8" Annulus is Filled w/cement

Additional Data

1. Is this a new well drilled for injection? X Yes No

If no, for what purpose was the well originally drilled? _____

2. Name of the Injection Formation: Grayburg - San Andres

3. Name of Field or Pool (if applicable): Central Vacuum Unit

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. _____

No

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: _____

Glorieta (5850-6200')

CVU 27

API No. 30-025-25815

Workover Procedure

1. Rig up slickline truck. TIH w/ 1.50" blanking plug and set in profile nipple at 4341'.
2. Pressure test tubing to 2,500 psi for 30 minutes. Record test on chart recorder.
3. Bleed off pressure and retrieve blanking plug. Rig down slickline truck.
4. Inspect wellhead to insure that flow wetted components are CO2 compatible. Replace components as necessary.
5. Return well to injection.

2013 SEP 26 AM 8 57

CVU 27

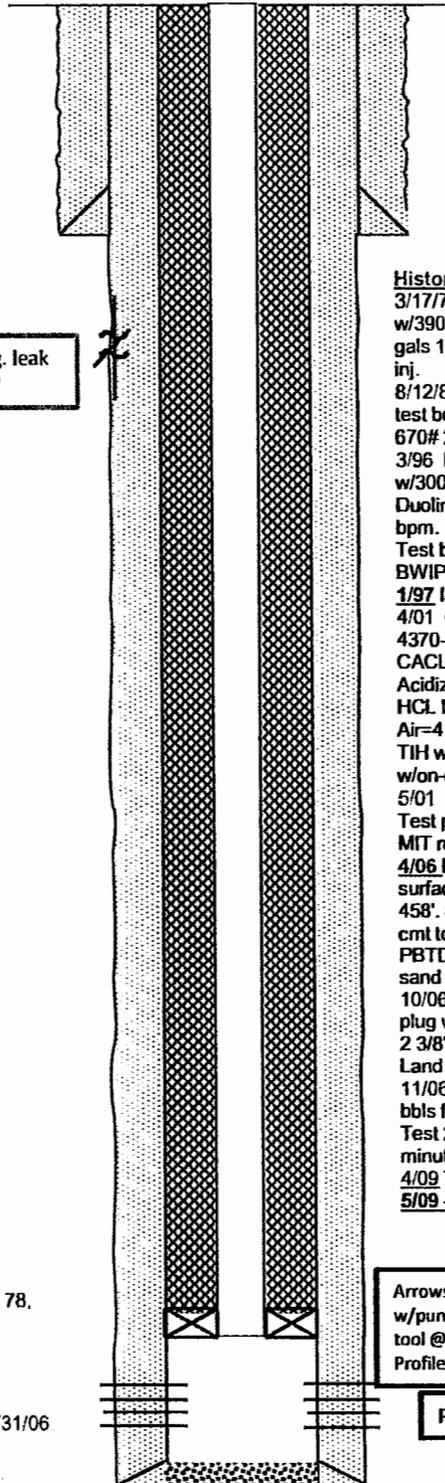
Created:	7/3/2008	By:	JSS
Updated:	8/19/2009	By:	N Cayce
Updated:	7/9/2013	By:	CHAY
Lease:	Central Vacuum Unit		
Field:	Vacuum (Grayburg San Andres)		
Surf. Loc.:	1330' FSL & 1425' FEL		
Bot. Loc.:			
County:	Lea	St.:	NM
Status:	Injector		

Well #:	27	St. Lse:	B-1056
API	30-025-25815		
Unit Ltr.:	J	Section:	25
TSHR/Rng:	S-17 E-34		
Unit Ltr.:	Section:		
TSHR/Rng:			
CHEVNO:	EQ0048		
Directions:	Buckeye, NM		

Surface Casing

Size:	8-5/8"; K-55
Wt., Grd.:	24#
Depth:	420'
Sxs Cmt:	425
Circulate:	Yes
TOC:	Surface
Hole Size:	12 1/4

Sqz'd csg. leak
428-456'



KB: 4002'

DF: NA

GL: 3990'

Ini. Spud: 2/12/1978

Ini. Comp.: 3/17/1978

History:

3/17/78 New well Initial completion perf. 4588-4719'. Acidize w/3900 gals 15% NEA. And perf. 4386-4447'. Acidize w/2400 gals 15% NEA. Injection test after=172 BWIPD @ Vac. 24 hr. inj.
 8/12/83 Acidize/bleach 4386-4719' w/500/500 gals acid/bleach. test before: 1085 BWIPD @ 830#. test after: 1427 BWIPD @ 670# 24 hr. injection.
 3/96 Fished out inj. pkr. C/O to 4750'. Acidize perfs. 4386-4719' w/3000 gals 20% NEFE. TIH w/new AD-1 inj pkr on 2-3/8" Duoline inj. tbg. Set pkr @ 4346'. Max. press.=2250#, Air=4.5 bpm.
 Test before: 778 BWIPD @ 1270# 24 hr. inj. test after: 1479 BWIPD @ 1092# 24 hr. inj.
 1/97 Increase surf. inj. pressure to 1500 psig.
 4/01 Clean out. Tag fish @ 4340'. Tag fill @ 4370'. C/O scale 4370-4580'. Sqz'd csg. leak 428-456' w/400 sx. CL C w/2% CACL.cmt.
 Acidize 4 1/2" csg. perfs. GBSA 4386-4719' w/10000 gals 15% HCL NEFE & 4000# RS. Max.=2170#, Min.=865#, Avg=1250#, Air=4 bpm, ISIP=1240#, Total load 332 bbls.
 TIH w/2 3/8" 140 jts. duo-lined injection tbg @ 4306'. Set pkr. w/on-off tool @ 4324'.
 5/01 Test @ completion: status WIW 1384 BWIPD @ 1447#. Test prior: 1185 BWIPD @ 1446#. MIT repair & C/O.
 4/06 MIT repair & C/O. Hole in tbg 70 jts out. Test csg 4317-surface. Would not hold. Isolated hole in 4-1/2" csg. from 428-458'. Spot 2 sx sand on RBP @ 4317'. Pmp 380 sx CL C neat cmt to sqz off holes. Tag fill @4336'. Wash & ream 4336-4750' PBTD. TIH w/80 jts 2-3/8" tbg. Set RBP @ 4317'. Spot 2 sx sand on RBP.
 10/06 GIH w/5 1/2" arrowset nickel plated paker w/pump out plug w/1.50 "F" nipple and on-off tool on 139 jts. Remove RBP. 2 3/8" fiber-lined tbg. set at 4341'. Tubing cemented in place. Land @4341'. Cmt. in 4-1/2" csg.
 11/06 Acidize perfs. 4386-4719' w/2000 gals acid, Flush w/16 bbls fresh wtr. well on vac.
 Test 2 3/8" fiber-lined tbg. in 4 1/2" csg. @ 2500# for 35 minutes ok. Turn well over to production.
 4/09 Tried to tag. Bad tbg. valve.
 5/09 - replace tbg valve Tag @4721'

Production Casing

Size:	4-1/2", K55
Wt., Grd.:	10.5#
Depth:	4800'
Sxs Cmt:	2200
Circulate:	Yes
TOC:	Surface
Hole Size:	7 7/8

Perforations:

4386, 92, 98, 4411,
 15, 20, 30, 47, 4588, 4611, 20, 48, 55, 70, 78,
 87, 96, 4705, 4719'

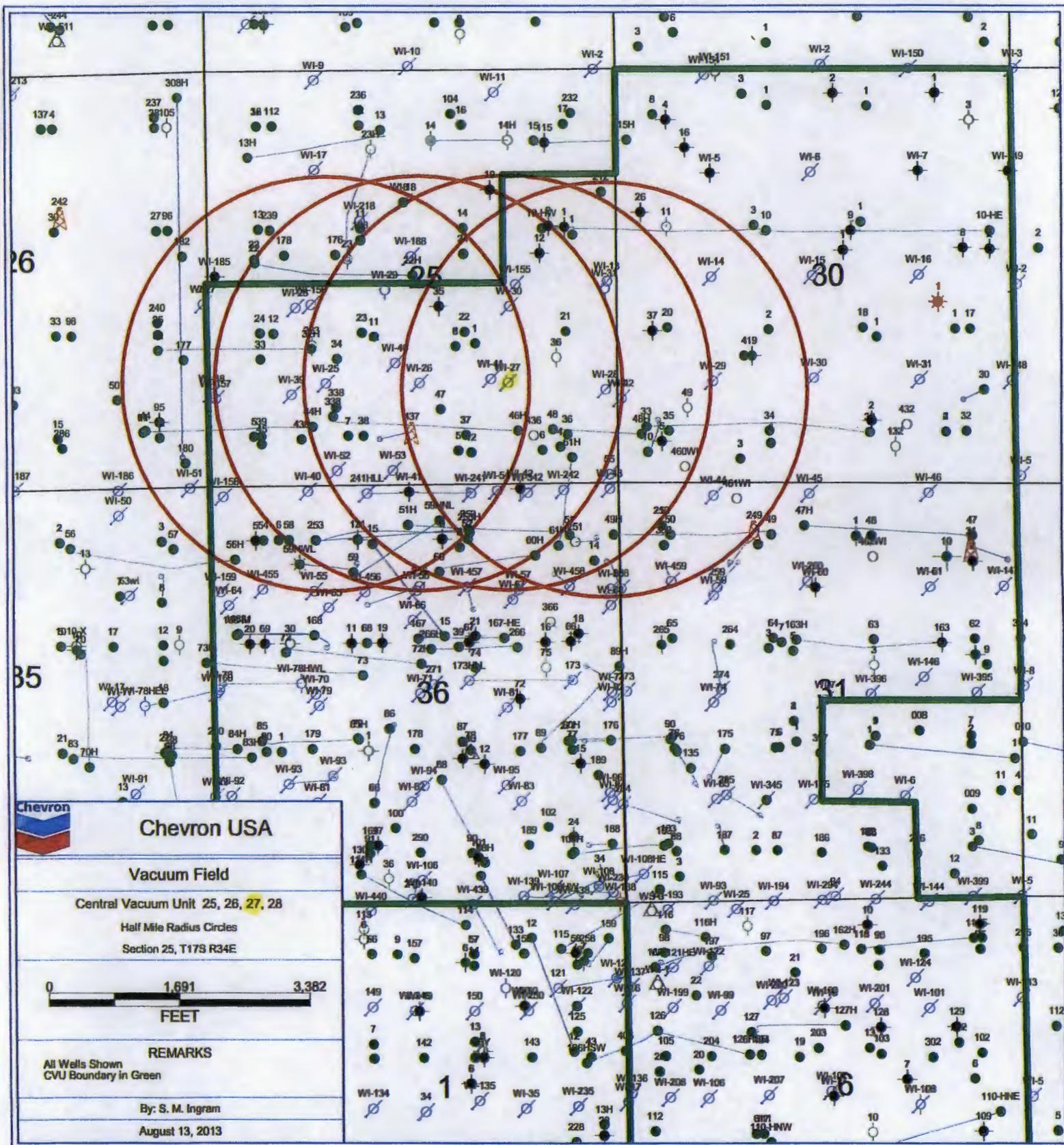
Tubing and Packer Detail:

2 3/8" 139 jts. Fiber-lined tbg. @ 4341' 10/31/06
 Pkr. 4' 2 3/8" nickle plated sub,
 land @ 4341' cmt. In 4 1/2" csg. 10/31/06

Arrowset nickel-plated pkr
 w/pump-out plug & on/off
 tool @ 4341' 1.50"F"
 Profile

Perfs: 4386-4719'

PBTD: 4750'
 TD: 4800'



	Chevron USA
Vacuum Field	
Central Vacuum Unit 25, 26, 27, 28	
Half Mile Radius Circles	
Section 25, T17S R34E	
 FEET	
REMARKS	
All Wells Shown CVU Boundary in Green	
By: S. M. Ingram	
August 13, 2013	

INJECTION WELL DATA SHEET

OPERATOR: CHEVRON U.S.A. INC.

WELL NAME & NUMBER: CENTRAL VACUUM UNIT # 28

WELL LOCATION: 1230'FSL & 159' FEL P 25. T17S. R34E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

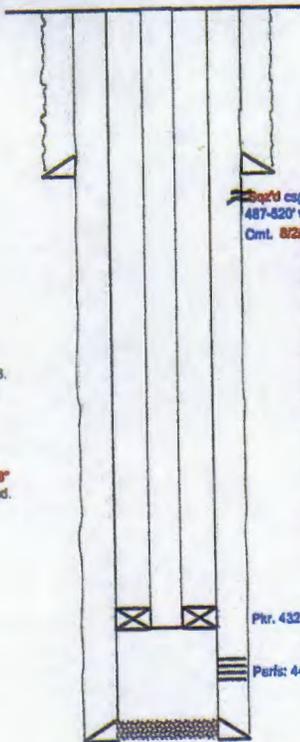
Wellbore Diagram

CVU 28

Created:	7/3/2006	By:	JSS
Updated:	5/4/2009	By:	Cayce
Updated:	7/9/2013	By:	CHAY
Lease:	Central Vacuum Unit		
Field:	Vacuum (Grayburg San Andres)		
Surf. Loc.:	1230' FSL, 159' FEL		
Bot. Loc.:			
County:	Lea	St.:	NM
Status:	Injector		

Well #:	28	St. Loc:	B-1056
API	30-025-25816		
Unit Ltr.:	P	Section:	25
T&HP/Rng.:	S-17 E-34		
Unit Ltr.:	Section:		
T&HP/Rng.:			
CHEVNO:	EQ0049		
Directions:	Buckeye, NM		

Surface Casing	
Size:	8 5/8"
Wt. Grd.:	24# K-55
Depth:	408'
Sxs Cmt.:	425
Circulate:	Yes
TOC:	Surface
Hole Size:	12 1/4"



Perforations:
 4 1/2" csg w/2 JBPF from 4407, 13, 21, 38, 90, 98, 4657, 66, 73, 84, 98, 4705, 11, 17, 4724'

Tubing and Packer Details:
 TH w/4 1/2" injection pkr. On 137 jts. 2 3/8" rose dual-lined inj. Tbg. Circ. Hole w/pkr fluid. set inj. Pkr. @ 4321'

Production Casing	
Size:	4 1/2"
Wt. Grd.:	10.5# K-55
Depth:	4800'
Sxs Cmt.:	2100
Circulate:	Yes
TOC:	Surface
Hole Size:	7 7/8"

PBTD: 4785'
 TD: 4800'

8 5/8" csg. Leak
 487-520' w/200 sx.
 Cmt. 8/2/96.

Perf. and Stimulation History:
CVU 28
 4/14/78 New well initial completion perf. w/2 JBPF from 4407, 13, 21, 38, 90, 98, 4657, 66, 73, 84, 98, 4705, 11, 17, 4724'.
 Acidize 4407-4724' w/4900 gals 15% acid.
 Test: 1200 BWPD @ vac. 24 hr injection.
 9/25/86 Acidize 4407-4724' w/5500 gals acid. before: 800 BWPD @ 880# after: 800 BWPD @ 500# 24 hr. inj.
 8/2/96 8 5/8" csg leak 487-520' w/200 sx cmt.
 8/15/96 TH w/4 1/2" injection pkr. on 137 jts. 2 3/8" rose dual-lined injection tbg. circ. hole w/pkr fluid. set inj. pkr. @ 4321'.
 8/23/96 CPT: injecting 1317 BWPD @ 1130#.
 4/08 Tagged @ 4345'. Tbg press 1526

Pkr. 4321'

Perfs: 4407-4724'

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12-1/4" Casing Size: 8-5/8"
 Cemented with: 425 SX. or _____ ft³
 Top of Cement: Surface Method Determined: Circulation

Intermediate Casing

Hole Size: _____ Casing Size: _____
 Cemented with: _____ SX. or _____ ft³
 Top of Cement: _____ Method Determined: _____

Production Casing

Hole Size: 7-7/8" Casing Size: 4-1/2"
 Cemented with: 2100 SX. or _____ ft³
 Top of Cement: Surface Method Determined: Circulation

Total Depth: 4800'

Injection Interval

4407' feet to 4724'

(Perforations)

INJECTION WELL DATA SHEET

Tubing Size: 2-3/8" Lining Material: Fiberglass

Type of Packer: 4-1/2" Nickel plated internally plastic coated Inj pkr

Packer Setting Depth: @ +/- 4300'

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? X Yes No

If no, for what purpose was the well originally drilled? _____

2. Name of the Injection Formation: Grayburg - San Andres

3. Name of Field or Pool (if applicable): Central Vacuum Unit

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.

No

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: _____

Glorieta (5820' - 6200')

Wellbore Diagram

CVU 28

Created:	7/3/2008	By:	JSS
Updated:	5/4/2009	By:	Cayce
Updated:	7/9/2013	By:	CHAY
Lease:	Central Vacuum Unit		
Field:	Vacuum (Grayburg San Andres)		
Surf. Loc.:	1230' FSL, 159' FEL		
Bot. Loc.:			
County:	Lea	St.:	NM
Status:	Injector		

Well #:	28	St. Lse:	B-1056
API	30-025-25816		
Unit Ltr.:	P	Section:	25
TSHR/Rng:	S-17 E-34		
Unit Ltr.:	Section:		
TSHR/Rng:			
CHEVNO:	EQ0049		
Directions:	Buckeye, NM		

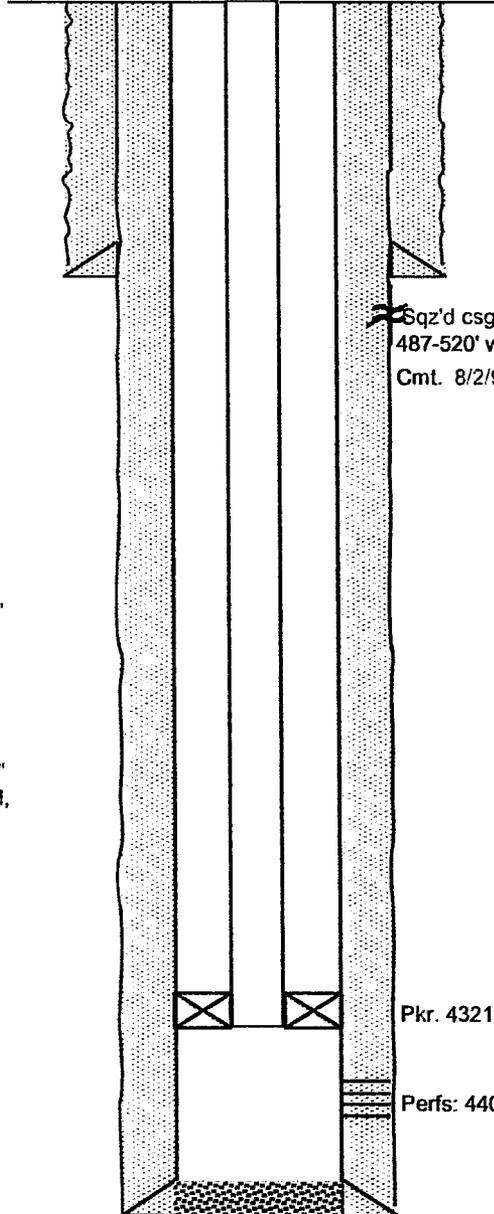
Surface Casing	
Size:	8 5/8"
Wt., Grd.:	24#, K-55
Depth:	409'
Sxs Cmt:	425
Circulate:	Yes
TOC:	Surface
Hole Size:	12 1/4

KB:	3995'
DF:	NA
GL:	3985'
Ini. Spud:	3/5/1978
Ini. Comp.:	4/14/1978

Perforations:
 4 1/2" csg. w/2 JSPF from 4407, 13, 21, 38, 90, 98, 4657, 68, 73, 84, 98, 4705, 11, 17, 4724'.

Tubing and Packer Detail:
 TIH w/4 1/2" injection pkr. On 137 jts. 2 3/8" rice duo-lined inj. Tbg. Circ. Hole w/pkr fluid, set inj. Pkr. @ 4321'.

Production Casing	
Size:	4 1/2"
Wt., Grd.:	10.5#, K-55
Depth:	4800'
Sxs Cmt:	2100
Circulate:	Yes
TOC:	Surface
Hole Size:	7 7/8



Sqz'd csg. Leak
 487-520' w/200 sx.
 Cmt. 8/2/96.

Perf. and Stimulation History:
CVU 028

4/14/78 New well initial completion perf. w/2 JSPF from 4407, 13, 21, 38, 90, 98, 4657, 68, 73, 84, 98, 4705, 11, 17, 4724'.
 Acidize 4407-4724' w/4900 gals 15% acid. Test: 1290 BWPD @ vac. 24 hr. injection.
 9/25/86 Acidize 4407-4724' w/5500 gals acid. before: 660 BWPD @ 880#. after: 800 BWPD @ 800# 24 hr. inj.
 8/2/96 Sqz'd csg leak 487-520' w/200 sx. cmt.
 8/15/96 TIH w/4 1/2" injection pkr. on 137 jts. 2 3/8" rice duo-lined injection tbg. circ. hole w/pkr fluid, set inj. pkr. @ 4321'.
 8/23/96 OPT: Injecting 1317 BWPD @ 1130#.
 4/09 Tagged @ 4345'. Tbg press 1525.

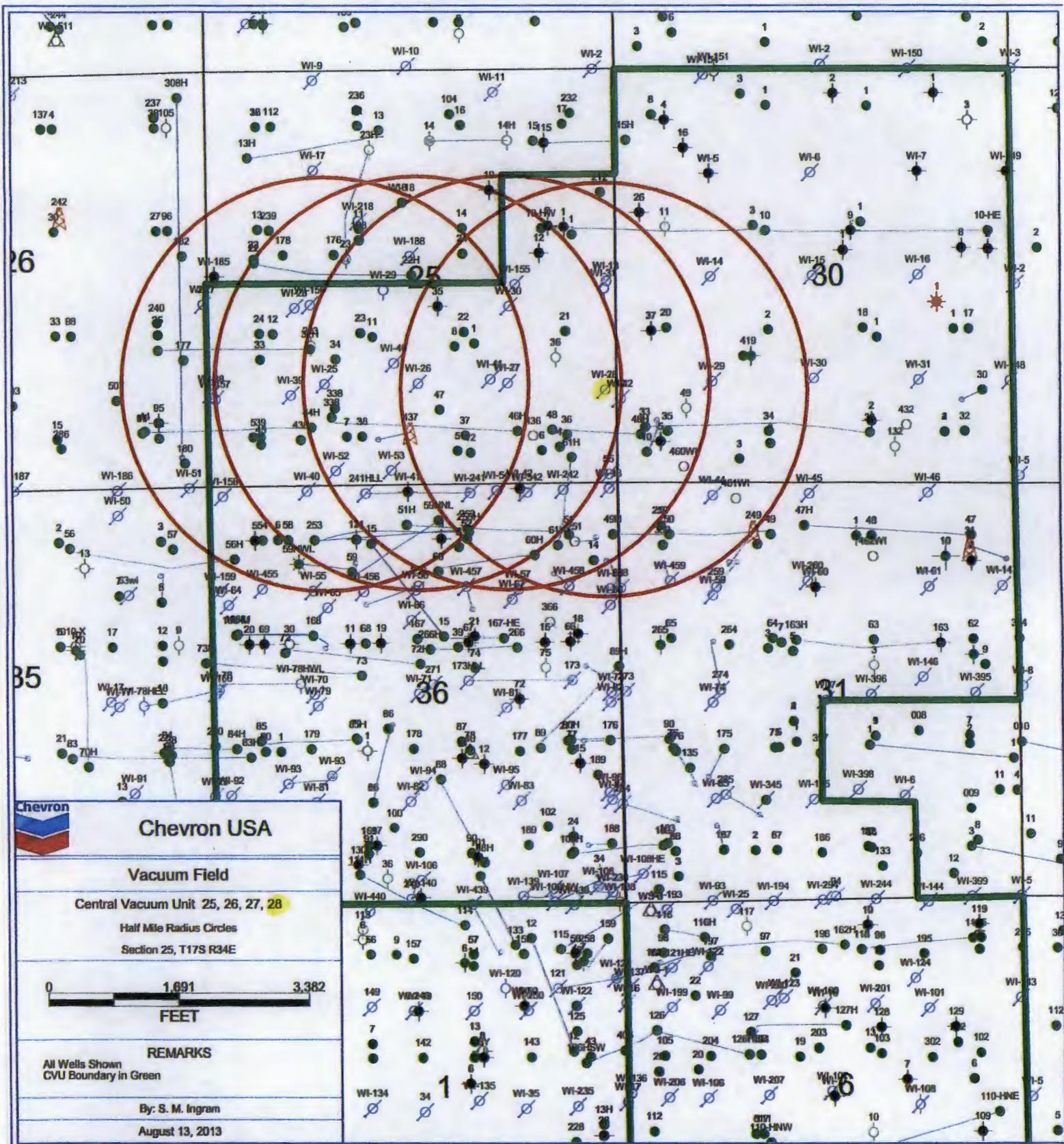
PBTD: 4765'
 TD: 4800'

CVU 28

API No. 30-025-25816

Workover Procedure

1. Perform MIT. If the MIT fails due to a casing leak we will run a 3-1/2" flush joint liner.
2. Rig up pulling unit. TOH w/ packer and injection tubing.
3. TIH w/ 3/7/8" bit and drill collars on 2-3/8" workstring and clean out to 4765' (PBTD). Circulate hole clean and TOH.
4. Run and cement in 3-1/2" flush joint liner to 4375', if necessary.
5. TIH w/ treating packer on workstring and set at 4250'.
6. Acidize perfs 4407'-4724' w/ 6,000 gallons 15% NEFE HCl. TOH.
7. TIH w/ injection packer and on-off tool on IPC injection tubing.
8. Set packer at 4320'.
9. Load annulus with packer fluid.
10. Perform MIT.
11. Rig down pulling unit.
12. Return well to injection.



Chevron USA

Vacuum Field

Central Vacuum Unit 25, 26, 27, 28

Half Mile Radius Circles

Section 25, T17S R34E

0 1,691 3,382
FEET

REMARKS

All Wells Shown
CVU Boundary in Green

By: S. M. Ingram

August 13, 2013

LEGAL NOTICE

September 4, 2013

Notice is hereby given of the application of
CHEVRON U.S.A, INC.

15 Smith Road, Midland, TX 79705, to the Oil Conservation of the State of New Mexico, and the Commissioner of Public Lands, State of New Mexico for approval to convert the Central Vacuum Unit # 25, 26, 27 and 28 from Water Injection wells to Water Alternating Gas Injection wells. Injection into these wells is designed to enhance production from the Central Vacuum Unit.

The CVU # 25, is located 1330' FSL & 1504' FWL, UL K, Sec. 25, T17S, R34E; CVU # 26, 1330' FSL & 2577' FEL, UL J, Sec 25, T17S, R34E; CVU # 27, 1330' FSL & 1425' FEL, UL J, Sec 25, T17S, R34E, CVU # 28, 1230' FSL & 159' FEL, UL P, Sec 25, T17S, R34E, Lea County, NM. The injection interval will be through perforations within the "Unitized Formation" for the CVU which includes the correlative stratigraphic interval underlying the Unit Area in the Vacuum-Grayburg San Andres pool between the depths of 3,858' (+ 144' sub-sea) and 4858' (-856' sub-sea) on the Welex Acoustic Velocity Log, run on 11-13-63, in the Texaco Inc, State of NM "O" (NCT-1) well # 23, located: O-36-T17S-R34E, NMPM, Lea CO, NM. (now Vacuum Glorieta West Unit Well # 101). The maximum injection rate will be 2,000 BWPD/well, with a maximum allowable surface pressure of 1,500 psi. CO₂ and produced gas injection will be at a maximum rate of 4,000 MCF per day/well, with a maximum surface pressure of 2,200 psi. Interested parties should file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505 within 15 days.

Inquiries regarding this application should be directed to Chevron North America, Attn: Paul T. Brown, 15 Smith Rd., Midland TX 79705.

2013 SEP 26 AM 8 57

NOTIFICATION LIST

Prepared 7/10/2013 by Daniel Pequeno, Senior Land Representative

Application of Chevron U.S.A. Inc. for Administrative Approval of a Water Injection Well Location:

Central Vacuum Unit Well No. 25, API #30-025-25813
1,330' FSL & 1,504' FWL, Section 25, T-17-S, R-34E, Unit Letter K
Lea County, New Mexico

Offset Operators, Leaseholders, Working Interest Owners, for N/2 of Section 25, T17S-R34E:

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

Mobil Producing Texas & New Mexico Inc.
c/o XTO Energy Inc.
Attn.: Permian Land
810 Houston Street
Fort Worth, Texas 76102

XTO Energy Inc.
Attn.: Permian Land
810 Houston Street
Fort Worth, Texas 76102

Offset Operators, Leaseholders, Working Interest Owners, for SE/4 of Section 25, T17S-R34E:

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

Offset Operators, Leaseholders, Working Interest Owners, for SW/4 of Section 25, T17S-R34E:

Marathon Oil Company
5555 San Felipe
Mail Stop #3308
Houston, Texas 77056

Apache Corporation
303 Veterans Airpark Lane, Suite 30000
Midland, Texas 79705

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

Offset Operators, Leaseholders, Working Interest Owners, for E/2 of Section 26, T17S-R34E:

XTO Energy Inc.
Attn.: Permian Land
810 Houston Street
Fort Worth, Texas 76102

Mobil Producing Texas & New Mexico Inc.
c/o XTO Energy Inc.
Attn.: Permian Land
810 Houston Street
Fort Worth, Texas 76102

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

Offset Operators, Leaseholders, Working Interest Owners, for All of Section 36, T17S-R34E:

Mobil Producing Texas & New Mexico Inc.
c/o XTO Energy Inc.
Attn.: Permian Land
810 Houston Street
Fort Worth, Texas 76102

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

Surface Owner for All of Section 25, T-17-S-R34E:

State of New Mexico
Commissioner of Public Lands
P. O. Box 1148
Santa Fe, New Mexico 87504-1148

Signed By: Daniel Pequeno (signed)
Daniel Pequeno, Landman

Date: July 10, 2013

NOTIFICATION LIST

Prepared 7/10/2013 by Daniel Pequeno, Senior Land Representative

Application of Chevron U.S.A. Inc. for Administrative Approval of a Water Injection Well Location:

Central Vacuum Unit Well No. 26, API #30-025-25814
1,330' FSL & 2,577' FEL, Section 25, T-17-S, R-34E, Unit Letter J
Lea County, New Mexico

Offset Operators, Leaseholders, Working Interest Owners, for N/2 of Section 25, T17S-R34E:

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

XTO Energy Inc.
Attn.: Permian Land
810 Houston Street
Fort Worth, Texas 76102

Mobil Producing Texas & New Mexico Inc.
c/o XTO Energy Inc.
Attn.: Permian Land
810 Houston Street
Fort Worth, Texas 76102

Offset Operators, Leaseholders, Working Interest Owners, for SE/4 of Section 25, T17S-R34E:

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

Offset Operators, Leaseholders, Working Interest Owners, for SW/4 of Section 25, T17S-R34E:

Marathon Oil Company
5555 San Felipe
Mail Stop #3308
Houston, Texas 77056

Apache Corporation
303 Veterans Airpark Lane, Suite 30000
Midland, Texas 79705

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

Offset Operators, Leaseholders, Working Interest Owners, for W/2 of Section 30, T17S-R34E:

Chevron U.S.A. Inc.
15 Smith Road
3000 Midland, Texas 79705

Apache Corporation
303 Veterans Airpark Lane, Suite
Midland, Texas 79705

ConocoPhillips Petroleum Company
P. O. Box 2197
Houston, Texas 77252-2197

Boge, Inc.
6304 County Road 7430
Lubbock, Texas 79424

Offset Operators, Leaseholders, Working Interest Owners, for All of Section 36, T17S-R34E:

Mobil Producing Texas & New Mexico Inc.
c/o XTO Energy Inc.
Attn.: Permian Land
810 Houston Street
Fort Worth, Texas 76102

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

Surface Owner for All of Section 25, T-17-S-R34E:

State of New Mexico
Commissioner of Public Lands
P. O. Box 1148
Santa Fe, New Mexico 87504-1148

Signed By: Daniel Pequeno (signed)
Daniel Pequeno, Landman

Date: July 10, 2013

NOTIFICATION LIST

Prepared 7/10/2013 by Daniel Pequeno, Senior Land Representative

Application of Chevron U.S.A. Inc. for Administrative Approval of a Water Injection Well Location:

Central Vacuum Unit Well No. 27, API #30-025-25815
1,330' FSL & 1,425' FEL, Section 25, T-17-S, R-34E, Unit Letter J
Lea County, New Mexico

Offset Operators, Leaseholders, Working Interest Owners, for N/2 of Section 25, T17S-R34E:

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

Mobil Producing Texas & New Mexico Inc.
c/o XTO Energy Inc.
Attn.: Permian Land
810 Houston Street
Fort Worth, Texas 76102

XTO Energy Inc.
Attn.: Permian Land
810 Houston Street
Fort Worth, Texas 76102

Offset Operators, Leaseholders, Working Interest Owners, for SE/4 of Section 25, T17S-R34E:

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

Offset Operators, Leaseholders, Working Interest Owners, for SW/4 of Section 25, T17S-R34E:

Marathon Oil Company
5555 San Felipe
Mail Stop #3308
Houston, Texas 77056

Apache Corporation
303 Veterans Airpark Lane, Suite 30000
Midland, Texas 79705

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

Offset Operators, Leaseholders, Working Interest Owners, for W/2 of Section 30, T17S-R34E:

Chevron U.S.A. Inc.
15 Smith Road
3000 Midland, Texas 79705

Apache Corporation
303 Veterans Airpark Lane, Suite
Midland, Texas 79705

ConocoPhillips Petroleum Company
P. O. Box 2197
Houston, Texas 77252-2197

Boge, Inc.
6304 County Road 7430
Lubbock, Texas 79424

Offset Operators, Leaseholders, Working Interest Owners, for All of Section 31, T17S-R35E:

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

ConocoPhillips Petroleum Company
P. O. Box 2197
Houston, Texas 77252-2197

Mobil Producing Texas & New Mexico Inc.
c/o XTO Energy Inc.
Attn.: Permian Land
810 Houston Street
Fort Worth, Texas 76102

Apache Corporation.
303 Veterans Airpark Land,
Suite 3000
Midland, Texas 79705

Offset Operators, Leaseholders, Working Interest Owners, for All of Section 36, T17S-R34E:

Mobil Producing Texas & New Mexico Inc.
c/o XTO Energy Inc.
Attn.: Permian Land
810 Houston Street
Fort Worth, Texas 76102

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

Surface Owner for All of Section 25, T-17-S-R34E:

State of New Mexico
Commissioner of Public Lands
P. O. Box 1148
Santa Fe, New Mexico 87504-1148

Signed By: Daniel Pequeno (signed)
Daniel Pequeno, Landman

Date: July 10, 2013

NOTIFICATION LIST

Prepared 7/10/2013 by Daniel Pequeno, Senior Land Representative

Application of Chevron U.S.A. Inc. for Administrative Approval of a Water Injection Well Location:

Central Vacuum Unit Well No. 28, API #30-025-25816

1,230' FSL & 159' FEL, Section 25, T-17-S, R-34E, Unit Letter P
Lea County, New Mexico

Offset Operators, Leaseholders, Working Interest Owners, for N/2 of Section 25, T17S-R34E:

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

XTO Energy Inc.
Attn.: Permian Land
810 Houston Street
Fort Worth, Texas 76102

Mobil Producing Texas & New Mexico Inc.
c/o XTO Energy Inc.
Attn.: Permian Land
810 Houston Street
Fort Worth, Texas 76102

Offset Operators, Leaseholders, Working Interest Owners, for SE/4 of Section 25, T17S-R34E:

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

Offset Operators, Leaseholders, Working Interest Owners, for SW/4 of Section 25, T17S-R34E:

Marathon Oil Company
5555 San Felipe
Mail Stop #3308
Houston, Texas 77056

Apache Corporation
303 Veterans Airpark Lane, Suite 30000
Midland, Texas 79705

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

Offset Operators, Leaseholders, Working Interest Owners, for W/2 of Section 30, T17S-R34E:

Chevron U.S.A. Inc.
15 Smith Road
3000 Midland, Texas 79705

Apache Corporation
303 Veterans Airpark Lane, Suite
Midland, Texas 79705

ConocoPhillips Petroleum Company
P. O. Box 2197
Houston, Texas 77252-2197

Boge, Inc.
6304 County Road 7430
Lubbock, Texas 79424

Offset Operators, Leaseholders, Working Interest Owners, for All of Section 31, T17S-R35E:

Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

ConocoPhillips Petroleum Company
P. O. Box 2197
Houston, Texas 77252-2197

Mobil Producing Texas & New Mexico Inc.
c/o XTO Energy Inc.
Attn.: Permian Land
810 Houston Street
Fort Worth, Texas 76102

Apache Corporation.
303 Veterans Airpark Land,
Suite 3000
Midland, Texas 79705

Offset Operators, Leaseholders, Working Interest Owners, for All of Section 36, T17S-R34E:

Mobil Producing Texas & New Mexico Inc.
c/o XTO Energy Inc.
Attn.: Permian Land
810 Houston Street
Fort Worth, Texas 76102

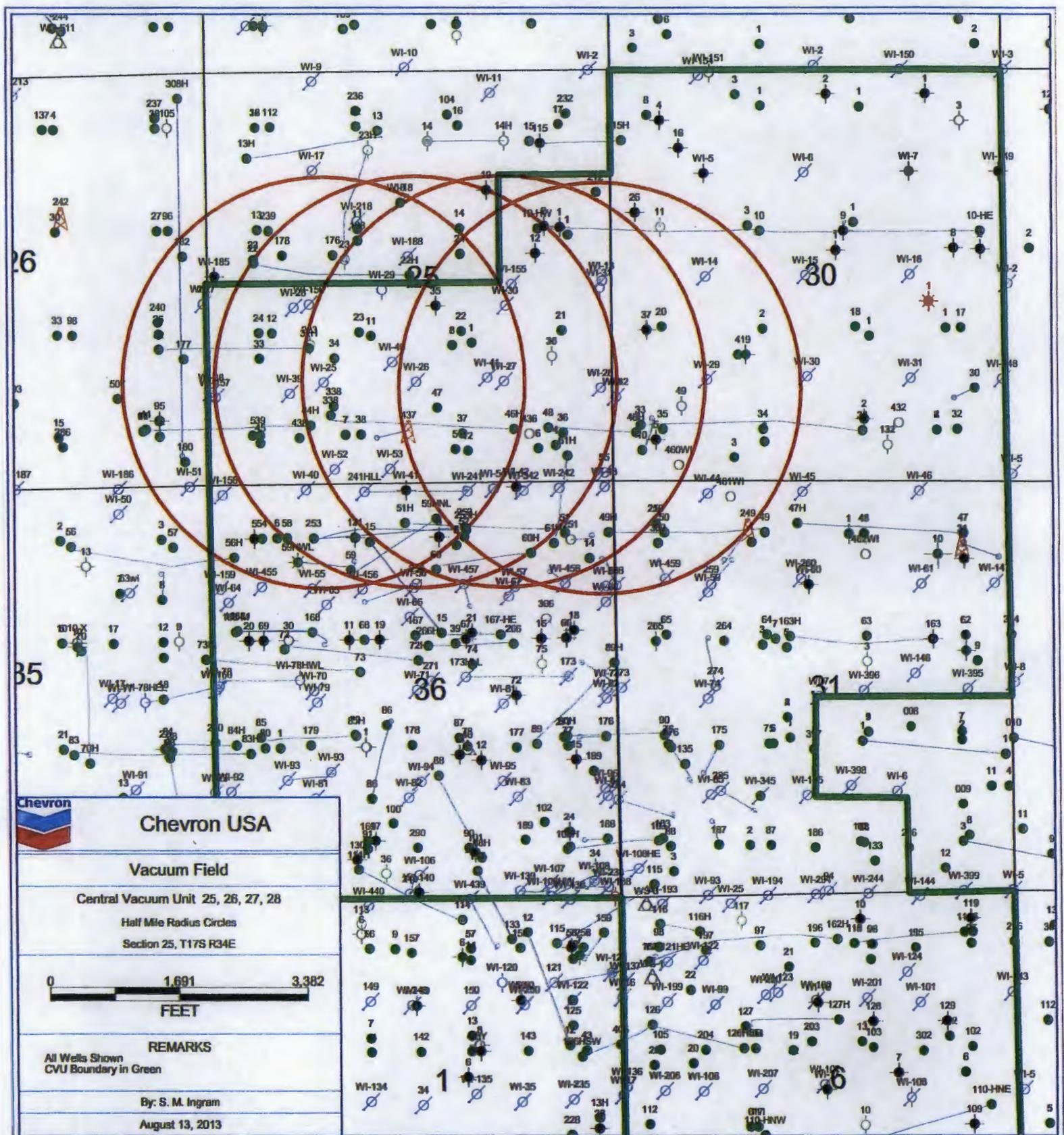
Chevron U.S.A. Inc.
15 Smith Road
Midland, Texas 79705

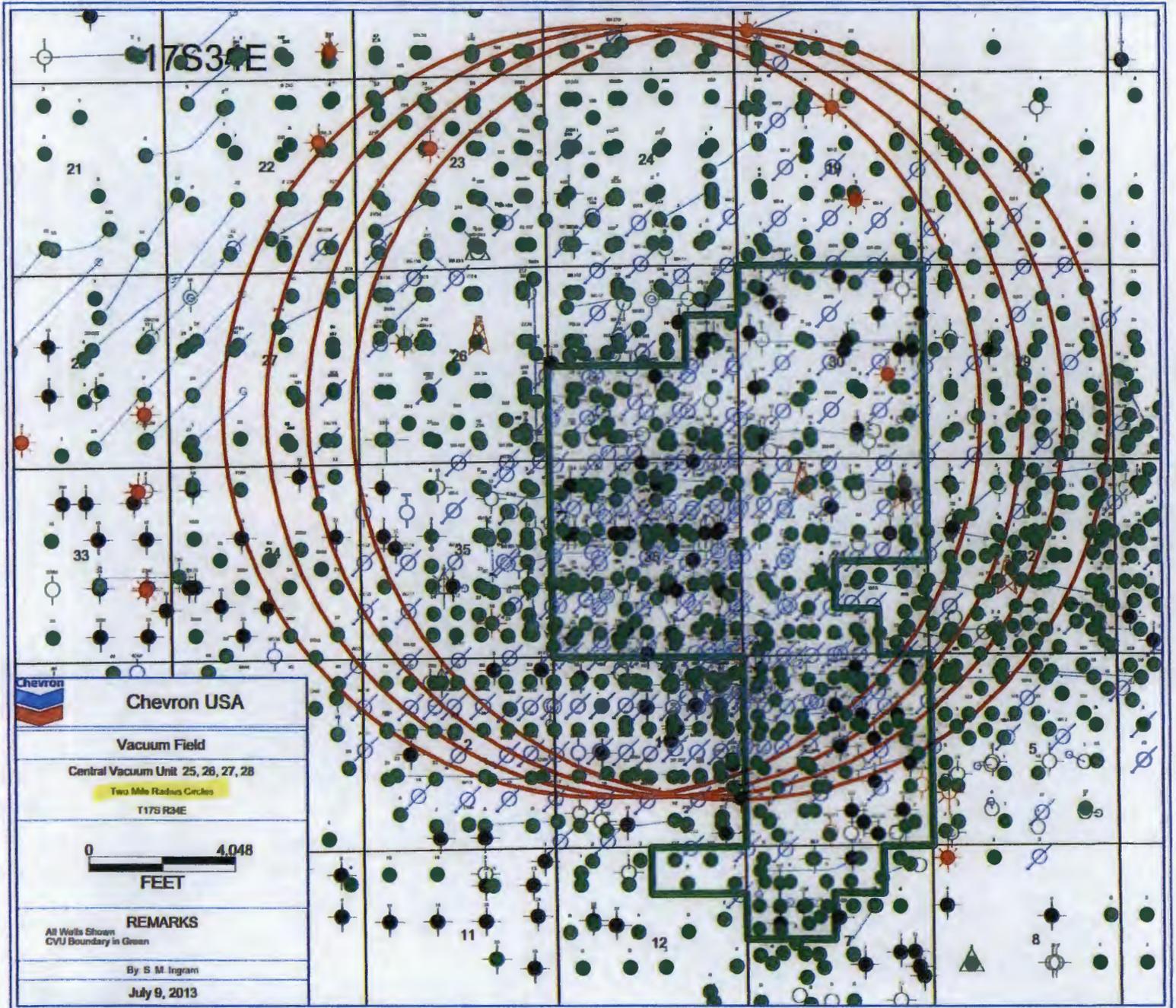
Surface Owner for All of Section 25, T-17-S-R34E:

State of New Mexico
Commissioner of Public Lands
P. O. Box 1148
Santa Fe, New Mexico 87504-1148

Signed By: Daniel Pequeno (signed)
Daniel Pequeno, Landman

Date: July 10, 2013







Carolyn Haynie
Petroleum Engineering
Technical Assistant

MidContinent Business Unit
Chevron North America
Exploration and Production
Company
15 Smith Road
Midland, TX 79705
Tel 432-687-7261
Fax 432-687-7871
chay@chevron.com

September 18, 2013

Water, Gas & CO2 Injection
Central Vacuum Unit # 256
Lea County, New Mexico

Offset Operators:

For your information, as an offset operator, Chevron U.S.A. Inc., operator of the Central Vacuum Unit has filed an application with the New Mexico Oil Conservation Division and to place the following wells from Water Injection to Water Alternating Gas Injection wells. Injection into these wells is designed to enhance the production from the Central Vacuum Unit.

Wells: CVU # 25, API # 30-025-25813; 1330' FSL & 1504' FWL, K-25-T17S-R34E, Lea Co.
CVU # 26, API # 30-025-25814; 1330' FSL & 2577' FEL, J-25-T17S-R34E, Lea Co.
CVU # 27, API # 30-025-25815; 1330' FSL & 1425' FEL, J-25-T17S-R34E, Lea Co.
CVU # 28, API # 30-025-25816, 1230' FSL & 159' FEL, P-25-T17S-R34E, Lea Co

Attached is the information relative to the application, with copies of the legal notice posted in the Hobbs News-Sun and a map highlighting the location of the referenced wells in relation to your offset operations.

Any objections to this application must be sent to the **New Mexico Oil Conservations Division, 1220 South St. Francis Dr., Santa Fe, New Mexico, 87505**, within 15 days of receipt of this notification. If additional information is required, please contact me at (432-687-7261), or the project engineer, Paul Brown, at (432-687-7531).

Sincerely,

Carolyn Haynie
Chevron Midcontinent
NM PE Technical Assistant

Enclosure

2013 SEP 26 AM 8 57

OFFSET OPERATORS:

**Boge, Inc.
6304 County Road 7430
Lubbock, TX 79424**

**ConocoPhillips Petroleum Company
P.O. BOX 2197
Houston, TX 77252-2197**

**Mobil Producing TX & NM Inc.
c/o XTO Energy, Inc.
Attn: Permian Land
810 Houston Street
Ft Worth, TX 76102**

**Apache Corporation
303 Veterans Airpark Lane,
Suite 3000
Midland, TX 79705**

**Marathon Oil Company
5555 San Felipe
Mail Stop #3308
Houston, TX 77056**

Surface Owner

**State of New Mexico
Commissioner of Public Lands
P.O. BOX 1148
Santa Fe, NM 87504-1148**



Carolyn Haynie
Petroleum Engineering
Technical Assistant

MidContinent Business Unit
Chevron North America
Exploration and Production
Company
15 Smith Road
Midland, TX 79705
Tel 432-687-7261
Fax 432-687-7871
chay@chevron.com

September 23, 2013

STATE OF NEW MEXICO
COMMISSIONER OF PUBLIC LANDS
P.O. BOX 1148
SANTA FE, NE 87504-1148

RE: Application for Authorization to Inject
OCD Form C-108
Central Vacuum Unit
Lea, County, New Mexico

Surface Owner:

For your information, Chevron USA Inc., as operator, filed an application with the New Mexico Oil Conservation Division (NMOCD) to place the following wells on Water Alternating Gas Injection, (WAG). Injection into these wells is designed to enhance the production from the Central Vacuum Unit.

Wells: CVU # 25, API # 30-025-25813; 1330' FSL & 1504' FWL, K-25-T17S-R34E, Lea Co.
CVU # 26, API # 30-025-25814; 1330' FSL & 2577' FEL, J-25-T17S-R34E, Lea Co.
CVU # 27, API # 30-025-25815; 1330' FSL & 1425' FEL, J-25-T17S-R34E, Lea Co.
CVU # 28, API # 30-025-25816, 1230' FSL & 159' FEL, P-25-T17S-R34E, Lea Co

Attached is the information relative to the application, with copies of the legal notice posted in the Hobbs News-Sun and a map highlighting the location of the referenced wells in relation to your offset operations.

Any objection to this application must be sent to the **New Mexico Oil Conservation Division; 1220 South St. Francis Drive; Santa Fe, NM 87504**, within 15 days of receipt of this notification.

If additional information is required, please contact me at (432-687-7261), or the project engineer, Paul Brown, at (432-687-7531).

Sincerely,

A handwritten signature in black ink that reads "Carolyn Haynie". The signature is written in a cursive, flowing style.

Carolyn Haynie
NM PE Technical Assistant

Enclosure