District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St. Francis Dr , Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
May 27, 2004

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

[1] Operator Name and Address	[2] OGRID Number
CHEVRON U S.A. INC 15 SMITH ROAD MIDLAND, TEXAS 79705	4323 [3] API Number 30 – 025-24322

[3] Property Code	[5] Property Name	[6] Well No.
30022	VACUUM GRAYBURG SAN ANDRES UNIT	48

[9] Proposed Pool 1	[10] Proposed Pool 2
VACUUM GRAYBURG SAN ANDRES	

[7] Surface Location

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	1	18S	34E		1330	NORTH	1330	WEST	LEA

[8] Proposed Bottom Hole Location If Different From Surface

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Additional Well Information

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
D	I		S	
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
NO	5000'	GRAYBURG SAN ANDRES		

Depth to Groundwater	Distance from nearest fresh water well	Distance from nearest surface water

Pit: Liner Synthetic ☐ ____ mils thick Clay ☐ Pit Volume:_____bbls
Closed-Loop System ☑

Drilling Method:
Fresh Water ☐ Brine ☐ Diesel/Oil-based ☐ Gas/Air ☐

[21] Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC

[22] Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

CHEVRON U S A. INC. INTENDS TO DEEPEN THE SUBJECT WELL FROM 4800' TO 5000' W/4 ¾" BIT SIZE, RUN 4" FLUSH JOINT LINER & CEMENT, RUN GR/CNL/CBL/CCL, PERF TO 4850', STIMULATE, & RETURN TO INJECTION.

THE INTENDED PROCEDURE IS ATTACHED FOR YOUR APPROVAL

Permit Expires 1 Year From Approval Date Unless ~~Drilling~~ Underway

Deepen

AUG 2007 Received Hobbs OCD

[23] I hereby certify that the information given above is true and complete to the best of my knowledge and belief **I further certify that the drilling pit will be constructed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**

Signature: Denise Pinkerton

Printed name DENISE PINKERTON

Title: REGULATORY SPECIALIST

E-mail Address: leakejd@chevron com

Date: 8-09-2007 Phone: 432-687-7375

OIL CONSERVATION DIVISION

Approved by: Chris Williams

Title: OC DISTRICT SUPERVISOR/GENERAL MANAGER

Approval Date: AUG 2 0 2007 Expiration Date:

Conditions of Approval Attached ☐

VGSAU No. 48
API No. 30-025-24322
Vacuum Grayburg San Andres Field
Lea County, NM

Workover Procedure

1. Perform falloff test as per attached procedure. Transmit pressure data to Kojo Lotsu during test period.
2. Rig up Cardinal surveys and run injection profile.
3. Flow back well
4. RUPU. ND wellhead. NU BOP.
5. Release injection packer set at 4201'. TOH w/ 2-7/8" injection tubing laying down.
6. TIH w/ 4-3/4" mill tooth bit and drill collars on 2-7/8" workstring.
7. Drill out 5-1/2" casing shoe set at 4800'. Drill open hole section from 4800' to 5000'. Circulate hole clean and TOH.
8. Rig up casing crew. Run 4" 9.5#/ft, J-55 FJ liner from the bottom up as follows:
   a. 4" guide shoe
   b. 1 jt 4" casing
   c. 4" float collar
   d. 30 jts (1200') 4" casing
   e. 4" X 5-1/2" liner hanger
   f. 2-7/8" workstring to surface.
9. Rig up cementers and cement liner with 90 sacks (100% excess).
10. Release workstring off of liner hanger and reverse circulate tubing clean. TOH.
11. RIH w/ 4" liner top dressing tool and drill collars on 2-3/8" workstring.
12. Dress top of liner at 4000'. TOH.
13. TIH w/ 3-1/4" bit and drill collars on 2-3/8" workstring. Tag TD. Drill out to 4950' if necessary. Test liner to 1000 psi. TOH.
14. Rig up Baker Atlas and pull GR-CNL-CBL-CCL log from PBTD to 2950'. Pull repeat section of bond log at 0 psi and the main logging run at 1000 psi casing pressure.
15. Select transition zone perforations (4750 – 4850; approx 80' net).
16. Perforate w/ 2 JSPF @ 120 degree phasing.
17. RIH w/ 4" injection packer on 2-3/8" duoline injection tubing and set a@ 4650'.
18. ND BOP and NU wellhead.
19. Swab tubing one day to observe fluid entry and to obtain oil and water samples.
20. Acidize perfs with 6,000 gallons 15% HCl. Divert acid using ball sealers.
21. Flow back load.
22. Perform MIT. Place well on injection. RDPU.
23. After injecting for 1 month, run injection profile across transition zone.
24. Perform falloff test as per attached procedure. Transmit pressure data to Kojo Lotsu during test period.
25. Rig up pulling unit. ND wellhead. NU BOP.

VGSAU No. 48
API No. 30-025-24322
Vacuum Grayburg San Andres Field
Lea County, NM

Workover Procedure

26. Release injection packer and TOH w/ injection tubing.
27. RIH and set RBP w/ ball catcher 10' above top existing perf.
28. Perforate Main San Andres pay w/ 1 JSPF @ 120 degree phasing. Consult with technical team for detailed perf selection.
29. RIH w/ injection packer on 2-3/8" injection tubing and set @ 4200'.
30Acidize main San Andres pay perfs w/ 5,000 gallons 15% HCl. Divert acid using ball sealers.
31. Flow back load.
32. Release packer and TOH.
33. RIH and release RBP. TOH.
34. RIH w/ 4" injection packer on 2-3/8" injection tubing and set at 4,200'. Perform MIT.
35. ND BOP and NU wellhead. Rig down pulling unit.
36. Place well on injection.
37. After one month of continuous injection, run injection profile across main pay and transition zone. Before scheduling profile advise technical team.

PTB 8/7/07

VGSAU #48 Wellbore Diagram (Existing)

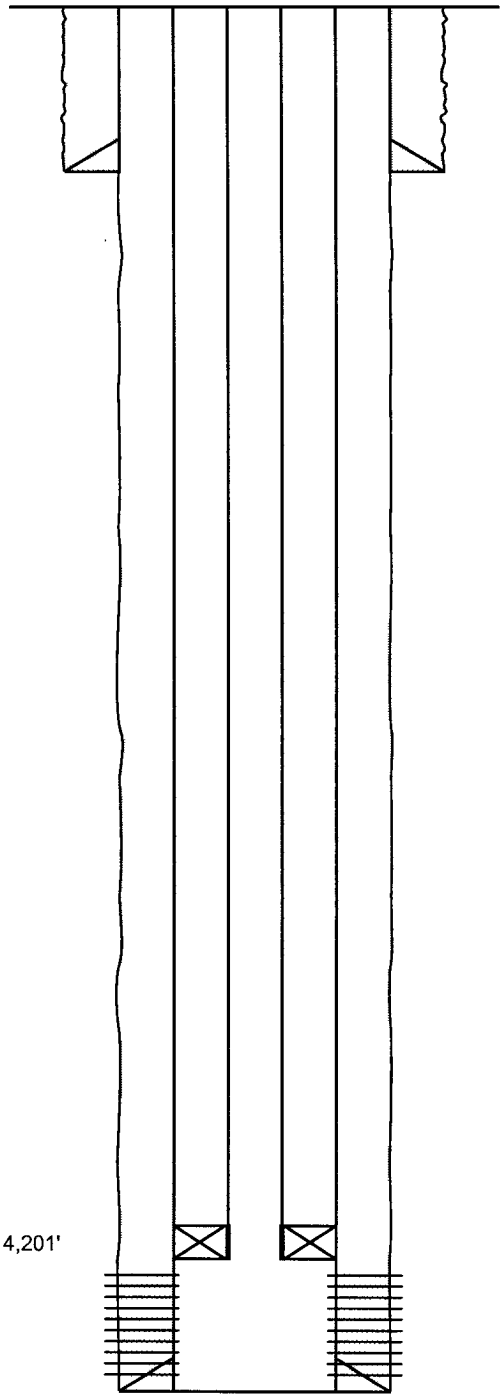
Created:	08/13/07	By:	PTB	Well #:	48	St. Lse:	B-1080
Updated:		By:		API	30-025-24322		
Lease:	Vacuum Grayburg San Andres Unit			Unit Ltr.:	F	Section:	1
Field:	Vacuum Grayburg San Andres Unit			TSHP/Rng:	S-18 E-34		
Surf. Loc.:	1,330' FNL & 1,330' FWL			Unit Ltr.:		Section:	
Bot. Loc.:				TSHP/Rng:			
County:	Lea	St.:	NM	Directions:	Buckeye, NM		
Status:	Active Injection Well			CHEVNO:	FH0743		

Surface Casing

Size:	8 5/8"
Wt., Grd.:	20#
Depth:	355'
Sxs Cmt:	300
Circulate:	Yes
TOC:	Surface
Hole Size:	11 3/4"

Production Casing

Size:	5 1/2"
Wt., Grd.:	14#
Depth:	4,800'
Sxs Cmt:	500
Circulate:	No
TOC:	1000' (est.)
Hole Size:	7 7/8"



KB:	
DF:	4,005
GL:	3,994
Ini. Spud:	
Ini. Comp.:	02/08/73

PBTD: 4,788'
TD: 4,800'

VGSAU #48 Wellbore Diagram (Proposed)

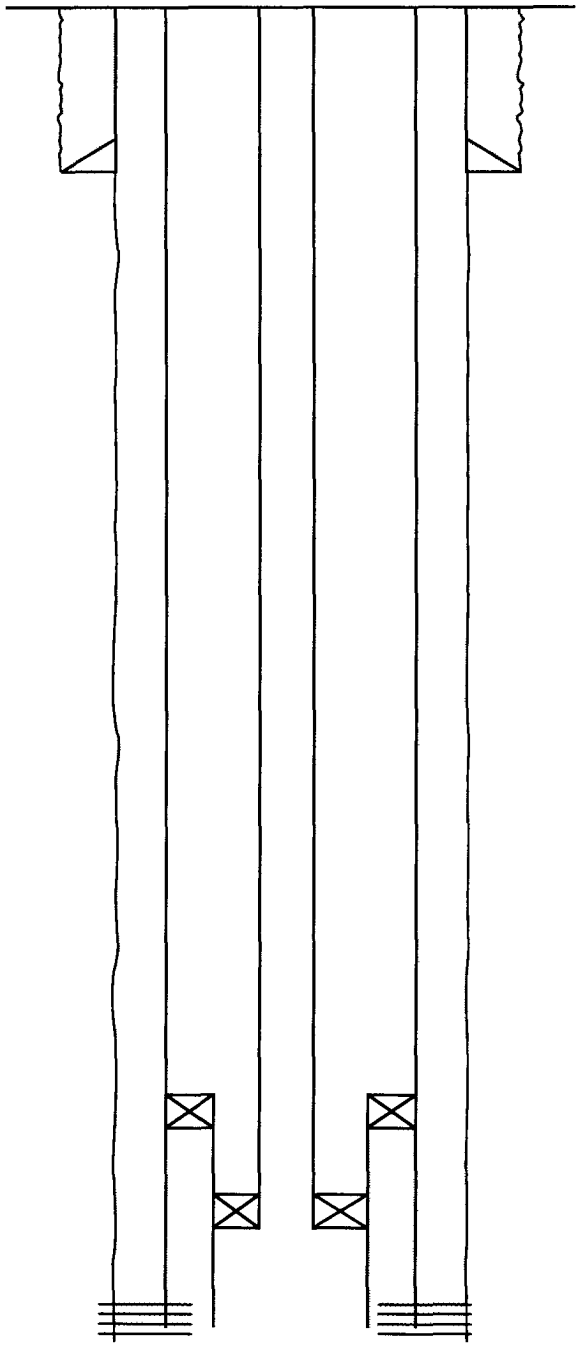
Created:	08/13/07	By:	PTB	Well #:	48 St. Lse:
Updated:		By:		API	30-025-2432
Lease:	Vacuum Grayburg San Andres Unit			Unit Ltr.:	F Section:
Field:	Vacuum Grayburg San Andres Unit			TSHP/Rng:	S-18 E-34
Surf. Loc.:	1,330' FNL & 1,330' FWL			Unit Ltr.:	Section:
Bot. Loc.:				TSHP/Rng:	
County:	Lea	St.:	NM	Directions:	Buckeye, NM
Status:	Active Injection Well			CHEVNO:	FH0743

Surface Casing

Size:	8 5/8"
Wt., Grd.:	20#
Depth:	355'
Sxs Cmt:	300
Circulate:	Yes
TOC:	Surface
Hole Size:	11 3/4"

Production Casing

Size:	5 1/2"
Wt., Grd.:	14#
Depth:	4,800'
Sxs Cmt:	500
Circulate:	No
TOC:	1000' (est.)
Hole Size:	7 7/8"



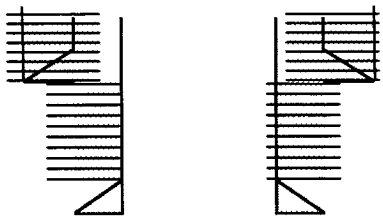
KB:
DF:
GL:
Ini. Spud:
Ini. Comp.:

2-3/8" Duoline Injection Tubin

TOP of 4" FJ Liner @ 3760'

Injection Packer set @ 4200'

Perfs: 4280' - 4850'



PBTD:	4,950'
TD:	5,000'