

## 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

Form C-101

June 16, 2008

RECEIVED

FEB 15 2010

HOBBSDC

Oil Conservation Division

1220 South St. Francis Dr.

Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

<sup>1</sup> Operator Name and Address CHEVRON U S A. INC 15 SMITH ROAD MIDLAND, TEXAS 79705		<sup>2</sup> OGRID Number 4323
		<sup>3</sup> API Number 30 - 025-03076
<sup>3</sup> Property Code 29923	<sup>5</sup> Property Name CENTRAL VACUUM UNIT	
<sup>9</sup> Proposed Pool 1 VACUUM GRAYBURG SAN ANDRES		<sup>10</sup> Proposed Pool 2

<sup>7</sup> Surface Location

UL or lot no C	Section 6	Township 18-S	Range 35-E	Lot Idn	Feet from the 660	North/South line NORTH	Feet from the 1810	East/West line WEST	County LEA
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<sup>8</sup> 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
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## Additional Well Information

<sup>11</sup> Work Type Code DRILL DEEPER	<sup>12</sup> Well Type Code O	<sup>13</sup> Cable/Rotary	<sup>14</sup> Lease Type Code S	<sup>15</sup> Ground Level Elevation 3978' GL
<sup>16</sup> Multiple NO	<sup>17</sup> Proposed Depth 4800'	<sup>18</sup> Formation SAN ANDRES	<sup>19</sup> Contractor	<sup>20</sup> Spud Date

<sup>21</sup> Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
NO CHANGE					

<sup>22</sup> 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 TO 4800' AND ACIDIZE TO INCREASE PRODUCTION

PLEASE FIND ATTACHED, THE INTENDED PROCEDURE, WELLBORE DIAGRAM &amp; C-144 PIT INFORMATION

**Permit Expires 2 Years From Approval  
Date Unless Drilling Underway**

Deeper

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief

Signature

Printed name  
DENISE PINKERTON

Title  
REGULATORY SPECIALIST

E-mail Address  
leakejd@chevron.com

Date  
02-11-2010

Phone  
432-687-7375

OIL CONSERVATION DIVISION

Approved by

Title.

PETROLEUM ENGINEER

Approval Date

FEB. 24 2010

Expiration Date

Conditions of Approval Attached ☐

**District I**  
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State of New Mexico  
Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised October 12, 2005  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number 30-025-03076	<sup>2</sup> Pool Code 62180	<sup>3</sup> Pool Name VACUUM GRAYBURG SAN ANDRES
<sup>4</sup> Property Code 29923	<sup>5</sup> Property Name CENTRAL VACUUM UNIT	<sup>6</sup> Well Number 97
<sup>7</sup> OGRID No. 4323	<sup>8</sup> Operator Name CHEVRON U.S.A. INC.	<sup>9</sup> Elevation 3978' GL

<sup>10</sup> Surface Location

UL or lot no. C	Section 6	Township 18-S	Range 35-E	Lot Idn	Feet from the 660	North/South line NORTH	Feet from the 1810	East/West line WEST	County LEA
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<sup>11</sup> 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
<sup>12</sup> Dedicated Acres 40	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<sup>16</sup> 	<sup>17</sup> <b>OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division  Signature _____ Date 02-23-2010 DENISE PINKERTON REGULATORY SPECIALIST Printed Name _____
	<sup>18</sup> <b>SURVEYOR CERTIFICATION</b> I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Date of Survey _____ Signature and Seal of Professional Surveyor: _____ Certificate Number _____

## **CVU #97**

**Job: Deepening**

**API No. 30-025-03076**

**Vacuum Grayburg San Andres Unit Field**

**Lea County, NM**

### **Workover Procedure:**

1. One day prior to RU: Pump 55 bbl 10# BW down tbg. SI until PU arrives. Calc. KWM.
2. MIRU PU.
3. Kill well as necessary.
4. ND wellhead. NU BOP.
5. RU WL. Set plug in profile nipple. Release from On/Off tool. Circulate w/ KW fluid.
6. POOH w/ prod tbg. GIH w/ On/Off tool, perf sub on 2-7/8" workstring.
7. Pull profile plug. Release packer and POOH.
8. RIH w/ 6-1/8" MT bit and drill collars on 2-7/8" 6.5# EUE L-80 workstring.
9. Drill to 4,800'. Use 9.2 to 9.4#/gal cut BW w/ EZ mud sweeps. Note: In March 2009, TD was tagged at 4691'.
10. Circulate hole clean.
11. Analyze scale samples and check for asphaltene deposits. Give samples to Petroplex Rep and Baker Petrolite.
12. Spot 250 gallons of 15% HCl.
13. TOH.
14. TIH w/ 7" treating pkr on 2-7/8" workstring.
15. Set pkr @ 4,050'.
16. Acidize open hole with 10,000 gallons Petrol 20 (80% Acid /20% Xylene) in four equal stages using rock salt for diversion. Rate: 5-6 BPM and Max Pressure: 4500 psi
17. Shut-in overnight.
18. Flow back load
19. Pump 330 gallons of SCW358 (scale inhibitor) mixed with 120 bbls of fresh water followed by 200 bbls of fresh water.
20. Release packer and TOH.
21. TIH w/ notched collar on workstring and clean out to 4800'. POOH.
22. RIH w/ test ESP on 2-7/8" J55 tbg per ALCR. Set pump @ 4700'.
23. ND BOP. NU wellhead.
24. RDMO PU.
25. RTP.
26. Report production tests.

### **Contacts:**

Larry Birkelbach – Completion Engineer (432-687-7106 / Cell. 432-208-4772)

Carlos Valenzuela – ALCR (Cell: 575-390-9615)

**CURRENT  
WELLBORE DIAGRAM**

Created: 2/20/2004  
 Updated: 6/11/2008  
 Updated: 3/23/2009  
 Updated: 4/24/2009  
 Lease: Central Vacuum Unit  
 Surface Location: 660' FNL & 1810' FWL  
 Bottomhole Location: Same  
 County: Lea St: NM  
 Current Status: Active Oil Well  
 Directions to Wellsite: Buckeye, New Mexico

By: SMG  
 By: BJH  
 By: Cayce  
 By: Cayce

Well No.: 97  
 Unit Ltr: C  
 Unit Ltr:  
 St Lease: B-1113-1  
 Elevation: 3989' DF

Field: Vacuum Grayburg San Andres  
 Sec: 6 TSHP/Range: 18S-35E  
 Sec: TSHP/Range:  
 API: 30-025-03076 Cost Center:  
 TEPI: BCT493000  
 MVP: BCT494500

**Surface Csg.**

Size: 9 5/8"  
 Wt.: 36#  
 Set @: 497'  
 Sxs cmt: 250  
 Circ: Yes  
 TOC: Surface  
 Hole Size: 11"

KB: 3989'  
 DF: 3989'  
 GL: 3978'

Original Spud Date: 10/2/1938  
 Original Compl. Date: 11/11/1938

**Production Csg.**

Size: 7"  
 Wt.: 24#  
 Set @: 4099'  
 Sxs Cmt: 700  
 Circ:  
 TOC:  
 Hole Size: 8 3/4"

**Open Hole**

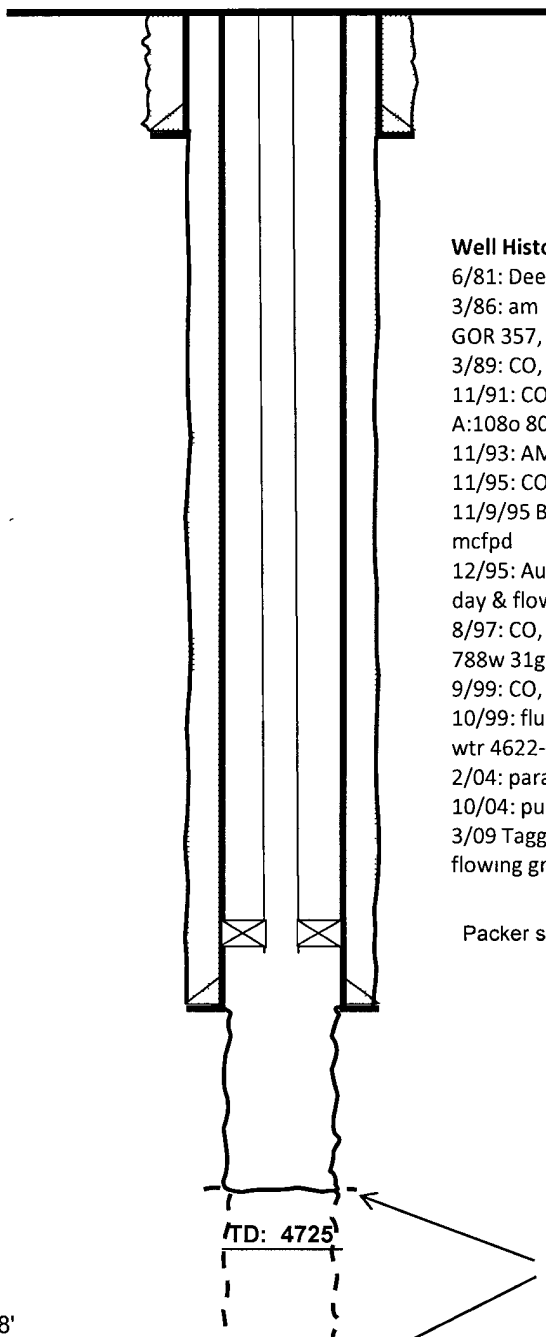
Hole Size: 6 1/8"  
 Depth: 4099'-4725'

**Open Hole**

4099'-4725'

**Tubing Detail**

2-7/8" J55 6.40#  
 T-2 On/Off tool 2.375" OD  
 w/ 1.5" F PN @ 4,000'  
 2-7/8" x 7" AS1X Nickle Plated Packer @ 4000'-4008'



**Well History:**

6/81: Deepen to 4725', AC 8M 20%  
 3/86: am bicarb, AC 10M 15%+RS+MB, a:446o 371w  
 GOR 357, B:264o 99w  
 3/89: CO, AC 8650 gals 15% B:165o 367w, A:318o 780w  
 11/91: CO, AC 8M 15%+RS+ScSq B:75o 467w 56g,  
 A:108o 802w 56g  
 11/93: AM bicarb, AC 9M 20% ScSq, 66o 581w 40g  
 11/95: CO2 1700g/771# (CBL ran csg insp log)  
 11/9/95 Began inj. of CO2 into well. Inj. rate of 1700  
 mcfpd  
 12/95: Aug 2, 1MM/675# for total 50MM soaked 20  
 day & flowback  
 8/97: CO, xylene, convertor, AC 9M 15%+RS,ScSq, 31o  
 788w 31g  
 9/99: CO, CO2 AC frac 30o 606w 382g  
 10/99: fluid entry log, major oil entry 4620-33' major  
 wtr 4622-39', plunger lift  
 2/04: paraffin, CO, AC 5M 20/80 DAD flowing  
 10/04: pull sub & downsize  
 3/09 Tagged @ 4691'. Tbg. press 200. Obtained  
 flowing gradient

Packer set @ 4000'

Proposal - Deepen to 4800'