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 District I - (575) 393-6161  
 1625 N. French Dr., Hobbs, NM 88240  
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 District III - (505) 334-6178  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV - (505) 476-3460  
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
 Energy, Minerals and Natural Resources

Form C-103  
 Revised August 1, 2011

HOBBS OCE  
 FEB 06 2013  
 RECEIVED

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

WELL API NO. <input checked="" type="checkbox"/>	30-025-38946
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>	
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name H.T. MATTERN NC T-B	
8. Well Number 28	
9. OGRID 4323	
10. Pool name or Wildcat PENROSE; SKELLY GRAYBURG	
11. Elevation (Show whether DR, RKB, RT, GR, etc.)	

**SUNDRY NOTICES AND REPORTS ON WELLS**  
 (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well  Gas Well

2. Name of Operator  
CHEVRON U.S.A. INC.

3. Address of Operator  
15 SMITH ROAD, MIDLAND, TEXAS 79705

4. Well Location  
 Unit Letter I: 1330 feet from the SOUTH line and 660 feet from the EAST line  
 Section 30 Township 21-S Range 37-E NMPM County LEA

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

<p><b>NOTICE OF INTENTION TO:</b></p> <p>PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/></p> <p>TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/></p> <p>PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPL <input type="checkbox"/></p> <p>DOWNHOLE COMMINGLE <input type="checkbox"/></p> <p>OTHER: ACIDIZE, SWAB, SCALE SQUEEZE</p>	<p><b>SUBSEQUENT REPORT OF:</b></p> <p>REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/></p> <p>COMMENCE DRILLING OPNS. <input type="checkbox"/> P AND A <input type="checkbox"/></p> <p>CASING/CEMENT JOB <input type="checkbox"/></p> <p>OTHER:</p>
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13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

CHEVRON U.S.A. INC. INTENDS TO SONIC HAMMES ACIDIZE, SWAB, & SCALE SQUEEZE THE SUBJECT WELL.

PLEASE FIND ATTACHED, THE INTENDED PROCEDURE, WELLBORE DIAGRAM, & C-144 INFORMATION.

Spud Date:  Rig Release Date:

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

SIGNATURE Denise Pinkerton TITLE: REGULATORY SPECIALIST DATE: 02-04-2013

Type or print name: DENISE PINKERTON E-mail address: leakejd@cvchevron.com PHONE: 432-687-7375

APPROVED BY [Signature] TITLE Dist Mgr DATE 2-7-2013

Conditions of Approval (if any):

H.T. Mattern B #28

1.28.2013

Penrose Skelly- Grayburg Reservoir

T21S, R37E, Sec. 30

N 32° 26' 46.11, W -103° 11' 43.51W (NAD27)

Job: Sonic Hammer Acidize, Swab & Scale Squeeze

**PREWORK:**

1. Utilize the rig move check list.
2. Check anchors and verify that pull test has been completed in the last 24 months.
3. Ensure location of & distance to power lines is in accordance with MCA SWP. Complete and electrical variance and electrical variance RUMS if necessary.
4. Ensure that location is of adequate build and construction.
5. Ensure that elevators and other lifting equipment are inspected. Caliper all lifting equipment at the beginning of each day or when sizes change.
6. When NU anything over and open wellhead (EPA, etc.) ensure the hole is covered to avoid dropping anything downhole.
7. For wells to be worked on or drilled in an H<sub>2</sub>S field/area, include the anticipated maximum amount of H<sub>2</sub>S that an individual could be exposed to along with the ROE calculations for 100 ppm and 500 ppm.
8. If the possibility of trapped pressure exists, check for possible obstructions by:
  - Pumping through the fish/tubular – this is not guaranteed with an old fish as the possibility of a hole above the obstruction could yield inconclusive results
  - Dummy run – make a dummy run through the fish/tubular with sandline, slickline, eline or rods to verify no obstruction. Prior to making any dummy run contact RE and discuss.

If unable to verify that there is no obstruction above the connection to be broken, or if there is an obstruction:

- Hot Tap at the connection to check for pressure and bleed off

Observe and watch for signs / indicators of pressure as connection is being broken. Use mud bucket (with seals removed) and clear all non-essential personnel from the floor.

**Procedure:**

**This procedure is meant to be followed. It is up to the WSM, Remedial Engineer and Production Engineer to make the decisions necessary to do SAFELY what is best for the well. In the extent that this procedure does not reflect actual operations, please contact RE, PE and Superintendent for MOC**

1. Verify that well does not have pressure or flow. If the well has pressure, note tubing and casing pressures on Wellview report. Bleed down well; if necessary, kill with cut brine fluid (8.6 ppg).
2. MI & RU workover unit.
3. Unseat pump, POOH with rods and pump. Examine rods for wear/pitting/paraffin. Do not hot water unless necessary. ND wellhead, unset TAC, NU BOP. POOH and LD 1 jt, PU 5-1/2" packer and set ~ @ 25', test BOP pipe rams to 250 psi/1000 psi. Note testing pressures on Wellview report. Release and LD packer.
4. PU 2-3 jts of tubing and tag for fill (TAC 3612', Bottom Perfs 3,938', EOT 4,154', PBTD 4,272'). Do not push TAC into perfs. POOH while scanning 2-7/8" prod tubing. LD all non-yellow band joints. If fill is tagged:
  - A. Above 4,000' contact remedial engineer and verify if the clean out is necessary. If so, continue with foam/air clean out per step 5.
  - B. Below 4,000' clean out not needed, skip step 5.

**Note: Strap pipe out of the hole to verify depths and note them on Wellview report.**

Send scan log report to [LGBI@chevron.com](mailto:LGBI@chevron.com).

5. PU and RIH with 4-3/4" MT bit, 4 (3-1/2") drill collars on 2-7/8" 6.5# L-80 WS. RU power swivel and clean out to 4,240' with foam/air unit (**continue to supplemental procedure and in accordance with attached SOG**). POOH with 2-7/8" WS and bit. LD bit & BHA.
6. Contact sonic tool rep to be on site during job. *Verify that WS is clean, inspect for excessive rust.* PU and RIH with Sonic Hammer tool and work string to 3,940' or enough to cover the bottom perforations with a whole stand. Hydrotest tubing to 6,000 psi. Stand back tubing to top perforations. Install stripper head and stand pipe with sufficient treating line to move tools vertically ~ 65'. Rig up pressure gauges to allow monitoring of tubing and casing pressures.
7. MI & RU Petroplex. Titrate acids and verify concentration (HCl  $\pm 1.5\%$ ) report results in daily work summary. Treat all intervals from 3,705' to 3,940' with 30 bbls of 2% KCL brine water per interval (refer to Table A). Pump down Sonic Hammer tool at 5 BPM while reciprocating tool across intervals. Do not exceed 5,000 psi tubing pressure. Leave annulus open in circulation mode while treating intervals with 2% KCL brine.
8. Follow the brine water wash with 4,500 gals 15% NEFE HCl of total acid for all intervals. Spot 3 bbls of acid outside tubing, shut in casing, pump 400 gallons of acid @ 5 BPM over first treating interval from 3,705'-3,740', monitor casing pressure not exceeding 500 psi. Flush tubing with 2% KCL brine after every acidized interval, make a connection and continue with remaining interval. Refer to Table A.

**Table A: Perforation Intervals for acid.**

Interval	Depth	Interval (Ft.)	Acid Volume (gal)
1	3705' - 3743'	38	400
2	3743' - 3791'	48	950
3	3791' - 3845'	54	1,150
4	3845' - 3900'	55	1,250
5	3900' - 3940'	40	750
			4,500

9. Shut in well for 1 hr for the acid to spend. Monitor casing pressure to keep it below 500 psi. Bleed off excess pressure if necessary.
10. POOH Sonic Hammer Tool and WS. LD SH.
11. PU & RIH with 5 1/2" packer and WS. Set treating packer at 3650', above the top perf.
12. RU swab crew and flowback tank.
13. Swab well for up to 24 hours.
14. Pump 40 bbls 2% KCL brine water mixed with 3 drums of scale inhibitor (165 gals) Baker SCW-358 Scale Inhibitor Chemical down the packer. Pump at a max rate of 5 BPM.

15. Displace scale squeeze with 160 bbls of 2% KCL brine water.
16. Do not exceed 500 psi casing pressure or 5 BPM while pumping scale squeeze or casing flush. RD and release pump truck.
17. Release packer. POOH packer and WS. LD 2-7/8" WS and packer.
18. RIH with 2-7/8" production tubing hydrotesting to 6,000 psi. Set TAC per ALCR recommendation. ND BOP. NU WH. RIH with rods and pump per ALCR. Hang well on. RD and release workover unit.
19. Turn well over to production.

## FOAM / AIR CLEANOUT PROCEDURE

- This procedure is an addition to the original procedure.
  1. Install flowback manifold with two chokes. All components on flowback manifold must be rated to at least 5,000 psi. If possible, flowback manifold components should be hydrotested before delivery. Hardline pipes from 2" casing valve to manifold to half pit with gas buster.
  2. Install flowback tank downwind from rig.
  3. Position Air unit upwind from Rig next to water tanks. Have vacuum truck on standby to empty halfpit. (if needed)
  4. RIH with 4-3/4" MT bit, 4 (3-1/2") drill collars on 2-7/8" 6.5# L-80 WS.
  5. NU stripper head with **NO Outlets** (Check stripper cap for thread type - course threads preferred). **Stripper head to be stump tested to 1,000 psi before being delivered to rig.** Check chart or test at rig.
  6. RU foam air unit. Make quality foam on surface before going down hole with foam/air. Install flapper float at surface before beginning to pump. Break circulation with foam/air. Evacuate fluid from well.

**Pump high quality foam at all times. Do not pump dry air at any time. Fluid injection rates will generally be above 12 gallons per minute**

**Whenever there is pressure on the stripper head, have a dedicated person continuously monitor pressure at choke manifold and have a dedicated person at accumulator ready to close annular BOP in case stripper leaks. Do not allow pressure on stripper head to exceed 500 psi. If pressure cannot be controlled below 500 psi, stop pumping, close BOP and bleed off pressure.**

7. Clean out fill to 4,000' with low RPM's rotation and circulation, always keep pipe moving. Short trips can be beneficial to hole cleaning. Circulate well clean for at least 1 hour at the end of the day and pull up above the perforations before shut down for night. If the foam/air unit goes down, pull above the perforations.
8. When tripping out of hole, have special float bleed off tool available to relieve trapped pressure below float.

**Ensure that high quality, stiff foam is pumped while circulating the fill. Stiff foam is required to prevent segregation while circulating. Monitor flow and pressures carefully when cleaning out.**

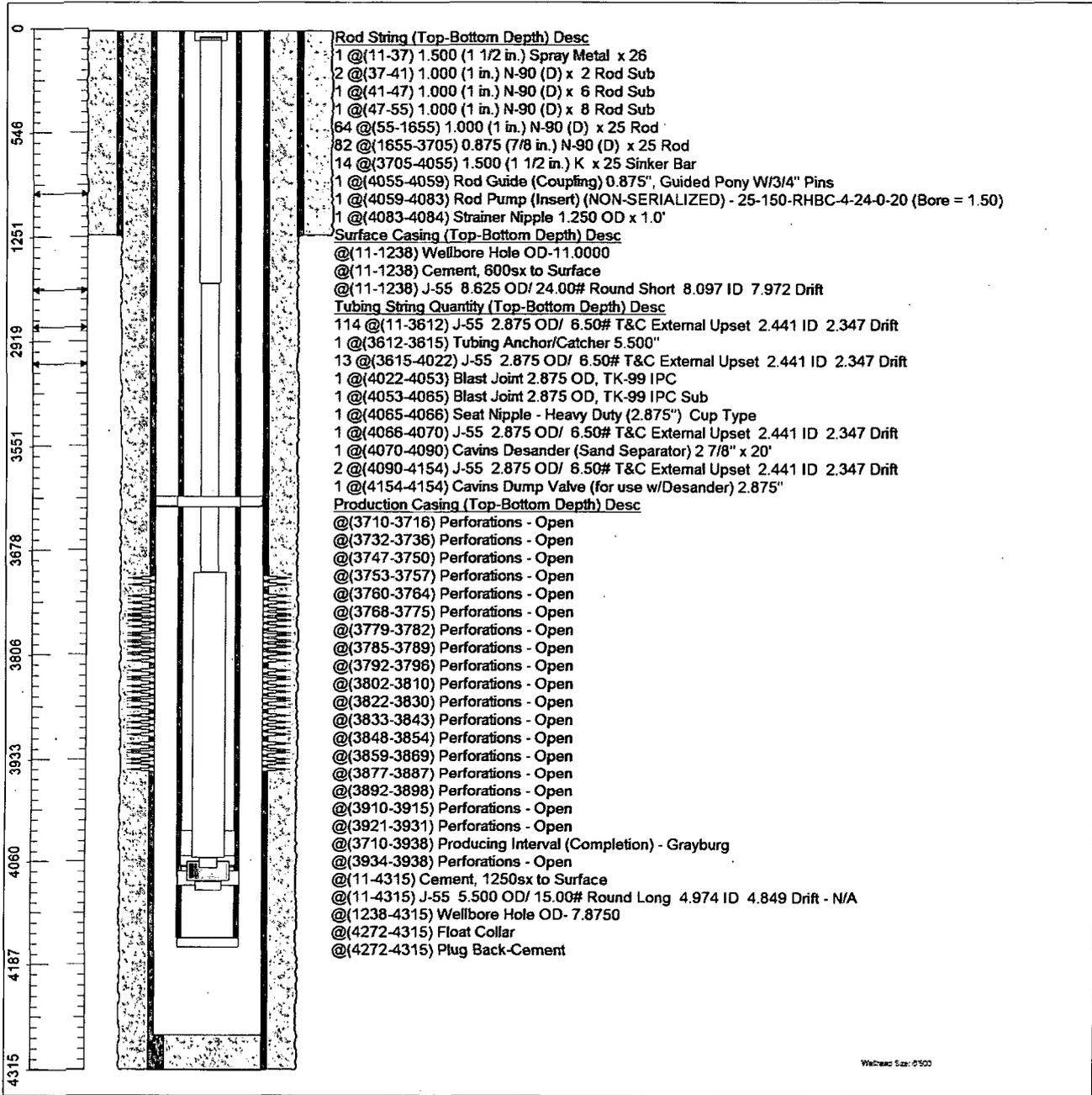
**Before rigging up power swivel to rotate, carefully inspect Kelly hose to ensure that it is in good condition. Ensure that swivel packing is in good condition.**

**Continue on with original procedure for completion.**



## Chevron U.S.A. Inc. Wellbore Diagram : MATB28G

<b>Lease:</b> OEU EUNICE		<b>Well No.:</b> MATTERN H T /NCT-B/ 28		<b>Field:</b> PENROSE SKELLY	
<b>Location:</b> 1330FSL660FEL		<b>Sec.:</b> N/A		<b>Blk:</b>	
<b>County:</b> Lea		<b>St.:</b> New Mexico		<b>Refno:</b> LF2821	
<b>Section:</b>		<b>Township:</b> N/A		<b>Range:</b> N/A	
<b>Current Status:</b> ACTIVE				<b>Dead Man Anchors Test Date:</b> NONE	
<b>Directions:</b>					



<b>Ground Elevation (MSL)::</b> 3479.00	<b>Spud Date:</b> 08/04/2008	<b>Compl. Date:</b> 09/26/2008
<b>Well Depth Datum::</b> CSI0000N	<b>Elevation (MSL)::</b> 0.00	<b>Correction Factor:</b> 11.00
<b>Last Updated by:</b> jackssl		<b>Date:</b> 08/31/2009

free oil

Well: **H. T. Mattern (NCT-B) #28**

Field: **Penrose Skelly**

Reservoir: **Grayburg**

**Location:**  
 1330' FSL & 660' FEL  
 Section: 30<sup>c</sup> Unit Letter: I ✓  
 Township: 21S  
 Range: 37E  
 County: Lea State: NM

**Elevations:**  
 GL: 3479'  
 KB: 3490'  
 DF: 3489'

**This wellbore diagram is based on the most recent information regarding wellbore configuration and equipment that could be found in the Midland Office well files and computer databases as of the update date below. Verify what is in the hole with the well file in the Eunice Field Office. Discuss w/ WEO Engineer, WO Rep, OS, ALS, & FS prior to rigging up on well regarding any hazards or unknown issues pertaining to the well.**

**Current Wellbore Diagram**

**Well ID Info:**  
 Chevno: LF2821  
 API No: 30-025-38946  
 L5/L6: UCU490300  
 Spud Date: 8/4/2008  
 Compl. Date:

**Surf. Csg:** 8 5/8", 24#, J-55  
**Set:** @ 1238' w/ 600 sks  
**Hole Size:** 11"  
**Circ:** Yes **TOC:** Surface  
**TOC By:** Circulated

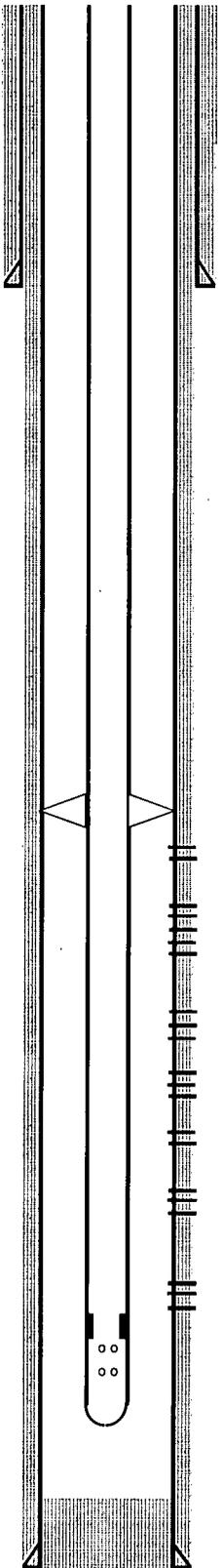
**Well History**  
 9/26/2008: Drilling and Completion  
 3/19/2009: Rod Pump Failure-cut plunger  
 8/12/2009: Rod Pump Downsize from 1.75" to 1.5"  
 7/27/2011: Scale Inhibitor Squeeze

**Tubing Detail: LOWIS 2009**

#Jts:	Size:	Footage
	KB Correction	11.00
114	Jts. 2 7/8" 6.5# EUE 8R J-55 Tbg	3601.13
1	5.5" TAC	2.70
13	Jts. 2 7/8" 6.5# EUE 8R J-55 Tbg	406.77
1	2 7/8" TK-99 IPC Blast Jt.	31.32
1	2 7/8" TK-99 IPC Blast Jt. Sub	12.10
1	2 7/8" Heavy Duty SN Cup Type	1.10
1	2 7/8" x 4' J-55 6.5# Tbg Sub	4.10
1	2 7/8" x 20' Cavins Desander	19.28
2	Jt. 2 7/8" 6.5# EUE 8R J-55 Tbg	64.03
1	2 7/8" Cavins Dump Valve	0.80
<b>136</b>	<b>Bottom Of String &gt;&gt;</b>	<b>4164.33</b>

**Rod Detail: LOWIS 2009**

#Rods:	Size:	Footage
	KB Correction	11.00
1	1 1/2" Spray Metal Polish Rod	26.00
2	1" N-90 Rod Sub	4.00
1	1" N-90 Rod Sub	6.00
1	1" N-90 Rod Sub	8.00
64	1"x 25' N-90 Rod	1600.00
82	7/8"x 25' N-90 Rod	2050.00
14	1 1/2" x 25 K Sinker Bar	350.00
1	7/8" Guided Pony Rod	4.00
1	Rod Pump (Insert)	24.00
1	1 1/4" x 1' Strainer Nipple	0.50
<b>168</b>	<b>Bottom Of String &gt;&gt;</b>	<b>4083.50</b>



Perfs:	Status:
3710'-3716'	Open Grayburg
3732'-3736'	Open Grayburg
3747'-3750'	Open Grayburg
3753'-3757'	Open Grayburg
3760'-3764'	Open Grayburg
3768'-3775'	Open Grayburg
3779'-3782'	Open Grayburg
3785'-3789'	Open Grayburg
3792'-3796'	Open Grayburg
3802'-3810'	Open Grayburg
3822'-3830'	Open Grayburg
3833'-3843'	Open Grayburg
3848'-3854'	Open Grayburg
3859'-3869'	Open Grayburg
3877'-3887'	Open Grayburg
3892'-3898'	Open Grayburg
3910'-3915'	Open Grayburg
3921'-3931'	Open Grayburg
3934'-3938'	Open Grayburg

**Prod. Csg:** 5 1/2", 15.50#, J-55  
**Set:** @ 4315' w/ 1250 sks  
**Hole Size:** 7 7/8"  
**Circ:** Yes **TOC:** Surface  
**TOC By:** Circulated

**COTD:** 4272'  
**PBTD:** 4272' (float collar)

**By:** BQVH