Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr , Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
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

HOBBS OCD
OCT 17 2012
RECEIVED

State of New Mexico
Energy, Minerals and Natural Resources

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

Form C-103
Revised August 1, 2011

	WELL API NO. ✓ 30-025-06657
	5. Indicate Type of Lease STATE ☐ FEE ☒ ✓
	6. State Oil & Gas Lease No.
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.)	7. Lease Name or Unit Agreement Name H.T. MATTERN NCT-C ✓
1. Type of Well: Oil Well ☒ Gas Well ☐ Other	8. Well Number 1 ✓
2. Name of Operator CHEVRON U.S.A. INC.	9. OGRID Number 4323 ✓
3. Address of Operator 15 SMITH ROAD, MIDLAND, TEXAS 79705	10. Pool name or Wildcat PENROSE; SKELLY, GRAYBURG

4. Well Location
Unit Letter: I 1980 feet from the SOUTH line and 660 feet from the EAST line ✓
Section 18 Township 21-S Range 37-E NMPM County LEA

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
OTHER SONIC HAMMER, ACIDIZE, & SCALE SQUEEZE		OTHER:	

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 HAMMER, ACIDIZE & 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 10-16-2012

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

For State Use Only

APPROVED BY: TITLE Dist. Mgr DATE 10-19-2012
Conditions of Approval (if any):

10.04.2012

H T Mattern C #1 [30-025-06657]
Penrose Skelly field
UL I, T21S, R37E, Section 18
N 32° 28' 37.344", W -103° 11' 42.972" (NAD27)
Job: Sonic Hammer, Acidize & Scale Squeeze

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 possible MOC.

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 H2S field/area, include the anticipated maximum amount of H2S 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:

1. MI & RU Workover unit.
2. Verify that well does not have pressure/flow. If well has pressure, record tubing and casing pressures on WellView report. Bleed down well; if necessary, kill with cut brine fluid (8.6 ppg).

➢ **Caliper elevators and tubular EACH DAY prior to handling tubing/rods/tools. Note in JSA when and what items are callipered within the task step that includes that work.**

3. Unseat pump. POOH with rods & pump. Examine rod string for paraffin/corrosion. Do not hot water, unless significant paraffin is seen. ND wellhead, unset TAC, NU BOP.

4. POOH & LD 1 joint, PU 5-1/2" packer and set @ ~ 25'. Close and test BOP pipe rams to 250psi (low)/ 500psi (high). Record testing pressures on WellView report. Release and LD packer.

5. PU tubing and run back in hole to tag for fill.
   Depths: (TAC 3605.6', Top of 4 ½" Liner @ 3184', Bottom Perfs 3,949', EOT 3906', PBTD 3,959')

6. RU Scanners and POOH while scanning all 2-3/8" 4.7# J-55 production tubing. LD all non-yellow band joints. If fill is tagged:
   a. Above 3,959' proceed to step #7.
   b. Below 3,959' skip to step #8.

   Strap pipe out of the hole to verify depths. Send scan report to lgbi@chevron.com.

7. PU and RIH with 3 3/4" Milled Tooth (MT) Bit, 4 (3") drill collars on 2-3/8" 4.7# L-80 Workstring. RU power swivel and C/O to 3,959' with foam air unit (**continue to supplemental procedure and in accordance with attached SOG**). POOH with 2-3/8" WS and bit. LD bit and BHA.

8. Contact sonic tool representative to be on-site during job. PU and RIH with Sonic Hammer tool and 2-3/8" Workstring to 3,959' or enough depth to cover the bottom perforations (@ 3,949') with a whole stand. Hydrotest tubing to 6,000 psi. Stand back tubing to top perforations (@ 3,658'). Install stripper head and stand pipe with sufficient treating line to move tools vertically ~ 50'. RU pressure gauges to allow monitoring of tubing and casing pressures during job.

9. MI and RU Petroplex equipment. Titrate acids and verify concentration (HCl ± 1.5%). Treat all intervals from 3,653' to 3,953' with 30 bbls of 8.6 ppg cut brine water per interval (**see Table 1**). 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 brine water.

10. 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 1300 gals of acid @ 5 BPM over first treating interval from 3,653' – 3,711', monitor casing pressure not exceeding 500 psi on backside. Flush tubing with brine water after every acidizing interval, make a connection and continue with remaining interval. **Refer to Table 1**.

Table 1

Stage	Interval	Interval *(ft)*	Vol Acid *(Gal)*
1	3653' - 3711'	58	1,300
2	3730' - 3787'	57	800
3	3801' - 3858'	57	800
4	3858' - 3908'	50	800
5	3908' - 3953'	45	800
5			**4,500**

11. Shut in well for 1 hr to allow time for acid to spend. Monitor and bleed off excess pressure at surface if necessary to keep casing pressure below 500 psi.

12. Scale squeeze well with a total of 250 bbls brine water and 3 drums (165 gallons) Baker SCW-358 Scale Inhibitor Chemical. For each stage, pump chemical as a concentrated pill of 33 gals of SCW-358 with 8 bbls of brine water then displaced with 32 bbls of brine water per interval. Continue moving uphole with Sonic Hammer. Pump at a max rate of 5 BPM per pump schedule. Ensure top of tubing is flushed with brine water before making a connection. After final stage, move sonic hammer above top perf and displace with 50 bbls brine water (**see Table 2**).

Table 2

Table B: Scale Sqz Pump Schedule

Step		Interval (ft)	Max Rate (BPM)	Volume Brine (bbl)	Volume Scale Chem. (Gal)	Cum Volume (bbl)
1	Pump Chemical/brine while moving from	3953'-3908'	5	8	33	8.8
2	Pump Brine while moving from	3953'-3908'	5	32		41
3	Pump Chemical/brine while moving from	3953'-3908'	5	8	33	50
4	Pump Brine while moving from	3953'-3908'	5	14		64
5	*Move pipe to next interval of*	3908'-3858'				64
6	Pump Brine while moving from	3908'-3858'	5	18		82
7	Pump Chemical/brine while moving from	3908'-3858'	5	8	33	90
8	Pump Brine while moving from	3908'-3858'	5	14		104
9	Move pipe to next interval of	3858'-3801'				104
10	Pump Brine while moving from	3858'-3801'	5	18		122
11	Pump Chemical/brine while moving from	3858'-3801'	5	8	33	131
12	Pump Brine while moving from	3858'-3801'	5	14		145
13	Move pipe to next interval of	3787'-3730'				145
14	Pump Brine while moving from	3787'-3730'	5	18		163
15	Pump Chemical/brine while moving from	3787'-3730'	5	8	33	172
16	Pump Brine while moving from	3787'-3730'	5	13		185
17	Move pipe to next interval of	3711'-3653'				185
18	Pump Brine while moving from	3711'-3653'	5	69		254

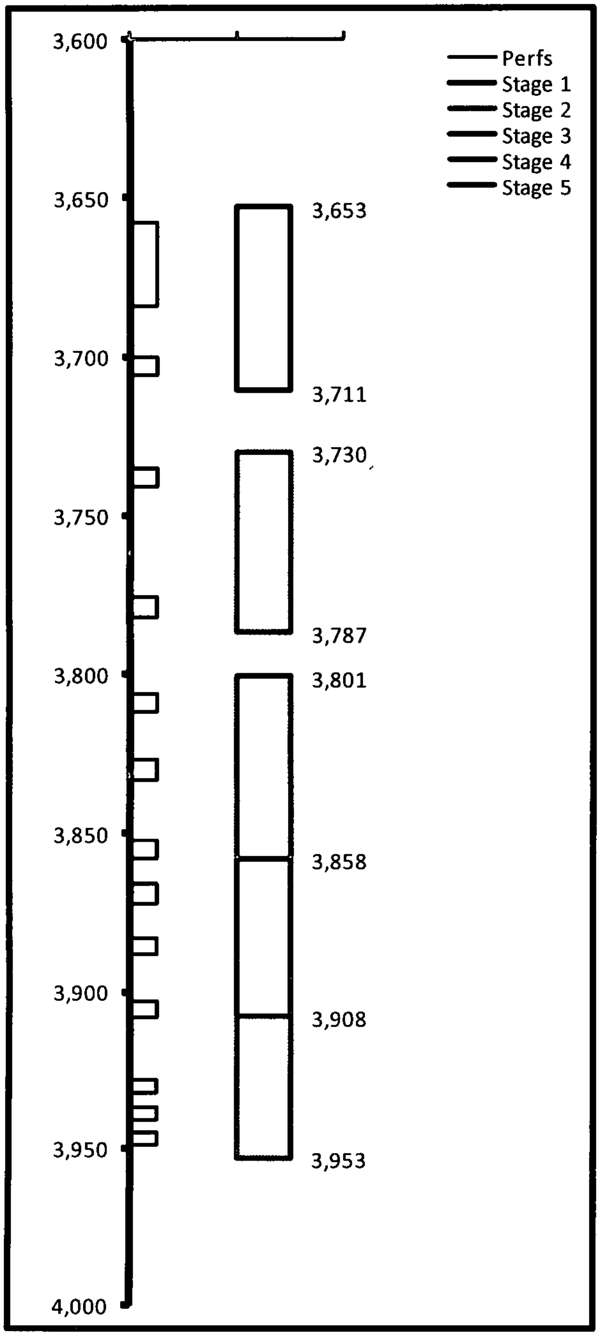
13. RD and Release Petroplex.

14. TOH and LD 2-3/8" WS and Sonic Hammer tool.

15. RIH with 2-3/8" production tubing and hydrotest to 6,000 psi. ND BOP, set TAC, NU WH. RIH with rods and pump per ALCR's recommendation/Rodstar design. Hang well on.

16. RD and release Workover unit. Turn well over to production.

H T Mattern C #1



Perfs Detail				
Top	Bottom	Interval Length	Status	Reservoir
ft	*ft*	*ft*		
3,658	3,684	26	Open	Grayburg
3,700	3,706	6	Open	Grayburg
3,735	3,741	6	Open	Grayburg
3,776	3,782	6	Open	Grayburg
3,806	3,812	6	Open	Grayburg
3,827	3,833	6	Open	Grayburg
3,852	3,858	6	Open	Grayburg
3,866	3,872	6	Open	Grayburg
3,883	3,888	5	Open	Grayburg
3,903	3,908	5	Open	Grayburg
3,928	3,932	4	Open	Grayburg
3,937	3,941	4	Open	Grayburg
3,945	3,949	4	Open	Grayburg
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Total				
3,658	**3,949**	**90**		

291

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 3 3/4" MT bit, 4 (3") drill collars on 2-3/8" 4.7# 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 3,959' 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.