Submit 1 Copy To Appropriate District Office
District I
1625 N. French Dr , Hobbs, NM 88240
District II
1301 W. Grand Ave , Artesia, NM 88210
District III
1000 Rio Brazos Rd , Aztec, NM 87410
District IV
1220 S St. Francis Dr , Santa Fe, NM 87505

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State of New Mexico
Energy, Minerals and Natural Resources

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

Form C-103
October 13, 2009

WELL API NO. 30-025-24584	
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) 1. Type of Well: Oil Well ☒ Gas Well ☐ Other	7. Lease Name or Unit Agreement Name MARK
	8. Well Number 9
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 G: 2172 feet from the NORTH line and 1972 feet from the EAST line Section 3 Township 22S Range 37E 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: INTENT TO SONIC HAMMER, ACIDIZE, SC SQZ		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 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 07-30-2012

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 8-1-2012

Conditions of Approval (if any):

AUG 01 2012

Mark #9 – [30-025-24584]
Penrose Skelly field
T22S, R37E, Section 3
N 32° 25' 20.0274", W -103° 8' 54.4194" (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.

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 & WellView 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 3,574', Bottom Perfs 3,846', EOT 3,898', PBTD 3,915')

6. RU Scanners and POOH while scanning all 2-7/8" 6.5# J-55 production tubing. LD all non-yellow band joints. If fill is tagged:
   a. Above 3,900' proceed to step #7.
   b. Below 3,900' skip to step #9.

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

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

7. PU and RIH with 4-3/4" Milled Tooth (MT) Bit, 4 (3-1/2') drill collars on 2-7/8" 6.5# L-80 Workstring. RU power swivel and C/O to 3,915'. POOH with 2-7/8" WS and bit. LD bit and BHA.

   Note: If circulation is not expected/achieved, notify Remedial Engineer to discuss C/O with bailer (proceed to step #8) or utilize foam/air unit (continue to supplemental procedure at end).

8. PU and RIH with 4-3/4" MT and Bulldog bailer on 2-7/8" 6.5# L-80 WS. Clean out to 3,915'. POOH with 2-7/8" WS and bit. LD bit and BHA.

- **Expect trapped pressure inside tubing while breaking connections during bailing operations, discuss on JSA and mitigate hazard. Use mudbucket (remove bottom seals if applicable) while breaking connections.**

9. Contact sonic tool representative to be on-site during job. PU and RIH with Sonic Hammer tool and 2-7/8" Workstring to 3,850' or enough depth to cover the bottom perforations (@ 3,846') with a whole stand. Hydrotest tubing to 6,000 psi. Stand back tubing to top perforations (@ 3,650'). Install stripper head and stand pipe with sufficient treating line to move tools vertically ~ 60'. RU pressure gauges to allow monitoring of tubing and casing pressures during job.

10. MI and RU Petroplex equipment. Titrate acids and verify concentration (HCl ± 1.5%). Treat all intervals from 3,645' to 3,850' with 20 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.

Perf Intervals for Acid			
Interval (#)	Depth	Net Feet (ft)	Acid Volume (gal)
1	3,645' - 3,705'	60	1,500
2	3,710' - 3,755'	45	1,000
3	3,760' - 3,795'	35	1,000
4	3,800' - 3,850'	50	1,250
Total		190	4,750

Table 1

11. Follow the brine water wash with 4,750 gals 15% NEFE HCl of total acid for all intervals. Spot 3 bbls of acid outside tubing, shut in casing, pump 1,500 gals of acid @ 5 BPM over first treating interval from 3,645' – 3,705', 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**.

12. 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.

13. Scale squeeze well with a total of 150 bbls 8.6 ppg brine water mixed with 3 drums (165 gallons) Baker SCW-358 Scale Inhibitor Chemical. Pump down Sonic Hammer tool at a max rate of 5 BPM. Start from lowest interval of 3,850' – 3,800' and continue moving uphole per pump schedule (**see Table 2**). Ensure top of tubing is flushed with brine water before making a connection.

Scale Squeeze 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	3850' - 3800'	5	11	45	12
2	Pump Brine while moving from	3850' - 3800'	5	19		31
3	Move pipe to next interval of	3795' - 3760'				31
4	Pump Brine while moving from	3795' - 3760'	5	5		36
5	Pump Chemical/brine while moving from	3795' - 3760'	5	8	35	45
6	Pump Brine while moving from	3795' - 3760'	5	12		57
7	Move pipe to next interval of	3755' - 3710'				57
8	Pump Brine while moving from	3755' - 3710'	5	5		62
9	Pump Chemical/brine while moving from	3755' - 3710'	5	7	30	70
10	Pump Brine while moving from	3755' - 3710'	5	13		83
11	Move pipe to next interval of	3705' - 3645'				83
12	Pump Brine while moving from	3705' - 3645'	5	8		91
13	Pump Chemical/brine while moving from	3705' - 3645'	5	13	55	105
14	Pump Brine while moving from	3705' - 3645'	5	49		154

Table 2

14. PU workstring to higher than top perforations. Displace tubing volume with 8.6 ppg cut brine water. Do not exceed 500 psi casing pressure or 5 BPM while pumping scale squeeze or casing flush. Release Petroplex.

15. TOH and LD 2-7/8" WS and Sonic Hammer tool.

16. RIH with 2-7/8" production tubing and hydrotest to 6,000 psi. **Pump 8.6 ppg cut brine water containing soap and biocide per ALCR.**

17. ND BOP, set TAC, NU WH. RIH with rods and pump per ALCR's recommendation/Rodstar design. Hang well on.

18. RD and release Workover unit. 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.

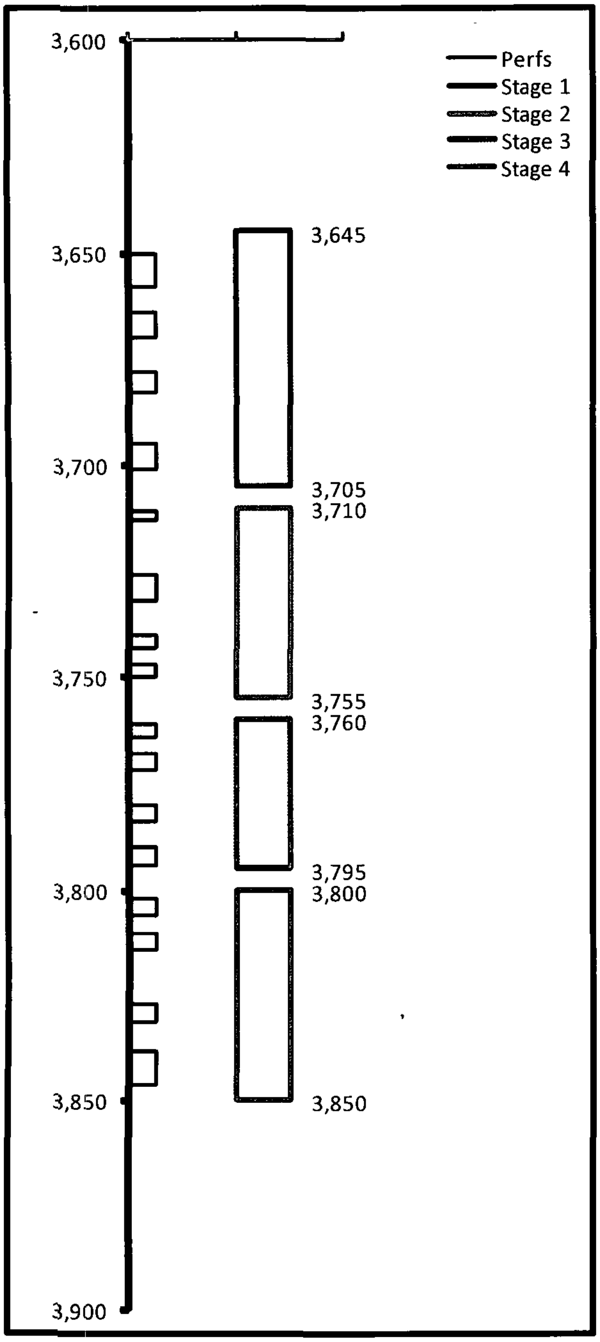
7. Clean out fill to 3,915' with low RPM's rotation and circulation, always keep pipe moving. Short trips can be beneficial to hole cleaning. Circulate well clean for at least 1 hour at the end of the day and pull up above the perforations before shut down for night. If the foam/air unit goes down, pull 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.

Mark #9



Perfs Detail				
Top *ft*	Bottom *ft*	Interval Length *ft*	Status	Reservoir
3,650	3,658	8	Open	Grayburg
3,664	3,670	6	Open	Grayburg
3,678	3,683	5	Open	Grayburg
3,695	3,701	6	Open	Grayburg
3,711	3,713	2	Open	Grayburg
3,726	3,732	6	Open	Grayburg
3,740	3,743	3	Open	Grayburg
3,747	3,750	3	Open	Grayburg
3,761	3,764	3	Open	Grayburg
3,768	3,772	4	Open	Grayburg
3,780	3,784	4	Open	Grayburg
3,790	3,794	4	Open	Grayburg
3,802	3,806	4	Open	Grayburg
3,810	3,814	4	Open	Grayburg
3,827	3,831	4	Open	Grayburg
3,838	3,846	8	Open	Grayburg
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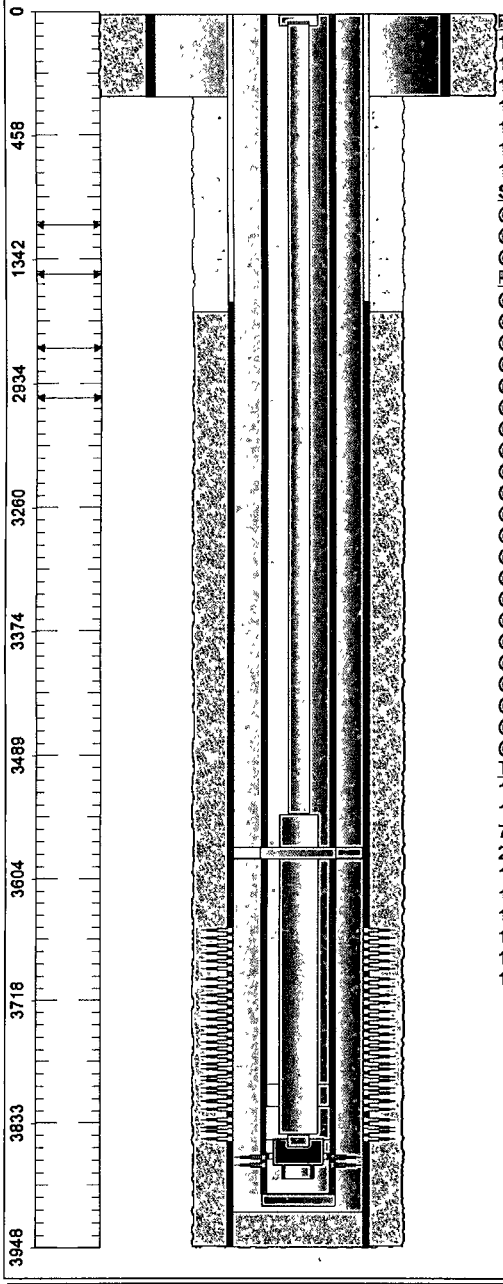
		0		
		0		
		0		
Total				
3,650	**3,846**	**74**		

196

Chevron U.S.A. Inc. Wellbore Diagram : MARK 09

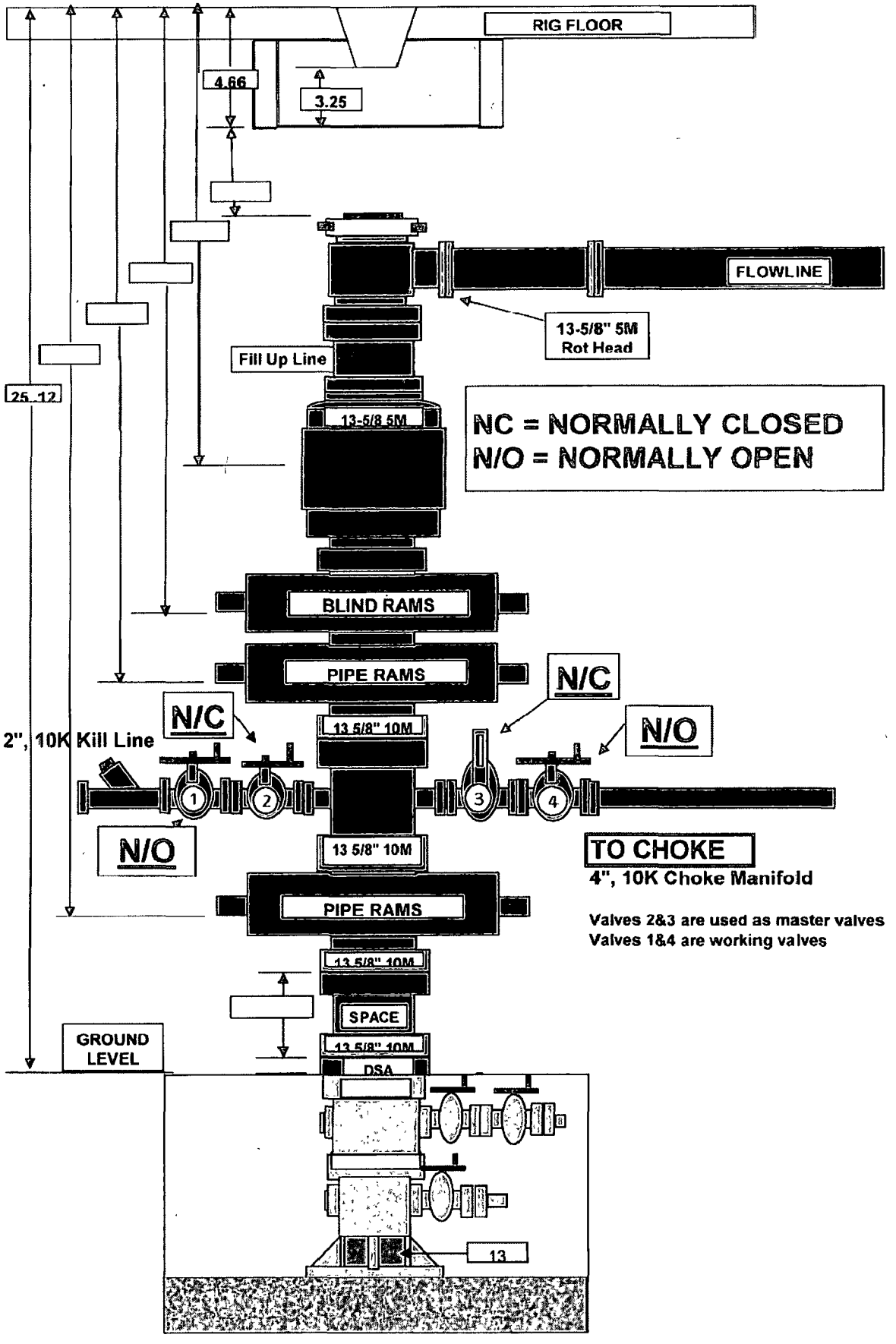
Lease: OEU EUNICE	**Well No.:** MARK 9	**Field:** FLD-PENROSE SKELLY	
Location: 2172FNL1972FEL	**Sec.:** N/A	**Blk:**	**Survey:** N/A
County: Lea **St.:** New Mexico	**Refno:** EN7263	**API:** 3002524584	**Cost Center:** UCU490200
Section: 3	**Township:** 022 S		**Range:** 037 E
Current Status: ACTIVE		**Dead Man Anchors Test Date:** NONE	
Directions:			



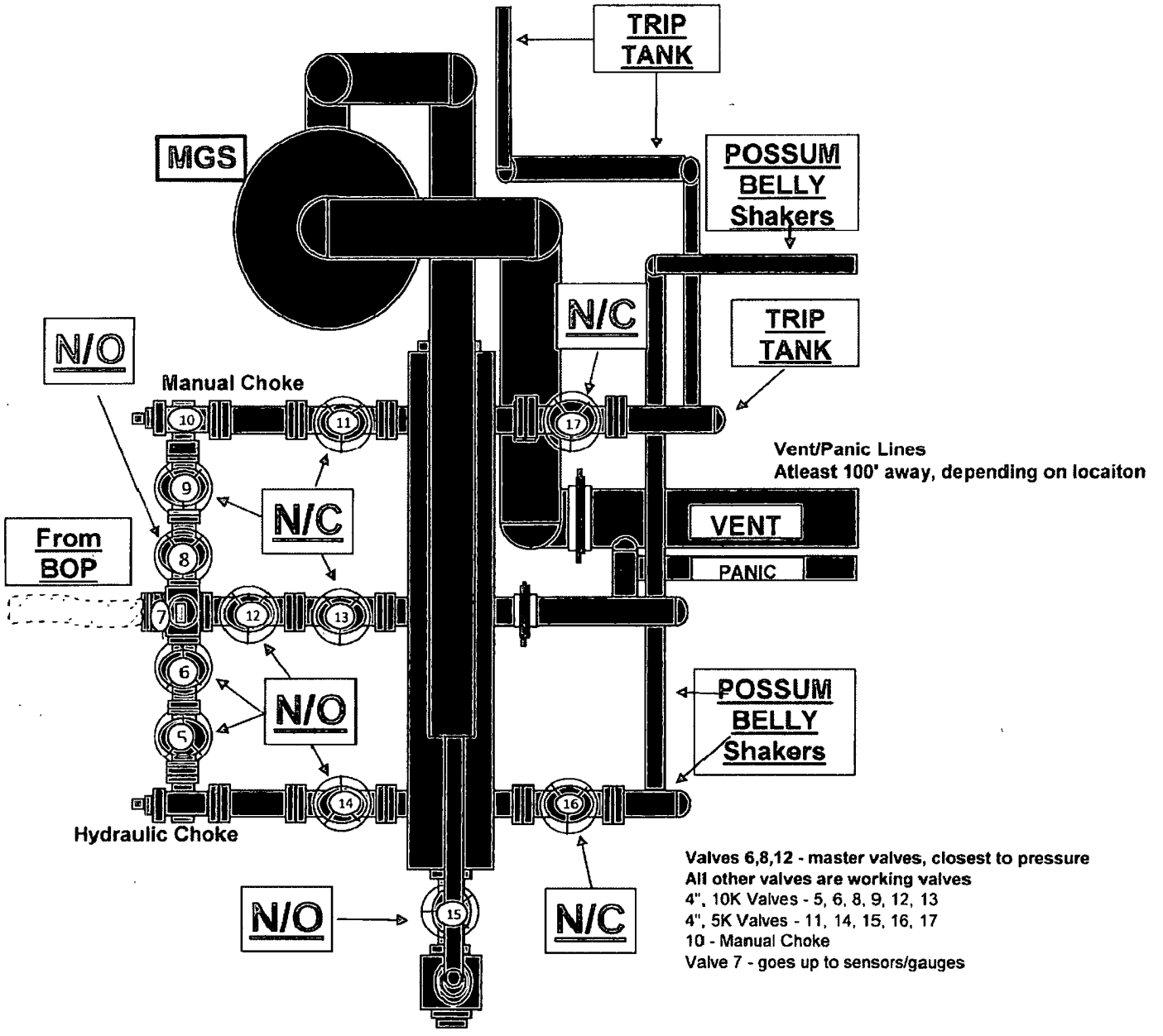
Rod String Quantity (Top-Bottom Depth) Desc
1 @(9-35) 1.500 (1 1/2 in.) Spray Metal x 26
1 @(35-43) 0.875 (7/8 in) N-78 (D) x 8 Rod Sub
140 @(43-3543) 0.875 (7/8 in.) N-78 (D) x 25 Rod
12 @(3543-3843) 1.500 (1 1/2 in.) K x 25 Sinker Bar
1 @(3843-3847) Rod Guide (Coupling) 0.875" Guided Pony w/Three Guides
1 @(3847-3872) Rod Pump (Insert) (NON-SERIALIZED) - 25-150-R H BC -3-20-20-0 (Bore = 1 . .
1 @(3872-3884) Gas Anchor (Rod) 1.250 OD x 12'
Surface Casing (Top-Bottom Depth) Desc
@(9-315) H-40 11.750 OD/ 42.00# Round Short 11 084 ID 10 928 Drift
@(9-315) Wellbore Hole OD-15.0000
@(9-315) Cement
Production Casing (Top-Bottom Depth) Desc
@(9-1880) Cement Squeeze Patch
@(3650-3658) Perforations - Open - Grayburg
@(3664-3670) Perforations - Open - Grayburg
@(3678-3683) Perforations - Open - Grayburg
@(3695-3701) Perforations - Open - Grayburg
@(3711-3713) Perforations - Open - Grayburg
@(3726-3732) Perforations - Open - Grayburg
@(3740-3743) Perforations - Open - Grayburg
@(3747-3750) Perforations - Open - Grayburg
@(3761-3764) Perforations - Open - Grayburg
@(3768-3772) Perforations - Open - Grayburg
@(3780-3784) Perforations - Open - Grayburg
@(3790-3794) Perforations - Open - Grayburg
@(3802-3806) Perforations - Open - Grayburg
@(3810-3814) Perforations - Open - Grayburg
@(3827-3831) Perforations - Open - Grayburg
@(3838-3846) Perforations - Open - Grayburg
@(3650-3846) Producing Interval (Completion) - Grayburg
@(9-3947) K-55 5.500 OD/ 14.00# Round Short 5 012 ID 4 887 Drift
@(1980-3947) Cement
@(3915-3948) Plug - Sand w/Cement Cap (Plug Back)
@(315-3948) Wellbore Hole OD- 7.8750
Tubing String Quantity (Top-Bottom Depth) Desc
116 @(9-3574) J-55 2.875 OD/ 6.50# T&C External Upset 2.441 ID 2.347 Drift
1 @(3574-3577) Tubing Anchor/Catcher 2.875"
7 @(3577-3797) J-55 2.875 OD/ 6.50# T&C External Upset 2 441 ID 2.347 Drift
2 @(3797-3817) J-55 2.875 OD/ 6 50# T&C External Upset 2.441 ID 2.347 Drift
1 @(3817-3849) Blast Joint 2.875 OD - TK-99
1 @(3849-3861) Blast Joint 2 875 OD - IPC Sub
1 @(3861-3862) Seat Nipple - Heavy Duty (2 875") Cup Type
1 @(3862-3866) Perforated Tubing Sub 2.875"
1 @(3866-3898) J-55 2.875 OD/ 6.50# T&C External Upset 2.441 ID 2 347 Drift
1 @(3898-3898) Bull Plug (Unknown Type) - 2.875" - Bare

Ground Elevation (MSL):: 3393.00	**Spud Date:** 12/08/1973	**Compl. Date:** 12/29/1973
Well Depth Datum:: CSI0000N	**Elevation (MSL)::** 0.00	**Correction Factor:** 9.00
Last Updated by: bujq	**Date:** 07/13/2012	

H&P 227 BOP Stack



H&P #227
CHOKE MANIFOLD



N/C = NORMALLY CLOSED
N/O = NORMALLY OPEN