

HOBBS OGD State of New Mexico
Energy, Minerals and Natural Resources
MAR 26 2014
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
RECEIVED Santa Fe, NM 87505

Form C-103
Revised July 18, 2013

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-10F) FOR SUCH PROPOSALS.)		7. Lease Name or Unit Agreement Name NORTH VACUUM ABO UNIT	
1. Type of Well: Oil Well ☐ Gas Well ☒ Other INT		8. Well Number 124	
2. Name of Operator CROSS TIMBERS ENERGY, LLC		9. OGRID Number 298299	
3. Address of Operator 400 WEST 7th STREET, FORT WORTH, TX 76102		10. Pool name or Wildcat VACUUM; ABO, NORTH	
4. Well Location Unit Letter P 600 feet from the S line and 460 feet from the E line Section 14 Township 17S Range 34E NMPM County LEA			
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 4016 GR			

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	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐
DOWNHOLE COMMINGLE	☐		
CLOSED-LOOP SYSTEM	☐		
OTHER:	☐	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.

Repair tbg/pkr leak, add perfs 8619' - 8564' ABO E.
See attached procedure sheet.

Per Underground Injection Control Program Manual

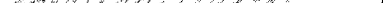
11.6 C Packer shall be set within or less than 100 feet of the uppermost injection perfs or open hole.

Spud Date: 1972

Rig Release Date: 1972

CONVERTED TO WIW 8-29-1973

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

SIGNATURE  TITLE REGULATORY COMPLIANCE DATE 03/26/2014

Type or print name **ROBBIE A GRIGG** E-mail address: **rgrigg@mspartners.com** PHONE: **817-334-7842**

For State Use Only

APPROVED BY: Mary Brown TITLE Compliance Officer DATE 3/27/2014

CONDITION OF APPROVAL: Operator shall give the OCD District Office 24 hour notice before running the MIT test and chart.

MAR 27 2014

CURRENT STATUS: Shut in, pressure bled off, last test 120 BWPD, 4000 psi

SPECIFICS OF OPERATION:

- 1) Safety is the highest priority. Hold tailgate safety meetings prior to each significant stage of the operation. Ensure all personnel understand the procedure, its objectives, and the precautions to be followed at all points.
- 2) MIRU pulling unit & empty vac trk. ND WH, rls pkr, NU BOP. Allow elements to relax.
- 3) POOH tbg (buttress thrd), SB, LD pkr and send to shop for redress.
- 4) MI pipe racks and PU extra 7 jts. RIH 6-1/4" bit & scraper to PBTD. Report any tight spots and tag depth, noting whether the tag was cement or fill. POOH. If cleanout necessary, SB tbg and attempt to bail fill. If no fill, LD production tbg.
- 5) Move tbg to edge of location. MI, rack, tally, and number 2-3/8" 4.7# J-55 8rd IPC tbg with thread (pin) protectors.
- 6) MIRU WL svc w/ pack off and 3-1/8" slick guns loaded w/ 20" penetration or better charges, 2 SPF. Correlate to XXXXX log dated XXXXXX. Perf Abo "E" per the following:

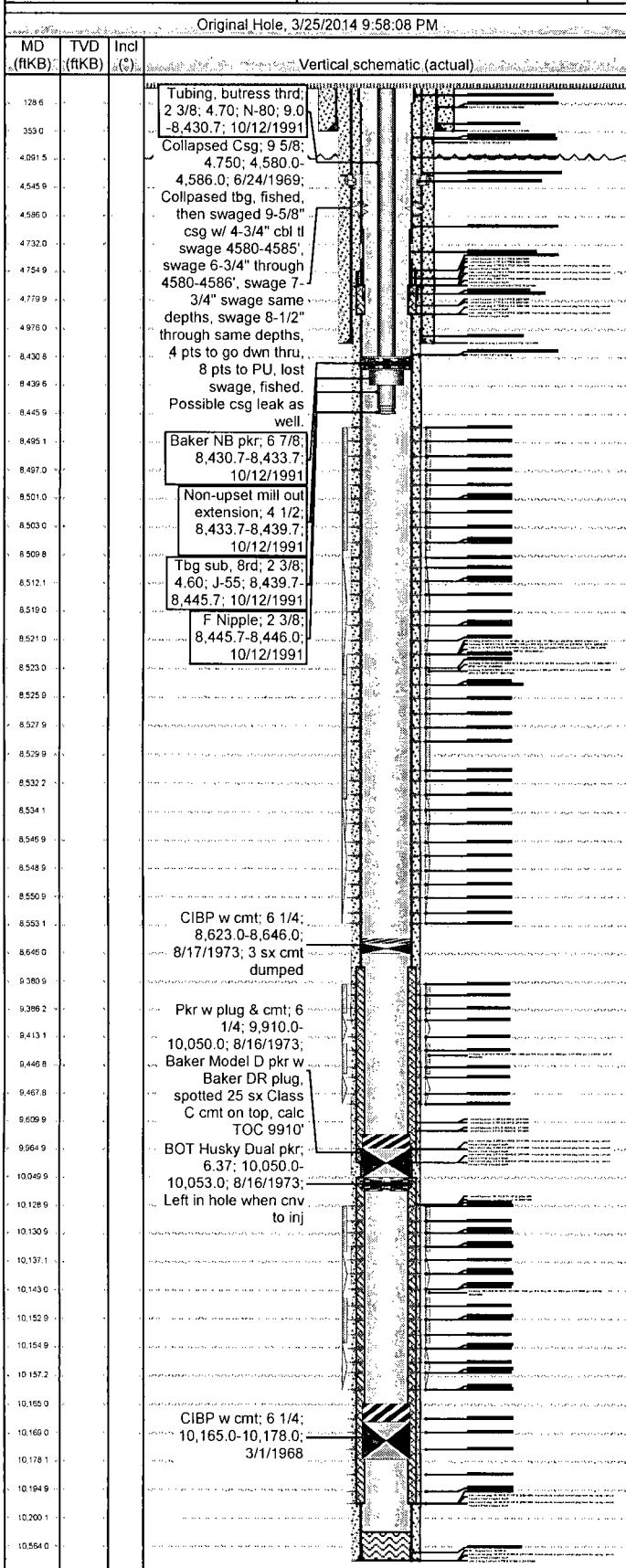
	Top	Bottom	Ft	SPF	Shots
	PBTD @ 8,623'				
Stage 1	8,619	8,620	1	2	2
	8,612	8,614	2	2	4
	8,603	8,606	3	2	6
	8,595	8,597	2	2	4
	8,590	8,592	2	2	4
	8,583	8,586	3	2	6
	8,576	8,580	4	2	8
	8,570	8,573	3	2	6
	8,562	8,564	2	2	4

- 7) POOH, verify all shots fired. RDMO WL svc.
- 8) RIH straddle pkr assembly consisting of following:
 - a. SN (w/ SV in place)
 - b. 7" 23# straddle pkr (space elements 6' apart)
 - c. Mechanical csg collar locator
 - d. 2-3/8" IPC tbg (stab each connection carefully to avoid damaging IPC)
- 9) Correlate BHA w/ XXXXX log dated XXXXXX. Set pkr @ +-8454'. Load backside, test pkr. Rls pkr, RIH, locate collar @ XXXX', straddle perms @ 8619-8620'. Rls pipe racks.

- 10) MIRU acid svc, 30' of high pressure hose, and fill up vac trk w/ FW treated w biocide. NU to tbg, psi tst surface equipment to 4,000. Install pressure gauge on csg and monitor while pumping acid. Load hole w FW. Spot acid @ EOT.
- 11) Set pkrs and acidize each interval w/ 100 gal/ft. If any perfs communicate, PU to next cluster and continue.
- 12) After last perf, if any acid remains, PUH to 1 jt above top *new* perf, rvs circ 2 bbls FW, set pkr, fish SV, pump remaining acid.
- 13) Notify OCD of impending MIT. POOH, SB w thread protectors. LD straddle assembly.
- 14) RIH w rebuilt, IPC 7" 23# injection pkr, new on/off tool w/ profile nipple, IPC tbg. Set pkr @ +8454'. Test backside @ 300 psi for 1 minute. Rls on/off tool, rvs pkr into entire backside volumes. Latch on/off tool, RU chart recorder to backside and tst @ 300 psi for 30 minutes. Bleed off air if necessary and top off backside w pkr fluid. Submit chart to OCD & notify regulatory department.
- 15) Clean location, RDMO. Return well to injection. Report pressure and rate.

Schematic & History

Well Name NORTH VACUUM ABO UNIT 124		API/UWI 3002522386		County Lea			State/Province New Mexico		Field Name VACUUM N	
Location 660 FSL & 460 FEL				Township 17S	Range 34E	Section 14	Latitude (") 32° 50' 50.856" N		Longitude (") 103° 31' 25.284" W	
Section	Survey					Block		Township		Abstract
Original KB Elevation (ft) 4,025.00		Ground/Corrected Ground Elevation (ft) 4,016.00		KB-Ground Distance (ft) 9.00			Spud Date			



Jobs

Type	Start Date	Summary
Drilling Original & Initial Completion	1/10/1968	D&C, perf & swb U Penn, 42 BOPD, 363 BWPD, sl sh of gas, sqz U Penn, DO, reperf U, U Penn, swb 35 BO + 6 B every 4 hrs, acidize, fl 336 BOPD, 41 API, no wtr. Tst L Abo: perf, swb 36 BO in 3 hrs, dry, acidize, swb 100% wtr, attempt sqz (fail), DO, fish RBP, swb 38 BO, 18 BW L Abo, sqz, DO, psi tst 2k, perf U Abo, swb 35 BO, acidize, swb 137 BOPD, 100%OC, acid/sd frac U Abo, swb, tst liner 4k psi good, tst 9-5/8" csg 2k psi, bled 500 psi in 15 min, sqz liner top, dual complete U Penn & U Abo.
Acidize	11/13/1968	Pull stk pmp, Abo tbg, plg Penn tbg, acidize Abo, RTP.
Remedial Workover	6/18/1969	Abo pmp stk @ 4765', jar, BO, pull Penn rds, Abo tbg stk, collapse @ 4590', chem cut Abo tbg @ 4033', chem cut Penn tbg @ 3997', OS Penn tbg, jar, recover Penn tbg, OS Abo tbg, recover tbg, 4-3/4" swage 9-5/8" csg from 4580-85', 6-3/4" swage csg 4580-85', 7-3/4" swage csg 4580-86', 8-1/2" swage csg 4580-86', 4pts to go dwn thru tigght spot, 8pts to PU, left swage IH, rec swg, att rec dual compl pkr, BO tbg @ 10053', left tbg/d pkr/TP in hole, set RBP, dmp sd, install tie back 7" csg, cmt, DO, att retr RBP, rec RBP, rec d pkr, RTP. Csg leak in San Andres suspect.
Repair Tbg Leak	1/20/1970	Pull rds & pmp, RTP.
Repair Tbg Leak	6/12/1970	Pull rds & tbg, cut prfn in Penn tbg, RTP.
Convert To Injection	8/14/1973	LD Abo rds & tbg, LD Penn rds & tbg, leave d pkr in hole, set pkr w plug on top, dmp cmt on pkr, perf Abo, set CIBP, dmp cmt, acidize, swb, acidize, install inj tbg, RTI.
Repair Tbg Leak	6/7/1974	Pull tbg/pkr, bad jt 226 JFS, HT BIH, 2 burst jts, RTI.
Repair Tbg Leak	4/2/1979	Pull tbg/pkr, 16 bad jts, att HT BIH, could not, RTI.
Repair Tbg Leak	7/27/1981	Pull tbg/pkr, hole @ 5300', tst tbg IH, chg 3 jts
Repair Tbg Leak	10/12/1991	Pull pkr/tbg, rpr, RTI, tst csg 300 psi, held 15 min.
Acidize	1/14/2003	BF well, acidize w 1000 gal 15% FE + 3% Petrosol, ATP 4735, AIR 1.9, ISIP/5/10/15: 3785/3500/3323/3209, soak, back flow, RTI.

Wellbore Sections

Section Des	Wellbore Name	Size (in)	Act Top (ftKB)	Act Btm (ftKB)	Start Date
SURFACE1	Original Hole	17 1/2	9.0	353.0	1/9/1968
INTRM1	Original Hole	12 1/4	353.0	4,977.0	1/12/1968
PROD1	Original Hole	8 3/4	4,977.0	10,565.0	1/24/1968

Surface 353.0 ftKB 1/11/1968

Comment

OD (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Item Des
13 3/8	48.00	H-40	9.0	352.0	343.00	Casing Joints
13 3/8			352.0	353.0	1.00	Shoe

Schematic & History

Original Hole, 3/25/2014 9:58:08 PM				Intermediate 4,977.0 ftKB 1/23/1968						
MD (ftKB)	TVD (ftKB)	Incl (°)	Vertical schematic (actual)	Comment						
128.6			Tubing, buttress thrd, 2 3/8; 4.70; N-80; 9.0 8,430.7; 10/12/1991 Collapsed Csg; 9 5/8; 4,750; 4,580.0- 4,586.0; 6/24/1969; Collapsed tbg, fished, then swaged 9-5/8" csg w/ 4-3/4" cbl tl swage 4580-4585", swage 6-3/4" through 4580-4586", swage 7- 3/4" swage same depths, swage 8-1/2" through same depths, 4 pts to go down thru, 8 pts to PU, lost swage, fished. Possible csg leak as well.	OD (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Item Des
353.0				9 5/8	36.00	J-55	9.0	4,091.5	4,082.50	Casing Joints
4,091.5				9 5/8	40.00	J-55	4,091.5	4,976.0	884.50	Casing Joints
4,545.9				9 5/8			4,976.0	4,977.0	1.00	Shoe
4,586.0				Liner 10,565.0 ftKB 2/21/1968						
4,732.0				Comment						
4,754.9				Unknown mix of S-95, N-80, new, and used. hanger is Brown Oil Tool Co. details unknown						
4,779.6				OD (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Item Des
4,976.0				7			4,770.0	4,780.0	10.00	Liner Hanger
4,930.8				7	23.00	S-95	4,780.0	10,564.0	5,784.00	Casing Joints
4,930.0				7			10,564.0	10,565.0	1.00	Shoe
8,445.9			Baker NB pkr; 6 7/8; 8,430.7-8,433.7; 10/12/1991 Non-upset mill out extension; 4 1/2; 8,433.7-8,439.7; 10/12/1991 Tbg sub, 8rd; 2 3/8; 4.60; J-55; 8,439.7- 8,445.7; 10/12/1991 F Nipple; 2 3/8; 8,445.7-8,446.0; 10/12/1991	Tie-back 4,780.0 ftKB 6/30/1969						
8,495.1				Comment						
8,497.0				Unknown dimensions on jewelry. Assuming 7-5/8" is on top.						
8,501.0				OD (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Item Des
8,503.0				7 5/8	26.40	J-55	9.0	128.5	119.53	Casing Joints
8,509.8				7	20.00	J-55	128.5	3,310.1	3,181.60	Casing Joints
8,512.1				7	23.00	N-80	3,310.1	4,543.0	1,232.87	Casing Joints
8,519.0				8 835			4,543.0	4,546.0	3.00	Csg Anchor
8,521.0				7	23.00	N-80	4,546.0	4,732.0	186.00	Casing Joints
8,523.0				7			4,732.0	4,733.0	1.00	Float Collar
8,525.9			CIBP w cmt; 6 1/4; 8,623.0-8,646.0; 8/17/1973; 3 sx cmt dumped Pkr w plug & cmt; 6 1/4; 9,910.0- 10,050.0; 8/16/1973; Baker Model D pkr w Baker DR plug, spotted 25 sx Class C cmt on top, calc TOC 9910' BOT Husky Dual pkr; 6.37; 10,050.0- 10,053.0; 8/16/1973; Left in hole when cnv to inj	7	23.00	N-80	4,733.0	4,770.0	37.00	Casing Joints
8,527.9				6.366			4,770.0	4,780.0	10.00	Tie-Back Stem
8,529.9				Cement Stages						
8,532.2				Description	Top (ftKB)	Btm (ftKB)	Top Meas Meth	Comment		
8,534.1				Surface Casing Cement	9.0	353.0	Cement Returns	325 sx incor neat + 2% HA5, circ cmt		
8,545.9				Description	Top (ftKB)	Btm (ftKB)	Top Meas Meth	Comment		
8,548.9				Intermediate Casing Cement	9.0	4,977.0	Cement Returns	2300 sx Incor 6% gel + 100 sx Incor neat, circ cmt		
8,550.9				Description	Top (ftKB)	Btm (ftKB)	Top Meas Meth	Comment		
8,553.1				Liner Casing Cement	4,770.0	10,565.0	Cement Returns	Lead: 375 sx Incor 4% gel; Tail: 375 sx Incor neat + 3/4% VFR2, cmt circ, rvs out 10 sx cmt & rvs mud to wtr.		
8,559.9				Description	Top (ftKB)	Btm (ftKB)	Top Meas Meth	Comment		
8,564.0				Cement Squeeze	10,050.0	10,197.0	Bit Tag	Sqz 50 sx TIN cmt + 0.75% CFR2, max psi 7200, rvs out 10 sx, psi tst 3k psi		
9,386.2			CIBP w cmt; 6 1/4; 10,165.0-10,178.0; 3/1/1968	Description	Top (ftKB)	Btm (ftKB)	Top Meas Meth	Comment		
9,413.1				Cement Squeeze	9,610.0	10,040.0	Bit Tag	Attempted sqz: 100 sx HIT cmt, TP 3800-2400 psi, w 65 sx in fmn TP dropped from 2400 to 1000 psi, pmp cmt in, ovr displ.		
9,448.8				Description	Top (ftKB)	Btm (ftKB)	Top Meas Meth	Comment		
9,467.6				Cement Squeeze	9,293.0	9,965.0	Bit Tag	Sqz: 100 sx HIT cmt, Max TP 6700 psi, rvs 5 sx, PUH, set 4k psi, SDON.		
9,609.9				Description	Top (ftKB)	Btm (ftKB)	Top Meas Meth	Comment		
9,954.9				Cement Squeeze	4,770.0	4,815.0	Bit Tag	Sqz 100 sx Incor neat, max psi 2300.		
10,049.9				Description	Top (ftKB)	Btm (ftKB)	Top Meas Meth	Comment		
10,128.9				Cement Squeeze	4,755.0	4,770.0	Bit Tag	Sqz 100 sx Incor neat, max psi 2300.		
10,130.9				Description	Top (ftKB)	Btm (ftKB)	Top Meas Meth	Comment		
10,137.1				Production Casing Cement	9.0	4,770.0	Cement Returns	600 sx Incor neat, cmt circ.		
10,143.0										
10,152.9										
10,154.9										
10,157.2										
10,165.0										
10,169.0										
10,178.1										
10,194.8										
10,200.1										
10,564.0										

Schematic & History

Original Hole, 3/25/2014 9:58:08 PM				Perforations					
MD (ftKB)	TVD (ftKB)	Incl. (°)	Vertical schematic (actual)	Top (ftKB)	Btm (ftKB)	Shot Dens (shot s/m)	Date	Zone	Calculated Shot Total
128.6				10,129.0	10,129.0	1.0	2/27/1968	Upper Pennsylvanian, Original Hole	1
353.0				10,131.0	10,131.0	1.0	2/27/1968	Upper Pennsylvanian, Original Hole	1
4,091.5				10,136.0	10,136.0	1.0	2/27/1968	Upper Pennsylvanian, Original Hole	1
4,545.9				10,138.0	10,138.0	1.0	2/27/1968	Upper Pennsylvanian, Original Hole	1
4,586.0				10,143.0	10,143.0	1.0	2/27/1968	Upper Pennsylvanian, Original Hole	1
4,732.0				10,153.0	10,153.0	1.0	2/27/1968	Upper Pennsylvanian, Original Hole	1
4,754.9				10,155.0	10,155.0	1.0	2/27/1968	Upper Pennsylvanian, Original Hole	1
4,779.9				10,157.0	10,157.0	1.0	2/27/1968	Upper Pennsylvanian, Original Hole	1
4,976.0				10,160.0	10,160.0	1.0	2/27/1968	Upper Pennsylvanian, Original Hole	1
8,430.8				10,167.0	10,167.0	1.0	2/27/1968	Upper Pennsylvanian, Original Hole	1
8,430.6				10,169.0	10,169.0	1.0	2/27/1968	Upper Pennsylvanian, Original Hole	1
8,445.9				10,177.0	10,177.0	1.0	2/27/1968	Upper Pennsylvanian, Original Hole	1
8,456.1				10,193.0	10,193.0	1.0	2/27/1968	Upper Pennsylvanian, Original Hole	1
8,497.0				10,195.0	10,195.0	1.0	2/27/1968	Upper Pennsylvanian, Original Hole	1
8,501.0				10,197.0	10,197.0	1.0	2/27/1968	Upper Pennsylvanian, Original Hole	1
8,500.0				10,129.0	10,129.0	1.0	3/1/1968	Upper Pennsylvanian, Original Hole	1
8,509.8				10,130.0	10,130.0	1.0	3/1/1968	Upper Pennsylvanian, Original Hole	1
8,512.1				10,131.0	10,131.0	1.0	3/1/1968	Upper Pennsylvanian, Original Hole	1
8,519.0				10,136.0	10,136.0	1.0	3/1/1968	Upper Pennsylvanian, Original Hole	1
8,571.0				10,137.0	10,137.0	1.0	3/1/1968	Upper Pennsylvanian, Original Hole	1
8,523.0				10,138.0	10,138.0	1.0	3/1/1968	Upper Pennsylvanian, Original Hole	1
8,525.9				10,143.0	10,143.0	1.0	3/1/1968	Upper Pennsylvanian, Original Hole	1
8,527.9				10,152.0	10,152.0	1.0	3/1/1968	Upper Pennsylvanian, Original Hole	1
8,529.9				10,153.0	10,153.0	1.0	3/1/1968	Upper Pennsylvanian, Original Hole	1
8,532.2				10,154.0	10,154.0	1.0	3/1/1968	Upper Pennsylvanian, Original Hole	1
8,534.1			10,155.0	10,155.0	1.0	3/1/1968	Upper Pennsylvanian, Original Hole	1	
8,546.9			10,156.0	10,156.0	1.0	3/1/1968	Upper Pennsylvanian, Original Hole	1	
8,548.0			10,157.0	10,157.0	1.0	3/1/1968	Upper Pennsylvanian, Original Hole	1	
8,550.9			10,160.0	10,160.0	1.0	3/1/1968	Upper Pennsylvanian, Original Hole	1	
8,553.1			9,381.0	9,381.0	1.0	3/5/1968	Lower Abo, Original Hole	1	

Schematic & History

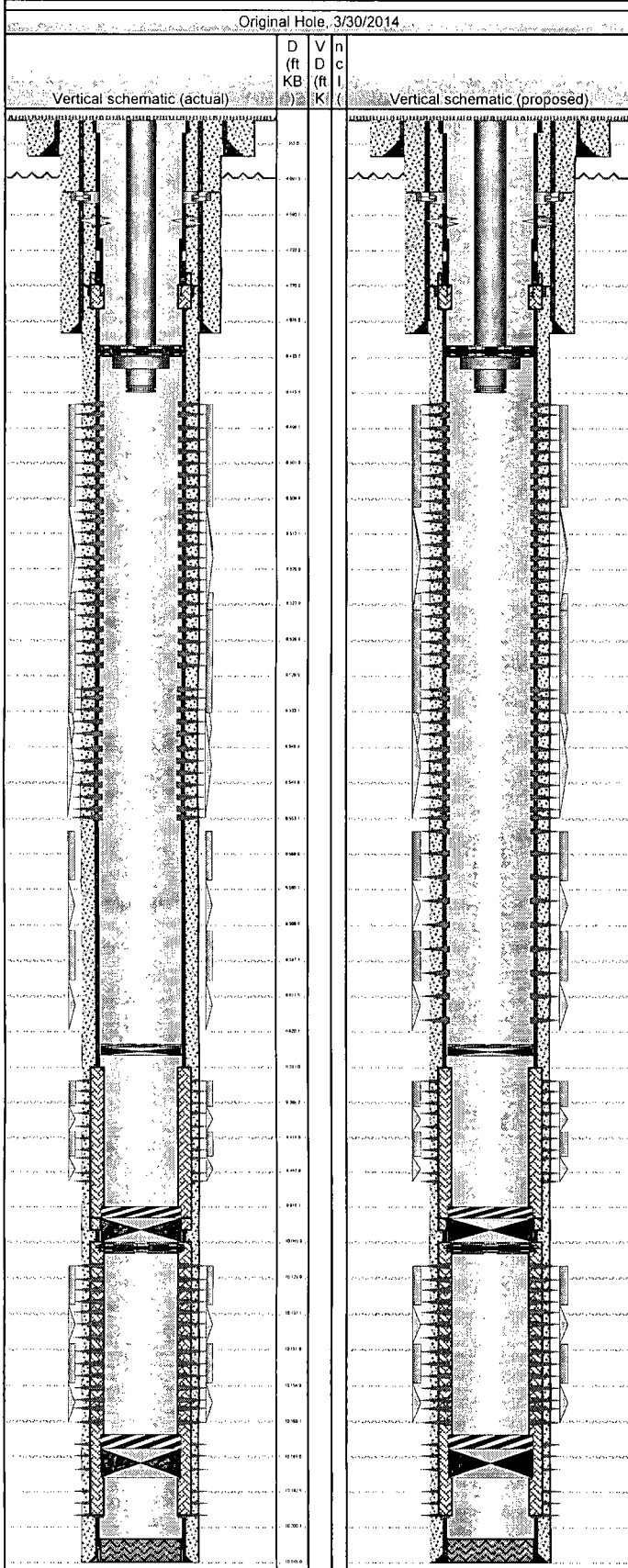
Original Hole, 3/25/2014 9:58:08 PM				Perforations					
MD (ftKB)	TVD (ftKB)	Incl (°)	Vertical schematic (actual)	Top (ftKB)	Btm (ftKB)	Shot Dens (shot/s/ft)	Date	Zone	Calculated Shot Total
128.6			Tubing, buttress thrd, 2 3/8; 4.70; N-80; 9.0	9,382.0	9,382.0	1.0	3/5/1968	Lower Abo, Original Hole	1
350.0			-8,430.7; 10/12/1991	9,386.0	9,386.0	1.0	3/5/1968	Lower Abo, Original Hole	1
409.5			Collapsed Csg; 9 5/8; 4.750; 4,580.0-	9,387.0	9,387.0	1.0	3/5/1968	Lower Abo, Original Hole	1
454.9			4,586.0; 6/24/1969; Collapsed tbg, fished, then swaged 9-5/8" csg w/ 4-3/4" cbl tl	9,413.0	9,413.0	1.0	3/5/1968	Lower Abo, Original Hole	1
458.0			swage 4580-4585', swage 6-3/4" through 4580-4586', swage 7-	9,414.0	9,414.0	1.0	3/5/1968	Lower Abo, Original Hole	1
473.0			3/4" swage same depths, swage 8-1/2" through same depths, 4 pts to go down thru, 8 pts to PU, lost swage, fished.	9,447.0	9,447.0	1.0	3/5/1968	Lower Abo, Original Hole	1
475.9			Possible csg leak as well.	9,448.0	9,448.0	1.0	3/5/1968	Lower Abo, Original Hole	1
477.9			Baker NB pkr; 6 7/8; 8,430.7-8,433.7; 10/12/1991	9,468.0	9,468.0	1.0	3/5/1968	Lower Abo, Original Hole	1
497.0			Non-upset mill out extension; 4 1/2; 8,433.7-8,439.7; 10/12/1991	9,469.0	9,469.0	1.0	3/5/1968	Lower Abo, Original Hole	1
503.0			Tbg sub, 8rd; 2 3/8; 4.60; J-55; 8,439.7-8,445.7; 10/12/1991	8,495.0	8,495.0	1.0	3/16/1968	Upper Abo, Original Hole	1
509.8			F Nipple; 2 3/8; 8,445.7-8,446.0; 10/12/1991	8,501.0	8,501.0	1.0	3/16/1968	Upper Abo, Original Hole	1
512.1				8,509.0	8,509.0	1.0	3/16/1968	Upper Abo, Original Hole	1
519.0				8,512.0	8,512.0	1.0	3/16/1968	Upper Abo, Original Hole	1
521.0				8,519.0	8,519.0	1.0	3/16/1968	Upper Abo, Original Hole	1
523.0				8,520.0	8,520.0	1.0	3/16/1968	Upper Abo, Original Hole	1
525.9				8,521.0	8,521.0	1.0	3/16/1968	Upper Abo, Original Hole	1
527.9				8,526.0	8,526.0	1.0	3/16/1968	Upper Abo, Original Hole	1
529.9				8,528.0	8,528.0	1.0	3/16/1968	Upper Abo, Original Hole	1
532.2				8,530.0	8,520.0	1.0	3/16/1968	Upper Abo, Original Hole	-9
534.1				8,532.0	8,532.0	1.0	3/16/1968	Upper Abo, Original Hole	1
546.9				8,534.0	8,534.0	1.0	3/16/1968	Upper Abo, Original Hole	1
548.9				8,547.0	8,547.0	1.0	3/16/1968	Upper Abo, Original Hole	1
549.9				8,548.0	8,548.0	1.0	3/16/1968	Upper Abo, Original Hole	1
550.9				8,549.0	8,549.0	1.0	3/16/1968	Upper Abo, Original Hole	1
553.1				8,494.0	8,494.0	1.0	8/17/1973	Upper Abo, Original Hole	1
555.3				8,496.0	8,496.0	1.0	8/17/1973	Upper Abo, Original Hole	1
559.0				8,497.0	8,497.0	1.0	8/17/1973	Upper Abo, Original Hole	1
560.9				8,500.0	8,500.0	1.0	8/17/1973	Upper Abo, Original Hole	1
562.2				8,501.0	8,501.0	1.0	8/17/1973	Upper Abo, Original Hole	1
564.1				8,502.0	8,502.0	1.0	8/17/1973	Upper Abo, Original Hole	1
568.8				8,503.0	8,503.0	1.0	8/17/1973	Upper Abo, Original Hole	1
569.8				8,509.0	8,509.0	1.0	8/17/1973	Upper Abo, Original Hole	1
570.9				8,510.0	8,510.0	1.0	8/17/1973	Upper Abo, Original Hole	1
572.2				8,511.0	8,511.0	1.0	8/17/1973	Upper Abo, Original Hole	1
574.1				8,512.0	8,512.0	1.0	8/17/1973	Upper Abo, Original Hole	1
578.8				8,513.0	8,513.0	1.0	8/17/1973	Upper Abo, Original Hole	1
580.9				8,520.0	8,520.0	1.0	8/17/1973	Upper Abo, Original Hole	1
584.9				8,522.0	8,522.0	1.0	8/17/1973	Upper Abo, Original Hole	1
589.9				8,523.0	8,523.0	1.0	8/17/1973	Upper Abo, Original Hole	1
594.9				8,525.0	8,525.0	1.0	8/17/1973	Upper Abo, Original Hole	1
600.9				8,527.0	8,527.0	1.0	8/17/1973	Upper Abo, Original Hole	1
612.9				8,529.0	8,529.0	1.0	8/17/1973	Upper Abo, Original Hole	1
613.9				8,531.0	8,531.0	1.0	8/17/1973	Upper Abo, Original Hole	1
614.3				8,533.0	8,533.0	1.0	8/17/1973	Upper Abo, Original Hole	1
615.3				8,535.0	8,535.0	1.0	8/17/1973	Upper Abo, Original Hole	1
615.6				8,550.0	8,550.0	1.0	8/17/1973	Upper Abo, Original Hole	1
615.7				8,551.0	8,551.0	1.0	8/17/1973	Upper Abo, Original Hole	1
616.0				8,552.0	8,552.0	1.0	8/17/1973	Upper Abo, Original Hole	1
616.9				8,553.0	8,553.0	1.0	8/17/1973	Upper Abo, Original Hole	1
617.1									
619.4									
620.1									
620.4									
CIBP w cmt; 6 1/4; 8,623.0-8,646.0; 8/17/1973; 3 sx cmt dumped									
Pkr w plug & cmt; 6 1/4; 9,910.0-10,050.0; 8/16/1973; Baker Model D pkr w Baker DR plug, spotted 25 sx Class C cmt on top, calc TOC 9910'									
BOT Husky Dual pkr; 6.37; 10,050.0-10,053.0; 8/16/1973; Left in hole when cnv to inj									
CIBP w cmt; 6 1/4; 10,165.0-10,178.0; 3/1/1968									

Schematic & History

Original Hole, 3/25/2014 9:58:08 PM				Stim/Treat Stages								
MD (ftKB)	TVD (ftKB)	Incl (°)	Vertical schematic (actual)	Type	Start Date	Top (ftKB)	Btm (ftKB)	Com				
128.6			Tubing, buttress thrd, 2 3/8, 4.70; N-80; 9.0 -8,430.7; 10/12/1991 Collapsed Csg: 9 5/8; 4.750; 4,580.0- 4,586.0; 6/24/1969; Collapsed tbg, fished, then swaged 9-5/8" csg w/ 4-3/4" cbl tl swage 4580-4585', swage 6-3/4" through 4580-4586', swage 7- 3/4" swage same depths, swage 8-1/2" through same depths, 4 pts to go dwn thru, 8 pts to PU, lost swage, fished. Possible csg leak as well. Baker NB pkr; 6 7/8; 8,430.7-8,433.7; 10/12/1991 Non-upset mill out extension; 4 1/2; 8,433.7-8,439.7; 10/12/1991 Tbg sub, 8rd; 2 3/8; 4.60; J-55; 8,439.7- 8,445.7; 10/12/1991 F Nipple; 2 3/8; 8,445.7-8,446.0; 10/12/1991	Acidizing	3/5/1968	9,381.0	9,469.0	1000 gal 15% HCL NE, brk 4600 psi, ATP 4700 psi, 1.4 BPM, ISIP/10: 4800/3000				
353.0				Acidizing	3/5/1968	8,495.0	8,549.0	1000 gal 15% HCL NE, ATP 3000 psi, 0.8 BPM, ISIP/5: 3200/2300				
4091.5				Acid Frac	3/18/1968	8,495.0	8,549.0	Acid/sd frac: 20k gal gelled 15% NE acid w FR, FL, 20k # 20/40 Ottawa, TP 6600- 7400, 16 BPM, ISIP/10: 3500/3300 psi.				
4545.9				Acidizing	11/19/1968	8,495.0	8,549.0	2k gal 15% NE, TP 2500 psi, 2.0 BPM, ISIP/5: 2100/1200				
4586.0				Acidizing	8/17/1973	8,494.0	8,553.0	800 gal xylene + 200 gal 15% NEFE acid + 2 gal Adafoam, TP 1600-2600, 2.1 BPM, ISIP/5: 2000/1400.				
4732.0				Acidizing	8/20/1973	8,494.0	8,553.0	5k gal 15% NEFE, 55 BS, overflushed w 15k gal FW, TP 2950-4950, 4.7 BPM, ISIP/10: 3100/2900				
4754.9												
4779.9												
4976.0												
8430.8												
8436.6												
8445.9												
8495.1												
8497.0												
8501.0												
8503.0												
8509.8												
8512.1												
8519.0												
8521.0												
8523.0												
8525.9												
8527.9												
8529.9												
8532.2												
8534.1												
8546.9												
8548.9												
8550.9												
8553.1												
8646.0												
9380.9												
9386.2												
9413.1												
9446.8												
9467.8												
9609.9												
9964.9												
10049.9												
10128.9												
10130.9												
10137.1												
10143.0												
10152.9												
10154.9												
10157.2												
10165.0												
10169.0												
10178.1												
10194.9												
10200.1												
10264.0												
				Other In Hole								
				Des	Com	OD (in)	Run Date	Top (ftKB)	Btm (ftKB)			
				CIBP w cmt		6 1/4	3/1/1968	10,165.0	10,178.0			
				Collapsed Csg	Collapsed tbg, fished, then swaged 9-5/8" csg w/ 4-3/4" cbl tl swage 4580-4585' swage 6-3/4" through 4580- 4586', swage 7-3/4" swage same depths, swage 8-1/2" through same depths, 4 pts to go dwn thru, 8 pts to PU, lost swage, fished. Possible csg leak as well.	9 5/8	6/24/1969	4,580.0	4,586.0			
				Pkr w plug & cmt	Baker Model D pkr w Baker DR plug, spotted 25 sx Class C cmt on top, calc TOC 9910'	6 1/4	8/16/1973	9,910.0	10,050.0			
				BOT Husky Dual pkr	Left in hole when cnv to inj	6.366	8/16/1973	10,050.0	10,053.0			
				CIBP w cmt	3 sx cmt dumped	6 1/4	8/17/1973	8,623.0	8,646.0			
				Tubing - Water Injection set at 8,446.0ftKB on 10/12/1991 00:00								
				Set Depth (ftKB)	Comment	Run Date	Pull Date					
				8,446.0	Maybe 274 jts tbg?	10/12/1991						
				Item Des	OD (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)	
				Tubing, buttress thrd	2 3/8	4.70	N-80	8,421.70	273	9.0	8,430.7	
				Baker NB pkr	6 7/8			3.00	1	8,430.7	8,433.7	
				Non-upset mill out extension	4 1/2			6.00	1	8,433.7	8,439.7	
				Tbg sub, 8rd	2 3/8	4.60	J-55	6.00	1	8,439.7	8,445.7	
				F Nipple	2 3/8			0.30	1	8,445.7	8,446.0	
				<des> on <dtmrun>								
				Rod Description								

Proposed Schematic & Details

Well Name NORTH VACUUM ABO UNIT 124		API/UWI 3002522386		County Lea		State/Province New Mexico		Field Name VACUUM N	
Location 660 FSL & 460 FEL				Township 17S	Range 34E	Section 14	Latitude (°) 32° 50' 50.856" N	Longitude (°) 103° 31' 25.284" W	
Section Survey		Block		Township		Abstract			
Original KB Elevation (ft) 4,025.00		Ground/Corrected Ground Elevation (ft) 4,016.00		KB-Ground Distance (ft) 9.00		Spud Date			



Jobs

Open Additional Pay - OAP, <dtmstart>

Type Open Additional Pay - OAP	Planned Start Date 3/25/2013	Objective Rpr tbg/pkr, Add Abo E perms & acidize
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Wellbore Sections

Section Des	Wellbore Name	Size (in)	Act Top (ftKB)	Act Btm (ftKB)	Start Date
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Cement Stages

Description	Top (ftKB)	Btm (ftKB)	Top Meas Meth	Comment
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Perforations

Top (ftKB)	Btm (ftKB)	Shot Dens (shot s/ft)	Date	Zone	Calculated Shot Total
8,562.0	8,564.0	2.0	3/30/2014	Lower Abo, Original Hole	5
8,570.0	8,573.0	2.0	3/30/2014	Lower Abo, Original Hole	7
8,576.0	8,580.0	2.0	3/30/2014	Lower Abo, Original Hole	9
8,583.0	8,586.0	2.0	3/30/2014	Lower Abo, Original Hole	7
8,590.0	8,592.0	2.0	3/30/2014	Lower Abo, Original Hole	5
8,595.0	8,597.0	2.0	3/30/2014	Lower Abo, Original Hole	5
8,603.0	8,606.0	2.0	3/30/2014	Lower Abo, Original Hole	7
8,612.0	8,614.0	2.0	3/30/2014	Lower Abo, Original Hole	5
8,619.0	8,620.0	2.0	3/30/2014	Lower Abo, Original Hole	3

Stim/Treat Stages

Type	Start Date	Top (ftKB)	Btm (ftKB)	Com
Acidizing	3/30/2014	8,562.0	8,620.0	Proposed: 1300 gal 20% HCL NEFE, pumped in stages w/ straddle pkr.

Other In Hole

Des	Com	OD (in)	Run Date	Top (ftKB)	Btm (ftKB)
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<des> set at <depth>ftKB on <dtmrun>

Set Depth (ftKB)	Comment				Run Date	Pull Date	
Item Des	OD (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)

<des> on <dtmrun>

Rod Description	Item Des	OD (in)	Grade	Jts	Len (ft)
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