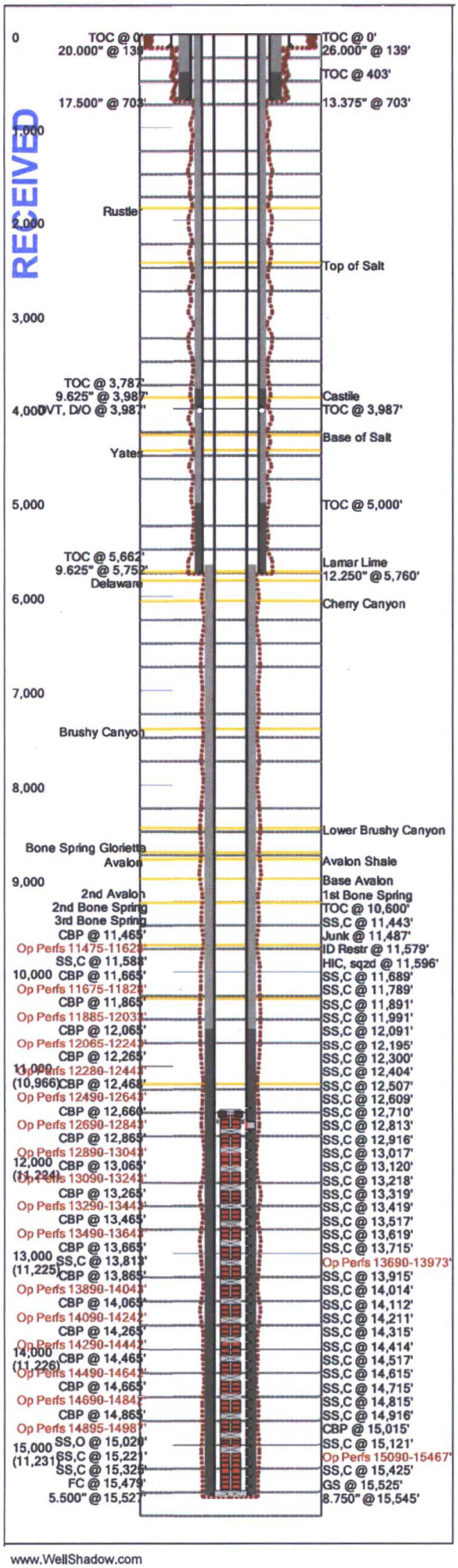
30-025-41270



Last Updated: 5/26/2016 06:24 AM

Field Name	Lease Name	Well No.
Lennox	Lennox 32 State	4H

County	State	API No.
Lea	New Mexico	30025412700000

Version	Version Tag
1	completed

GL (ft)	KB (ft)	Section	Township/Block	Range/Survey
3,456.0	3,476.0	32	22S	35E

Operator	Well Status	Latitude	Longitude
Caza Oil and Gas, Inc	Completed		

Dist. N/S (ft)	N/S Line	Dist. E/W (ft)	E/W Line	Footage From
330	FSL	660	FWL	Section

Prop Num	Spud Date	Comp. Date
	8/16/2014	5/19/2016

Additional Information

OGRID	Well Type	Pool Name and Number	Lease No. and Bond No.
249099	Horizontal Oil		Rock Lake; Bone Spring

Prepared By	Updated By	Last Updated
Steve Morris	Steve Morris	5/26/2016 6:24 AM

Hole Summary

Date	O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
	26.000	0	139	
	17.500	139	703	
	12.250	703	5,760	
	8.750	5,760	15,545	

Tubular Summary

Date	Description	O.D. (in)	Wt (lb/ft)	Grade	Top (MD ft)	Bottom (MD ft)
	Conductor Casing	20.000	94.00		0	139
	Surface Casing	13.375	48.00	H-40	0	703
	Intermediate Casing	9.625	40.00	J-55	0	3,987
	Intermediate Casing	9.625	40.00	HCK-80	3,987	5,752
	Production Casing	5.500	20.00	HCP-110	0	15,527

Casing Cement Summary

C	Date	No. Sx	Csg. O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
		390	13.375	0	403	13.5ppg
		229	13.375	403	703	14.8ppg
		1,100	9.625	0	3,787	12.6ppg
		100	9.625	3,787	3,987	14.8ppg
		310	9.625	3,987	5,000	12.6ppg
		250	9.625	5,000	5,752	14.8ppg
		1,095	5.500	5,662	10,600	12.6ppg
		720	5.500	10,600	15,527	15ppg

Tools/Problems Summary

Date	Tool Type	O.D. (in)	I.D. (in)	Top (MD ft)	Bottom (MD ft)
	DVT, D/O	9.625	0.000	3,987	0
	SS,C	5.500	0.000	11,443	11,456
	CBP	3.500	0.000	11,465	0
	Junk	4.000	1.500	11,487	11,549
	ID Restr	4.778	4.001	11,579	11,618
	SS,C	5.500	0.000	11,588	11,601
	HIC, sqzd	5.500	0.000	11,596	11,598
	CBP	3.500	0.000	11,665	0
	SS,C	5.500	0.000	11,689	11,702
	SS,C	5.500	0.000	11,789	11,803
	CBP	3.500	0.000	11,865	0
	SS,C	5.500	0.000	11,891	11,904
	SS,C	5.500	0.000	11,991	12,004
	CBP	3.500	0.000	12,065	0
	SS,C	5.500	0.000	12,091	12,104
	SS,C	5.500	0.000	12,195	12,208
	CBP	3.500	0.000	12,265	0
	SS,C	5.500	0.000	12,300	12,313
	SS,C	5.500	0.000	12,404	12,417
	CBP	3.500	0.000	12,468	0
	SS,C	5.500	0.000	12,507	12,520
	SS,C	5.500	0.000	12,609	12,622

Last Updated: 5/26/2016 06:24 AM

Date	Tool Type	O.D. (in)	I.D. (in)	Top (MD ft)	Bottom (MD ft)
	CBP	3.500	0.000	12,660	0
	SS,C	5.500	0.000	12,710	12,723
	SS,C	5.500	0.000	12,813	12,826
	CBP	3.500	0.000	12,865	0
	SS,C	5.500	0.000	12,916	12,929
	SS,C	5.500	0.000	13,017	13,030
	CBP	3.500	0.000	13,065	0
	SS,C	5.500	0.000	13,120	13,133
	SS,C	5.500	0.000	13,218	13,231
	CBP	3.500	0.000	13,265	0
	SS,C	5.500	0.000	13,319	13,331
	SS,C	5.500	0.000	13,419	13,432
	CBP	3.500	0.000	13,465	0
	SS,C	5.500	0.000	13,517	13,529
	SS,C	5.500	0.000	13,619	13,631
	CBP	3.500	0.000	13,665	0
	SS,C	5.500	0.000	13,715	13,728
	SS,C	5.500	0.000	13,813	13,826
	CBP	3.500	0.000	13,865	0
	SS,C	5.500	0.000	13,915	13,928
	SS,C	5.500	0.000	14,014	14,026
	CBP	3.500	0.000	14,065	0
	SS,C	5.500	0.000	14,112	14,125
	SS,C	5.500	0.000	14,211	14,224
	CBP	3.500	0.000	14,265	0
	SS,C	5.500	0.000	14,315	14,328
	SS,C	5.500	0.000	14,414	14,427
	CBP	3.500	0.000	14,465	0
	SS,C	5.500	0.000	14,517	14,530
	SS,C	5.500	0.000	14,615	14,628
	CBP	3.500	0.000	14,665	0
	SS,C	5.500	0.000	14,715	14,728
	SS,C	5.500	0.000	14,815	14,828
	CBP	3.500	0.000	14,865	0
	SS,C	5.500	0.000	14,916	14,929
	CBP	3.500	0.000	15,015	0
	SS,O	5.500	0.000	15,020	15,033
	SS,C	5.500	0.000	15,121	15,134
	SS,C	5.500	0.000	15,221	15,234
	SS,C	5.500	0.000	15,325	15,338
	SS,C	5.500	0.000	15,425	15,437
	FC	5.500	0.000	15,479	0
	GS	5.500	0.000	15,525	0

Perforation Summary

C	Date	Perf. Status	Formation	OA Top (MD ft)	OA Bottom (MD ft)	Shots
		Open	3rd Bone Spring	11,475	11,628	44
		Open	3rd Bone Spring	11,675	11,828	44
		Open	3rd Bone Spring	11,885	12,033	44
		Open	3rd Bone Spring	12,065	12,243	44
		Open	3rd Bone Spring	12,280	12,443	44
		Open	3rd Bone Spring	12,490	12,643	44
		Open	3rd Bone Spring	12,690	12,843	44
		Open	3rd Bone Spring	12,890	13,043	44
		Open	3rd Bone Spring	13,090	13,243	44
		Open	3rd Bone Spring	13,290	13,443	44
		Open	3rd Bone Spring	13,490	13,643	44
		Open	3rd Bone Spring	13,690	13,973	44
		Open	3rd Bone Spring	13,890	14,043	44
		Open	3rd Bone Spring	14,090	14,242	36
		Open	3rd Bone Spring	14,290	14,442	36
		Open	3rd Bone Spring	14,490	14,642	36
		Open	3rd Bone Spring	14,690	14,842	36
		Open	3rd Bone Spring	14,895	14,987	36
		Open	3rd Bone Spring	15,090	15,467	66

Formation Tops Summary

Formation	Top (TVD ft)	Comments
Rustler	1,869	
Top of Salt	2,447	
Castile	3,881	

Last Updated: 5/26/2016 06:24 AM

Formation	Top (TVD ft)	Comments
Base of Salt	4,280	
Yates	4,443	
Lamar Lime	5,739	
Delaware	5,834	
Cherry Canyon	6,052	
Brushy Canyon	7,409	
Lower Brushy Canyon	8,458	
Bone Spring Glorietta	8,718	
Avalon Shale	8,792	
Avalon	8,793	
Base Avalon	8,998	
2nd Avalon	9,253	
1st Bone Spring	9,704	
2nd Bone Spring	10,281	
3rd Bone Spring	11,103	

Last Updated: 5/26/2016 06:24 AM

Field Name	Lease Name	Well No.	County	State	API No.
Lennox	Lennox 32 State	4H	Lea	New Mexico	30025412700000

Version	Version Tag	Spud Date	Comp. Date	GL (ft)	KB (ft)
1	completed	8/16/2014	5/19/2016	3,456.0	3,476.0

Section	Township/Block	Range/Survey	Dist. N/S (ft)	N/S Line	Dist. E/W (ft)	E/W Line	Footage From
32	22S	35E	330	FSL	660	FWL	Section

Operator	Well Status	Latitude	Longitude	Prop Num
Caza Oil and Gas, Inc	Completed			

OGRID	Well Type	Pool Name and Number	Lease No. and Bond No.
249099	Horizontal Oil		Rock Lake; Bone Spring

Last Updated	Prepared By	Updated By
05/26/2016 6:24 AM	Steve Morris	Steve Morris

Additional Information

Hole Summary

Date	O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
	26.000	0	139	
	17.500	139	703	
	12.250	703	5,760	
	8.750	5,760	15,545	

Tubular Summary

Date	Description	No. Jts	O.D. (in)	Wt (lb/ft)	Grade	Top (MD ft)	Bottom (MD ft)	Comments
	Conductor Casing		20.000	94.00		0	139	
	Surface Casing		13.375	48.00	H-40	0	703	ID 12.715" Burst 1730 Collapse 770 Tensile 322,000
	Intermediate Casing		9.625	40.00	J-55	0	3,987	ID 8.835" Burst 3950 Collapse 2570 Tensile 630,000
	Intermediate Casing		9.625	40.00	HCK-80	3,987	5,752	ID 8.835" Burst 5750 Collapse 4230 Tensile 837,000
	Production Casing		5.500	20.00	HCP-110	0	15,527	ID 4.892" Burst 10640 Collapse 7480 Tensile 546,000

Casing Cement Summary

C	Date	No. Sx	Yield (ft3/sk)	Vol. (ft3)	Csg. O.D. (in)	Top (MD ft)	Bottom (MD ft)	Description	Comments
		390	1.75	683	13.375	0	403	Class C with 4% Gel + 2% CaCl2	13.5ppg
		229	1.35	309	13.375	403	703	Class C with 2% CaCl2	14.8ppg
		1,100	2.13	2,343	9.625	0	3,787	Class C Lite 65:35	12.6ppg
		100	1.35	135	9.625	3,787	3,987	Class C	14.8ppg
		310	2.13	660	9.625	3,987	5,000	Class C 65:35	12.6ppg
		250	1.35	338	9.625	5,000	5,752	Class C	14.8ppg
		1,095	2.13	2,332	5.500	5,662	10,600	Class H Lite	12.6ppg
		720	1.15	828	5.500	10,600	15,527	Class H Acid soluble	15ppg

Tools/Problems Summary

Date	Tool Type	O.D. (in)	I.D. (in)	Top (MD ft)	Bottom (MD ft)	Description	Comments
	DV tool (drilled out)	9.625	0.000	3,987	0	18' long	
	Sliding Sleeve (closed)	5.500	0.000	11,443	11,456	NCS	Sleeve 40
	Composite Bridge Plug	3.500	0.000	11,465	0		Drilled out
	Junk	4.000	1.500	11,487	11,549	Drillout BHA and 30' of coil	
	ID Restriction	4.778	4.001	11,579	11,618	Casing Patch	
	Sliding Sleeve (closed)	5.500	0.000	11,588	11,601	NCS	Sleeve 39
	Casing Leak (squeezed)	5.500	0.000	11,596	11,598		Squeezed cement and well lock
	Composite Bridge Plug	3.500	0.000	11,665	0	Long Range Gen 2	Drilled out
	Sliding Sleeve (closed)	5.500	0.000	11,689	11,702	NCS	Sleeve 38
	Sliding Sleeve (closed)	5.500	0.000	11,789	11,803	NCS	Sleeve 37
	Composite Bridge Plug	3.500	0.000	11,865	0	Long Range Gen 2	Drilled out
	Sliding Sleeve (closed)	5.500	0.000	11,891	11,904	NCS	Sleeve 36
	Sliding Sleeve (closed)	5.500	0.000	11,991	12,004	NCS	Sleeve 35
	Composite Bridge Plug	3.500	0.000	12,065	0	Long Range Gen 2	Drilled out
	Sliding Sleeve (closed)	5.500	0.000	12,091	12,104	NCS	Sleeve 34
	Sliding Sleeve (closed)	5.500	0.000	12,195	12,208	NCS	Sleeve 33
	Composite Bridge Plug	3.500	0.000	12,265	0	Long Range Gen 2	Drilled out
	Sliding Sleeve (closed)	5.500	0.000	12,300	12,313	NCS	Sleeve 32
	Sliding Sleeve (closed)	5.500	0.000	12,404	12,417	NCS	Sleeve 31
	Composite Bridge Plug	3.500	0.000	12,468	0	Long Range Gen 2	Drilled out
	Sliding Sleeve (closed)	5.500	0.000	12,507	12,520	NCS	Sleeve 30
	Sliding Sleeve (closed)	5.500	0.000	12,609	12,622	NCS	Sleeve 29
	Composite Bridge Plug	3.500	0.000	12,660	0	Long Range Gen 2	Drilled out
	Sliding Sleeve (closed)	5.500	0.000	12,710	12,723	NCS	Sleeve 28
	Sliding Sleeve (closed)	5.500	0.000	12,813	12,826	NCS	Sleeve 27
	Composite Bridge Plug	3.500	0.000	12,865	0	Long Range Gen 2	Drilled out
	Sliding Sleeve (closed)	5.500	0.000	12,916	12,929	NCS	Sleeve 26
	Sliding Sleeve (closed)	5.500	0.000	13,017	13,030	NCS	Sleeve 25
	Composite Bridge Plug	3.500	0.000	13,065	0	Long Range Gen 2	Not drilled out

Last Updated: 5/26/2016 06:24 AM

Date	Tool Type	O.D. (in)	I.D. (in)	Top (MD ft)	Bottom (MD ft)	Description	Comments
	Sliding Sleeve (closed)	5.500	0.000	13,120	13,133	NCS	Sleeve 24
	Sliding Sleeve (closed)	5.500	0.000	13,218	13,231	NCS	Sleeve 23
	Composite Bridge Plug	3.500	0.000	13,265	0	Long Range Gen 2	Not drilled out
	Sliding Sleeve (closed)	5.500	0.000	13,319	13,331	NCS	Sleeve 22
	Sliding Sleeve (closed)	5.500	0.000	13,419	13,432	NCS	Sleeve 21
	Composite Bridge Plug	3.500	0.000	13,465	0	Long Range Gen 2	Not drilled out
	Sliding Sleeve (closed)	5.500	0.000	13,517	13,529	NCS	Sleeve 20
	Sliding Sleeve (closed)	5.500	0.000	13,619	13,631	NCS	Sleeve 19
	Composite Bridge Plug	3.500	0.000	13,665	0	Long Range Gen 2	Not drilled out
	Sliding Sleeve (closed)	5.500	0.000	13,715	13,728	NCS	Sleeve 18
	Sliding Sleeve (closed)	5.500	0.000	13,813	13,826	NCS	Sleeve 17
	Composite Bridge Plug	3.500	0.000	13,865	0	Long Range Gen 2	Not drilled out
	Sliding Sleeve (closed)	5.500	0.000	13,915	13,928	NCS	Sleeve 16
	Sliding Sleeve (closed)	5.500	0.000	14,014	14,026	NCS	Sleeve 15
	Composite Bridge Plug	3.500	0.000	14,065	0	Long Range Gen 2	Not drilled out
	Sliding Sleeve (closed)	5.500	0.000	14,112	14,125	NCS	Sleeve 14
	Sliding Sleeve (closed)	5.500	0.000	14,211	14,224	NCS	Sleeve 13
	Composite Bridge Plug	3.500	0.000	14,265	0	Long Range Gen 2	Not drilled out
	Sliding Sleeve (closed)	5.500	0.000	14,315	14,328	NCS	Sleeve 12
	Sliding Sleeve (closed)	5.500	0.000	14,414	14,427	NCS	Sleeve 11
	Composite Bridge Plug	3.500	0.000	14,465	0	Long Range Gen 2	Not drilled out
	Sliding Sleeve (closed)	5.500	0.000	14,517	14,530	NCS	Sleeve 10
	Sliding Sleeve (closed)	5.500	0.000	14,615	14,628	NCS	Sleeve 9
	Composite Bridge Plug	3.500	0.000	14,665	0	Long Range Gen 2	Not drilled out
	Sliding Sleeve (closed)	5.500	0.000	14,715	14,728	NCS	Sleeve 8
	Sliding Sleeve (closed)	5.500	0.000	14,815	14,828	NCS	Sleeve 7
	Composite Bridge Plug	3.500	0.000	14,865	0	Long Range Gen 2	Drilled out
	Sliding Sleeve (closed)	5.500	0.000	14,916	14,929	NCS	Sleeve 6
	Composite Bridge Plug	3.500	0.000	15,015	0	Long Range Gen 2	Drilled out
	Sliding Sleeve (open)	5.500	0.000	15,020	15,033	NCS	Sleeve 5
	Sliding Sleeve (closed)	5.500	0.000	15,121	15,134	NCS	Sleeve 4
	Sliding Sleeve (closed)	5.500	0.000	15,221	15,234	NCS	Sleeve 3
	Sliding Sleeve (closed)	5.500	0.000	15,325	15,338	NCS	Sleeve 2
	Sliding Sleeve (closed)	5.500	0.000	15,425	15,437	NCS	Sleeve 1
	Float Collar	5.500	0.000	15,479	0		
	Guide Shoe	5.500	0.000	15,525	0		

Perforation Summary

C	Date	Perf. Status	Formation	Comments
		Open	3rd Bone Spring	Stage 1 Initial WHP: 3,930 psi Breakdown: 4,572 psi Max Pressure: 8,551 psi Avg. Pressure: 7,713 psi Max Slurry Rate: 82.7 bpm Avg. Slurry Rate: 76.5 bpm 40/70 ProLite: 132,160 lbm / 20/40 ProLite: 466,500 lbm /

Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
15,465	15,467	4	12	60	
15,415	15,417	4	12	60	
15,365	15,367	4	10	60	
15,315	15,317	4	8	60	
15,240	15,242	4	6	60	
15,190	15,192	4	6	60	
15,140	15,142	4	6	60	
15,090	15,092	4	6	60	

C	Date	Perf. Status	Formation	Comments
		Open	3rd Bone Spring	Stage 2 Initial WHP: 4,106 psi Breakdown: 8,254 psi Max Pressure: 8,388 psi Avg. Pressure: 7,865 psi Max Slurry Rate: 83.1 bpm Avg. Slurry Rate: 67.4 bpm 40/70 ProLite: 65,000 lbm / 20/40 ProLite: 186,600 lbm /

Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
14,985	14,987	4	10	60	
14,955	14,957	4	10	60	
14,925	14,927	4	8	60	
14,895	14,897	4	8	60	

C	Date	Perf. Status	Formation	Comments

Last Updated: 5/26/2016 06:24 AM

C	Date	Perf. Status	Formation	Comments
		Open	3rd Bone Spring	Stage 3 Initial WHP: 4,338 psi Breakdown: 8,876 psi Max Pressure: 8,876 psi Avg. Pressure: 7,766 psi Max Slurry Rate: 80.6 bpm Avg. Slurry Rate: 64.8 bpm 40/70 ProLite: 65,100 lbm / 20/40 ProLite: 234,140 lbm /

Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
14,840	14,842	4	10	60	
14,790	14,792	4	10	60	
14,740	14,742	4	8	60	
14,690	14,692	4	8	60	

C	Date	Perf. Status	Formation	Comments
		Open	3rd Bone Spring	Stage 4 Initial WHP: 4,311 psi Breakdown: 8,118 psi Max Pressure: 8,501 psi Avg. Pressure: 8,000 psi Max Slurry Rate: 81.0 bpm Avg. Slurry Rate: 49.9 bpm 40/70 ProLite: 65,240 lbm / 20/40 ProLite: 240,120 lbm /

Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
14,640	14,642	4	10	60	
14,590	14,592	4	10	60	
14,540	14,542	4	8	60	
14,490	14,492	4	8	60	

C	Date	Perf. Status	Formation	Comments
		Open	3rd Bone Spring	Stage 5 Initial WHP: 4,337 psi Breakdown: 8,534 psi Max Pressure: 9,159 psi Avg. Pressure: 8,207 psi Max Slurry Rate: 80.7 bpm Avg. Slurry Rate: 45.6 bpm 40/70 ProLite: 64,560 lbm / 20/40 ProLite: 236,340 lbm /

Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
14,440	14,442	4	10	60	
14,390	14,392	4	10	60	
14,340	14,342	4	8	60	
14,290	14,292	4	8	60	

C	Date	Perf. Status	Formation	Comments
		Open	3rd Bone Spring	Stage 6 Initial WHP: 4,268 psi Breakdown: 7,663 psi Max Pressure: 8,767 psi Avg. Pressure: 7,363 psi Max Slurry Rate: 80.6 bpm Avg. Slurry Rate: 79.9 bpm 40/70 ProLite: 66,340 lbm / 20/40 ProLite: 239,320 lbm /

Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
14,240	14,242	4	10	60	
14,190	14,192	4	10	60	
14,140	14,142	4	8	60	
14,090	14,092	4	8	60	

C	Date	Perf. Status	Formation	Comments
		Open	3rd Bone Spring	Stage 7 Initial WHP: 4,392 psi Breakdown: 8,252 psi Max Pressure: 8,777 psi Avg. Pressure: 7,703 psi Max Slurry Rate: 81.0 bpm Avg. Slurry Rate: 79.0 bpm 40/70 ProLite: 65,660 lbm / 20/40 ProLite: 232,360 lbm /

Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
14,040	14,043	4	12	60	
13,990	13,993	4	12	60	
13,940	13,942	4	10	60	
13,890	13,892	4	10	60	

C	Date	Perf. Status	Formation	Comments

Last Updated: 5/26/2016 06:24 AM

C	Date	Perf. Status	Formation	Comments
		Open	3rd Bone Spring	Stage 8 Initial WHP: 4,388 psi Breakdown: 8,666 psi Max Pressure: 8,666 psi Avg. Pressure: 7,902 psi Max Slurry Rate: 80.7 bpm Avg. Slurry Rate: 71.6 bpm 40/70 ProLite: 65,400 lbm / 20/40 ProLite: 234,100 lbm /

Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
13,840	13,843	4	12	60	
13,790	13,973	4	12	60	
13,740	13,742	4	10	60	
13,690	13,692	4	10	60	

C	Date	Perf. Status	Formation	Comments
		Open	3rd Bone Spring	Stage 9 Initial WHP: 4,240 psi Breakdown: 8,794 psi Max Pressure: 8,807 psi Avg. Pressure: 7,503 psi Max Slurry Rate: 80.9 bpm Avg. Slurry Rate: 73.9 bpm 40/70 ProLite: 62,000 lbm / 20/40 ProLite: 241,220 lbm /

Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
13,640	13,643	4	12	60	
13,590	13,593	4	12	60	
13,540	13,542	4	10	60	
13,490	13,492	4	10	60	

C	Date	Perf. Status	Formation	Comments
		Open	3rd Bone Spring	Stage 10 Initial WHP: 4,293 psi Breakdown: 9,025 psi Max Pressure: 9,025 psi Avg. Pressure: 7,675 psi Max Slurry Rate: 80.6 bpm Avg. Slurry Rate: 72.3 bpm 40/70 ProLite: 67,060 lbm / 20/40 ProLite: 239,800 lbm /

Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
13,440	13,443	4	12	60	
13,390	13,393	4	12	60	
13,340	13,342	4	10	60	
13,290	13,292	4	10	60	

C	Date	Perf. Status	Formation	Comments
		Open	3rd Bone Spring	Stage 11 Initial WHP: 4,382 psi Breakdown: 8,882 psi Max Pressure: 8,900 psi Avg. Pressure: 8,078 psi Max Slurry Rate: 80.9 bpm Avg. Slurry Rate: 72.1 bpm 40/70 ProLite: 65,740 lbm / 20/40 ProLite: 240,160 lbm /

Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
13,240	13,243	4	12	60	
13,190	13,193	4	12	60	
13,140	13,142	4	10	60	
13,090	13,092	4	10	60	

C	Date	Perf. Status	Formation	Comments
		Open	3rd Bone Spring	Stage 12 Initial WHP: 4,321 psi Breakdown: 5,413 psi Max Pressure: 8,891 psi Avg. Pressure: 7,742 psi Max Slurry Rate: 80.9 bpm Avg. Slurry Rate: 79.8 bpm 40/70 ProLite: 64,000 lbm / 20/40 ProLite: 186,040 lbm /

Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
13,040	13,043	4	12	60	
12,990	12,993	4	12	60	
12,940	12,942	4	10	60	
12,890	12,892	4	10	60	

C	Date	Perf. Status	Formation	Comments

Last Updated: 5/26/2016 06:24 AM

C	Date	Perf. Status	Formation	Comments
		Open	3rd Bone Spring	Stage 13 Initial WHP: 4,311 psi Breakdown: 7,769 psi Max Pressure: 8,956 psi Avg. Pressure: 7,890 psi Max Slurry Rate: 82.1 bpm Avg. Slurry Rate: 75.1 bpm 40/70 ProLite: 65,560 lbm / 20/40 ProLite: 243,070 lbm /

Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
12,840	12,843	4	12	60	
12,790	12,793	4	12	60	
12,740	12,742	4	10	60	
12,690	12,692	4	10	60	

C	Date	Perf. Status	Formation	Comments
		Open	3rd Bone Spring	Stage 14 Initial WHP: 4,394 psi Breakdown: 5,999 psi Max Pressure: 9,248 psi Avg. Pressure: 7,200 psi Max Slurry Rate: 81.1 bpm Avg. Slurry Rate: 78.9 bpm 40/70 ProLite: 65,480 lbm / 20/40 ProLite: 241,500 lbm /

Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
12,640	12,643	4	12	60	
12,590	12,593	4	12	60	
12,540	12,542	4	10	60	
12,490	12,492	4	10	60	

C	Date	Perf. Status	Formation	Comments
		Open	3rd Bone Spring	Stage 15 Initial WHP: 4,253 psi Breakdown: 6,325 psi Max Pressure: 8,392 psi Avg. Pressure: 7,101 psi Max Slurry Rate: 80.6 bpm Avg. Slurry Rate: 79.9 bpm 40/70 ProLite: 65,486 lbm / 20/40 ProLite: 246,420 lbm /

Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
12,440	12,443	4	12	60	
12,390	12,393	4	12	60	
12,340	12,342	4	10	60	
12,280	12,282	4	10	60	

C	Date	Perf. Status	Formation	Comments
		Open	3rd Bone Spring	Stage 16 Initial WHP: 4,314 psi Breakdown: 8,182 psi Max Pressure: 9,817 psi Avg. Pressure: 7,178 psi Max Slurry Rate: 81.0 bpm Avg. Slurry Rate: 75.4 bpm 40/70 ProLite: 63,000 lbm / 20/40 ProLite: 245,750 lbm /

Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
12,240	12,243	4	12	60	
12,175	12,178	4	12	60	
12,130	12,132	4	10	60	
12,065	12,067	4	10	60	

C	Date	Perf. Status	Formation	Comments
		Open	3rd Bone Spring	Stage 17 Initial WHP: 4,161 psi Breakdown: 7,757 psi Max Pressure 8,261 psi Avg. Pressure: 7,349 psi Max Slurry Rate: 81.1 bpm Avg. Slurry Rate: 76.4 bpm 40/70 ProLite: 65,480 lbm / 20/40 ProLite: 233,960 lbm /

Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
12,030	12,033	4	12	60	
11,970	11,973	4	12	60	
11,925	11,927	4	10	60	
11,885	11,887	4	10	60	

C	Date	Perf. Status	Formation	Comments

Last Updated: 5/26/2016 06:24 AM

C	Date	Perf. Status	Formation	Comments
		Open	3rd Bone Spring	Stage 18 Initial WHP: 4,303 psi Breakdown: 8,466 psi Max Pressure: 8,796 psi Avg. Pressure: 7,362 psi Max Slurry Rate: 81.2 bpm Avg. Slurry Rate: 80.4 bpm 40/70 ProLite: 64,660 lbm / 20/40 ProLite: 232,920 lbm /

Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
11,825	11,828	4	12	60	
11,775	11,778	4	12	60	
11,725	11,727	4	10	60	
11,675	11,677	4	10	60	

C	Date	Perf. Status	Formation	Comments
		Open	3rd Bone Spring	Stage 19 Initial WHP: 4,556 psi Breakdown: 9,099 psi Max Pressure: 9,099 psi Avg. Pressure: 7,926 psi Max Slurry Rate: 80.9 bpm Avg. Slurry Rate: 73.4 bpm 40/70 ProLite: 65,250 lbm / 20/40 ProLite: 234,680 lbm /

Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
11,625	11,628	4	12	60	
11,575	11,578	4	12	60	
11,525	11,527	4	10	60	
11,475	11,477	4	10	60	

C	Date	Perf. Status	Formation	Comments
		Open	1st Bone Spring	Stage 20 Initial WHP: 4,609 psi Breakdown: 7,775 psi Max Pressure: 7,775 psi Avg. Pressure: 5,517 psi Max Slurry Rate: 25.7 bpm Avg. Slurry Rate: 25.2 bpm 40/70 ProLite: 750 lbm / 20/40 ProLite: 24,000 lbm /

Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments

Formation Top Summary

Formation Name	Top(TVD ft)	Comments
Rustler	1,869	
Top of Salt	2,447	
Castile	3,881	
Base of Salt	4,280	
Yates	4,443	
Lamar Lime	5,739	
Delaware	5,834	
Cherry Canyon	6,052	
Brushy Canyon	7,409	
Lower Brushy Canyon	8,458	
Bone Spring Glorietta	8,718	
Avalon Shale	8,792	
Avalon	8,793	
Base Avalon	8,998	
2nd Avalon	9,253	
1st Bone Spring	9,704	
2nd Bone Spring	10,281	
3rd Bone Spring	11,103	

Well History Summary

Date	Comments
9/21/2014	(24-0 hrs) Finish cleaning pits. R/D Top Drive & solid control equipment. Rig released @ 06:00 hrs MST 9/21/14. Location is very sloppy.
10/13/2014	Install Csg risers in cellar. Level around wellhead. Install 10K manual frac valve & tested to 10000 psi with test plug. Move in 10 frac tanks & 2 acid tanks. Spot 2 frac tanks for coil tubing unit. Set anchors & tested. Filling Frac Tanks.
10/14/2014	Move in & spot 2 blow down half pits w/ gas busters. Filling frac tanks with water via trucks. Spot 4 light towers & 2 trash trailers.
10/15/2014	Move in spot sand kings. Install flow back manifold & connect to tanks. Finish filling frac tanks with Fresh Water. Lay water transfer line from frac pit & Poseidon tank.
10/16/2014	Finish MIRU Frac Equipment. R/U wireline. Run CBL, GR, CCL. TOC 5662'. Log Depth 11,116'. R/D wireline. R/U Coil Tubing. RIH w/ mill & motor on 2" coil to 14,708' CTM. Mill for 20 minutes w/ no footage gain. Displace hole w/ nano surfactant fluid. Install mechanical counter. POH. Counter read 14,989'. PBTD 15,478'. Decision made to replace electronic counter & attempt to drill out obstruction @ 14,708' CTM. All services for frac are on location.
10/17/2014	RIH w/ mill & motor to 15,005'. Correct counter 50'. Continue in hole to 15,209'. Drill out cement from 15209' to 15,445'. Could not get deeper. Sweep oil clean & pump 1000 gals 15% acid. POH w/ coil. Depth indicator still not working properly. W/O replacement for depth indicator. Replacement unit for depth indicator had been cannibalized. "missing parts"

Last Updated: 5/26/2016 06:24 AM

Date	Comments
10/18/2014	Replace depth counter. Repair encoder to CT computer. Pressure tested Casing to 5500 psi @ 7-1/2 BPM. Pumped in formation w/ 55 bbls treated water. Casing string breeched. Prep to locate leak. R/U NCS tools on Coil tubing. RIH to 150' from surface. Test tool string. Continue in hole to 10530'. Pressure tested packer & casing to 8500 psi. OK. Set packer @ 11,520'. Test to 8200 psi. Lost 200 psi in 8 minutes. Reset packer @ 11,605' tested casing to 6700 psi. Pump rate 1.5 bpm. Leaking. Reset packer @ 11,620 psi. Tested packer to 5400 psi. Pump rate 1.5 BPM. Leaking. Shut in pressure 3800 psi. Located leak between 11,560' & 11,620'. Decision made to abort frac. POH w/ coil R/D NCS tools. R/D Nabors Frac equipment. R/D Coil tubing.
10/22/2014	MIRU WSU. Move in Rack 397 jts of 2-7/8" L-80 Work String.
10/23/2014	ND 10K Frac Valve & N/U 10 K BOPE. Talley work string. RIH P/U 331 jts 2-7/8" tubing from pipe racks. EOT 10,491'. Secure Well & SDFN. NCS field technician will be on location this AM to witness going through sleeves to ± 11,800'.
10/24/2014	Casing Pressure 240 psi. Bled to tank. Finish RIH P/U 2-7/8" work string to 11,662' Witnessed by NCS. Displace hole w/ 600 bbls FW. POH 48 stands to 8614'. Secure Well & SDFWE.
10/28/2014	R/U wireline & Reverse unit. Run EOT correlation log. RIH w/ tubing to 11,604'. Clear tubing with fresh water. Run Down hole video camera from 11,604' to 11,594'. Inspected sleeve # 39. Video did not see casing breech or sleeve leak. Water Clarity was an issue. POH w/ camera. R/D wireline. Secure well & SDFN.
10/29/2014	POH L/D Tubing. N/D BOPE. Install frac valve w/ night cap. Secure well & SDFN.
10/30/2014	R/D WSU. Clean Location. Shut down w/o orders.
11/11/2014	R/U WSU. Rack Work String. 2-7/8" 7.9# P-110 PH-6 tubing. N/D Frac Valve. N/U 10K BOPE. Test BOP. Failed @ 8500 psi. N/D BOP. Replace ring gasket. N/U BOP. Test to 9000 psi. Okay. Secure Well & SDFN.
11/12/2014	Finish in hole p/u tubing to 8759'. R/U wireline. Run correlation log. EOT @ 8759'. R/D wireline. Secure well & SDFN.
11/13/2014	RIH w/ RTTS service packer to 11,625'. Problem with air lines freezing on WSU. Pump truck cancelled due to problems on a previous obligation. W/O kill truck. Pressure test annulus to 4000 psi. injection rate 1 BPM. Test through tubing, Pressure up to 4000 psi. lost 200 psi in 10 minutes. Possible leak back into truck. Reset packer w/ 50 pts down. Test to 4000 psi. Had same leak off. Release packer & POH to 11,570'. Test casing to 4000 psi. Held 4000 psi. POH w/ packer to 10,575'. Secure well & SDFN. Note: Sleeve 40 @ 11,444.84' TM & Sleeve 39 @ 11,590.09' TM. Note: Pump trk scheduled for this morning to retest and establish injection rate.
11/14/2014	RIH w/ packer to 11,625'. Set packer. R/U Cudd Pmp Trk. Pressure up below RTTS tool. Establish injection rate @ 5298 psi @ 3 BPM. ISIP 4404 psi. 5 min 4083 psi. 10 min 3945 psi. 15 min 3853 psi. R/U on casing and test casing above sleeve 38. Establish injection of 5.6 bpm @ 7224 psi. ISIP 7121 psi. 5 min 3968 psi. 10 min 3968 psi. 15 min 3968 psi. R/D Pmp truck. Release RTTS tool @ 11,625'. POH w/ Packer. Secure well & SDFN.
11/15/2014	RIH w/ RTTS packer on 2-7/8" PH-6 work string to 15,460'. Work for 2 hrs to set packer. Failed. W/O power swivel. R/U power swivel. Work on packer set for 1-1/2 hrs. Failed to work torque to packer. Free spinning tubing. Secure well & SDFN.
11/16/2014	POH w/ 175 jts work string to 10,000'. Attempt to set RTTS tool. Failed. Shut down due to ice accumulation on rig. Secure well & SDFN.
11/17/2014	POH w/ RTTS tool. L/D packer. Packer had lost top rubber. TIH w/ bit to 8100'. Secure well & SDFN.
11/18/2014	Finish in hole w/ bit to 15,566' TM. Check tubing tally. Okay. Tag 88' below Float collar & 39' below shoe. Circulate hole clean @ 15,566' TM. R/D pumping equipment. POH w/ 66 stds tubing. Secure well & SDFN.
11/19/2014	Finish POH w/ bit & tubing. RIH w/ RTTS tool. Set Packer @ 15,460' TM. R/U reverse unit. Test below packer to 4000 psi. Lost 500 psi in 5 minutes. Test above packer to 4000 psi. Lost 350 psi in 5 minutes. Secure well & SDFN. Will Retest using pump truck this am. Pump trucks not available for Wednesday.
11/20/2014	R/U pump truck. Test through tubing below packer set @ 15,460'. Pump 11 bbls total fluid @ 4.6 BPM 7000 psi. ISIP 4569 psi, 5 min 4151 psi, 10 min 4037 psi, 15 min 3968 psi. Test annulus above packer set @ 15,460'. Establish injection rate of 7 BPM @ 7000 psi. ISIP 6000 psi, 5 min 4036 psi, 10 min 4036 psi, 15 min 4036 psi. R/D pump truck. Release packer & POH. L/D 3.5" DC's & RTTS packer. Secure Well & SDFN.
11/21/2014	RIH w/ composite plug on 2-7/8" tubing. Set plug @ 11,636'. Tag plug. Okay. Sleeve @ 11,590'. POH w/ setting tool. Secure Well & SDFN.
11/22/2014	RIH w/ open ended tubing to 11,609 ft. R/U Halliburton. Establish injection rate w/ water @ 4.7 BPM @ 5000 psi. Mixed Well Lock in batch mixer. Spot 20 bbls fluid across leak area. P/U to 10,185 ft. Circ Mutual Solvent through tubing to clean out residue. Closed BOPE. Pressure up to 8500 psi slowly pushing ± 12.25 bbls well lock fluid out leak. Trap Presssure. R/D Halliburton. Secure well & SDFN.
11/23/2014	Well Shut in to let Halliburton Well Lock cure.
11/24/2014	Service unit on standby waiting to drill out well lock squeeze.
11/25/2014	CSG psi - 6300. EOT @ 10,185'.Pull 100k on tbg to pull free. RIH w/tbg and tag at 10,190'. POH w/tbg, last 44 jts have welllock on outside of tbg, last 24 jts tbg plugged. Lay down last 24 jts. RIH w/4-5/8" bit and tbg to 9062'. Start increasing points on weight indicator. POH to 8900'. Secure Well. SDFN.
11/26/2014	Tbg and csg psi - 0. Finish POH w/66 jts 2-7/8" tbg. Lay down 40 jts, last 20 jts plugged, had Well Lock on outside of tbg. RIH w/PCD bit and 2-7/8" tbg, circ clean. Recovered hard Well Lock and soft Well Lock, pictures sent to Midland. Samples also taken on location. Secure Well. Shut down for Thanksgiving Holiday.
11/27/2014	Shut down for Thanksgiving.
11/28/2014	Csg and tbg psi - 0. Replace stripper rubber. Drill out HES Well Lock from10,279 to 10,750. Drill out hard Well Lock from 10,750 to 10,970. Pump 400 bbl to circ clean. POH w/EOT @10,938. Secure Well. SDFN.
11/29/2014	Csg and tbg psi - 0. Replace stripper rubber. Drill out HES Well Lock from10,970, to 11,158'. Pump 350 bbl to circ csg. POH w/EOT @11,127'. Secure Well. SDFN.
11/30/2014	SICP & SITP 0 psi. Drill out Well Lock squeeze from 11,158 ft to 11,210'. Started packing off. POH w/ 2 jts. Circulate 110 bbls @ 1.5 BPM 3500 psi. Packed off w/ 4000 psi. L/D swivel. POH w/ 1 j t. Tubing stuck @ 11,127'. Secure well & SDFN. Ordered back off wireline truck & large pump truck for AM arrival Monday 12/1/14.
12/1/2014	RU Cudd pump truck. Air lines froze on service unit. Thaw out air lines. Est circ. Pressure up down tbg, Pull 120,000 on tbg and pressure up on tbg to 7500 psi. Did not free tbg. RD Cudd pump truck. RU Rotary Wire Line. RIH and free point tbg. Tbg 100% stuck @ 11,050', 10,950', 10,900' and 10,855'. Free @ 10,830'. POH w/WL. RIH w/WL string shot. Torque tbg to the right 10 rds. Torque tbg 6 rds, to the left. Back off tbg @ 10,502'. Ck tbg weight. POH w/WL laying down tools. RD Rotary WL. RU Cudd pump truck. Pump 400 bbl FW @ 6 bpm to clean csg. RD Cudd. POH laying down 7 jts 2-7/8" PH-6 tbg. Secure well. SDFN.
12/2/2014	Csg and tbg psi - 0. Finish POH w/2-7/8" PH-6 tbg. RIH w/screw in sub, 3-3/4" bumper sub, jars, 6 - 3-1/2" dc's, 2-7/8" PH-6 tbg. RIH and tag tbg @10,499'. Screw in to fish. Jar and beat down on tbg for 3.5 hrs to try and move stuck tbg. No movement up or down. Secure Well. SDFN.
12/3/2014	Csg and tbg psi - 0. Jar on tbg for 2 hrs. No Movement. Pressure up on tbg to 6000 psi. No circ. Call Midland Office. Decision made to back off tbg. RU rotary WL. RIH w/string shot and back off tbg @ 10,785'. POH and RD Rotary WL. POH w/2-7/8" tbg. RIH w/BHA. SDON.
12/4/2014	Csg and tbg psi - 0. FIH w/2-7/8" tbg to 10,748'. Displace csg w/275 bbl 10# brine. RIH to 10,785'. Screw on to fish. Jar tbg. Move tbg up 10' and beat down 30'. RU power swivel. Swivel would stall out at 3000 psi when tbg rotated. Could not pump down tbg. Pressure up to 6500 psi. RD Swivel. Continue to jar on tbg for 2 hrs. Secure well. SDFN.
12/5/2014	Csg and tbg psi - 0. Jar on fish for 1 hr. Call Midland Office. RU Rotary WL. RIH w/free point to 10,600'. POH w/WL and tools. Found HES well lock on bowe springs. RIH w/2nd free point tool. Tbg free @ 11,004 and stuck @ 11,036'. POH w/WL and tools. RIH w/strip shot to 11,004'. Back off failed. Back off second time without strip shot. Back off high. Screw back in tbg. RIH w/stip shot. Collar locator failed. POH to repair collar locator. RIH w/strip shot. Back off tbg @10,815'. POH Rd Rotary WL. POH w/tbg and BHA. Secure well. SDFN.
12/6/2014	Csg and tbg psi - 0. RIH w/screw in sub, 2-7/8" PH-6 tbg. Screw in tbg at 10,815'. RU Vibration equipment. Vibtrate tbg for 4 hrs. POH w/2 jts tbg, ND vibration equipment. POH w.4 jts tbg. Tbg hung up. RU power swivel. POH w/4 jts tbg while using power swivel. ND Power swivel. TBG FREE. POH w/EOT at 10,000'. Secure well. SD for Sunday.
12/7/2014	Shut down for Sunday. Tubing was freed over the weekend.
12/8/2014	POH w/tbg and tools. RIH w/4-5/8" blade bit, 2-7/8" Ph-6 tbg to 10,750'. Circ csg clean. Rotate down and bit would plug off and loose circ. Pump sweep and circ csg. Found small slivers of csg in returns. Lay down swivel. POH w/EOT at 9,997'. Test csg to 4966 psi.ISIP - 4950. 5 min - 4541. 10 min - 4303. 15 min - 4014. Secure well. SDFN.
12/9/2014	Finish POH w/tbg. Replace blade bit w/mill tooth bit. RIH w/bit and tbg to 10,750'. RU swivel. Clean out to 10,813'. Circ 400 bbl. Clean out to 10,818'. Blow out stripper rubber. Close BOP. Circ clean. Lay down swivel. POH w/EOT @10,280'. Secure well. SDFN.
12/10/2014	RIH w/18 jts tbg. Change out stripper rubber. RU swivel and 3" return line. Clean out from 10,812' to 11,200'. Tag HES well lock. Drill for 1 hr and could not make any hole. Circ csg clean. RD swivel. POH w/30 jts tbg. EOT at 10,290'. Secure well. SDFN.

Last Updated: 5/26/2016 06:24 AM

Date	Comments
12/11/2014	Finish POH w/tbg and bit. Replace mill tooth bit w/PDC bit. RIH and tag @ 11,190'. RU swivel and stripper head with 3" outlet. Clean out from 11,190' to 11,284'. Circ clean using 320 bbl. RD swivel. POH w/16 jts tbg. hung up. Pull 120,000 to free tbg. Move tbg down free. Work tbg through tight. 10,772 to 10,741 hanging up, worked free. POH w/EOT @ 10,280'. Secure well. SDFN.
12/12/2014	Pull tbg up hole 60'. Tbg free. RIH and tag @10,283'. RU swivel and stripper head. Drill down 1 jt. Circ w/160 bbl. Drill down 1 jt. Circ w/160 bbl. Clean out to 11,378'. Circ w/400 bbl using 3 gal sweep. Rd swivel. POH w/17 stds tbg. EOT @ 10,311'. Total fluid circ 1770 bbl. Secure well. SDFN.
12/13/2014	RIH w/tbg and PDC bit. Tag @ 10,478'. RU swivel. Work down bit 1 jt. Pump Circ w/275 bbl. RD swivel. RIH and tag @ 11,378'. RU swivel. Drill out 2 jts. Returns plugged off. RD swivel. Found 3" outlet on stripper head plugged off. Plugged off w/large pieces of well lock. Pictures sent to Midland. NU stripper head. Circ csg clean. Clean out to 11,503'. Circ hole clean. POH w/slight drag. EOT @ 10,250'. Secure well. Shut down for Sunday.
12/15/2014	Start WSU. Start in hole from 10,250'. Tagged @ 10,258'. Clean out well to 11,503'. Started to drill Well Lock. Stripper head plugged with large pieces of well lock. Remove stripper. Installed catch pan. Circulated hole clean using vacuum trucks to clear pan of fluids. Discard large pieces of well lock. Drilled well lock squeeze to 11,629' tubing measurements. Circulated clean. POH to 10,248'. Very little drag while POH. R/U pump. Attempt to pressure test squeeze to 7500 psi. Could not get above 5900 psi on test @ 5 BPM injection. Pumped 20 bbls. 5 min 3859 psi. 10 min 3859 psi. 15 min 3859 psi. Bleed pressure to 0 psi. Secure well & shut down for night. ISIP of Test was 5800 psi.
12/16/2014	RIH w/ PDC bit from 10,248' to 11,629'. Drill out Well Lock & plug. Circulate clean with 300 bbls fluid. Gas bubble under plug. R/D swivel. TIH pushing debris to 15,509. Circulated clean w/ 500 bbls @ 5 BPM @ 15,509'. Good Oil & Gas Show on Bottom up. POH w/ Bit @ 15,509'. L/D 45 jts work string. Stand back remainder of tubing to 10,148'. Secure Well & SDFN.
12/17/2014	SICP & SITP 0 psi. No oil or gas show. Finish POH w/ PDC bit. Secure Well & SDFN.
12/18/2014	SICP 0 psi. R/U pump trucks. Pumped 360 bbls water w/ 6000 psi pressure @ 13 BPM. Used 3 sweeps to carry debris to toe. ISIP 4295, 5 min 4160 psi, 10 min 4160, 15 min 4138 psi. P/U RTTS squeeze packer. RIH w/ same to 10,507'. Tested Casing to 7601 psi. Lost 337 psi in 15 min. RIH to 11,479'. Set packer & tested Casing to 7691 psi. Lost 338 psi in 15 min. RIH to 11636'. Set packer. Pumped 40 bbls fluid @ 9.7 BPM 6450 psi. ISIP 3981 psi, 5 min 3958, 10 min 3936, 15 min 3936. Release packer & POH to 11,560 ft. Set packer & tested casing to 7646 psi. Lost 743 psi in 15 min. R/D pump truck. POH to 10,350 ft. Secure well & SDFN.
12/19/2014	Received orders from Midland. Called out crew. 0 psi on tubing & casing. POH LD work string. Lay down packer & load out. Will Finish laying down tubing in derrick this am. Secure well & SDFN.
12/20/2014	RIH w/ 60 stands in derrick. POH L/D work string. N/D BOPE. Install night cap. R/D WSU. Clean Location. All Equipment is released. Poseidon tank released. All water "20,000 bbls" put in Frac pond. Frac tanks emptied and released from Location. "10" water & "2" acid.
3/4/2015	Move in Rig up Reeco well Service Unit. Move in 2 - 500 bbl frac tanks for circ wtr. Fill both tanks w/FW. Move in 2 half pits for flow back. Move in and rack Longhorn Tubulars 397 jts 2-7/8" PH-6 tbg. Move in and rig up Well Foam reverse unit.
3/5/2015	Shut down due to weather
3/6/2015	Csg psi 2300. RU blow down line. Bled well down to half tank. NU BTI 10k BOP. RU Battle Seervices. Test top csg flange connection to 9000 psi. Held OK. RD Battle Services. Talley top row of tbg. RIH w/260 jts 2-7/8" tbg. EOT @ 8166'. SWI SDFN.
3/7/2015	RIH w/381 jts 2-7/8" tbg picking tbg up from racks. Well Foam reverse unit would not start. Decision made to pull EOT to 8758'. RU Capitan WL. Run correlation log and tie in to 2 short jts in csg string. POH and RD Capitan WL. POH w/316 jts 2-7/8" tbg. Leave 2000' kill string. SWI SDFS.
4/3/2016	MIRU pulling unit (C & J 1475) & BOP's & pump. Spot 5 frac tanks. MIRU TanMar trailer and communications. Fill 5 frac tanks with fresh water. SDFN.
4/4/2016	Hold safety meeting and review JSA and discuss all the hazards on location. Wait on correct bit and scraper. Rig up BHA and mic and gauge all tools. RIH with BHA and Wait on the rest of the tubing to be delivered to location. Continue to RIH with BHA to 10,120'. Shut down OPS for the night
4/5/2016	Hold safety meeting with all vendors and go over JSA and job tasks for the day. Continue to RIH with bit & scraper to 15,478' Tagged up at 11,629' on CBP, well lock and trace cement. Made the decision to POOH. POOH with BHA and order sealed bearing rock bit. Waiting on Power swivel parts. RIH with BHA (Sealed bearing bit 4.625) Tag CBP @ 11,629' set slips. Test lines on pump to 5,000 psi had a good test after six failed attempts. Shut down for the night.
4/6/2016	Hold safety meeting with all vendors on site. Go over JSA's and discuss the hazzards of the job. Rig up rotating head. P/U swivel and break circulation @ 2.5 bpm and 925 psi. Tagged fill @ 11,624'. Drilled 6' of fill & then tagged plug @ 11,630'. Rotating @ 70 RPM pump 2.5 bpm @ 1275 psi while drilling on CBP. Drilled through CBP in 35 min. Washed bit down easy. Made connection and RIH without pumping or rotating. Bring pump online rotating slowly to pump sweep. Began 10-10-10 sweep 4.5 bpm @ 2,100 psi. Pumped away 147 bbls when pumped kicked out with low oil pressure light. Fixed problem and continue pumped 221 bbls away and sweep was at surface. 1st sweep to surface @ 295 bbls. Fill reverse pit with clean fluid rig down swivel to pick up pipe off rack. RU hoses and pump to circulate well @ 15,473'. Broke circulation @ 3.5 bpm @ 1500 psi 10 bbls gone. Pump 5 gal of MF-55 @ 1 bpm pumped 40 bbls. Pump 2nd sweep @ 1 bpm then up to 4.5 bpm @ 2,500 psi. 60 bbls gone and 2nd sweep to surface @ 340 bbls pumped total of 375 bbls. POOH and picked up 120K lbs weight with minimal drag. POOH with 45 stands in derrick tool string hanging and secure @ 12,684' Shut down operations for the night.
4/7/2016	Hold safety meeting with all vendors on location. Go over JSA's and review all the hazards. Begin to trip tubing out of hole and the brakes on the pulling unit failed. Shut down job to repair brakes on WSU. 3.5 hrs of down time due to repair on pulling unit. POOH with tubing. Breakout and lay down BHA. Strapped and pick up new BHA. Start in the hole with BHA. Tag up @ 11,547' set 15 pts down pulled 15pts over. Work pipe for 20 mins. Let 15 pts down on work string, Made call to engineer to discuss. Pump sweep and spot at the end of tubing (capacity tbg 57 bbls). Made another 13' to 11,560'; then stacked out. Pump 2nd sweep away 60 bbls total. Work pipe. Pull 20 pts up and down with soft drop catches. Pump another 173 bbls sweep. Pumped sweep to surface and secured well. Total fluid pumped with sweeps was 290 bbls. Shut down for the night.
4/8/2016	Hold safety meeting with all vendors on location. Review JSA's and discuss all hazards of the job. Started working pipe pulled 20 pts over and then drop catch tubing. Put 20 pts down then pulled 30 pts over and repeated. Pulled 5 pts over string weight and rotated to the right 6 times and BHA came free. POOH with BHA and CIBP. CIBP looked good. Break down BHA. RIH with new BHA (Bit Sub & 4 5/8 Sealed Bearing Bit Motor). Tag composite plug @ 11,567'. Rig up Power Swivel. Break circulation and start to drill out composite plug. Drill @ 3 bpm- 900psi. Broke through composite plug and started to bottom. Pumped 10-10-10 sweep 3 gals of MF-55 @ 4.5 bpm. Sweep gone @ 260 bbls pumped. Shut down due to weather for 3.5 hours with severe lighting in the area. Continue to bottom. @ report time @ 14,599'.
4/9/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job. Continued in hole, pushed composite plug remnants to 15,474' set 35 pts on tool. POOH with BHA. PU and RIH with new BHA (Round nosed mill, Watermelon Mill, CD Pup, Casing Scraper, CD Pup, Watermelon Mill) Pulling unit down due to brake repair for 2.5 hours. Continue to RIH with new BHA to 11,542' with 374 jts. Rig up power swivel. Break Circulation conventionally @ 2.5 bpm @ 700psi. Dress casing from 11,491' to 11,707' and pump 5 gal of MF-55 for a 10-10-10 Sweep @ surface @ 220 bbls gone. Rig down power swivel and lay down 5 jts. POOH with BHA. Currently at 3,500'.
4/10/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job. Continue out of hole with mill assembly. POOH with BHA. Break down BHA & Pick up HST & CIBP and 4' sub. RIH with BHA (CIPB). Ran through 11,400' to 11,700' slow without any problems. Start to displace fluid PU stripping head rubber. Broke last stand and picked up 6' sub to put us on depth. On depth @ 15,478' rigged up hose and TIW valve and dropped ball. Bring pump on line @ 3 bpm. Pumped 72 bbls tool sheared @ 2,250#. Rigged down hose and prepared to POOH. POOH With BHA. Puling unit down again due to brakes. (4 hour repair) Continue to POOH with BHA. POOH with HST, BHA. Rig up Test Packer BHA. RIH with Test Packer BHA. Currently @ 11,400' @ shift change time.

Last Updated: 5/26/2016 06:24 AM

Date	Comments
4/11/2016	Hold safety meeting with all vendors on location. Review JSA's and all hazards. Set Packer at 11,708' 380 jts. 16 points of compression. Pressure test lines. Good test.Load backside with 47 bbls and test @ 5,000 psi. Immediate leak off, attempt to pressure up several times with same result. Losing ~ 70 ppm. Pressure test tubing @ 5,000 psi. losing~ 1,700 ppm. Unset and PU packer then reset @ 11,708' with 18 points of compression. Pressure test tubing @ 5,000 psi losing ~1,900 ppm. Move packer up 3' and reset with 23 points of compression and retest tubing with no success. LD 1 joint and reset packer @ 11,680' with 30 points of compression retest tubing with no success. Pressure test backside again with no success. Immediate leak off. PU 1 joint and reset packer @ 11,708' with 50 points of compression. Retest tubing with no success. TOOH with packer. MU new packer and TIH with new packer. Set packer at 11,771' with 25 points of compression. Test @ 5,000 psi with no success. Lose 100 ppm. Set packer at 11,883' with 25 points of compression. Test @ 5,000 psi with no success. Lose 100 ppm. Set packer at 11,923' with 25 points of compression. Test @ 5,000 psi with no success. Lose 100 ppm. Packer not seating and/or CIBP at toe leaking. Will POOH and evaluate.
4/12/2016	Hold safety meeting with all vendors on location. Review JSA's and all hazards. Set packer at 12,572' with 20 points of compression. Test tubing @ 5,000 psi. lost 500 ppm. Tested back side, pumped 3 bbls and pressured up to 5,000 psi. lost 100 ppm. TOH with Weatherford Squeeze Packer. Waiting on weather, lighting in the area.Set packer at 7,521' with 20 points of compression. Test tubing @ 5,000 psi. losing of 500 ppm. Tested backside @ 5,000 psi. for 5 minutes. Good test. At surface with packer. MIRU wireline caliper log and tractor BHA Caliper log 11,700' to 11,500' located possible breach in casing @ 11,590' - 11,588'. Will send data to Midland to analyze. MU tractor gamma ray BHA and RIH. Log with gamma ray 10,925' - 10,800'. Gamma ray log completed RDMO wireline equipment. SDON. Release crew until 5 pm on 04/13/16.
4/13/2016	Hold safety meet and review JSA's. Go over any job hazards and work related issues. Waiting on orders to continue with operation. Released Weatherford and currently waiting on Halliburton equipment. Release Pulling unit day crew and will have night crew on tower @ 6pm. Hold safety meet and review JSA's. Go over job hazards and work related issues. MU BHA. TIH with Halliburton Fas-Drill 4.37" O.D. Composite Bridge Plug. Sit down @ 15,025'. (5th NCS Sleeve). Call in to get orders, set CBP at 15,025'. Pumped 75 bbls @ 3 bpm @ 1,820psi. Plug set at 2,450psi. POOH with tubing. Cost of water in frac pond added to daily costs total.
4/14/2016	Hold safety meet and review JSA's. Go over any job hazards and work related issues. TOOH with tubing & HST. Rig down BHA. Rig up RTTS Packer. TIH with RTTS Packer to 11,700' and set RTTS Packer @ 11,700' and tested below packer @ 8,000 psi for 10 minutes. Good test. Tested backside @ 5k psi good test. TIH and set packer @11,600' and test below packer to 8,000 psi. Good test. Tested backside to 5,000 psi with immediate leak off. Isolated breach in casing at 11,596 - 11,600' (That is a tubing tally Depth). POOH with RTTS packer. MU & PU Halliburton 4.37" Fas-Drill CBP. TIH with CBP. Currently @ 3,804' with CBP.
4/15/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards. Continue in hole with Halliburton 4.37" Fas-Drill CBP to 11,623'. Verify pipe count for to ensure depth. Set Halliburton 4.37" Fas-Drill CBP @ 11,623'. Pumped 3 bbls a min @ 1,100psi @ 51 bbls pumped the plug and sheered at 2,451psi. POOH with Halliburton HST. Rig up the Enventure Casing Patch and prepare to RIH. RIH with Enventure Casing Patch. Set Casing Patch successfully. Bottom of Patch @ 11,618' Top of Patch @ 11,579'. Dropped ball and pumped 60 bbls to seat. Pulled nose cone thru Patch and test casing to 3,000 psi. Good test. TOOH with nose cone assembly. LD 2-7/8 tubing.
4/16/2016	Out of the hole with Patch BHA. Rig down BHA and tally the 2 3/8 tubing. (136 joints on location) RIH with a 4 Blade Junk Mill BHA on the 2 3/8 tubing. RIH w/136 joints of 2 3/8. cross over to the 2 7/8 PH6. Tag liner shoe @ 11,621', RU power swivel and break circulation. Drilled out liner shoe and tag CBP @ 11,627', PU and pump sweep and circulated hole clean. RD power swivel and TOOH with BHA. POOH with BHA
4/17/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. POOH with 2 3/8 tubing & Mill BHA. Rig down Mill BHA. Rig up Weatherford Test Packer BHA and RIH. Set Test Packer @ 9,032' that's 292 joints in the hole. Rig up iron to test to 8,000psi. Test Packer to 8,000psi held test for 10 minutes with only loss of 3 psi. Bleed pressure of and rig down iron and prepare to POOH with BHA. POOH with Packer BHA. Rig down BHA. Rig up 4 Blade Junk Mill BHA to RIH to drill out plugs.Tag plug @ 11,627' RU power swivel and drill time 82 minutes. Pump sweep and circulate hole clean. TIH to next plug at 5th NCS Sleeve. Tag plug @ 15,025' drill time 18 minutes. Test casing against CIBP. Bad test. Leak off 100 ppm (same results from previous test against CIBP). TIH to Shoe to pump sweep and clean the hole.
4/18/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. Continue to RIH and tag the CIBP @ 15,475'. Pump a 10-10-10 Sweep off bottom total of 411 bbls. POOH with the 4 Blade Mill BHA. Rig down BOP's and Rig up 7 1/16 10k Master valve re-position lay down machine. MU & PU 3-1/8 TCP guns. TIH with TCP guns.
4/19/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. Coninued to RIH with TCP guns. Pressure activate bull plug FH @ 2,230psi. Shot TCP Guns @ 15,465' to 15,467' & 15,415' to 15,417' & 15,365' to 15,367 & 15,315' to 15,317'. Indication that all guns fired. POOH with BHA. Laying down tubing while coming out of hole. POOH with TCP Guns, verify all guns fired. Rig down TCP Guns and SWI. 5 bpm was established @ 4,410psi. Pumped 100 bbls @ 4,350psi shut down. Rig down pump and iron and power swivel. Stack and load 2 7/8 tubing and move 2 3/8 tubing and racks to side of location.
4/20/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. RDMO pulling unit and tubing. MIRU remaining frac tanks and 10M Frac Stack. Spot acid tanks and open top tank with gas buster. MIRU flow back. MIRU pump down equipment for W/L. MIRU water transfer and start to fill frac tanks. Continue to fill frac tanks and kick on well over at frac pond to refill.
4/21/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. Found acid transport leaking and made the proper calls to repair. MIRU W/L and pressure control gear & pump down equip. Gamma ray log/CCL log 10,950' - 10,850'. OWP 3,950 psi Establish injection rate of 12 bpm 6,950 psi, Pressured out on 4 attempts. Will pump 2,000 gals of acid and breakdown toe & attempt PD again. Top shot 15,025'. Could not reach desired depth. Pressured out on 4 attempts. Will pump 2,000 gals of acid and breakdown toe & attempt PD again. Pumped 2000 gals of acid at 12 bpm 7,542 psi. Broke down with 401 bbls to 6,440 psi. MU/PU perf guns for PD. At 12 bpm 5,900 psi BHA sat down @ 11,586' attempted 5 times to pump thru the obstruction with no success. POOH with BHA for inspection. Decision made to get a Magnum dummy plug. Will arrive on location at 07:30
4/22/2016	Rig down Weatherford wireline due to poor service performance. Call out new W/L company (Dominion Wireline). MIRU Sanjel back side equipment. (Blender and Hydration) and all support equipment. Wait on W/L and pressure control and crane. MIRU Dominion Wireline and support equipment. PU 3-1/8" guns and magnum dummy plug. RIH to perf interval: Bottom shot 15,240' Top shot 15,025'. All shots fired. Pumped 2000 gals of acid at 15 bpm 6,499 psi. Broke down with 332 bbls to 4,999 psi. ISIP 4,137 psi. Continue RU frac.
4/23/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. Continue to MIRU Sanjel frac spread and all support equipment. MIRU Pilot Fuel cell. Spot cell and transfer fuel. Continue to Rig up frac. Pressure test treating iron @ 8,500 psi. Perform bucket test. Good test. Put restraints on treating iron. Inspect location, chemical staging area, high pressure barriers. Re-Pressure test to 9,500 psi. Hold safety meeting with all vendors on location. Go over JSA's and all hazzard of the job task. Prepare to begin frac stg 1.
4/24/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. Re-Pressure test to 9,500psi. Both valves on the flow-cross were leaking. Made the call to Oilstates to change valves. Place 10k low torque valves on for well control and start frac while waiting on Oilsates. Frac stage 1/20. Open well @ 3,930psi. Pumped 100% to design. Total sand 132,160 lbs 40/70; 466,500 lbs 20/40. Frac Gradient 0.883. Pressure test lubricator to 8,000 psi. Bleed down to 4,500 psi open well. RIH with plug & guns. Set down in patch to pull up and we were stuck. Made the call to surge well and came free and POOH. SWI and pull off lub to inspect tool string. The plug and be stripped of all working parts and the only thing left was center tube. Rigged frac back on well to pump a gel sweep to clear and move all plug parts down hole. Pumped a total of 1,240 bbls. 400 bbls of cross link. Rig up W/L and pressure test lubricator to 8,000psi. RIH with Dummy plug. Sat down at 11,611' same spot as previous runs. Surged well came free and POOH with dummy plug run. Call was made to run CT to clean up patch. Rig down W/L and support equip. for CTU.
4/25/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. Waiting on Titan CTU to arrive on location. Rig up Titan CTU, test lines to 8,000 psi. RIH with BHA JZ-Rock bit 4.00 ID. At 6,000' the coiled tubing developed a pinhole leak while RIH between the reel and injector head. SD pump, back pressure valve held, POOH. SWI and rigged down Titan CTU. Waiting on MMS CTU to arrive on location. Hold Saftey meeting and MIRU MMS CTU. Test lines to 8,000 psi. RIH with BHA JZ-Rock bit 4.00 ID. Weight check at 10,400' 24k circulating pressure at 6,100 psi WH at 3,700 psi 2.5 bpm. Tagged obstruction at 11,625' PU & RIH and did not tag again. PU above patch and RIH did not tag. At 11,667' tagged obstruction PU to 11,644' and RIH and tagged again at 11,667' milled for 45 minutes with circulating pressure at 6,527 WH at 3,675 psi. Milled thru obstruction and RIH to 11,800' PU to 11,600' and RIH did not tag. Pumped 2-10 bbl sweeps and continued to 15,010'. Reached 15,010' pumped 10-10-10 sweep and POOH. At surface MU 4" taper mill & watermelon mill BHA. Test Lubricator to 8,000 psi. RIH with BHA to dress top of patch.

Last Updated: 5/26/2016 06:24 AM

Date	Comments
4/26/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. Continued to RIH with Taper mill & Watermelon Mill. Run through Patch from 11,579' to 11,618' reciprocate 4 times thru patch. POOH with BHA. SWI and rig down coil unit. Begin rigging up W/L and Frac equipment. Shut down for high winds. Rig up W/L to run dummy plug and travel through patch without any problem. POOH with dummy plug. RIH & Plug and perf Stage 2/20. CFP at 15,015'. Shoot guns @ 14,985' to 14,895' Max psi 4,910 Total bbls 310. Frac Stage 2/20, Placed 65,000 lbs of 40/70 ProLite, Placed 186,600 lbs of 20/40 ProLite. 6,502 bbls. Frac Gradient 0.872 pumped 84% of design pumped with early flush due to transfer belt sanding off in the 5 ppg stage. Flushed well and SD. RIH & Plug and perf Stage 3/20. CFP at 14,865'. Shoot guns @ 14,840' to 14,690' Max psi 5,217 Total bbls 292. Stage 3 frac. During acid stage the frac stack developed a leak between swab valve and goat head. Acid was displaced and SD. Waiting on arrival of Oil States to replace ring gasket. ETA 07:00, Lay down risers. Sanjel performing pump maintenace.
4/27/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. Change out ring gasket on frac stack because of leak and re-test stack. Rig up lines for frac. Frac Stage 3/20, Placed 65,100 lbs of 40/70 ProLite, Placed 234,140 lbs of 20/40 ProLite. 4,817 bbls. Frac Gradient 0.884 pumped 100% of design. Performed a step rate test ISIP 4,400psi; 5min ISIP 4,258psi; 10 min ISIP 4,218psi; 15 min ISIP 4,204psi. T-Belt sanded off during 4.5 ppg only one side spinning and made the decision to run it out on 4.5 ppg. RIH & Plug and perf Stage 4/20. CFP at 14,665'. Shoot guns @ 14,490' to 14,640' Max psi 5,326 Total bbls 288. Turn well over to Frac. Test Lines and pop-offs. Frac Stage 4/20, Placed 65,240 lbs of 40/70 ProLite, Placed 305,360 lbs of 20/40 ProLite. 4,430 bbls. Frac Gradient 0.887 pumped 100% of design. Job shut down due to suction hose leak. Pressure was high until the 1.5 PPG stage. RIH & Plug and perf Stage 5/20. CFP at 14,290' Shoot guns @ 14,440' to 14,640' Max psi 5,938 Total bbls 265. Grease frac stack. Frac Stage 5/20, Placed 65,560 lbs of 40/70 ProLite, Placed 236,340 lbs of 20/40 ProLite. 4,870 bbls total. Frac Gradient 0.897 One side of T-belt malfunctioned, finished stage with 2.5 ppg 20/40 all prop placed. RIH & Plug and perf Stage 6/20. CFP at 14,265' Shoot guns @ 14,240' to 14,090' Max psi 5,123 Total bbls 261. Waiting on replacement T-belt to arrive from Odessa. Frac Stage 6/20, Placed 66,340 lbs of 40/70 ProLite, Placed 239,320 lbs of 20/40 ProLite. 4,407 bbls. Frac Gradient 0.908 100% prop placed. RIH & Plug and perf Stage 7/20. CFP at 14,065' Shoot guns @ 13,890 to 14,040' Max psi 5,290 Total bbls 290. Turn well over to Frac. Test Lines and pop-offs.
4/28/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. Frac Stage 7/20, Placed 65,660 lbs of 40/70 ProLite, Placed 298,020 lbs of 20/40 ProLite. 4,289 bbls. Frac Gradient 0.894 Pumped 100% of design. RIH & Plug and perf Stage 8/20. CFP at 13,865' Shoot guns @ 13,690' to 13840' Max psi 5,475 Total bbls 237. Frac Stage 8/20, Placed 65,400 lbs of 40/70 ProLite, Placed 299,500 lbs of 20/40 ProLite. 3793 bbls. Frac Gradient 0.887 Pumped 100% of design. RIH & Plug and perf Stage 9/20. CFP at 13,665' Shoot guns @ 13,490' to 13,640' Max psi 5,294 Total bbls 214. Oil States greased frac stack. Frac Stage 9/20, Placed 62,000 lbs of 40/70 ProLite, Placed 241,220 lbs of 20/40 ProLite. 3,744 bbls. Frac Gradient 0.888 Pumped 100% of design. RIH & Plug and perf Stage 10/20. CFP at 13,465' Shoot guns @ 13,290' to Max psi 13,440. Total bbls 186. Frac Stage 10/20, Placed 67,060 lbs of 40/70 ProLite, Placed 238,800 lbs of 20/40 ProLite. 4,331 bbls. Frac Gradient 0.918 Pumped 100% of design. RIH & Plug and perf Stage 11/20. CFP at 13,265' Shoot guns @ 13,090' to 13,240 Max psi 6,388 Total bbls 166. Frac Stage 11/20, Placed 65,740 lbs of 40/70 ProLite, Placed 240,160 lbs of 20/40 ProLite. 4,600 bbls. Frac Gradient 0.866 Pumped 100% of design. RIH & Plug and perf Stage 12/20. CFP at 13,065' Shoot guns @ 12,890' to 13,040 Max psi 5,341 Total bbls 165. Frac Stage 12/20, Placed 64,000 lbs of 40/70 ProLite, Placed 186,040 lbs of 20/40 ProLite. 4,386 bbls. Frac Gradient 0.876 Pumped 83% of design due to 2,200 psi increase in 5 ppg over flushed well and SD. RIH & Plug and perf Stage 13/20. CFP at 12,865' Shoot guns @ 12,690' to 12,840 Max psi 5,260 Total bbls 156. Oil States greased frac stack. Frac Stage 13/20, Placed 65,560 lbs of 40/70 ProLite, Placed 243,070 lbs of 20/40 ProLite. 3902 bbls. Frac Gradient 0.897 Pumped 103% of design. Total water used for frac and pump down 69,415bbls. Total water used for remedial 2500 bbls.
4/29/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. RIH & Plug and perf Stage 14/20. CFP at 12,660 Shoot guns @ 12,490' to 12,640' Max psi 5,338 Total bbls 148. Frac Stage 14/20, Placed 65,480 lbs of 40/70 ProLite, Placed 241,500 lbs of 20/40 ProLite. 3475 bbls. Frac Gradient 0.861 Pumped 103% of design. RIH & Plug and perf Stage 15/20. CFP at 12,468' Shoot guns @ 12,280' to 12,440' Max psi 6559 Total bbls 110. Frac Stage 15/20, Placed 65,486 lbs of 40/70 ProLite, Placed 246,420 lbs of 20/40 ProLite. 3,576 bbls. Frac Gradient 0.889 Pumped 102% of design. RIH & Plug and perf Stage 16/20. CFP at 12,265' Shoot guns @ 12,089' to 12,240' Max psi 5,7 Total bbls 96. Frac Stage 16/20, Placed 63,000 lbs of 40/70 ProLite, Placed 245,750 lbs of 20/40 ProLite. 3,917 bbls. Frac Gradient 0.887 Pumped 100% of design. Pressure spiked on flush and tripped pumps down to 32 bpm. Started to come back up on rate to flush the well and pressure rose sharply causing screen out with 55 bbls left in flush leaving 11,550 lbs of 20/40 Prolite in the wellbore. Surged the well and attempted to pump back into stage and flush well and were unsuccessful. Coil will be coming out to clean out the well. Waiting on CTU to arrive. MIRU CTU pressure test surface equip. to 8,500 psi. Open well pressure @ 3,900 psi RIH with 4" 5 blade junk mill BHA. Circulating psi 4,195, well head pressure 1,995, 1/2 bpm Washed down and tagged plug at CT depth 12,314' 48 minute drill time. Light sand in returns. Washed down to CT depth 12,500' with heavy sand and plug parts in returns pumping sweeps. Returns cleaning up. POOH at 20 fpm washing sand and pumping sweeps.
4/30/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. Coil Pooh with BHA. Rig down coil unit and move off location. Move W/L and frac back in to rig up. Pressure test to 9,500 psi. Established rate @ 62 bbls a min @ 7,000psi. Pumped 478 bbls total. Rig up W/L & pressure test lub to 9,000 psi. RIH & Plug and perf Stage 17/20. CFP at 12,065' Shoot guns @ 11,885' to 12,030' Max psi 5,101 Total bbls 78. Frac Stage 17/20, Placed 65,480 lbs of 40/70 ProLite, Placed 233,960 lbs of 20/40 ProLite. 4,292 bbls. Frac Gradient 0.881 Pumped 100% of design. Oil states changing out flow cross. RIH & Plug and perf Stage 18/20. CFP at 11,865' Shoot guns @ 11,675' to 11,825' Max psi 5,133 Total bbls 63. Frac Stage 18/20, Placed 64,660 lbs of 40/70 ProLite, Placed 232,920 lbs of 20/40 ProLite. 4,172 bbls. Frac Gradient 0.889 Pumped 100% of design. RIH & Plug and perf Stage 19/20. CFP at 11,665' Shoot guns @ 11,475' to 11,625' Max psi 4,982 Total bbls 59. Frac Stage 19/20, Placed 65,250 lbs of 40/70 ProLite, Placed 234,680 lbs of 20/40 ProLite. 4,281 bbls. Frac Gradient 0.891 Pumped 100% of design. RIH & Plug and perf Stage 20/20. CFP at 11,465' Shoot guns @ 10,904' to 10,908' Max psi 4,896 Total bbls 26. Frac Stage 20/20, Placed 750 lbs of 40/70 ProLite, Placed 24,000 lbs of 20/40 ProLite. 1,107 bbls. Frac Gradient 0.881 Pumped 100% of design. SI 4,850 psi RDMO frac, wireline, and support equipment.
5/1/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. RDMO frac and all related equipment. Release frac tanks and acid tanks. Continue to rig down and move out frac equipment. Prep for Coil Unit. Cost adjustment from yesterday's report.
5/2/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. MIRU Coil Unit and all support equipment. Test Coil and flow-back to 8,000psi. OPENED WELL UP @ 09:50 WITH 4,120 PSI. RIH WITH COIL AND BHA. STARTED OUT AN ADJUSTABLE CHK. PUMPING ½ BBL IN AND ½ BBL OUT. UNTIL WE GETTING TO (10,900 FT). THEN SWITCH TO A 14/64" POSITIVE CHK AND GET 2 BPM IN AND 2 BPM OUT. RIH SLOWLY TAG PLUG #1 AT 11,510' (CTM). WIRELINE DEPTH WAS 11,465'. RATE IS 2 BPM IN AND 2.5 BPM OUT ON 14/64" POS CHOKE. CIRC - 6,130 PSI. WELLHEAD - 4,350 PSI. DRILLED THRU PLUG IN 12 MINUTES. PUMPED 10 BBL SWEEP. TAG 2ND PLUG AT 11,706' (CTM). WIRELINE DEPTH WAS 11,665'. RATE IS 2 BPM IN AND 2.5 BPM OUT ON 14/64" POS CHOKE. CIRC- 6,325 PSI. WELLHEAD - 4,520 PSI. DRILLED THRU PLUG IN 49 MINUTES. PUMPED 10 BBL SWEEP. TAG 3RD PLUG AT 11,907' (CTM). WIRELINE DEPTH WAS 11,865 RATE IS 2 BPM IN AND 2.5 BPM OUT ON 14/64" POS CHOKE. CIRC - 6,290 PSI. WELLHEAD - 4,480 PSI. DRILLED THRU PLUG IN 53 MINUTES. PUMPED A 10 BBL SWEEP. TAG 4TH PLUG AT 12,104' (CTM). WIRELINE DEPTH WAS 12,065' RATE IS 2 BPM IN AND 2.75 BPM OUT ON 14/64" POS CHOKE. CIRC - 6,240 PSI. WELLHEAD - 4,290 PSI. DRILLED THRU PLUG IN 90 MINUTES. PUMPED A 10 BBL SWEEP. PLUG #5 WAS DRILLED DURING THE FRAC JOB. RIH AND TAGGED 6TH PLUG AT 12,530' (CTM). STARTED SHORT TRIP. PULLED THRU THE PATCH AT 40 FPM TO 10,500' (CTM). FLOW - BACK EQUIPMENT SANDED OFF ON BOTH SIDES DUE TO HUGE PLUG PARTS. CLEANED OUT BOTH SIDES AND POOH. SWAP BHA'S TO A 5 BLADE REVERSE CLUTCH OFF-SET MILL. PRESSURE TEST COIL TO 8,000 PSI. BLEED DOWN TO 4,100 PSI OWH. OPENEDWELL UP@01:20 AMWITH 4,101 PSI. RIH WITH COIL AND BHA. STARTED OUT ON AN ADJUSTABLE. START PUMPING ½ BBL IN AND ½ BBL OUT TO (10,850'). SWITCH TO A 14/64 POSITIVE CHOKE TO GET 2 BPM IN AND 2 BPM OUT. RIH SLOWLY AND TAG PLUG #6. TAG 6TH PLUG AT 12,542' (CTM).WIRELINE DEPTHWAS 12,468' RATE IS 2 BPM IN AND 2.5 BPM OUTON 14/64" POS CHOKE. CIRC - 6,140 PSI.WELLHEAD - 4,090 PSI. DRILLED THRU PLUG IN 56 MINUTES. PUMPED A 10 BBL SWEEP. TAG 7TH PLUG AT 12,710' (CTM).WIRELINE DEPTHWAS 12,660' RATE IS 2.5 BPM IN AND 3 BPM OUT ON A 14/64 POS CHOKE. CIRC - 6,320 PSI.WELLHEAD - 4,260 PSI. DRILLED THRU PLUG IN 53 MINUTES. PUMPED A 10 BBL SWEEP. TAGGED 8TH PLUG AT 12,899' (CTM).WIRELINE DEPTHWAS 12,865' RATE IS 2.5 BPM IN AND 3 BPM OUT ON A 14/64" POS CHOKE. CIRC - 6,240 PSI.WELLHEAD - 4,210 PSI. DRILLED THRU PLUG IN 10 MINUTES. PUMPED 10 BBL SWEEP. TAG 9TH PLUG AT 13,111' (CTM). START SHORT TRIP.

Last Updated: 5/26/2016 06:24 AM

Date	Comments
5/3/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. WHLIE MAKING OUR SHORT TRIP PULLED INTO SOMETHING AT 12,193'. COULD NOT MOVE UP OR DOWN. PUMPED A HEAVY 10 - 10 - 10 SWEEP AND PIPE ON PIPE. WORKED PIPE UP & DOWN PULLING NO MORE THE 15K OVER RUNNING WEIGHT. AND SAME GOING DOWN. SURGED WELL A FEW TIME TO TRY TO FREE UP. SHUT IN MANIFOLD AND BLEED DOWN COIL PSI TO LET PIPE RELAX. WILL HOLD FOR AN HOUR. BEFORE NEXT STEP. RIG UP PUMP TO BACK - SIDE AND PUMP 3 BBLS A MIN. BACK SIDE BEGAN TO PRESSURE UP AT 62 BBLS TO 4,090 PSI. SHUT PUMPS DOWN AND SURGE WELL A FEW TIMES WITH 10K OVER RUNNING WEIGHT AND 10K DOWN. NO RELIEF. PUMP NITROGEN DOWN THE BACK - SIDE 3,600 SCF. SAW A GRADUAL INCREASE IN WELL PRESSURE. MADE CALL TO TOWN AND DISCUSSED AND MADE THE DECISION TO SHUT WELL IN AND LET THE PIPE RELAX OVER NIGHT. Held 6K on coil and 3.5K on backside overnight.
5/4/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. SURGED WELL WHILE SAT DOWN THEN PULLED OVER TO 48,000#. NO MOVEMENT. PUMPED DOWN THE BACK-SIDE TOTAL OF 820 BBLS. BEGAN TO TAKE FLUID @ 3,860 PSI. SURGE WELL WHILE STACKED OUT AND THEN SURGED WELL WHILE PULLING UP TO 30,000#. FLOWED BACK 1,230 BBLS. PRESSRE BEGAN TO FALL FROM 3,800 PSI TO 400 PSI. PRESSURE STAYING AROUND 600 PSI. OIL CUT LIGHT SAND NO GAS. WAITING ON ORDERS. STARED FLOWING WELL @ 250 PSI @ 3/4 A BBLS A MINUTE. AFTER 3 HOURS WELL WAS FLOWING @ 1/2 BBL A MINUTE AND SURGING BETWEEN 50 PSI AND 100 PSI. CHOKE WAS @ 34/64. FLOWED BACK 240 BBLS SINCE WE STARTED WE FLOWED A TOTAL OF 1,470 BBLS. TRACE OIL LIGHT SAND. SHUT WELL IN AND WAIT FOR 2 HOURS. THEN OPEN FULLY TO SEE WHAT WELL DOES WELL SHUT IN. OPEN WELL @ 2,000 PSI FLOWED 125 BBLS WELL WENT TO 0 PSI. WELL SHUT IN. OPEN WELL @ 2,000 PSI FLOWED 129 BBLS WELL WENT TO 0 PSI. SHUT WELL IN WELL SHUT IN. OPEN WELL @ 1,800 PSI FLOWED 100 BBLS WELL WENT TO 0 PSI. WELL SHUT IN. TOTAL BBLS FLOWED BACK IS 1824 BBLS. PULL 64K OVER MOVE COIL 60' UPHOLE AND STARTING TO SEE PRESSURE EQUALIZE.
5/5/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. SET DOWN ON COIL 0 THEN PULLED TO 70K PUMPED DOWN THE BACK SAID AND WE BEGAN TO MAKE HOLE 5 FT AT A TIME. MADE 70' TOTAL TO 12,074'. SWAPPED OVER TO PUMP DOWN COIL. PUMPED @ 3 BBLS A MIN. GOT MOTOR BACK AND STARTED SEEING CIRCULATION UP BACK-SIDE. PUMPED 10-10-10 SWEEPS HEAVY AND BEGAN TO GET RETURNS. CLEANED OUT PLUG CATCHER AND FOUND HUGE PLUG PARTS WHILE STILL PUMPING SWEEPS AND FLOWING AT 3 BBLS IN AND 3 BBLS OUT. DROPPED 3/4 BALL TO DISCONNECT COIL MOTOR. PUMPED 70 BBLS DOWN COIL BUT COULD NOT GET BALL TO SET. FLOWED BACK COIL TO MOVE BALL AND CONTINUED TO TRY AND SET, WOULD NOT SEAT. COIL IS CYCLED OUT OF PULLS. WILL LOAD HOLE WITH BRINE AND CUT COIL THIS AM TO PREPARE FOR SNUBBING UNIT AND FISH COIL/BHA.
5/6/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. PULL ON COIL TO 75K NO MOVEMENT. PUMP 15.6 POUND MUD DOWN COIL TO KILL COIL PRESSURE. PUMPED 60 BBLS TOTAL. RIG UP TO CUT COIL TO PUT TIW VALVE AND ON TOP OF COIL.DISPLACE MUD IN COIL TO MAKE W/L RUN. WAITING ON TOOLS FOR W/L. FINISH RIGGING UP W/L TOOLS AND STAB LUB ON COIL AND TIW VALVE. AFTER STABBING LUB AND TOOLS SAW WHERE TIW VALVE WAS PUT ON BACKWARDS. LAY LUB BACK DOWN TO SWAP AROUND TIW VALVE. WIND PICKED UP AND LIGHTING AND STORMS BLEW IN.SHUT DOWN DUE TO WEATHER CONDITIONS.
5/7/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. PULL ON COIL TO 75K NO MOVEMENT. RIG UP W/L AND 1 INCH JET CUTTER. RIH TO 11,420' AND SAT DOWN WHILE PUMPING 2 BBLS A MIN. PICKED UP AND MADE 4 ATTEMPTS TO TRY AND PUMP DOWN SAT DOWN AJIN SAME SPOT EVERY TIME. PULLED UP TO 11,415' AND MADE THE CUT. SAW GREAT INDICATION THE PIPE CUT. POOH WITH W/L PICK UP ON COIL TO 70K AND PUSHED DOWN TO STACK-OUT WEIGHT. MADE 10 ATTEMPTS WITH NO LUCK MAX PULL WAS 73K. WAIT ON HOT SHOT OF NEW CUTTER TO LOACTION. RIH WITH W/L AND CUTTER TO 10,500' SHOOT CUTTER AND HAD A BAD CUT. POOH NO INDICATION CUTTER WENT OFF.PULLED ON COIL TWICE TO 80K AND BROKE LOOSE FROM THE FIRST CUT. GOT ALL STRING WEIGHT BACK. 30K WAS STRING WEIGHT. TIE COIL BACK ON TO REAL WITH WELDER. MADE A HALF OF WRAP AND WELD BROKE. WAS ABLE TO SECURE REEL. RE-WELD AND HOOK STRAPS AND WEDDING RINGS TO COIL TO BE ABLE TO SPOOL POOH. POOH WITH COIL SLOWLY. BUMP UP AND SHUT BMV. RDMO COIL UNIT. RIG DOWN TREE TO BOTTOM MASTER VALVE.
5/8/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. RIG UP BOP'S AND TORQUE AND TEST STACK AND BOP'S. MIRU PULLING UNIT AND SNUBBING UNIT. COUNT 2 3/8 PH6 110 TOTAL JOINTS 530. TALLIED TUBING. MAKING UP BHA. RIH WITH BHA FILL TUBING EVERY 50 JOINTS. WELL-HEAD PSI 400 PSI. SAT DOWN ON JOINT # 340 AT 10,602' TRIED TO GET ON TOP OF IT 3 TIMES COULD NEVER MAKE A LATCH. PUMPED A 15 BBL SWEEP @ 3 BBLS A MIN AND CIRCULATED IT OUT OF THE HOLE. TRIED TO LATCH AGAIN WITH NO LUCK. RIG UP POWER SWIVEL SO WE CAN DRESS UP COIL TO LATCH. DRESS COIL @ 10,602 TO MAKE LATCH. CAUGHT COIL THIS AM. JAR LOOSE AND PULL 110K OVER. NOT SURE HOW MUCH FISH CAUGHT.
5/9/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. CONTINUE TO RIG UP POWER SWIVEL. TAGGED TOP OF FISH @ 10,602' BEGAN ROTATING TUBING TO DRESS TOP OF COIL. WENT OVER COIL AND LATCHED UP. STRING WEIGHT WAS 57K. PULLED TO 67K AND SET JARS OFF RE-PEATED PROCESS 7 TIMES @ 87K. CIRCULATE SWEEP. PULLED TO 110K TBG PULLED FREE STRING WEIGHT WAS 57,500#. SLUGGED TUBING WITH 25 BBLS OF 15.6 MUD. RIG DOWN POWER SWIVEL. PULLED 339 JOINTS OUT OF HOLE. COIL WAS IN OVER SHOT. LAYED DOWN 849 FT OF COIL FROM FISH. REPLACED 2" GRAPPLE AND 3 3/4 BOWL. RIH WITH TBG AND SAME BHA. 339 JOINT IN DERRICK, PU 28 JOINTS OFF OF PIPE RACKS. TAGGED FISH @ 11,431' PICK UP TO 11,426'. RIG UP PUMP IRON AND PUMP 15 BBL SWEEP 90 VIS. CHASED BY 250 BBLS. RIH TO 11,450' TAGGED FISH. RIG UP POWER SWIVEL. ROTATED OVER FISH LATCHED ONTO FISH AND KICKED POWER SWIVEL OFF. PICK UP TO 20K OVER STRING WEIGHT. SET JARS OFF. CONTINUED JARING FOR 45 MIN. PULLED UP TO 35K OVER STRING WEIGHT FISH CAME FREE. RIG DOWN POWER SWIVEL. CURRENTLY POOH WITH FISH.
5/10/2016	HOLD SAFTEY MEETING WITH ALL VENDORS ON LOCATION. PUMPED 30 BBLS OF 15.6 MUD DOWN TUBING CHASED BY 20 BBLS OF FRESH WATER. POOH WITH 367 JOINT OF 2 3/8 TUBING AND BHA. HAD 36.67' OF COIL IN OVERSHOT. REPLACED JARS AND OVERSHOT BOWL. REPLACED 2' NITRALLY GRAPPLE. TOP OF NEW FISH IS @ 11,487' WELL TOO A KICK TO 3,690 POUNDS. PUMPED 275 BBLS OF 10# BRINE TO KILL WELL. RIH WITH TUBING AND BHA TO TOP OF FISH. TAG FISH @ 11,487. RIG UP POWER SWIVEL AND 8' PUP JOINT. KICKED PUMP IN AT 2 BBLS A MIN AND LATCHED COIL. STARTED JARRING AT 20K OVER STRING WEIGHT. INCREASED BY 10K EACH TO TO 110K WITCH IS 50K OVER STRING WEIGHT. PUMPED A SWEEP @ 90 VIS . RIG DOWN POWER SWIVEL. RIG UP W/L AND 1 INCH CUTTER. RIH WITH W/L CUTTER PUMP DOWN TO 11,428' W/L MEASUREMENT COULD NOT GET THROUGH TOP OF COIL SO WE PULLED UP 5' AND GOT STUCK IN THE JARS. WORKED W/L AND TRIED TO PUMP ON IT DOWN TUBING AND UP THE BACKSIDE WITH NO SUCCESS, PULLED W/L OUT OF ROPE SOCKET. POOH WITH W/L AND RIG DOWN.
5/11/2016	HOLD SAFTEY MEETING WITH ALL VENDORS AND GO OVER JSA'S. PULLED W/L OUT OF ROPE SOCKET AND POOH. RIG DOWN W/L. WORKED TUBING TO 140K JARS WERE GOING OFF @ 80k. COULDN'T BREAK COIL. RIG UP POWER SWIVELAND ROTATE FREE FROM OVERSHOT. POOH STOOF BACK 182 STANDS. RIG UP 4' CUT LIP GUIDE. 3 5/8 OD SNIPPER OVERSHOT, AND 1 JOINT OF 2 7/8 TUBING AND CROSS OVER TO 2 3/8 FTC VALVE. RIH WITH TUBING AND BHA TO TOP OF FISH 11,487'. WENT OVER TOP OF FISH @ 11,487' SWALLOWED DOWN TO 11,504' PULLED INTO SNIPPER OVER SHOT. SNIPPER SHEARED @ 30K OVER (85K) PULLED UP TO 100K TO SET JARS OFF. PULLED UP TO 120K AND FELL BACK TO 110K. PULLED BACK TO 120K AND FELL BACK TO 105K PULLED BACK UP TO 120K AND FELL BACK TO 100K CONTINUED TO PULL AND BROKE FREE WEIGHT BACK TO 58K. POOH WITH 40 JOINTS. AND WAITED ON 10# BRINE. RIG UP AND PUMP 10# BRINE. CIRCULATED 245 BBLS @ 2.5 BBLS A MIN. POOH WITH TUBING . LAY DOWN BHA HAD 17.10' OF COIL. RIG UP GRAPPLE AND BHA.

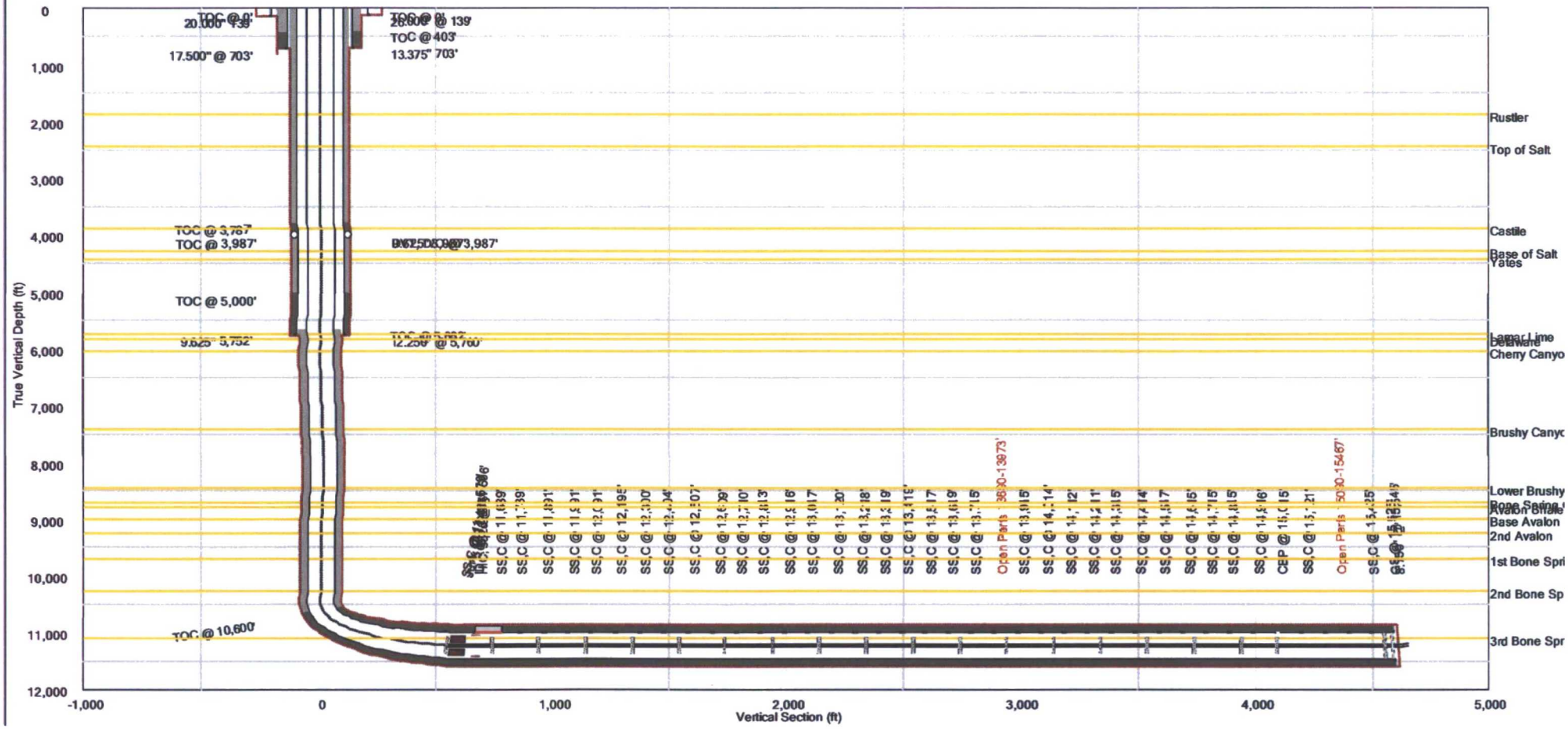
Last Updated: 5/26/2016 06:24 AM

Date	Comments
5/12/2016	HPJSM, Discuss potential hazards (Overhead and Jarring). Fishing tools in route, waiting on fishing tools. M/U Fishing assembly BHA (3-3/4" cut lip guide, 3-3/4" overshot w/ 2" nitrally grapple, Upper ext., top bushing X/O to 2-3/8" IF, 3-3/4" OD Bumper jars, 3-3/4" Oil Jars, X/O to 3-3/8" PH-6 tbg, 10' Pup jnt, RN Nipple, 1 jnt 2-3/8" PH-6 tbg). Trip in the hole w/ 369 jnts 2-3/8" PH-6 tbg, tagged 7' in @ 11,504'. L/D jnt #369, install #2 pup jnt, attempt to rotate with tongs to dress off fish, could not dress off or latch fish, R/U the power swivel, pump 2 bpm @ 1000 psi., rotate to dress off fish, work down over fish, SW @ 55K, latch onto fish, pulled 65K and fell off, worked to latch onto fish, unable to latch onto fish. R/D power swivel, pull out of the hole with tbg and fishing assembly. Re-dress fishing assembly, 3-3/4" OD overshot, + 2.62' upper overshot ext., 3-3/4" cut lip guide, 3-3/4" overshot w/ 2" nitrally grapple, Upper ext., top bushing X/O to 2-3/8" IF, 3-3/4" OD Bumper jars, 3-3/4" Oil Jars, X/O to 3-3/8" PH-6 tbg, 10' Pup jnt, RN Nipple, 1 jnt 2-3/8" PH-6 tbg. Trip in the hole w/ 106 jnts PH-6 tbg.Tbg started flowing, R/U circulating hose, pumped 47 bbls 10# brine water 3 bpm @ 800 psi. (well static), Continue tripping in the hole with a total 368 jnts of PH-6 tbg to PUW @ 55K, RIH w 1-6' & 1-8' pup jnts, installed TIW, rotate over fish w/ tongs, latch onto fish. Set down to load jars, pulled up to 85K, fell off to 80K, pulled up to 90K (35K over SW), fired jars, slacked off to load jars, pulled up to 100K, worked up to 115K, jars fired, slacked off to load jars, pulled to 130K, increase pull at 5k. L/D pup jnt, install TIW, pull 20K over SW, MIRU Wireline. Wireline tripped in the hole w/ 1" OD cutter @ 10,500', pump down cutter to 11,487' unable to go deeper, shutdown pumping, Pull wireline up to 10,500', start pumping cutter to 11,476', unable to go deeper, shut down pump. No fish. Trip out of the hole w/ wireline. Circulate down tbg @ 3 bpm, 4000 psi (36.5 bbls) of 10# brine. RDMO Wireline. Continue to jar on fish @ 115K to 130K, 10 jar attempts total. Set slips, RU power swivel. Total fluid pumped 83.5 bbls 10# brine
5/13/2016	HPJSM, (Fall Protection and Forklift). Continue to jar on fish @ 120K to 140K, No movement of fish, MU Swivel, Release overshot from fish, RD Swivel. Pull out of the hole with tbg. Laydown fishing assembly, MU BPV on tbg end, install R-nipple on 2nd jnt, Trip in the hole w/ 364 jnts 2-3/8" PH -6 tbg. RU circulating hose, pump 290 bbls of freshwater down tbg, displace out 10# Brine water. Trip out of the hole laying down 364 jnts of 2-3/8" tbg. (occasional fluid/gas release, but no flow). RDMO laydown equipment, pump, reverse open top tank, load out equipment, prep for release.
5/14/2016	HPJSM, (Health, Remaining Hydrated). RDMO Pulling and snubbing units, Mud mixing equipment, fishing tools and laydown equipment and personnel. Nipple up and test frac stack (250/10,000 psi, all good) RDMO, nipple up crew and tester. MIRU flow back equipment (Sand trap, 3 phase Test Seperator, Flare Stack, Test Choke manifold). Open well to test manifold, 1000 psi. Start flow back testing.
5/15/2016	HPJSM, (Flowback, pressure & gas). Shut in well, monitor pressure for build, pressured up to 800 psi. Open well, flow back.
5/16/2016	HPJSM, (Flowback, pressure & gas). Flow Back. Nipple down Frac Stack valves, MIRU Eagle Completions pulling unit, set pipe racks, load 2-7/8" tbg on racks. MIRU Dominion Wireline. Trip in and out of the hole @ 10,900' with gauge ring. MU and trip with Weatherford Packer with Magnum Disk to 10,849', Set packer, weight test (good), Trip out of the hole. Bleed down well to zero, Nipple down Frac Stack master valve and nipple up 5K Frac Stack BOPE. Secure well. Monitor. No rig activity, Prepare to run Liberty Gas Lift and Production tubing.
5/17/2016	HPJSM, (picking up tbg, pressure). MIRU Liberty Gas Lift, MU on/off tool, install gas lift system in 2-7/8" production tubing at 2160.62', 3535.57', 4357.27', 4884.68', 5444.39', 6003.78', 6562.56', 7089.10', 7648.95', 8207.34', 8766.07', 9324.93', 9851.30', 10,410.24', 10,772.06'. Production tubing run schedule: 2-7/8" Tbg Hanger, 1 jnt 2-7/8" tbg, 1-10' pup jnt 2-7/8" L-80, 1-2' pup jnt 2-7/8" L- 80, 64 jnts 2-7/8" tbg, GL @ 2160.62', 42 jnts 2-7/8" tbg, GL @ 3535.57', 25 jnts 2-7/8" tbg, GL @ 4357.27', 16 jnts 2-7/8" tbg, GL @ 4884.68', 17 jnts 2-7/8" tbg, GL @ 5444.39', 17 jnts 2-7/8" tbg, GL @ 6003.78', 17 jnts 2-7/8" tbg, GL @ 6562.56', 16 jnts 2-7/8" tbg, GL @ 7089.10', 17 jnts 2-7/8" tbg, GL @ 7648.95', 17 jnts 2-7/8" tbg, GL @ 8207.34', 17 jnts 2-7/8" tbg, GL @ 8766.07', 17 jnts 2-7/8" tbg, GL @ 9324.93', 16 jnts 2-7/8" tbg, GL @ 9851.30', 17 jnts 2-7/8" tbg, GL @ 10,410.24', 11 jnts 2-7/8" tbg, GL @ 10,772.06', 2 jnts 2-7/8" tbg, Weatherford Packer w/on/off tool, 6' pup jnt 2-7/8". Gas & Oil flowing up tbg, Load and circulate to kill flow with fresh water. Continue production tbg and GL system. Load and circulate clean with packer fluid 1.5 bpm (260 bbls). Install tbg wrap-around, Nipple down BOPE, Nipple up Canary Tree. Rig up kill truck to annular, test packer to 750 psi (Good). Attempt to break disk on packer, pressured up to 3700 psi, no success, kill truck pump started leaking, unable to raise pressure to bust disk. Rig down release kill truck and schedule another kill truck. Well secure, shut in wait on kill truck.
5/18/2016	HPJSM, (lightning and weather). Kill truck in route to location. MIRU Lucky Well Service Kill Truck, Rig up to Well, open valves, slowly build pressure, burst disk @ 2700 psi, pump 2 bbls freshwater, shut down, shut in pressure @ 500 psi, secure well, RDMO kill truck. Release non-essential equipment, MIRU frac tanks for flow back operations, rig up flow back equipment. Open well for flow back, 800 psi.

Field Name	Lease Name	Well No.	County	State	API No.	Version	Version Tag	Spud Date	Comp. Date	G.L. (ft)	K.B. (ft)
Lennox	Lennox 32 State	4H	Lea	New Mexico	30025412700000	1	completed	8/16/2014	5/19/2016	3,456.0	3,476.0

Sec.	Township/Block	Range/Survey	Dist. N/S (ft)	N/S Line	Dist. E/W (ft)	E/W Line	Footage From	Latitude	Longitude	Well Status	PropNum	Operator
32	22S	35E	330	FSL	660	FWL				Completed		Caza Oil and Gas, Inc

Last Updated	Prepared By	Updated By	Additional Information
5/26/2016 6:24:35 AM	Steve Morris	Steve Morris	



Field Name	Lease Name	Well No.	API No.	Version	Version Tag
Lennox	Lennox 32 State	4H	30025412700000	1	completed

Section	Township/Block	Range/Survey	County	State	GL (ft)	KB (ft)
32	22S	35E	Lea	New Mexico	3,456.0	3,476.0

Target N (-S) (ft)	Target E (-W) (ft)	Latitude	Longitude	Operator	Well Status
0	0			Caza Oil and Gas, Inc	Completed

Additional Information

Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	Coordinate N (-S) (ft)	Coordinate E (-W) (ft)	DLS (deg/100 ft)
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
100.0	0.6	85.2	100.0	0.0	0.0	0.6	0.64
200.0	0.5	92.2	200.0	0.1	0.1	1.6	0.12
300.0	0.5	92.2	300.0	0.0	0.0	2.5	0.03
400.0	0.6	98.3	400.0	-0.1	-0.1	3.5	0.13
500.0	0.7	99.9	500.0	-0.2	-0.2	4.6	0.08
600.0	0.8	103.3	600.0	-0.5	-0.5	5.9	0.10
700.0	0.5	105.9	700.0	-0.8	-0.8	7.0	0.31
800.0	0.3	110.0	800.0	-1.0	-1.0	7.6	0.24
900.0	0.2	133.7	900.0	-1.2	-1.2	8.0	0.12
1,000.0	0.1	48.3	1,000.0	-1.2	-1.2	8.1	0.19
1,100.0	0.2	19.2	1,100.0	-1.0	-1.0	8.2	0.15
1,200.0	0.2	123.0	1,200.0	-0.9	-0.9	8.4	0.32
1,300.0	0.1	163.8	1,300.0	-1.0	-1.0	8.6	0.14
1,400.0	0.1	239.3	1,400.0	-1.1	-1.1	8.6	0.10
1,500.0	0.2	275.5	1,500.0	-1.2	-1.2	8.3	0.14
1,600.0	0.2	329.4	1,600.0	-1.0	-1.0	8.1	0.20
1,700.0	0.3	21.3	1,700.0	-0.6	-0.6	8.0	0.23
1,800.0	0.2	152.7	1,800.0	-0.5	-0.5	8.2	0.47
1,900.0	0.2	16.6	1,900.0	-0.5	-0.5	8.4	0.42
2,000.0	0.2	47.4	2,000.0	-0.2	-0.2	8.5	0.11
2,100.0	0.1	200.9	2,100.0	-0.2	-0.2	8.6	0.23
2,200.0	0.0	232.7	2,200.0	-0.2	-0.2	8.6	0.03
2,300.0	0.2	333.2	2,300.0	-0.1	-0.1	8.5	0.16
2,400.0	0.1	220.3	2,400.0	-0.1	-0.1	8.4	0.21
2,500.0	0.2	196.4	2,500.0	-0.3	-0.3	8.3	0.12
2,600.0	0.1	275.3	2,600.0	-0.5	-0.5	8.1	0.22
2,700.0	0.2	296.0	2,700.0	-0.4	-0.4	7.9	0.06
2,800.0	0.2	350.8	2,800.0	-0.2	-0.2	7.7	0.17
2,900.0	0.1	39.8	2,900.0	0.1	0.1	7.7	0.15
3,000.0	0.1	231.8	3,000.0	0.1	0.1	7.7	0.24
3,100.0	0.2	315.9	3,100.0	0.2	0.2	7.5	0.24
3,200.0	0.1	319.7	3,200.0	0.3	0.3	7.3	0.17
3,300.0	0.2	355.9	3,300.0	0.5	0.5	7.3	0.11
3,400.0	0.1	21.8	3,400.0	0.7	0.7	7.3	0.07
3,500.0	0.2	289.4	3,500.0	0.9	0.9	7.2	0.22
3,600.0	0.1	182.5	3,600.0	0.9	0.9	7.1	0.20
3,700.0	0.2	40.1	3,700.0	1.0	1.0	7.2	0.28
3,800.0	0.2	335.2	3,800.0	1.3	1.3	7.2	0.25
3,900.0	0.2	332.5	3,899.9	1.6	1.6	7.1	0.07
4,000.0	0.2	348.6	3,999.9	1.9	1.9	7.0	0.05
4,100.0	0.2	60.5	4,099.9	2.1	2.1	7.1	0.22
4,200.0	0.2	233.7	4,199.9	2.1	2.1	7.1	0.36
4,300.0	0.2	275.8	4,299.9	2.1	2.1	6.9	0.12
4,400.0	0.2	285.3	4,399.9	2.1	2.1	6.6	0.03
4,500.0	0.3	240.4	4,499.9	2.0	2.0	6.2	0.18
4,600.0	0.2	249.9	4,599.9	1.9	1.9	5.9	0.11
4,700.0	0.2	333.6	4,699.9	2.0	2.0	5.7	0.23
4,800.0	0.2	346.6	4,799.9	2.3	2.3	5.6	0.05
4,900.0	0.2	82.0	4,899.9	2.5	2.5	5.7	0.26
5,000.0	0.1	227.6	4,999.9	2.5	2.5	5.8	0.26
5,100.0	0.2	251.8	5,099.9	2.3	2.3	5.5	0.11
5,200.0	0.2	150.9	5,199.9	2.1	2.1	5.4	0.33
5,300.0	0.2	136.4	5,299.9	1.8	1.8	5.6	0.07
5,400.0	0.2	171.7	5,399.9	1.6	1.6	5.7	0.11
5,500.0	0.2	224.0	5,499.9	1.3	1.3	5.7	0.15

Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	Coordinate N (-S) (ft)	Coordinate E (-W) (ft)	DLS (deg/100 ft)
5,600.0	0.2	293.9	5,599.9	1.3	1.3	5.4	0.18
5,700.0	0.2	298.8	5,699.9	1.4	1.4	5.2	0.04
5,800.0	0.2	330.2	5,799.9	1.6	1.6	4.9	0.10
5,900.0	0.1	221.7	5,899.9	1.7	1.7	4.8	0.25
6,000.0	0.4	121.3	5,999.9	1.4	1.4	5.0	0.47
6,100.0	0.3	101.4	6,099.9	1.2	1.2	5.6	0.16
6,200.0	0.2	356.6	6,199.9	1.2	1.2	5.9	0.40
6,300.0	0.2	244.3	6,299.9	1.3	1.3	5.7	0.29
6,400.0	0.7	46.8	6,399.9	1.6	1.6	6.0	0.85
6,500.0	0.3	29.6	6,499.9	2.2	2.2	6.6	0.38
6,600.0	0.8	358.6	6,599.9	3.2	3.2	6.7	0.55
6,700.0	0.7	26.1	6,699.9	4.4	4.4	6.9	0.37
6,800.0	0.8	33.9	6,799.9	5.6	5.6	7.6	0.13
6,900.0	0.6	43.1	6,899.9	6.5	6.5	8.4	0.25
7,000.0	0.6	46.9	6,999.9	7.3	7.3	9.1	0.04
7,100.0	0.7	50.9	7,099.9	8.0	8.0	9.9	0.15
7,200.0	0.8	23.4	7,199.9	9.0	9.0	10.7	0.36
7,300.0	0.5	16.0	7,299.9	10.1	10.1	11.1	0.26
7,400.0	0.4	66.3	7,399.9	10.7	10.7	11.6	0.42
7,500.0	0.7	55.3	7,499.9	11.2	11.2	12.4	0.25
7,600.0	0.7	52.3	7,599.9	11.9	11.9	13.4	0.06
7,700.0	0.9	59.2	7,699.9	12.7	12.7	14.5	0.18
7,800.0	0.6	59.4	7,799.8	13.3	13.3	15.6	0.30
7,900.0	0.7	79.7	7,899.8	13.7	13.7	16.7	0.28
8,000.0	0.7	80.5	7,999.8	13.9	13.9	17.9	0.08
8,100.0	0.5	94.6	8,099.8	13.9	13.9	18.9	0.18
8,200.0	0.7	102.3	8,199.8	13.8	13.8	20.0	0.19
8,300.0	0.9	108.1	8,299.8	13.4	13.4	21.3	0.19
8,400.0	0.9	109.8	8,399.8	12.9	12.9	22.8	0.06
8,500.0	1.5	111.6	8,499.8	12.1	12.1	24.8	0.56
8,600.0	1.1	113.6	8,599.7	11.3	11.3	26.8	0.40
8,700.0	2.0	118.2	8,699.7	10.1	10.1	29.3	0.95
8,800.0	1.5	118.3	8,799.7	8.6	8.6	32.0	0.50
8,900.0	1.9	120.7	8,899.6	7.1	7.1	34.6	0.36
9,000.0	1.8	132.2	8,999.6	5.3	5.3	37.1	0.39
9,100.0	1.4	127.1	9,099.5	3.5	3.5	39.2	0.42
9,200.0	0.6	95.6	9,199.5	2.8	2.8	40.6	0.93
9,300.0	0.3	166.9	9,299.5	2.5	2.5	41.2	0.53
9,400.0	0.2	259.0	9,399.5	2.2	2.2	41.0	0.35
9,500.0	0.2	8.5	9,499.5	2.3	2.3	40.8	0.32
9,600.0	0.2	85.4	9,599.5	2.5	2.5	41.0	0.21
9,700.0	0.2	183.6	9,699.5	2.3	2.3	41.1	0.31
9,800.0	0.2	215.7	9,799.5	2.0	2.0	41.0	0.13
9,900.0	0.2	312.9	9,899.5	2.0	2.0	40.8	0.26
10,000.0	0.3	36.1	9,999.5	2.3	2.3	40.9	0.31
10,100.0	0.3	85.9	10,099.5	2.5	2.5	41.3	0.25
10,200.0	0.3	156.7	10,199.5	2.2	2.2	41.7	0.38
10,300.0	0.2	178.9	10,299.5	1.8	1.8	41.8	0.14
10,400.0	0.5	256.2	10,399.5	1.5	1.5	41.4	0.46
10,490.0	0.1	347.8	10,489.5	1.5	1.5	41.0	0.52
10,603.0	8.6	358.5	10,602.1	10.0	10.0	40.8	7.52
10,634.0	9.5	359.6	10,632.7	14.9	14.9	40.7	2.96
10,666.0	10.9	360.0	10,664.2	20.6	20.6	40.7	4.38
10,698.0	13.9	1.6	10,695.4	27.4	27.4	40.8	9.44
10,729.0	16.8	0.6	10,725.3	35.7	35.7	41.0	9.39
10,761.0	19.5	359.7	10,755.7	45.6	45.6	41.0	8.48
10,793.0	22.0	355.3	10,785.7	56.9	56.9	40.5	9.20
10,824.0	23.8	355.3	10,814.2	69.0	69.0	39.5	5.81
10,856.0	26.2	356.9	10,843.2	82.4	82.4	38.6	7.79
10,888.0	28.7	359.5	10,871.6	97.2	97.2	38.1	8.66
10,919.0	30.6	2.5	10,898.5	112.5	112.5	38.4	7.78
10,951.0	33.1	3.1	10,925.7	129.4	129.4	39.2	7.87
10,983.0	35.4	3.0	10,952.2	147.4	147.4	40.2	7.19
11,014.0	37.6	2.5	10,977.1	165.8	165.8	41.1	7.16
11,046.0	40.6	2.0	11,001.9	185.9	185.9	41.8	9.43
11,078.0	43.7	0.9	11,025.6	207.4	207.4	42.4	9.96

Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	Coordinate N (-S) (ft)	Coordinate E (-W) (ft)	DLS (deg/100 ft)
11,109.0	45.8	0.9	11,047.7	229.2	229.2	42.7	6.77
11,141.0	48.3	0.1	11,069.5	252.6	252.6	42.9	8.02
11,173.0	50.8	359.4	11,090.2	277.0	277.0	42.8	7.99
11,204.0	53.8	359.5	11,109.2	301.5	301.5	42.6	9.68
11,236.0	56.7	359.7	11,127.4	327.8	327.8	42.4	9.08
11,263.0	59.6	359.7	11,141.7	350.7	350.7	42.3	10.74
11,295.0	62.2	359.4	11,157.2	378.7	378.7	42.1	8.17
11,327.0	64.6	358.9	11,171.6	407.3	407.3	41.6	7.63
11,358.0	67.5	358.6	11,184.1	435.6	435.6	41.0	9.40
11,390.0	70.2	358.7	11,195.7	465.5	465.5	40.3	8.44
11,422.0	73.7	358.6	11,205.6	495.9	495.9	39.6	10.94
11,454.0	76.5	358.2	11,213.8	526.8	526.8	38.7	8.83
11,485.0	79.9	357.8	11,220.2	557.1	557.1	37.7	11.04
11,580.0	89.2	356.7	11,229.2	651.5	651.5	33.1	9.86
11,675.0	90.9	357.3	11,229.1	746.3	746.3	28.2	1.90
11,770.0	92.1	357.4	11,226.6	841.2	841.2	23.8	1.27
11,865.0	91.3	359.9	11,223.8	936.1	936.1	21.5	2.76
11,959.0	89.3	360.0	11,223.3	1,030.1	1,030.1	21.5	2.13
12,055.0	90.1	0.1	11,223.8	1,126.1	1,126.1	21.5	0.84
12,150.0	89.3	359.6	11,224.3	1,221.1	1,221.1	21.3	0.99
12,245.0	90.6	359.6	11,224.4	1,316.1	1,316.1	20.6	1.37
12,340.0	89.9	359.0	11,224.0	1,411.1	1,411.1	19.5	0.97
12,435.0	91.3	358.7	11,223.0	1,506.1	1,506.1	17.6	1.51
12,530.0	89.7	359.0	11,222.1	1,601.0	1,601.0	15.7	1.71
12,625.0	88.1	359.3	11,224.0	1,696.0	1,696.0	14.2	1.71
12,720.0	89.4	359.7	11,226.0	1,791.0	1,791.0	13.4	1.43
12,815.0	90.9	359.9	11,225.8	1,886.0	1,886.0	13.1	1.59
12,911.0	89.4	359.1	11,225.5	1,982.0	1,982.0	12.2	1.77
13,006.0	90.7	359.2	11,225.5	2,077.0	2,077.0	10.8	1.37
13,101.0	89.4	358.4	11,225.4	2,171.9	2,171.9	8.8	1.61
13,196.0	88.0	357.2	11,227.5	2,266.8	2,266.8	5.2	1.94
13,291.0	89.2	357.4	11,229.8	2,361.7	2,361.7	0.7	1.28
13,386.0	90.5	357.9	11,230.1	2,456.6	2,456.6	-3.2	1.47
13,481.0	89.0	357.5	11,230.5	2,551.5	2,551.5	-7.0	1.63
13,576.0	90.2	357.9	11,231.2	2,646.5	2,646.5	-10.8	1.33
13,672.0	91.6	358.0	11,229.7	2,742.4	2,742.4	-14.2	1.46
13,767.0	90.1	358.8	11,228.3	2,837.3	2,837.3	-16.9	1.79
13,862.0	91.3	359.6	11,227.1	2,932.3	2,932.3	-18.2	1.52
13,958.0	89.5	359.2	11,226.4	3,028.3	3,028.3	-19.2	1.92
14,053.0	90.5	359.0	11,226.4	3,123.3	3,123.3	-20.7	1.07
14,148.0	88.6	358.9	11,227.2	3,218.3	3,218.3	-22.4	2.00
14,243.0	89.5	359.1	11,228.7	3,313.2	3,313.2	-24.1	0.97
14,338.0	91.1	359.6	11,228.2	3,408.2	3,408.2	-25.2	1.76
14,433.0	89.4	359.5	11,227.8	3,503.2	3,503.2	-25.9	1.79
14,529.0	90.5	359.8	11,227.9	3,599.2	3,599.2	-26.5	1.19
14,624.0	88.6	359.4	11,228.7	3,694.2	3,694.2	-27.2	2.04
14,719.0	89.5	359.5	11,230.2	3,789.2	3,789.2	-28.1	0.95
14,813.0	90.9	359.8	11,229.9	3,883.2	3,883.2	-28.7	1.52
14,908.0	88.8	358.7	11,230.2	3,978.2	3,978.2	-29.9	2.50
15,003.0	90.0	358.7	11,231.2	4,073.1	4,073.1	-32.1	1.26
15,098.0	88.9	358.6	11,232.1	4,168.1	4,168.1	-34.3	1.16
15,193.0	90.0	358.7	11,233.0	4,263.1	4,263.1	-36.5	1.16
15,289.0	91.4	358.9	11,231.8	4,359.0	4,359.0	-38.5	1.47
15,384.0	92.8	359.7	11,228.3	4,454.0	4,454.0	-39.7	1.70
15,479.0	94.1	359.7	11,222.6	4,548.8	4,548.8	-40.2	1.37
15,545.0	94.1	359.7	11,217.9	4,614.6	4,614.6	-40.5	0.00