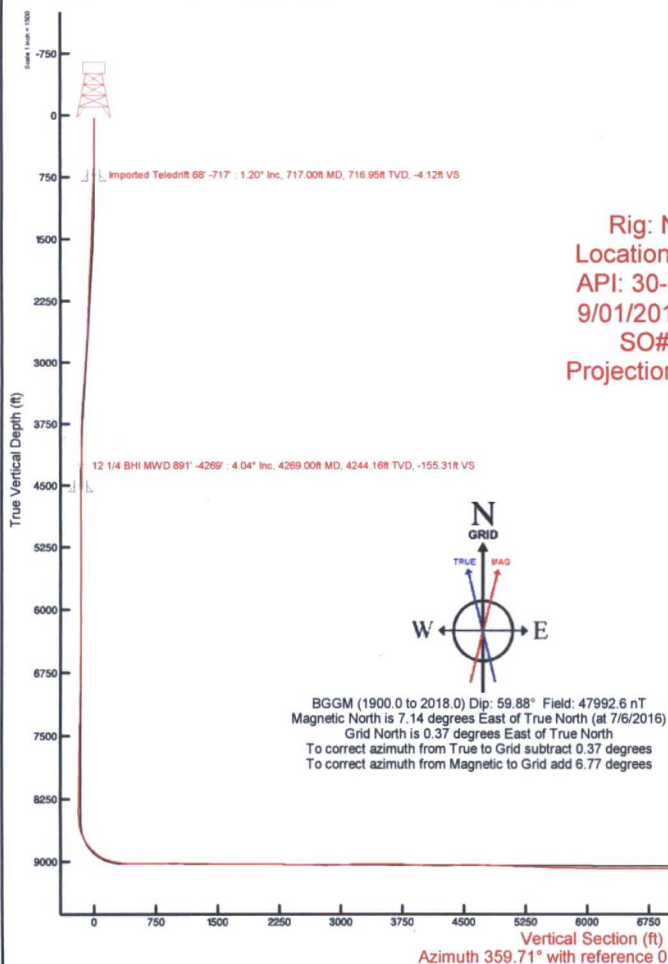






Actual Wellpath Report

SD WE 24 Federal P23 No. 003H awp 68' -19207' Proj: 19260'
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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 Fed P23 No. 3H
Area	Lea County, NM	Well	SD WE 24 Federal P23 No. 003H
Field	Jennings; Upper Bone Spring (Lea County, NM)	Wellbore	SD WE 24 Fed P23 No. 3H (AWB)
Facility	SD WE 24 Fed P23		

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Buiduyh
Scale	0.999963	Report Generated	10/17/2016 at 2:01:59 PM
Convergence at slot	0.38° East	Database/Source file	WA_Midland/SD_WE_24_Federal_P23_No._003H_awp_68_-19207_Proj_19260_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	1.00	50.00	717276.00	372253.00	32°01'17.400"N	103°37'56.190"W
Facility Reference Pt			717226.00	372252.00	32°01'17.393"N	103°37'56.771"W
Field Reference Pt			152400.30	0.00	30°59'42.846"N	105°26'33.659"W

WELLPATH DATUM

Calculation method	Minimum curvature	Naobrs X-30 (KB) to Facility Vertical Datum	3165.60ft
Horizontal Reference Pt	Slot	Naobrs X-30 (KB) to Mean Sea Level	3165.60ft
Vertical Reference Pt	Naobrs X-30 (KB)	Naobrs X-30 (KB) to Ground Level at Slot (SD WE 24 Fed P23 No. 3H)	32.60ft
MD Reference Pt	Naobrs X-30 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.71°



Actual Wellpath Report

SD WE 24 Federal P23 No. 003H awp 68' -19207' Proj: 19260'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 Fed P23 No. 3H
Area	Lea County, NM	Well	SD WE 24 Federal P23 No. 003H
Field	Jennings; Upper Bone Spring (Lea County, NM)	Wellbore	SD WE 24 Fed P23 No. 3H (AWB)
Facility	SD WE 24 Fed P23		

WELLPATH DATA (186 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	276.300	0.00	0.00	0.00	0.00	717276.00	372253.00	32°01'17.400"N	103°37'56.190"W	0.00	
32.60	0.000	276.300	32.60	0.00	0.00	0.00	717276.00	372253.00	32°01'17.400"N	103°37'56.190"W	0.00	
68.00	0.200	276.300	68.00	0.01	0.01	-0.06	717275.94	372253.01	32°01'17.400"N	103°37'56.191"W	0.56	
162.00	0.300	328.300	162.00	0.24	0.23	-0.35	717275.65	372253.23	32°01'17.402"N	103°37'56.194"W	0.25	
229.00	0.400	339.300	229.00	0.60	0.60	-0.53	717275.47	372253.60	32°01'17.406"N	103°37'56.196"W	0.18	
296.00	0.100	77.300	296.00	0.84	0.83	-0.55	717275.45	372253.83	32°01'17.408"N	103°37'56.197"W	0.64	
432.00	0.500	231.300	432.00	0.49	0.49	-0.90	717275.10	372253.49	32°01'17.405"N	103°37'56.201"W	0.43	
527.00	0.800	195.300	526.99	-0.40	-0.41	-1.40	717274.60	372252.59	32°01'17.396"N	103°37'56.207"W	0.52	
618.00	1.300	197.300	617.97	-2.00	-2.01	-1.87	717274.13	372250.99	32°01'17.380"N	103°37'56.212"W	0.55	
709.00	1.300	200.300	708.95	-3.95	-3.96	-2.54	717273.46	372249.04	32°01'17.361"N	103°37'56.220"W	0.07	
717.00	1.200	191.300	716.95	-4.12	-4.13	-2.59	717273.41	372248.87	32°01'17.359"N	103°37'56.221"W	2.75	Imported Teledrift 68' -717'
891.00	3.400	179.290	890.80	-11.06	-11.08	-2.88	717273.12	372241.92	32°01'17.291"N	103°37'56.225"W	1.29	
1074.00	4.130	128.090	1073.45	-20.58	-20.57	2.37	717278.37	372232.43	32°01'17.196"N	103°37'56.164"W	1.81	
1256.00	5.910	99.230	1254.77	-26.20	-26.12	16.78	717292.78	372226.88	32°01'17.141"N	103°37'55.997"W	1.67	
1436.00	7.980	105.970	1433.45	-31.23	-31.04	37.95	717313.94	372221.96	32°01'17.090"N	103°37'55.752"W	1.23	
1613.00	8.210	106.260	1608.68	-38.27	-37.96	61.89	717337.89	372215.04	32°01'17.020"N	103°37'55.474"W	0.13	
1789.00	8.440	106.660	1782.83	-45.61	-45.18	86.33	717362.33	372207.82	32°01'16.947"N	103°37'55.191"W	0.13	
1966.00	8.880	108.520	1957.81	-53.80	-53.25	111.73	717387.72	372199.76	32°01'16.866"N	103°37'54.897"W	0.29	
2143.00	7.390	104.740	2133.03	-61.16	-60.48	135.69	717411.69	372192.52	32°01'16.793"N	103°37'54.619"W	0.89	
2320.00	7.570	106.000	2308.52	-67.38	-66.59	157.91	717433.90	372186.41	32°01'16.731"N	103°37'54.361"W	0.14	
2497.00	7.780	105.830	2483.93	-73.98	-73.07	180.64	717456.63	372179.93	32°01'16.665"N	103°37'54.098"W	0.12	
2674.00	8.850	113.840	2659.08	-82.87	-81.85	204.62	717480.61	372171.16	32°01'16.577"N	103°37'53.820"W	0.89	
2851.00	8.980	110.530	2833.94	-93.34	-92.19	230.01	717506.00	372160.81	32°01'16.473"N	103°37'53.526"W	0.30	
3028.00	8.770	114.370	3008.82	-103.88	-102.61	255.24	717531.23	372150.40	32°01'16.368"N	103°37'53.233"W	0.36	
3206.00	9.080	118.060	3184.67	-116.21	-114.81	279.99	717555.98	372138.19	32°01'16.246"N	103°37'52.947"W	0.37	
3384.00	6.560	131.180	3361.01	-129.62	-128.12	300.05	717576.03	372124.89	32°01'16.113"N	103°37'52.715"W	1.73	
3561.00	4.540	140.780	3537.18	-141.76	-140.20	312.09	717588.07	372112.80	32°01'15.993"N	103°37'52.576"W	1.25	
3738.00	2.190	160.110	3713.86	-150.40	-148.81	317.67	717593.66	372104.20	32°01'15.907"N	103°37'52.512"W	1.46	
3915.00	3.310	98.400	3890.69	-154.36	-152.74	323.87	717599.86	372100.27	32°01'15.868"N	103°37'52.440"W	1.68	
4092.00	2.550	92.750	4067.46	-155.34	-153.67	332.86	717608.85	372099.33	32°01'15.858"N	103°37'52.336"W	0.46	



Actual Wellpath Report

SD WE 24 Federal P23 No. 003H awp 68' -19207' Proj: 19260'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 Fed P23 No. 3H
Area	Lea County, NM	Well	SD WE 24 Federal P23 No. 003H
Field	Jennings; Upper Bone Spring (Lea County, NM)	Wellbore	SD WE 24 Fed P23 No. 3H (AWB)
Facility	SD WE 24 Fed P23		

WELLPATH DATA (186 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4269.00	4.040	87.530	4244.16	-155.31	-153.59	343.03	717619.01	372099.41	32°01'15.858"N	103°37'52.218"W	0.86	12 1/4 BHI MWD 891' -4269'
4446.00	2.590	107.520	4420.87	-156.30	-154.53	353.07	717629.06	372098.48	32°01'15.848"N	103°37'52.101"W	1.04	
4531.00	0.610	209.600	4505.84	-157.28	-155.50	354.68	717630.66	372097.51	32°01'15.838"N	103°37'52.083"W	3.27	
4617.00	1.010	250.150	4591.83	-157.93	-156.16	353.74	717629.73	372096.85	32°01'15.832"N	103°37'52.094"W	0.79	
4794.00	0.750	265.860	4768.81	-158.53	-156.77	351.12	717627.10	372096.24	32°01'15.826"N	103°37'52.124"W	0.20	
4972.00	0.850	256.170	4946.79	-158.91	-157.17	348.67	717624.66	372095.84	32°01'15.822"N	103°37'52.152"W	0.09	
5148.00	0.680	261.650	5122.78	-159.37	-157.63	346.37	717622.36	372095.37	32°01'15.818"N	103°37'52.179"W	0.11	
5325.00	0.620	259.390	5299.76	-159.69	-157.96	344.39	717620.38	372095.04	32°01'15.815"N	103°37'52.202"W	0.04	
5502.00	0.470	272.570	5476.76	-159.82	-158.11	342.72	717618.71	372094.90	32°01'15.813"N	103°37'52.222"W	0.11	
5680.00	0.400	273.770	5654.75	-159.74	-158.03	341.38	717617.36	372094.97	32°01'15.814"N	103°37'52.237"W	0.04	
5858.00	0.500	258.970	5832.75	-159.84	-158.14	339.99	717615.98	372094.87	32°01'15.813"N	103°37'52.253"W	0.09	
6035.00	0.220	216.990	6009.74	-160.26	-158.56	339.03	717615.02	372094.45	32°01'15.809"N	103°37'52.265"W	0.21	
6211.00	0.280	234.240	6185.74	-160.77	-159.08	338.48	717614.46	372093.93	32°01'15.804"N	103°37'52.271"W	0.05	
6388.00	0.280	206.490	6362.74	-161.41	-159.72	337.93	717613.92	372093.29	32°01'15.798"N	103°37'52.277"W	0.08	
6565.00	0.640	214.590	6539.73	-162.61	-160.92	337.18	717613.17	372092.09	32°01'15.786"N	103°37'52.286"W	0.21	
6741.00	0.650	210.230	6715.72	-164.27	-162.59	336.12	717612.11	372090.41	32°01'15.769"N	103°37'52.299"W	0.03	
6919.00	0.730	196.030	6893.71	-166.23	-164.55	335.30	717611.28	372088.45	32°01'15.750"N	103°37'52.308"W	0.11	
7096.00	0.830	193.060	7070.69	-168.56	-166.89	334.70	717610.68	372086.12	32°01'15.727"N	103°37'52.315"W	0.06	
7272.00	0.900	208.770	7246.67	-171.01	-169.34	333.74	717609.73	372083.67	32°01'15.703"N	103°37'52.327"W	0.14	
7450.00	1.110	191.100	7424.65	-173.92	-172.26	332.74	717608.73	372080.75	32°01'15.674"N	103°37'52.339"W	0.21	
7627.00	0.930	205.110	7601.62	-176.90	-175.24	331.80	717607.79	372077.77	32°01'15.645"N	103°37'52.350"W	0.17	
7804.00	0.830	199.330	7778.60	-179.41	-177.75	330.77	717606.75	372075.26	32°01'15.620"N	103°37'52.362"W	0.08	
7981.00	1.040	189.690	7955.57	-182.20	-180.54	330.07	717606.06	372072.46	32°01'15.592"N	103°37'52.370"W	0.15	
8158.00	0.650	191.090	8132.55	-184.76	-183.11	329.61	717605.59	372069.89	32°01'15.567"N	103°37'52.376"W	0.22	
8334.00	0.780	202.470	8308.54	-186.85	-185.20	328.96	717604.94	372067.81	32°01'15.546"N	103°37'52.384"W	0.11	
8406.00	0.970	216.950	8380.53	-187.78	-186.14	328.40	717604.39	372066.87	32°01'15.537"N	103°37'52.390"W	0.40	
8568.00	5.730	355.600	8542.29	-180.80	-179.16	326.96	717602.94	372073.84	32°01'15.606"N	103°37'52.406"W	4.01	
8612.00	12.020	349.390	8585.74	-174.10	-172.46	325.94	717601.93	372080.54	32°01'15.672"N	103°37'52.418"W	14.44	
8656.00	16.680	353.560	8628.36	-163.30	-161.68	324.39	717600.38	372091.33	32°01'15.779"N	103°37'52.435"W	10.84	
8701.00	20.230	356.950	8671.04	-149.11	-147.49	323.25	717599.24	372105.52	32°01'15.920"N	103°37'52.447"W	8.24	



Actual Wellpath Report

SD WE 24 Federal P23 No. 003H awp 68' -19207' Proj: 19260'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 Fed P23 No. 3H
Area	Lea County, NM	Well	SD WE 24 Federal P23 No. 003H
Field	Jennings; Upper Bone Spring (Lea County, NM)	Wellbore	SD WE 24 Fed P23 No. 3H (AWB)
Facility	SD WE 24 Fed P23		

WELLPATH DATA (186 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8745.00	24.770	2.870	8711.68	-132.29	-130.68	323.31	717599.30	372122.33	32°01'16.086"N	103°37'52.445"W	11.52	
8789.00	30.250	3.520	8750.69	-112.02	-110.39	324.45	717600.44	372142.61	32°01'16.287"N	103°37'52.430"W	12.47	
8833.00	35.050	1.910	8787.73	-88.32	-86.69	325.55	717601.54	372166.32	32°01'16.521"N	103°37'52.416"W	11.09	
8878.00	39.610	2.750	8823.50	-61.07	-59.43	326.67	717602.66	372193.57	32°01'16.791"N	103°37'52.401"W	10.20	
8922.00	43.840	3.290	8856.33	-31.84	-30.19	328.22	717604.21	372222.81	32°01'17.080"N	103°37'52.380"W	9.65	
8966.00	48.550	2.090	8886.78	-0.14	1.52	329.70	717605.69	372254.52	32°01'17.394"N	103°37'52.361"W	10.88	
9011.00	53.170	359.950	8915.18	34.75	36.40	330.30	717606.29	372289.40	32°01'17.739"N	103°37'52.351"W	10.91	
9055.00	58.210	357.730	8939.98	71.07	72.72	329.54	717605.53	372325.72	32°01'18.098"N	103°37'52.357"W	12.19	
9099.00	64.350	0.490	8961.11	109.63	111.28	328.97	717604.96	372364.28	32°01'18.480"N	103°37'52.361"W	15.00	
9146.00	70.330	3.870	8979.22	152.93	154.59	330.65	717606.63	372407.59	32°01'18.909"N	103°37'52.338"W	14.35	
9190.00	73.500	4.780	8992.88	194.62	196.29	333.80	717609.79	372449.29	32°01'19.321"N	103°37'52.298"W	7.47	
9231.00	76.620	4.940	9003.44	234.07	235.76	337.16	717613.15	372488.75	32°01'19.711"N	103°37'52.256"W	7.62	
9285.00	82.330	3.230	9013.30	286.98	288.69	340.93	717616.92	372541.68	32°01'20.235"N	103°37'52.209"W	11.02	
9374.00	85.890	2.530	9022.44	375.36	377.10	345.38	717621.37	372630.08	32°01'21.109"N	103°37'52.150"W	4.08	
9462.00	89.260	1.310	9026.16	463.20	464.95	348.32	717624.31	372717.94	32°01'21.979"N	103°37'52.110"W	4.07	
9550.00	88.890	0.240	9027.58	551.18	552.93	349.51	717625.50	372805.91	32°01'22.849"N	103°37'52.089"W	1.29	
9639.00	90.680	0.630	9027.91	640.16	641.93	350.19	717626.18	372894.90	32°01'23.730"N	103°37'52.075"W	2.06	
9728.00	90.740	0.450	9026.81	729.15	730.91	351.03	717627.01	372983.89	32°01'24.610"N	103°37'52.058"W	0.21	
9816.00	91.020	1.160	9025.46	817.12	818.90	352.26	717628.25	373071.86	32°01'25.481"N	103°37'52.037"W	0.87	
9906.00	92.070	359.620	9023.03	907.08	908.86	352.88	717628.86	373161.82	32°01'26.371"N	103°37'52.023"W	2.07	
9994.00	88.550	358.080	9022.56	995.05	996.82	351.11	717627.10	373249.78	32°01'27.242"N	103°37'52.037"W	4.37	
10083.00	87.410	356.850	9025.69	1083.92	1085.68	347.18	717623.16	373338.63	32°01'28.121"N	103°37'52.076"W	1.88	
10171.00	90.370	359.640	9027.40	1171.86	1173.60	344.48	717620.47	373426.55	32°01'28.991"N	103°37'52.101"W	4.62	
10259.00	90.000	358.190	9027.11	1259.85	1261.58	342.82	717618.80	373514.53	32°01'29.862"N	103°37'52.113"W	1.70	
10348.00	89.290	357.290	9027.67	1348.79	1350.51	339.31	717615.29	373603.46	32°01'30.742"N	103°37'52.147"W	1.29	
10437.00	89.690	359.510	9028.46	1437.76	1439.46	336.82	717612.81	373692.41	32°01'31.623"N	103°37'52.170"W	2.53	
10526.00	89.940	359.940	9028.75	1526.76	1528.46	336.40	717612.38	373781.40	32°01'32.503"N	103°37'52.168"W	0.56	
10614.00	89.260	359.030	9029.36	1614.75	1616.46	335.61	717611.59	373869.39	32°01'33.374"N	103°37'52.170"W	1.29	
10703.00	89.350	1.320	9030.44	1703.74	1705.44	335.88	717611.86	373958.38	32°01'34.255"N	103°37'52.160"W	2.57	
10792.00	89.850	358.560	9031.06	1792.73	1794.43	335.78	717611.77	374047.36	32°01'35.135"N	103°37'52.155"W	3.15	



Actual Wellpath Report

SD WE 24 Federal P23 No. 003H awp 68' -19207' Proj: 19260'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 Fed P23 No. 3H
Area	Lea County, NM	Well	SD WE 24 Federal P23 No. 003H
Field	Jennings; Upper Bone Spring (Lea County, NM)	Wellbore	SD WE 24 Fed P23 No. 3H (AWB)
Facility	SD WE 24 Fed P23		

WELLPATH DATA (186 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10880.00	90.000	359.010	9031.18	1880.71	1882.41	333.92	717609.90	374135.34	32°01'36.006"N	103°37'52.170"W	0.54	
10968.00	90.560	358.950	9030.75	1968.71	1970.40	332.35	717608.34	374223.32	32°01'36.877"N	103°37'52.181"W	0.64	
11057.00	90.860	359.650	9029.64	2057.70	2059.38	331.26	717607.25	374312.30	32°01'37.758"N	103°37'52.187"W	0.86	
11145.00	89.320	359.830	9029.51	2145.69	2147.38	330.86	717606.85	374400.29	32°01'38.628"N	103°37'52.185"W	1.76	
11234.00	88.890	359.680	9030.90	2234.68	2236.37	330.48	717606.47	374489.28	32°01'39.509"N	103°37'52.183"W	0.51	
11324.00	87.600	358.780	9033.65	2324.63	2326.31	329.28	717605.26	374579.22	32°01'40.399"N	103°37'52.190"W	1.75	
11415.00	89.850	0.450	9035.68	2415.60	2417.28	328.66	717604.65	374670.19	32°01'41.299"N	103°37'52.190"W	3.08	
11506.00	92.160	1.820	9034.08	2506.55	2508.24	330.47	717606.45	374761.14	32°01'42.199"N	103°37'52.163"W	2.95	
11598.00	87.380	1.050	9034.45	2598.48	2600.18	332.77	717608.76	374853.08	32°01'43.109"N	103°37'52.129"W	5.26	
11688.00	86.460	0.640	9039.29	2688.33	2690.04	334.10	717610.08	374942.94	32°01'43.998"N	103°37'52.107"W	1.12	
11779.00	88.860	359.250	9043.00	2779.25	2780.96	334.01	717609.99	375033.85	32°01'44.898"N	103°37'52.101"W	3.05	
11870.00	92.100	358.960	9042.24	2870.23	2871.93	332.59	717608.57	375124.82	32°01'45.798"N	103°37'52.111"W	3.57	
11961.00	91.720	357.980	9039.21	2961.15	2962.85	330.16	717606.14	375215.73	32°01'46.698"N	103°37'52.132"W	1.15	
12053.00	91.980	358.800	9036.24	3053.08	3054.76	327.57	717603.56	375307.64	32°01'47.608"N	103°37'52.155"W	0.93	
12144.00	93.330	358.940	9032.02	3143.97	3145.64	325.78	717601.77	375398.52	32°01'48.507"N	103°37'52.169"W	1.49	
12233.00	90.150	357.090	9029.32	3232.88	3234.53	322.70	717598.69	375487.41	32°01'49.387"N	103°37'52.198"W	4.13	
12321.00	89.540	0.400	9029.56	3320.85	3322.50	320.77	717596.76	375575.37	32°01'50.257"N	103°37'52.214"W	3.82	
12410.00	90.460	2.020	9029.56	3409.82	3411.48	322.65	717598.64	375664.34	32°01'51.138"N	103°37'52.185"W	2.09	
12498.00	88.700	0.820	9030.20	3497.77	3499.44	324.83	717600.82	375752.30	32°01'52.008"N	103°37'52.153"W	2.42	
12587.00	91.350	2.330	9030.16	3586.71	3588.40	327.28	717603.27	375841.26	32°01'52.888"N	103°37'52.118"W	3.43	
12675.00	88.890	0.170	9029.98	3674.67	3676.36	329.20	717605.18	375929.22	32°01'53.759"N	103°37'52.089"W	3.72	
12764.00	87.990	358.290	9032.40	3763.63	3765.32	328.00	717603.99	376018.17	32°01'54.639"N	103°37'52.096"W	2.34	
12852.00	87.010	357.970	9036.24	3851.51	3853.19	325.13	717601.12	376106.04	32°01'55.509"N	103°37'52.123"W	1.17	
12941.00	87.630	358.370	9040.40	3940.38	3942.04	322.29	717598.28	376194.89	32°01'56.388"N	103°37'52.149"W	0.83	
13030.00	86.710	358.200	9044.80	4029.24	4030.89	319.63	717595.62	376283.74	32°01'57.267"N	103°37'52.174"W	1.05	
13119.00	88.830	358.360	9048.26	4118.14	4119.78	316.97	717592.95	376372.62	32°01'58.147"N	103°37'52.198"W	2.39	
13207.00	87.260	358.750	9051.26	4206.07	4207.70	314.75	717590.74	376460.54	32°01'59.017"N	103°37'52.217"W	1.84	
13295.00	93.550	359.260	9050.64	4294.02	4295.64	313.22	717589.21	376548.47	32°01'59.888"N	103°37'52.228"W	7.17	
13383.00	95.160	359.890	9043.96	4381.76	4383.38	312.57	717588.56	376636.21	32°02'00.756"N	103°37'52.229"W	1.96	
13472.00	93.170	0.590	9037.49	4470.51	4472.14	312.94	717588.93	376724.96	32°02'01.634"N	103°37'52.218"W	2.37	



Actual Wellpath Report

SD WE 24 Federal P23 No. 003H awp 68' -19207' Proj: 19260'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 Fed P23 No. 3H
Area	Lea County, NM	Well	SD WE 24 Federal P23 No. 003H
Field	Jennings; Upper Bone Spring (Lea County, NM)	Wellbore	SD WE 24 Fed P23 No. 3H (AWB)
Facility	SD WE 24 Fed P23		

WELLPATH DATA (186 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13561.00	90.860	0.500	9034.36	4559.44	4561.07	313.79	717589.77	376813.90	32°02'02.514"N	103°37'52.201"W	2.60	
13649.00	86.950	0.880	9036.04	4647.40	4649.03	314.85	717590.83	376901.85	32°02'03.385"N	103°37'52.182"W	4.46	
13738.00	85.960	359.820	9041.55	4736.22	4737.86	315.39	717591.38	376990.67	32°02'04.264"N	103°37'52.169"W	1.63	
13827.00	88.370	359.180	9045.95	4825.10	4826.74	314.61	717590.60	377079.55	32°02'05.143"N	103°37'52.172"W	2.80	
13915.00	89.380	0.310	9047.68	4913.08	4914.72	314.22	717590.21	377167.53	32°02'06.014"N	103°37'52.170"W	1.72	
14004.00	87.720	0.660	9049.93	5002.04	5003.68	314.97	717590.96	377256.49	32°02'06.894"N	103°37'52.154"W	1.91	
14093.00	88.310	0.800	9053.01	5090.98	5092.62	316.11	717592.10	377345.43	32°02'07.774"N	103°37'52.134"W	0.68	
14181.00	88.710	0.420	9055.30	5178.93	5180.59	317.04	717593.03	377433.39	32°02'08.645"N	103°37'52.117"W	0.63	
14270.00	89.540	0.510	9056.66	5267.92	5269.57	317.77	717593.75	377522.37	32°02'09.525"N	103°37'52.102"W	0.94	
14358.00	87.590	359.690	9058.86	5355.88	5357.54	317.92	717593.91	377610.33	32°02'10.395"N	103°37'52.093"W	2.40	
14447.00	87.260	359.700	9062.86	5444.79	5446.45	317.45	717593.43	377699.24	32°02'11.275"N	103°37'52.092"W	0.37	
14536.00	86.980	358.590	9067.33	5533.67	5535.33	316.12	717592.11	377788.11	32°02'12.155"N	103°37'52.101"W	1.28	
14624.00	89.380	0.930	9070.13	5621.62	5623.27	315.75	717591.74	377876.05	32°02'13.025"N	103°37'52.098"W	3.81	
14713.00	89.110	0.360	9071.30	5710.60	5712.25	316.76	717592.74	377965.03	32°02'13.906"N	103°37'52.080"W	0.71	
14801.00	89.410	359.860	9072.44	5798.59	5800.25	316.92	717592.91	378053.02	32°02'14.776"N	103°37'52.071"W	0.66	
14889.00	89.260	358.880	9073.46	5886.58	5888.23	315.96	717591.94	378141.01	32°02'15.647"N	103°37'52.076"W	1.13	
14978.00	89.720	358.080	9074.25	5975.55	5977.20	313.60	717589.58	378229.97	32°02'16.528"N	103°37'52.097"W	1.04	
15066.00	87.530	358.110	9076.36	6063.49	6065.12	310.67	717586.66	378317.88	32°02'17.398"N	103°37'52.124"W	2.49	
15155.00	89.070	359.700	9079.00	6152.43	6154.06	308.97	717584.96	378406.82	32°02'18.278"N	103°37'52.137"W	2.49	
15243.00	89.540	0.090	9080.07	6240.43	6242.05	308.81	717584.80	378494.81	32°02'19.149"N	103°37'52.132"W	0.69	
15332.00	89.850	359.570	9080.54	6329.42	6331.05	308.55	717584.54	378583.80	32°02'20.029"N	103°37'52.129"W	0.68	
15420.00	90.150	359.460	9080.54	6417.42	6419.05	307.80	717583.79	378671.80	32°02'20.900"N	103°37'52.131"W	0.36	
15508.00	90.370	359.090	9080.15	6505.42	6507.04	306.69	717582.68	378759.79	32°02'21.771"N	103°37'52.137"W	0.49	
15597.00	90.030	359.520	9079.83	6594.42	6596.03	305.61	717581.60	378848.77	32°02'22.652"N	103°37'52.143"W	0.62	
15685.00	90.830	359.990	9079.17	6682.41	6684.03	305.23	717581.22	378936.77	32°02'23.523"N	103°37'52.140"W	1.05	
15774.00	89.080	358.150	9079.24	6771.40	6773.01	303.79	717579.78	379025.74	32°02'24.403"N	103°37'52.151"W	2.85	
15863.00	89.570	359.660	9080.29	6860.38	6861.98	302.09	717578.08	379114.72	32°02'25.284"N	103°37'52.164"W	1.78	
15951.00	90.180	359.340	9080.48	6948.38	6949.98	301.32	717577.31	379202.71	32°02'26.155"N	103°37'52.166"W	0.78	
16040.00	90.520	357.080	9079.94	7037.34	7038.93	298.54	717574.53	379291.65	32°02'27.035"N	103°37'52.191"W	2.57	
16128.00	93.270	1.500	9077.03	7125.26	7126.84	297.45	717573.44	379379.56	32°02'27.905"N	103°37'52.197"W	5.91	



Actual Wellpath Report

SD WE 24 Federal P23 No. 003H awp 68' -19207' Proj: 19260'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 Fed P23 No. 3H
Area	Lea County, NM	Well	SD WE 24 Federal P23 No. 003H
Field	Jennings; Upper Bone Spring (Lea County, NM)	Wellbore	SD WE 24 Fed P23 No. 3H (AWB)
Facility	SD WE 24 Fed P23		

WELLPATH DATA (186 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16216.00	90.490	1.020	9074.14	7213.17	7214.76	299.38	717575.37	379467.48	32°02'28.775"N	103°37'52.168"W	3.21	
16305.00	91.320	0.740	9072.74	7302.14	7303.74	300.75	717576.74	379556.46	32°02'29.655"N	103°37'52.146"W	0.98	
16393.00	91.640	0.430	9070.46	7390.10	7391.71	301.65	717577.63	379644.42	32°02'30.526"N	103°37'52.129"W	0.51	
16482.00	87.810	0.340	9070.89	7479.08	7480.69	302.24	717578.23	379733.40	32°02'31.406"N	103°37'52.115"W	4.30	
16571.00	87.720	0.440	9074.36	7568.01	7569.62	302.85	717578.84	379822.32	32°02'32.286"N	103°37'52.101"W	0.15	
16660.00	87.500	359.720	9078.07	7656.93	7658.54	302.97	717578.96	379911.24	32°02'33.166"N	103°37'52.093"W	0.85	
16749.00	89.480	0.170	9080.42	7745.89	7747.50	302.89	717578.88	380000.20	32°02'34.046"N	103°37'52.087"W	2.28	
16838.00	90.550	359.460	9080.40	7834.89	7836.50	302.60	717578.59	380089.20	32°02'34.927"N	103°37'52.084"W	1.44	
16926.00	90.620	359.380	9079.50	7922.88	7924.49	301.71	717577.70	380177.19	32°02'35.798"N	103°37'52.088"W	0.12	
17015.00	91.170	359.050	9078.11	8011.87	8013.47	300.49	717576.48	380266.16	32°02'36.679"N	103°37'52.095"W	0.72	
17104.00	91.290	358.210	9076.20	8100.83	8102.43	298.36	717574.35	380355.11	32°02'37.559"N	103°37'52.113"W	0.95	
17192.00	91.630	358.180	9073.95	8188.77	8190.35	295.59	717571.58	380443.04	32°02'38.429"N	103°37'52.139"W	0.39	
17281.00	90.890	358.050	9072.00	8277.71	8279.28	292.67	717568.65	380531.96	32°02'39.309"N	103°37'52.166"W	0.84	
17369.00	90.770	1.510	9070.72	8365.69	8367.26	292.33	717568.32	380619.94	32°02'40.180"N	103°37'52.163"W	3.93	
17458.00	91.570	1.760	9068.91	8454.62	8456.20	294.87	717570.86	380708.88	32°02'41.060"N	103°37'52.127"W	0.94	
17546.00	92.040	2.670	9066.13	8542.49	8544.09	298.27	717574.26	380796.76	32°02'41.929"N	103°37'52.081"W	1.16	
17635.00	89.940	1.340	9064.60	8631.40	8633.02	301.38	717577.37	380885.68	32°02'42.809"N	103°37'52.038"W	2.79	
17723.00	87.750	359.250	9066.37	8719.37	8720.99	301.83	717577.82	380973.65	32°02'43.680"N	103°37'52.026"W	3.44	
17812.00	87.690	358.610	9069.91	8808.29	8809.90	300.17	717576.16	381062.56	32°02'44.560"N	103°37'52.039"W	0.72	
17901.00	88.180	358.060	9073.12	8897.21	8898.81	297.59	717573.58	381151.46	32°02'45.440"N	103°37'52.062"W	0.83	
17989.00	90.340	359.350	9074.25	8985.18	8986.77	295.60	717571.59	381239.42	32°02'46.310"N	103°37'52.078"W	2.86	
18078.00	91.570	358.960	9072.77	9074.16	9075.75	294.29	717570.28	381328.39	32°02'47.191"N	103°37'52.087"W	1.45	
18166.00	92.240	358.850	9069.84	9162.10	9163.68	292.61	717568.60	381416.33	32°02'48.061"N	103°37'52.100"W	0.77	
18255.00	90.800	357.710	9067.48	9251.04	9252.61	289.94	717565.92	381505.25	32°02'48.941"N	103°37'52.124"W	2.06	
18343.00	91.880	0.090	9065.43	9339.00	9340.56	288.25	717564.24	381593.20	32°02'49.812"N	103°37'52.137"W	2.97	
18432.00	93.210	359.470	9061.47	9427.91	9429.47	287.91	717563.89	381682.10	32°02'50.691"N	103°37'52.134"W	1.65	
18520.00	91.450	359.460	9057.90	9515.83	9517.39	287.08	717563.07	381770.02	32°02'51.561"N	103°37'52.137"W	2.00	
18609.00	88.800	359.450	9057.70	9604.82	9606.38	286.24	717562.23	381859.00	32°02'52.442"N	103°37'52.140"W	2.98	
18698.00	88.460	359.350	9059.83	9693.79	9695.35	285.31	717561.30	381947.97	32°02'53.323"N	103°37'52.144"W	0.40	
18786.00	88.800	0.060	9061.93	9781.77	9783.32	284.85	717560.84	382035.94	32°02'54.193"N	103°37'52.143"W	0.89	



Actual Wellpath Report

SD WE 24 Federal P23 No. 003H awp 68' -19207' Proj: 19260'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 Fed P23 No. 3H
Area	Lea County, NM	Well	SD WE 24 Federal P23 No. 003H
Field	Jennings; Upper Bone Spring (Lea County, NM)	Wellbore	SD WE 24 Fed P23 No. 3H (AWB)
Facility	SD WE 24 Fed P23		

WELLPATH DATA (186 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
18875.00	89.420	359.970	9063.32	9870.76	9872.31	284.88	717560.87	382124.92	32°02'55.074"N	103°37'52.136"W	0.70	
18963.00	89.450	359.690	9064.18	9958.75	9960.30	284.62	717560.60	382212.92	32°02'55.944"N	103°37'52.132"W	0.32	
19052.00	89.880	359.510	9064.70	10047.75	10049.30	283.99	717559.98	382301.91	32°02'56.825"N	103°37'52.133"W	0.52	
19140.00	89.570	357.420	9065.13	10135.72	10137.26	281.64	717557.63	382389.87	32°02'57.696"N	103°37'52.154"W	2.40	
19207.00	90.990	357.280	9064.80	10202.66	10204.19	278.54	717554.53	382456.79	32°02'58.358"N	103°37'52.185"W	2.13	3/4 BHI MWD 4446' -19207'
19260.00	90.990	357.280	9063.88	10255.61	10257.12	276.03	717552.01	382509.72	32°02'58.882"N	103°37'52.210"W	0.00	Projection to TD: 19260'

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SD WE 24 Fed P23 No. 3H LP	9014.00	318.60	334.88	717610.87	372571.59	32°01'20.531"N	103°37'52.277"W	point
SD WE 24 Fed P23 No. 3H 3700 from LP	9029.00	4018.43	316.33	717592.32	376271.27	32°01'57.144"N	103°37'52.213"W	point
SD WE 24 Fed P23 No. 3H BHL rev 2	9041.00	10266.40	285.01	717561.00	382519.00	32°02'58.973"N	103°37'52.105"W	rectangle
SD WE 24 Fed P23 No. 3H BHL	9065.00	10266.40	285.01	717561.00	382519.00	32°02'58.973"N	103°37'52.105"W	rectangle
SD WE 24 Fed P23 No. 3H 5875 from LP	9076.00	6193.39	305.43	717581.42	378446.15	32°02'18.667"N	103°37'52.175"W	point



Actual Wellpath Report

SD WE 24 Federal P23 No. 003H awp 68' -19207' Proj: 19260'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 Fed P23 No. 3H
Area	Lea County, NM	Well	SD WE 24 Federal P23 No. 003H
Field	Jennings; Upper Bone Spring (Lea County, NM)	Wellbore	SD WE 24 Fed P23 No. 3H (AWB)
Facility	SD WE 24 Fed P23		

WELLPATH COMPOSITION - Ref Wellbore: SD WE 24 Fed P23 No. 3H (AWB) Ref Wellpath: SD WE 24 Federal P23 No. 003H awp 68' -19207' Proj: 19260'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.60	717.00	Wolff and de Wardt (good magnetic)	Imported Teledrift 68' -717'	SD WE 24 Fed P23 No. 3H (AWB)
717.00	4269.00	BHI NaviTrak (Axial)	12 1/4 BHI MWD 891' -4269'	SD WE 24 Fed P23 No. 3H (AWB)
4269.00	19207.00	BHI NaviTrak (Axial)	8 3/4 BHI MWD 4446' -19207'	SD WE 24 Fed P23 No. 3H (AWB)
19207.00	19260.00	Blind Drilling (std)	Projection to bit	SD WE 24 Fed P23 No. 3H (AWB)



Actual Wellpath Report

SD WE 24 Federal P23 No. 003H awp 68' -19207' Proj: 19260'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 Fed P23 No. 3H
Area	Lea County, NM	Well	SD WE 24 Federal P23 No. 003H
Field	Jennings; Upper Bone Spring (Lea County, NM)	Wellbore	SD WE 24 Fed P23 No. 3H (AWB)
Facility	SD WE 24 Fed P23		

COMMENTS

Wellpath general comments

Well: SD WE 24 Federal P23 No. 003H
Field: Jennings; Upper Bone Spring
Rig: Nabors X30
Location: Lea Co., NM
API: 30-025-43297-00
Latitude: 32° 01' 17.400" N
Longitude: 103° 37' 56.190" W
DF Elevation: 3165.6 feet
Elev. GL: 3133 feet
Proposed Direction: 359.71°
PBHL: 19260 feet
Duration: 9/01/2016-10/15/2016
FSE's: D. Hardeman
SO#: 8111313
Imported Teledrift 68' -717'
12 1/4 BHI MWD 891' -4269'
8 3/4 BHI MWD 4446' -19207'
Projection to TD: 19260'



Directional Survey

Well Name SALADO DRAW WE 24 FED P23 003H		Lease	Field Name JENNINGS	Business Unit Mid-Continent	
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation		Mud Line Elevation (ft)	Water Depth (ft)

Wellbore Name Original Hole	Parent Wellbore Original Hole	Min Kick Off Depth (ftKB)	Vertical Section Direction (°)
Northing (Y) (ft)	Easting (X) (ft)	UTM Grid Zone	359.71

Date 9/2/2016	Drillbit N	Description Directional Plan		Planned? Y	
MD Tie in (ftKB) 0.00	TVD Tie in (ftKB) 0.00	Inclination Tie in (°) 0.00	Azimuth Tie in (°) 0.00	NS Tie in (ft) 0.00	EW Tie in (ft) 0.00

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Build (°/100ft)	Depart (ft)	Turn (°/100ft)	Unuse d data
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Magn MWD		0.00	0.00	0.00	N
32.6	0.00	114.95	32.60	0.00	0.00	0.00	0.00	Magn MWD		0.00	0.00	352.61	N
132.6	0.00	114.95	132.60	0.00	0.00	0.00	0.00	Magn MWD		0.00	0.00	0.00	N
232.6	0.00	114.95	232.60	0.00	0.00	0.00	0.00	Magn MWD		0.00	0.00	0.00	N
332.6	0.00	114.95	332.60	0.00	0.00	0.00	0.00	Magn MWD		0.00	0.00	0.00	N
432.6	0.00	114.95	432.60	0.00	0.00	0.00	0.00	Magn MWD		0.00	0.00	0.00	N
532.6	0.00	114.95	532.60	0.00	0.00	0.00	0.00	Magn MWD		0.00	0.00	0.00	N
632.6	0.00	114.95	632.60	0.00	0.00	0.00	0.00	Magn MWD		0.00	0.00	0.00	N
732.6	0.00	114.95	732.60	0.00	0.00	0.00	0.00	Magn MWD		0.00	0.00	0.00	N
832.6	0.00	114.95	832.60	0.00	0.00	0.00	0.00	Magn MWD		0.00	0.00	0.00	N
932.6	0.00	114.95	932.60	0.00	0.00	0.00	0.00	Magn MWD		0.00	0.00	0.00	N
1,000	0.00	114.95	1,000.00	0.00	0.00	0.00	0.00	Magn MWD		0.00	0.00	0.00	N
1,032.6	0.33	114.95	1,032.60	-0.04	0.08	-0.04	1.00	Magn MWD		1.00	0.09	0.00	N
1,132.6	1.33	114.95	1,132.59	-0.65	1.39	-0.65	1.00	Magn MWD		1.00	1.53	0.00	N
1,232.6	2.33	114.95	1,232.54	-1.99	4.28	-2.01	1.00	Magn MWD		1.00	4.72	0.00	N
1,332.6	3.33	114.95	1,332.41	-4.07	8.75	-4.12	1.00	Magn MWD		1.00	9.65	0.00	N
1,432.6	4.33	114.95	1,432.19	-6.89	14.80	-6.96	1.00	Magn MWD		1.00	16.32	0.00	N
1,532.6	5.33	114.95	1,531.83	-10.44	22.43	-10.55	1.00	Magn MWD		1.00	24.74	0.00	N
1,632.6	6.33	114.95	1,631.32	-14.72	31.63	-14.88	1.00	Magn MWD		1.00	34.89	0.00	N
1,732.6	7.33	114.95	1,730.61	-19.73	42.41	-19.95	1.00	Magn MWD		1.00	46.77	0.00	N
1,800	8.00	114.95	1,797.40	-23.52	50.56	-23.78	1.00	Magn MWD		1.00	55.76	0.00	N
1,832.6	8.00	114.95	1,829.60	-25.44	54.67	-25.71	0.00	Magn MWD		0.00	60.30	0.00	N
1,932.6	8.00	114.95	1,826.71	-31.31	67.29	-31.65	0.00	Magn MWD		0.00	74.21	0.00	N
2,032.6	8.00	114.95	2,027.74	-37.16	79.81	-37.58	0.00	Magn MWD		0.00	88.13	0.00	N
2,132.6	8.00	114.95	2,126.77	-43.06	92.52	-43.52	0.00	Magn MWD		0.00	102.06	0.00	N
2,232.6	8.00	114.95	2,225.79	-48.92	105.14	-49.45	0.00	Magn MWD		0.00	115.97	0.00	N
2,332.6	8.00	114.95	2,324.82	-54.79	117.76	-55.39	0.00	Magn MWD		0.00	129.88	0.00	N



Directional Survey

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) / Water Depth (ft)

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Build (°/100ft)	Depart (ft)	Turn (°/100ft)	Unuse d data
2,432.6	8.00	114.95	2,423.85	-60.66	130.38	-61.32	0.00	Magn MWD		0.00	143.80	0.00	N
2,532.6	8.00	114.95	2,522.87	-66.53	143.00	-67.26	0.00	Magn MWD		0.00	157.72	0.00	N
2,632.6	8.00	114.95	2,621.90	-72.41	155.62	-73.19	0.00	Magn MWD		0.00	171.64	0.00	N
2,732.6	8.00	114.95	2,720.93	-78.28	168.23	-79.13	0.00	Magn MWD		0.00	185.55	0.00	N
2,832.6	8.00	114.95	2,819.95	-84.15	180.85	-85.06	0.00	Magn MWD		0.00	199.47	0.00	N
2,932.6	8.00	114.95	2,918.98	-90.02	193.47	-91.00	0.00	Magn MWD		0.00	213.39	0.00	N
3,032.6	8.00	114.95	3,018.01	-95.89	206.09	-96.93	0.00	Magn MWD		0.00	227.30	0.00	N
3,132.6	8.00	114.95	3,117.03	-101.76	218.71	-102.87	0.00	Magn MWD		0.00	241.22	0.00	N
3,232.6	8.00	114.95	3,216.06	-107.63	231.32	-108.80	0.00	Magn MWD		0.00	255.14	0.00	N
3,332.6	8.00	114.95	3,315.09	-113.50	243.94	-114.74	0.00	Magn MWD		0.00	269.06	0.00	N
3,432.6	8.00	114.95	3,414.11	-119.38	256.56	-120.67	0.00	Magn MWD		0.00	282.97	0.00	N
3,532.6	8.00	114.95	3,513.14	-125.25	269.18	-126.61	0.00	Magn MWD		0.00	296.89	0.00	N
3,632.6	8.00	114.95	3,612.17	-131.12	281.80	-132.54	0.00	Magn MWD		0.00	310.81	0.00	N
3,671.51	8.00	114.95	3,650.70	-133.40	286.71	-134.85	0.00	Magn MWD		0.00	316.22	0.00	N
3,732.6	7.39	114.95	3,711.24	-136.85	294.12	-138.34	1.00	Magn MWD		-1.00	324.40	0.00	N
3,832.6	6.39	114.95	3,810.52	-141.91	305.00	-143.45	1.00	Magn MWD		-1.00	338.40	0.00	N
3,932.6	5.39	114.95	3,909.99	-146.24	314.30	-147.83	1.00	Magn MWD		-1.00	346.66	0.00	N
4,032.6	4.39	114.95	4,009.62	-149.84	322.03	-151.46	1.00	Magn MWD		-1.00	355.18	0.00	N
4,132.6	3.39	114.95	4,109.39	-152.70	328.18	-154.36	1.00	Magn MWD		-1.00	361.96	0.00	N
4,232.6	2.39	114.95	4,209.26	-154.82	332.75	-156.51	1.00	Magn MWD		-1.00	367.00	0.00	N
4,332.6	1.39	114.95	4,309.21	-156.21	335.74	-157.91	1.00	Magn MWD		-1.00	370.30	0.00	N
4,432.6	0.39	114.95	4,409.19	-156.67	337.14	-158.57	1.00	Magn MWD		-1.00	371.85	0.00	N
4,471.51	0.00	359.71	4,448.10	-156.92	337.26	-158.63	1.00	Magn MWD		-1.00	371.98	629.04	N
4,532.6	0.00	359.71	4,509.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
4,632.6	0.00	359.71	4,609.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
4,732.6	0.00	359.71	4,709.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
4,832.6	0.00	359.71	4,809.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
4,932.6	0.00	359.71	4,909.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
5,032.6	0.00	359.71	5,009.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
5,132.6	0.00	359.71	5,109.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N



Directional Survey

Well Name SALADO DRAWWE 24 FED P23 003H		Lease	Field Name JENNINGS	Business Unit Mid-Continent	
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation		Mud Line Elevation (ft)	Water Depth (ft)

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Build (°/100ft)	Depart (ft)	Turn (°/100ft)	Unuse d data
5.232.6	0.00	359.71	5,209.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
5.332.6	0.00	359.71	5,309.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
5.432.6	0.00	359.71	5,409.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
5.532.6	0.00	359.71	5,509.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
5.632.6	0.00	359.71	5,609.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
5.732.6	0.00	359.71	5,709.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
5.832.6	0.00	359.71	5,809.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
5.932.6	0.00	359.71	5,909.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
6.032.6	0.00	359.71	6,009.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
6.132.6	0.00	359.71	6,109.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
6.232.6	0.00	359.71	6,209.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
6.332.6	0.00	359.71	6,309.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
6.432.6	0.00	359.71	6,409.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
6.532.6	0.00	359.71	6,509.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
6.632.6	0.00	359.71	6,609.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
6.732.6	0.00	359.71	6,709.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
6.832.6	0.00	359.71	6,809.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
6.932.6	0.00	359.71	6,909.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
7.032.6	0.00	359.71	7,009.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
7.132.6	0.00	359.71	7,109.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
7.232.6	0.00	359.71	7,209.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
7.332.6	0.00	359.71	7,309.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
7.432.6	0.00	359.71	7,409.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
7.532.6	0.00	359.71	7,509.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
7.632.6	0.00	359.71	7,609.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
7.732.6	0.00	359.71	7,709.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
7.832.6	0.00	359.71	7,809.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
7.932.6	0.00	359.71	7,909.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
8.032.6	0.00	359.71	8,009.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
8.132.6	0.00	359.71	8,109.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N



Directional Survey

Well Name SALADO-DRAW-WE 24 FPD P23 003H		Lease	Field Name JENNINGS	Business Unit Mid-Continent	
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation		Mud Line Elevation (ft)	Water Depth (ft)

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Build (°/100ft)	Depart (ft)	Turn (°/100ft)	Unuse d data
8,232.6	0.00	359.71	8,209.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
8,332.6	0.00	359.71	8,309.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
8,432.6	0.00	359.71	8,409.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
8,532.6	0.00	359.71	8,509.19	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
8,559.95	0.00	359.71	8,536.54	-156.92	337.26	-158.63	0.00	Magn MWD		0.00	371.98	0.00	N
8,632.6	8.72	359.71	8,608.91	-151.41	337.23	-153.11	12.00	Magn MWD		12.00	369.66	0.00	N
8,732.6	20.72	359.71	8,705.46	-126.05	337.11	-127.75	12.00	Magn MWD		12.00	359.90	0.00	N
8,832.6	32.72	359.71	8,794.61	-81.17	336.88	-82.87	12.00	Magn MWD		12.00	346.52	0.00	N
8,932.6	44.72	359.71	8,872.50	-18.74	336.57	-20.44	12.00	Magn MWD		12.00	337.09	0.00	N
9,032.6	56.72	359.71	8,935.69	58.52	336.18	56.82	12.00	Magn MWD		12.00	341.24	0.00	N
9,061	60.13	359.71	8,950.56	82.72	336.06	81.01	12.00	Magn MWD		12.00	346.09	0.00	N
9,132.6	68.72	359.71	8,981.45	147.24	335.74	145.54	12.00	Magn MWD		12.00	366.60	0.00	N
9,232.6	80.72	359.71	9,007.76	243.52	335.26	241.82	12.00	Magn MWD		12.00	414.37	0.00	N
9,308.01	89.77	359.71	9,014.00	318.59	334.88	316.90	12.00	Magn MWD		12.00	462.22	0.00	N
9,382.6	89.77	359.71	9,014.10	343.18	334.76	341.49	0.00	Magn MWD		0.00	479.41	0.00	N
9,482.6	89.77	359.71	9,014.51	443.18	334.26	441.48	0.00	Magn MWD		0.00	555.10	0.00	N
9,582.6	89.77	359.71	9,014.91	543.18	333.76	541.48	0.00	Magn MWD		0.00	637.52	0.00	N
9,682.6	89.77	359.71	9,015.32	643.18	333.25	641.48	0.00	Magn MWD		0.00	724.39	0.00	N
9,782.6	89.77	359.71	9,015.72	743.18	332.75	741.48	0.00	Magn MWD		0.00	814.27	0.00	N
9,882.6	89.77	359.71	9,016.13	843.17	332.25	841.48	0.00	Magn MWD		0.00	906.27	0.00	N
9,982.6	89.77	359.71	9,016.53	943.17	331.75	941.48	0.00	Magn MWD		0.00	999.82	0.00	N
10,082.6	89.77	359.71	9,016.94	1,043.17	331.25	1,041.48	0.00	Magn MWD		0.00	1,094. 50	0.00	N
10,182.6	89.77	359.71	9,017.34	1,143.17	330.75	1,141.48	0.00	Magn MWD		0.00	1,190. 05	0.00	N
10,282.6	89.77	359.71	9,017.75	1,243.17	330.25	1,241.48	0.00	Magn MWD		0.00	1,286. 28	0.00	N
10,382.6	89.77	359.71	9,018.15	1,343.16	329.75	1,341.48	0.00	Magn MWD		0.00	1,383. 05	0.00	N
10,482.6	89.77	359.71	9,018.56	1,443.16	329.25	1,441.48	0.00	Magn MWD		0.00	1,480. 24	0.00	N
10,582.6	89.77	359.71	9,018.96	1,543.16	328.75	1,541.48	0.00	Magn MWD		0.00	1,577. 79	0.00	N
10,682.6	89.77	359.71	9,019.37	1,643.16	328.25	1,641.47	0.00	Magn MWD		0.00	1,675. 62	0.00	N
10,782.6	89.77	359.71	9,019.77	1,743.16	327.74	1,741.47	0.00	Magn MWD		0.00	1,773. 70	0.00	N
10,882.6	89.77	359.71	9,020.18	1,843.15	327.24	1,841.47	0.00	Magn MWD		0.00	1,871. 98	0.00	N



Directional Survey

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent	
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)	Water Depth (ft)

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Build (°/100ft)	Depart (ft)	Turn (°/100ft)	Unuse d data
10,932.6	89.77	359.71	9,020.58	1,943.15	326.74	1,941.47	0.00	Magn MWD		0.00	1,970. 43	0.00	N
11,032.6	89.77	359.71	9,020.99	2,043.15	326.24	2,041.47	0.00	Magn MWD		0.00	2,069. 03	0.00	N
11,132.6	89.77	359.71	9,021.39	2,143.15	325.74	2,141.47	0.00	Magn MWD		0.00	2,167. 76	0.00	N
11,232.6	89.77	359.71	9,021.80	2,243.14	325.24	2,241.47	0.00	Magn MWD		0.00	2,266. 60	0.00	N
11,332.6	89.77	359.71	9,022.20	2,343.14	324.74	2,341.47	0.00	Magn MWD		0.00	2,365. 54	0.00	N
11,432.6	89.77	359.71	9,022.61	2,443.14	324.24	2,441.47	0.00	Magn MWD		0.00	2,464. 56	0.00	N
11,532.6	89.77	359.71	9,023.01	2,543.14	323.74	2,541.47	0.00	Magn MWD		0.00	2,563. 66	0.00	N
11,632.6	89.77	359.71	9,023.42	2,643.14	323.24	2,641.47	0.00	Magn MWD		0.00	2,682. 83	0.00	N
11,732.6	89.77	359.71	9,023.82	2,743.13	322.74	2,741.47	0.00	Magn MWD		0.00	2,762. 05	0.00	N
11,832.6	89.77	359.71	9,024.23	2,843.13	322.23	2,841.47	0.00	Magn MWD		0.00	2,861. 33	0.00	N
11,932.6	89.77	359.71	9,024.63	2,943.13	321.73	2,941.46	0.00	Magn MWD		0.00	2,960. 66	0.00	N
12,032.6	89.77	359.71	9,025.04	3,043.13	321.23	3,041.46	0.00	Magn MWD		0.00	3,060. 04	0.00	N
12,132.6	89.77	359.71	9,025.44	3,143.13	320.73	3,141.46	0.00	Magn MWD		0.00	3,159. 45	0.00	N
12,232.6	89.77	359.71	9,025.85	3,243.12	320.23	3,241.46	0.00	Magn MWD		0.00	3,258. 90	0.00	N
12,332.6	89.77	359.71	9,026.25	3,343.12	319.73	3,341.46	0.00	Magn MWD		0.00	3,358. 38	0.00	N
12,432.6	89.77	359.71	9,026.66	3,443.12	319.23	3,441.46	0.00	Magn MWD		0.00	3,457. 89	0.00	N
12,532.6	89.77	359.71	9,027.06	3,543.12	318.73	3,541.46	0.00	Magn MWD		0.00	3,557. 43	0.00	N
12,632.6	89.77	359.71	9,027.47	3,643.12	318.23	3,641.46	0.00	Magn MWD		0.00	3,656. 99	0.00	N
12,732.6	89.77	359.71	9,027.87	3,743.11	317.73	3,741.46	0.00	Magn MWD		0.00	3,755. 57	0.00	N
12,832.6	89.77	359.71	9,028.27	3,843.11	317.23	3,841.46	0.00	Magn MWD		0.00	3,856. 18	0.00	N
12,932.6	89.77	359.71	9,028.68	3,943.11	316.72	3,941.46	0.00	Magn MWD		0.00	3,955. 81	0.00	N
13,007.92	89.77	359.71	9,028.98	4,018.43	316.36	4,016.76	0.00	Magn MWD		0.00	4,030. 86	0.00	N
13,032.6	89.27	359.71	9,029.19	4,043.11	316.22	4,041.45	2.00	Magn MWD		-2.00	4,055. 45	0.00	N
13,058.79	88.75	359.71	9,029.64	4,069.29	316.09	4,067.64	2.00	Magn MWD		-2.00	4,081. 55	0.00	N
13,132.6	88.75	359.71	9,031.25	4,143.08	315.72	4,141.43	0.00	Magn MWD		0.00	4,155. 10	0.00	N
13,232.6	88.75	359.71	9,033.43	4,243.06	315.22	4,241.41	0.00	Magn MWD		0.00	4,254. 75	0.00	N
13,332.6	88.75	359.71	9,035.62	4,343.05	314.72	4,341.39	0.00	Magn MWD		0.00	4,364. 42	0.00	N
13,432.6	88.75	359.71	9,037.80	4,443.01	314.22	4,441.36	0.00	Magn MWD		0.00	4,454. 11	0.00	N
13,532.6	88.75	359.71	9,039.98	4,542.98	313.72	4,541.34	0.00	Magn MWD		0.00	4,553. 88	0.00	N
13,632.6	88.75	359.71	9,042.16	4,642.96	313.22	4,641.31	0.00	Magn MWD		0.00	4,553. 51	0.00	N



Directional Survey

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)
			Water Depth (ft)

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Build (°/100ft)	Depart (ft)	Turn (°/100ft)	Unuse d data
13,732.6	88.75	359.71	9,044.34	4,742.93	312.72	4,741.29	0.00	Magn MWD		0.00	4,753. 23	0.00	N
13,832.6	88.75	359.71	9,046.52	4,842.91	312.22	4,841.27	0.00	Magn MWD		0.00	4,852. 96	0.00	N
13,932.6	88.75	359.71	9,048.70	4,942.88	311.72	4,941.24	0.00	Magn MWD		0.00	4,952. 70	0.00	N
14,032.6	88.75	359.71	9,050.89	5,042.86	311.22	5,041.22	0.00	Magn MWD		0.00	5,052. 45	0.00	N
14,132.6	88.75	359.71	9,053.07	5,142.83	310.71	5,141.20	0.00	Magn MWD		0.00	5,152. 21	0.00	N
14,232.6	88.75	359.71	9,055.25	5,242.81	310.21	5,241.17	0.00	Magn MWD		0.00	5,251. 98	0.00	N
14,332.6	88.75	359.71	9,057.43	5,342.78	309.71	5,341.15	0.00	Magn MWD		0.00	5,351. 75	0.00	N
14,432.6	88.75	359.71	9,059.61	5,442.76	309.21	5,441.12	0.00	Magn MWD		0.00	5,451. 53	0.00	N
14,532.6	88.75	359.71	9,061.79	5,542.73	308.71	5,541.10	0.00	Magn MWD		0.00	5,551. 32	0.00	N
14,632.6	88.75	359.71	9,063.98	5,642.71	308.21	5,641.08	0.00	Magn MWD		0.00	5,651. 12	0.00	N
14,732.6	88.75	359.71	9,066.16	5,742.68	307.71	5,741.05	0.00	Magn MWD		0.00	5,750. 92	0.00	N
14,832.6	88.75	359.71	9,068.34	5,842.66	307.21	5,841.03	0.00	Magn MWD		0.00	5,850. 73	0.00	N
14,932.6	88.75	359.71	9,070.52	5,942.63	306.71	5,941.00	0.00	Magn MWD		0.00	5,950. 54	0.00	N
15,032.6	88.75	359.71	9,072.70	6,042.61	306.21	6,040.98	0.00	Magn MWD		0.00	6,050. 36	0.00	N
15,132.6	88.75	359.71	9,074.88	6,142.58	305.71	6,140.96	0.00	Magn MWD		0.00	6,150. 19	0.00	N
15,183.42	88.75	359.71	9,075.99	6,193.39	305.45	6,191.76	0.00	Magn MWD		0.00	6,200. 92	0.00	N
15,232.6	89.73	359.71	9,076.64	6,242.56	305.21	6,240.94	2.00	Magn MWD		2.00	6,250. 02	0.00	N
15,271.48	90.51	359.71	9,076.56	6,281.44	305.01	6,279.82	2.00	Magn MWD		2.00	6,288. 64	0.00	N
15,332.6	90.51	359.71	9,076.01	6,342.56	304.71	6,340.94	0.00	Magn MWD		0.00	6,349. 88	0.00	N
15,432.6	90.51	359.71	9,075.12	6,442.56	304.20	6,440.93	0.00	Magn MWD		0.00	6,449. 73	0.00	N
15,532.6	90.51	359.71	9,074.23	6,542.55	303.70	6,540.93	0.00	Magn MWD		0.00	6,549. 60	0.00	N
15,632.6	90.51	359.71	9,073.34	6,642.55	303.20	6,640.93	0.00	Magn MWD		0.00	6,649. 46	0.00	N
15,732.6	90.51	359.71	9,072.45	6,742.54	302.70	6,740.92	0.00	Magn MWD		0.00	6,749. 33	0.00	N
15,832.6	90.51	359.71	9,071.55	6,842.53	302.20	6,840.92	0.00	Magn MWD		0.00	6,849. 20	0.00	N
15,932.6	90.51	359.71	9,070.66	6,942.53	301.70	6,940.91	0.00	Magn MWD		0.00	6,949. 08	0.00	N
16,032.6	90.51	359.71	9,069.77	7,042.52	301.20	7,040.91	0.00	Magn MWD		0.00	7,048. 96	0.00	N
16,132.6	90.51	359.71	9,068.88	7,142.52	300.70	7,140.91	0.00	Magn MWD		0.00	7,148. 85	0.00	N
16,232.6	90.51	359.71	9,067.99	7,242.51	300.20	7,240.90	0.00	Magn MWD		0.00	7,248. 73	0.00	N
16,332.6	90.51	359.71	9,067.10	7,342.51	299.70	7,340.90	0.00	Magn MWD		0.00	7,348. 62	0.00	N
16,432.6	90.51	359.71	9,066.20	7,442.50	299.20	7,440.89	0.00	Magn MWD		0.00	7,448. 51	0.00	N



Directional Survey

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft)
			Water Depth (ft)

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Build (°/100ft)	Depart (ft)	Turn (°/100ft)	Unuse d data
16,532.6	90.51	359.71	9,065.31	7,542.50	298.69	7,540.89	0.00	Magn MWD		0.00	7,548. 41	0.00	N
16,632.6	90.51	359.71	9,064.42	7,642.49	298.19	7,640.89	0.00	Magn MWD		0.00	7,648. 31	0.00	N
16,732.6	90.51	359.71	9,063.53	7,742.49	297.69	7,740.88	0.00	Magn MWD		0.00	7,748. 21	0.00	N
16,832.6	90.51	359.71	9,062.64	7,842.48	297.19	7,840.88	0.00	Magn MWD		0.00	7,848. 11	0.00	N
16,932.6	90.51	359.71	9,061.74	7,942.48	296.69	7,940.87	0.00	Magn MWD		0.00	7,948. 02	0.00	N
17,032.6	90.51	359.71	9,060.85	8,042.47	296.19	8,040.87	0.00	Magn MWD		0.00	8,047. 92	0.00	N
17,132.6	90.51	359.71	9,059.96	8,142.47	295.69	8,140.87	0.00	Magn MWD		0.00	8,147. 83	0.00	N
17,232.6	90.51	359.71	9,059.07	8,242.46	295.19	8,240.86	0.00	Magn MWD		0.00	8,247. 75	0.00	N
17,332.6	90.51	359.71	9,058.18	8,342.46	294.69	8,340.86	0.00	Magn MWD		0.00	8,347. 66	0.00	N
17,432.6	90.51	359.71	9,057.28	8,442.45	294.19	8,440.85	0.00	Magn MWD		0.00	8,447. 57	0.00	N
17,532.6	90.51	359.71	9,056.39	8,542.45	293.69	8,540.85	0.00	Magn MWD		0.00	8,547. 49	0.00	N
17,632.6	90.51	359.71	9,055.50	8,642.44	293.18	8,640.85	0.00	Magn MWD		0.00	8,647. 41	0.00	N
17,732.6	90.51	359.71	9,054.61	8,742.44	292.68	8,740.84	0.00	Magn MWD		0.00	8,747. 33	0.00	N
17,832.6	90.51	359.71	9,053.72	8,842.43	292.18	8,840.84	0.00	Magn MWD		0.00	8,847. 26	0.00	N
17,932.6	90.51	359.71	9,052.83	8,942.42	291.68	8,940.83	0.00	Magn MWD		0.00	8,947. 18	0.00	N
18,032.6	90.51	359.71	9,051.93	9,042.42	291.18	9,040.83	0.00	Magn MWD		0.00	9,047. 11	0.00	N
18,132.6	90.51	359.71	9,051.04	9,142.41	290.68	9,140.83	0.00	Magn MWD		0.00	9,147. 03	0.00	N
18,232.6	90.51	359.71	9,050.15	9,242.41	290.18	9,240.82	0.00	Magn MWD		0.00	9,248. 96	0.00	N
18,332.6	90.51	359.71	9,049.26	9,342.40	289.68	9,340.82	0.00	Magn MWD		0.00	9,348. 89	0.00	N
18,432.6	90.51	359.71	9,048.37	9,442.40	289.18	9,440.81	0.00	Magn MWD		0.00	9,448. 83	0.00	N
18,532.6	90.51	359.71	9,047.47	9,542.39	288.68	9,540.81	0.00	Magn MWD		0.00	9,548. 76	0.00	N
18,632.6	90.51	359.71	9,046.58	9,642.39	288.18	9,640.81	0.00	Magn MWD		0.00	9,648. 69	0.00	N
18,732.6	90.51	359.71	9,045.69	9,742.38	287.68	9,740.80	0.00	Magn MWD		0.00	9,748. 63	0.00	N
18,832.6	90.51	359.71	9,044.80	9,842.38	287.17	9,840.80	0.00	Magn MWD		0.00	9,848. 57	0.00	N
18,932.6	90.51	359.71	9,043.91	9,942.37	286.67	9,940.79	0.00	Magn MWD		0.00	9,948. 50	0.00	N
19,032.6	90.51	359.71	9,043.02	10,042.37	286.17	10,040.79	0.00	Magn MWD		0.00	10,048. 44	0.00	N
19,116	90.51	359.71	9,042.27	10,125.76	285.75	10,124.19	0.00	Magn MWD		0.00	10,128. 79	0.00	N
19,132.6	90.51	359.71	9,042.12	10,142.36	285.67	10,140.79	0.00	Magn MWD		0.00	10,148. 38	0.00	N
19,232.6	90.51	359.71	9,041.23	10,242.36	285.17	10,240.78	0.00	Magn MWD		0.00	10,248. 33	0.00	N
19,256.64	90.51	359.71	9,041.02	10,266.40	285.08	10,264.82	0.00	Magn MWD	Baker Hughes	0.00	10,270. 35	0.00	N



Casing Summary

Well Name SALADO DRAW WE 24 FED P23 003H		Lease	Field Name JENNINGS	Business Unit Mid-Continent		
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation			Mud Line Elevation (ft)	Water Depth (ft)

Surface, Planned?-N, 745ftKB

Set Depth (MD) (ftKB) 745		Set Tension (kips)		String Nominal OD (in) 13 3/8		String Min Drift (in)		Centralizers 7		Scratchers	
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
1	Wellhead	13 3/8	12.615	54.50	J-55	ST&C	35	38	2.90		
1	Casing Pup Joint	13 3/8	12.615	54.50	J-55	ST&C	38	42	4.13		
16	Casing Joint	13 3/8	12.615	54.50	J-55	ST&C	42	699	656.23		1,130.0
1	Float Collar	13 3/8	12.615	54.50	J-55	ST&C	699	700	1.38		
1	Casing Joint	13 3/8	12.615	54.50	J-55	ST&C	700	743	42.91		1,130.0
1	Float Shoe	13 3/8	12.615	54.50	J-55	ST&C	743	745	2.06		

Intermediate Casing 1, Planned?-N, 4,590ftKB

Set Depth (MD) (ftKB) 4,590		Set Tension (kips)		String Nominal OD (in) 9 5/8		String Min Drift (in) 8.688		Centralizers 31		Scratchers	
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
1	Hanger	9 5/8	8.835	40.00	HCK-55		35	37	1.61	3,950.0	4,230.0
1	Casing Pup Joint	9 5/8	8.835	40.00	HCK-55		37	41	4.18	3,950.0	4,230.0
10	Casing Joint	9 5/8	8.835	40.00	HCK-55		41	4,503	4,462.29	3,950.0	4,230.0
8											
1	Float Collar	9 5/8	8.835				4,503	4,505	1.49		
2	Casing Joint	9 5/8	8.835	40.00	HCK-55		4,505	4,588	83.45	3,950.0	4,230.0
1	Float Shoe	9 5/8	8.835	40.00			4,588	4,590	1.62	3,950.0	4,230.0

Production Casing, Planned?-N, 19,245ftKB

Set Depth (MD) (ftKB) 19,245		Set Tension (kips)		String Nominal OD (in) 5 1/2		String Min Drift (in)		Centralizers 158		Scratchers	
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
1	Hanger	5 1/2	4.800	20.00	P-110	TXP-BTC	35	36	1.26		
1	Hanger Pup	5 1/2	4.800	20.00	P-110	TXP-BTC	36	40	4.24		
19	Casing Joint	5 1/2	4.800	20.00	P-110	TXP-BTC	40	8,486	8,445.43		
2											
1	Marker Joint	5 1/2	4.800	20.00	P-110	TXP-BTC	8,486	8,496	9.94		
24	Casing Joint	5 1/2	4.800	20.00	P-110	TXP-BTC	8,496	19,079	10,583.68		
0											
1	Pup Jt	5 1/2	4.800	20.00	P-110	TXP-BTC	19,079	19,089	9.87		
1	RSI	5 1/2	4.800	20.00	P-110	TXP-BTC	19,089	19,096	6.66		
1	Pup Jt	5 1/2	4.800	20.00	P-110	TXP-BTC	19,096	19,106	9.85		
1	Casing Joint	5 1/2	4.800	20.00	P-110	TXP-BTC	19,106	19,150	44.38		
1	Pup Jt	5 1/2	4.800	20.00	P-110	TXP-BTC	19,150	19,160	9.88		
1	Land Collar	5 1/2	4.800	20.00	P-110	TXP-BTC	19,160	19,161	1.41		
1	Casing Joint	5 1/2	4.800	20.00	P-110	TXP-BTC	19,161	19,201	39.94		
1	Float Collar	5 1/2	4.800	20.00	P-110	TXP-BTC	19,201	19,203	1.28		
1	Casing Joint	5 1/2	4.800	20.00	P-110	TXP-BTC	19,203	19,242	39.77		
1	Float Shoe	5 1/2	4.800	20.00	P-110	TXP-BTC	19,242	19,245	2.70		



Cement Summary

Surface Casing Cement

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Original Hole			
Wellbore Name Original Hole	Directional Type Horizontal	Min Kick Off Depth (ftKB)	Vertical Section Direction (°) 359.71
Hole Size (in)	Act Top (ftKB)	Act Btm (ftKB)	
17 1/2	32.6	755.0	
12 1/4	755.0	4,600.0	
8 3/4	4,600.0	19,261.0	

Multi-bowl, FMC on 8/20/2016 04:00

Sub-Type Multi-bowl	Install Date 8/20/2016				
Des	Make	Model	WP (psi)	Service	SN

Surface, Planned?-N, 745ftKB

Casing Description Surface	Wellbore Original Hole	Run Date 8/20/2016	Set Depth (MD) (ftKB) 745	Stick Up (ftKB) -35.4	Set Tension (kips)
Centralizers 7	Scratchers				

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	Wellhead	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	2.90	35	38
1	Casing Pup Joint	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	4.13	38	42
16	Casing Joint	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	656.23	42	699
1	Float Collar	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	1.38	699	700
1	Casing Joint	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	42.91	700	743
1	Float Shoe	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	2.06	743	745

Intermediate Casing 1, Planned?-N, 4,590ftKB

Casing Description Intermediate Casing 1	Wellbore Original Hole	Run Date 9/4/2016	Set Depth (MD) (ftKB) 4,590	Stick Up (ftKB) -35.4	Set Tension (kips)
Centralizers 31	Scratchers				

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	Hanger	9 5/8	8.835	40.00	HCK-55			1.61	35	37
1	Casing Pup Joint	9 5/8	8.835	40.00	HCK-55			4.18	37	41
108	Casing Joint	9 5/8	8.835	40.00	HCK-55			4,462.29	41	4,503
1	Float Collar	9 5/8	8.835					1.49	4,503	4,505
2	Casing Joint	9 5/8	8.835	40.00	HCK-55			83.45	4,505	4,588
1	Float Shoe	9 5/8	8.835	40.00				1.62	4,588	4,590

Production Casing, Planned?-N, 19,245ftKB

Casing Description Production Casing	Wellbore Original Hole	Run Date 10/17/2016	Set Depth (MD) (ftKB) 19,245	Stick Up (ftKB) -34.7	Set Tension (kips)
Centralizers 158	Scratchers				

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	Hanger	5 1/2	4.800	20.00	P-110		TXP-BTC	1.26	35	36
1	Hanger Pup	5 1/2	4.800	20.00	P-110		TXP-BTC	4.24	36	40
192	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	8,445.43	40	8,486
1	Marker Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	9.94	8,486	8,496
240	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	10,583.68	8,496	19,079
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.87	19,079	19,089
1	RSI	5 1/2	4.800	20.00	P-110		TXP-BTC	6.66	19,089	19,096
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.85	19,096	19,106
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	44.38	19,106	19,150
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.88	19,150	19,160



Cement Summary

Surface Casing Cement

Well Name SALADO DRAW WE 24 FED P23 003H		Lease	Field Name JENNINGS	Business Unit Mid-Continent	
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation		Mud Line Elevation (ft)	Water Depth (ft)

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	Land Collar	5 1/2	4.800	20.00	P-110		TXP-BTC	1.41	19,160	19,161
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	39.94	19,161	19,201
1	Float Collar	5 1/2	4.800	20.00	P-110		TXP-BTC	1.28	19,201	19,203
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	39.77	19,203	19,242
1	Float Shoe	5 1/2	4.800	20.00	P-110		TXP-BTC	2.70	19,242	19,245

Surface Casing Cement, Casing, 8/20/2016 09:30

Cementing Start Date 8/20/2016		Cementing End Date 8/20/2016		Wellbore Original Hole
Evaluation Method Returns to Surface		Cement Evaluation Results 85 bbls of cement to surface.		
Comment				

1, 32.6-745.0ftKB

Top Depth (ftKB) 32.6	Bottom Depth (ftKB) 745.0	Full Return? N	Vol Cement Ret (bbl) 85.0	Top Plug? Y	Bottom Plug? N
Initial Pump Rate (bbl/min) 4.8	Final Pump Rate (bbl/min) 2.3	Avg Pump Rate (bbl/min) 4.8		Final Pump Pressure (psi) 260.0	Plug Bump Pressure (psi) 860.0
Pipe Reciprocated? N	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)		Pipe Rotated? N	Pipe RPM (rpm)
Depth Tagged (MD) (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)		Drill Out Diameter (in)	Drill Out Date

Preflush

Fluid Type Preflush	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl) 40.0
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft ³ /sack)	Fluid Mix Ratio (gal/sack)
Free Water (%)	Density (lb/gal) 8.40	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)

Cement Fluid Additives

Add	Type	Conc

Tail

Fluid Type Tail	Fluid Description	Quantity (sacks) 844	Class C	Volume Pumped (bbl) 200.0
Estimated Top (ftKB) 35.4	Estimated Bottom Depth (ftKB) 750.0	Percent Excess Pumped (%) 125.0	Yield (ft ³ /sack) 1.33	Fluid Mix Ratio (gal/sack) 6.36
Free Water (%)	Density (lb/gal) 14.80	Zero Gel Time (min)	Thickening Time (hr) 4.13	1st Compressive Strength (psi) 93.0

Cement Fluid Additives

Add	Type	Conc

Displacement

Fluid Type Displacement	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl) 108.0
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft ³ /sack)	Fluid Mix Ratio (gal/sack)
Free Water (%)	Density (lb/gal) 10.00	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)

Cement Fluid Additives

Add	Type	Conc



Cement Summary

Intermediate Casing Cement

Well Name SALADO DRAW WE 24.FED P23 003H		Lease	Field Name JENNINGS	Business Unit Mid-Continent	
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation		Mud Line Elevation (ft)	Water Depth (ft)

Original Hole

Wellbore Name Original Hole	Directional Type Horizontal	Min Kick Off Depth (ftKB)	Vertical Section Direction (*) 359.71
Hole Size (in)	Act Top (ftKB)	Act Btm (ftKB)	
17 1/2	32.6	755.0	
12 1/4	755.0	4,600.0	
8 3/4	4,600.0	19,261.0	

Multi-bowl, FMC on 8/20/2016 04:00

Sub-Type Multi-bowl			Install Date 8/20/2016		
Des	Make	Model	WP (psi)	Service	SN

Surface, Planned?-N, 745ftKB

Casing Description Surface	Wellbore Original Hole	Run Date 8/20/2016	Set Depth (MD) (ftKB) 745	Stick Up (ftKB) -35.4	Set Tension (kips)
Centralizers 7	Scratchers				

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	Wellhead	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	2.90	35	38
1	Casing Pup Joint	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	4.13	38	42
16	Casing Joint	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	656.23	42	699
1	Float Collar	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	1.38	699	700
1	Casing Joint	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	42.91	700	743
1	Float Shoe	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	2.06	743	745

Intermediate Casing 1, Planned?-N, 4,590ftKB

Casing Description Intermediate Casing 1	Wellbore Original Hole	Run Date 9/4/2016	Set Depth (MD) (ftKB) 4,590	Stick Up (ftKB) -35.4	Set Tension (kips)
Centralizers 31	Scratchers				

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	Hanger	9 5/8	8.835	40.00	HCK-55			1.61	35	37
1	Casing Pup Joint	9 5/8	8.835	40.00	HCK-55			4.18	37	41
108	Casing Joint	9 5/8	8.835	40.00	HCK-55			4,462.29	41	4,503
1	Float Collar	9 5/8	8.835					1.49	4,503	4,505
2	Casing Joint	9 5/8	8.835	40.00	HCK-55			83.45	4,505	4,588
1	Float Shoe	9 5/8	8.835	40.00				1.62	4,588	4,590

Production Casing, Planned?-N, 19,245ftKB

Casing Description Production Casing	Wellbore Original Hole	Run Date 10/17/2016	Set Depth (MD) (ftKB) 19,245	Stick Up (ftKB) -34.7	Set Tension (kips)
Centralizers 158	Scratchers				

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	Hanger	5 1/2	4.800	20.00	P-110		TXP-BTC	1.26	35	36
1	Hanger Pup	5 1/2	4.800	20.00	P-110		TXP-BTC	4.24	36	40
192	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	8,445.43	40	8,486
1	Marker Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	9.94	8,486	8,496
240	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	10,583.68	8,496	19,079
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.87	19,079	19,089
1	RSI	5 1/2	4.800	20.00	P-110		TXP-BTC	6.66	19,089	19,096
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.85	19,096	19,106
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	44.38	19,106	19,150
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.88	19,150	19,160



Cement Summary

Intermediate Casing Cement

Well Name SALADO DRAW WE 24 FED P23 003H		Lease	Field Name JENNINGS	Business Unit Mid-Continent	
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation		Mud Line Elevation (ft)	Water Depth (ft)

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	Land Collar	5 1/2	4.800	20.00	P-110		TXP-BTC	1.41	19,160	19,161
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	39.94	19,161	19,201
1	Float Collar	5 1/2	4.800	20.00	P-110		TXP-BTC	1.28	19,201	19,203
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	39.77	19,203	19,242
1	Float Shoe	5 1/2	4.800	20.00	P-110		TXP-BTC	2.70	19,242	19,245

Intermediate Casing Cement, Casing, 9/4/2016 15:12

Cementing Start Date 9/4/2016	Cementing End Date 9/4/2016	Wellbore Original Hole
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Evaluation Method Returns to Surface	Cement Evaluation Results 197 bbls of cement to surface
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Comment

1, 32.6-4,590.0ftKB

Top Depth (ftKB) 32.6	Bottom Depth (ftKB) 4,590.0	Full Return? Y	Vol Cement Ret (bbl) 197.0	Top Plug? Y	Bottom Plug? N
Initial Pump Rate (bbl/min) 6.6	Final Pump Rate (bbl/min) 3	Avg Pump Rate (bbl/min) 6.6	Final Pump Pressure (psi) 1,175.0	Plug Bump Pressure (psi) 1,631.0	
Pipe Reciprocated? N	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated? N	Pipe RPM (rpm)	
Depth Tagged (MD) (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date	

Spacer

Fluid Type Spacer	Fluid Description 40 bbl dyed spacer	Quantity (sacks)	Class	Volume Pumped (bbl) 40.0
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
Free Water (%)	Density (lb/gal) 8.33	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)

Cement Fluid Additives

Add	Type	Conc

Lead

Fluid Type Lead	Fluid Description 3% BWOB D020 + 5% BWOB D044 + 0.2% BWOB D046 + 10% BWOB D154	Quantity (sacks) 1,062	Class C	Volume Pumped (bbl) 456.0
Estimated Top (ftKB) 35.4	Estimated Bottom Depth (ftKB) 3,600.0	Percent Excess Pumped (%) 150.0	Yield (ft³/sack) 2.41	Fluid Mix Ratio (gal/sack) 13.86
Free Water (%)	Density (lb/gal) 11.90	Zero Gel Time (min)	Thickening Time (hr) 7.00	1st Compressive Strength (psi)

Cement Fluid Additives

Add	Type	Conc

Tail

Fluid Type Tail	Fluid Description 0.01 gal/sk D177 Spike	Quantity (sacks) 447	Class C	Volume Pumped (bbl) 106.0
Estimated Top (ftKB) 3,600.0	Estimated Bottom Depth (ftKB) 4,590.0	Percent Excess Pumped (%) 85.0	Yield (ft³/sack) 1.33	Fluid Mix Ratio (gal/sack) 6.37
Free Water (%)	Density (lb/gal) 14.80	Zero Gel Time (min)	Thickening Time (hr) 3.50	1st Compressive Strength (psi)

Cement Fluid Additives

Add	Type	Conc

Displacement

Fluid Type Displacement	Fluid Description Oil Based Mud	Quantity (sacks)	Class	Volume Pumped (bbl) 334.0
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Fluid Mix Ratio (gal/sack)
Free Water (%)	Density (lb/gal) 9.00	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)

Cement Summary

Intermediate Casing Cement

Well Name SALADO DRAW WE 24 FED P23 003H		Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation		Mud Line Elevation (ft)
				Water Depth (ft)

Cement Fluid Additives

Add	Type	Conc



Cement Summary

Production Casing Cement

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Original Hole			
Wellbore Name Original Hole	Directional Type Horizontal	Min Kick Off Depth (ftKB)	Vertical Section Direction (°) 359.71
Hole Size (in)	Act Top (ftKB)	Act Btm (ftKB)	
17 1/2	32.6	755.0	
12 1/4	755.0	4,600.0	
8 3/4	4,600.0	19,261.0	

Multi-bowl, FMC on 8/20/2016 04:00

Sub-Type Multi-bowl			Install Date 8/20/2016		
Des	Make	Model	WP (psi)	Service	SN

Surface, Planned?-N, 745ftKB

Casing Description Surface		Wellbore Original Hole	Run Date 8/20/2016	Set Depth (MD) (ftKB) 745	Stick Up (ftKB) -35.4	Set Tension (kips)				
Centralizers 7				Scratchers						
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	Wellhead	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	2.90	35	38
1	Casing Pup Joint	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	4.13	38	42
16	Casing Joint	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	656.23	42	699
1	Float Collar	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	1.38	699	700
1	Casing Joint	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	42.91	700	743
1	Float Shoe	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	2.06	743	745

Intermediate Casing 1, Planned?-N, 4,590ftKB

Casing Description Intermediate Casing 1		Wellbore Original Hole		Run Date 9/4/2016		Set Depth (MD) (ftKB) 4,590		Stick Up (ftKB) -35.4		Set Tension (kips)	
Centralizers 31						Scratchers					
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	
1	Hanger	9 5/8	8.835	40.00	HCK-55			1.61	35	37	
1	Casing Pup Joint	9 5/8	8.835	40.00	HCK-55			4.18	37	41	
108	Casing Joint	9 5/8	8.835	40.00	HCK-55			4,462.29	41	4,503	
1	Float Collar	9 5/8	8.835					1.49	4,503	4,505	
2	Casing Joint	9 5/8	8.835	40.00	HCK-55			83.45	4,505	4,588	
1	Float Shoe	9 5/8	8.835	40.00				1.62	4,588	4,590	

Production Casing, Planned?-N, 19,245ftKB

Casing Description Production Casing		Wellbore Original Hole	Run Date 10/17/2016		Set Depth (MD) (ftKB) 19,245		Stick Up (ftKB) -34.7		Set Tension (kips)		
Centralizers 158					Scratchers						
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	
1	Hanger	5 1/2	4.800	20.00	P-110		TXP-BTC	1.26	35	36	
1	Hanger Pup	5 1/2	4.800	20.00	P-110		TXP-BTC	4.24	36	40	
192	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	8,445.43	40	8,486	
1	Marker Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	9.94	8,486	8,496	
240	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	10,583.68	8,496	19,079	
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.87	19,079	19,089	
1	RSI	5 1/2	4.800	20.00	P-110		TXP-BTC	6.66	19,089	19,096	
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.85	19,096	19,106	
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	44.38	19,106	19,150	
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.88	19,150	19,160	



Cement Summary

Production Casing Cement

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	Land Collar	5 1/2	4.800	20.00	P-110		TXP-BTC	1.41	19,160	19,161
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	39.94	19,161	19,201
1	Float Collar	5 1/2	4.800	20.00	P-110		TXP-BTC	1.28	19,201	19,203
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	39.77	19,203	19,242
1	Float Shoe	5 1/2	4.800	20.00	P-110		TXP-BTC	2.70	19,242	19,245

Production Casing Cement, Casing, 10/17/2016 18:35

Cementing Start Date 10/17/2016	Cementing End Date 10/17/2016	Wellbore Original Hole
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Evaluation Method Returns to Surface	Cement Evaluation Results 40 bbls of spacer to surface
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Comment

1, 3,550.0-19,245.0ftKB

Top Depth (ftKB) 3,550.0	Bottom Depth (ftKB) 19,245.0	Full Return? N	Vol Cement Ret (bbl) 0.0	Top Plug? Y	Bottom Plug? Y
Initial Pump Rate (bbl/min) 6.7	Final Pump Rate (bbl/min) 3.5	Avg Pump Rate (bbl/min) 6.7	Final Pump Pressure (psi) 1,450.0	Plug Bump Pressure (psi) 1,450.0	
Pipe Reciprocated? N	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated? N	Pipe RPM (rpm)	
Depth Tagged (MD) (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date	

Spacer

Fluid Type Spacer	Fluid Description	Quantity (sacks) 50.0	Class H	Volume Pumped (bbl) 50.0
Estimated Top (ftKB) 3,473.0	Estimated Bottom Depth (ftKB) 3,495.0	Percent Excess Pumped (%) 50.0	Yield (ft³/sack) 2.72	Fluid Mix Ratio (gal/sack) 15.89
Free Water (%) 0.00	Density (lb/gal) 11.50	Zero Gel Time (min) 7.83	Thickening Time (hr) 5.18	1st Compressive Strength (psi) 50.0

Cement Fluid Additives

Add	Type	Conc

Lead

Fluid Type Lead	Fluid Description	Quantity (sacks) 623	Class H	Volume Pumped (bbl) 303.0
Estimated Top (ftKB) 3,495.0	Estimated Bottom Depth (ftKB) 8,295.0	Percent Excess Pumped (%) 50.0	Yield (ft³/sack) 2.72	Fluid Mix Ratio (gal/sack) 15.89
Free Water (%) 0.00	Density (lb/gal) 11.50	Zero Gel Time (min) 7.83	Thickening Time (hr) 5.18	1st Compressive Strength (psi) 50.0

Cement Fluid Additives

Add	Type	Conc

Lead

Fluid Type Lead	Fluid Description	Quantity (sacks) 2,121	Class H	Volume Pumped (bbl) 604.0
Estimated Top (ftKB) 8,295.0	Estimated Bottom Depth (ftKB) 18,245.0	Percent Excess Pumped (%) 35.0	Yield (ft³/sack) 1.62	Fluid Mix Ratio (gal/sack) 8.48
Free Water (%) 0.00	Density (lb/gal) 12.50	Zero Gel Time (min) 5.18	Thickening Time (hr) 5.18	1st Compressive Strength (psi) 50.0

Cement Fluid Additives

Add	Type	Conc

Tail

Fluid Type Tail	Fluid Description	Quantity (sacks) 121	Class H	Volume Pumped (bbl) 47.0
Estimated Top (ftKB) 18,245.0	Estimated Bottom Depth (ftKB) 19,245.0	Percent Excess Pumped (%) 0.0	Yield (ft³/sack) 2.18	Fluid Mix Ratio (gal/sack) 9.56
Free Water (%) 0.00	Density (lb/gal) 15.00	Zero Gel Time (min) 3.45	Thickening Time (hr) 3.45	1st Compressive Strength (psi) 50.0

Cement Fluid Additives

Add	Type	Conc



Cement Summary

Production Casing Cement

Well Name SALADO DRAW WE 24 FED P23 003H		Lease	Field Name JENNINGS	Business Unit Mid-Continent	
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation		Mud Line Elevation (ft)	Water Depth (ft)

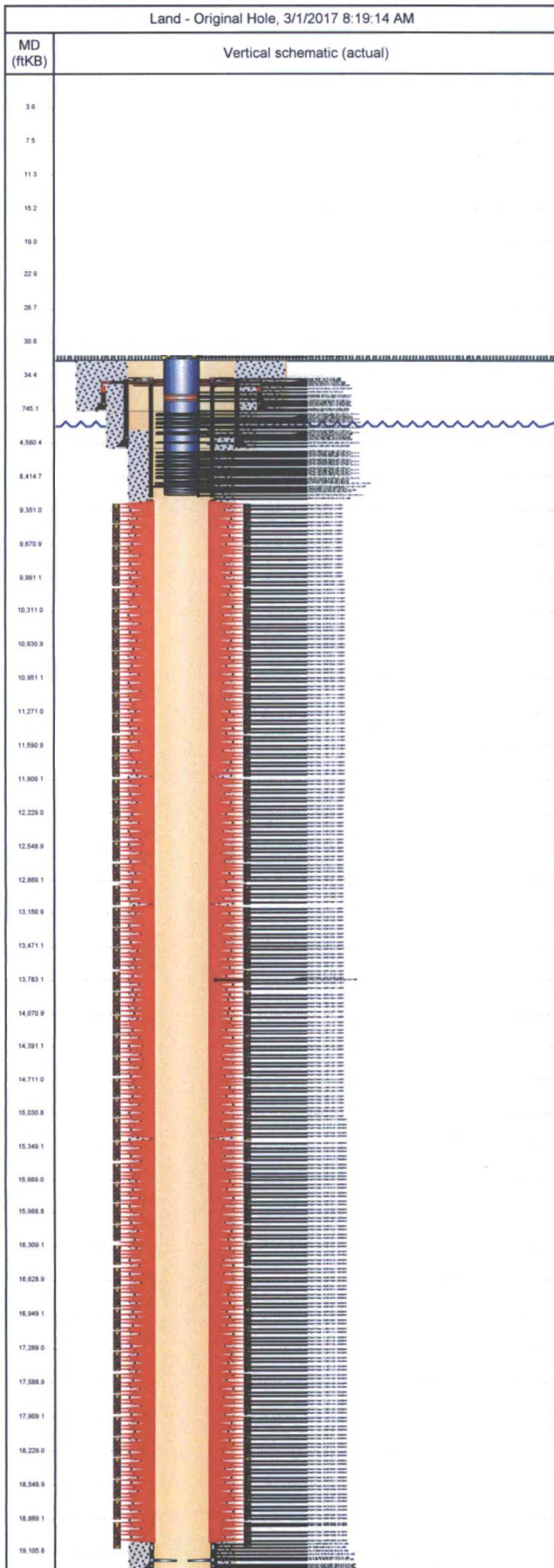
Displacement				
Fluid Type Displacement	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl) 425.0
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft ³ /sack)	Fluid Mix Ratio (gal/sack)
Free Water (%)	Density (lb/gal) 8.33	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)

Cement Fluid Additives		
Add	Type	Conc



Wellbore Schematic

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
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Job Details						
Job Category			Start Date		Rig/Unit End Date	
Completion			12/10/2016		12/17/2016	
Completion			12/17/2016		1/17/2017	
Completion			1/18/2017		1/22/2017	
Completion			2/9/2017		2/10/2017	
Casing Strings						
Csg Des	OD (in)	Wt/Len (lb/ft)	Grade	Top Thread	Set Depth (MD) (ftKB)	
Surface	13 3/8	54.50	J-55	ST&C	745	
Intermediate Casing 1	9 5/8	40.00	HCK-55		4,590	
Production Casing	5 1/2	20.00	P-110	TXP-BTC	19,245	
Tubing Strings						
Tubing - Production set at 8,479.4ftKB on 2/6/2017 17:00						
Tubing Description			Run Date		String Length (ft)	Set Depth (MD) (ftKB)
Tubing - Production			2/6/2017		8,447.43	8,479.4
Item Des	Jts	OD (in)	Wt (lb/ft)	Grade	Len (ft)	Btm (ftKB)
Tubing Hanger	1	2 7/8			0.50	32.5
TUBING	1	2 7/8	6.50	L-80	31.52	64.0
TUBING SUB- 10'	1	2 7/8	6.50	L-80	10.15	74.2
TUBING SUB- 10'	1	2 7/8	6.50	L-80	9.90	84.1
TUBING SUB- 8'	1	2 7/8	6.50	L-80	8.15	92.2
TUBING	55	2 7/8	6.50	L-80	1,714.81	1,807.0
GAS LIFT VALVE #13	1	4.335			4.10	1,811.1
TUBING	18	2 7/8	6.50	L-80	560.98	2,372.1
GAS LIFT VALVE #12	1	4.335			4.10	2,376.2
TUBING	18	2 7/8	6.50	L-80	560.75	2,937.0
GAS LIFT VALVE #11	1	4.335			4.10	2,941.1
TUBING	17	2 7/8	6.50	L-80	530.52	3,471.6
GAS LIFT VALVE #10	1	4.335			4.10	3,475.7
TUBING	18	2 7/8	6.50	L-80	563.89	4,039.6
GAS LIFT VALVE #9	1	4.335			4.10	4,043.7
TUBING	17	2 7/8	6.50	L-80	532.53	4,576.2
GAS LIFT VALVE #8	1	4.335			4.10	4,580.3
TUBING	18	2 7/8	6.50	L-80	547.95	5,128.3
GAS LIFT VALVE #7	1	4.335			4.10	5,132.4
TUBING	18	2 7/8	6.50	L-80	562.04	5,694.4
GAS LIFT VALVE #6	1	4.335			4.10	5,698.5
TUBING	17	2 7/8	6.50	L-80	526.78	6,225.3
GAS LIFT VALVE #5	1	4.335			4.10	6,229.4
TUBING	18	2 7/8	6.50	L-80	559.31	6,788.7
GAS LIFT VALVE #4	1	4.335			4.10	6,792.8
TUBING	17	2 7/8	6.50	L-80	525.59	7,318.4
GAS LIFT VALVE #3	1	4.335			4.10	7,322.5
TUBING	18	2.785	6.50	L-80	557.70	7,880.2
GAS LIFT VALVE #2	1	4.335			4.10	7,884.3
TUBING	17	2.785	6.50	L-80	530.28	8,414.6
GAS LIFT VALVE #1	1	4.335			4.10	8,418.7
TUBING	1	2 7/8	6.50	L-80	31.32	8,450.0
Jet Pump BHA	1	2 7/8			6.30	8,456.3
ON-OFF TOOL, 2.313 X PROFILE	1	4 1/2			1.50	8,457.8
450 WL HORNET PACKER	1	4 1/2			7.75	8,465.5
Tubing	1	2 7/8	6.50	L-80	6.16	8,471.7
2.313 XN Nipple	1	2 7/8			1.15	8,472.8
Tubing Sub	1	2 7/8	6.50	L-80	6.16	8,479.0
Tubing PUMP OUT Plug	1	2 7/8			0.44	8,479.4
Perforations						
Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone	
1/17/2017	9,309.0	9,311.0	6.0	8	Avalon, Original Hole	
1/17/2017	9,349.0	9,351.0	6.0	8	Avalon, Original Hole	



Wellbore Schematic

Well Name
SALADO DRAW WE 24 FED P23 003H

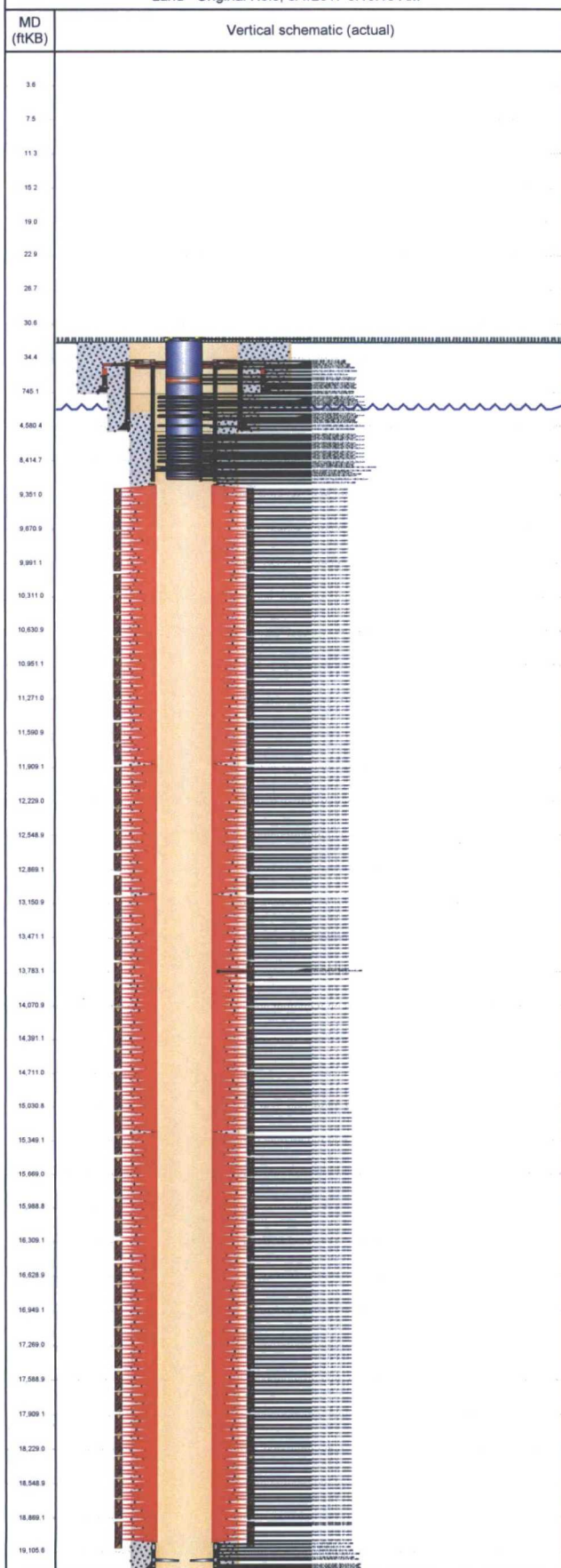
Lease

Field Name
JENNINGS

Business Unit
Mid-Continent

Land - Original Hole, 3/1/2017 8:19:15 AM

Perforations

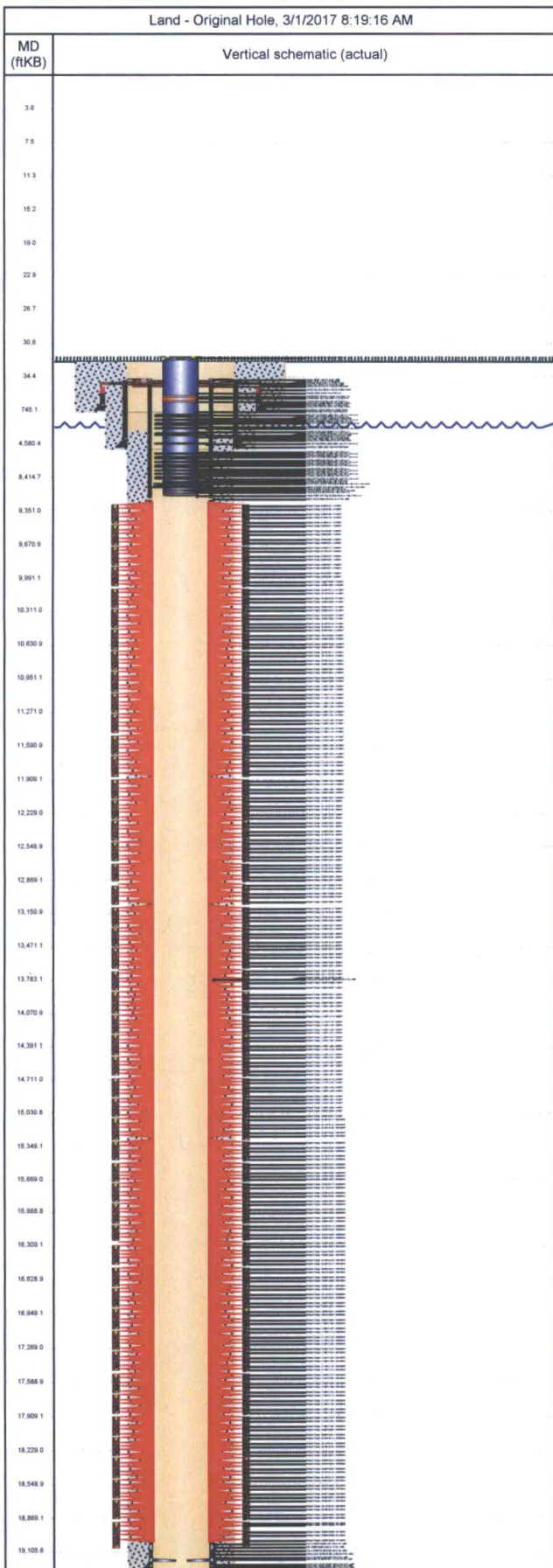


Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
1/17/2017	9,389.0	9,391.0	6.0	8	Avalon, Original Hole
1/17/2017	9,429.0	9,431.0	6.0	8	Avalon, Original Hole
1/17/2017	9,469.0	9,471.0	6.0	8	Avalon, Original Hole
1/16/2017	9,509.0	9,511.0	6.0	8	Avalon, Original Hole
1/16/2017	9,549.0	9,551.0	6.0	8	Avalon, Original Hole
1/16/2017	9,589.0	9,591.0	6.0	8	Avalon, Original Hole
1/16/2017	9,629.0	9,631.0	6.0	8	Avalon, Original Hole
1/16/2017	9,669.0	9,671.0	6.0	8	Avalon, Original Hole
1/16/2017	9,709.0	9,711.0	6.0	8	Avalon, Original Hole
1/16/2017	9,749.0	9,751.0	6.0	8	Avalon, Original Hole
1/16/2017	9,789.0	9,791.0	6.0	8	Avalon, Original Hole
1/16/2017	9,829.0	9,831.0	6.0	8	Avalon, Original Hole
1/16/2017	9,869.0	9,871.0	6.0	8	Avalon, Original Hole
1/15/2017	9,909.0	9,911.0	6.0	8	Avalon, Original Hole
1/15/2017	9,949.0	9,951.0	6.0	8	Avalon, Original Hole
1/15/2017	9,989.0	9,991.0	6.0	8	Avalon, Original Hole
1/15/2017	10,029.0	10,031.0	6.0	8	Avalon, Original Hole
1/15/2017	10,069.0	10,071.0	6.0	8	Avalon, Original Hole
1/14/2017	10,109.0	10,111.0	6.0	8	Avalon, Original Hole
1/14/2017	10,149.0	10,151.0	6.0	8	Avalon, Original Hole
1/14/2017	10,189.0	10,191.0	6.0	8	Avalon, Original Hole
1/14/2017	10,229.0	10,231.0	6.0	8	Avalon, Original Hole
1/14/2017	10,269.0	10,271.0	6.0	8	Avalon, Original Hole
1/14/2017	10,309.0	10,311.0	6.0	8	Avalon, Original Hole
1/14/2017	10,349.0	10,351.0	6.0	8	Avalon, Original Hole
1/14/2017	10,389.0	10,391.0	6.0	8	Avalon, Original Hole
1/14/2017	10,429.0	10,431.0	6.0	8	Avalon, Original Hole
1/14/2017	10,469.0	10,471.0	6.0	8	Avalon, Original Hole
1/13/2017	10,509.0	10,511.0	6.0	8	Avalon, Original Hole
1/13/2017	10,549.0	10,551.0	6.0	8	Avalon, Original Hole
1/13/2017	10,589.0	10,591.0	6.0	8	Avalon, Original Hole
1/13/2017	10,629.0	10,631.0	6.0	8	Avalon, Original Hole
1/13/2017	10,669.0	10,671.0	6.0	8	Avalon, Original Hole
1/12/2017	10,709.0	10,711.0	6.0	8	Avalon, Original Hole
1/12/2017	10,749.0	10,751.0	6.0	8	Avalon, Original Hole
1/12/2017	10,789.0	10,791.0	6.0	8	Avalon, Original Hole
1/12/2017	10,829.0	10,831.0	6.0	8	Avalon, Original Hole
1/12/2017	10,869.0	10,871.0	6.0	8	Avalon, Original Hole
1/12/2017	10,909.0	10,911.0	6.0	8	Avalon, Original Hole
1/12/2017	10,949.0	10,951.0	6.0	8	Avalon, Original Hole
1/12/2017	10,989.0	10,991.0	6.0	8	Avalon, Original Hole
1/12/2017	11,029.0	11,031.0	6.0	8	Avalon, Original Hole
1/12/2017	11,069.0	11,071.0	6.0	8	Avalon, Original Hole
1/12/2017	11,109.0	11,111.0	6.0	8	Avalon, Original Hole
1/12/2017	11,149.0	11,151.0	6.0	8	Avalon, Original Hole
1/12/2017	11,189.0	11,191.0	6.0	8	Avalon, Original Hole
1/12/2017	11,229.0	11,231.0	6.0	8	Avalon, Original Hole
1/12/2017	11,269.0	11,271.0	6.0	8	Avalon, Original Hole
1/11/2017	11,309.0	11,311.0	6.0	8	Avalon, Original Hole
1/11/2017	11,349.0	11,351.0	6.0	8	Avalon, Original Hole
1/11/2017	11,389.0	11,391.0	6.0	8	Avalon, Original Hole
1/11/2017	11,429.0	11,431.0	6.0	8	Avalon, Original Hole
1/11/2017	11,469.0	11,471.0	6.0	8	Avalon, Original Hole
1/11/2017	11,509.0	11,511.0	6.0	8	Avalon, Original Hole
1/11/2017	11,549.0	11,551.0	6.0	8	Avalon, Original Hole
1/11/2017	11,589.0	11,591.0	6.0	8	Avalon, Original Hole
1/11/2017	11,629.0	11,631.0	6.0	8	Avalon, Original Hole
1/11/2017	11,669.0	11,671.0	6.0	8	Avalon, Original Hole



Wellbore Schematic

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
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Perforations					
Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
1/10/2017	11,709.0	11,711.0	6.0	8	Avalon, Original Hole
1/10/2017	11,749.0	11,751.0	6.0	8	Avalon, Original Hole
1/10/2017	11,789.0	11,791.0	6.0	8	Avalon, Original Hole
1/10/2017	11,826.0	11,828.0	6.0	8	Avalon, Original Hole
1/10/2017	11,829.0	11,831.0	6.0	8	Avalon, Original Hole
1/10/2017	11,909.0	11,911.0	6.0	8	Avalon, Original Hole
1/10/2017	11,949.0	11,951.0	6.0	8	Avalon, Original Hole
1/10/2017	11,989.0	11,991.0	6.0	8	Avalon, Original Hole
1/10/2017	12,029.0	12,031.0	6.0	8	Avalon, Original Hole
1/10/2017	12,069.0	12,071.0	6.0	8	Avalon, Original Hole
1/9/2017	12,109.0	12,111.0	6.0	8	Avalon, Original Hole
1/9/2017	12,149.0	12,151.0	6.0	8	Avalon, Original Hole
1/9/2017	12,189.0	12,191.0	6.0	8	Avalon, Original Hole
1/9/2017	12,229.0	12,231.0	6.0	8	Avalon, Original Hole
1/9/2017	12,269.0	12,271.0	6.0	8	Avalon, Original Hole
1/9/2017	12,309.0	12,311.0	6.0	8	Avalon, Original Hole
1/9/2017	12,349.0	12,351.0	6.0	8	Avalon, Original Hole
1/9/2017	12,389.0	12,391.0	6.0	8	Avalon, Original Hole
1/9/2017	12,429.0	12,431.0	6.0	8	Avalon, Original Hole
1/9/2017	12,469.0	12,471.0	6.0	8	Avalon, Original Hole
1/8/2017	12,509.0	12,511.0	6.0	8	Avalon, Original Hole
1/8/2017	12,549.0	12,551.0	6.0	8	Avalon, Original Hole
1/8/2017	12,589.0	12,591.0	6.0	8	Avalon, Original Hole
1/8/2017	12,629.0	12,631.0	6.0	8	Avalon, Original Hole
1/8/2017	12,669.0	12,671.0	6.0	8	Avalon, Original Hole
1/8/2017	12,709.0	12,711.0	6.0	8	Avalon, Original Hole
1/8/2017	12,749.0	12,751.0	6.0	8	Avalon, Original Hole
1/8/2017	12,789.0	12,791.0	6.0	8	Avalon, Original Hole
1/8/2017	12,829.0	12,831.0	6.0	8	Avalon, Original Hole
1/8/2017	12,869.0	12,871.0	6.0	8	Avalon, Original Hole
1/7/2017	12,907.0	12,909.0	6.0	8	Avalon, Original Hole
1/7/2017	12,944.0	12,946.0	6.0	8	Avalon, Original Hole
1/7/2017	12,981.0	12,983.0	6.0	8	Avalon, Original Hole
1/7/2017	13,018.0	13,020.0	6.0	8	Avalon, Original Hole
1/7/2017	13,055.0	13,057.0	6.0	8	Avalon, Original Hole
1/6/2017	13,109.0	13,111.0	6.0	8	Avalon, Original Hole
1/6/2017	13,149.0	13,151.0	6.0	8	Avalon, Original Hole
1/6/2017	13,189.0	13,191.0	6.0	8	Avalon, Original Hole
1/6/2017	13,229.0	13,231.0	6.0	8	Avalon, Original Hole
1/6/2017	13,269.0	13,271.0	6.0	8	Avalon, Original Hole
1/5/2017	13,309.0	13,311.0	6.0	8	Avalon, Original Hole
1/5/2017	13,349.0	13,351.0	6.0	8	Avalon, Original Hole
1/5/2017	13,389.0	13,391.0	6.0	8	Avalon, Original Hole
1/5/2017	13,429.0	13,431.0	6.0	8	Avalon, Original Hole
1/5/2017	13,469.0	13,471.0	6.0	8	Avalon, Original Hole
1/5/2017	13,509.0	13,511.0	6.0	8	Avalon, Original Hole
1/5/2017	13,549.0	13,551.0	6.0	8	Avalon, Original Hole
1/5/2017	13,589.0	13,591.0	6.0	8	Avalon, Original Hole
1/5/2017	13,629.0	13,631.0	6.0	8	Avalon, Original Hole
1/5/2017	13,669.0	13,671.0	6.0	8	Avalon, Original Hole
1/4/2017	13,707.0	13,709.0	6.0	8	Avalon, Original Hole
1/4/2017	13,744.0	13,746.0	6.0	8	Avalon, Original Hole
1/4/2017	13,781.0	13,783.0	6.0	8	Avalon, Original Hole
1/4/2017	13,818.0	13,820.0	6.0	8	Avalon, Original Hole
1/4/2017	13,855.0	13,857.0	6.0	8	Avalon, Original Hole
1/3/2017	13,909.0	13,911.0	6.0	8	Avalon, Original Hole
1/3/2017	13,949.0	13,951.0	6.0	8	Avalon, Original Hole
1/3/2017	13,989.0	13,991.0	6.0	8	Avalon, Original Hole



Wellbore Schematic

Well Name
SALADO DRAW WE 24 FED P23 003H

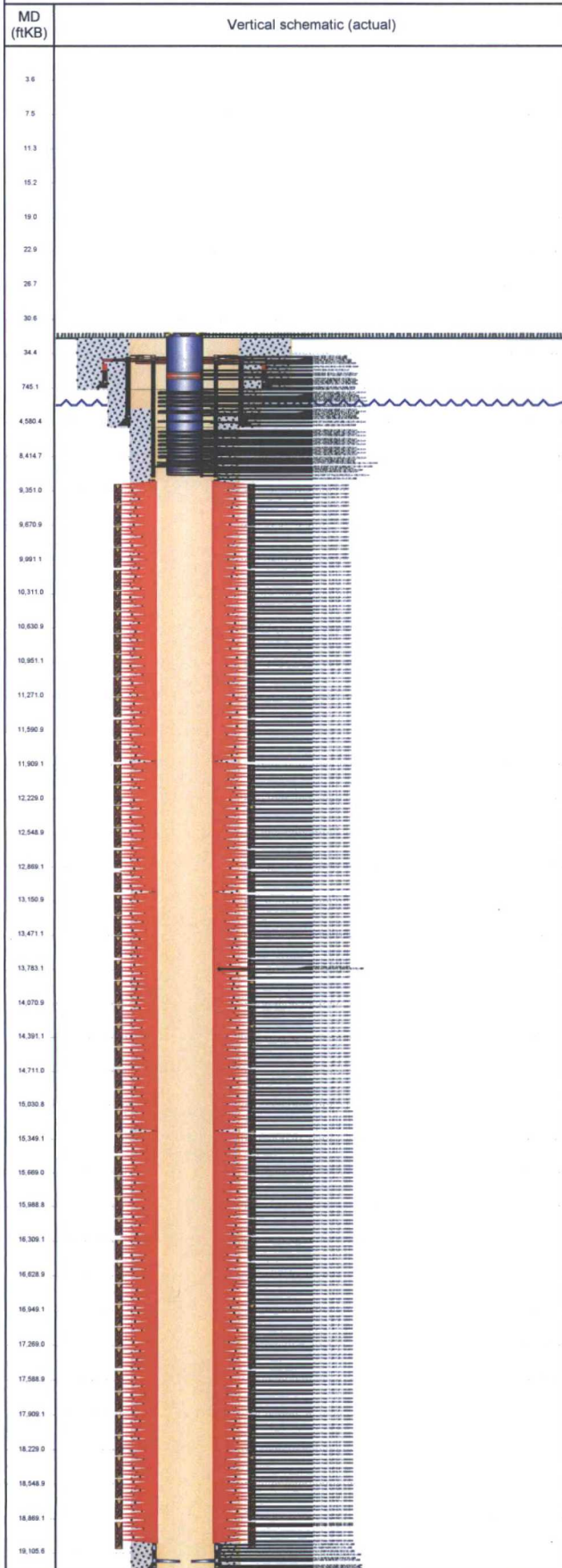
Lease

Field Name
JENNINGS

Business Unit
Mid-Continent

Land - Original Hole, 3/1/2017 8:19:16 AM

Perforations

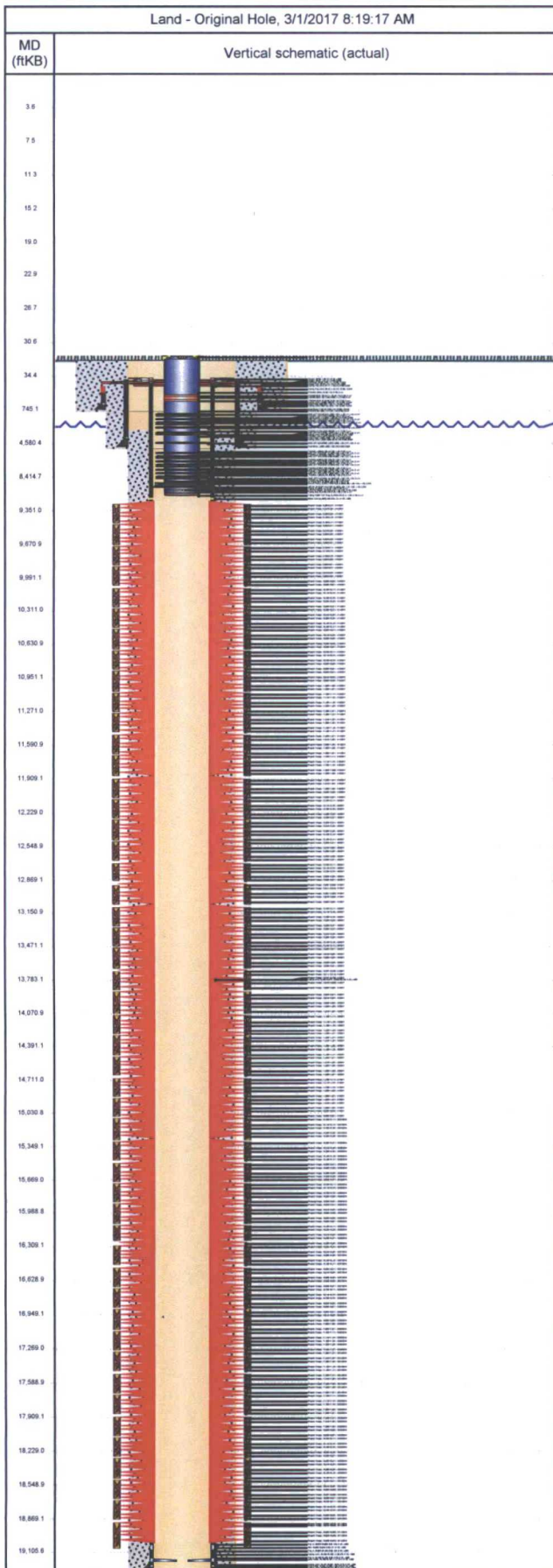


Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
1/3/2017	14,029.0	14,031.0	6.0	8	Avalon, Original Hole
1/3/2017	14,049.0	14,051.0	6.0	8	Avalon, Original Hole
1/3/2017	14,109.0	14,111.0	6.0	8	Avalon, Original Hole
1/3/2017	14,149.0	14,151.0	6.0	8	Avalon, Original Hole
1/3/2017	14,189.0	14,191.0	6.0	8	Avalon, Original Hole
1/3/2017	14,229.0	14,231.0	6.0	8	Avalon, Original Hole
1/3/2017	14,269.0	14,271.0	6.0	8	Avalon, Original Hole
1/2/2017	14,309.0	14,311.0	6.0	8	Avalon, Original Hole
1/2/2017	14,349.0	14,351.0	6.0	8	Avalon, Original Hole
1/2/2017	14,389.0	14,391.0	6.0	8	Avalon, Original Hole
1/2/2017	14,429.0	14,431.0	6.0	8	Avalon, Original Hole
1/2/2017	14,469.0	14,471.0	6.0	8	Avalon, Original Hole
1/2/2017	14,509.0	14,511.0	6.0	8	Avalon, Original Hole
1/2/2017	14,549.0	14,551.0	6.0	8	Avalon, Original Hole
1/2/2017	14,589.0	14,591.0	6.0	8	Avalon, Original Hole
1/2/2017	14,629.0	14,631.0	6.0	8	Avalon, Original Hole
1/2/2017	14,669.0	14,671.0	6.0	8	Avalon, Original Hole
1/1/2017	14,709.0	14,711.0	6.0	8	Avalon, Original Hole
1/1/2017	14,749.0	14,751.0	6.0	8	Avalon, Original Hole
1/1/2017	14,789.0	14,791.0	6.0	8	Avalon, Original Hole
1/1/2017	14,829.0	14,831.0	6.0	8	Avalon, Original Hole
1/1/2017	14,869.0	14,871.0	6.0	8	Avalon, Original Hole
1/1/2017	14,909.0	14,911.0	6.0	8	Avalon, Original Hole
1/1/2017	14,949.0	14,951.0	6.0	8	Avalon, Original Hole
1/1/2017	14,989.0	14,991.0	6.0	8	Avalon, Original Hole
1/1/2017	15,029.0	15,031.0	6.0	8	Avalon, Original Hole
1/1/2017	15,069.0	15,071.0	6.0	8	Avalon, Original Hole
12/31/2016	15,109.0	15,111.0	6.0	8	Avalon, Original Hole
12/31/2016	15,145.0	15,147.0	6.0	8	Avalon, Original Hole
12/31/2016	15,185.0	15,187.0	6.0	8	Avalon, Original Hole
12/31/2016	15,225.0	15,227.0	6.0	8	Avalon, Original Hole
12/31/2016	15,265.0	15,267.0	6.0	8	Avalon, Original Hole
12/30/2016	15,309.0	15,311.0	6.0	8	Avalon, Original Hole
12/30/2016	15,349.0	15,351.0	6.0	8	Avalon, Original Hole
12/30/2016	15,389.0	15,391.0	6.0	8	Avalon, Original Hole
12/30/2016	15,429.0	15,431.0	6.0	8	Avalon, Original Hole
12/30/2016	15,469.0	15,471.0	6.0	8	Avalon, Original Hole
12/30/2016	15,509.0	15,511.0	6.0	8	Avalon, Original Hole
12/30/2016	15,552.0	15,554.0	6.0	8	Avalon, Original Hole
12/30/2016	15,589.0	15,591.0	6.0	8	Avalon, Original Hole
12/30/2016	15,629.0	15,631.0	6.0	8	Avalon, Original Hole
12/30/2016	15,669.0	15,671.0	6.0	8	Avalon, Original Hole
12/29/2016	15,709.0	15,711.0	6.0	8	Avalon, Original Hole
12/29/2016	15,749.0	15,751.0	6.0	8	Avalon, Original Hole
12/29/2016	15,789.0	15,791.0	6.0	8	Avalon, Original Hole
12/29/2016	15,829.0	15,831.0	6.0	8	Avalon, Original Hole
12/29/2016	15,869.0	15,871.0	6.0	8	Avalon, Original Hole
12/29/2016	15,909.0	15,911.0	6.0	8	Avalon, Original Hole
12/29/2016	15,949.0	15,951.0	6.0	8	Avalon, Original Hole
12/29/2016	15,989.0	15,991.0	6.0	8	Avalon, Original Hole
12/29/2016	16,029.0	16,031.0	6.0	8	Avalon, Original Hole
12/29/2016	16,069.0	16,071.0	6.0	8	Avalon, Original Hole
12/28/2016	16,109.0	16,111.0	6.0	8	Avalon, Original Hole
12/28/2016	16,229.0	16,231.0	6.0	8	Avalon, Original Hole
12/28/2016	16,249.0	16,251.0	6.0	8	Avalon, Original Hole
12/28/2016	16,269.0	16,271.0	6.0	8	Avalon, Original Hole
12/28/2016	16,289.0	16,291.0	6.0	8	Avalon, Original Hole
12/27/2016	16,309.0	16,311.0	6.0	8	Avalon, Original Hole



Wellbore Schematic

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
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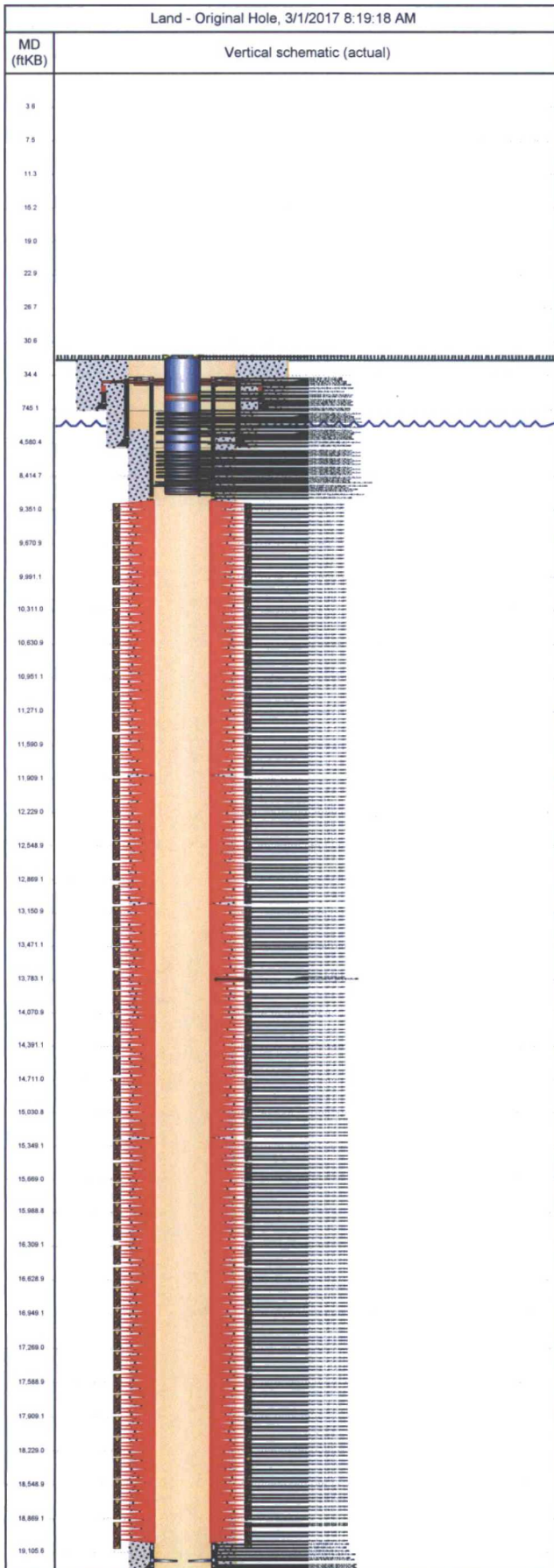


Perforations					
Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
12/27/2016	16,349.0	16,351.0	6.0	8	Avalon, Original Hole
12/27/2016	16,389.0	16,391.0	6.0	8	Avalon, Original Hole
12/27/2016	16,429.0	16,431.0	6.0	8	Avalon, Original Hole
12/27/2016	16,469.0	16,471.0	6.0	8	Avalon, Original Hole
12/27/2016	16,509.0	16,511.0	6.0	8	Avalon, Original Hole
12/27/2016	16,549.0	16,551.0	6.0	8	Avalon, Original Hole
12/27/2016	16,589.0	16,591.0	6.0	8	Avalon, Original Hole
12/27/2016	16,629.0	16,631.0	6.0	8	Avalon, Original Hole
12/27/2016	16,669.0	16,671.0	6.0	8	Avalon, Original Hole
12/26/2016	16,709.0	16,711.0	6.0	8	Avalon, Original Hole
12/26/2016	16,749.0	16,751.0	6.0	8	Avalon, Original Hole
12/26/2016	16,789.0	16,791.0	6.0	8	Avalon, Original Hole
12/26/2016	16,829.0	16,831.0	6.0	8	Avalon, Original Hole
12/26/2016	16,869.0	16,871.0	6.0	8	Avalon, Original Hole
12/26/2016	16,909.0	16,911.0	6.0	8	Avalon, Original Hole
12/26/2016	16,949.0	16,951.0	6.0	8	Avalon, Original Hole
12/26/2016	16,989.0	16,991.0	6.0	8	Avalon, Original Hole
12/26/2016	17,029.0	17,031.0	6.0	8	Avalon, Original Hole
12/26/2016	17,069.0	17,071.0	6.0	8	Avalon, Original Hole
12/25/2016	17,109.0	17,111.0	6.0	8	Avalon, Original Hole
12/25/2016	17,149.0	17,151.0	6.0	8	Avalon, Original Hole
12/25/2016	17,189.0	17,191.0	6.0	8	Avalon, Original Hole
12/25/2016	17,229.0	17,231.0	6.0	8	Avalon, Original Hole
12/25/2016	17,269.0	17,271.0	6.0	8	Avalon, Original Hole
12/24/2016	17,309.0	17,311.0	6.0	8	Avalon, Original Hole
12/24/2016	17,349.0	17,351.0	6.0	8	Avalon, Original Hole
12/24/2016	17,389.0	17,391.0	6.0	8	Avalon, Original Hole
12/24/2016	17,429.0	17,431.0	6.0	8	Avalon, Original Hole
12/24/2016	17,469.0	17,471.0	6.0	8	Avalon, Original Hole
12/24/2016	17,509.0	17,511.0	6.0	8	Avalon, Original Hole
12/24/2016	17,549.0	17,551.0	6.0	8	Avalon, Original Hole
12/24/2016	17,589.0	17,591.0	6.0	8	Avalon, Original Hole
12/24/2016	17,629.0	17,631.0	6.0	8	Avalon, Original Hole
12/24/2016	17,669.0	17,671.0	6.0	8	Avalon, Original Hole
12/23/2016	17,709.0	17,711.0	6.0	8	Avalon, Original Hole
12/23/2016	17,749.0	17,751.0	6.0	8	Avalon, Original Hole
12/23/2016	17,789.0	17,791.0	6.0	8	Avalon, Original Hole
12/23/2016	17,829.0	17,831.0	6.0	8	Avalon, Original Hole
12/23/2016	17,869.0	17,871.0	6.0	8	Avalon, Original Hole
12/23/2016	17,909.0	17,911.0	6.0	8	Avalon, Original Hole
12/23/2016	17,949.0	17,951.0	6.0	8	Avalon, Original Hole
12/23/2016	17,989.0	17,991.0	6.0	8	Avalon, Original Hole
12/23/2016	18,029.0	18,031.0	6.0	8	Avalon, Original Hole
12/23/2016	18,069.0	18,071.0	6.0	8	Avalon, Original Hole
12/22/2016	18,109.0	18,111.0	6.0	8	Avalon, Original Hole
12/22/2016	18,149.0	18,151.0	6.0	8	Avalon, Original Hole
12/22/2016	18,189.0	18,191.0	6.0	8	Avalon, Original Hole
12/22/2016	18,229.0	18,231.0	6.0	8	Avalon, Original Hole
12/22/2016	18,269.0	18,271.0	6.0	8	Avalon, Original Hole
12/22/2016	18,309.0	18,311.0	6.0	8	Avalon, Original Hole
12/22/2016	18,349.0	18,351.0	6.0	8	Avalon, Original Hole
12/22/2016	18,389.0	18,391.0	6.0	8	Avalon, Original Hole
12/22/2016	18,429.0	18,431.0	6.0	8	Avalon, Original Hole
12/22/2016	18,469.0	18,471.0	6.0	8	Avalon, Original Hole
12/21/2016	18,509.0	18,511.0	6.0	8	Avalon, Original Hole
12/21/2016	18,549.0	18,551.0	6.0	8	Avalon, Original Hole
12/21/2016	18,590.0	18,592.0	6.0	8	Avalon, Original Hole
12/21/2016	18,627.0	18,629.0	6.0	8	Avalon, Original Hole



Wellbore Schematic

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
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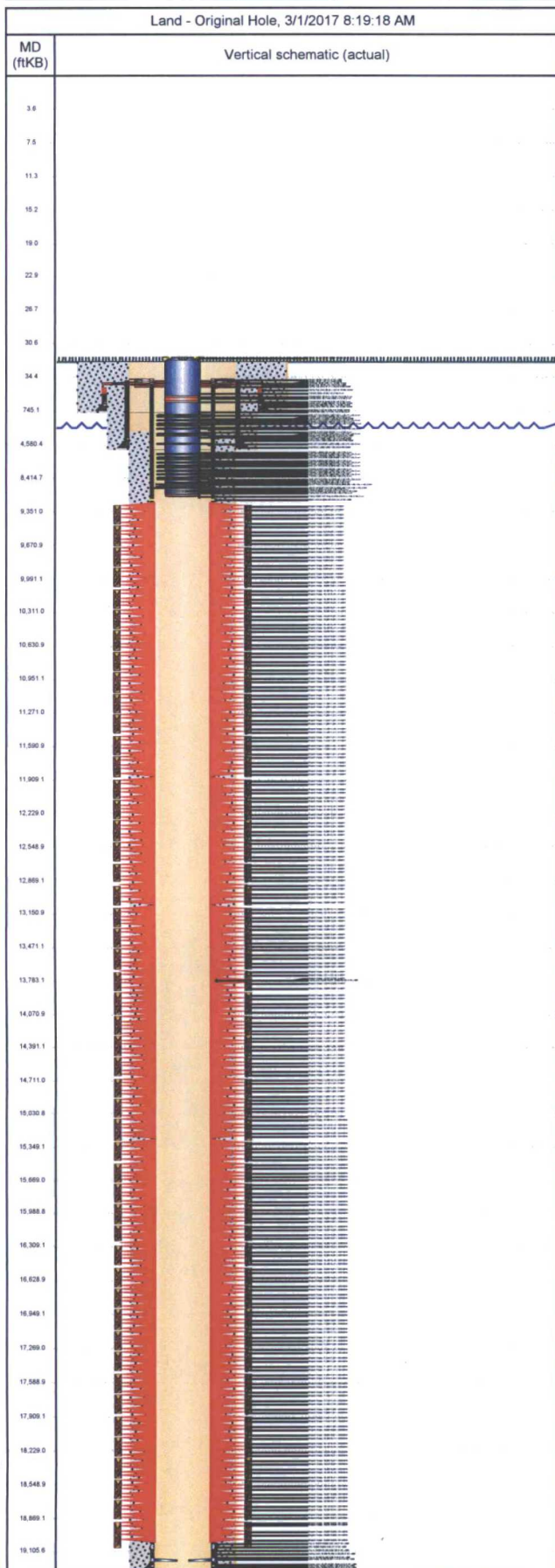


Perforations					
Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
12/21/2016	18,669.0	18,671.0	6.0	8	Avalon, Original Hole
12/21/2016	18,709.0	18,711.0	6.0	8	Avalon, Original Hole
12/21/2016	18,749.0	18,751.0	6.0	8	Avalon, Original Hole
12/21/2016	18,789.0	18,791.0	6.0	8	Avalon, Original Hole
12/21/2016	18,829.0	18,831.0	6.0	8	Avalon, Original Hole
12/21/2016	18,869.0	18,871.0	6.0	8	Avalon, Original Hole
12/14/2016	18,909.0	18,910.3	6.0	8	Avalon, Original Hole
12/14/2016	18,949.0	18,950.3	6.0	8	Avalon, Original Hole
12/14/2016	18,989.0	18,990.3	6.0	8	Avalon, Original Hole
12/14/2016	19,029.0	19,030.3	6.0	8	Avalon, Original Hole
12/14/2016	19,069.0	19,070.3	6.0	8	Avalon, Original Hole
Other Strings					
Run Date	Pull Date	Set Depth (ftKB)	Com		
Other In Hole					
Des	Top (ftKB)	Btm (ftKB)	Run Date	Pull Date	Com
Composite Frac Plug (drop ball)	9,489.0	9,491.0	1/17/2017	1/19/2017	Stage 49
Composite Frac Plug (drop ball)	9,689.0	9,691.0	1/16/2017	1/19/2017	Stage 48
Composite Frac Plug (drop ball)	9,899.0	9,901.0	1/16/2017	1/19/2017	Stage 47
Composite Frac Plug (drop ball)	10,089.0	10,091.0	1/15/2017	1/19/2017	Stage 46
Composite Frac Plug (drop ball)	10,289.0	10,291.0	1/14/2017	1/19/2017	Stage 45
Composite Frac Plug (drop ball)	10,489.0	10,491.0	1/14/2017	1/19/2017	Stage 44
Composite Frac Plug (drop ball)	10,689.0	10,691.0	1/13/2017	1/19/2017	Stage 43
Composite Frac Plug (drop ball)	10,889.0	10,891.0	1/12/2017	1/19/2017	Stage 42
Composite Frac Plug (drop ball)	11,089.0	11,091.0	1/12/2017	1/19/2017	Stage 41
Composite Frac Plug (drop ball)	11,289.0	11,291.0	1/12/2017	1/19/2017	Stage 40
Composite Frac Plug (drop ball)	11,489.0	11,491.0	1/11/2017	1/19/2017	Stage 39
Composite Frac Plug (drop ball)	11,689.0	11,691.0	1/11/2017	1/20/2017	Stage 38
Composite Frac Plug (drop ball)	11,889.0	11,891.0	1/10/2017	1/20/2017	Stage 37
Composite Frac Plug (drop ball)	12,089.0	12,091.0	1/10/2017	1/20/2017	Stage 36
Composite Frac Plug (drop ball)	12,289.0	12,291.0	1/9/2017	1/20/2017	Stage 35
Composite Frac Plug (drop ball)	12,489.0	12,491.0	1/9/2017	1/20/2017	Stage 34
Composite Frac Plug (drop ball)	12,689.0	12,691.0	1/8/2017	1/20/2017	Stage 33
Composite Frac Plug (drop ball)	12,889.0	12,891.0	1/8/2017	1/20/2017	Stage 32
Composite Frac Plug (drop ball)	13,089.0	13,091.0	1/7/2017	1/20/2017	Stage 31
Composite Frac Plug (drop ball)	13,289.0	13,291.0	1/6/2017	1/20/2017	Stage 30
Composite Frac Plug (drop ball)	13,489.0	13,491.0	1/5/2017	1/20/2017	Stage 29
Composite Frac Plug (drop ball)	13,689.0	13,691.0	1/5/2017	1/20/2017	Stage 28
Composite Frac Plug (drop ball)	13,866.0	13,868.0	1/4/2017	1/20/2017	Stage 27



Wellbore Schematic

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
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Other In Hole					
Des	Top (ftKB)	Blm (ftKB)	Run Date	Pull Date	Com
Composite Frac Plug (drop ball)	14,089.0	14,091.0	1/3/2017	1/20/2017	Stage 26
Composite Frac Plug (drop ball)	14,289.0	14,291.0	1/3/2017	1/20/2017	Stage 25
Composite Frac Plug (drop ball)	14,489.0	14,491.0	1/2/2017	1/20/2017	Stage 24
Composite Frac Plug (drop ball)	14,689.0	14,691.0	1/2/2017	1/20/2017	Stage 23
Composite Frac Plug (drop ball)	14,886.0	14,888.0	1/1/2017	1/20/2017	Stage 22
Composite Frac Plug (drop ball)	15,089.0	15,091.0	1/1/2017	1/20/2017	Stage 21
Composite Frac Plug (drop ball)	15,285.0	15,287.0	12/31/2016	1/20/2017	Stage 20
Composite Frac Plug (drop ball)	15,489.0	15,491.0	12/30/2016	1/20/2017	Stage 19
Composite Frac Plug (drop ball)	15,689.0	15,691.0	12/30/2016	1/20/2017	Stage 18
Composite Frac Plug (drop ball)	15,889.0	15,891.0	12/29/2016	1/20/2017	Stage 17
Composite Frac Plug (drop ball)	16,089.0	16,091.0	12/29/2016	1/20/2017	Stage 16
Composite Frac Plug (drop ball)	16,289.0	16,291.0	12/28/2016	1/20/2017	Stage 15
Composite Frac Plug (drop ball)	16,489.0	16,491.0	12/27/2016	1/20/2017	Stage 14
Composite Frac Plug (drop ball)	16,689.0	16,691.0	12/27/2016	1/20/2017	Stage 13
Composite Frac Plug (drop ball)	16,889.0	16,891.0	12/26/2016	1/20/2017	Stage 12
Composite Frac Plug (drop ball)	17,089.0	17,091.0	12/26/2016	1/21/2017	Stage 11
Composite Frac Plug (drop ball)	17,289.0	17,291.0	12/25/2016	1/21/2017	Stage 10
Composite Frac Plug (drop ball)	17,489.0	17,491.0	12/24/2016	1/21/2017	Stage 9
Composite Frac Plug (drop ball)	17,689.0	17,691.0	12/24/2016	1/21/2017	Stage 8
Composite Frac Plug (drop ball)	17,889.0	17,891.0	12/23/2016	1/21/2017	Stage 7
Composite Frac Plug (drop ball)	18,089.0	18,091.0	12/23/2016	1/21/2017	Stage 6
Composite Frac Plug (drop ball)	18,289.0	18,291.0	12/22/2016	1/21/2017	Stage 5
Composite Frac Plug (drop ball)	18,489.0	18,491.0	12/22/2016	1/21/2017	Stage 4
Composite Frac Plug (drop ball)	18,689.0	18,691.0	12/21/2016	1/21/2017	Stage 3
Composite Frac Plug (drop ball)	18,889.0	18,891.0	12/21/2016	1/21/2017	Stage 2



Tubing Summary

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft) 3,133.00	Original RKB Elevation (ft) 3,165.60	Current RKB Elevation 3,165.60, 8/15/2016	Mud Line Elevation (ft) Water Depth (ft)
Current KB to Ground (ft) 32.60	Current KB to Mud Line (ft)	Current KB to Csg Flange (ft)	Current KB to Tubing Head (ft)

Land - Original Hole, 2/6/2017 5:00:00 PM			
MD (ftK B)	TVD (ftK B)	Incl (°)	Vertical schematic (actual)
3.6	3.6	0.0	1-1; Tubing Hanger; 2 7/8; 2.441; 32; 0.50
7.6	7.6	0.0	1-2; TUBING; 2 7/8; 2.441; 33; 31.52
11.2	11.2	0.0	1-3; TUBING SUB- 10'; 2 7/8; 2.441; 64; 10.15
15.2	15.2	0.0	1-4; TUBING SUB- 10'; 2 7/8; 2.441; 74; 9.90
19.0	19.0	0.1	1-5; TUBING SUB- 8'; 2 7/8; 2.441; 84; 8.15
22.9	22.9	0.1	1-6; TUBING; 2 7/8; 2.441; 92; 1,714.81
26.7	26.7	0.1	1-7; GAS LIFT VALVE #13; 4.34; 2.441; 1,807; 4.10
30.6	30.6	0.1	1-8; TUBING; 2 7/8; 2.441; 1,811; 560.98
34.4	34.4	0.1	1-9; GAS LIFT VALVE #12; 4.34; 2.441; 2,372; 4.10
38.3	38.3	0.1	1-10; TUBING; 2 7/8; 2.441; 2,376; 560.75
42.1	42.1	0.1	1-11; GAS LIFT VALVE #11; 4.34; 2.441; 2,937; 4.10
46.0	46.0	0.1	1-12; TUBING; 2 7/8; 2.441; 2,941; 530.52
49.8	49.8	0.1	1-13; GAS LIFT VALVE #10; 4.34; 2.441; 3,472; 4.10
53.7	53.7	0.1	1-14; TUBING; 2 7/8; 2.441; 3,476; 563.89
57.5	57.5	0.1	1-15; GAS LIFT VALVE #9; 4.34; 2.441; 4,040; 4.10
61.4	61.4	0.1	1-16; TUBING; 2 7/8; 2.441; 4,044; 532.53
65.2	65.2	0.1	1-17; GAS LIFT VALVE #8; 4.34; 2.441; 4,576; 4.10
69.1	69.1	0.1	1-18; TUBING; 2 7/8; 2.441; 4,580; 547.95
72.9	72.9	0.1	1-19; GAS LIFT VALVE #7; 4.34; 2.441; 5,128; 4.10
76.8	76.8	0.1	1-20; TUBING; 2 7/8; 2.441; 5,132; 562.04
80.6	80.6	0.1	1-21; GAS LIFT VALVE #6; 4.34; 2.441; 5,694; 4.10
84.5	84.5	0.1	1-22; TUBING; 2 7/8; 2.441; 5,698; 526.78
88.3	88.3	0.1	1-23; GAS LIFT VALVE #5; 4.34; 2.441; 6,225; 4.10
92.2	92.2	0.1	1-24; TUBING; 2 7/8; 2.441; 6,229; 559.31
96.0	96.0	0.1	1-25; GAS LIFT VALVE #4; 4.34; 2.441; 6,789; 4.10
99.9	99.9	0.1	1-26; TUBING; 2 7/8; 2.441; 6,793; 525.59
103.7	103.7	0.1	1-27; GAS LIFT VALVE #3; 4.34; 2.441; 7,318; 4.10
107.6	107.6	0.1	1-28; TUBING; 2 7/8; 2.441; 7,322; 557.70
111.4	111.4	0.1	1-29; GAS LIFT VALVE #2; 4.34; 2.441; 7,880; 4.10
115.3	115.3	0.1	1-30; TUBING; 2 7/8; 2.441; 7,884; 530.28
119.1	119.1	0.1	1-31; GAS LIFT VALVE #1; 4.34; 2.441; 8,415; 4.10
123.0	123.0	0.1	1-32; TUBING; 2 7/8; 2.441; 8,419; 31.32
126.8	126.8	0.1	1-33; Jet Pump BHA; 2 7/8; 8,450; 6.30
130.7	130.7	0.1	1-34; ON-OFF TOOL, 2.313 X PROFILE; 4 1/2; 2.313; 8,456; 1.50
134.5	134.5	0.1	1-35; 450 WL HORNET PACKER; 4 1/2; 2.370; 8,458; 7.75
138.4	138.4	0.1	1-36; Tubing; 2 7/8; 2.441; 8,466; 6.16
142.2	142.2	0.1	1-37; 2.313 XN Nipple; 2 7/8; 2,205; 8,472; 1.15
146.1	146.1	0.1	1-38; Tubing Sub; 2 7/8; 2.441; 8,473; 6.16
149.9	149.9	0.1	1-39; Tubing PUMP OUT Plug; 2 7/8; 2.441; 8,479; 0.44

Tubing Strings									
Tubing Description Tubing - Production		Planned Run? N		Set Depth (MD) (ftKB) 8,479.4			Set Depth (TVD) (ftKB) 8,454.0		
Run Date 2/6/2017		Run Job Complete, 12/10/2016 12:00		Pull Date			Pull Job		
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Len (ft)	Top (ftKB)	Btm (ftKB)
1	Tubing Hanger	2 7/8	2.441			8RD	0.50	32.0	32.5
1	TUBING	2 7/8	2.441	6.50	L-80	8RD	31.52	32.5	64.0
1	TUBING SUB- 10'	2 7/8	2.441	6.50	L-80	8RD	10.15	64.0	74.2
1	TUBING SUB- 10'	2 7/8	2.441	6.50	L-80	8RD	9.90	74.2	84.1
1	TUBING SUB- 8'	2 7/8	2.441	6.50	L-80	8RD	8.15	84.1	92.2
55	TUBING	2 7/8	2.441	6.50	L-80	8RD	1,714.81	92.2	1,807.0
1	GAS LIFT VALVE #13	4.335	2.441			8RD	4.10	1,807.0	1,811.1
18	TUBING	2 7/8	2.441	6.50	L-80	8RD	560.98	1,811.1	2,372.1
1	GAS LIFT VALVE #12	4.335	2.441			8RD	4.10	2,372.1	2,376.2
18	TUBING	2 7/8	2.441	6.50	L-80	8RD	560.75	2,376.2	2,937.0
1	GAS LIFT VALVE #11	4.335	2.441			8RD	4.10	2,937.0	2,941.1
17	TUBING	2 7/8	2.441	6.50	L-80	8RD	530.52	2,941.1	3,471.6
1	GAS LIFT VALVE #10	4.335	2.441			8RD	4.10	3,471.6	3,475.7
18	TUBING	2 7/8	2.441	6.50	L-80	8RD	563.89	3,475.7	4,039.6
1	GAS LIFT VALVE #9	4.335	2.441			8RD	4.10	4,039.6	4,043.7
17	TUBING	2 7/8	2.441	6.50	L-80	8RD	532.53	4,043.7	4,576.2
1	GAS LIFT VALVE #8	4.335	2.441			8RD	4.10	4,576.2	4,580.3
18	TUBING	2 7/8	2.441	6.50	L-80	8RD	547.95	4,580.3	5,128.3
1	GAS LIFT VALVE #7	4.335	2.441			8RD	4.10	5,128.3	5,132.4
18	TUBING	2 7/8	2.441	6.50	L-80	8RD	562.04	5,132.4	5,694.4
1	GAS LIFT VALVE #6	4.335	2.441			8RD	4.10	5,694.4	5,698.5
17	TUBING	2 7/8	2.441	6.50	L-80	8RD	526.78	5,698.5	6,225.3
1	GAS LIFT VALVE #5	4.335	2.441			8RD	4.10	6,225.3	6,229.4
18	TUBING	2 7/8	2.441	6.50	L-80	8RD	559.31	6,229.4	6,788.7
1	GAS LIFT VALVE #4	4.335	2.441			8RD	4.10	6,788.7	6,792.8
17	TUBING	2 7/8	2.441	6.50	L-80	8RD	525.59	6,792.8	7,318.4
1	GAS LIFT VALVE #3	4.335	2.441			8TRD	4.10	7,318.4	7,322.5
18	TUBING	2.785	2.441	6.50	L-80	8RD	557.70	7,322.5	7,880.2
1	GAS LIFT VALVE #2	4.335	2.441			8RD	4.10	7,880.2	7,884.3
17	TUBING	2.785	2.441	6.50	L-80	8RD	530.28	7,884.3	8,414.6
1	GAS LIFT VALVE #1	4.335	2.441			8RD	4.10	8,414.6	8,418.7
1	TUBING	2 7/8	2.441	6.50	L-80	8RD	31.32	8,418.7	8,450.0
1	Jet Pump BHA	2 7/8				8RD	6.30	8,450.0	8,456.3



Tubing Summary

Well Name SALADO DRAW WE 24 FED P23 003H	Lease	Field Name JENNINGS	Business Unit Mid-Continent	
Ground Elevation (ft) 3,133.00	Original RKB Elevation (ft) 3,165.60	Current RKB Elevation 3,165.60, 8/15/2016	Mud Line Elevation (ft)	Water Depth (ft)
Current KB to Ground (ft) 32.60	Current KB to Mud Line (ft)	Current KB to Csg Flange (ft)	Current KB to Tubing Head (ft)	

Land - Original Hole, 2/6/2017 5:00:00 PM			
MD (ftK B)	TVD (ftK B)	Incl (°)	Vertical schematic (actual)
0	0	0.0	1-1: Tubing Hanger; 2 7/8; 2,441; 32; 0.50
3.8	3.8	0.0	1-2: TUBING; 2 7/8; 2,441; 33; 31.52
7.6	7.6	0.0	1-3: TUBING SUB- 10'; 2 7/8; 2,441; 64; 10.15
11.3	11.3	0.0	1-4: TUBING SUB- 10'; 2 7/8; 2,441; 74; 9.90
15.2	15.2	0.0	1-5: TUBING SUB- 8'; 2 7/8; 2,441; 84; 8.15
19.0	19.0	0.1	1-6: TUBING; 2 7/8; 2,441; 92; 1,714.81
22.9	22.9	0.1	1-7: GAS LIFT VALVE #13; 4.34; 2,441; 1,807; 4.10
26.7	26.7	0.1	1-8: TUBING; 2 7/8; 2,441; 1,811; 560.98
30.6	30.6	0.1	1-9: GAS LIFT VALVE #12; 4.34; 2,441; 2,372; 4.10
34.4	34.4	0.1	1-10: TUBING; 2 7/8; 2,441; 2,376; 560.75
38.1	38.1	1.6	1-11: GAS LIFT VALVE #11; 4.34; 2,441; 2,937; 4.10
41.9	41.9	0.8	1-12: TUBING; 2 7/8; 2,441; 2,941; 530.52
45.7	45.7	1.2	1-13: GAS LIFT VALVE #10; 4.34; 2,441; 3,472; 4.10
49.5	49.5	85.0	1-14: TUBING; 2 7/8; 2,441; 3,476; 563.89
53.3	53.3	90.7	1-15: GAS LIFT VALVE #9; 4.34; 2,441; 4,040; 4.10
57.1	57.1	88.7	1-16: TUBING; 2 7/8; 2,441; 4,044; 532.53
60.9	60.9	89.6	1-17: GAS LIFT VALVE #8; 4.34; 2,441; 4,576; 4.10
64.7	64.7	89.3	1-18: TUBING; 2 7/8; 2,441; 4,580; 547.95
68.5	68.5	90.5	1-19: GAS LIFT VALVE #7; 4.34; 2,441; 5,128; 4.10
72.3	72.3	88.4	1-20: TUBING; 2 7/8; 2,441; 5,132; 562.04
76.1	76.1	87.7	1-21: GAS LIFT VALVE #6; 4.34; 2,441; 5,694; 4.10
79.9	79.9	91.9	1-22: TUBING; 2 7/8; 2,441; 5,698; 526.78
83.7	83.7	90.3	1-23: GAS LIFT VALVE #5; 4.34; 2,441; 6,225; 4.10
87.5	87.5	90.2	1-24: TUBING; 2 7/8; 2,441; 6,229; 559.31
91.3	91.3	87.1	1-25: GAS LIFT VALVE #4; 4.34; 2,441; 6,789; 4.10
95.1	95.1	88.3	1-26: TUBING; 2 7/8; 2,441; 6,793; 525.59
98.9	98.9	93.2	1-27: GAS LIFT VALVE #3; 4.34; 2,441; 7,318; 4.10
102.7	102.7	87.2	1-28: TUBING; 2 7/8; 2,441; 7,322; 557.70
106.5	106.5	88.2	1-29: GAS LIFT VALVE #2; 4.34; 2,441; 7,880; 4.10
110.3	110.3	87.5	1-30: TUBING; 2 7/8; 2,441; 7,884; 530.28
114.1	114.1	89.1	1-31: GAS LIFT VALVE #1; 4.34; 2,441; 8,415; 4.10
117.9	117.9	88.4	1-32: TUBING; 2 7/8; 2,441; 8,419; 31.32
121.7	121.7	89.9	1-33: Jet Pump BHA; 2 7/8; 8,450; 6.30
125.5	125.5	90.7	1-34: ON-OFF TOOL, 2.313 X PROFILE; 4 1/2; 2.313; 8,456; 1.50
129.3	129.3	90.3	1-35: 450 WL HORNET PACKER; 4 1/2; 2.370; 8,458; 7.75
133.1	133.1	91.3	1-36: Tubing; 2 7/8; 2,441; 8,466; 6.16
136.9	136.9	87.6	1-37: 2.313 XN Nipple; 2 7/8; 2,205; 8,472; 1.15
140.7	140.7	90.8	1-38: Tubing Sub; 2 7/8; 2,441; 8,473; 6.16
144.5	144.5	91.0	1-39: Tubing PUMP OUT Plug; 2 7/8; 2,441; 8,479; 0.44
148.3	148.3	88.4	
152.1	152.1	91.2	
155.9	155.9	90.6	
159.7	159.7	89.4	
163.5	163.5	89.7	

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Len (ft)	Top (ftKB)	Btm (ftKB)
1	ON-OFF TOOL, 2.313 X PROFILE	4 1/2	2.313			8RD	1.50	8,456.3	8,457.8
1	450 WL HORNET PACKER	4 1/2	2.370			8RD	7.75	8,457.8	8,465.5
1	Tubing	2 7/8	2.441	6.50	L-80	8RD	6.16	8,465.5	8,471.7
1	2.313 XN Nipple	2 7/8	2.205			8RD	1.15	8,471.7	8,472.8
1	Tubing Sub	2 7/8	2.441	6.50	L-80	8RD	6.16	8,472.8	8,479.0
1	Tubing PUMP OUT Plug	2 7/8	2.441			8RD	0.44	8,479.0	8,479.4

Rod Strings			
Rod Description	Planned Run?	Set Depth (ftKB)	Set Depth (TVD) (ftKB)
Run Date	Run Job	Pull Date	Pull Job

Rod Components							
Jts	Item Des	OD (in)	Grade	Model	Len (ft)	Top (ftKB)	Btm (ftKB)