

Aries 20 Federal Com #4H

450' FSL & 330' FWL, Sec 20, T18S, R30E

Eddy Co., NM

30-015-40427

WELL BORE #2

Active Completion

Wellbore
#2

Actual Wellpath Report

No. 4HY ST 01 (AWP)

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REFERENCE WELLPATH IDENTIFICATION

Operator	Mewbourne Oil Company	Slot	No. 4H SHL
Area	Eddy County, NM	Well	No. 4H
Field	(Aries) Sec 20, T18S, R30E	Wellbore	No. 4HY ST 01 (AWB)
Facility	Aries 20 Fed Com	Sidetrack from	No. 4H AWB at 8003.00 MD

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect@ 3.0.0
North Reference	Grid	User	Gilbjosl
Scale	0.999921	Report Generated	12/Feb/2013 at 4:25:02 PM
Convergence at slot	0.18° East	Database/Source file	WA Midland/No. 4HY_ST_01_AWB_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4229.55	14.60	602152.97	628306.42	32°43'36.733"N	104°00'04.160"W
Facility Reference Pt			602138.38	632535.63	32°44'18.583"N	104°00'04.176"W
Field Reference Pt			602138.38	632535.63	32°44'18.583"N	104°00'04.176"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 4H SHL (KB) to GL	3493.00ft
Horizontal Reference Pt	Slot	Rig on No. 4H SHL (KB) to Mean Sea Level	3493.00ft
Vertical Reference Pt	Rig on No. 4H SHL (KB)	Rig on No. 4H SHL (KB) to Mud Line at Slot (No. 4H SHL)	3493.00ft
MD Reference Pt	Rig on No. 4H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	86.25°

1st well bore
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WELLPATH DATA (137 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
0.00	0.000	99.780	0.00	0.00	0.00	0.00	602152.97	628306.42	32°43'36.733"N	104°00'04.160"W	0.00	
200.00	0.350	99.780	200.00	0.59	-0.10	0.60	602153.58	628306.32	32°43'36.732"N	104°00'04.153"W	0.17	
400.00	0.440	80.630	399.99	1.95	-0.08	1.96	602154.94	628306.34	32°43'36.732"N	104°00'04.137"W	0.08	
600.00	0.470	60.460	599.99	3.45	0.45	3.43	602156.41	628306.87	32°43'36.737"N	104°00'04.120"W	0.08	
800.00	0.090	185.650	799.99	4.17	0.70	4.13	602157.10	628307.12	32°43'36.739"N	104°00'04.112"W	0.26	
1000.00	0.580	70.110	999.98	5.11	0.88	5.07	602158.04	628307.30	32°43'36.741"N	104°00'04.101"W	0.31	
1200.00	1.420	67.230	1199.95	8.43	2.19	8.30	602161.28	628308.61	32°43'36.754"N	104°00'04.063"W	0.42	
1400.00	1.560	55.460	1399.88	13.11	4.69	12.83	602165.81	628311.11	32°43'36.779"N	104°00'04.010"W	0.17	
1600.00	1.560	29.340	1599.81	16.94	8.61	16.41	602169.38	628315.03	32°43'36.817"N	104°00'03.968"W	0.35	
1800.00	1.580	21.250	1799.74	19.59	13.55	18.74	602171.71	628319.97	32°43'36.866"N	104°00'03.940"W	0.11	
2000.00	1.810	24.260	1999.65	22.24	19.00	21.04	602174.01	628325.42	32°43'36.920"N	104°00'03.913"W	0.12	
2200.00	1.730	24.200	2199.55	25.14	24.63	23.57	602176.55	628331.05	32°43'36.976"N	104°00'03.883"W	0.04	
2400.00	1.440	33.470	2399.48	28.07	29.48	26.20	602179.17	628335.90	32°43'37.024"N	104°00'03.853"W	0.19	
2600.00	2.110	31.870	2599.38	31.74	34.70	29.53	602182.50	628341.12	32°43'37.075"N	104°00'03.813"W	0.34	
2800.00	1.240	14.950	2799.29	34.57	39.92	32.03	602185.00	628346.34	32°43'37.127"N	104°00'03.784"W	0.50	
3000.00	1.230	11.970	2999.25	35.85	44.11	33.03	602186.00	628350.53	32°43'37.168"N	104°00'03.772"W	0.03	
3200.00	1.490	359.740	3199.19	36.59	48.81	33.47	602186.44	628355.23	32°43'37.215"N	104°00'03.767"W	0.19	
3400.00	0.680	10.760	3399.15	37.05	52.58	33.68	602186.65	628359.00	32°43'37.252"N	104°00'03.764"W	0.42	
3600.00	0.830	3.490	3599.14	37.53	55.19	33.99	602186.96	628361.61	32°43'37.278"N	104°00'03.760"W	0.09	
3800.00	1.040	295.480	3799.12	36.12	57.42	32.44	602185.41	628363.83	32°43'37.300"N	104°00'03.778"W	0.53	
4000.00	0.690	321.980	3999.09	33.86	59.15	30.06	602183.03	628365.56	32°43'37.317"N	104°00'03.806"W	0.26	
4200.00	1.760	247.410	4199.05	30.28	58.92	26.48	602179.45	628365.33	32°43'37.315"N	104°00'03.848"W	0.86	
4400.00	2.950	257.530	4398.88	22.28	56.63	18.62	602171.59	628363.04	32°43'37.292"N	104°00'03.940"W	0.63	
4600.00	4.250	260.590	4598.48	9.82	54.30	6.28	602159.25	628360.72	32°43'37.270"N	104°00'04.085"W	0.66	
4800.00	4.490	269.160	4797.90	-5.37	52.98	-8.86	602144.12	628359.39	32°43'37.257"N	104°00'04.262"W	0.35	
5000.00	4.090	274.800	4997.34	-20.24	53.46	-23.79	602129.18	628359.87	32°43'37.262"N	104°00'04.437"W	0.29	
5200.00	3.850	272.490	5196.86	-33.97	54.35	-37.61	602115.37	628360.76	32°43'37.272"N	104°00'04.598"W	0.14	
5400.00	3.210	283.990	5396.49	-45.98	55.99	-49.75	602103.23	628362.41	32°43'37.288"N	104°00'04.741"W	0.48	
5600.00	2.750	276.050	5596.22	-56.04	57.85	-59.96	602093.02	628364.27	32°43'37.307"N	104°00'04.860"W	0.31	
5800.00	2.040	294.650	5796.04	-63.90	59.84	-67.96	602085.02	628366.26	32°43'37.327"N	104°00'04.954"W	0.52	

1 1/2" bore
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Field	(Aries) Sec 20, T18S, R30E	Wellbore	No. 4HY ST 01 (AWB)
Facility	Aries 20 Fed Com	Sidetrack from	No. 4H AWB at 8003.00 MD

WELLPATH DATA (137 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
6000.00	1.900	342.450	5995.94	-67.82	64.49	-72.20	602080.78	628370.90	32°43'37.373"N	104°00'05.003"W	0.80	
6200.00	0.880	350.080	6195.88	-68.78	69.16	-73.46	602079.52	628375.58	32°43'37.419"N	104°00'05.018"W	0.52	
6400.00	1.490	10.980	6395.83	-68.28	73.23	-73.23	602079.75	628379.64	32°43'37.460"N	104°00'05.015"W	0.37	
6600.00	1.930	13.420	6595.74	-66.63	79.06	-71.95	602081.03	628385.47	32°43'37.517"N	104°00'05.000"W	0.22	
6800.00	0.680	10.460	6795.69	-65.34	83.50	-70.96	602082.02	628389.91	32°43'37.561"N	104°00'04.988"W	0.63	
7000.00	1.210	239.950	6995.67	-66.94	83.61	-72.57	602080.41	628390.02	32°43'37.562"N	104°00'05.007"W	0.87	
7200.00	1.550	247.070	7195.62	-71.39	81.50	-76.89	602076.09	628387.91	32°43'37.541"N	104°00'05.057"W	0.19	
7400.00	1.910	254.540	7395.52	-77.21	79.56	-82.59	602070.39	628385.97	32°43'37.522"N	104°00'05.124"W	0.21	
7500.00	1.790	248.120	7495.47	-80.32	78.53	-85.65	602067.33	628384.94	32°43'37.512"N	104°00'05.160"W	0.24	
7672.00	1.300	223.000	7667.41	-84.30	76.10	-89.47	602063.51	628382.52	32°43'37.488"N	104°00'05.205"W	0.48	
7704.00	1.700	103.800	7699.41	-84.11	75.72	-89.26	602063.72	628382.14	32°43'37.485"N	104°00'05.202"W	8.11	
7736.00	6.200	86.100	7731.32	-81.93	75.73	-87.07	602065.91	628382.14	32°43'37.485"N	104°00'05.177"W	14.40	
7768.00	10.500	76.100	7762.98	-77.33	76.55	-82.52	602070.47	628382.96	32°43'37.493"N	104°00'05.123"W	14.13	
7799.00	13.900	72.000	7793.27	-70.94	78.37	-76.23	602076.75	628384.79	32°43'37.511"N	104°00'05.050"W	11.31	
7831.00	14.900	68.800	7824.27	-63.29	81.05	-68.74	602084.24	628387.46	32°43'37.537"N	104°00'04.962"W	3.99	
7863.00	18.700	64.600	7854.90	-54.59	84.74	-60.27	602092.71	628391.15	32°43'37.573"N	104°00'04.863"W	12.46	
7895.00	22.500	65.200	7884.85	-44.10	89.51	-50.07	602102.91	628395.92	32°43'37.620"N	104°00'04.743"W	11.89	
7926.00	26.200	68.700	7913.08	-32.04	94.49	-38.30	602114.67	628400.90	32°43'37.669"N	104°00'04.605"W	12.81	
7958.00	29.900	71.200	7941.32	-17.60	99.62	-24.17	602128.81	628406.04	32°43'37.719"N	104°00'04.439"W	12.13	
7990.00	34.200	73.900	7968.44	-1.10	104.69	-7.97	602145.01	628411.10	32°43'37.769"N	104°00'04.250"W	14.16	
8003.00	35.780	74.840	7979.09	6.20	106.70	-0.79	602152.19	628413.11	32°43'37.788"N	104°00'04.166"W	12.84	
8174.00	59.800	86.600	8093.35	131.16	124.45	123.28	602276.24	628430.86	32°43'37.960"N	104°00'02.713"W	14.90	
8237.00	64.500	80.500	8122.79	186.74	130.76	178.57	602331.53	628437.17	32°43'38.021"N	104°00'02.065"W	11.35	
8268.00	68.300	75.800	8135.21	214.85	136.61	206.35	602359.31	628443.02	32°43'38.078"N	104°00'01.740"W	18.52	
8300.00	70.700	74.300	8146.41	244.25	144.34	235.30	602388.26	628450.75	32°43'38.154"N	104°00'01.401"W	8.69	
8331.00	73.100	73.300	8156.05	273.02	152.57	263.60	602416.55	628458.97	32°43'38.234"N	104°00'01.069"W	8.33	
8363.00	75.800	69.500	8164.63	302.81	162.40	292.81	602445.76	628468.81	32°43'38.330"N	104°00'00.727"W	14.21	
8395.00	79.300	68.200	8171.52	332.62	173.68	321.94	602474.89	628480.08	32°43'38.441"N	104°00'00.385"W	11.63	
8427.00	81.600	68.000	8176.83	362.60	185.45	351.22	602504.16	628491.85	32°43'38.557"N	104°00'00.042"W	7.21	
8458.00	84.300	68.300	8180.64	391.84	196.90	379.77	602532.72	628503.30	32°43'38.669"N	103°59'59.708"W	8.76	

Wellbore
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Area	Eddy County, NM	Well	No. 4H
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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]	
8490.00	88.900	69.800	8182.53	422.35	208.31	409.60	602562.54	628514.72	32°43'38.781"N	103°59'59.358"W	15.12	
8521.00	90.800	69.200	8182.62	452.03	219.17	438.63	602591.57	628525.57	32°43'38.888"N	103°59'59.018"W	6.43	
8585.00	89.500	70.900	8182.45	513.49	241.00	498.79	602651.72	628547.41	32°43'39.102"N	103°59'58.313"W	3.34	
8680.00	89.800	76.000	8183.03	606.10	268.06	589.82	602742.74	628574.45	32°43'39.367"N	103°59'57.246"W	5.38	
8775.00	88.600	80.100	8184.36	700.10	287.72	682.73	602835.65	628594.12	32°43'39.558"N	103°59'56.158"W	4.50	
8870.00	88.200	83.400	8187.01	794.75	301.34	776.70	602929.61	628607.74	32°43'39.690"N	103°59'55.058"W	3.50	
8965.00	88.800	84.400	8189.50	889.64	311.44	871.12	603024.03	628617.83	32°43'39.787"N	103°59'53.952"W	1.23	
9059.00	88.300	84.700	8191.87	983.57	320.36	964.67	603117.56	628626.76	32°43'39.872"N	103°59'52.857"W	0.62	
9155.00	90.600	89.000	8192.80	1079.53	325.63	1060.49	603213.38	628632.03	32°43'39.922"N	103°59'51.735"W	5.08	
9249.00	90.800	88.200	8191.65	1173.44	327.93	1154.45	603307.34	628634.32	32°43'39.941"N	103°59'50.635"W	0.88	
9344.00	89.300	87.200	8191.57	1268.41	331.74	1249.37	603402.25	628638.14	32°43'39.976"N	103°59'49.524"W	1.90	
9439.00	86.200	92.500	8195.30	1363.10	332.00	1344.26	603497.12	628638.39	32°43'39.976"N	103°59'48.413"W	6.46	
9534.00	85.900	91.400	8201.84	1457.41	328.77	1438.97	603591.83	628635.17	32°43'39.941"N	103°59'47.304"W	1.20	
9597.00	84.500	94.600	8207.11	1519.74	325.49	1501.66	603654.51	628631.88	32°43'39.906"N	103°59'46.571"W	5.53	
9628.00	85.600	91.700	8209.79	1550.40	323.79	1532.49	603685.34	628630.19	32°43'39.889"N	103°59'46.210"W	9.97	
9660.00	85.700	90.800	8212.22	1582.18	323.10	1564.39	603717.24	628629.49	32°43'39.881"N	103°59'45.837"W	2.82	
9691.00	86.800	88.100	8214.24	1613.06	323.39	1595.32	603748.16	628629.79	32°43'39.883"N	103°59'45.475"W	9.39	
9723.00	88.000	88.500	8215.70	1645.01	324.34	1627.27	603780.11	628630.74	32°43'39.891"N	103°59'45.101"W	3.95	
9755.00	89.400	87.800	8216.42	1676.98	325.37	1659.25	603812.09	628631.77	32°43'39.900"N	103°59'44.726"W	4.89	
9787.00	91.200	86.900	8216.25	1708.97	326.85	1691.21	603844.05	628633.25	32°43'39.914"N	103°59'44.352"W	6.29	
9818.00	91.300	88.100	8215.58	1739.96	328.20	1722.17	603875.01	628634.60	32°43'39.926"N	103°59'43.990"W	3.88	
9849.00	91.400	88.700	8214.85	1770.93	329.07	1753.15	603905.98	628635.46	32°43'39.934"N	103°59'43.627"W	1.96	
9881.00	91.400	87.200	8214.07	1802.90	330.21	1785.12	603937.95	628636.61	32°43'39.944"N	103°59'43.253"W	4.69	
9912.00	91.500	88.600	8213.28	1833.88	331.35	1816.09	603968.92	628637.74	32°43'39.954"N	103°59'42.890"W	4.53	
9944.00	91.800	89.100	8212.36	1865.83	331.99	1848.07	604000.89	628638.39	32°43'39.960"N	103°59'42.516"W	1.82	
9976.00	91.700	87.300	8211.38	1897.80	333.00	1880.04	604032.86	628639.39	32°43'39.969"N	103°59'42.142"W	5.63	
10008.00	91.800	89.400	8210.41	1929.76	333.92	1912.01	604064.83	628640.31	32°43'39.977"N	103°59'41.767"W	6.57	
10071.00	91.700	92.200	8208.48	1992.53	333.04	1974.96	604127.78	628639.43	32°43'39.966"N	103°59'41.030"W	4.45	
10103.00	91.500	92.700	8207.59	2024.33	331.67	2006.92	604159.73	628638.07	32°43'39.952"N	103°59'40.656"W	1.68	
10165.00	91.000	91.500	8206.24	2085.99	329.40	2068.87	604221.67	628635.79	32°43'39.927"N	103°59'39.931"W	2.10	

Wellbore
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Field	(Aries) Sec 20, T18S, R30E	Wellbore	No. 4HY ST 01 (AWB)
Facility	Aries 20 Fed Com	Sidetrack from	No. 4H AWB at 8003.00 MD

WELLPATH DATA (137 stations)												
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10229.00	91.000	91.400	8205.12	2149.71	327.78	2132.84	604285.64	628634.18	32°43'39.909"N	103°59'39.183"W	0.16	
10292.00	90.300	91.900	8204.40	2212.43	325.97	2195.80	604348.60	628632.36	32°43'39.889"N	103°59'38.446"W	1.37	
10356.00	90.200	92.100	8204.12	2276.11	323.73	2259.76	604412.56	628630.13	32°43'39.865"N	103°59'37.697"W	0.35	
10419.00	89.100	91.300	8204.51	2338.82	321.86	2322.73	604475.52	628628.26	32°43'39.845"N	103°59'36.960"W	2.16	
10451.00	88.700	91.300	8205.12	2370.69	321.14	2354.72	604507.50	628627.53	32°43'39.836"N	103°59'36.586"W	1.25	
10482.00	87.800	89.700	8206.07	2401.59	320.87	2385.70	604538.48	628627.26	32°43'39.833"N	103°59'36.223"W	5.92	
10495.00	87.500	89.300	8206.60	2414.56	320.98	2398.69	604551.47	628627.38	32°43'39.833"N	103°59'36.071"W	3.84	
10546.00	86.400	87.600	8209.32	2465.44	322.36	2449.60	604602.37	628628.75	32°43'39.845"N	103°59'35.475"W	3.97	
10577.00	85.100	86.700	8211.61	2496.35	323.90	2480.47	604633.25	628630.29	32°43'39.860"N	103°59'35.114"W	5.10	
10641.00	84.500	86.800	8217.42	2560.09	327.51	2544.11	604696.88	628633.90	32°43'39.893"N	103°59'34.369"W	0.95	
10697.00	84.100	87.500	8222.98	2615.80	330.28	2599.76	604752.52	628636.67	32°43'39.919"N	103°59'33.717"W	1.43	
10759.00	85.300	88.300	8228.70	2677.51	332.54	2661.45	604814.21	628638.94	32°43'39.939"N	103°59'32.995"W	2.32	
10822.00	85.700	90.000	8233.65	2740.23	333.47	2724.25	604877.00	628639.87	32°43'39.947"N	103°59'32.260"W	2.76	
10885.00	86.700	91.100	8237.82	2802.92	332.87	2787.11	604939.85	628639.26	32°43'39.939"N	103°59'31.524"W	2.36	
10917.00	86.700	91.500	8239.66	2834.74	332.14	2819.04	604971.79	628638.54	32°43'39.930"N	103°59'31.150"W	1.25	
10949.00	88.300	91.000	8241.06	2866.59	331.45	2851.01	605003.75	628637.84	32°43'39.923"N	103°59'30.776"W	5.24	
10981.00	88.200	91.500	8242.04	2898.45	330.75	2882.98	605035.72	628637.14	32°43'39.915"N	103°59'30.402"W	1.59	
11012.00	89.200	90.400	8242.74	2929.34	330.24	2913.97	605066.71	628636.63	32°43'39.909"N	103°59'30.039"W	4.79	
11044.00	89.100	90.000	8243.22	2961.26	330.12	2945.97	605098.70	628636.52	32°43'39.906"N	103°59'29.665"W	1.29	
11076.00	89.400	89.800	8243.63	2993.19	330.18	2977.96	605130.70	628636.57	32°43'39.906"N	103°59'29.290"W	1.13	
11108.00	89.400	89.200	8243.97	3025.13	330.46	3009.96	605162.69	628636.85	32°43'39.908"N	103°59'28.915"W	1.87	
11139.00	90.700	89.200	8243.94	3056.09	330.89	3040.96	605193.68	628637.29	32°43'39.911"N	103°59'28.553"W	4.19	
11170.00	90.800	89.200	8243.54	3087.05	331.32	3071.95	605224.68	628637.72	32°43'39.914"N	103°59'28.190"W	0.32	
11233.00	90.400	88.900	8242.88	3149.97	332.37	3134.94	605287.66	628638.76	32°43'39.923"N	103°59'27.452"W	0.79	
11296.00	89.800	89.400	8242.77	3212.89	333.30	3197.93	605350.65	628639.70	32°43'39.930"N	103°59'26.715"W	1.24	
11360.00	90.200	90.600	8242.77	3276.75	333.30	3261.93	605414.64	628639.70	32°43'39.928"N	103°59'25.966"W	1.98	
11423.00	90.000	91.200	8242.66	3339.54	332.31	3324.92	605477.63	628638.71	32°43'39.916"N	103°59'25.229"W	1.00	
11487.00	89.500	91.500	8242.94	3403.29	330.81	3388.90	605541.60	628637.20	32°43'39.899"N	103°59'24.480"W	0.91	
11550.00	89.800	92.100	8243.32	3465.99	328.83	3451.87	605604.56	628635.22	32°43'39.877"N	103°59'23.743"W	1.06	
11613.00	90.700	90.900	8243.05	3528.72	327.18	3514.85	605667.54	628633.57	32°43'39.859"N	103°59'23.006"W	2.38	

Wellbore
#2

Actual Wellpath Report

No. 4HY ST 01 (AWP)

Page 6 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	Mewbourne Oil Company	Slot	No. 4H SHL
Area	Eddy County, NM	Well	No. 4H
Field	(Aries) Sec 20, T18S, R30E	Wellbore	No. 4HY ST 01 (AWB)
Facility	Aries 20 Fed Com	Sidetrack from	No. 4H AWB at 8003.00 MD

WELLPATH DATA (137 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
11675.00	90.300	90.900	8242.51	3590.52	326.20	3576.84	605729.52	628632.60	32°43'39.847"N	103°59'22.280"W	0.65	
11738.00	89.500	90.900	8242.62	3653.31	325.21	3639.83	605792.51	628631.61	32°43'39.836"N	103°59'21.543"W	1.27	
11802.00	89.700	90.600	8243.06	3717.11	324.38	3703.82	605856.49	628630.77	32°43'39.825"N	103°59'20.794"W	0.56	
11865.00	90.900	90.700	8242.73	3779.92	323.66	3766.81	605919.48	628630.06	32°43'39.816"N	103°59'20.056"W	1.91	
11928.00	90.700	90.600	8241.85	3842.73	322.95	3829.80	605982.47	628629.34	32°43'39.807"N	103°59'19.319"W	0.35	
11992.00	91.400	91.200	8240.68	3906.51	321.94	3893.78	606046.44	628628.34	32°43'39.795"N	103°59'18.570"W	1.44	
12055.00	91.100	90.900	8239.31	3969.27	320.79	3956.76	606109.41	628627.18	32°43'39.782"N	103°59'17.833"W	0.67	
12118.00	90.700	90.400	8238.32	4032.08	320.07	4019.75	606172.40	628626.47	32°43'39.773"N	103°59'17.096"W	1.02	
12181.00	91.000	90.000	8237.38	4094.92	319.85	4082.74	606235.38	628626.25	32°43'39.768"N	103°59'16.359"W	0.79	
12244.00	89.100	90.000	8237.33	4157.78	319.85	4145.74	606298.38	628626.25	32°43'39.766"N	103°59'15.621"W	3.02	
12307.00	88.800	89.500	8238.48	4220.65	320.13	4208.73	606361.36	628626.52	32°43'39.767"N	103°59'14.884"W	0.93	
12370.00	88.800	89.000	8239.80	4283.55	320.95	4271.71	606424.33	628627.35	32°43'39.773"N	103°59'14.147"W	0.79	
12433.00	88.700	88.800	8241.17	4346.47	322.16	4334.68	606487.30	628628.56	32°43'39.783"N	103°59'13.409"W	0.35	
12496.00	89.100	88.700	8242.38	4409.40	323.54	4397.65	606550.27	628629.93	32°43'39.795"N	103°59'12.672"W	0.65	
12560.00	89.200	88.400	8243.33	4473.34	325.16	4461.62	606614.24	628631.55	32°43'39.809"N	103°59'11.923"W	0.49	
12648.00	89.900	89.100	8244.02	4561.25	327.08	4549.60	606702.21	628633.47	32°43'39.825"N	103°59'10.894"W	1.12	
12700.00	89.900	89.100	8244.12	4613.19	327.89	4601.59	606754.20	628634.29	32°43'39.831"N	103°59'10.285"W	0.00	Proj to bit

late 11 bore
#2

Actual Wellpath Report

No. 4HY ST 01 (AWP)

Page 7 of 7



REFERENCE WELLPATH IDENTIFICATION				
Operator	Mewbourne Oil Company	Slot	No. 4H SHL	
Area	Eddy County, NM	Well	No. 4H	
Field	(Aries) Sec 20, T18S, R30E	Wellbore	No. 4HY ST 01 (AWB)	
Facility	Aries 20 Fed Com	Sidetrack from	No. 4H AWB at 8003.00 MD	

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
No. 4HY PBHL		8248.00	303.00	4619.80	606772.40	628609.40	32°43'39.584"N	103°59'10.073"W	point

WELLPATH COMPOSITION - Ref Wellbore: No. 4HY ST 01 (AWB)					Ref Wellpath: No. 4HY ST 01 (AWP)	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model		Log Name/Comment		Wellbore
0.00	7500.00	Generic gyro - northseeking (Standard)		MS Gyros <200-7500>		No. 4H AWB
7500.00	8003.00	ISCWSA MWD, Rev. 2 (Standard)		DDC MWD <7500-12685>		No. 4H AWB
8003.00	12648.00	NaviTrak (Standard)		NaviGamma <8003-xxxx>		No. 4HY ST 01 (AWB)
12648.00	12700.00	Blind Drilling (std)		Projection to bit		No. 4HY ST 01 (AWB)

Well bore
#2

Mewbourne Oil Company

Location: Eddy County, NM
Field: (Aries) Sec 20, T18S, R30E
Facility: Aries 20 Fed Com

Slot: No. 4H SHL
Well: No. 4H
Wellbore: No. 4HY



Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (%/100ft)	VS (ft)
Tie On	8003.00	35.780	74.840	7979.09	106.70	-0.79	0.00	6.20
whipstock	8060.00	40.091	72.420	8024.04	116.61	32.81	8.00	40.37
EOC	8442.22	89.125	75.000	8183.00	208.95	354.64	12.84	367.55
TL	9195.01	89.130	90.058	8194.53	306.54	1098.81	2.00	1116.51
No. 4H PBHL	12716.41	89.130	90.058	8248.00	303.00	4619.80	0.00	4629.73

Plot reference wellpath is Rev-B.0

True vertical depths are referenced to Rig on No. 4H SHL (KB)	Grid System: NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No. 4H SHL (KB)	North Reference: Grid north
Rig on No. 4H SHL (KB) to Mean Sea Level: 3493 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: No. 4H SHL): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: alvayes on 05/Jan/2013

Location Information

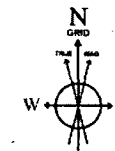
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Aries 20 Fed Com	602138.380	632535.630	32°44'18.583"N	104°00'04.176"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
No. 4H SHL	-4229.55	14.60	602152.974	628306.421
Rig on No. 4H SHL (KB) to Mud line (At Slot: No. 4H SHL)			3493ft	
Mean Sea Level to Mud line (At Slot: No. 4H SHL)			0ft	
Rig on No. 4H SHL (KB) to Mean Sea Level			3493ft	

Tie-On Position

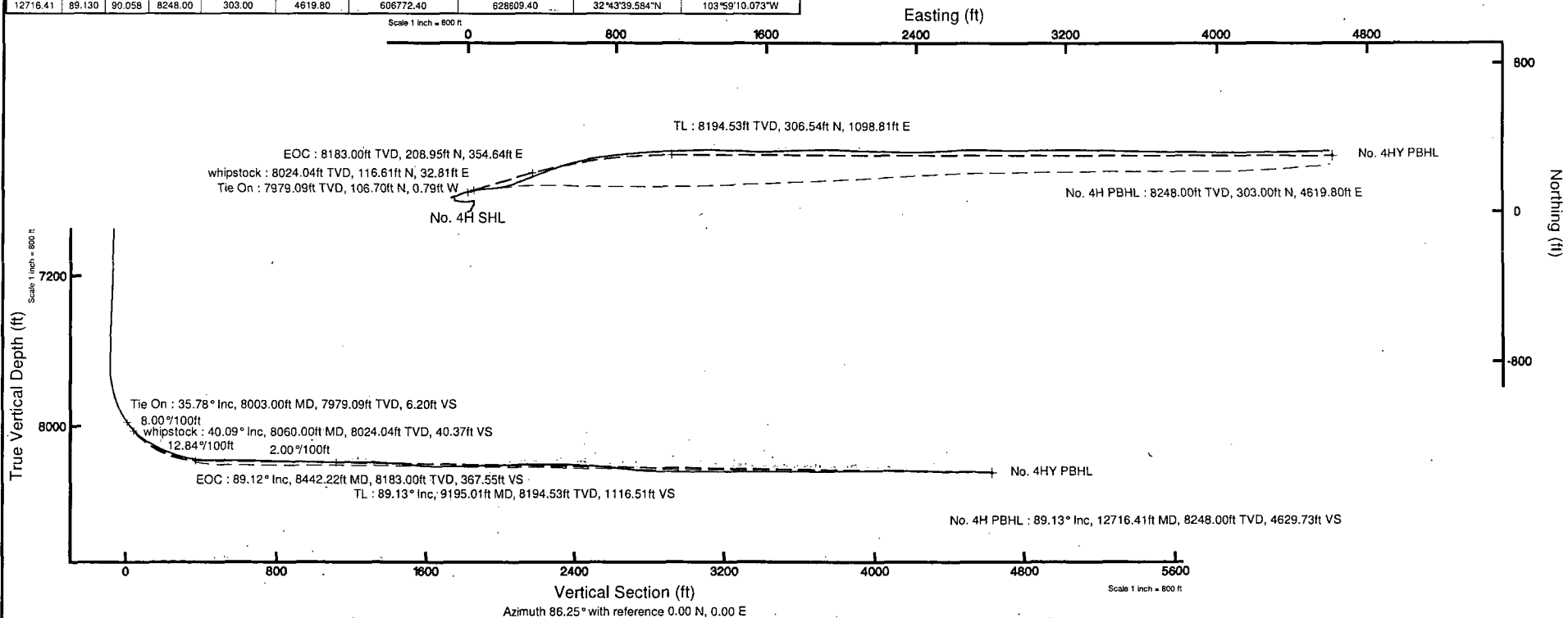
MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
8003.00	35.780	74.840	7979.09	106.70	-0.79	602152.19	628413.11	32°43'37.788"N	104°00'04.166"W

Bottom Hole Location

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
12716.41	89.130	90.058	8248.00	303.00	4619.80	606772.40	628609.40	32°43'39.584"N	103°59'10.073"W



BGGM (1945.0 to 2014.0) Dip: 60.50° Field: 48700.9 nT
Magnetic North is 7.74 degrees East of True North (at 21/Dec/2012)
Grid North is 0.18 degrees East of True North
To correct azimuth from True to Grid subtract 0.18 degrees
To correct azimuth from Magnetic to Grid add 7.56 degrees
For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.56 = 97.56



Well bore #2



MEWBORNE OIL 20 STAGE FRAC POINT SPACE OUT



Baker Oil Tools

Casing Information	
7" 26# P110	
Burst=	9,950 psi
Collapse=	6,230 psi
Capacity=	0.03826 bbls/ft

Long String Information	
4 1/2" 13.50# P110	
Burst=	12,410 psi
Collapse=	10,690 psi
Capacity=	0.01493 bbls/ft

S-3 Casing Packer
7,704.74

7" Casing Shoe
9,057.00

Displacements (BBLs)	
3.625" Slv	305.77
3.500" Slv	239.81
3.375" Slv	236.56
3.250" Slv	315.33
3.125" Slv	319.11
3.000" Slv	322.37
2.875" Slv	325.59
2.750" Slv	328.76
2.625" Slv	331.92
2.500" Slv	335.27

Displacements (BBLs)	
2.375" Slv	338.63
2.250" Slv	341.93
2.125" Slv	345.25
2.000" Slv	348.49
1.875" Slv	352.27
1.750" Slv	355.52
1.625" Slv	358.73
1.500" DB Slv	362.01
1.375" DB Slv	365.73
PumpOff FS	368.68

Length of Zone	
Zone 1	118.38
Zone 2	245.20
Zone 3	218.32
Zone 4	261.19
Zone 5	218.39
Zone 6	215.17
Zone 7	215.61
Zone 8	217.04
Zone 9	213.62
Zone 10	224.61

Length of Zone	
Zone 11	224.59
Zone 12	221.50
Zone 13	210.98
Zone 14	213.16
Zone 15	216.13
Zone 16	253.98
Zone 17	210.59
Zone 18	213.31
Zone 19	213.68
Zone 20	515.57

Component	OD	ID	dim
Liner Top Pk	5.875	3.900	in
OH Packer	5.820	3.875	in
Sleevers	5.750	Ball Seat	in

NOTE: SLEEVE SIZE REFERS TO BALL OD TO SHIFT OPEN

TD
12,700.00

Packer #19	Packer #18	Packer #17	Packer #16	Packer #15	Packer #14	Packer #13	Packer #12	Packer #11	Packer #10	Packer #9	Packer #8	Packer #7	Packer #6	Packer #5	Packer #4	Packer #3	Packer #2	Packer #1
8,572.57	8,786.25	8,999.56	9,210.15	9,464.13	9,680.26	9,893.42	10,104.40	10,325.90	10,550.49	10,775.10	10,994.72	11,211.76	11,427.37	11,642.54	11,858.93	12,120.12	12,336.44	12,581.64
2,154 PSI	2,154 PSI	2,154 PSI	2,154 PSI	2,154 PSI	2,154 PSI	2,154 PSI	2,154 PSI	2,154 PSI	2,154 PSI	2,154 PSI	2,154 PSI	2,154 PSI	2,154 PSI	2,154 PSI	2,154 PSI	2,154 PSI	2,154 PSI	2,154 PSI

