

Schlumberger

Section 4

Surveys w / Well Plot

Final Surveys

Report Date: -78.0MTF Client: Strata Production Company Field: Eddy County, NM Structure / Slot: Nash Draw #36 / Nash Draw #36 Well: Nash Draw #36 Borehole: Nash Draw #36 UWI/API#: Proposal Name / Modified Date: actual / August 9, 2001 Tort / AHD / DDI / ERD ratio: 170.131° / 38715.89 ft / 6.976 / 5.680 Grid Coordinate System: NAD27 New Mexico State Planes, Eastern Zone, US Feet Location Lat/Long: N 32 9 16.621, W 104 14 52.902 Location Grid N/E Y/X: N 419981.400 ftUS, E 526399.600 ftUS Grid Convergence Angle: +0.04539979° Grid Scale Factor: 0.99990989	Survey / DLS Computation Method: Minimum Curvature / Lubinski Vertical Section Azimuth: 296.390° Vertical Section Origin: N 0.000 ft, E 0.000 ft TVD Reference Datum: KB TVD Reference Elevation: 3006.0 ft relative to Sea Bed / Ground Level Elevation: 0.000 ft relative to Magnetic Declination: 9.023° Total Field Strength: 49556.218 nT Magnetic Dip: 60.236° Declination Date: July 09, 2001 Magnetic Declination Model: BGGM 2000 North Reference: Grid North Total Corr Mag North -> Grid North: +8.978° Local Coordinates Referenced To: Structure Reference Point
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Station ID	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	VSec (ft)	N/S (ft)	E/W (ft)	Closure (ft)	at Azim (°)	DLS (°/100ft)	TF (°)
Tie-In	3133.00	1.65	159.5	3131.60	-7.28	-46.60	-15.00	48.95	197.84	0.00	-176.4MTF
	3174.00	1.20	183.6	3172.59	-7.87	-47.58	-14.82	49.84	197.30	1.81	-107.9MTF
	3209.00	1.66	252.1	3207.58	-7.65	-48.10	-15.33	50.49	197.67	4.73	-89.6MTF
	3240.00	2.88	270.4	3238.55	-6.63	-48.24	-16.53	50.99	198.92	4.53	-87.3MTF
	3271.00	4.12	272.7	3269.50	-4.91	-48.18	-18.42	51.58	200.93	4.02	-82.9MTF
	3302.00	4.18	277.1	3300.41	-2.82	-47.99	-20.66	52.24	203.29	1.04	-78.0MTF
	3334.00	5.00	282.0	3332.31	-0.37	-47.55	-23.18	52.90	205.99	2.84	26.9
	3365.00	6.09	287.1	3363.17	2.56	-46.79	-26.07	53.56	209.13	3.86	-34.5
	3396.00	6.94	282.4	3393.97	6.00	-45.90	-29.47	54.55	212.70	3.23	-0.9
	3428.00	7.76	282.3	3425.70	9.97	-45.03	-33.47	56.10	216.63	2.56	10.8
	3459.00	8.63	283.4	3456.39	14.27	-44.04	-37.78	58.02	220.62	2.85	104.9
	3490.00	8.52	286.5	3487.04	18.79	-42.85	-42.24	60.17	224.59	1.53	-11.4
	3521.00	9.60	285.2	3517.65	23.59	-41.52	-46.94	62.67	228.51	3.55	93.1

3553.00	9.59	290.0	3549.21	28.86	-39.91	-52.02	65.56	232.50	2.50	-6.0
3584.00	9.75	289.9	3579.77	34.03	-38.13	-56.91	68.51	236.18	0.52	53.5
3616.00	10.14	292.8	3611.28	39.54	-36.12	-62.06	71.80	239.80	1.98	55.2
3647.00	10.37	294.6	3641.79	45.05	-33.90	-67.11	75.19	243.20	1.27	145.7
3678.00	10.04	295.9	3672.30	50.54	-31.56	-72.08	78.68	246.36	1.30	-19.6
3709.00	10.72	294.6	3702.79	56.12	-29.18	-77.13	82.46	249.28	2.32	135.9
3741.00	10.27	297.1	3734.26	61.95	-26.64	-82.38	86.58	252.08	2.00	146.0
3772.00	10.14	297.6	3764.77	67.44	-24.12	-87.25	90.53	254.55	0.51	20.7
3803.00	10.63	298.6	3795.26	73.03	-21.48	-92.18	94.65	256.88	1.68	128.6
3835.00	10.39	300.3	3826.72	78.86	-18.61	-97.27	99.03	259.17	1.23	-94.0
3866.00	10.38	299.4	3857.21	84.43	-15.83	-102.11	103.33	261.19	0.52	-44.2
3897.00	10.71	297.7	3887.69	90.10	-13.12	-107.10	107.90	263.01	1.46	111.7
3929.00	10.44	301.8	3919.15	95.96	-10.21	-112.19	112.66	264.80	2.50	89.3
3960.00	10.45	303.7	3949.63	101.55	-7.17	-116.92	117.14	266.49	1.11	42.5
3991.00	10.53	304.1	3980.12	107.14	-4.02	-121.60	121.67	268.10	0.35	-109.5
4022.00	10.42	302.3	4010.60	112.74	-0.94	-126.32	126.32	269.57	1.11	-61.2
4053.00	10.45	302.0	4041.09	118.32	2.05	-131.07	131.09	270.90	0.20	-44.8
4077.00	10.58	301.3	4064.68	122.69	4.35	-134.80	134.87	271.85	0.76	64.8
4108.00	10.85	304.2	4095.14	128.41	7.47	-139.65	139.85	273.06	1.94	-65.4
4140.00	11.11	301.4	4126.56	134.47	10.77	-144.77	145.17	274.25	1.85	154.4
4202.00	10.54	302.9	4187.45	146.05	16.96	-154.63	155.56	276.26	1.03	-171.9
4234.00	10.29	302.7	4218.93	151.80	20.09	-159.49	160.75	277.18	0.79	69.2
4265.00	10.36	303.7	4249.42	157.32	23.13	-164.14	165.76	278.02	0.62	-23.1
4327.00	10.62	303.1	4310.39	168.52	29.35	-173.56	176.03	279.60	0.45	-158.8
4390.00	10.21	302.2	4372.35	179.84	35.49	-183.15	186.56	280.97	0.70	15.8
4453.00	10.95	303.3	4434.28	191.34	41.75	-192.88	197.35	282.21	1.22	-175.2
4546.00	10.31	303.0	4525.68	208.37	51.14	-207.24	213.46	283.86	0.69	-162.8
4640.00	10.14	302.7	4618.19	224.95	60.19	-221.26	229.30	285.22	0.19	-95.7
4765.00	10.13	302.1	4741.24	246.83	71.97	-239.83	250.40	286.70	0.08	-23.6
4859.00	10.64	300.9	4833.70	263.70	80.82	-254.28	266.81	287.63	0.59	157.7
4953.00	10.42	301.4	4926.12	280.82	89.71	-268.98	283.55	288.44	0.25	-98.1
5047.00	10.35	297.9	5018.58	297.73	98.09	-283.70	300.18	289.07	0.68	-123.5

5141.00	10.20	296.6	5111.07	314.50	105.77	-298.60	316.78	289.50	0.29	139.3
5172.00	9.98	297.7	5141.59	319.93	108.24	-303.44	322.16	289.63	0.94	69.3
5266.00	10.02	298.3	5234.16	336.24	115.91	-317.85	338.32	290.03	0.12	-81.6
5391.00	10.14	294.5	5357.23	358.11	125.63	-337.44	360.06	290.42	0.54	-176.8
5484.00	9.83	294.4	5448.82	374.23	132.30	-352.11	376.15	290.59	0.33	95.2
5672.00	9.79	300.6	5634.08	406.20	147.07	-380.49	407.92	291.13	0.56	-86.5
5766.00	9.82	298.4	5726.71	422.19	154.95	-394.42	423.76	291.45	0.40	-121.8
5860.00	9.48	294.9	5819.38	437.94	162.02	-408.49	439.45	291.63	0.72	13.9
5923.00	9.97	295.6	5881.47	448.58	166.56	-418.12	450.07	291.72	0.80	-173.9
6016.00	8.82	294.8	5973.22	463.75	173.03	-431.85	465.22	291.83	1.24	-55.7
6201.00	9.11	292.2	6155.97	492.54	184.51	-458.28	494.03	291.93	0.27	43.7
6294.00	9.85	296.2	6247.70	507.84	190.81	-472.24	509.33	292.00	1.06	-72.4
6375.00	10.01	293.5	6327.48	521.79	196.67	-484.91	523.28	292.08	0.61	-10.3
6419.00	10.62	292.9	6370.77	529.66	199.77	-492.15	531.15	292.09	1.41	56.0
6424.00	10.84	294.6	6375.68	530.59	200.15	-493.00	532.08	292.10	7.71	-20.8
6439.00	12.25	292.1	6390.38	533.59	201.34	-495.76	535.08	292.10	9.97	2.7
6459.00	13.74	292.4	6409.87	538.07	203.04	-499.92	539.58	292.10	7.46	2.1
6490.00	16.87	292.8	6439.76	546.24	206.19	-507.48	547.76	292.11	10.10	-6.9
6521.00	20.00	291.7	6469.17	556.01	209.89	-516.55	557.56	292.11	10.16	-5.4
6553.00	23.34	290.9	6498.90	567.78	214.18	-527.56	569.38	292.10	10.48	8.3
6584.00	26.76	292.0	6526.98	580.85	218.98	-539.77	582.50	292.08	11.13	7.5
6615.00	30.21	292.9	6554.23	595.60	224.63	-553.43	597.28	292.09	11.21	14.4
6647.00	33.44	294.4	6581.41	612.45	231.41	-568.88	614.15	292.14	10.39	20.1
6678.00	36.37	296.2	6606.83	630.19	239.00	-584.91	631.85	292.23	10.02	21.7
6709.00	39.42	298.1	6631.30	649.22	247.70	-601.84	650.82	292.37	10.53	11.7
6746.00	43.43	299.3	6659.03	673.68	259.46	-623.31	675.15	292.60	11.05	5.3
6777.00	49.19	300.0	6680.44	696.04	270.55	-642.78	697.39	292.83	18.65	0.7
6812.00	55.66	300.1	6701.77	723.71	284.43	-666.77	724.91	293.10	18.49	1.0
6840.00	60.85	300.2	6716.50	747.46	296.39	-687.36	748.53	293.33	18.54	3.9
6871.00	64.84	300.5	6730.64	774.98	310.32	-711.15	775.91	293.57	12.90	13.9
6903.00	68.22	301.4	6743.39	804.23	325.42	-736.32	805.03	293.84	10.87	11.1

6934.00	71.61	302.1	6754.03	833.21	340.74	-761.07	833.87	294.12	11.14	12.0
6965.00	73.88	302.6	6763.22	862.66	356.58	-786.08	863.18	294.40	7.48	8.6
6997.00	75.81	302.9	6771.59	893.35	373.29	-812.06	893.75	294.69	6.10	61.4
7028.00	77.15	305.4	6778.84	923.21	390.21	-837.00	923.49	294.99	8.95	-12.5
7059.00	79.37	304.9	6785.15	953.21	407.68	-861.81	953.38	295.32	7.33	-25.2
7090.00	80.42	304.4	6790.58	983.41	425.03	-886.92	983.50	295.60	3.74	-63.6
7122.00	81.06	303.1	6795.73	1014.73	442.58	-913.18	1014.78	295.86	4.48	-38.0
7153.00	82.33	302.1	6800.21	1045.23	459.10	-939.02	1045.24	296.05	5.19	-38.5
7184.00	83.58	301.1	6804.01	1075.86	475.22	-965.22	1075.87	296.21	5.15	-70.6
7216.00	83.79	300.5	6807.53	1107.58	491.51	-992.54	1107.58	296.34	1.98	-54.9
7247.00	84.77	299.1	6810.62	1138.37	506.84	-1019.31	1138.37	296.44	5.49	-9.9
7278.00	86.49	298.8	6812.99	1169.24	521.80	-1046.36	1169.25	296.50	5.63	-32.0
7309.00	87.77	298.0	6814.54	1200.18	536.52	-1073.59	1200.19	296.55	4.87	-10.3
7341.00	89.42	297.7	6815.32	1232.16	551.47	-1101.87	1232.17	296.59	5.24	0.0
7372.00	90.03	297.7	6815.47	1263.16	565.88	-1129.32	1263.16	296.61	1.97	-52.2
7403.00	90.34	297.3	6815.37	1294.15	580.19	-1156.82	1294.16	296.64	1.63	-90.0
7434.00	90.34	296.8	6815.19	1325.15	594.29	-1184.43	1325.16	296.65	1.61	-141.8
7497.00	89.07	295.8	6815.51	1388.14	622.20	-1240.90	1388.16	296.63	2.57	-10.9
7528.00	89.59	295.7	6815.87	1419.14	635.67	-1268.82	1419.15	296.61	1.71	8.7
7559.00	90.24	295.8	6815.92	1450.14	649.14	-1296.74	1450.15	296.59	2.12	-144.5
7591.00	90.10	295.7	6815.82	1482.13	663.04	-1325.57	1482.14	296.57	0.54	-109.9
7622.00	89.52	294.1	6815.93	1513.12	676.09	-1353.68	1513.13	296.54	5.49	-61.6
7653.00	89.79	293.6	6816.11	1544.09	688.62	-1382.04	1544.09	296.49	1.83	17.9
7684.00	90.10	293.7	6816.14	1575.06	701.06	-1410.43	1575.06	296.43	1.05	93.4
7715.00	89.93	296.6	6816.14	1606.05	714.23	-1438.49	1606.05	296.41	9.37	-92.5
7746.00	89.79	293.4	6816.21	1637.03	727.33	-1466.58	1637.03	296.38	10.33	-90.0
7778.00	89.79	293.0	6816.33	1668.98	739.94	-1495.99	1668.98	296.32	1.25	-56.6
7902.00	90.45	292.0	6816.07	1792.69	787.39	-1610.55	1792.73	296.05	0.97	51.8
7965.00	91.00	292.7	6815.27	1855.53	811.35	-1668.81	1855.59	295.93	1.41	96.1
8027.00	90.86	294.0	6814.27	1917.44	835.91	-1725.73	1917.52	295.84	2.11	138.4
8058.00	89.62	295.1	6814.14	1948.42	848.79	-1753.92	1948.51	295.82	5.35	-125.0
8121.00	89.55	295.0	6814.59	2011.40	875.47	-1811.00	2011.51	295.80	0.19	13.4

8184.00	89.97	295.1	6814.86	2074.38	902.14	-1868.07	2074.50	295.78	0.69	47.7
8247.00	90.79	296.0	6814.44	2137.37	929.31	-1924.91	2137.50	295.77	1.93	-110.1
8305.00	90.68	295.7	6813.69	2195.36	954.60	-1977.10	2195.49	295.77	0.55	41.6
8368.00	91.13	296.1	6812.70	2258.35	982.12	-2033.76	2258.48	295.78	0.96	-146.1
8430.00	89.79	295.2	6812.20	2320.34	1008.95	-2089.65	2320.48	295.77	2.60	-168.2
8462.00	89.31	295.1	6812.45	2352.34	1022.55	-2118.62	2352.48	295.76	1.53	125.0
8493.00	89.24	295.2	6812.85	2383.33	1035.72	-2146.68	2383.47	295.76	0.39	11.8
8524.00	89.72	295.3	6813.13	2414.32	1048.95	-2174.71	2414.47	295.75	1.58	-43.6
8555.00	89.93	295.1	6813.22	2445.31	1062.15	-2202.76	2445.47	295.74	0.94	32.2
8587.00	91.20	295.9	6812.91	2477.31	1075.92	-2231.64	2477.47	295.74	4.69	-9.4
8618.00	92.41	295.7	6811.93	2508.29	1089.41	-2259.54	2508.45	295.74	3.96	-36.5
8654.00	93.76	294.7	6809.99	2544.23	1104.71	-2292.06	2544.39	295.73	4.66	8.7
8685.00	95.71	295.0	6807.43	2575.11	1117.70	-2320.10	2575.28	295.72	6.36	15.0
8716.00	96.82	295.3	6804.05	2605.92	1130.79	-2347.99	2606.10	295.72	3.71	20.5
8748.00	97.35	295.5	6800.10	2637.67	1144.41	-2376.67	2637.85	295.71	1.77	-136.6
8779.00	97.14	295.3	6796.19	2668.41	1157.60	-2404.45	2668.60	295.71	0.93	138.8
8810.00	96.80	295.6	6792.43	2699.18	1170.83	-2432.24	2699.37	295.71	1.46	119.4
8842.00	96.52	296.1	6788.72	2730.96	1184.68	-2460.84	2731.16	295.71	1.78	168.7
8873.00	96.02	296.2	6785.33	2761.78	1198.26	-2488.50	2761.97	295.71	1.64	111.2
8901.00	95.75	296.9	6782.46	2789.63	1210.71	-2513.42	2789.82	295.72	2.67	167.9
8932.00	94.82	297.1	6779.61	2820.50	1224.73	-2540.92	2820.68	295.73	3.07	134.2
8964.00	93.75	298.2	6777.22	2852.40	1239.54	-2569.19	2852.57	295.76	4.79	173.6
8995.00	92.86	298.3	6775.43	2883.33	1254.18	-2596.45	2883.49	295.78	2.89	116.6
9026.00	92.41	299.2	6774.01	2914.27	1269.08	-2623.60	2914.42	295.81	3.24	144.5
9057.00	91.99	299.5	6772.82	2945.21	1284.26	-2650.60	2945.34	295.85	1.66	180.0
9089.00	91.58	299.5	6771.82	2977.14	1300.01	-2678.44	2977.26	295.89	1.28	-140.2
9120.00	91.34	299.3	6771.03	3008.09	1315.23	-2705.44	3008.19	295.93	1.01	-17.9
9152.00	91.96	299.1	6770.11	3040.04	1330.83	-2733.36	3040.12	295.96	2.04	-24.8
9183.00	92.61	298.8	6768.87	3070.98	1345.82	-2760.46	3071.06	295.99	2.31	-175.2
9214.00	91.41	298.7	6767.78	3101.94	1360.72	-2787.62	3102.00	296.02	3.88	174.5
9245.00	89.35	298.9	6767.58	3132.91	1375.66	-2814.79	3132.96	296.05	6.68	156.5
9265.00	88.66	299.2	6767.93	3152.88	1385.37	-2832.27	3152.93	296.06	3.76	154.0

Schlumberger

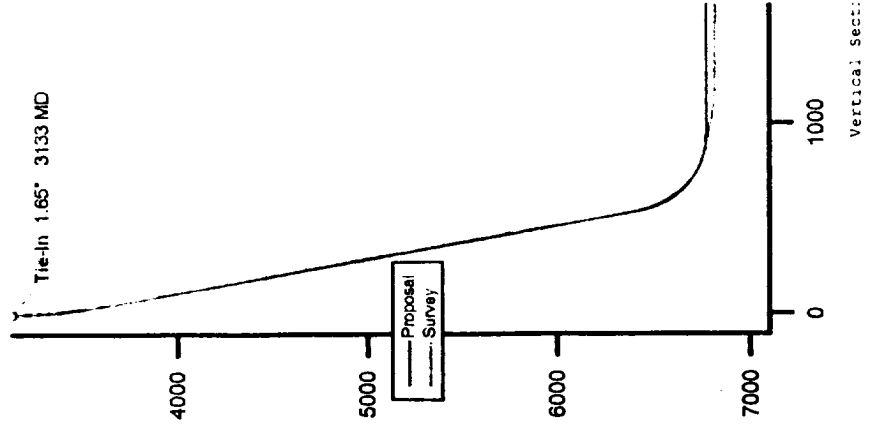
WELL Nash Draw #36



Grid Nor
Tot Corr (E & S)
Mag Dec (E & S)
Grid Conv (E & S)

Projected to Bit

Vertical Section View



Survey Error Model: (No Error Model Selected)

9304.00	88.25	299.4	6768.98	3191.82	1404.45	-2866.27	3191.86	296.1
9335.00	88.14	299.1	6769.95	3222.76	1419.59	-2893.30	3222.80	296.1
9366.00	88.62	299.1	6770.83	3253.72	1434.66	-2920.38	3253.74	296.1
9398.00	89.28	299.0	6771.42	3285.68	1450.19	-2948.35	3285.70	296.1
9429.00	89.69	299.5	6771.69	3316.64	1465.34	-2975.39	3316.65	296.1
9460.00	89.45	299.7	6771.93	3347.59	1480.65	-3002.35	3347.60	296.1
9492.00	89.21	299.0	6772.30	3379.54	1496.33	-3030.24	3379.55	296.1
9554.00	90.96	299.7	6772.21	3441.46	1526.72	-3084.28	3441.46	296.1
9586.00	91.68	300.1	6771.47	3473.39	1542.67	-3112.01	3473.39	296.1
9786.00	91.68	300.1	6765.61	3672.88	1642.93	-3284.96	3672.90	296.1