



Chevron Softail AV 26 2H ST01 Final Survey Report

(Non-Def Survey)

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PATHFINDER
A Schlumberger Company

Report Date: August 08, 2012 - 06:24 PM
Client: Chevron
Field: Culebra Bluff, Bone Spring South
Structure / Slot: Chevron Softail AV 26-2H / Chevron Softail AV 26-2H
Well: Chevron Softail AV 26-2H ST01
Borehole: ST01 - Lateral
UWI / API#: 30-015-40245-01
Survey Name: Chevron Softail AV 26-2H ST01 Final Survey Report
Survey Date: July 27, 2012
Tort / AHD / DDI / ERD Ratio: 144.511' / 4834.022 ft / 6.064 / 0.725
Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 16' 10.78728", W 104° 3' 34.73047"
Location Grid N/E Y/X: N 461929.000 rUS, E 584592.100 rUS
CRS Grid Convergence Angle: 0.14612304 °
Grid Scale Factor: 0.99991729

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 354.890 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3043.000 ft above MSL
Seabed / Ground Elevation: 3018.000 ft above MSL
Magnetic Declination: 7.777 °
Total Field Strength: 48470.338 nT
Magnetic Dip Angle: 60.077 °
Declination Date: July 27, 2012
Magnetic Declination Model: BGGM 2012
North Reference: Grid North
Grid Convergence Used: 0.146 °
Total Corr Mag North->Grid North: 7.631 °
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
Tie-In	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	250.82M
	87.00	0.32	250.82	87.00	-0.06	-0.08	-0.23	0.24	250.82	0.37	182.57M
	180.00	0.37	182.57	180.00	-0.42	-0.47	-0.49	0.67	226.39	0.42	177.39M
	273.00	0.82	177.39	272.99	-1.38	-1.43	-0.47	1.51	198.25	0.49	177.38M
	366.00	0.76	177.38	365.98	-2.66	-2.71	-0.41	2.74	188.66	0.06	191.67M
	459.00	0.94	191.67	458.97	-4.01	-4.07	-0.54	4.11	187.54	0.30	211.92M
	552.00	1.69	211.92	551.95	-5.84	-5.99	-1.42	6.15	193.33	0.94	217.65M
	645.00	2.30	217.65	644.89	-8.30	-8.63	-3.28	9.23	200.84	0.69	220.22M
	738.00	2.31	220.22	737.82	-10.99	-11.54	-5.63	12.84	206.03	0.11	230.76M
	831.00	2.13	230.76	830.75	-13.28	-14.06	-8.18	16.27	210.20	0.48	241.13M
	924.00	1.88	241.13	923.69	-14.86	-15.89	-10.86	19.24	214.34	0.47	243.39M
	1017.00	1.64	243.39	1016.65	-15.96	-17.22	-13.38	21.81	217.85	0.27	237.86M
	1111.00	1.75	237.86	1110.61	-17.11	-18.59	-15.80	24.40	220.37	0.21	239.06M
	1204.00	1.54	239.06	1203.57	-18.30	-19.99	-18.07	26.95	222.13	0.23	243.64M
	1297.00	1.53	243.64	1296.53	-19.29	-21.18	-20.26	29.31	223.73	0.13	236.6M
	1391.00	1.26	236.60	1390.51	-20.24	-22.31	-22.25	31.50	224.92	0.34	238.31M
	1484.00	0.91	238.31	1483.49	-21.05	-23.26	-23.73	33.23	225.58	0.38	238.97M
	1578.00	0.79	238.97	1577.48	-21.67	-23.98	-24.92	34.59	226.10	0.13	232.5M
	1672.00	0.59	232.50	1671.47	-22.21	-24.61	-25.66	35.70	226.41	0.23	188.11M
	1765.00	0.55	188.11	1764.47	-22.90	-25.35	-26.30	36.53	226.06	0.46	147.65M
	1858.00	0.97	147.65	1857.46	-24.04	-26.45	-25.94	37.05	224.44	0.71	128.95M
	1952.00	2.26	128.95	1951.42	-26.03	-28.29	-24.08	37.15	220.40	1.46	128.52M
	2045.00	3.79	128.52	2044.29	-29.43	-31.36	-20.24	37.32	212.85	1.65	131.87M
	2139.00	3.46	131.87	2138.10	-33.65	-35.18	-15.70	38.53	204.05	0.42	136.37M
	2232.00	3.89	136.37	2230.91	-38.17	-39.34	-11.44	40.97	196.21	0.56	137.05M
	2325.00	4.37	137.05	2323.67	-43.43	-44.22	-6.84	44.74	188.80	0.52	136.89M
	2419.00	4.29	136.89	2417.40	-49.03	-49.41	-2.00	49.45	182.32	0.09	137.39M
	2512.00	3.42	137.39	2510.19	-53.97	-53.99	2.25	54.03	177.61	0.94	138.51M
	2605.00	2.57	138.51	2603.06	-57.85	-57.59	5.51	57.85	174.53	0.92	142.59M
	2699.00	2.07	142.59	2696.98	-60.98	-60.52	7.94	61.04	172.52	0.56	147.22M
	2793.00	1.94	147.22	2790.93	-63.83	-63.20	9.83	63.96	171.16	0.22	144.37M
	2886.00	1.45	144.37	2883.89	-66.24	-65.48	11.37	65.46	170.15	0.53	147.74M
	2980.00	0.92	147.74	2977.86	-67.93	-67.09	12.47	68.24	169.47	0.57	164.59M
	3074.00	0.52	164.59	3071.86	-69.02	-68.14	12.98	69.36	169.21	0.48	161.06M
	3168.00	0.39	161.06	3165.85	-69.75	-68.85	13.20	70.11	169.15	0.14	166.48M
	3262.00	0.43	166.48	3259.85	-70.41	-69.50	13.39	70.77	169.10	0.06	168.8M
	3356.00	0.47	168.80	3353.85	-71.15	-70.22	13.54	71.51	169.08	0.05	188.46M
	3451.00	0.40	188.46	3448.85	-71.86	-70.93	13.57	72.22	169.17	0.17	195.4M
	3545.00	0.34	195.40	3542.84	-72.44	-71.52	13.45	72.78	169.35	0.08	209.95M
	3639.00	0.24	209.95	3636.84	-72.86	-71.96	13.28	73.18	169.55	0.13	225.47M
	3733.00	0.17	225.47	3730.84	-73.11	-72.23	13.08	73.40	169.74	0.09	219.25M
	3827.00	0.11	219.25	3824.84	-73.26	-72.40	12.92	73.54	169.88	0.07	220.5M
	3922.00	0.18	220.50	3919.84	-73.43	-72.58	12.77	73.70	170.02	0.07	253.34M
	4016.00	0.30	253.34	4013.84	-73.58	-72.76	12.44	73.82	170.30	0.19	255.06M
	4110.00	0.39	255.06	4107.84	-73.69	-72.92	11.89	73.88	170.74	0.10	232.44M
	4204.00	0.46	232.44	4201.84	-73.94	-73.23	11.28	74.09	171.24	0.19	233.39M
	4393.00	0.39	233.39	4390.83	-74.69	-74.08	10.16	74.77	172.19	0.04	243.88M
	4488.00	0.38	243.88	4485.83	-74.97	-74.41	9.62	75.03	172.63	0.07	247.91M
	4582.00	0.31	247.91	4579.83	-75.15	-74.64	9.11	75.19	173.04	0.08	231M
	4676.00	0.42	231.00	4673.83	-75.42	-74.95	8.60	75.45	173.45	0.16	192.08M
	4771.00	0.65	192.08	4768.82	-76.13	-75.70	8.22	76.14	173.80	0.44	201.95M
	4865.00	0.80	201.95	4862.81	-77.22	-76.83	7.86	77.23	174.16	0.21	186.3M
	4960.00	0.82	186.30	4957.81	-78.48	-78.12	7.54	78.48	174.49	0.23	184.65M
	5054.00	0.74	184.65	5051.80	-79.74	-79.39	7.42	79.74	174.66	0.09	180.2M
	5149.00	0.71	180.20	5146.79	-80.93	-80.59	7.37	80.93	174.78	0.07	178.36M
	5243.00	0.77	178.36	5240.78	-82.14	-81.81	7.38	82.14	174.84	0.07	179.53M
	5338.00	0.70	179.53	5335.77	-83.36	-83.03	7.41	83.36	174.90	0.08	198.71M
	5430.00	0.60	198.71	5427.77	-84.36	-84.04	7.26	84.36	175.07	0.26	194.64M
	5525.00	0.61	194.64	5522.76	-85.29	-85.00	6.97	85.29	175.31	0.05	187.52M
	5620.00	0.69	187.52	5617.76	-86.32	-86.06	6.77	86.33	175.51	0.12	167.16M
	5715.00	0.63	167.16	5712.75	-87.40	-87.14	6.81	87.40	175.53	0.25	154.29M
	5810.00	0.67	154.29	5807.74	-88.43	-88.15	7.16	88.44	175.35	0.16	158.32M
Tie-In ST01	5905.00	0.89	158.32	5902.73	-89.66	-89.33	7.68	89.66	175.09	0.24	337.98M
	5996.00	6.12	337.98	5993.58	-85.69	-85.49	6.12	85.71	175.91	7.70	2.81L
	6028.00	9.63	336.95	6025.28	-81.51	-81.44	4.43	81.56	176.89	10.98	2.65L
	6059.00	13.15	336.18	6055.66	-75.70	-75.83	1.99	75.85	178.50	11.37	2.72L
Survey 1-Aug-12	6091.00	17.12	335.54	6086.55	-67.81	-68.21	-1.43	68.22	181.20	12.42	10.95R
	6122.00	20.39	337.35	6115.90	-58.35	-59.07	-5.40	59.32	185.23	10.71	33.63R
	6154.00	22.41	340.81	6145.69	-47.12	-48.16	-9.55	49.10	191.22	7.44	70R
	6185.00	23.70	348.38	6174.22	-35.19	-36.48	-12.75	38.64	199.27	10.42	71.57R
Survey 2-Aug-12	6217.00	24.97	356.03	6203.38	-22.05	-23.43	-14.52	27.57	211.78	10.61	65.51R
	6248.00	25.86	0.21	6231.38	-8.77	-10.14	-14.94	18.06	235.83	6.46	33.66R

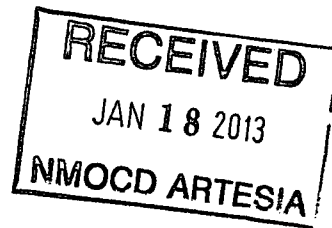
Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
	6280.00	26.66	1.39	6260.08	5.31	4.01	-14.74	15.28	285.22	2.99	28.87L
	6311.00	27.26	0.67	6287.71	19.28	18.06	-14.49	23.16	321.26	2.20	41.89L
	6343.00	27.65	359.92	6316.11	33.97	32.82	-14.42	35.84	336.28	1.63	19.43L
	6374.00	29.41	358.66	6343.34	48.73	47.62	-14.61	49.81	342.95	6.00	13.87L
	6405.00	32.51	357.24	6369.92	64.65	63.55	-15.19	65.34	346.56	10.27	12.14L
	6437.00	35.75	356.05	6396.41	82.60	81.47	-16.24	83.08	348.72	10.34	15.64L
	6468.00	39.12	354.56	6421.02	101.44	100.25	-17.80	101.82	349.93	11.26	4.03L
	6500.00	42.17	354.24	6445.30	122.28	120.99	-19.83	122.61	350.69	9.55	3.81R
	6531.00	44.93	354.50	6467.76	143.63	142.25	-21.92	143.93	351.24	8.92	5.38R
	6563.00	47.27	354.80	6489.95	166.69	165.20	-24.07	166.95	351.71	7.34	15.46R
	6594.00	50.28	355.88	6510.38	190.00	188.44	-25.96	190.22	352.16	10.06	22.4R
	6626.00	52.62	357.09	6530.32	215.01	213.41	-27.49	215.18	352.66	7.89	12.85R
	6657.00	55.59	357.91	6548.49	240.10	238.50	-28.58	240.21	353.17	9.82	2.55R
	6689.00	58.07	358.04	6566.00	266.84	265.27	-29.53	266.91	353.65	7.76	15.48L
	6720.00	60.30	357.33	6581.88	293.43	291.87	-30.61	293.47	354.01	7.46	13.23L
	6752.00	63.15	356.58	6597.04	321.59	320.01	-32.11	321.61	354.27	9.14	16.48L
	6783.00	66.44	355.52	6610.24	349.63	347.98	-34.04	349.64	354.41	11.05	11.26L
	6814.00	69.55	354.86	6621.85	378.37	376.62	-36.45	378.38	354.47	10.22	4.93L
	6846.00	73.90	354.47	6631.88	408.75	406.87	-39.28	408.76	354.49	13.64	4.36R
	6877.00	77.23	354.73	6639.61	438.76	436.75	-42.10	438.77	354.49	10.77	8.35R
	6909.00	80.05	355.15	6645.91	470.13	468.00	-44.87	470.14	354.52	8.91	9.51R
	6941.00	82.06	355.49	6650.89	501.74	499.50	-47.45	501.75	354.57	6.37	2.16R
	6972.00	83.38	355.54	6654.82	532.49	530.16	-49.85	532.50	354.63	4.26	3.29R
	7004.00	84.94	355.63	6658.07	564.32	561.90	-52.30	564.32	354.68	4.88	2.25R
	7035.00	86.97	355.71	6660.26	595.24	592.73	-54.64	595.24	354.73	6.55	14.02R
	7067.00	87.45	355.83	6661.82	627.20	624.60	-57.00	627.20	354.79	1.55	8.58L
	7124.00	89.97	355.45	6663.10	684.17	681.42	-61.33	684.17	354.86	4.47	4.34R
	7218.00	90.76	355.51	6662.50	778.17	775.12	-68.74	778.17	354.93	0.84	98.47L
	7313.00	90.69	355.04	6661.30	873.16	869.79	-76.56	873.16	354.97	0.50	15.94R
	7407.00	90.83	355.08	6660.05	967.15	963.44	-84.65	967.15	354.98	0.15	83.88L
	7501.00	90.86	354.80	6658.67	1061.14	1057.06	-92.94	1061.14	354.98	0.30	70.34L
	7595.00	90.96	354.52	6657.17	1155.12	1150.64	-101.69	1155.12	354.95	0.32	136.74L
	7689.00	90.79	354.36	6655.74	1249.11	1244.19	-110.80	1249.11	354.91	0.25	58.19R
	7784.00	91.10	354.86	6654.17	1344.09	1338.75	-119.72	1344.09	354.89	0.62	142.37R
	7878.00	90.62	355.23	6652.76	1438.08	1432.39	-127.84	1438.08	354.90	0.64	55L
	7972.00	90.76	355.03	6651.63	1532.08	1526.04	-135.82	1532.08	354.91	0.26	79.11R
	8067.00	90.86	355.55	6650.28	1627.06	1620.71	-143.62	1627.06	354.94	0.56	57.26R
	8161.00	91.13	355.97	6648.65	1721.04	1714.44	-150.57	1721.04	354.98	0.53	88.72R
	8256.00	91.14	356.42	6646.77	1815.99	1809.21	-156.87	1816.00	355.04	0.47	135.94R
	8350.00	90.52	357.02	6645.41	1909.94	1903.05	-162.25	1909.95	355.13	0.92	104.53L
	8444.00	90.31	356.21	6644.73	2003.89	1996.88	-167.80	2003.92	355.20	0.89	69.77R
	8539.00	90.52	356.78	6644.04	2098.85	2091.70	-173.60	2098.89	355.26	0.64	106.41L
	8634.00	90.14	355.49	6643.49	2193.82	2186.48	-180.01	2193.88	355.29	1.42	79.31L
	8729.00	90.34	354.43	6643.09	2288.82	2281.11	-188.35	2288.87	355.28	1.14	93.47L
	8824.00	90.28	353.44	6642.58	2383.81	2375.58	-198.39	2383.85	355.23	1.04	91.04L
	8918.00	90.27	352.89	6642.13	2477.76	2468.91	-209.58	2477.79	355.15	0.59	76.51L
	9013.00	90.62	351.43	6641.39	2572.65	2563.01	-222.54	2572.66	355.04	1.58	65.02L
	9108.00	90.96	350.70	6640.08	2667.43	2656.85	-237.29	2667.43	354.90	0.85	92.34R
	9203.00	90.89	352.40	6638.55	2762.25	2750.80	-251.25	2762.25	354.78	1.79	83.6R
	9297.00	91.03	353.65	6636.97	2856.18	2844.09	-262.66	2856.20	354.72	1.34	97.11R
	9392.00	90.86	355.01	6635.41	2951.17	2938.61	-272.04	2951.18	354.71	1.44	124.99L
	9486.00	90.58	354.61	6634.23	3045.16	3032.22	-280.55	3045.17	354.71	0.52	125.84L
	9581.00	90.45	354.43	6633.37	3140.15	3126.78	-289.62	3140.17	354.71	0.23	86.42R
	9676.00	90.48	354.91	6632.60	3235.15	3221.37	-298.44	3235.16	354.71	0.51	22.38L
	9771.00	90.65	354.84	6631.66	3330.14	3315.98	-306.93	3330.16	354.71	0.19	109.32R
	9866.00	90.38	355.61	6630.81	3425.14	3410.65	-314.84	3425.15	354.73	0.86	109.29R
	9960.00	90.31	355.81	6630.24	3519.13	3504.39	-321.87	3519.14	354.75	0.23	75.8R
	10055.00	90.52	356.64	6629.56	3614.10	3599.18	-328.12	3614.10	354.79	0.90	131.99L
	10150.00	90.34	356.44	6628.84	3709.05	3694.00	-333.86	3709.06	354.84	0.28	70.2L
	10244.00	90.52	355.94	6628.14	3803.03	3787.79	-340.10	3803.03	354.87	0.57	133.03L
	10339.00	90.38	355.79	6627.39	3898.01	3882.54	-346.95	3898.01	354.89	0.22	22.17L
	10434.00	90.65	355.68	6626.54	3993.00	3977.27	-354.02	3993.00	354.91	0.31	124.38L
	10528.00	90.52	355.49	6625.58	4086.98	4070.99	-361.25	4086.98	354.93	0.24	102.41L
	10623.00	90.41	354.99	6624.81	4181.98	4165.66	-369.13	4181.98	354.94	0.54	109.18L
	10717.00	90.17	354.30	6624.33	4275.98	4259.24	-377.91	4275.98	354.93	0.78	90L
	10811.00	90.17	353.74	6624.05	4369.96	4352.73	-387.70	4369.96	354.91	0.60	27.8R
	10905.00	90.72	354.03	6623.32	4463.95	4446.19	-397.71	4463.95	354.89	0.66	115.9R
	11000.00	90.21	355.08	6622.55	4558.94	4540.76	-406.73	4558.94	354.88	1.23	109.47L
	11035.00	89.86	354.09	6622.53	4593.94	4575.60	-410.03	4593.94	354.88	3.00	HS
BIT PROJECTION	11060.00	89.86	354.09	6622.59	4618.94	4600.47	-412.60	4618.94	354.88	0.00	

Survey Type: Non-Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Survey Tool Type	Borehole / Survey
	0.000	25.000	Act Stns	SLB_NSG+MSHOT-Depth Only	Pilot Hole / Chevron Softail AV 26-2H Pilot Gyro Off-8458ft
	25.000	25.000	Act Stns	SLB_NSG+MSHOT-Depth Only	Pilot Hole / Chevron Softail AV 26-2H Pilot Gyro Off-8458ft
	25.000	5905.000	Act Stns	SLB_NSG+MSHOT	Pilot Hole / Chevron Softail AV 26-2H Pilot Gyro Off-8458ft
	5905.000	11060.000	Act Stns	SLB_MWD-STD	ST01 - Lateral / Chevron Softail AV 26-2H ST01 gyro+mwd Off to Update



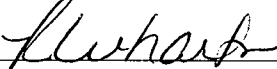
CHEVRON

Culebra Bluff
Eddy County, Texas
Softail AV 26 #2H
VH - Job #32K0712926

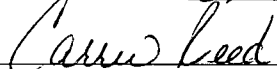
Survey: Gyro

SDI Standard Survey Report

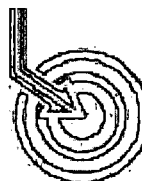
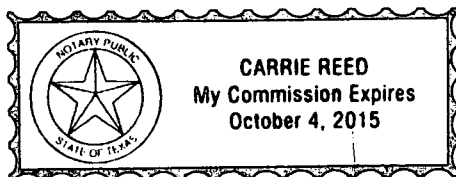
This survey is correct to the best of my knowledge and is supported by actual field data.



Notarized this date 3rd of August, 2012.



Notary Signature
County of Midland
State of Texas



Scientific Drilling

Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	CHEVRON	Local Co-ordinate Reference:	Well Softail AV 26 #2H
Project:	Culebra Bluff	TVD Reference:	WELL @ 0.00usft (Original Well Elev)
Site:	Eddy County, Texas	MD Reference:	WELL @ 0.00usft (Original Well Elev)
Well:	Softail AV 26 #2H	North Reference:	Grid
Wellbore:	VH - Job #32K0712926	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0712926	Database:	EDM-Regulatory

Project: Culebra Bluff			
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Eddy County, Texas				
Site Position:		Northing:	461,945.50 usft	Latitude:	32° 16' 10.956 N
From:	Lat/Long	Easting:	584,377.97 usft	Longitude:	104° 3' 37.224 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.15 °

Well	Softail AV 26 #2H, Directional (Schlumberger)					
Well Position	+N/-S	0.00 usft	Northing:	461,945.50 usft	Latitude:	32° 16' 10.956 N
	+E/-W	0.00 usft	Easting:	584,377.97 usft	Longitude:	104° 3' 37.224 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	0.00 usft

Wellbore	VH - Job #32K0712926				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	07/25/12	7.68	60.12	48,504

Design:	VH - Job #32K0712926			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	355.00

Survey Program		Date	08/12/12		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
87.00	8,458.00	Gyro (VH - Job #32K0712926)	Keeper	Keeper Gyro	

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.00	0.32	250.82	87.00	-0.08	-0.23	250.82	0.24
180.00	0.37	182.57	180.00	-0.47	-0.49	226.39	0.67
273.00	0.82	177.39	272.99	-1.43	-0.47	198.25	1.51
366.00	0.76	177.38	365.98	-2.71	-0.41	188.66	2.74
459.00	0.94	191.67	458.97	-4.07	-0.54	187.54	4.11
552.00	1.69	211.92	551.95	-5.99	-1.42	193.33	6.15
645.00	2.30	217.65	644.89	-8.63	-3.28	200.84	9.23
738.00	2.31	220.22	737.82	-11.54	-5.63	206.03	12.84
831.00	2.13	230.76	830.75	-14.06	-8.18	210.20	16.27
924.00	1.88	241.13	923.69	-15.89	-10.86	214.34	19.24
1,017.00	1.64	243.39	1,016.65	-17.22	-13.38	217.85	21.81

Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	CHEVRON	Local Co-ordinate Reference:	Well Softail AV 26 #2H
Project:	Culebra Bluff	TVD Reference:	WELL @ 0.00usft (Original Well Elev)
Site:	Eddy County, Texas	MD Reference:	WELL @ 0.00usft (Original Well Elev)
Well:	Softail AV 26 #2H	North Reference:	Grid
Wellbore:	VH - Job #32K0712926	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0712926	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
1,111.00	1.75	237.86	1,110.61	-18.59	-15.80	220.37	24.40
1,204.00	1.54	239.06	1,203.57	-19.99	-18.07	222.13	26.95
1,297.00	1.53	243.64	1,296.53	-21.18	-20.26	223.73	29.31
1,391.00	1.26	236.60	1,390.51	-22.31	-22.25	224.92	31.50
1,484.00	0.91	238.31	1,483.49	-23.26	-23.73	225.58	33.23
1,578.00	0.79	238.97	1,577.48	-23.98	-24.92	226.10	34.59
1,672.00	0.59	232.50	1,671.47	-24.61	-25.86	226.41	35.70
1,765.00	0.55	188.11	1,764.47	-25.35	-26.30	226.06	36.53
1,858.00	0.97	147.65	1,857.46	-26.45	-25.94	224.44	37.05
1,952.00	2.26	128.95	1,951.42	-28.29	-24.08	220.40	37.15
2,045.00	3.79	128.52	2,044.29	-31.36	-20.24	212.85	37.32
2,139.00	3.46	131.87	2,138.10	-35.18	-15.70	204.05	38.53
2,232.00	3.89	136.37	2,230.91	-39.34	-11.44	196.21	40.97
2,325.00	4.37	137.05	2,323.67	-44.22	-6.84	188.80	44.74
2,419.00	4.29	136.89	2,417.40	-49.41	-2.00	182.32	49.45
2,512.00	3.42	137.39	2,510.19	-53.99	2.25	177.61	54.03
2,605.00	2.57	138.51	2,603.06	-57.59	5.51	174.53	57.85
2,699.00	2.07	142.59	2,696.98	-60.52	7.94	172.52	61.04
2,793.00	1.94	147.22	2,790.93	-63.20	9.83	171.16	63.96
2,886.00	1.45	144.37	2,883.89	-65.48	11.37	170.15	66.46
2,980.00	0.92	147.74	2,977.86	-67.09	12.47	169.47	68.24
3,074.00	0.52	164.59	3,071.86	-68.14	12.98	169.21	69.36
3,168.00	0.39	161.06	3,165.85	-68.85	13.20	169.15	70.11
3,262.00	0.43	166.48	3,259.85	-69.50	13.39	169.10	70.77
3,356.00	0.47	168.80	3,353.85	-70.22	13.54	169.08	71.51
3,451.00	0.40	188.46	3,448.85	-70.93	13.57	169.17	72.22
3,545.00	0.34	195.40	3,542.84	-71.52	13.45	169.35	72.78
3,639.00	0.24	209.95	3,636.84	-71.96	13.28	169.55	73.18
3,733.00	0.17	225.47	3,730.84	-72.23	13.08	169.74	73.40
3,827.00	0.11	219.25	3,824.84	-72.40	12.92	169.88	73.54
3,922.00	0.18	220.50	3,919.84	-72.58	12.77	170.02	73.70
4,016.00	0.30	253.34	4,013.84	-72.76	12.44	170.30	73.82
4,110.00	0.39	255.06	4,107.84	-72.92	11.89	170.74	73.88
4,204.00	0.46	232.44	4,201.84	-73.23	11.28	171.24	74.09
4,393.00	0.39	233.39	4,390.83	-74.08	10.16	172.19	74.77
4,488.00	0.38	243.88	4,485.83	-74.41	9.62	172.63	75.03
4,582.00	0.31	247.91	4,579.83	-74.64	9.11	173.04	75.19
4,676.00	0.42	231.00	4,673.83	-74.95	8.60	173.45	75.45
4,771.00	0.65	192.08	4,768.82	-75.70	8.22	173.80	76.14
4,865.00	0.80	201.95	4,862.81	-76.83	7.86	174.16	77.23
4,960.00	0.82	186.30	4,957.81	-78.12	7.54	174.49	78.48
5,054.00	0.74	184.65	5,051.80	-79.39	7.42	174.66	79.74
5,149.00	0.71	180.20	5,146.79	-80.59	7.37	174.78	80.93
5,243.00	0.77	178.36	5,240.78	-81.81	7.38	174.84	82.14

Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	CHEVRON	Local Co-ordinate Reference:	Well Softail AV 26 #2H
Project:	Culebra Bluff	TVD Reference:	WELL @ 0.00usft (Original Well Elev)
Site:	Eddy County, Texas	MD Reference:	WELL @ 0.00usft (Original Well Elev)
Well:	Softail AV 26 #2H	North Reference:	Grid
Wellbore:	VH - Job #32K0712926	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0712926	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
5,338.00	0.70	179.53	5,335.77	-83.03	7.41	174.90	83.36
5,430.00	0.60	198.71	5,427.77	-84.04	7.26	175.07	84.36
5,525.00	0.61	194.64	5,522.76	-85.00	6.97	175.31	85.29
5,620.00	0.69	187.52	5,617.76	-86.06	6.77	175.51	86.33
5,715.00	0.63	167.16	5,712.75	-87.14	6.81	175.53	87.40
5,810.00	0.67	154.29	5,807.74	-88.15	7.16	175.35	88.44
5,905.00	0.89	158.32	5,902.73	-89.33	7.68	175.09	89.66
6,000.00	1.08	180.26	5,997.72	-90.91	7.95	175.01	91.26
6,094.00	1.18	180.34	6,091.70	-92.77	7.94	175.11	93.11
6,189.00	1.32	189.22	6,186.68	-94.83	7.75	175.32	95.14
6,283.00	1.06	195.85	6,280.66	-96.73	7.34	175.66	97.01
6,378.00	1.07	209.53	6,375.64	-98.35	6.67	176.12	98.57
6,472.00	0.91	221.94	6,469.63	-99.67	5.73	176.71	99.83
6,566.00	0.97	221.07	6,563.62	-100.82	4.71	177.32	100.93
6,661.00	0.60	253.68	6,658.61	-101.57	3.71	177.91	101.64
6,755.00	1.02	294.45	6,752.60	-101.36	2.47	178.60	101.39
6,850.00	0.61	43.28	6,847.59	-100.64	2.05	178.83	100.66
6,944.00	2.23	76.07	6,941.56	-99.84	4.17	177.61	99.92
7,039.00	2.74	105.99	7,036.48	-100.02	8.15	175.34	100.35
7,133.00	2.77	116.80	7,130.37	-101.66	12.33	173.08	102.41
7,228.00	2.92	131.38	7,225.25	-104.30	16.20	171.17	105.55
7,322.00	2.54	138.67	7,319.15	-107.44	19.37	169.78	109.17
7,417.00	1.71	137.73	7,414.08	-110.07	21.71	168.84	112.19
7,512.00	1.30	135.73	7,509.05	-111.89	23.42	168.18	114.32
7,605.00	1.50	144.56	7,602.02	-113.64	24.86	167.66	116.33
7,700.00	1.38	111.16	7,696.99	-115.07	26.65	166.96	118.11
7,795.00	2.29	116.56	7,791.94	-116.33	29.41	165.81	119.99
7,890.00	1.83	131.70	7,886.88	-118.18	32.24	164.74	122.50
7,985.00	1.66	145.10	7,981.84	-120.32	34.16	164.15	125.08
8,079.00	1.38	150.28	8,075.80	-122.42	35.50	163.83	127.47
8,173.00	2.04	152.10	8,169.76	-124.88	36.85	163.56	130.21
8,268.00	2.40	157.54	8,264.69	-128.22	38.40	163.33	133.84
8,363.00	1.89	165.17	8,359.62	-131.57	39.56	163.27	137.39
8,458.00	1.24	146.72	8,454.59	-133.94	40.52	163.17	139.94



Scientific Drilling

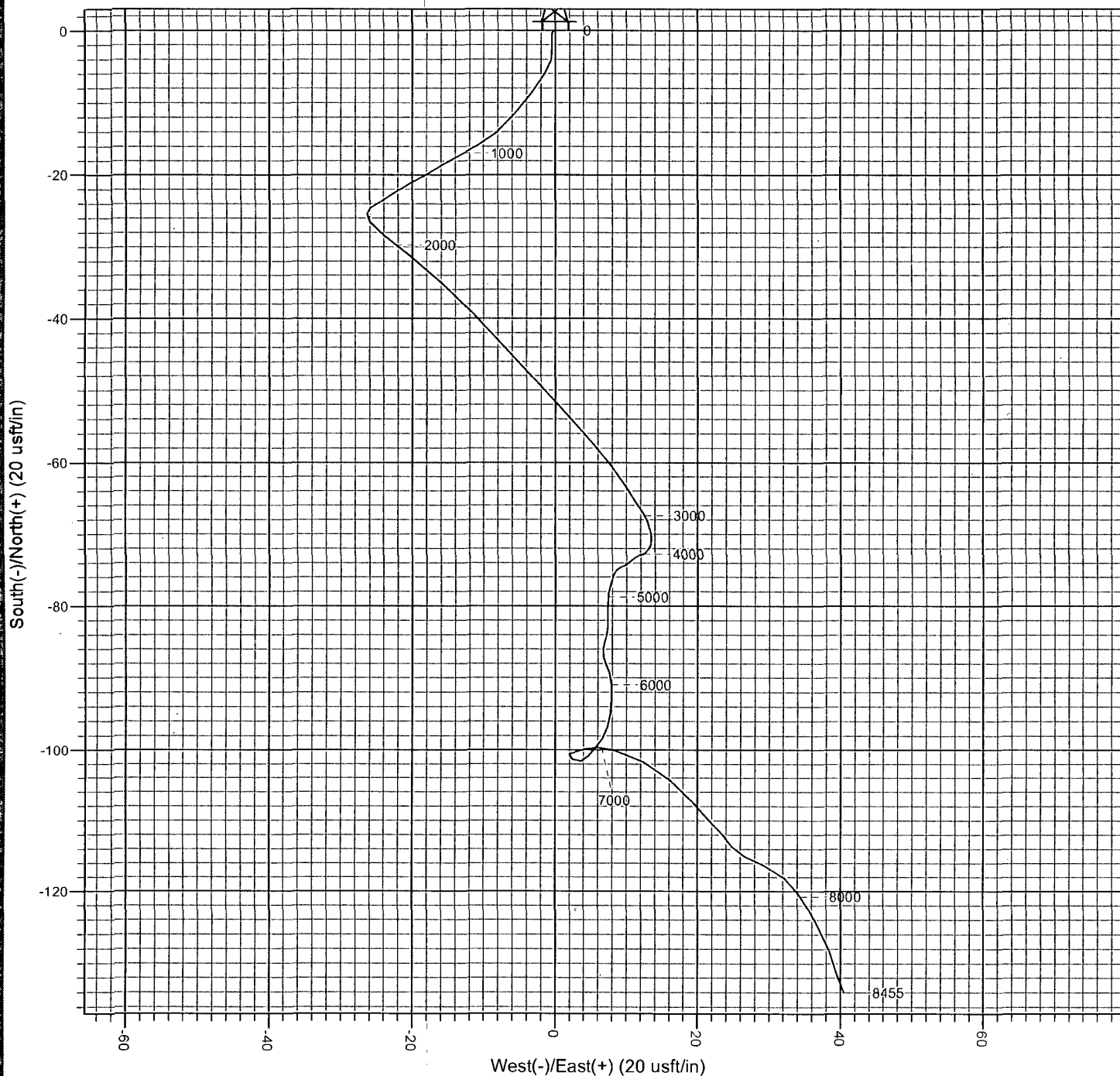
Project: Culebra Bluff
Eddy County, Texas
Well: Softail AV 26 #2H
Wellbore: VH - Job #32K0712926
Design: VH - Job #32K0712926

WELL DETAILS: Softail AV 26 #2H
WELL @ 0.00usft (Original Well Elev)
Ground Level: 0.00

+N/-S +E/-W Northing
0.00 0.00 461945.50

Easting Latitude
584377.97 32° 16' 10.956 N

Longitude Slot
104° 3' 37.224 W



PROJECT DETAILS: Culebra Bluff
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

SITE DETAILS: Eddy County, Texas
Site Centre Latitude: 32° 16' 10.956 N
Longitude: 104° 3' 37.224 W
Positional Uncertainty: 0.00
Convergence: 0.15
Local North: Grid