

Results of Directional Survey

API number:	30-025-41346		
OGRID:		Operator:	COG OPERATING LLC
		Property:	DOS ABUELOS FEE # 1H

surface	ULSTR:	C	20	T 18S	R 34E
				190 FNL	2310 FWL

BH Loc	ULSTR:	N	20	T 18S	R 34E
14445	MD	9888.9	TVD	339 FSL	2297 FWL
				4941 FNL	

Top Perf/OH	ULSTR:	C	20	T 18S	R 34E
9910	MD	9753.2	TVD	412 FNL	2287 FWL

Bot Perf/OH	ULSTR:	N	20	T 18S	R 34E
14335	MD	9890.0	TVD	448 FSL	2297 FWL
				4832 FNL	

	MD	N/S	E/W	VD
	9908	-219.62	-23.16	9752.87
TOP PERFS/OH	9910	-221.58	-23.35	9753.22
	9942	-252.93	-26.42	9758.77
	14244	-4550.52	-10.85	9890.80
BOT PERFS/OH	14335	-4641.50	-12.52	9890.01
	14338	-4644.50	-12.57	9889.98

NEXT TO LAST	14397	-4703.49	-13.03	9889.41
LAST READING	14445	-4751.49	-13.37	9888.91
TD	14445	-4751.49	-13.37	9888.91

Surface Location	190	FN	2310	FW
Projected BHL	4941	FN	2297	FW
Location of				
Top Perfs/OH	412	FN	2287	FW
Bottom Perfs/OH	4832	FN	2297	FW

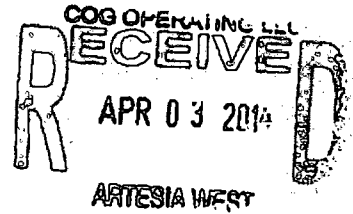
SUMMARY of Subsurface Locations

Surface Location	C-20-18S-34E	190	FN	2310	FW	Vert. Depth
Top Perfs/OH	C-20-18S-34E	412	FN	2287	FW	9753.22
Bottom Perfs/OH	N-20-18S-34E	4832	FN	2297	FW	9890.01
Projected TD	N-20-18S-34E	4941	FN	2297	FW	9888.91

MAY 15 2014



McVAY DRILLING COMPANY
P.O. Box 2450
Hobbs, New Mexico 88241
(575) 397-3311
FAX: 39-DRILL



Well Name and Num: Dos Abuelos Fee #1H
Location: Sec 20, T18S, R34E
Operator: COG
Drilling Contractor: McVay Drilling Company

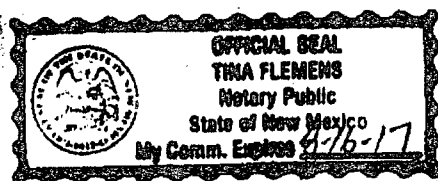
The undersigned certifies that he is an authorized representative of the drilling contractor who drilled the above described well and that he has conducted deviation tests and obtained the following results:

<u>Degrees @</u>	<u>Depth</u>	<u>Degrees @</u>	<u>Depth</u>	<u>Degrees @</u>	<u>Depth</u>
0.50	328	0.08	7211	87.70	11200
0.10	625	1.40	7495	86.10	11400
0.60	988	2.60	7846	89.60	11874
0.07	1195	1.40	8071	90.90	12255
0.40	1766	1.60	8231	87.50	12633
0.80	2051	1.30	8643	88.10	12984
0.70	2492	2.20	8893	88.00	13298
1.20	2933	4.70	9250	88.30	13583
0.60	3320	13.40	9280	87.30	13959
1.20	3665	11.60	9311	90.50	14244
0.90	3959	30.30	9598	90.60	14397
0.90	4305	47.00	9694		
1.20	5176	56.20	9751		
0.80	5525	67.30	9814		
0.70	6131	77.40	9908		
0.90	6646	88.20	10259		
1.30	6956	89.10	10832		

By: *Heidi Cramer*

Subscribed and sworn to before me this 21st day of March, 2014

Tina Flements
Notary Public, Lea County, New Mexico





A GYRO TECHNOLOGIES INC. COMPANY

P.O. Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

March 25, 2014

Concho Resources, Inc.
One Concho Center
600 W. Illinois Avenue
Midland, Texas 79701

Attn: Kanicia Castillo

RE: **Dos Abuelos Fee No. 001H**

Please find enclosed a copy of the survey from 0.00' to 8900.00' ran on the above referenced well.

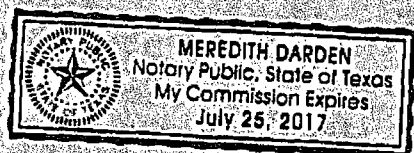
Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 25th day of March, A.D., 2014, by Keith Havelka.


Meredith Darden
Notary Public, State of Texas





Company: COG Operating LLC. (Concho)

Well: Dos Abuelos Fee No. 001H

Rig Name: McVay 7

State/County: New Mexico/Lea

Latitude: 32.74, Longitude: -103.58

GRID North is 0.41 Degrees East of True North

VS-Azi: 180.03 Degrees



Depth Reference : RKB = 17 ft.

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: ...buelosfee1h_gyro_finalgyro.ut

Minimum Curvature Method

Report Date/Time: 3/25/2014 / 10:42

Vaughn Energy Services

Gardendale, TX

432-563-5444

Surveyor: Dustin Wentzler

Dos Abuelos Fee No. 001H / API 30-025-41346

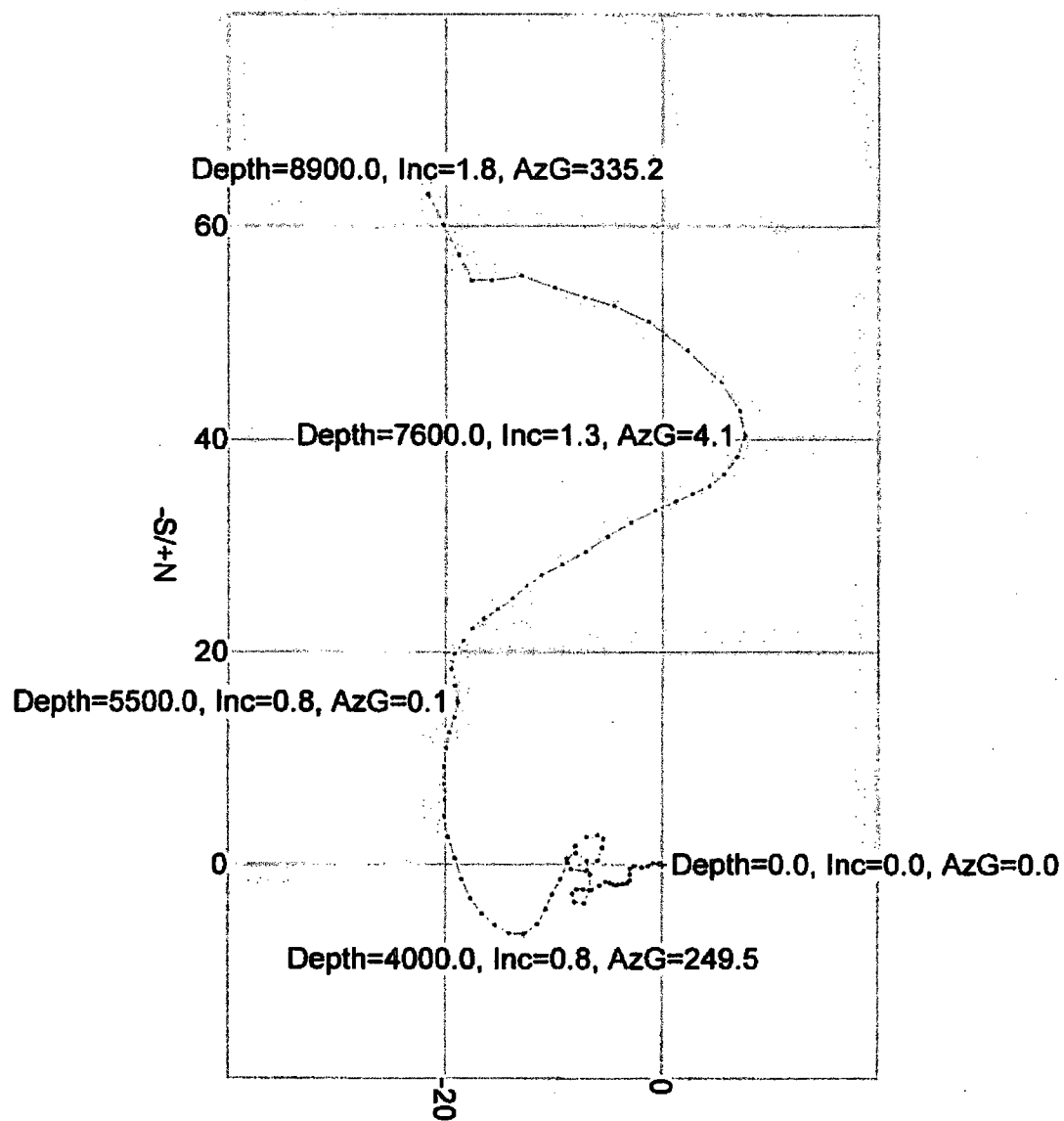
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N-S FT	+E-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	----
100.00	0.33	287.99	100.00	0.09	-0.28	-0.09	0.29	287.99	0.33
200.00	0.32	263.16	200.00	0.15	-0.83	-0.15	0.84	280.09	0.14
300.00	0.41	212.05	300.00	-0.19	-1.29	0.19	1.30	261.79	0.32
400.00	0.47	296.16	399.99	-0.31	-1.84	0.31	1.87	260.62	0.59
500.00	0.38	273.23	499.99	-0.11	-2.54	0.11	2.54	267.53	0.19
600.00	0.32	188.17	599.99	-0.37	-2.92	0.37	2.94	262.83	0.48
700.00	0.39	174.31	699.99	-0.98	-2.92	0.98	3.08	251.46	0.11
800.00	0.25	194.73	799.99	-1.53	-2.95	1.53	3.32	242.54	0.17
900.00	0.22	255.08	899.99	-1.79	-3.19	1.80	3.66	240.62	0.24
1000.00	0.28	265.04	999.98	-1.86	-3.61	1.87	4.06	242.70	0.07
1100.00	0.20	251.32	1099.98	-1.94	-4.01	1.94	4.46	244.21	0.10
1200.00	0.23	277.52	1199.98	-1.97	-4.38	1.97	4.80	245.80	0.10
1300.00	0.26	314.72	1299.98	-1.78	-4.74	1.79	5.06	249.37	0.16
1400.00	0.31	264.93	1399.98	-1.65	-5.17	1.65	5.43	252.29	0.25
1500.00	0.48	224.47	1499.98	-1.98	-5.74	1.98	6.07	251.01	0.32
1600.00	0.50	254.30	1599.98	-2.39	-6.45	2.40	6.88	249.65	0.25
1700.00	0.47	291.91	1699.97	-2.36	-7.25	2.36	7.63	252.00	0.31
1800.00	0.32	236.03	1799.97	-2.36	-7.87	2.36	8.21	253.32	0.39

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	0.34	206.41	1899.97	-2.78	-8.23	2.78	8.68	251.34	0.17
2000.00	0.72	146.97	1999.96	-3.57	-8.02	3.57	8.78	246.01	0.62
2100.00	0.75	52.77	2099.96	-3.70	-7.16	3.70	8.05	242.68	1.07
2200.00	0.98	359.57	2199.95	-2.45	-6.64	2.45	7.08	249.77	0.80
2300.00	0.72	3.11	2299.94	-0.97	-6.61	0.97	6.68	261.68	0.26
2400.00	0.87	334.82	2399.93	0.35	-6.90	-0.34	6.91	272.87	0.41
2500.00	0.77	275.41	2499.92	1.09	-7.89	-1.09	7.96	277.88	0.81
2600.00	0.72	198.50	2599.91	0.56	-8.75	-0.55	8.77	273.65	0.93
2700.00	0.85	123.94	2699.91	-0.45	-8.34	0.46	8.35	266.89	0.96
2800.00	0.93	70.94	2799.90	-0.60	-6.96	0.61	6.99	265.04	0.80
2900.00	0.89	24.04	2899.89	0.37	-6.88	-0.37	6.89	273.60	0.72
3000.00	0.55	10.01	2999.88	1.55	-5.48	-1.55	5.70	285.81	0.38
3100.00	0.45	2.69	3099.87	2.41	-5.38	-2.41	5.90	294.18	0.12
3200.00	0.68	263.49	3199.87	2.75	-5.87	-2.75	6.48	295.12	0.79
3300.00	0.67	259.25	3299.87	2.58	-6.95	-2.58	7.41	290.38	0.10
3400.00	0.96	210.34	3399.86	1.75	-7.95	-1.75	8.14	282.42	0.72
3500.00	1.03	198.65	3499.84	0.18	-8.66	-0.18	8.66	271.20	0.21
3600.00	0.97	207.46	3599.83	-1.42	-9.34	1.42	9.44	261.37	0.16
3700.00	0.87	209.74	3699.81	-2.83	-10.10	2.84	10.49	254.35	0.10
3800.00	0.88	196.20	3799.80	-4.23	-10.70	4.24	11.50	248.41	0.21
3900.00	0.99	220.54	3899.79	-5.63	-11.47	5.63	12.78	243.87	0.41
4000.00	0.84	249.49	3999.78	-6.54	-12.72	6.55	14.30	242.79	0.48
4100.00	0.86	296.91	4099.77	-6.45	-14.07	6.46	15.48	245.36	0.68
4200.00	0.88	303.28	4199.76	-5.69	-15.39	5.70	16.41	249.70	0.10
4300.00	0.96	316.96	4299.74	-4.66	-16.60	4.67	17.24	254.31	0.23
4400.00	1.08	329.92	4399.73	-3.24	-17.64	3.25	17.93	259.60	0.26
4500.00	1.24	340.67	4499.71	-1.41	-18.47	1.42	18.52	265.64	0.27
4600.00	1.15	344.06	4599.68	0.58	-19.10	-0.57	19.11	271.74	0.11
4700.00	1.23	341.03	4699.66	2.56	-19.73	-2.55	19.89	277.41	0.10
4800.00	1.04	1.92	4799.64	4.49	-20.05	-4.48	20.54	282.62	0.45
4900.00	0.83	359.01	4899.63	6.12	-20.03	-6.11	20.94	287.00	0.21
5000.00	0.89	354.31	4999.62	7.62	-20.12	-7.61	21.51	290.74	0.09
5100.00	1.03	6.02	5099.61	9.28	-20.10	-9.27	22.14	294.78	0.24
5200.00	0.94	8.58	5199.59	10.98	-19.88	-10.97	22.72	298.91	0.10
5300.00	0.79	9.75	5299.58	12.48	-19.64	-12.46	23.27	302.42	0.15
5400.00	0.92	26.05	5399.57	13.88	-19.18	-13.87	23.67	305.89	0.27
5500.00	0.86	0.13	5499.56	15.34	-18.82	-15.33	24.28	309.17	0.40
5600.00	0.95	339.94	5599.54	16.86	-19.11	-16.85	25.48	311.42	0.33
5700.00	0.89	356.94	5699.53	18.41	-19.43	-18.40	26.77	313.46	0.28

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5800.00	0.82	30.26	5799.52	19.80	-19.11	-19.79	27.52	316.02	0.49
5900.00	0.92	32.52	5899.51	21.09	-18.32	-21.08	27.94	319.02	0.11
6000.00	0.73	45.28	5999.50	22.22	-17.44	-22.21	28.25	321.87	0.26
6100.00	0.83	49.13	6099.49	23.14	-16.44	-23.13	28.39	324.61	0.11
6200.00	0.90	61.52	6199.48	23.99	-15.20	-23.98	28.40	327.63	0.20
6300.00	1.13	46.54	6299.46	25.04	-13.79	-25.03	28.59	331.15	0.35
6400.00	0.93	50.67	6399.45	26.23	-12.45	-26.22	29.04	334.60	0.22
6500.00	1.02	54.85	6499.43	27.26	-11.10	-27.25	29.43	337.84	0.12
6600.00	1.42	67.50	6599.41	28.25	-9.23	-28.24	29.71	341.91	0.48
6700.00	1.39	54.66	6699.38	29.42	-7.09	-29.42	30.26	346.45	0.32
6800.00	1.47	54.82	6799.35	30.87	-5.04	-30.86	31.28	350.72	0.08
6900.00	1.45	60.31	6899.32	32.23	-2.90	-32.23	32.36	354.87	0.14
7000.00	1.43	66.76	6999.28	33.35	-0.65	-33.35	33.36	358.89	0.16
7100.00	0.93	64.78	7099.26	34.19	1.23	-34.19	34.21	2.07	0.51
7200.00	1.03	66.10	7199.25	34.90	2.79	-34.90	35.01	4.57	0.10
7300.00	0.90	63.48	7299.23	35.62	4.31	-35.62	35.88	6.90	0.14
7400.00	1.11	39.74	7399.22	36.71	5.63	-36.72	37.14	8.73	0.46
7500.00	1.27	34.14	7499.20	38.38	6.88	-38.38	38.99	10.16	0.20
7600.00	1.25	4.11	7599.17	40.39	7.58	-40.39	41.10	10.63	0.65
7700.00	1.55	336.88	7699.15	42.72	7.13	-42.73	43.31	9.47	0.72
7800.00	2.16	319.62	7799.09	45.40	5.38	-45.40	45.72	6.76	0.82
7900.00	2.74	310.23	7899.00	48.38	2.34	-48.38	48.43	2.76	0.70
8000.00	2.39	302.35	7998.90	51.03	-1.25	-51.03	51.05	358.60	0.49
8100.00	1.67	286.08	8098.84	52.56	-4.41	-52.55	52.74	355.20	0.92
8200.00	1.59	287.66	8198.80	53.38	-7.13	-53.37	53.85	352.39	0.09
8300.00	1.78	289.09	8298.76	54.31	-9.92	-54.30	55.20	349.65	0.19
8400.00	1.96	290.11	8398.70	55.40	-12.99	-55.39	56.90	346.81	0.18
8500.00	1.79	229.44	8498.66	54.97	-15.78	-54.96	57.19	343.99	1.90
8600.00	1.36	330.19	8598.64	54.98	-17.55	-54.98	57.72	342.30	2.44
8700.00	1.72	334.21	8698.60	57.36	-18.79	-57.35	60.36	341.86	0.38
8800.00	1.86	332.39	8798.55	60.15	-20.20	-60.14	63.45	341.44	0.15
8900.00	1.78	335.25	8898.50	63.00	-21.60	-62.99	66.60	341.08	0.12



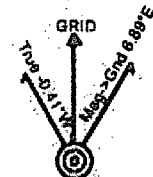
Vaughn Energy Services
Gardendale, TX
432-563-5444
Surveyor: Dustin Wentzler
Dos Abuelos Fee No. 001H / API 30-025-41346



-W/+E
VES Survey Date: 03/11/2014

Job Number:	14-0042	Elevation GL:	4059.71 ft	RKB:	17.00 ft
Company:	COG Resources, LLC	Projection System:	US State Plane 1927 (Exact solution)		
Lease/Well:	Dos Abuelos Fee	Projection Group:	New Mexico East 3001		
Location:	#1H	Projection Datum:	CLARKE 1866		
Rig Name:	Mcvay 7	Mag. Declination:	7.29° (C:\HawkEye\IGRF2010.MIF)		
State/County:	New Mexico/ Lea	Grid Convergence:	0.40574 E		
Country:	USA	Date:	Tuesday, March 25, 2014		
API Number:					

Calculated by HawkEye Software
Minimum Curvature Method
Vertical Section Plane 180.63°
Northing (US ft): 633687.10 Easting (US ft): 730672.60
Latitude: 32°44'23.4796" N Longitude: -103°34'59.2985" W
Well Location: 192.57 FNL, 2328.04 FWL, Section 20, T18S, R34E, Meridian 23, Lea County, NM
Direction Reference: Grid North



Measured Depth (ft)	INC Deg	AZM Deg	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS /100 ft	CL (ft)	Easting (US ft)	Northing (US ft)	Comment	Longitude Dec. Deg
8900.00	1.78	335.25	8898.50	63.00	-21.60	-62.99	0.00	0.00	730650.90	633750.10	TIE IN TO GYRO SURVEY	-103.5832073
8993.00	2.20	316.10	8891.44	65.60	-23.44	-65.59	0.84	93.00	730649.08	633752.70	NEXUS MWD SURVEY	-103.5832132
9091.00	1.10	24.20	9089.41	67.81	-24.36	-67.80	2.10	98.00	730648.14	633754.91		-103.5832161
9155.00	0.70	27.90	9153.40	68.72	-23.93	-68.70	0.63	64.00	730648.57	633755.82		-103.5832147
9186.00	0.90	18.80	9184.40	69.12	-23.76	-69.10	0.76	31.00	730648.74	633756.22		-103.5832141
9218.00	0.30	84.30	9216.40	69.36	-23.60	-69.35	2.57	32.00	730648.90	633756.46		-103.5832136
9250.00	1.80	35.30	9248.39	69.78	-23.22	-69.77	5.06	32.00	730649.28	633756.88		-103.5832124
9280.00	6.20	41.80	9278.31	71.37	-21.87	-71.36	14.72	30.00	730650.63	633758.47		-103.5832079
9311.00	11.60	34.60	9308.93	75.19	-18.98	-75.18	17.75	31.00	730653.52	633762.29		-103.5831985
9343.00	11.00	44.20	9340.31	80.03	-15.03	-80.02	6.16	32.00	730657.47	633767.13		-103.5831855
9375.00	7.90	78.20	9371.90	82.67	-10.74	-82.66	19.54	32.00	730661.76	633769.77		-103.5831715
9407.00	6.50	119.40	9403.66	82.23	-7.01	-82.22	16.32	32.00	730665.49	633769.33		-103.5831594
9439.00	9.80	139.80	9435.34	79.25	-3.67	-79.25	13.59	32.00	730668.83	633766.35		-103.5831486
9471.00	15.10	146.50	9466.58	73.69	0.38	-73.69	17.12	32.00	730672.88	633760.79		-103.5831355
9503.00	18.40	156.90	9497.22	65.57	4.67	-65.57	13.89	32.00	730677.17	633752.67		-103.5831218
9534.00	22.50	168.50	9526.28	55.24	7.77	-55.25	18.54	31.00	730680.27	633742.34		-103.5831119
9566.00	26.90	178.20	9555.35	42.00	9.22	-42.00	18.65	32.00	730681.72	633729.10		-103.5831075
9598.00	30.30	187.30	9583.46	26.74	8.42	-26.75	17.24	32.00	730680.92	633713.84		-103.5831105
9630.00	35.10	190.90	9610.38	9.69	5.66	-9.69	16.18	32.00	730678.16	633696.79		-103.5831199
9662.00	41.50	191.20	9635.48	-9.76	1.85	9.76	20.01	32.00	730674.35	633677.34		-103.5831327
9694.00	47.00	190.90	9658.39	-31.67	-2.42	31.67	17.20	32.00	730670.08	633655.43		-103.5831471
9719.00	50.90	189.30	9674.81	-50.23	-5.72	50.23	16.33	25.00	730668.78	633636.87		-103.5831582
9751.00	56.20	187.90	9693.82	-75.67	-9.56	75.68	16.93	32.00	730662.94	633611.43		-103.5831713
9782.00	61.60	186.50	9709.82	-102.00	-12.87	102.00	17.84	31.00	730659.63	633585.10		-103.5831827
9814.00	67.30	184.00	9723.62	-130.73	-15.50	130.74	19.15	32.00	730657.00	633556.37		-103.5831919
9846.00	70.50	184.10	9735.14	-160.51	-17.61	160.52	10.00	32.00	730654.89	633526.59		-103.5831994
9878.00	72.90	185.70	9745.19	-190.78	-20.20	190.79	8.88	32.00	730652.30	633496.32		-103.5832086
9908.00	77.40	186.00	9752.87	-219.62	-23.16	219.63	15.03	30.00	730649.34	633467.48		-103.5832188
9942.00	82.60	185.20	9758.77	-252.93	-26.42	252.94	15.47	34.00	730646.08	633434.17		-103.5832302
9972.00	85.20	183.90	9761.96	-282.66	-28.79	282.68	9.68	30.00	730643.71	633404.44		-103.5832386
10069.00	87.30	182.40	9768.31	-379.30	-34.11	379.32	2.66	97.00	730638.39	633307.80		-103.5832581
10165.00	88.50	181.10	9771.82	-475.19	-37.04	475.20	1.84	96.00	730635.46	633211.91		-103.5832698
10261.00	88.10	180.70	9774.67	-571.13	-38.54	571.15	0.59	96.00	730633.96	633115.97		-103.5832770
10357.00	88.20	182.40	9777.77	-667.04	-41.14	667.06	1.77	96.00	730631.36	633020.06		-103.5832876
10452.00	87.80	182.20	9781.09	-761.91	-44.95	761.93	0.47	95.00	730627.55	632925.19		-103.5833022
10547.00	88.70	179.80	9783.99	-856.84	-46.60	856.87	2.70	95.00	730625.90	632830.26		-103.5833098
10642.00	88.10	179.80	9786.64	-951.80	-46.27	951.83	0.63	95.00	730626.23	632735.30		-103.5833108
10737.00	89.30	177.50	9788.80	-1046.74	-44.04	1046.77	2.73	95.00	730628.46	632640.36		-103.5833058
10832.00	89.10	177.20	9790.12	-1141.63	-39.64	1141.65	0.38	95.00	730632.86	632545.47		-103.5832937
10927.00	89.30	176.50	9791.45	-1236.48	-34.42	1236.50	0.77	95.00	730638.08	632450.62		-103.5832789
11022.00	88.70	177.00	9793.11	-1331.31	-29.04	1331.33	0.82	95.00	730643.46	632355.79		-103.5832636
11115.00	88.60	179.20	9795.30	-1424.23	-25.96	1424.24	2.37	93.00	730646.54	632262.87		-103.5832557
11210.00	87.70	181.60	9798.37	-1519.17	-26.62	1519.18	2.70	95.00	730645.88	632167.93		-103.5832600

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	MS (Ft)	EW (Ft)	VS (Ft)	DLS %/100 Ft	CL (Ft)	Easting (US Ft)	Northing (US Ft)	Comment	Longitude Dec. Deg
11305.00	86.70	181.50	9803.01	-1614.02	-29.19	1614.03	1.06	95.00	730643.31	632073.08		-103.5832705
11400.00	86.10	181.20	9808.97	-1708.81	-31.42	1708.82	0.71	95.00	730641.08	631978.29		-103.5832800
11495.00	87.40	181.30	9814.36	-1803.63	-33.49	1803.65	1.37	95.00	730639.01	631883.47		-103.5832889
11589.00	86.90	181.00	9819.03	-1897.49	-35.37	1897.51	0.62	94.00	730637.13	631789.61		-103.5832972
11684.00	87.30	181.40	9823.84	-1992.35	-37.36	1992.37	0.60	95.00	730635.14	631694.75		-103.5833058
11779.00	89.00	180.80	9828.90	-2087.28	-39.18	2087.30	1.90	95.00	730633.32	631599.82		-103.5833139
11874.00	89.60	179.60	9828.07	-2182.27	-39.51	2182.29	1.41	95.00	730632.99	631504.83		-103.5833172
11969.00	89.80	179.30	9828.58	-2277.26	-38.60	2277.28	0.38	95.00	730633.90	631409.84		-103.5833164
12064.00	89.10	178.20	9829.47	-2372.23	-36.53	2372.25	1.37	95.00	730635.97	631314.87		-103.5833119
12160.00	90.70	177.50	9829.64	-2468.16	-32.93	2468.18	1.82	96.00	730639.57	631218.94		-103.5833024
12255.00	90.90	177.00	9828.32	-2563.04	-28.37	2563.06	0.57	95.00	730644.13	631124.06		-103.5832897
12350.00	88.50	177.30	9828.81	-2657.92	-23.65	2657.93	2.55	95.00	730648.85	631029.18		-103.5832766
12445.00	88.30	179.80	9831.47	-2752.84	-21.33	2752.85	2.74	95.00	730651.17	630934.26		-103.5832712
12539.00	88.10	179.90	9834.42	-2846.80	-21.16	2846.81	0.21	94.00	730651.34	630840.30		-103.5832728
12633.00	87.50	179.30	9838.03	-2940.73	-20.51	2940.74	0.90	94.00	730651.99	630746.37		-103.5832729
12728.00	87.30	179.20	9842.34	-3035.62	-19.27	3035.83	0.24	95.00	730653.23	630651.48		-103.5832710
12823.00	88.00	179.10	9846.23	-3130.53	-17.86	3130.54	0.74	95.00	730654.84	630556.57		-103.5832686
12921.00	87.80	178.20	9849.82	-3228.43	-15.55	3228.44	0.94	98.00	730656.95	630458.67		-103.5832634
12984.00	88.10	179.70	9852.08	-3291.38	-14.40	3291.39	2.43	63.00	730658.10	630395.72		-103.5832611
13079.00	88.20	180.20	9855.14	-3386.33	-14.31	3386.34	0.54	95.00	730658.19	630300.77		-103.5832630
13205.00	88.40	179.70	9858.88	-3512.28	-14.20	3512.28	0.43	126.00	730658.30	630174.82		-103.5832655
13298.00	88.00	179.60	9861.80	-3605.23	-13.64	3605.23	0.44	93.00	730658.88	630081.87		-103.5832658
13393.00	87.40	178.70	9865.62	-3700.14	-12.23	3700.15	1.14	95.00	730660.27	629986.96		-103.5832634
13488.00	88.40	179.10	9868.10	-3795.06	-10.41	3795.06	1.13	95.00	730662.09	629892.04		-103.5832597
13583.00	88.30	178.60	9871.83	-3890.00	-8.50	3890.00	0.54	95.00	730664.00	629797.10		-103.5832557
13678.00	87.90	179.00	9874.98	-3984.92	-6.51	3984.93	0.60	95.00	730665.99	629702.18		-103.5832514
13771.00	89.80	180.20	9876.85	-4077.90	-5.86	4077.90	2.42	93.00	730666.64	629609.20		-103.5832514
13865.00	88.30	179.70	9878.41	-4171.88	-5.78	4171.88	1.68	94.00	730668.72	629515.22		-103.5832533
13959.00	87.30	179.20	9882.02	-4265.81	-4.88	4265.81	1.19	94.00	730667.62	629421.29		-103.5832525
14054.00	87.00	181.00	9886.74	-4360.68	-5.04	4360.69	1.92	95.00	730667.46	629326.42		-103.5832553
14149.00	88.80	182.20	9890.22	-4455.58	-7.70	4455.58	2.28	95.00	730664.80	629231.52		-103.5832661
14244.00	90.50	181.60	9890.80	-4550.52	-10.85	4550.53	1.90	95.00	730661.65	629136.58		-103.5832785
14338.00	90.50	180.50	9889.98	-4644.50	-12.57	4644.51	1.17	94.00	730659.93	629042.60		-103.5832863
14397.00	90.60	180.40	9889.41	-4703.49	-13.03	4703.50	0.24	59.00	730659.47	628983.61		-103.5832891
14445.00	90.60	180.40	9888.91	-4751.49	-13.37	4751.50	0.00	48.00	730659.13	628935.61	Straight Line Proj. to	-103.5832913