

Results of Directional Survey

API number:	30-025-40750		
OGRID:		Operator:	CIMAREX ENERGY CO.
		Property:	LYNCH 35 # 2H

surface	ULSTR:	B	35	T	20S	R	34E
				363	FNL	1650	FEL

BH Loc	ULSTR:	O	35	T	20S	R	34E
15616	MD	11316.1	TVD	337	FSL	1967	FEL
				4943	FNL		

Top Perf/OH	ULSTR:	B	35	T	20S	R	34E
11200	MD	11123.2	TVD	569	FNL	1691	FEL

Bot Perf/OH	ULSTR:	O	35	T	20S	R	34E
15593	MD	11316.0	TVD	360	FSL	1963	FEL
				4920	FNL		

	MD	N/S	E/W	VD
	11188	-196.20	-39.68	11116.06
TOP PERFS/OH	11200	-205.73	-40.96	11123.24
	11220	-221.61	-43.08	11135.21
	15541	-4505.57	-305.75	11315.72
BOT PERFS/OH	15593	-4557.02	-313.34	11315.98
	15616	-4579.77	-316.69	11316.09

NEXT TO LAST	15541	-4505.57	-305.75	11315.72
LAST READING	15616	-4579.77	-316.69	11316.09
TD	15616	-4579.77	-316.69	11316.09

Surface Location	363	FN	1650	FE
Projected BHL	4943	FN	1967	FE
Location of				
Top Perfs/OH	569	FN	1691	FE
Bottom Perfs/OH	4920	FN	1963	FE

SUMMARY of Subsurface Locations

Surface Location	B-35-20S-34E	363	FN	1650	FE	Vert. Depth
Top Perfs/OH	B-35-20S-34E	569	FN	1691	FE	11123.24
Bottom Perfs/OH	O-35-20S-34E	4920	FN	1963	FE	11315.98
Projected TD	O-35-20S-34E	4943	FN	1967	FE	11316.09



Lynch 35 #2H

NM Lea County

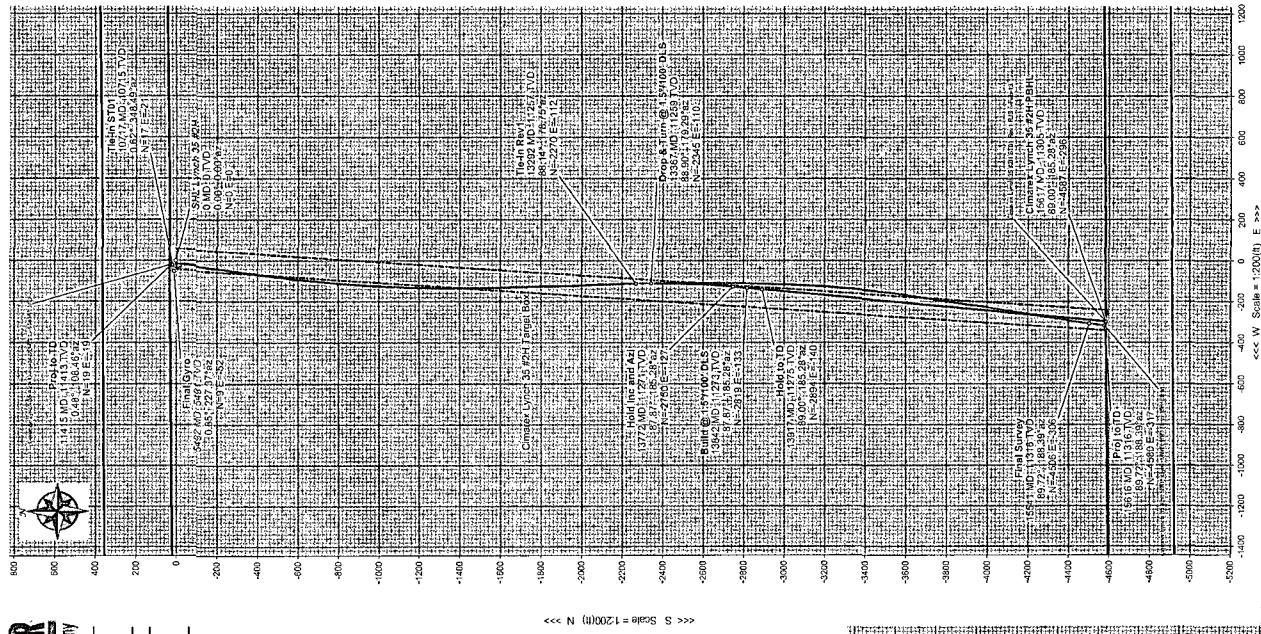
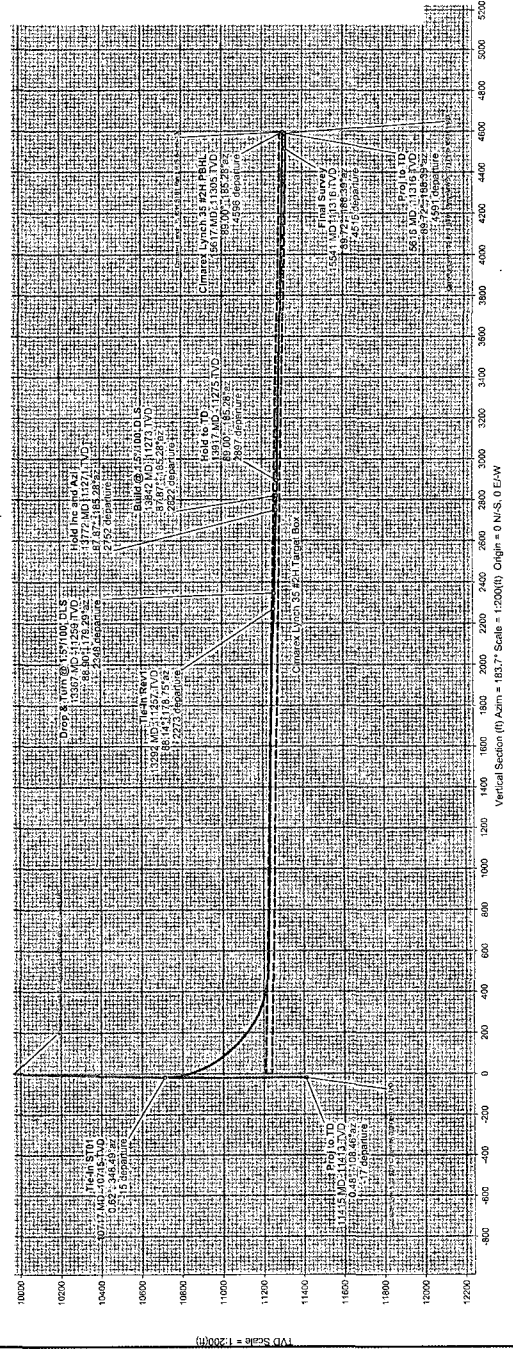
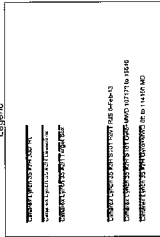
STRUCTURE

Major's Parameters	Dep: 40° Model: B65012	Date: January 07, 2013 FK: 4835.57	Surface Location Lat: N 23.7, 9.41 Lon: W 131.3, 34.62	NAD83 New Mexico State Plane, Eastern Zone, (N/E) Northing: 5560.030, 0.015 Easting: 7880.530, 0.015 Grid Corr: 0.437 Solid Corr: 0.0097669	Miscellaneous Sta: 150135.441 Elev: 370.126, 6.46, 1.1 Point:	TWD Ref: R204P44 above VLS Survey Date: January 07, 2013
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Grid North
Tot Corr (M->G 7.0667°)
Mag Dec (7.500°)
Grid Conv (0.433°)

Legend:



Drawn By: R. Schneider
Date Created: February 09, 2013 01:16:25 PM
Checked By:
Checked Date:
Approved By:
Approved Date:



Cimarex Lynch 35 #2H ST01 Gyro+MWD 10717ft to 15616ft MD

(Def Survey)

Report Date: February 13, 2013 - 06:34 PM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: Cactus 101 / Cimarex Lynch 35 #2H
Well: Cimarex Lynch 35 #2H
Borehole: ST01
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Lynch 35 #2H ST01 Gyro+MWD 10717ft to 15616ft MD
Survey Date: January 28, 2013
Tort / AHD / DDI / ERD Ratio: 160.986 ° / 4811.593 ft / 6.029 / 0.425
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 32' 9.04542", W 103° 31' 39.66248"
Location Grid N/E Y/X: N 559610.300 ftUS, E 789619.300 ftUS
CRS Grid Convergence Angle: 0.4333 °
Grid Scale Factor: 0.99997969

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 183.696 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3754.000 ft above MSL
Seabed / Ground Elevation: 3736.000 ft above MSL
Magnetic Declination: 7.493 °
Total Gravity Field Strength: 998.4809mgn (9.80665 Based)
Total Magnetic Field Strength: 48627.974 nT
Magnetic Dip Angle: 60.407 °
Declination Date: January 28, 2013
Magnetic Declination Model: BGGM 2012
North Reference: Grid North
Grid Convergence Used: 0.4333 °

Total Corr Mag North->Grid North: 7.0600 °

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 (°)
SHL Lynch 35 #2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	315.21M
	94.12	0.68	315.21	94.12	-0.37	0.40	-0.39	0.56	315.21	0.72	287.33M
	157.44	0.40	287.33	157.44	-0.67	0.73	-0.87	1.13	309.98	0.59	289.95M
	252.70	0.62	289.95	252.69	-0.89	1.00	-1.67	1.95	300.99	0.23	266.93M
	347.96	0.47	266.93	347.95	-0.99	1.16	-2.55	2.80	294.47	0.28	291.5M
	443.22	0.54	291.50	443.20	-1.08	1.30	-3.35	3.60	291.22	0.24	258.37M
	538.48	0.74	258.37	538.46	-1.06	1.34	-4.37	4.58	287.07	0.43	250.98M
	633.74	0.39	250.98	633.71	-0.77	1.11	-5.28	5.40	281.90	0.37	250.52M
	729.00	0.76	250.52	728.97	-0.40	0.80	-6.18	6.24	277.34	0.39	247.11M
	824.26	0.85	247.11	824.22	0.17	0.31	-7.43	7.44	272.40	0.11	262.13M
	919.52	0.89	262.13	919.47	0.63	-0.06	-8.82	8.82	269.58	0.24	263.39M
	1014.78	0.76	263.39	1014.72	0.89	-0.24	-10.18	10.18	268.66	0.14	251.92M
	1110.04	0.94	251.92	1109.97	1.30	-0.55	-11.55	11.56	267.25	0.26	277.75M
	1205.30	0.80	277.75	1205.22	1.54	-0.71	-12.95	12.97	266.87	0.43	281.36M
	1300.56	0.79	281.36	1300.47	1.41	-0.49	-14.25	14.26	268.04	0.05	298.07M
	1395.82	1.07	298.07	1395.72	0.95	0.06	-15.68	15.68	270.22	0.41	293.19M
	1491.08	1.63	293.19	1490.95	0.13	1.01	-17.71	17.74	273.27	0.60	292.58M
	1586.34	1.71	292.58	1586.17	-0.78	2.09	-20.27	20.37	275.89	0.09	294.39M
	1681.60	1.70	294.39	1681.39	-1.74	3.22	-22.87	23.09	278.02	0.06	292.72M
	1776.86	1.87	292.72	1776.60	-2.75	4.40	-25.59	25.96	279.77	0.19	311.01M

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
	1872.12	2.16	311.01	1871.80	-4.34	6.18	-28.38	29.04	282.29	0.74	317.57M
	1967.38	3.05	317.57	1966.96	-7.19	9.23	-31.44	32.77	286.36	0.98	329.17M
	2062.64	3.67	329.17	2062.06	-11.45	13.72	-34.71	37.33	291.57	0.96	331.13M
	2157.90	2.71	331.13	2157.17	-15.86	18.31	-37.36	41.61	296.11	1.01	316.9M
	2253.16	3.35	316.90	2252.30	-19.67	22.31	-40.35	46.11	298.94	1.03	299.65M
	2348.42	2.14	299.65	2347.45	-22.35	25.23	-43.80	50.54	299.94	1.52	287.08M
	2443.68	0.94	287.08	2442.67	-23.31	26.34	-46.09	53.08	299.74	1.30	229.99M
	2538.94	1.03	229.99	2537.92	-22.90	26.02	-47.49	54.15	298.71	0.99	225.36M
	2634.20	0.17	225.36	2633.17	-22.20	25.37	-48.25	54.51	297.73	0.90	219.74M
	2729.46	0.78	219.74	2728.43	-21.57	24.77	-48.77	54.69	296.93	0.64	208.44M
	2824.72	0.54	208.44	2823.68	-20.64	23.87	-49.39	54.86	295.80	0.29	125.32M
	2919.98	0.42	125.32	2918.94	-20.05	23.28	-49.32	54.54	295.26	0.68	107.47M
	3015.24	0.65	107.47	3014.20	-19.74	22.91	-48.52	53.66	295.28	0.30	113.46M
	3110.50	1.14	113.46	3109.45	-19.29	22.37	-47.14	52.18	295.39	0.52	88.62M
	3205.76	1.01	88.62	3204.69	-19.04	22.02	-45.43	50.48	295.86	0.50	78.07M
	3301.02	1.31	78.07	3299.93	-19.41	22.26	-43.52	48.89	297.09	0.39	73.27M
	3396.28	1.33	73.27	3395.17	-20.09	22.81	-41.40	47.27	298.85	0.12	77.02M
	3491.54	0.73	77.02	3490.41	-20.65	23.26	-39.75	46.06	300.33	0.63	90.39M
	3586.80	0.63	90.39	3585.66	-20.85	23.39	-38.64	45.17	301.19	0.20	90.2M
	3682.06	0.42	90.20	3680.92	-20.91	23.39	-37.76	44.42	301.77	0.22	98.39M
	3777.32	0.42	98.39	3776.18	-20.90	23.34	-37.07	43.80	302.19	0.06	98.24M
	3872.58	0.76	98.24	3871.43	-20.82	23.19	-36.10	42.91	302.72	0.36	157.13M
	3967.84	1.05	157.13	3966.68	-19.99	22.30	-35.13	41.61	302.40	0.97	187.04M
	4063.10	0.83	187.04	4061.93	-18.52	20.81	-34.88	40.61	300.82	0.56	191.64M
	4158.36	0.30	191.64	4157.18	-17.58	19.88	-35.01	40.26	299.59	0.56	230.7M
	4253.62	1.11	230.70	4252.44	-16.71	19.05	-35.78	40.53	298.04	0.94	240.44M
	4348.88	0.94	240.44	4347.68	-15.65	18.08	-37.17	41.34	295.94	0.25	247.81M
	4444.14	0.95	247.81	4442.93	-14.88	17.40	-38.58	42.32	294.27	0.13	245.04M
	4539.40	1.06	245.04	4538.17	-14.11	16.73	-40.11	43.46	292.64	0.13	244.07M
	4634.66	1.12	244.07	4633.42	-13.23	15.95	-41.75	44.69	290.91	0.07	244.1M
	4729.92	1.05	244.10	4728.66	-12.33	15.16	-43.37	45.94	289.27	0.07	243.31M
	4825.18	0.83	243.31	4823.91	-11.55	14.47	-44.77	47.05	287.91	0.23	238.69M
	4920.44	0.97	238.69	4919.15	-10.74	13.74	-46.08	48.08	286.61	0.17	236.76M
	5015.70	0.80	236.76	5014.40	-9.88	12.96	-47.32	49.06	285.31	0.18	227.01M
	5110.96	0.44	227.01	5109.66	-9.22	12.34	-48.15	49.70	284.38	0.39	215.93M
	5206.22	0.70	215.93	5204.91	-8.46	11.62	-48.76	50.12	283.41	0.30	220.2M
	5301.48	0.81	220.20	5300.16	-7.42	10.64	-49.53	50.66	282.12	0.13	234.68M
	5396.74	0.92	234.68	5395.41	-6.40	9.68	-50.59	51.51	280.83	0.26	227.37M
Final Gyro	5492.00	0.85	227.37	5490.66	-5.41	8.76	-51.73	52.47	279.61	0.14	296.77M
	5575.00	0.88	296.77	5573.65	-5.21	8.63	-52.76	53.46	279.29	1.19	227.99M
	5671.00	1.01	227.99	5669.64	-4.90	8.40	-54.04	54.69	278.83	1.12	218.45M
	5766.00	1.19	218.45	5764.63	-3.49	7.06	-55.28	55.73	277.28	0.27	200.79M
	5861.00	1.10	200.79	5859.61	-1.80	5.44	-56.22	56.48	275.53	0.38	140.19M
	5956.00	0.48	140.19	5954.60	-0.64	4.28	-56.28	56.45	274.35	1.01	112.28M
	6051.00	0.62	112.28	6049.60	-0.19	3.78	-55.55	55.68	273.89	0.31	117.38M

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
	6147.00	0.70	117.38	6145.59	0.21	3.31	-54.55	54.65	273.48	0.10	116.28M
	6242.00	0.70	116.28	6240.58	0.67	2.79	-53.52	53.59	272.98	0.01	113.56M
	6337.00	0.79	113.56	6335.57	1.11	2.27	-52.40	52.45	272.48	0.10	120.59M
	6431.00	0.62	120.59	6429.57	1.56	1.75	-51.36	51.39	271.96	0.20	121.69M
	6527.00	0.79	121.69	6525.56	2.11	1.14	-50.35	50.37	271.30	0.18	116.98M
	6622.00	0.88	116.98	6620.55	2.70	0.47	-49.15	49.15	270.54	0.12	123.88M
	6717.00	0.79	123.88	6715.54	3.32	-0.23	-47.95	47.95	269.73	0.14	127.58M
	6812.00	1.01	127.58	6810.53	4.12	-1.11	-46.75	46.76	268.65	0.24	115.67M
	6908.00	1.01	115.67	6906.51	4.90	-1.99	-45.31	45.36	267.49	0.22	106.57M
	7003.00	0.70	106.57	7001.50	5.35	-2.52	-44.00	44.07	266.73	0.36	140.36M
	7099.00	0.70	140.36	7097.50	5.90	-3.13	-43.07	43.18	265.84	0.42	150.69M
	7194.00	0.88	150.69	7192.49	6.94	-4.22	-42.34	42.55	264.31	0.24	152.05M
	7289.00	0.79	152.05	7287.48	8.11	-5.43	-41.67	42.03	262.57	0.10	155.48M
	7384.00	1.01	155.48	7382.46	9.40	-6.77	-41.02	41.58	260.62	0.24	156.27M
	7478.00	1.01	156.27	7476.45	10.87	-8.28	-40.34	41.18	258.39	0.01	134.96M
	7573.00	1.01	134.96	7571.44	12.16	-9.64	-39.41	40.58	256.25	0.39	143.79M
	7669.00	1.10	143.79	7667.42	13.43	-10.98	-38.27	39.82	253.99	0.19	149.37M
	7764.00	1.01	149.37	7762.40	14.82	-12.44	-37.30	39.32	251.56	0.14	135.66M
	7859.00	1.10	135.66	7857.39	16.12	-13.81	-36.24	38.78	249.14	0.28	152.05M
	7954.00	1.01	152.05	7952.37	17.44	-15.21	-35.21	38.35	246.64	0.33	144.98M
	8049.00	0.88	144.98	8047.36	18.73	-16.54	-34.40	38.17	244.32	0.18	152.67M
	8145.00	1.01	152.67	8143.35	20.03	-17.90	-33.59	38.06	241.95	0.19	134.78M
	8240.00	1.01	134.78	8238.33	21.29	-19.23	-32.61	37.86	239.47	0.33	133.29M
	8336.00	1.01	133.29	8334.32	22.39	-20.41	-31.39	37.44	236.97	0.03	135.88M
	8430.00	0.88	135.88	8428.30	23.40	-21.49	-30.29	37.14	234.64	0.15	167.48M
	8526.00	0.62	167.48	8524.30	24.39	-22.53	-29.66	37.25	232.78	0.50	153.37M
	8621.00	0.40	153.37	8619.29	25.17	-23.33	-29.40	37.53	231.57	0.26	333.68M
	8716.00	0.31	333.68	8714.29	25.24	-23.39	-29.37	37.55	231.46	0.75	333.06M
	8811.00	1.01	333.06	8809.28	24.30	-22.42	-29.86	37.34	233.10	0.74	334.16M
	8906.00	1.10	334.16	8904.27	22.78	-20.85	-30.64	37.06	235.76	0.10	321.86M
	9002.00	1.19	321.86	9000.25	21.24	-19.24	-31.65	37.04	238.71	0.27	342.69M
	9097.00	1.01	342.69	9095.23	19.72	-17.66	-32.51	37.00	241.49	0.46	333.37M
	9192.00	0.88	333.37	9190.22	18.31	-16.21	-33.09	36.85	243.90	0.21	339.48M
	9287.00	1.19	339.48	9285.20	16.78	-14.63	-33.76	36.80	246.57	0.35	354.69M
	9382.00	1.41	354.69	9380.18	14.73	-12.55	-34.22	36.44	249.86	0.43	357.45M
	9478.00	1.41	357.45	9476.15	12.39	-10.19	-34.38	35.86	253.49	0.07	18.68M
	9573.00	1.19	18.68	9571.13	10.27	-8.09	-34.11	35.06	256.66	0.55	7.08M
	9668.00	1.58	7.08	9666.10	8.01	-5.85	-33.64	34.14	260.13	0.50	13.67M
	9764.00	1.58	13.67	9762.06	5.39	-3.25	-33.16	33.32	264.39	0.19	16.97M
	9859.00	1.41	16.97	9857.03	2.96	-0.86	-32.51	32.52	268.48	0.20	13.45M
	9954.00	1.41	13.45	9952.00	0.67	1.39	-31.90	31.93	272.50	0.09	28.65M
	10049.00	1.58	28.65	10046.97	-1.67	3.68	-31.00	31.21	276.76	0.45	28.57M
	10145.00	1.32	28.57	10142.94	-3.87	5.81	-29.83	30.39	281.02	0.27	40.08M
	10240.00	1.71	40.08	10237.90	-6.01	7.85	-28.40	29.46	285.46	0.52	35.95M

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
Tie-In ST01	10336.00	1.71	35.95	10333.86	-8.37	10.11	-26.63	28.49	290.79	0.13	41.57M
	10431.00	1.58	41.57	10428.82	-10.61	12.24	-24.93	27.77	296.14	0.22	49.27M
	10526.00	1.71	49.27	10523.78	-12.63	14.14	-22.99	26.99	301.60	0.27	29.49M
	10622.00	1.01	29.49	10619.76	-14.40	15.81	-21.49	26.68	306.35	0.87	348.49M
	10717.00	0.62	348.49	10714.75	-15.65	17.05	-21.18	27.19	308.83	0.71	169.79M
	10806.00	12.20	169.79	10803.11	-6.95	8.23	-19.60	21.26	292.77	14.40	7.39R
	10838.00	16.96	171.90	10834.07	0.91	0.27	-18.34	18.35	270.85	14.96	32.11R
	10869.00	20.26	177.71	10863.45	10.68	-9.57	-17.49	19.94	241.32	12.20	28.45R
	10901.00	23.17	181.65	10893.17	22.48	-21.40	-17.45	27.62	219.19	10.17	19.64R
	10933.00	26.89	184.56	10922.17	36.01	-34.91	-18.21	39.38	207.54	12.24	17.23R
	10965.00	31.04	187.04	10950.16	51.49	-50.32	-19.80	54.08	201.47	13.50	14.33R
	10997.00	34.66	188.66	10977.04	68.80	-67.51	-22.18	71.06	198.19	11.64	7.18R
	11028.00	37.88	189.32	11002.03	87.06	-85.62	-25.05	89.21	196.31	10.46	29.46L
	11060.00	39.16	188.18	11027.06	106.91	-105.32	-28.08	109.00	194.93	4.57	6.55L
	11092.00	42.52	187.61	11051.27	127.78	-126.04	-30.95	129.79	193.79	10.56	8.51L
	11124.00	46.19	186.85	11074.15	150.10	-148.23	-33.76	152.03	192.83	11.59	2.49R
	11156.00	49.15	187.02	11095.69	173.72	-171.72	-36.61	175.58	192.04	9.26	4.12R
	11188.00	51.77	187.26	11116.06	198.35	-196.20	-39.68	200.17	191.43	8.21	10.79R
	11220.00	54.73	187.95	11135.21	223.93	-221.61	-43.08	225.76	191.00	9.41	8.79R
	11251.00	57.91	188.53	11152.40	249.64	-247.14	-46.78	251.53	190.72	10.38	1.03L
	11283.00	62.87	188.43	11168.20	277.35	-274.65	-50.88	279.32	190.49	15.50	5.87L
	11315.00	67.27	187.94	11181.69	306.28	-303.36	-55.01	308.31	190.28	13.82	13.74L
	11347.00	70.75	187.04	11193.15	336.08	-332.98	-58.90	338.15	190.03	11.19	4.12R
	11378.00	74.64	187.33	11202.37	365.62	-362.34	-62.60	367.70	189.80	12.58	4.31R
	11410.00	78.54	187.63	11209.79	396.67	-393.19	-66.65	398.80	189.62	12.22	3.03R
	11442.00	81.72	187.80	11215.27	428.12	-424.43	-70.88	430.31	189.48	9.95	6.59L
	11474.00	83.70	187.57	11219.33	459.78	-455.89	-75.13	462.03	189.36	6.23	6.42L
	11505.00	86.45	187.26	11221.99	490.60	-486.51	-79.11	492.90	189.24	8.93	14.52L
	11537.00	88.69	186.68	11223.35	522.51	-518.24	-82.99	524.85	189.10	7.23	79L
	11569.00	88.76	186.32	11224.06	554.47	-550.03	-86.61	556.81	188.95	1.15	73.86L
	11671.00	88.87	185.94	11226.17	656.35	-651.42	-97.50	658.68	188.51	0.39	75.54L
	11766.00	89.11	185.01	11227.85	751.29	-745.97	-106.56	753.55	188.13	1.01	90L
	11862.00	89.11	184.59	11229.34	847.26	-841.63	-114.60	849.39	187.75	0.44	90L
	11957.00	89.11	183.40	11230.81	942.25	-936.38	-121.21	944.20	187.38	1.25	82.2L
	12052.00	89.21	182.67	11232.21	1037.23	-1031.24	-126.24	1038.94	186.98	0.78	94.77L
	12148.00	89.14	181.83	11233.59	1133.19	-1127.15	-130.01	1134.63	186.58	0.88	85.6L
	12243.00	89.18	181.31	11234.98	1228.11	-1222.11	-132.62	1229.28	186.19	0.55	92.64L
	12339.00	89.14	180.44	11236.39	1323.99	-1318.08	-134.08	1324.89	185.81	0.91	82.1L
	12434.00	89.24	179.72	11237.73	1418.79	-1413.07	-134.21	1419.43	185.43	0.77	97.39L
	12530.00	89.17	179.18	11239.06	1514.51	-1509.06	-133.29	1514.94	185.05	0.57	93.82L
	12626.00	89.14	178.73	11240.48	1610.17	-1605.03	-131.54	1610.42	184.69	0.47	73.3L
	12721.00	89.17	178.63	11241.88	1704.80	-1700.00	-129.35	1704.91	184.35	0.11	1.27R
	12816.00	89.62	178.64	11242.88	1799.42	-1794.97	-127.09	1799.46	184.05	0.47	159.1R
	12911.00	89.07	178.85	11243.97	1894.06	-1889.94	-125.01	1894.07	183.78	0.62	121.65L

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
	13007.00	88.38	177.73	11246.11	1989.61	-1985.87	-122.15	1989.62	183.52	1.37	147.55L
	13102.00	87.83	177.38	11249.25	2084.01	-2080.73	-118.10	2084.08	183.25	0.69	134.62R
	13197.00	87.15	178.07	11253.41	2178.41	-2175.56	-114.33	2178.56	183.01	1.02	34.48R
	13292.00	88.14	178.75	11257.31	2272.92	-2270.44	-111.69	2273.19	182.82	1.26	37.67R
	13388.00	88.93	179.36	11259.77	2368.57	-2366.40	-110.11	2368.96	182.66	1.04	93.07R
	13483.00	88.90	179.92	11261.56	2463.32	-2461.38	-109.51	2463.81	182.55	0.59	98.13R
	13578.00	88.87	180.13	11263.41	2558.11	-2556.36	-109.56	2558.71	182.45	0.22	151.4L
	13673.00	88.76	180.07	11265.38	2652.90	-2651.34	-109.72	2653.61	182.37	0.13	90R
	13769.00	88.76	180.77	11267.45	2748.72	-2747.31	-110.43	2749.53	182.30	0.73	90R
	13865.00	88.76	181.21	11269.53	2844.59	-2843.28	-112.08	2845.49	182.26	0.46	97.77R
	13958.00	88.73	181.43	11271.57	2937.49	-2936.23	-114.23	2938.45	182.23	0.24	99.04R
	14054.00	88.56	182.50	11273.84	3033.41	-3032.15	-117.52	3034.42	182.22	1.13	75.97R
	14149.00	88.69	183.02	11276.12	3128.37	-3127.01	-122.09	3129.39	182.24	0.56	94.94R
	14244.00	88.59	184.18	11278.37	3223.35	-3221.79	-128.05	3224.34	182.28	1.23	77.85R
	14340.00	88.73	184.83	11280.62	3319.31	-3317.47	-135.59	3320.24	182.34	0.69	96.42R
	14434.00	88.62	185.81	11282.79	3413.24	-3411.04	-144.30	3414.09	182.42	1.05	90R
	14531.00	88.62	186.98	11285.13	3510.11	-3507.40	-155.11	3510.83	182.53	1.21	85.61R
	14627.00	88.69	187.89	11287.38	3605.88	-3602.57	-167.52	3606.46	182.66	0.95	77.63R
	14722.00	88.87	188.71	11289.40	3700.55	-3696.55	-181.23	3700.99	182.81	0.88	160.03L
	14818.00	88.21	188.47	11291.85	3796.17	-3791.44	-195.57	3796.48	182.95	0.73	163.51R
	14913.00	87.94	188.55	11295.04	3890.78	-3885.35	-209.62	3891.00	183.09	0.30	114.1R
	15006.00	87.73	189.02	11298.56	3983.34	-3977.19	-223.81	3983.48	183.22	0.55	42.86L
	15102.00	87.87	188.89	11302.24	4078.87	-4071.95	-238.74	4078.94	183.36	0.20	90R
	15197.00	87.87	189.12	11305.77	4173.40	-4165.71	-253.60	4173.42	183.48	0.24	105.96L
	15293.00	87.83	188.98	11309.37	4268.91	-4260.45	-268.69	4268.91	183.61	0.15	55.35L
	15388.00	88.21	188.43	11312.66	4363.49	-4354.30	-283.06	4363.49	183.72	0.70	16.26R
	15484.00	88.93	188.64	11315.05	4459.12	-4449.21	-297.31	4459.13	183.82	0.78	17.56L
Final Survey	15541.00	89.72	188.39	11315.72	4515.91	-4505.57	-305.75	4515.94	183.88	1.45	HS
Proj to TD	15616.00	89.72	188.39	11316.09	4590.66	-4579.77	-316.69	4590.71	183.96	0.00	

Survey Type: 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)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	18.000	Act Stns	30.000	30.000	SLB_NSG+MSHOT-Depth Only	Pilot Hole / Cimarex Lynch 35 #2H Gyro+MWD 0ft to 11415ft MD
	18.000	5492.000	Act Stns	30.000	30.000	SLB_NSG+MSHOT	Pilot Hole / Cimarex Lynch 35 #2H Gyro+MWD 0ft to 11415ft

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
		5492.000	10717.000		Act Stns	30.000	30.000	SLB_MWD-POOR		Pilot Hole / Cimarex Lynch 35 #2H Gyro+MWD 0ft to 11415ft ST01 / Cimarex Lynch 35 #2H ST01 Gyro+MWD 10717ft to ST01 / Cimarex Lynch 35 #2H ST01 Gyro+MWD 10717ft to	
		10717.000	15541.000		Act Stns	30.000	30.000	SLB_MWD-STD			
		15541.000	15616.000		Act Stns	30.000	30.000	SLB_BLIND+TREND			



Cimarex Lynch 35 #2H ST01 Gyro+MWD 10717ft to 15616ft MD

(Def Survey)

Report Date:	February 13, 2013 - 06:34 PM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	Cimarex	Vertical Section Azimuth:	183.696 ° (Grid North)
Field:	NM Lea County (NAD 83)	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	Cactus 101 / Cimarex Lynch 35 #2H	TVD Reference Datum:	RKB
Well:	Cimarex Lynch 35 #2H	TVD Reference Elevation:	3754.000 ft above MSL
Borehole:	ST01	Seabed / Ground Elevation:	3736.000 ft above MSL
UWI / API#:	Unknown / Unknown	Magnetic Declination:	7.493 °
Survey Name:	Cimarex Lynch 35 #2H ST01 Gyro+MWD 10717ft to 15616ft MD	Total Gravity Field Strength:	998.4809mgn (9.80665 Based)
Survey Date:	January 28, 2013	Total Magnetic Field Strength:	48627.974 nT
Tort / AHD / DDI / ERD Ratio:	160.986 ° / 4811.593 ft / 6.029 / 0.425	Magnetic Dip Angle:	60.407 °
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Declination Date:	January 28, 2013
Location Lat / Long:	N 32° 32' 9.04542", W 103° 31' 39.66248"	Magnetic Declination Model:	BGGM 2012
Location Grid N/E Y/X:	N 559610.300 ftUS, E 789619.300 ftUS	North Reference:	Grid North
CRS Grid Convergence Angle:	0.4333 °	Grid Convergence Used:	0.4333 °
Grid Scale Factor:	0.99997969	Total Corr Mag North->Grid North:	7.0600 °
		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 (°)
SHL Lynch 35 #2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	315.21M
	94.12	0.68	315.21	94.12	-0.37	0.40	-0.39	0.56	315.21	0.72	287.33M
	157.44	0.40	287.33	157.44	-0.67	0.73	-0.87	1.13	309.98	0.59	289.95M
	252.70	0.62	289.95	252.69	-0.89	1.00	-1.67	1.95	300.99	0.23	266.93M
	347.96	0.47	266.93	347.95	-0.99	1.16	-2.55	2.80	294.47	0.28	291.5M
	443.22	0.54	291.50	443.20	-1.08	1.30	-3.35	3.60	291.22	0.24	258.37M
	538.48	0.74	258.37	538.46	-1.06	1.34	-4.37	4.58	287.07	0.43	250.98M
	633.74	0.39	250.98	633.71	-0.77	1.11	-5.28	5.40	281.90	0.37	250.52M
	729.00	0.76	250.52	728.97	-0.40	0.80	-6.18	6.24	277.34	0.39	247.11M
	824.26	0.85	247.11	824.22	0.17	0.31	-7.43	7.44	272.40	0.11	262.13M
	919.52	0.89	262.13	919.47	0.63	-0.06	-8.82	8.82	269.58	0.24	263.39M
	1014.78	0.76	263.39	1014.72	0.89	-0.24	-10.18	10.18	268.66	0.14	251.92M
	1110.04	0.94	251.92	1109.97	1.30	-0.55	-11.55	11.56	267.25	0.26	277.75M
	1205.30	0.80	277.75	1205.22	1.54	-0.71	-12.95	12.97	266.87	0.43	281.36M
	1300.56	0.79	281.36	1300.47	1.41	-0.49	-14.25	14.26	268.04	0.05	298.07M
	1395.82	1.07	298.07	1395.72	0.95	0.06	-15.68	15.68	270.22	0.41	293.19M
	1491.08	1.63	293.19	1490.95	0.13	1.01	-17.71	17.74	273.27	0.60	292.58M
	1586.34	1.71	292.58	1586.17	-0.78	2.09	-20.27	20.37	275.89	0.09	294.39M
	1681.60	1.70	294.39	1681.39	-1.74	3.22	-22.87	23.09	278.02	0.06	292.72M
	1776.86	1.87	292.72	1776.60	-2.75	4.40	-25.59	25.96	279.77	0.19	311.01M
	1872.12	2.16	311.01	1871.80	-4.34	6.18	-28.38	29.04	282.29	0.74	317.57M
	1967.38	3.05	317.57	1966.96	-7.19	9.23	-31.44	32.77	286.36	0.98	329.17M
	2062.64	3.67	329.17	2062.06	-11.45	13.72	-34.71	37.33	291.57	0.96	331.13M
	2157.90	2.71	331.13	2157.17	-15.86	18.31	-37.36	41.61	296.11	1.01	316.9M
	2253.16	3.35	316.90	2252.30	-19.67	22.31	-40.35	46.11	298.94	1.03	299.65M
	2348.42	2.14	299.65	2347.45	-22.35	25.23	-43.80	50.54	299.94	1.52	287.08M
	2443.68	0.94	287.08	2442.67	-23.31	26.34	-46.09	53.08	299.74	1.30	229.99M
	2538.94	1.03	229.99	2537.92	-22.90	26.02	-47.49	54.15	298.71	0.99	225.36M
	2634.20	0.17	225.36	2633.17	-22.20	25.37	-48.25	54.51	297.73	0.90	219.74M
	2729.46	0.78	219.74	2728.43	-21.57	24.77	-48.77	54.69	296.93	0.64	208.44M
	2824.72	0.54	208.44	2823.68	-20.64	23.87	-49.39	54.86	295.80	0.29	125.32M
	2919.98	0.42	125.32	2918.94	-20.05	23.28	-49.32	54.54	295.26	0.68	107.47M
	3015.24	0.65	107.47	3014.20	-19.74	22.91	-48.52	53.66	295.28	0.30	113.46M
	3110.50	1.14	113.46	3109.45	-19.29	22.37	-47.14	52.18	295.39	0.52	88.62M
	3205.76	1.01	88.62	3204.69	-19.04	22.02	-45.43	50.48	295.86	0.50	78.07M
	3301.02	1.31	78.07	3299.93	-19.41	22.26	-43.52	48.89	297.09	0.39	73.27M
	3396.28	1.33	73.27	3395.17	-20.09	22.81	-41.40	47.27	298.85	0.12	77.02M
	3491.54	0.73	77.02	3490.41	-20.65	23.26	-39.75	46.06	300.33	0.63	90.39M
	3586.80	0.63	90.39	3585.66	-20.85	23.39	-38.64	45.17	301.19	0.20	90.2M
	3682.06	0.42	90.20	3680.92	-20.91	23.39	-37.76	44.42	301.77	0.22	98.39M
	3777.32	0.42	98.39	3776.18	-20.90	23.34	-37.07	43.80	302.19	0.06	98.24M
	3872.58	0.76	98.24	3871.43	-20.82	23.19	-36.10	42.91	302.72	0.36	157.13M
	3967.84	1.05	157.13	3966.68	-19.99	22.30	-35.13	41.61	302.40	0.97	187.04M
	4063.10	0.83	187.04	4061.93	-18.52	20.81	-34.88	40.61	300.82	0.56	191.64M
	4158.36	0.30	191.64	4157.18	-17.58	19.88	-35.01	40.26	299.59	0.56	230.7M
	4253.62	1.11	230.70	4252.44	-16.71	19.05	-35.78	40.53	298.04	0.94	240.44M
	4348.88	0.94	240.44	4347.68	-15.65	18.08	-37.17	41.34	295.94	0.25	247.81M
	4444.14	0.95	247.81	4442.93	-14.88	17.40	-38.58	42.32	294.27	0.13	245.04M
	4539.40	1.06	245.04	4538.17	-14.11	16.73	-40.11	43.46	292.64	0.13	244.07M
	4634.66	1.12	244.07	4633.42	-13.23	15.95	-41.75	44.69	290.91	0.07	244.1M
	4729.92	1.05	244.10	4728.66	-12.33	15.16	-43.37	45.94	289.27	0.07	243.31M
	4825.18	0.83	243.31	4823.91	-11.55	14.47	-44.77	47.05	287.91	0.23	238.69M
	4920.44	0.97	238.69	4919.15	-10.74	13.74	-46.08	48.08	286.61	0.17	236.76M
	5015.70	0.80	236.76	5014.40	-9.88	12.96	-47.32	49.06	285.31	0.18	227.01M
	5110.96	0.44	227.01	5109.66	-9.22	12.34	-48.15	49.70	284.38	0.39	215.93M
	5206.22	0.70	215.93	5204.91	-8.46	11.62	-48.76	50.12	283.41	0.30	220.2M
	5301.48	0.81	220.20	5300.16	-7.42	10.84	-49.53	50.66	282.12	0.13	234.68M
	5396.74	0.92	234.68	5395.41	-6.40	9.68	-50.59	51.51	280.83	0.26	227.37M
Final Gyro	5492.00	0.85	227.37	5490.66	-5.41	8.76	-51.73	52.47	279.61	0.14	296.77M

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
	5575.00	0.88	296.77	5573.65	-5.21	8.63	-52.76	53.46	279.29	1.19	227.99M
	5671.00	1.01	227.99	5669.64	-4.90	8.40	-54.04	54.69	278.83	1.12	218.45M
	5766.00	1.19	218.45	5764.63	-3.49	7.06	-55.28	55.73	277.28	0.27	200.79M
	5861.00	1.10	200.79	5859.61	-1.80	5.44	-56.22	56.48	275.53	0.38	140.19M
	5956.00	0.48	140.19	5954.60	-0.64	4.28	-56.28	56.45	274.35	1.01	112.28M
	6051.00	0.62	112.28	6049.60	-0.19	3.78	-55.55	55.68	273.89	0.31	117.38M
	6147.00	0.70	117.38	6145.59	0.21	3.31	-54.55	54.65	273.48	0.10	116.28M
	6242.00	0.70	116.28	6240.58	0.67	2.79	-53.52	53.59	272.98	0.01	113.56M
	6337.00	0.79	113.56	6335.57	1.11	2.27	-52.40	52.45	272.48	0.10	120.59M
	6431.00	0.62	120.59	6429.57	1.56	1.75	-51.36	51.39	271.96	0.20	121.69M
	6527.00	0.79	121.69	6525.56	2.11	1.14	-50.35	50.37	271.30	0.18	116.98M
	6622.00	0.88	116.98	6620.55	2.70	0.47	-49.15	49.15	270.54	0.12	123.88M
	6717.00	0.79	123.88	6715.54	3.32	-0.23	-47.95	47.95	269.73	0.14	127.58M
	6812.00	1.01	127.58	6810.53	4.12	-1.11	-46.75	46.76	268.65	0.24	115.67M
	6908.00	1.01	115.67	6906.51	4.90	-1.99	-45.31	45.36	267.49	0.22	106.57M
	7003.00	0.70	106.57	7001.50	5.35	-2.52	-44.00	44.07	266.73	0.36	140.36M
	7099.00	0.70	140.36	7097.50	5.90	-3.13	-43.07	43.18	265.84	0.42	150.69M
	7194.00	0.88	150.69	7192.49	6.94	-4.22	-42.34	42.55	264.31	0.24	152.05M
	7289.00	0.79	152.05	7287.48	8.11	-5.43	-41.67	42.03	262.57	0.10	155.48M
	7384.00	1.01	155.48	7382.46	9.40	-6.77	-41.02	41.58	260.62	0.24	156.27M
	7478.00	1.01	156.27	7476.45	10.87	-8.28	-40.34	41.18	258.39	0.01	134.96M
	7573.00	1.01	134.96	7571.44	12.16	-9.64	-39.41	40.58	256.25	0.39	143.79M
	7669.00	1.10	143.79	7667.42	13.43	-10.98	-38.27	39.82	253.99	0.19	149.37M
	7764.00	1.01	149.37	7762.40	14.82	-12.44	-37.30	39.32	251.56	0.14	135.66M
	7859.00	1.10	135.66	7857.39	16.12	-13.81	-36.24	38.78	249.14	0.28	152.05M
	7954.00	1.01	152.05	7952.37	17.44	-15.21	-35.21	38.35	246.64	0.33	144.98M
	8049.00	0.88	144.98	8047.36	18.73	-16.54	-34.40	38.17	244.32	0.18	152.67M
	8145.00	1.01	152.67	8143.35	20.03	-17.90	-33.59	38.06	241.95	0.19	134.78M
	8240.00	1.01	134.78	8238.33	21.29	-19.23	-32.61	37.86	239.47	0.33	133.29M
	8336.00	1.01	133.29	8334.32	22.39	-20.41	-31.39	37.44	236.97	0.03	135.88M
	8430.00	0.88	135.88	8428.30	23.40	-21.49	-30.29	37.14	234.64	0.15	167.48M
	8526.00	0.62	167.48	8524.30	24.39	-22.53	-29.66	37.25	232.78	0.50	153.37M
	8621.00	0.40	153.37	8619.29	25.17	-23.33	-29.40	37.53	231.57	0.26	333.68M
	8716.00	0.31	333.68	8714.29	25.24	-23.39	-29.37	37.55	231.46	0.75	333.06M
	8811.00	1.01	333.06	8809.28	24.30	-22.42	-29.86	37.34	233.10	0.74	334.16M
	8906.00	1.10	334.16	8904.27	22.78	-20.85	-30.64	37.06	235.76	0.10	321.86M
	9002.00	1.19	321.86	9000.25	21.24	-19.24	-31.65	37.04	238.71	0.27	342.69M
	9097.00	1.01	342.69	9095.23	19.72	-17.66	-32.51	37.00	241.49	0.46	333.37M
	9192.00	0.88	333.37	9190.22	18.31	-16.21	-33.09	36.85	243.90	0.21	339.48M
	9287.00	1.19	339.48	9285.20	16.78	-14.63	-33.76	36.80	246.57	0.35	354.59M
	9382.00	1.41	354.59	9380.18	14.73	-12.55	-34.22	36.44	249.86	0.43	357.45M
	9478.00	1.41	357.45	9476.15	12.39	-10.19	-34.38	35.86	253.49	0.07	18.68M
	9573.00	1.19	18.68	9571.13	10.27	-8.09	-34.11	35.06	256.66	0.55	7.08M
	9668.00	1.58	7.08	9666.10	8.01	-5.85	-33.64	34.14	260.13	0.50	13.67M
	9764.00	1.58	13.67	9762.06	5.39	-3.25	-33.16	33.32	264.39	0.19	16.97M
	9859.00	1.41	16.97	9857.03	2.96	-0.86	-32.51	32.52	268.48	0.20	13.45M
	9954.00	1.41	13.45	9952.00	0.67	1.39	-31.90	31.93	272.50	0.09	28.65M
	10049.00	1.58	28.65	10046.97	-1.67	3.68	-31.00	31.21	276.76	0.45	28.57M
	10145.00	1.32	28.57	10142.94	-3.87	5.81	-29.83	30.39	281.02	0.27	40.08M
	10240.00	1.71	40.08	10237.90	-6.01	7.85	-28.40	29.46	285.46	0.52	35.95M
	10336.00	1.71	35.95	10333.86	-8.37	10.11	-26.63	28.49	290.79	0.13	41.57M
	10431.00	1.58	41.57	10428.82	-10.61	12.24	-24.93	27.77	296.14	0.22	49.27M
	10526.00	1.71	49.27	10523.78	-12.63	14.14	-22.99	26.99	301.60	0.27	29.49M
	10622.00	1.01	29.49	10619.76	-14.40	15.81	-21.49	26.68	306.35	0.87	348.49M
	10717.00	0.62	348.49	10714.75	-15.65	17.05	-21.18	27.19	308.83	0.71	169.79M
	10806.00	12.20	169.79	10803.11	-6.95	8.23	-19.60	21.26	292.77	14.40	7.39R
	10838.00	16.96	171.90	10834.07	0.91	0.27	-18.34	18.35	270.85	14.96	32.11R
	10869.00	20.26	177.71	10863.45	10.68	-9.57	-17.49	19.94	241.32	12.20	28.45R
	10901.00	23.17	181.65	10893.17	22.48	-21.40	-17.45	27.62	219.19	10.17	19.64R
	10933.00	26.89	184.56	10922.17	36.01	-34.91	-18.21	39.38	207.54	12.24	17.23R
	10965.00	31.04	187.04	10950.16	51.49	-50.32	-19.80	54.08	201.47	13.50	14.33R
	10997.00	34.66	188.66	10977.04	68.80	-67.51	-22.18	71.06	198.19	11.64	7.18R
	11028.00	37.88	189.32	11002.03	87.06	-85.62	-25.05	89.21	196.31	10.46	29.46L
	11060.00	39.16	188.18	11027.06	106.91	-105.32	-28.08	109.00	194.93	4.57	6.55L
	11092.00	42.52	187.61	11051.27	127.78	-126.04	-30.95	129.79	193.79	10.56	8.51L
	11124.00	46.19	186.85	11074.15	150.10	-148.23	-33.76	152.03	192.83	11.59	2.49R
	11156.00	49.15	187.02	11095.69	173.72	-171.72	-36.61	175.58	192.04	9.26	4.12R
	11188.00	51.77	187.26	11116.06	198.35	-196.20	-39.68	200.17	191.43	8.21	10.79R
	11220.00	54.73	187.95	11135.21	223.93	-221.61	-43.08	225.76	191.00	9.41	8.79R
	11251.00	57.91	188.53	11152.40	249.64	-247.14	-46.78	251.53	190.72	10.38	1.03L
	11283.00	62.87	188.43	11168.20	277.35	-274.65	-50.88	279.32	190.49	15.50	5.87L
	11315.00	67.27	187.94	11181.69	306.28	-303.36	-55.01	308.31	190.28	13.82	13.74L
	11347.00	70.75	187.04	11193.15	336.08	-332.98	-58.90	338.15	190.03	11.19	4.12R
	11378.00	74.64	187.33	11202.37	365.62	-362.34	-62.60	367.70	189.80	12.58	4.31R
	11410.00	78.54	187.63	11209.79	396.67	-393.19	-66.65	398.80	189.62	12.22	3.03R
	11442.00	81.72	187.80	11215.27	428.12	-424.43	-70.88	430.31	189.48	9.95	6.59L
	11474.00	83.70	187.57	11219.33	459.78	-455.89	-75.13	462.03	189.36	6.23	6.42L
	11505.00	86.45	187.26	11221.99	490.60	-486.51	-79.11	492.90	189.24	8.93	14.52L
	11537.00	88.69	186.68	11223.35	522.51	-518.24	-82.99	524.85	189.10	7.23	79L
	11569.00	88.76	186.32	11224.06	554.47	-550.03	-86.61	556.81	188.95	1.15	73.86L
	11671.00	88.87	185.94	11226.17	656.35	-651.42	-97.50	658.68	188.51	0.39	75.54L

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (*/100ft)	TF (°)
	11766.00	89.11	185.01	11227.85	751.29	-745.97	-106.56	753.55	188.13	1.01	90L
	11862.00	89.11	184.59	11229.34	847.26	-841.63	-114.60	849.39	187.75	0.44	90L
	11957.00	89.11	183.40	11230.81	942.25	-936.38	-121.21	944.20	187.38	1.25	82.2L
	12052.00	89.21	182.67	11232.21	1037.23	-1031.24	-126.24	1038.94	186.98	0.78	94.77L
	12148.00	89.14	181.83	11233.59	1133.19	-1127.15	-130.01	1134.63	186.58	0.88	85.6L
	12243.00	89.18	181.31	11234.98	1228.11	-1222.11	-132.62	1229.28	186.19	0.55	92.64L
	12339.00	89.14	180.44	11236.39	1323.99	-1318.08	-134.08	1324.89	185.81	0.91	82.1L
	12434.00	89.24	179.72	11237.73	1418.79	-1413.07	-134.21	1419.43	185.43	0.77	97.39L
	12530.00	89.17	179.18	11239.06	1514.51	-1509.06	-133.29	1514.94	185.05	0.57	93.82L
	12626.00	89.14	178.73	11240.48	1610.17	-1605.03	-131.54	1610.42	184.69	0.47	73.3L
	12721.00	89.17	178.63	11241.88	1704.80	-1700.00	-129.35	1704.91	184.35	0.11	1.27R
	12816.00	89.62	178.64	11242.88	1799.42	-1794.97	-127.09	1799.46	184.05	0.47	159.1R
	12911.00	89.07	178.85	11243.97	1894.06	-1889.94	-125.01	1894.07	183.78	0.62	121.65L
	13007.00	88.38	177.73	11246.11	1989.61	-1985.87	-122.15	1989.62	183.52	1.37	147.55L
	13102.00	87.83	177.38	11249.25	2084.01	-2080.73	-118.10	2084.08	183.25	0.69	134.62R
	13197.00	87.15	178.07	11253.41	2178.41	-2175.56	-114.33	2178.56	183.01	1.02	34.48R
	13292.00	88.14	178.75	11257.31	2272.92	-2270.44	-111.69	2273.19	182.82	1.26	37.67R
	13388.00	88.93	179.36	11259.77	2368.57	-2366.40	-110.11	2368.96	182.66	1.04	93.07R
	13483.00	88.90	179.92	11261.56	2463.32	-2461.38	-109.51	2463.81	182.55	0.59	98.13R
	13578.00	88.87	180.13	11263.41	2558.11	-2556.36	-109.56	2558.71	182.45	0.22	151.4L
	13673.00	88.76	180.07	11265.38	2652.90	-2651.34	-109.72	2653.61	182.37	0.13	90R
	13769.00	88.76	180.77	11267.45	2748.72	-2747.31	-110.43	2749.53	182.30	0.73	90R
	13865.00	88.76	181.21	11269.53	2844.59	-2843.28	-112.08	2845.49	182.26	0.46	97.77R
	13958.00	88.73	181.43	11271.57	2937.49	-2936.23	-114.23	2938.45	182.23	0.24	99.04R
	14054.00	88.56	182.50	11273.84	3033.41	-3032.15	-117.52	3034.42	182.22	1.13	75.97R
	14149.00	88.69	183.02	11276.12	3128.37	-3127.01	-122.09	3129.39	182.24	0.56	94.94R
	14244.00	88.59	184.18	11278.37	3223.35	-3221.79	-128.05	3224.34	182.28	1.23	77.85R
	14340.00	88.73	184.83	11280.62	3319.31	-3317.47	-135.59	3320.24	182.34	0.69	96.42R
	14434.00	88.62	185.81	11282.79	3413.24	-3411.04	-144.30	3414.09	182.42	1.05	90R
	14531.00	88.62	186.98	11285.13	3510.11	-3507.40	-155.11	3510.83	182.53	1.21	85.61R
	14627.00	88.69	187.89	11287.38	3605.88	-3602.57	-167.52	3606.46	182.66	0.95	77.63R
	14722.00	88.87	188.71	11289.40	3700.55	-3696.55	-181.23	3700.99	182.81	0.88	160.03L
	14818.00	88.21	188.47	11291.85	3796.17	-3791.44	-195.57	3796.48	182.95	0.73	163.51R
	14913.00	87.94	188.55	11295.04	3890.78	-3885.35	-209.62	3891.00	183.09	0.30	114.1R
	15006.00	87.73	189.02	11298.56	3983.34	-3977.19	-223.81	3983.48	183.22	0.55	42.86L
	15102.00	87.87	188.89	11302.24	4078.87	-4071.95	-238.74	4078.94	183.36	0.20	90R
	15197.00	87.87	189.12	11305.77	4173.40	-4165.71	-253.60	4173.42	183.48	0.24	105.96L
	15293.00	87.83	188.98	11309.37	4268.91	-4260.45	-268.69	4268.91	183.61	0.15	55.35L
	15388.00	88.21	188.43	11312.66	4363.49	-4354.30	-283.06	4363.49	183.72	0.70	16.26R
	15484.00	88.93	188.64	11315.05	4459.12	-4449.21	-297.31	4459.13	183.82	0.78	17.56L
Final Survey	15541.00	89.72	188.39	11315.72	4515.91	-4505.57	-305.75	4515.94	183.88	1.45	HS
Proj to TD	15616.00	89.72	188.39	11316.09	4590.66	-4579.77	-316.69	4590.71	183.96	0.00	

Survey Type: 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)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	18.000	Act Sns	30.000	30.000	SLB_NSG+MSHOT-Depth Only	Pilot Hole / Cimarex Lynch 35 #2H Gyro+MWD 0ft to 11415ft MD
	18.000	5492.000	Act Sns	30.000	30.000	SLB_NSG+MSHOT	Pilot Hole / Cimarex Lynch 35 #2H Gyro+MWD 0ft to 11415ft Pilot Hole / Cimarex Lynch 35
	5492.000	10717.000	Act Sns	30.000	30.000	SLB_MWD-POOR	#2H Gyro+MWD 0ft to 11415ft ST01 / Cimarex Lynch 35 #2H
	10717.000	15541.000	Act Sns	30.000	30.000	SLB_MWD-STD	ST01 Gyro+MWD 10717ft to ST01 / Cimarex Lynch 35 #2H
	15541.000	15616.000	Act Sns	30.000	30.000	SLB_BLIND+TREND	ST01 Gyro+MWD 10717ft to