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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

EMNRD-OC D ARTESIA
REC'D: 5/05/2020 Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

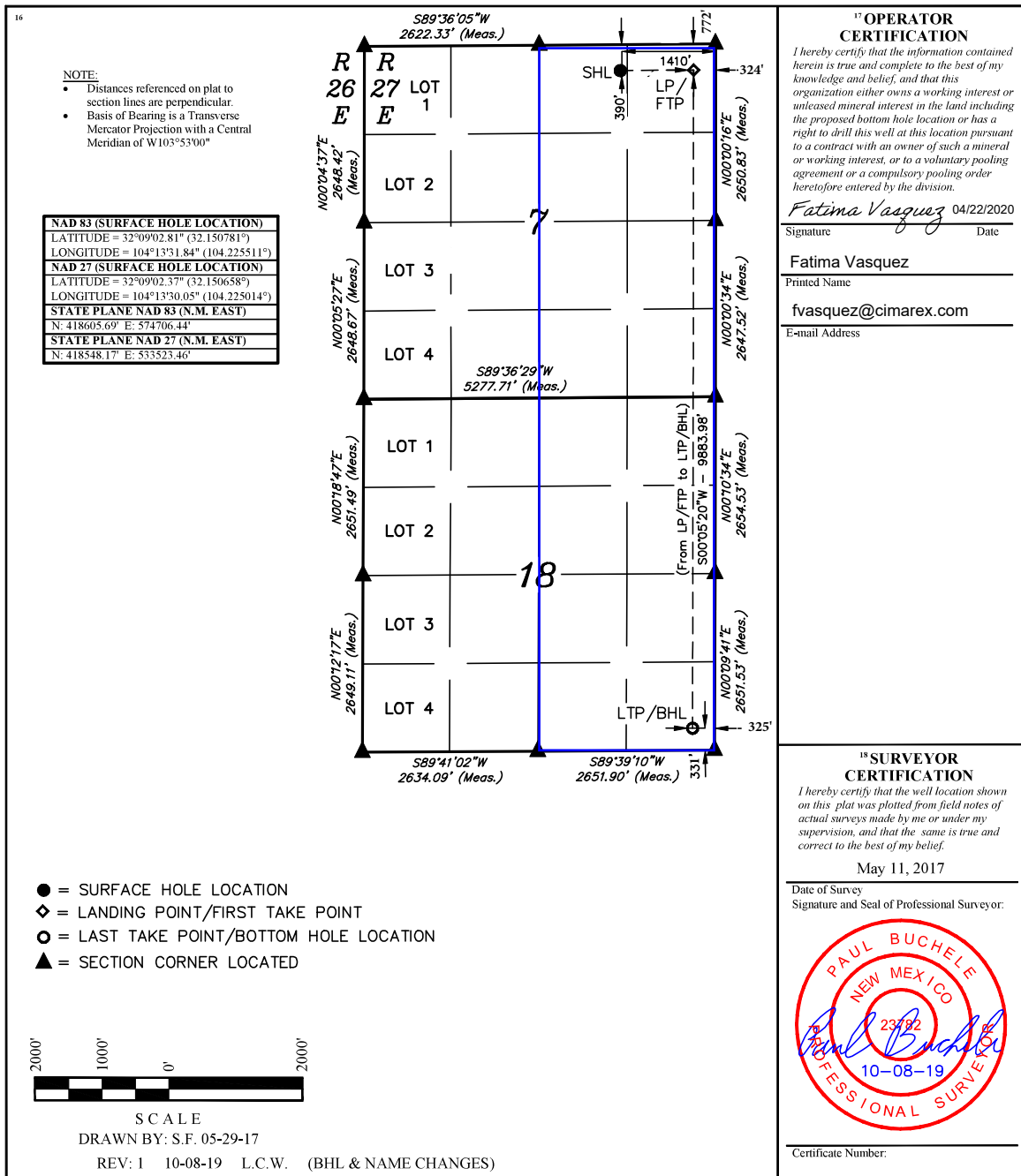
¹ APL Number 3001544695	² Pool Code 98220	³ Pool Name Purple Sage Wolfcamp (Gas)
⁴ Property Code 317791	⁵ Property Name DAVINCI 7-18 FEDERAL COM	⁶ Well Number 29H
⁷ OGRID No. 215099	⁸ Operator Name CIMAREX ENERGY CO.	⁹ Elevation 3308.9'

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	7	25S	27E		390	NORTH	1410	EAST	EDDY

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	18	25S	27E		331	SOUTH	325	EAST	EDDY
¹² Dedicated Acres 640	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



RWP 5/8/2020



Final Surveys - Cimarex DaVinci 7-18 Federal Com #29H 0ft to 19312ft (Surcon Corrected) Survey Geodetic Report (Def Survey)



Report Date:	February 07, 2020 - 08:42 AM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	Cimarex	Vertical Section Azimuth:	179.849 ° (Grid North)
Field:	NM Eddy County (NAD 83)	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	Cimarex DaVinci 7-18 Federal Com #29H / Cimarex DaVinci 7-18 Federal Com #29H	TVD Reference Datum:	RKB
Well:	Cimarex DaVinci 7-18 Federal Com #29H	TVD Reference Elevation:	3331.900 ft above MSL
Borehole:	Original Borehole	Seabed / Ground Elevation:	3308.900 ft above MSL
UWI / API#:	Unknown / Unknown	Magnetic Declination:	7.195 °
Survey Name:	Final Surveys - Cimarex DaVinci 7-18 Federal Com #29H 0ft to 19312ft (Surcon Corrected)	Total Gravity Field Strength:	998.4346mgn (9.80665 Based)
Survey Date:	January 04, 2020	Gravity Model:	GARM
Tort / AHD / DDI / ERD Ratio:	320.411 ° / 10936.879 ft / 6.845 / 1.131	Total Magnetic Field Strength:	47740.178 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Dip Angle:	59.776 °
Location Lat / Long:	N 32° 9' 2.80649", W 104° 13' 31.83835"	Declination Date:	February 04, 2020
Location Grid N/E Y/X:	N 418605.690 ftUS, E 574706.440 ftUS	Magnetic Declination Model:	HDGM 2019
CRS Grid Convergence Angle:	0.0574 °	North Reference:	Grid North
Grid Scale Factor:	0.99991037	Grid Convergence Used:	0.0574 °
Version / Patch:	2.10.787.0	Total Corr Mag North->Grid North:	7.1380 °
		Local Coord Referenced To:	Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure Azimuth (°)	Closure (ft)
SHL [390' FNL, 1410' FEL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	418605.69	574706.44	N 32 9 2.81	W 104 13 31.84	0.00	0.00
	119.00	1.38	8.63	118.99	-1.42	1.42	0.22	1.16	418607.11	574706.66	N 32 9 2.82	W 104 13 31.84	8.63	1.43
	210.00	1.58	312.61	209.96	-3.35	3.35	-0.54	1.54	418609.04	574705.90	N 32 9 2.84	W 104 13 31.84	350.78	3.39
	311.00	1.13	319.70	310.93	-5.06	5.05	-2.21	0.47	418610.74	574704.23	N 32 9 2.86	W 104 13 31.86	336.35	5.52
	386.00	0.70	63.72	385.93	-5.82	5.82	-2.28	1.96	418611.51	574704.16	N 32 9 2.86	W 104 13 31.86	338.60	6.25
	489.00	0.62	77.92	488.92	-6.22	6.21	-1.17	0.18	418611.90	574705.27	N 32 9 2.87	W 104 13 31.85	349.33	6.32
	578.00	0.63	70.53	577.92	-6.48	6.48	-0.24	0.09	418612.17	574706.20	N 32 9 2.87	W 104 13 31.84	357.89	6.48
	670.00	0.61	93.59	669.91	-6.61	6.62	0.73	0.27	418612.31	574707.17	N 32 9 2.87	W 104 13 31.83	6.27	6.66
	761.00	0.68	89.68	760.91	-6.58	6.59	1.75	0.09	418612.28	574708.19	N 32 9 2.87	W 104 13 31.82	14.87	6.82
	852.00	0.75	79.06	851.90	-6.70	6.70	2.87	0.16	418612.39	574709.31	N 32 9 2.87	W 104 13 31.80	23.21	7.29
	945.00	0.61	49.24	944.89	-7.13	7.14	3.85	0.40	418612.83	574710.29	N 32 9 2.88	W 104 13 31.79	28.31	8.11
	1039.00	0.51	15.06	1038.89	-7.86	7.87	4.33	0.36	418613.56	574710.77	N 32 9 2.88	W 104 13 31.79	28.84	8.99
	1228.00	0.81	335.27	1227.88	-9.89	9.90	3.99	0.28	418615.59	574710.43	N 32 9 2.90	W 104 13 31.79	21.97	10.68
	1322.00	0.95	325.57	1321.86	-11.14	11.15	3.28	0.22	418616.83	574709.72	N 32 9 2.92	W 104 13 31.80	16.38	11.62
	1416.00	1.25	37.34	1415.85	-12.59	12.60	3.46	1.40	418618.29	574709.90	N 32 9 2.93	W 104 13 31.80	15.34	13.07
	1510.00	2.20	65.98	1509.81	-14.14	14.15	5.73	1.34	418619.84	574712.17	N 32 9 2.95	W 104 13 31.77	22.03	15.27
	1605.00	2.53	60.79	1604.73	-15.89	15.92	9.22	0.41	418621.61	574715.66	N 32 9 2.96	W 104 13 31.73	30.09	18.40
	1699.00	4.09	72.66	1698.57	-17.89	17.93	14.23	1.80	418623.62	574720.67	N 32 9 2.98	W 104 13 31.67	38.44	22.89
	1794.00	5.52	79.41	1793.23	-19.72	19.78	21.96	1.62	418625.47	574728.40	N 32 9 3.00	W 104 13 31.58	47.99	29.55
	1984.00	6.75	85.76	1982.14	-22.17	22.29	42.08	0.74	418627.97	574748.52	N 32 9 3.03	W 104 13 31.35	62.09	47.62
	2172.00	6.27	88.03	2168.93	-23.29	23.46	63.36	0.29	418629.14	574769.79	N 32 9 3.04	W 104 13 31.10	69.69	67.56
	2266.00	6.44	86.30	2262.35	-23.78	23.97	73.75	0.27	418629.66	574780.18	N 32 9 3.04	W 104 13 30.98	71.99	77.55
	2361.00	6.69	87.46	2356.73	-24.34	24.56	84.59	0.30	418630.25	574791.03	N 32 9 3.05	W 104 13 30.85	73.81	88.09
	2550.00	6.77	88.99	2544.43	-24.96	25.25	106.73	0.10	418630.93	574813.16	N 32 9 3.06	W 104 13 30.60	76.69	109.67
	2645.00	6.84	87.91	2638.76	-25.24	25.55	117.98	0.15	418631.24	574824.41	N 32 9 3.06	W 104 13 30.47	77.78	120.72
	2739.00	6.80	88.89	2732.09	-25.52	25.86	129.14	0.13	418631.55	574835.57	N 32 9 3.06	W 104 13 30.34	78.68	131.70
	2833.00	6.69	88.17	2825.44	-25.78	26.14	140.18	0.15	418631.83	574846.60	N 32 9 3.06	W 104 13 30.21	79.43	142.59
	2927.00	6.96	88.10	2918.78	-26.11	26.51	151.34	0.29	418632.20	574857.77	N 32 9 3.07	W 104 13 30.08	80.07	153.64
	3021.00	7.97	87.22	3011.98	-26.58	27.01	163.54	1.08	418632.70	574869.97	N 32 9 3.07	W 104 13 29.94	80.62	165.76

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure Azimuth (°)	Closure (ft)
	3116.00	8.64	94.11	3105.99	-26.35	26.82	177.24	1.26	418632.51	574883.66	N 32 9 3.07	W 104 13 29.78	81.39	179.26
	3210.00	8.99	98.29	3198.88	-24.75	25.26	191.55	0.78	418630.94	574897.97	N 32 9 3.05	W 104 13 29.61	82.49	193.21
	3304.00	9.08	97.25	3291.71	-22.72	23.26	206.17	0.20	418628.95	574912.60	N 32 9 3.03	W 104 13 29.44	83.56	207.48
	3398.00	8.85	98.22	3384.56	-20.71	21.29	220.69	0.29	418626.98	574927.11	N 32 9 3.01	W 104 13 29.27	84.49	221.71
	3492.00	8.52	98.27	3477.48	-18.64	19.26	234.74	0.35	418624.94	574941.15	N 32 9 2.99	W 104 13 29.11	85.31	235.52
	3587.00	8.14	91.60	3571.48	-17.40	18.06	248.42	1.09	418623.74	574954.84	N 32 9 2.98	W 104 13 28.95	85.84	249.08
	3680.00	7.86	87.55	3663.58	-17.46	18.14	261.36	0.68	418623.83	574967.77	N 32 9 2.98	W 104 13 28.80	86.03	261.99
	3774.00	8.73	88.16	3756.59	-17.92	18.65	274.91	0.93	418624.34	574981.33	N 32 9 2.99	W 104 13 28.64	86.12	275.54
	3869.00	9.29	90.39	3850.42	-18.06	18.83	289.78	0.69	418624.52	574996.20	N 32 9 2.99	W 104 13 28.47	86.28	290.39
	3964.00	9.42	90.95	3944.16	-17.84	18.65	305.23	0.17	418624.33	575011.64	N 32 9 2.99	W 104 13 28.29	86.50	305.79
	4058.00	9.40	90.38	4036.89	-17.62	18.47	320.59	0.10	418624.16	575027.00	N 32 9 2.99	W 104 13 28.11	86.70	321.12
	4153.00	8.90	90.98	4130.68	-17.41	18.29	335.70	0.54	418623.98	575042.11	N 32 9 2.98	W 104 13 27.93	86.88	336.20
	4247.00	7.98	89.81	4223.67	-17.27	18.19	349.49	1.00	418623.88	575055.90	N 32 9 2.98	W 104 13 27.77	87.02	349.97
	4341.00	8.63	90.70	4316.68	-17.17	18.12	363.07	0.70	418623.81	575069.48	N 32 9 2.98	W 104 13 27.62	87.14	363.52
	4435.00	8.22	90.11	4409.67	-17.03	18.02	376.84	0.45	418623.71	575083.25	N 32 9 2.98	W 104 13 27.45	87.26	377.27
	4529.00	7.94	89.48	4502.73	-17.04	18.07	390.05	0.31	418623.76	575096.46	N 32 9 2.98	W 104 13 27.30	87.35	390.47
	4623.00	8.33	89.44	4595.79	-17.13	18.20	403.36	0.41	418623.88	575109.76	N 32 9 2.98	W 104 13 27.15	87.42	403.77
	4717.00	9.54	88.85	4688.64	-17.32	18.42	417.95	1.29	418624.11	575124.35	N 32 9 2.98	W 104 13 26.98	87.48	418.36
	4811.00	9.26	90.62	4781.38	-17.35	18.49	433.30	0.43	418624.18	575139.70	N 32 9 2.99	W 104 13 26.80	87.56	433.70
	4905.00	9.20	90.39	4874.16	-17.18	18.36	448.38	0.07	418624.05	575154.78	N 32 9 2.98	W 104 13 26.62	87.66	448.76
	4999.00	9.16	92.68	4966.96	-16.74	17.96	463.37	0.39	418623.65	575169.77	N 32 9 2.98	W 104 13 26.45	87.78	463.72
	5094.00	9.11	88.70	5060.76	-16.51	17.78	478.44	0.67	418623.46	575184.84	N 32 9 2.98	W 104 13 26.27	87.87	478.77
	5188.00	9.03	85.55	5153.58	-17.22	18.52	493.23	0.54	418624.21	575199.63	N 32 9 2.98	W 104 13 26.10	87.85	493.58
	5282.00	8.82	85.73	5246.44	-18.29	19.63	507.78	0.23	418625.31	575214.17	N 32 9 3.00	W 104 13 25.93	87.79	508.15
	5376.00	8.88	89.55	5339.33	-18.84	20.22	522.22	0.63	418625.91	575228.61	N 32 9 3.00	W 104 13 25.76	87.78	522.61
	5471.00	8.78	93.84	5433.20	-18.38	19.79	536.78	0.70	418625.48	575243.17	N 32 9 3.00	W 104 13 25.59	87.89	537.15
	5564.00	8.28	93.78	5525.17	-17.42	18.87	550.55	0.54	418624.56	575256.94	N 32 9 2.99	W 104 13 25.43	88.04	550.87
	5658.00	7.59	92.25	5618.27	-16.70	18.18	563.50	0.77	418623.87	575269.89	N 32 9 2.98	W 104 13 25.28	88.15	563.80
	5752.00	6.59	88.91	5711.55	-16.53	18.04	575.10	1.15	418623.73	575281.49	N 32 9 2.98	W 104 13 25.15	88.20	575.38
	5847.00	6.55	89.57	5805.93	-16.64	18.19	585.97	0.09	418623.88	575292.36	N 32 9 2.98	W 104 13 25.02	88.22	586.25
	5942.00	6.67	83.24	5900.30	-17.31	18.88	596.87	0.78	418624.57	575303.25	N 32 9 2.99	W 104 13 24.90	88.19	597.17
	6036.00	6.65	82.79	5993.66	-18.60	20.20	607.69	0.06	418625.89	575314.07	N 32 9 3.00	W 104 13 24.77	88.10	608.02
	6130.00	7.18	81.14	6086.98	-20.16	21.79	618.89	0.60	418627.48	575325.28	N 32 9 3.02	W 104 13 24.64	87.98	619.28
	6225.00	7.61	85.60	6181.19	-21.53	23.19	631.03	0.75	418628.88	575337.41	N 32 9 3.03	W 104 13 24.50	87.90	631.46
	6319.00	8.40	98.37	6274.28	-20.97	22.67	644.03	2.06	418628.35	575350.41	N 32 9 3.02	W 104 13 24.35	87.98	644.43
	6414.00	6.91	97.51	6368.43	-19.18	20.91	656.56	1.57	418626.60	575362.94	N 32 9 3.01	W 104 13 24.20	88.18	656.89
	6509.00	7.02	94.61	6462.73	-17.94	19.70	668.01	0.39	418625.38	575374.39	N 32 9 2.99	W 104 13 24.07	88.31	668.30
	6603.00	7.63	93.01	6555.96	-17.11	18.91	679.97	0.68	418624.60	575386.35	N 32 9 2.99	W 104 13 23.93	88.41	680.23
	6697.00	7.96	89.08	6649.09	-16.86	18.68	692.71	0.67	418624.37	575399.09	N 32 9 2.98	W 104 13 23.78	88.45	692.96
	6791.00	7.81	87.63	6742.21	-17.19	19.05	705.60	0.27	418624.74	575411.98	N 32 9 2.99	W 104 13 23.63	88.45	705.86
	6886.00	6.72	89.90	6836.44	-17.44	19.33	717.61	1.19	418625.02	575423.98	N 32 9 2.99	W 104 13 23.49	88.46	717.87
	6981.00	5.67	94.21	6930.89	-17.08	18.99	727.85	1.21	418624.68	575434.22	N 32 9 2.99	W 104 13 23.37	88.51	728.09
	7075.00	6.95	87.83	7024.32	-16.92	18.87	738.16	1.55	418624.56	575444.53	N 32 9 2.99	W 104 13 23.25	88.54	738.40
	7169.00	9.09	86.49	7117.39	-17.56	19.54	751.26	2.29	418625.23	575457.63	N 32 9 2.99	W 104 13 23.10	88.51	751.51
	7263.00	9.06	89.72	7210.22	-18.01	20.03	766.07	0.54	418625.72	575472.44	N 32 9 3.00	W 104 13 22.93	88.50	766.33
	7358.00	9.32	83.76	7304.00	-18.84	20.90	781.20	1.04	418626.59	575487.57	N 32 9 3.01	W 104 13 22.75	88.47	781.48
	7452.00	9.44	75.75	7396.75	-21.53	23.63	796.24	1.39	418629.31	575502.60	N 32 9 3.03	W 104 13 22.58	88.30	796.59
	7545.00	9.32	73.96	7488.50	-25.45	27.59	810.86	0.34	418633.27	575517.23	N 32 9 3.07	W 104 13 22.41	88.05	811.33
	7640.00	7.81	76.31	7582.44	-29.07	31.24	824.53	1.63	418636.93	575530.89	N 32 9 3.11	W 104 13 22.25	87.83	825.12
	7735.00	7.59	84.56	7676.59	-31.15	33.36	837.05	1.19	418639.05	575543.41	N 32 9 3.13	W 104 13 22.10	87.72	837.71
	7829.00	7.51	86.19	7769.77	-32.12	34.36	849.36	0.24	418640.04	575555.72	N 32 9 3.14	W 104 13 21.96	87.68	850.05
	7925.00	9.06	88.95	7864.77	-32.64	34.91	863.17	1.67	418640.60	575569.54	N 32 9 3.14	W 104 13 21.80	87.68	863.88
	8020.00	10.05	90.50	7958.45	-32.66	34.98	878.94	1.08	418640.66	575585.30	N 32 9 3.14	W 104 13 21.61	87.72	879.64
	8114.00	9.31	91.25	8051.11	-32.38	34.74	894.75	0.80	418640.43	575601.10	N 32 9 3.14	W 104 13 21.43	87.78	895.42
	8208.00	7.68	92.88	8144.07	-31.86	34.26	908.62	1.75	418639.95	575614.98	N 32 9 3.14	W 104 13 21.27	87.84	909.27
	8302.00	7.90	91.96	8237.21	-31.29	33.72	921.35	0.27	418639.41	575627.71	N 32 9 3.13	W 104 13 21.12	87.90	921.97
	8397.00	7.70	91.56	8331.33	-30.86	33.33	934.24	0.22	418639.01	575640.59	N 32 9 3.13	W 104 13 20.97	87.96	934.83
	8492.00	7.98	91.38	8425.44	-30.50	32.99	947.19	0.30	418638.68	575653.55	N 32 9 3.12	W 104 13 20.82	88.01	947.77
	8586.00	7.20	93.87	8518.62	-29.91	32.44	959.59	0.90	418638.13	575665.94	N 32 9 3.12	W 104 13 20.68	88.06	960.14
	8680.00	6.86	97.93	8611.91	-28.71	31.27	971.03	0.64	418636.95	575677.38	N 32 9 3.11	W 104 13 20.54	88.16	971.53
First SLB Survey	8810.00	4.37	88.12	8741.28	-27.77	30.36	983.67	2.05	418636.05	575690.02	N 32 9 3.10	W 104 13 20.40	88.23	984.14

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure Azimuth (°)	Closure (ft)
KOP	8904.00	3.38	37.92	8835.09	-30.06	32.66	988.96	3.62	418638.35	575695.31	N 32 9 3.12	W 104 13 20.34	88.11	989.50
	8998.00	0.55	19.50	8929.02	-32.66	35.27	990.81	3.05	418640.96	575697.16	N 32 9 3.15	W 104 13 20.31	87.96	991.44
	9092.00	1.32	174.96	9023.02	-32.01	34.62	991.06	1.95	418640.31	575697.40	N 32 9 3.14	W 104 13 20.31	88.00	991.66
	9106.00	3.58	169.27	9037.00	-31.42	34.03	991.15	16.20	418639.72	575697.50	N 32 9 3.13	W 104 13 20.31	88.03	991.74
	9124.00	6.49	167.78	9054.93	-29.87	32.48	991.47	16.20	418638.17	575697.82	N 32 9 3.12	W 104 13 20.31	88.12	992.00
	9156.00	9.90	175.62	9086.60	-25.36	27.97	992.06	11.19	418633.66	575698.41	N 32 9 3.07	W 104 13 20.30	88.38	992.46
	9187.00	13.69	175.21	9116.94	-19.04	21.66	992.57	12.23	418627.35	575698.92	N 32 9 3.01	W 104 13 20.29	88.75	992.81
	9219.00	17.52	168.80	9147.76	-10.54	13.16	993.83	13.11	418618.84	575700.18	N 32 9 2.93	W 104 13 20.28	89.24	993.91
	9250.00	20.96	158.78	9177.03	-0.78	3.40	996.74	15.34	418609.09	575703.09	N 32 9 2.83	W 104 13 20.24	89.80	996.75
	9282.00	23.66	154.37	9206.63	10.36	-7.72	1001.59	9.92	418597.97	575707.94	N 32 9 2.72	W 104 13 20.19	90.44	1001.62
	9313.00	27.41	150.50	9234.60	22.20	-19.55	1007.80	13.23	418586.14	575714.15	N 32 9 2.60	W 104 13 20.12	91.11	1007.99
	9376.00	31.08	156.82	9289.58	49.82	-47.13	1021.35	7.61	418558.56	575727.69	N 32 9 2.33	W 104 13 19.96	92.64	1022.43
	9423.00	33.93	163.99	9329.23	73.62	-70.91	1029.75	10.19	418534.79	575736.09	N 32 9 2.09	W 104 13 19.86	93.94	1032.18
	9472.00	39.19	168.98	9368.58	102.01	-99.27	1036.48	12.32	418506.42	575742.83	N 32 9 1.81	W 104 13 19.78	95.47	1041.23
	9504.00	43.35	167.04	9392.63	122.65	-119.91	1040.88	13.60	418485.79	575747.23	N 32 9 1.61	W 104 13 19.73	96.57	1047.77
	9536.00	47.80	165.40	9415.02	144.85	-142.10	1046.33	14.38	418463.61	575752.68	N 32 9 1.39	W 104 13 19.67	97.73	1055.94
	9567.00	51.88	163.63	9435.01	167.69	-164.92	1052.67	13.86	418440.79	575759.01	N 32 9 1.16	W 104 13 19.60	98.90	1065.51
	9598.00	56.51	162.21	9453.14	191.73	-188.94	1060.06	15.39	418416.77	575766.40	N 32 9 0.93	W 104 13 19.51	100.11	1076.77
	9630.00	60.40	163.73	9469.88	217.83	-215.01	1068.04	12.81	418390.70	575774.38	N 32 9 0.67	W 104 13 19.42	101.38	1089.47
	9661.00	62.85	166.30	9484.61	244.19	-241.36	1075.08	10.75	418364.35	575781.42	N 32 9 0.41	W 104 13 19.34	102.65	1101.84
	9693.00	65.16	170.41	9498.64	272.37	-269.52	1080.88	13.61	418336.19	575787.22	N 32 9 0.13	W 104 13 19.27	104.00	1113.97
	9725.00	66.80	175.76	9511.68	301.38	-298.52	1084.38	16.11	418307.19	575790.72	N 32 8 59.84	W 104 13 19.23	105.39	1124.72
	9752.00	69.12	177.21	9521.81	326.36	-323.50	1085.92	9.93	418282.22	575792.26	N 32 8 59.59	W 104 13 19.21	106.59	1133.08
	9915.00	78.92	181.78	9566.65	482.82	-479.96	1087.14	6.59	418125.78	575793.48	N 32 8 58.05	W 104 13 19.20	113.82	1188.38
	10010.00	83.85	182.89	9580.88	576.63	-573.78	1083.31	5.32	418031.97	575789.65	N 32 8 57.12	W 104 13 19.24	117.91	1225.88
	10104.00	88.41	183.13	9587.22	760.25	-667.41	1078.39	4.86	417938.34	575784.73	N 32 8 56.19	W 104 13 19.30	121.75	1268.21
	10198.00	88.34	183.50	9589.88	764.04	-761.21	1072.95	0.40	417844.55	575779.29	N 32 8 55.26	W 104 13 19.37	125.35	1315.55
	10293.00	87.77	182.01	9593.11	858.86	-856.05	1068.39	1.68	417749.72	575774.73	N 32 8 54.32	W 104 13 19.42	128.70	1369.04
	10387.00	88.18	181.07	9596.43	952.76	-949.95	1065.86	1.09	417655.82	575772.21	N 32 8 53.40	W 104 13 19.45	131.71	1427.75
	10482.00	88.52	180.87	9599.17	1047.70	-1044.90	1064.26	0.42	417560.89	575770.60	N 32 8 52.46	W 104 13 19.47	134.47	1491.46
	10576.00	88.09	179.12	9601.95	1141.65	-1138.85	1064.27	1.92	417466.94	575770.61	N 32 8 51.53	W 104 13 19.47	136.94	1558.73
	10670.00	88.15	177.95	9605.03	1235.58	-1232.77	1066.67	1.25	417373.03	575773.01	N 32 8 50.60	W 104 13 19.45	139.13	1630.18
	10859.00	87.35	178.89	9612.45	1424.37	-1421.55	1071.87	0.65	417184.27	575778.22	N 32 8 48.73	W 104 13 19.39	142.98	1780.37
	10953.00	87.38	179.85	9616.77	1518.27	-1515.44	1072.91	1.02	417090.39	575779.25	N 32 8 47.80	W 104 13 19.38	144.70	1856.80
	11047.00	89.12	181.18	9619.64	1612.21	-1609.39	1072.06	2.33	416996.45	575778.40	N 32 8 46.87	W 104 13 19.39	146.33	1933.77
	11141.00	87.77	179.29	9622.19	1706.17	-1703.35	1071.68	2.47	416902.50	575778.02	N 32 8 45.94	W 104 13 19.39	147.82	2012.43
	11235.00	87.44	176.64	9626.12	1800.03	-1797.20	1075.01	2.84	416808.66	575781.35	N 32 8 45.01	W 104 13 19.36	149.11	2094.18
	11330.00	87.73	176.14	9630.13	1894.77	-1891.93	1080.99	0.61	416713.94	575787.33	N 32 8 44.07	W 104 13 19.29	150.26	2178.97
	11424.00	87.97	177.64	9633.65	1988.57	-1985.72	1086.08	1.61	416620.15	575792.42	N 32 8 43.15	W 104 13 19.23	151.32	2263.33
	11518.00	87.03	179.45	9637.75	2082.45	-2079.59	1088.47	2.17	416526.29	575794.81	N 32 8 42.22	W 104 13 19.20	152.37	2347.23
	11612.00	87.21	178.65	9642.48	2176.33	-2173.46	1090.02	0.87	416432.43	575796.36	N 32 8 41.29	W 104 13 19.19	153.37	2431.48
	11706.00	87.59	177.53	9646.74	2270.18	-2267.31	1093.15	1.26	416338.59	575799.49	N 32 8 40.36	W 104 13 19.15	154.26	2517.08
	11800.00	87.38	176.75	9650.86	2363.99	-2361.10	1097.84	0.86	416244.80	575804.18	N 32 8 39.43	W 104 13 19.10	155.06	2603.85
	11894.00	89.08	179.47	9653.77	2457.89	-2454.99	1100.94	3.41	416150.92	575807.28	N 32 8 38.50	W 104 13 19.06	155.85	2690.55
	11988.00	88.95	181.28	9655.38	2551.87	-2548.97	1100.32	1.93	416056.95	575806.66	N 32 8 37.57	W 104 13 19.07	156.65	2776.32
	12083.00	88.46	182.62	9657.53	2646.77	-2643.89	1097.09	1.50	415962.04	575803.43	N 32 8 36.63	W 104 13 19.11	157.46	2862.48
	12177.00	89.32	184.59	9659.35	2740.55	-2737.68	1091.18	2.29	415868.26	575797.52	N 32 8 35.71	W 104 13 19.18	158.27	2947.13
	12271.00	88.33	180.29	9661.28	2834.41	-2831.56	1087.18	4.69	415774.39	575793.52	N 32 8 34.78	W 104 13 19.23	159.00	3033.10
	12366.00	89.44	179.95	9663.13	2929.39	-2926.54	1086.98	1.22	415679.42	575793.32	N 32 8 33.84	W 104 13 19.23	159.62	3121.88
	12461.00	89.15	180.14	9664.30	3024.38	-3021.53	1086.91	0.36	415584.44	575793.25	N 32 8 32.90	W 104 13 19.23	160.22	3211.07
	12555.00	89.01	179.34	9665.81	3118.37	-3115.51	1087.33	0.86	415490.46	575793.67	N 32 8 31.97	W 104 13 19.23	160.76	3299.81
	12649.00	89.19	179.21	9667.28	3212.35	-3209.49	1088.52	0.24	415396.49	575794.86	N 32 8 31.04	W 104 13 19.22	161.27	3389.06
	12743.00	90.46	178.88	9667.57	3306.34	-3303.48	1090.09	1.40	415302.51	575796.43	N 32 8 30.11	W 104 13 19.20	161.74	3478.69
	12838.00	90.78	179.71	9666.54	3401.33	-3398.47	1091.26	0.94	415207.54	575797.60	N 32 8 29.17	W 104 13 19.19	162.20	3569.37
	12931.00	90.72	180.14	9665.33	3494.32	-3491.46	1091.38	0.47	415114.55	575797.72	N 32 8 28.25	W 104 13 19.19	162.64	3658.06
	13026.00	90.59	179.03	9664.24	3589.31	-3586.45	1092.07	1.18	415019.57	575798.41	N 32 8 27.31	W 104 13 19.18	163.06	3749.03
	13120.00	90.38	181.21	9663.44	3683.30	-3680.44	1091.87	2.33	414925.59	575798.21	N 32 8 26.38	W 104 13 19.18	163.48	3838.98
	13215.00	89.21	179.37	9663.78	3778.29	-3775.43	1091.39	2.30	414830.61	575797.73	N 32 8 25.44	W 104 13 19.19	163.88	3930.01
	13309.00	90.37	181.13	9664.13	3872.29	-3869.42	1090.98	2.24	414736.62	575797.32	N 32 8 24.51	W 104 13 19.20	164.25	4020.28
	13404.00	90.64	179.66	9663.29	3967.27	-3964.41	1090.33	1.57	414641.64	575796.67	N 32 8 23.57	W 104 13 19.20	164.62	4111.62
	13498.00	89.76	178.66	9662.96	4061.26	-4058.40	1091.70	1.42	414547.66	575798.04	N 32 8 22.64	W 104 13 19.19	164.94	4202.67
	13592.00	89.82	179.74	9663.31	4155.26	-4152.39	1093.02	1.15	414453.68	575799.36	N 32 8 21.71	W 104 13 19.18	165.25	4293.84

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')	Closure Azimuth (°)	Closure (ft)
	13687.00	89.81	178.97	9663.61	4250.25	-4247.38	1094.09	0.81	414358.70	575800.42	N 32 8 20.77	W 104 13 19.16	165.56	4386.03
	13780.00	89.92	178.02	9663.83	4343.22	-4340.35	1096.53	1.03	414265.74	575802.87	N 32 8 19.85	W 104 13 19.14	165.82	4476.72
	13874.00	91.93	179.30	9662.32	4437.19	-4434.31	1098.73	2.53	414171.79	575805.07	N 32 8 18.92	W 104 13 19.11	166.08	4568.40
	13969.00	91.67	179.86	9659.33	4532.14	-4529.26	1099.42	0.65	414076.85	575805.76	N 32 8 17.98	W 104 13 19.11	166.36	4660.78
	14063.00	91.52	180.24	9656.72	4626.10	-4623.22	1099.34	0.43	413982.89	575805.68	N 32 8 17.05	W 104 13 19.11	166.62	4752.13
	14157.00	91.76	181.25	9654.03	4720.05	-4717.17	1098.12	1.10	413888.95	575804.46	N 32 8 16.12	W 104 13 19.12	166.90	4843.30
	14251.00	91.68	183.04	9651.20	4813.93	-4811.06	1094.60	1.91	413795.07	575800.94	N 32 8 15.19	W 104 13 19.16	167.18	4934.01
Section Line Crossing [339' FEL]	14335.40	91.66	181.97	9648.74	4898.20	-4895.34	1090.92	1.27	413710.80	575797.26	N 32 8 14.35	W 104 13 19.21	167.44	5015.42
	14346.00	91.66	181.83	9648.44	4908.79	-4905.93	1090.57	1.27	413700.21	575796.91	N 32 8 14.25	W 104 13 19.21	167.47	5025.68
	14440.00	90.82	178.46	9646.40	5002.75	-4999.89	1090.33	3.69	413606.25	575796.67	N 32 8 13.32	W 104 13 19.22	167.70	5117.40
	14534.00	91.36	179.41	9644.61	5096.72	-5093.86	1092.08	1.16	413512.30	575798.42	N 32 8 12.39	W 104 13 19.20	167.90	5209.61
	14628.00	91.29	179.97	9642.44	5190.69	-5187.83	1092.59	0.60	413418.33	575798.92	N 32 8 11.46	W 104 13 19.19	168.11	5301.64
	14723.00	91.02	180.06	9640.52	5285.67	-5282.81	1092.56	0.30	413323.36	575798.90	N 32 8 10.52	W 104 13 19.19	168.32	5394.61
	14817.00	91.38	179.14	9638.56	5379.65	-5376.79	1093.22	1.05	413229.39	575799.56	N 32 8 9.59	W 104 13 19.19	168.51	5486.80
	14911.00	91.16	181.12	9636.47	5473.62	-5470.76	1093.00	2.12	413135.43	575799.34	N 32 8 8.66	W 104 13 19.19	168.70	5578.88
	15005.00	91.48	180.17	9634.31	5567.59	-5564.73	1091.95	1.07	413041.47	575798.28	N 32 8 7.73	W 104 13 19.20	168.90	5670.85
	15100.00	90.08	179.60	9633.01	5662.58	-5659.72	1092.14	1.59	412946.49	575798.48	N 32 8 6.79	W 104 13 19.20	169.08	5764.13
	15194.00	91.37	179.75	9631.82	5756.57	-5753.71	1092.67	1.38	412852.51	575799.01	N 32 8 5.86	W 104 13 19.20	169.25	5856.54
	15288.00	91.23	179.52	9629.69	5850.54	-5847.68	1093.27	0.29	412758.55	575799.61	N 32 8 4.93	W 104 13 19.19	169.41	5949.00
	15382.00	89.82	178.37	9628.83	5944.52	-5941.66	1095.00	1.94	412664.58	575801.34	N 32 8 4.00	W 104 13 19.17	169.56	6041.71
	15476.00	91.29	180.63	9627.92	6038.51	-6035.64	1095.82	2.87	412570.60	575802.16	N 32 8 3.07	W 104 13 19.17	169.71	6134.31
	15570.00	91.32	180.85	9625.78	6132.47	-6129.61	1094.60	0.24	412476.64	575800.94	N 32 8 2.14	W 104 13 19.18	169.88	6226.58
	15665.00	89.83	177.34	9624.82	6227.44	-6224.57	1096.11	4.01	412381.69	575802.45	N 32 8 1.20	W 104 13 19.16	170.01	6320.35
	15759.00	91.23	178.88	9623.96	6321.39	-6318.51	1099.21	2.21	412287.76	575805.54	N 32 8 0.27	W 104 13 19.13	170.13	6413.41
	15854.00	91.96	181.46	9621.31	6416.34	-6413.47	1098.92	2.82	412192.81	575805.26	N 32 7 59.33	W 104 13 19.13	170.28	6506.93
	15948.00	91.10	182.50	9618.80	6510.24	-6507.38	1095.68	1.44	412098.91	575802.02	N 32 7 58.40	W 104 13 19.17	170.44	6598.97
	16042.00	90.35	181.94	9617.61	6604.15	-6601.30	1092.04	1.00	412005.00	575798.38	N 32 7 57.47	W 104 13 19.22	170.61	6691.01
	16137.00	89.89	179.86	9617.41	6699.13	-6696.28	1090.54	2.24	411910.02	575796.88	N 32 7 56.53	W 104 13 19.23	170.75	6784.50
	16231.00	92.62	181.73	9615.35	6793.08	-6790.23	1089.24	3.52	411816.08	575795.58	N 32 7 55.60	W 104 13 19.25	170.89	6877.04
	16325.00	89.12	179.78	9613.93	6887.04	-6884.20	1088.00	4.26	411722.12	575794.34	N 32 7 54.67	W 104 13 19.27	171.02	6969.64
	16420.00	89.86	177.28	9614.77	6982.00	-6979.15	1090.44	2.74	411627.18	575796.78	N 32 7 53.73	W 104 13 19.24	171.12	7063.83
	16515.00	89.96	179.89	9614.92	7076.97	-7074.12	1092.79	2.75	411532.22	575799.13	N 32 7 52.80	W 104 13 19.21	171.22	7158.02
	16609.00	89.29	179.51	9615.54	7170.97	-7168.11	1093.28	0.82	411438.24	575799.62	N 32 7 51.87	W 104 13 19.21	171.33	7251.01
	16704.00	89.20	178.01	9616.79	7265.94	-7263.08	1095.33	1.58	411343.28	575801.67	N 32 7 50.93	W 104 13 19.19	171.42	7345.21
	16799.00	89.07	179.26	9618.22	7360.91	-7358.04	1097.60	1.32	411248.33	575803.94	N 32 7 49.99	W 104 13 19.16	171.52	7439.45
	16893.00	90.16	182.32	9618.85	7454.88	-7452.01	1096.30	3.46	411154.36	575802.64	N 32 7 49.06	W 104 13 19.18	171.63	7532.22
	16986.00	88.42	181.49	9620.01	7547.81	-7544.95	1093.21	2.07	411061.43	575799.55	N 32 7 48.14	W 104 13 19.21	171.76	7623.74
	17083.00	91.89	183.27	9619.74	7644.69	-7641.85	1089.18	4.02	410964.54	575795.52	N 32 7 47.18	W 104 13 19.26	171.89	7719.08
	17178.00	89.45	183.74	9618.63	7739.49	-7736.66	1083.38	2.62	410869.74	575789.72	N 32 7 46.24	W 104 13 19.33	172.03	7812.14
	17273.00	89.54	178.89	9619.47	7834.42	-7831.60	1081.20	5.11	410774.81	575787.54	N 32 7 45.30	W 104 13 19.36	172.14	7905.88
	17367.00	90.69	180.15	9619.28	7928.42	-7925.59	1081.98	1.81	410680.82	575788.32	N 32 7 44.37	W 104 13 19.35	172.23	7999.11
	17462.00	91.27	178.99	9617.66	8023.40	-8020.58	1082.70	1.37	410585.85	575789.04	N 32 7 43.43	W 104 13 19.34	172.31	8093.32
	17556.00	90.67	177.98	9616.07	8117.36	-8114.53	1085.18	1.25	410491.91	575791.52	N 32 7 42.50	W 104 13 19.31	172.38	8186.77
	17651.00	90.60	178.39	9615.01	8212.31	-8209.47	1088.19	0.44	410396.97	575794.53	N 32 7 41.56	W 104 13 19.28	172.45	8281.28
	17745.00	91.40	178.35	9613.37	8306.27	-8303.42	1090.86	0.85	410303.03	575797.20	N 32 7 40.63	W 104 13 19.25	172.52	8374.77
	17840.00	90.72	178.62	9611.62	8401.22	-8398.37	1093.37	0.77	410208.09	575799.71	N 32 7 39.69	W 104 13 19.22	172.58	8469.24
	17934.00	91.21	179.61	9610.03	8495.20	-8492.34	1094.83	1.17	410114.12	575801.17	N 32 7 38.76	W 104 13 19.21	172.65	8562.63
	18028.00	89.62	178.10	9609.35	8589.18	-8586.32	1096.70	2.33	410020.16	575803.04	N 32 7 37.83	W 104 13 19.19	172.72	8656.07
	18123.00	91.39	177.81	9608.51	8684.12	-8681.25	1100.09	1.89	409925.24	575806.43	N 32 7 36.89	W 104 13 19.15	172.78	8750.67
	18218.00	91.40	178.21	9606.20	8779.04	-8776.16	1103.39	0.42	409830.33	575809.73	N 32 7 35.95	W 104 13 19.11	172.83	8845.25
	18312.00	91.36	177.92	9603.94	8872.97	-8870.08	1106.57	0.31	409736.42	575812.90	N 32 7 35.02	W 104 13 19.07	172.89	8938.84
	18407.00	91.16	178.32	9601.85	8967.90	-8965.01	1109.68	0.47	409641.50	575816.02	N 32 7 34.08	W 104 13 19.04	172.94	9033.42
	18501.00	91.16	178.19	9599.95	9061.85	-9058.95	1112.54	0.14	409547.57	575818.88	N 32 7 33.15	W 104 13 19.01	173.00	9127.01
	18595.00	90.40	178.13	9598.67	9155.80	-9152.89	1115.56	0.81	409453.64	575821.90	N 32 7 32.22	W 104 13 18.97	173.05	9220.62
	18690.00	89.87	180.08	9598.44	9250.78	-9247.87	1117.04	2.13	409358.67	575823.38	N 32 7 31.29	W 104 13 18.96	173.11	9315.09
	18785.00	91.43	181.47	9597.36	9345.76	-9342.85	1115.76	2.20	409263.70	575822.10	N 32 7 30.35	W 104 13 18.97	173.19	9409.24
	18879.00	89.83	180.60	9596.33	9439.73	-9436.83	1114.06	1.94	409169.73	575820.40	N 32 7 29.42	W 104 13 18.99	173.27	9502.36
	18974.00	89.18	180.74	9597.15	9534.72	-9531.82	1112.95	0.70	409074.75	575819.29	N 32 7 28.48	W 104 13 19.01	173.34	9596.57
	19070.00	87.62	180.18	9599.83	9630.67	-9627.77	1112.18	1.73	408978.80	575818.52	N 32 7 27.53	W 104 13 19.02	173.41	9691.80
	19164.00	87.62	180.55	9603.74	9724.58	-9721.69	1111.58	0.39	408884.89	575817.92	N 32 7 26.60	W 104 13 19.03	173.48	9785.03

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure Azimuth (°)	Closure (ft)
	19259.00	87.86	179.97	9607.48	9819.51	-9816.61	1111.15	0.66	408789.98	575817.49	N 32 7 25.66	W 104 13 19.03	173.54	9879.30
Final Survey	19275.00	87.78	180.01	9608.09	9835.50	-9832.60	1111.15	0.56	408773.99	575817.49	N 32 7 25.50	W 104 13 19.03	173.55	9895.19
TD, PTB [331' FSL, 325' FEL]	19312.00	87.78	180.01	9609.52	9872.47	-9869.57	1111.15	0.00	408737.02	575817.49	N 32 7 25.13	W 104 13 19.03	173.58	9931.92

Survey Type: Def Survey

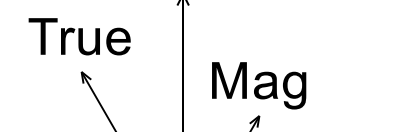
Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	23.000	1/98.425	17.500	13.375	NAL_MWD_IFR1+MS-Depth Only	Original Borehole / Final Surveys - Cimarex DaVinci 7-18 Federal Com #29H 0ft to 19312ft (Surcon
	1	23.000	23.000	Act Stns	17.500	13.375	NAL_MWD_IFR1+MS-Depth Only	Original Borehole / Final Surveys - Cimarex DaVinci 7-18 Federal Com #29H 0ft to 19312ft (Surcon
	1	23.000	450.000	Act Stns	17.500	13.375	NAL_MWD_IFR1+MS	Original Borehole / Final Surveys - Cimarex DaVinci 7-18 Federal Com
	1	450.000	2049.000	Act Stns	12.250	9.625	NAL_MWD_IFR1+MS	Original Borehole / Final Surveys - Cimarex DaVinci 7-18 Federal Com
	1	2049.000	9807.000	Act Stns	8.750	7.000	NAL_MWD_IFR1+MS	Original Borehole / Final Surveys - Cimarex DaVinci 7-18 Federal Com
	1	9807.000	19312.000	Act Stns	6.000	4.500	NAL_MWD_IFR1+MS	Original Borehole / Final Surveys - Cimarex DaVinci 7-18 Federal Com



Grid



True Mag

CONTROLLED

Plan ref	Final Surveys - Cimarox DaVinci 7-18 Federal Com #29H 911 to 19312H (Burcon Corrected)
Drawing ref	
Copy number	of 3
Date	07-Feb-2020

Grid North

Tot Corr (M->G 7.138°)

Mag Dec (7.195°)

Grid Conv (0.057°)

1	Client	
2	Client	
3	Office	
4	Office	
Copy number _____ for _____		

