

CRESTONE PEAK RESOURCES

ARAPAHOE COUNTY

SEC 15-T4S-R65W

PROSPER FARMS 4-65 14-13 4AH

OWB

Design: FINAL SURVEY

Standard Survey Report

02 November, 2022

Project: ARAPAHOE COUNTY
Site: SEC 15-T4S-R65W
Well: PROSPER FARMS 4-65 14-13 4AH
Wellbore: OWB
Design: FINAL SURVEY

PROJECT DETAILS: ARAPAHOE COUNTY
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Central Zone
System Datum: Mean Sea Level



Azimuths to True North
Magnetic North: 7.65°
Magnetic Field
Strength: 51525.2nT
Dip Angle: 66.09°
Date: 2/10/2022
Model: IGRF2020

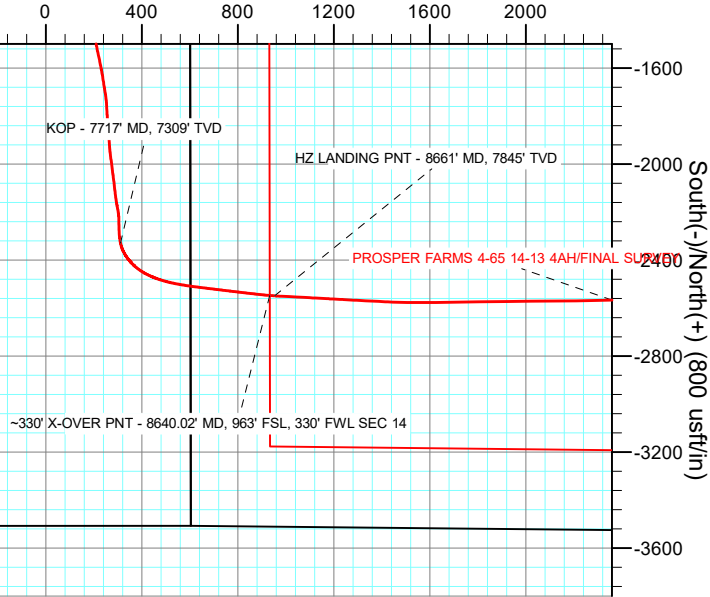
WELL DETAILS: PROSPER FARMS 4-65 14-13 4AH

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1683255.23	3241110.89	39.706215°N	104.643032°W	

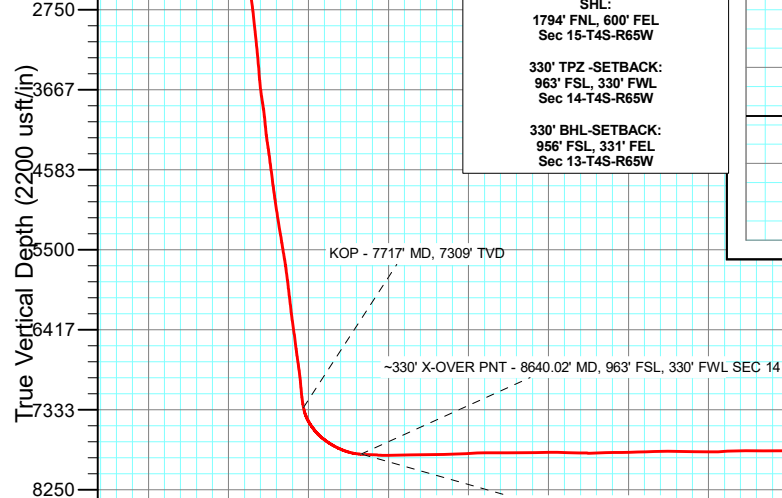
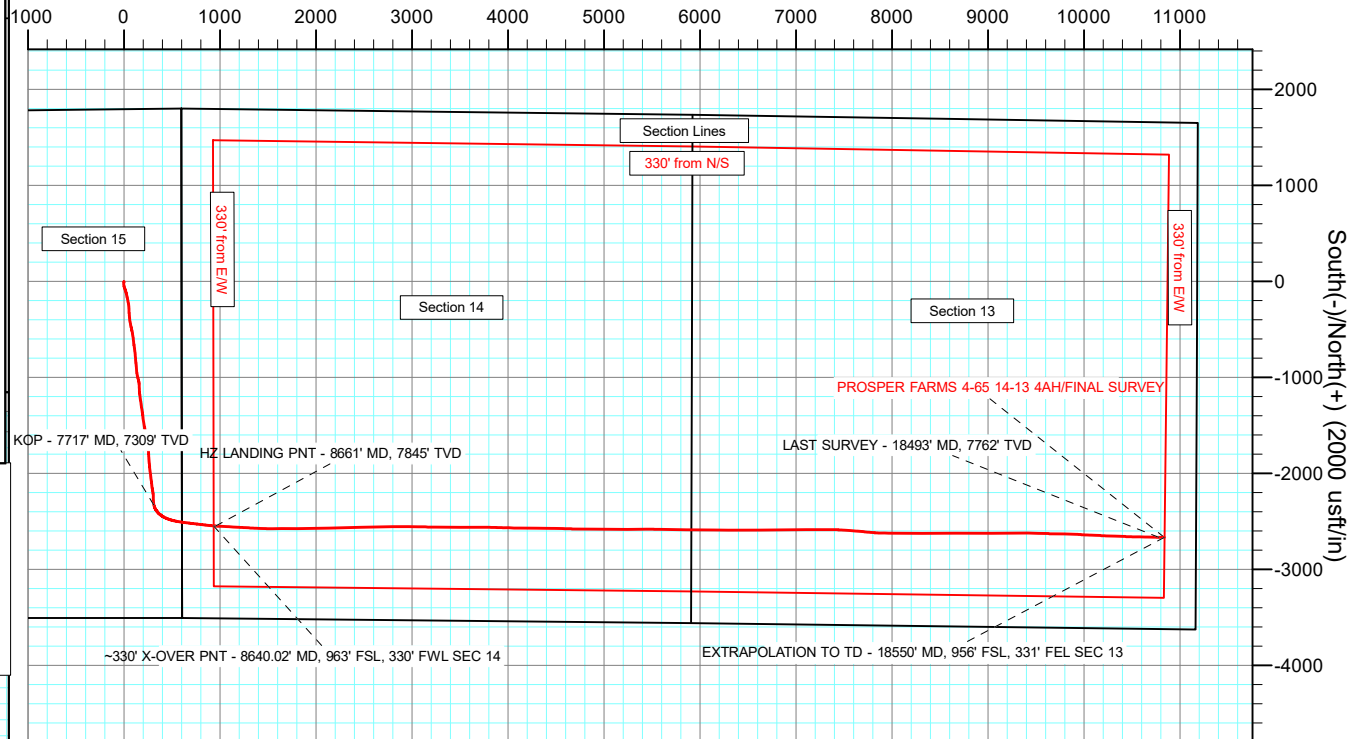
ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
7717.00	24.27	167.53	7308.73	-2329.04	311.76	859.49	2353.98	KOP - 7717' MD, 7309' TVD
8640.02	85.06	94.65	7843.23	-2546.92	933.08	1514.88	3051.77	~330' X-OVER PNT - 8640.02' MD, 963' FSL, 330' FWL SEC 14
8661.00	86.23	93.88	7844.82	-2548.47	953.94	1535.51	3072.67	HZ LANDING PNT - 8661' MD, 7845' TVD
18493.00	93.11	91.13	7761.89	-2666.67	10779.35	11104.29	12901.66	LAST SURVEY - 18493' MD, 7762' TVD
18550.00	93.11	91.13	7758.80	-2667.79	10836.25	11159.82	12958.58	EXTRAPOLATION TO TD - 18550' MD, 956' FSL, 331' FEL SEC 13

West(-)/East(+) (800 usft/in)



West(-)/East(+) (2000 usft/in)



AS DRILLED LOCAL
COORDINATES
SHL:
1794' FNL 600' FEL
Sec 15-T4S-R65W

330' TPZ-SETBACK:
963' FSL, 330' FWL
Sec 14-T4S-R65W

330' BHL-SETBACK:
956' FSL, 331' FEL
Sec 13-T4S-R65W

Vertical Section at 103.83° (2200 usft/in)

Survey Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well PROSPER FARMS 4-65 14-13 4AH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.30usft
Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.30usft
Well:	PROSPER FARMS 4-65 14-13 4AH	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDT_32Bit_ODBC

Project	ARAPAHOE COUNTY		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		Using geodetic scale factor

Site		SEC 15-T4S-R65W			
Site Position:		Northing:	1,685,061.36 usft	Latitude:	39.711158°N
From:	Lat/Long	Easting:	3,241,690.88 usft	Longitude:	104.640910°W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.54 °

Well	PROSPER FARMS 4-65 14-13 4AH					
Well Position	+N/-S	0.00 usft	Northing:	1,683,255.23 usft	Latitude:	39.706215°N
	+E/-W	0.00 usft	Easting:	3,241,110.89 usft	Longitude:	104.643032°W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	5,693.30 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	2/10/2022	7.65	66.09	51,525.20701522

Design	FINAL SURVEY				
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	103.83	

Survey Program	Date	11/2/2022			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
302.00	3,578.00	SURFACE SURVEY (OWB)	MWD OWSG	OWSG MWD - Standard	
3,679.00	18,550.00	FINAL SURVEY (OWB)	MWD OWSG	OWSG MWD - Standard	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
211.00	1.10	173.90	210.99	-1.92	0.21	0.66	0.00	0.00	0.00	
302.00	1.30	183.00	301.97	-3.82	0.25	1.15	0.30	0.22	10.00	
376.00	1.40	188.90	375.95	-5.55	0.07	1.39	0.23	0.14	7.97	
463.00	2.20	202.40	462.90	-8.14	-0.74	1.23	1.03	0.92	15.52	
550.00	3.90	190.20	549.78	-12.60	-1.90	1.17	2.08	1.95	-14.02	
638.00	5.90	188.50	637.45	-20.02	-3.09	1.78	2.28	2.27	-1.93	
725.00	7.50	171.00	723.86	-30.05	-2.87	4.40	2.96	1.84	-20.11	
812.00	10.30	170.20	809.81	-43.33	-0.65	9.72	3.22	3.22	-0.92	
899.00	11.90	163.50	895.18	-59.59	3.22	17.37	2.36	1.84	-7.70	
986.00	14.30	160.10	979.91	-78.30	9.42	27.87	2.90	2.76	-3.91	

Survey Report

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Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.30usft
Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.30usft
Well:	PROSPER FARMS 4-65 14-13 4AH	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDT_32Bit_ODBC

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,074.00	16.80	162.00	1,064.68	-100.62	17.05	40.61	2.90	2.84	2.16
1,161.00	19.40	166.60	1,147.38	-126.64	24.29	53.86	3.41	2.99	5.29
1,248.00	21.00	168.00	1,229.02	-155.94	30.88	67.26	1.92	1.84	1.61
1,335.00	22.10	167.30	1,309.94	-187.16	37.72	81.37	1.30	1.26	-0.80
1,510.00	20.70	172.20	1,472.88	-249.92	49.15	107.47	1.30	-0.80	2.80
1,597.00	20.30	176.90	1,554.38	-280.23	52.06	117.54	1.95	-0.46	5.40
1,684.00	20.80	178.60	1,635.85	-310.74	53.25	125.99	0.89	0.57	1.95
1,771.00	21.90	176.60	1,716.87	-342.38	54.59	134.86	1.52	1.26	-2.30
1,858.00	23.50	174.20	1,797.13	-375.84	57.31	145.49	2.12	1.84	-2.76
1,946.00	23.20	170.90	1,877.93	-410.41	61.82	158.14	1.52	-0.34	-3.75
2,033.00	23.10	169.50	1,957.93	-444.11	67.64	171.85	0.64	-0.11	-1.61
2,120.00	21.40	167.40	2,038.45	-476.39	74.21	185.94	2.16	-1.95	-2.41
2,207.00	19.00	165.80	2,120.09	-505.61	81.15	199.67	2.83	-2.76	-1.84
2,294.00	18.00	170.70	2,202.60	-532.61	86.80	211.60	2.12	-1.15	5.63
2,382.00	16.80	171.70	2,286.57	-558.61	90.83	221.74	1.41	-1.36	1.14
2,469.00	17.00	171.20	2,369.81	-583.62	94.59	231.37	0.28	0.23	-0.57
2,556.00	17.60	173.70	2,452.88	-609.26	97.98	240.79	1.10	0.69	2.87
2,643.00	17.90	174.00	2,535.74	-635.63	100.82	249.85	0.36	0.34	0.34
2,730.00	20.20	171.60	2,617.97	-663.79	104.42	260.07	2.79	2.64	-2.76
2,817.00	19.30	171.00	2,699.85	-692.85	108.86	271.33	1.06	-1.03	-0.69
2,864.00	18.60	172.40	2,744.30	-707.95	111.06	277.08	1.78	-1.49	2.98
2,916.00	17.83	173.95	2,793.70	-724.09	113.00	282.82	1.75	-1.48	2.98
2,992.00	17.60	174.10	2,866.09	-747.09	115.41	290.66	0.31	-0.30	0.20
3,079.00	17.80	175.30	2,948.97	-773.43	117.85	299.32	0.48	0.23	1.38
3,166.00	18.90	175.40	3,031.55	-800.73	120.07	308.01	1.26	1.26	0.11
3,253.00	17.80	175.00	3,114.12	-828.02	122.36	316.75	1.27	-1.26	-0.46
3,341.00	17.10	174.10	3,198.07	-854.29	124.86	325.46	0.85	-0.80	-1.02
3,428.00	15.30	173.90	3,281.62	-878.43	127.40	333.69	2.07	-2.07	-0.23
3,515.00	14.70	175.30	3,365.65	-900.84	129.52	341.11	0.81	-0.69	1.61
3,578.00	14.60	174.70	3,426.60	-916.72	130.91	346.26	0.29	-0.16	-0.95
3,679.00	13.94	175.57	3,524.49	-941.52	133.02	354.24	0.69	-0.65	0.86
3,868.00	16.21	166.24	3,707.00	-989.85	141.06	373.60	1.75	1.20	-4.94
3,963.00	18.17	164.53	3,797.75	-1,017.01	148.16	386.99	2.13	2.06	-1.80
4,057.00	19.52	170.08	3,886.72	-1,046.61	154.78	400.49	2.39	1.44	5.90
4,152.00	20.96	177.18	3,975.86	-1,079.22	158.35	411.75	2.99	1.52	7.47
4,247.00	18.31	177.28	4,065.33	-1,111.11	159.90	420.87	2.79	-2.79	0.11
4,341.00	20.05	177.64	4,154.11	-1,141.96	161.26	429.57	1.86	1.85	0.38
4,435.00	22.99	173.49	4,241.55	-1,176.30	164.01	440.45	3.52	3.13	-4.41
4,529.00	22.49	172.03	4,328.24	-1,212.35	168.58	453.51	0.80	-0.53	-1.55
4,624.00	18.38	171.06	4,417.25	-1,245.15	173.43	466.06	4.34	-4.33	-1.02
4,719.00	19.43	172.03	4,507.12	-1,275.60	177.95	477.72	1.15	1.11	1.02
4,814.00	17.92	171.89	4,597.12	-1,305.72	182.20	489.05	1.59	-1.59	-0.15
4,909.00	17.85	170.29	4,687.53	-1,334.54	186.72	500.33	0.52	-0.07	-1.68

Survey Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well PROSPER FARMS 4-65 14-13 4AH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.30usft
Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.30usft
Well:	PROSPER FARMS 4-65 14-13 4AH	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDT_32Bit_ODBC

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
5,003.00	20.39	171.87	4,776.33	-1,364.95	191.46	512.21	2.76	2.70	1.68	
5,098.00	23.00	174.49	4,864.60	-1,399.82	195.59	524.55	2.93	2.75	2.76	
5,193.00	20.79	171.49	4,952.74	-1,434.97	199.87	537.11	2.61	-2.33	-3.16	
5,288.00	20.81	171.16	5,041.55	-1,468.32	204.95	550.02	0.13	0.02	-0.35	
5,383.00	20.24	169.64	5,130.52	-1,501.16	210.50	563.26	0.82	-0.60	-1.60	
5,477.00	21.42	168.25	5,218.38	-1,533.96	216.92	577.33	1.36	1.26	-1.48	
5,571.00	21.69	168.06	5,305.80	-1,567.76	224.01	592.30	0.30	0.29	-0.20	
5,666.00	20.41	168.27	5,394.46	-1,601.16	231.01	607.08	1.35	-1.35	0.22	
5,760.00	22.73	171.35	5,481.88	-1,635.16	237.08	621.09	2.75	2.47	3.28	
5,855.00	23.58	171.04	5,569.22	-1,672.08	242.80	635.47	0.90	0.89	-0.33	
5,949.00	21.31	170.35	5,656.10	-1,707.49	248.59	649.56	2.43	-2.41	-0.73	
6,044.00	23.49	175.90	5,743.93	-1,743.41	252.84	662.27	3.19	2.29	5.84	
6,139.00	23.26	176.78	5,831.14	-1,781.02	255.24	673.60	0.44	-0.24	0.93	
6,233.00	20.36	176.67	5,918.40	-1,815.88	257.24	683.87	3.09	-3.09	-0.12	
6,327.00	21.19	175.03	6,006.29	-1,849.13	259.66	694.17	1.08	0.88	-1.74	
6,422.00	19.59	174.40	6,095.33	-1,882.09	262.70	705.00	1.70	-1.68	-0.66	
6,517.00	19.84	176.74	6,184.76	-1,914.04	265.17	715.04	0.87	0.26	2.46	
6,612.00	22.00	173.87	6,273.50	-1,947.83	267.99	725.85	2.52	2.27	-3.02	
6,706.00	20.63	172.57	6,361.07	-1,981.76	272.01	737.87	1.54	-1.46	-1.38	
6,801.00	21.40	172.51	6,449.75	-2,015.54	276.43	750.24	0.81	0.81	-0.06	
6,896.00	19.71	172.27	6,538.70	-2,048.60	280.85	762.43	1.78	-1.78	-0.25	
6,990.00	19.50	173.73	6,627.25	-2,079.90	284.69	773.65	0.57	-0.22	1.55	
7,084.00	22.11	173.23	6,715.11	-2,113.07	288.49	785.26	2.78	2.78	-0.53	
7,179.00	21.00	171.70	6,803.47	-2,147.66	293.06	797.97	1.31	-1.17	-1.61	
7,273.00	17.41	168.65	6,892.22	-2,178.13	298.26	810.30	3.96	-3.82	-3.24	
7,367.00	15.62	171.99	6,982.34	-2,204.45	302.79	820.99	2.15	-1.90	3.55	
7,462.00	18.49	179.96	7,073.17	-2,232.19	304.58	829.37	3.89	3.02	8.39	
7,556.00	22.10	178.24	7,161.32	-2,264.78	305.14	837.69	3.89	3.84	-1.83	
7,651.00	24.43	174.58	7,248.59	-2,302.21	307.54	848.98	2.89	2.45	-3.85	
7,717.00	24.27	167.53	7,308.73	-2,329.04	311.76	859.49	4.41	-0.25	-10.68	
KOP - 7717' MD, 7309' TVD										
7,746.00	24.30	164.42	7,335.17	-2,340.61	314.65	865.06	4.41	0.11	-10.72	
7,840.00	31.32	147.94	7,418.38	-2,380.05	332.86	892.17	11.01	7.47	-17.53	
7,934.00	36.53	133.93	7,496.48	-2,420.26	366.05	934.01	9.97	5.54	-14.90	
8,028.00	39.88	118.64	7,570.50	-2,454.20	412.77	987.49	10.65	3.56	-16.27	
8,123.00	48.45	108.54	7,638.67	-2,480.18	473.39	1,052.56	11.65	9.02	-10.63	
8,217.00	54.89	100.69	7,696.99	-2,498.53	544.66	1,126.16	9.47	6.85	-8.35	
8,311.00	61.19	97.25	7,746.73	-2,510.88	623.39	1,205.55	7.38	6.70	-3.66	
8,406.00	66.99	96.92	7,788.23	-2,521.41	708.16	1,290.38	6.11	6.11	-0.35	
8,500.00	74.32	96.82	7,819.34	-2,532.01	796.15	1,378.35	7.80	7.80	-0.11	
8,595.00	82.55	96.32	7,838.37	-2,542.64	888.53	1,470.60	8.68	8.66	-0.53	
8,640.02	85.06	94.65	7,843.23	-2,546.92	933.08	1,514.88	6.68	5.57	-3.71	
~330' X-OVER PNT - 8640.02' MD, 963' FSL, 330' FWL SEC 14										
8,661.00	86.23	93.88	7,844.82	-2,548.47	953.94	1,535.51	6.68	5.58	-3.68	

Survey Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well PROSPER FARMS 4-65 14-13 4AH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.30usft
Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.30usft
Well:	PROSPER FARMS 4-65 14-13 4AH	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDT_32Bit_ODBC

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
HZ LANDING PNT - 8661' MD, 7845' TVD									
8,689.00	87.79	92.85	7,846.29	-2,550.11	981.85	1,563.00	6.68	5.58	-3.67
8,784.00	87.67	93.04	7,850.05	-2,554.99	1,076.65	1,656.22	0.24	-0.13	0.20
8,879.00	86.96	93.23	7,854.50	-2,560.18	1,171.41	1,749.46	0.77	-0.75	0.20
8,973.00	90.27	93.13	7,856.77	-2,565.39	1,265.22	1,841.80	3.52	3.52	-0.11
9,163.00	92.10	92.65	7,852.84	-2,574.97	1,454.93	2,028.30	1.00	0.96	-0.25
9,257.00	91.36	89.44	7,850.00	-2,576.68	1,548.86	2,119.92	3.50	-0.79	-3.41
9,351.00	90.79	89.12	7,848.24	-2,575.50	1,642.84	2,210.89	0.70	-0.61	-0.34
9,540.00	90.51	89.67	7,846.10	-2,573.51	1,831.81	2,393.91	0.33	-0.15	0.29
9,635.00	91.38	89.05	7,844.53	-2,572.45	1,926.79	2,485.88	1.12	0.92	-0.65
9,730.00	92.33	89.26	7,841.45	-2,571.05	2,021.73	2,577.73	1.02	1.00	0.22
9,919.00	92.73	89.63	7,833.11	-2,569.22	2,210.54	2,760.63	0.29	0.21	0.20
10,013.00	91.08	88.28	7,829.99	-2,567.50	2,304.46	2,851.42	2.27	-1.76	-1.44
10,108.00	91.42	88.71	7,827.91	-2,565.01	2,399.41	2,943.01	0.58	0.36	0.45
10,203.00	89.57	88.20	7,827.09	-2,562.45	2,494.37	3,034.61	2.02	-1.95	-0.54
10,298.00	89.77	87.96	7,827.64	-2,559.26	2,589.31	3,126.04	0.33	0.21	-0.25
10,392.00	90.67	87.88	7,827.28	-2,555.85	2,683.25	3,216.44	0.96	0.96	-0.09
10,487.00	89.57	89.96	7,827.08	-2,554.06	2,778.22	3,308.23	2.48	-1.16	2.19
10,676.00	91.52	90.83	7,825.28	-2,555.36	2,967.20	3,492.04	1.13	1.03	0.46
10,771.00	90.79	90.73	7,823.37	-2,556.66	3,062.17	3,584.56	0.78	-0.77	-0.11
10,866.00	91.49	91.08	7,821.48	-2,558.16	3,157.14	3,677.14	0.82	0.74	0.37
10,960.00	88.37	90.62	7,821.59	-2,559.55	3,251.12	3,768.72	3.36	-3.32	-0.49
11,055.00	88.17	90.33	7,824.46	-2,560.34	3,346.07	3,861.11	0.37	-0.21	-0.31
11,245.00	88.84	90.13	7,829.42	-2,561.10	3,536.00	4,045.72	0.37	0.35	-0.11
11,339.00	89.75	89.73	7,830.57	-2,560.99	3,629.99	4,136.96	1.06	0.97	-0.43
11,433.00	91.29	89.96	7,829.72	-2,560.73	3,723.99	4,228.17	1.66	1.64	0.24
11,528.00	93.67	91.69	7,825.61	-2,562.10	3,818.88	4,320.63	3.10	2.51	1.82
11,623.00	90.59	91.91	7,822.08	-2,565.08	3,913.75	4,413.47	3.25	-3.24	0.23
11,717.00	89.89	91.00	7,821.69	-2,567.47	4,007.72	4,505.28	1.22	-0.74	-0.97
11,812.00	90.75	90.24	7,821.15	-2,568.49	4,102.71	4,597.77	1.21	0.91	-0.80
11,907.00	91.72	91.06	7,819.11	-2,569.57	4,197.68	4,690.24	1.34	1.02	0.86
12,001.00	93.23	90.25	7,815.05	-2,570.64	4,291.58	4,781.68	1.82	1.61	-0.86
12,096.00	90.40	90.61	7,812.04	-2,571.36	4,386.52	4,874.04	3.00	-2.98	0.38
12,191.00	90.19	91.62	7,811.55	-2,573.21	4,481.50	4,966.70	1.09	-0.22	1.06
12,285.00	91.94	91.63	7,809.80	-2,575.87	4,575.45	5,058.56	1.86	1.86	0.01
12,380.00	88.77	91.09	7,809.21	-2,578.13	4,670.41	5,151.30	3.38	-3.34	-0.57
12,475.00	88.41	90.72	7,811.55	-2,579.63	4,765.36	5,243.87	0.54	-0.38	-0.39
12,570.00	88.51	90.46	7,814.11	-2,580.60	4,860.32	5,336.31	0.29	0.11	-0.27
12,664.00	89.06	90.55	7,816.10	-2,581.43	4,954.30	5,427.76	0.59	0.59	0.10
12,759.00	89.62	90.44	7,817.19	-2,582.25	5,049.29	5,520.19	0.60	0.59	-0.12
12,854.00	91.29	89.78	7,816.44	-2,582.43	5,144.28	5,612.47	1.89	1.76	-0.69
13,043.00	93.73	89.33	7,808.16	-2,580.97	5,333.08	5,795.45	1.31	1.29	-0.24
13,138.00	91.84	90.11	7,803.55	-2,580.51	5,427.96	5,887.47	2.15	-1.99	0.82

Survey Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well PROSPER FARMS 4-65 14-13 4AH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.30usft
Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.30usft
Well:	PROSPER FARMS 4-65 14-13 4AH	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDT_32Bit_ODBC

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
13,233.00	88.88	91.79	7,802.95	-2,582.08	5,522.93	5,980.06	3.58	-3.12	1.77
13,327.00	89.21	90.93	7,804.52	-2,584.31	5,616.89	6,071.83	0.98	0.35	-0.91
13,422.00	90.07	90.91	7,805.11	-2,585.84	5,711.88	6,164.42	0.91	0.91	-0.02
13,517.00	91.11	90.40	7,804.13	-2,586.92	5,806.87	6,256.92	1.22	1.09	-0.54
13,611.00	92.38	90.32	7,801.27	-2,587.51	5,900.82	6,348.29	1.35	1.35	-0.09
13,706.00	90.91	90.27	7,798.55	-2,588.00	5,995.77	6,440.61	1.55	-1.55	-0.05
13,801.00	91.59	90.21	7,796.47	-2,588.40	6,090.75	6,532.92	0.72	0.72	-0.06
13,895.00	88.65	90.70	7,796.28	-2,589.15	6,184.74	6,624.36	3.17	-3.13	0.52
13,990.00	88.71	90.26	7,798.46	-2,589.94	6,279.71	6,716.77	0.47	0.06	-0.46
14,085.00	89.25	89.92	7,800.16	-2,590.09	6,374.69	6,809.04	0.67	0.57	-0.36
14,180.00	89.33	90.24	7,801.33	-2,590.22	6,469.68	6,901.31	0.35	0.08	0.34
14,275.00	90.26	90.01	7,801.67	-2,590.43	6,564.68	6,993.60	1.01	0.98	-0.24
14,369.00	91.13	90.24	7,800.53	-2,590.64	6,658.67	7,084.92	0.96	0.93	0.24
14,464.00	93.46	88.92	7,796.73	-2,589.94	6,753.59	7,176.91	2.82	2.45	-1.39
14,559.00	90.65	89.54	7,793.32	-2,588.67	6,848.51	7,268.77	3.03	-2.96	0.65
14,748.00	91.17	89.48	7,790.32	-2,587.05	7,037.48	7,451.88	0.28	0.28	-0.03
14,843.00	92.62	88.61	7,787.18	-2,585.47	7,132.41	7,543.68	1.78	1.53	-0.92
14,937.00	91.28	90.92	7,783.98	-2,585.08	7,226.34	7,634.80	2.84	-1.43	2.46
15,127.00	91.73	90.56	7,778.99	-2,587.54	7,416.26	7,819.80	0.30	0.24	-0.19
15,221.00	90.03	94.63	7,777.55	-2,591.79	7,510.13	7,911.96	4.69	-1.81	4.33
15,316.00	90.75	93.74	7,776.90	-2,598.72	7,604.87	8,005.62	1.20	0.76	-0.94
15,410.00	88.46	96.21	7,777.55	-2,606.87	7,698.50	8,098.48	3.58	-2.44	2.63
15,503.00	86.93	94.95	7,781.29	-2,615.91	7,790.98	8,190.44	2.13	-1.65	-1.35
15,598.00	88.44	91.14	7,785.13	-2,620.95	7,885.75	8,283.66	4.31	1.59	-4.01
15,693.00	90.15	90.48	7,786.30	-2,622.29	7,980.73	8,376.21	1.93	1.80	-0.69
15,787.00	91.45	90.37	7,784.98	-2,622.99	8,074.72	8,467.64	1.39	1.38	-0.12
15,882.00	92.40	90.86	7,781.79	-2,624.01	8,169.66	8,560.07	1.13	1.00	0.52
15,977.00	90.52	89.69	7,779.37	-2,624.46	8,264.62	8,652.39	2.33	-1.98	-1.23
16,071.00	91.20	89.94	7,777.96	-2,624.16	8,358.61	8,743.58	0.77	0.72	0.27
16,166.00	92.21	89.22	7,775.13	-2,623.46	8,453.56	8,835.61	1.31	1.06	-0.76
16,261.00	90.20	89.90	7,773.14	-2,622.74	8,548.53	8,927.65	2.23	-2.12	0.72
16,355.00	91.62	89.42	7,771.64	-2,622.18	8,642.52	9,018.78	1.59	1.51	-0.51
16,450.00	89.19	91.44	7,770.97	-2,622.89	8,737.50	9,111.18	3.33	-2.56	2.13
16,545.00	89.62	90.55	7,771.96	-2,624.54	8,832.48	9,203.80	1.04	0.45	-0.94
16,639.00	90.91	89.49	7,771.52	-2,624.57	8,926.47	9,295.08	1.78	1.37	-1.13
16,734.00	88.72	89.55	7,771.83	-2,623.78	9,021.46	9,387.12	2.31	-2.31	0.06
16,828.00	89.40	89.53	7,773.37	-2,623.02	9,115.45	9,478.20	0.72	0.72	-0.02
16,923.00	90.11	89.54	7,773.78	-2,622.25	9,210.44	9,570.26	0.75	0.75	0.01
17,018.00	90.68	89.29	7,773.12	-2,621.28	9,305.44	9,662.26	0.66	0.60	-0.26
17,112.00	88.82	90.56	7,773.53	-2,621.16	9,399.43	9,753.50	2.40	-1.98	1.35
17,207.00	89.33	92.33	7,775.07	-2,623.55	9,494.38	9,846.28	1.94	0.54	1.86
17,301.00	91.32	91.66	7,774.53	-2,626.83	9,588.32	9,938.27	2.23	2.12	-0.71
17,396.00	90.21	90.75	7,773.27	-2,628.82	9,683.29	10,030.96	1.51	-1.17	-0.96

Survey Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well PROSPER FARMS 4-65 14-13 4AH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.30usft
Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.30usft
Well:	PROSPER FARMS 4-65 14-13 4AH	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDT_32Bit_ODBC

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
17,491.00	91.43	91.03	7,771.91	-2,630.30	9,778.26	10,123.54	1.32	1.28	0.29
17,585.00	89.91	92.16	7,770.81	-2,632.92	9,872.22	10,215.39	2.01	-1.62	1.20
17,680.00	90.75	93.75	7,770.26	-2,637.81	9,967.08	10,308.68	1.89	0.88	1.67
17,774.00	88.69	92.35	7,770.72	-2,642.81	10,060.94	10,401.01	2.65	-2.19	-1.49
17,869.00	89.39	92.63	7,772.31	-2,646.94	10,155.84	10,494.15	0.79	0.74	0.29
17,964.00	90.44	92.48	7,772.45	-2,651.18	10,250.74	10,587.31	1.12	1.11	-0.16
18,058.00	90.48	91.92	7,771.70	-2,654.78	10,344.67	10,679.38	0.60	0.04	-0.60
18,152.00	91.81	92.18	7,769.82	-2,658.15	10,438.59	10,771.38	1.44	1.41	0.28
18,247.00	89.92	90.71	7,768.38	-2,660.54	10,533.54	10,864.15	2.52	-1.99	-1.55
18,341.00	91.35	91.29	7,767.34	-2,662.18	10,627.52	10,955.79	1.64	1.52	0.62
18,435.00	92.09	92.16	7,764.52	-2,665.01	10,721.43	11,047.66	1.21	0.79	0.93
18,493.00	93.11	91.13	7,761.89	-2,666.67	10,779.35	11,104.29	2.50	1.76	-1.78
LAST SURVEY - 18493' MD, 7762' TVD									
18,550.00	93.11	91.13	7,758.80	-2,667.79	10,836.25	11,159.82	0.00	0.00	0.00
EXTRAPOLATION TO TD - 18550' MD, 956' FSL, 331' FEL SEC 13									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL-PF 4-65 4AH	0.00	0.00	7,745.00	-2,643.37	10,837.70	1,680,714.23	3,251,972.95	39.698952°N	104.604517°W
- actual wellpath misses target center by 28.09usft at 18550.00usft MD (7758.80 TVD, -2667.79 N, 10836.25 E)									
- Point									
LP-PF 4-65 4AH	0.00	0.00	7,850.00	-2,530.17	933.08	1,680,733.99	3,242,067.79	39.699269°N	104.639716°W
- actual wellpath misses target center by 18.04usft at 8639.16usft MD (7843.16 TVD, -2546.85 N, 932.23 E)									
- Point									

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
7,717.00	7,308.73	-2,329.04	311.76	KOP - 7717' MD, 7309' TVD	
8,640.02	7,843.23	-2,546.92	933.08	~330' X-OVER PNT - 8640.02' MD, 963' FSL, 330' FWL SEC 14	
8,661.00	7,844.82	-2,548.47	953.94	HZ LANDING PNT - 8661' MD, 7845' TVD	
18,493.00	7,761.89	-2,666.67	10,779.35	LAST SURVEY - 18493' MD, 7762' TVD	
18,550.00	7,758.80	-2,667.79	10,836.25	EXTRAPOLATION TO TD - 18550' MD, 956' FSL, 331' FEL SEC 13	

Checked By: _____	Approved By: _____	Date: _____
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