

CRESTONE PEAK RESOURCES

ARAPAHOE COUNTY

SEC 2-T4S-R65W

PROSPER FARMS 4-65 2-1-6 3CH

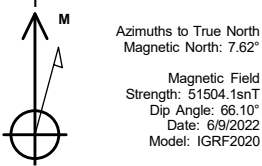
OWB

Plan: PROPOSAL 1

Standard Planning Report

12 August, 2022

Project: ARAPAHOE COUNTY
Site: SEC 2-T4S-R65W
Well: PROSPER FARMS 4-65 2-1-6 3CH
Wellbore: OWB
Design: PROPOSAL 1



WELL DETAILS: PROSPER FARMS 4-65 2-1-6 3CH

5631.71						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1691740.88	3242234.14	39.729480°N	104.638754°W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	
3	1110.59	8.21	241.74	1109.19	-13.91	-25.87	2.00	241.74	-24.67	
4	7200.85	8.21	241.74	7137.00	-425.82	-792.06	0.00	0.00	-755.33	
5	8172.65	90.00	90.69	7780.00	-477.55	-224.17	10.00	-150.80	-185.12	LP-PROSPER FARMS 4-65 2-1-6
6	15743.60	90.00	90.69	7780.00	-568.27	7346.24	0.00	0.00	7368.15	MID-PROSPER FARMS 4-65 2-1-6
7	15950.49	90.00	94.82	7780.00	-578.21	7552.84	2.00	90.00	7574.88	PBHL-PROSPER FARMS 4-65 2-1-6
8	23669.75	90.00	94.82	7780.00	-1227.40	15244.76	0.00	0.00	15294.09	PBHL-PROSPER FARMS 4-65 2-1-6

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	Start Build 2.00
1110.59	8.21	241.74	1109.19	-13.91	-25.87	-24.67	29.37	Start 6090.26 hold at 1110.59 MD
7200.85	8.21	241.74	7137.00	-425.82	-792.06	-755.33	899.27	Start DLS 10.00 TFO -150.80
8172.65	90.00	90.69	7780.00	-477.55	-224.17	-185.12	1484.86	Start 7570.96 hold at 8172.65 MD
15743.60	90.00	90.69	7780.00	-568.27	7346.24	7368.15	9055.82	Start TFS 2.00 TFO 90.00
15950.49	90.00	94.82	7780.00	-578.21	7552.84	7574.88	9262.70	Start 7719.27 hold at 15950.49 MD
23669.75	90.00	94.82	7780.00	-1227.40	15244.76	15294.09	16981.97	TD at 23669.75

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
LP-PROSPER FARMS 4-65 2-1-6	7780.00	-477.55	-224.17	1691261.24	3242014.51	39.728169°N	104.639551°W	Point
- plan hits target center								
MID-PROSPER FARMS 4-65 2-1-6	7780.00	-568.27	7346.24	1691242.28	3249585.41	39.727917°N	104.612636°W	Point
- plan hits target center								
PBHL-PROSPER FARMS 4-65 2-1-6	7780.00	-1227.40	15244.76	1690658.06	3257489.79	39.726098°N	104.584556°W	Point
- plan hits target center								

PROJECT DETAILS: ARAPAHOE COUNTY

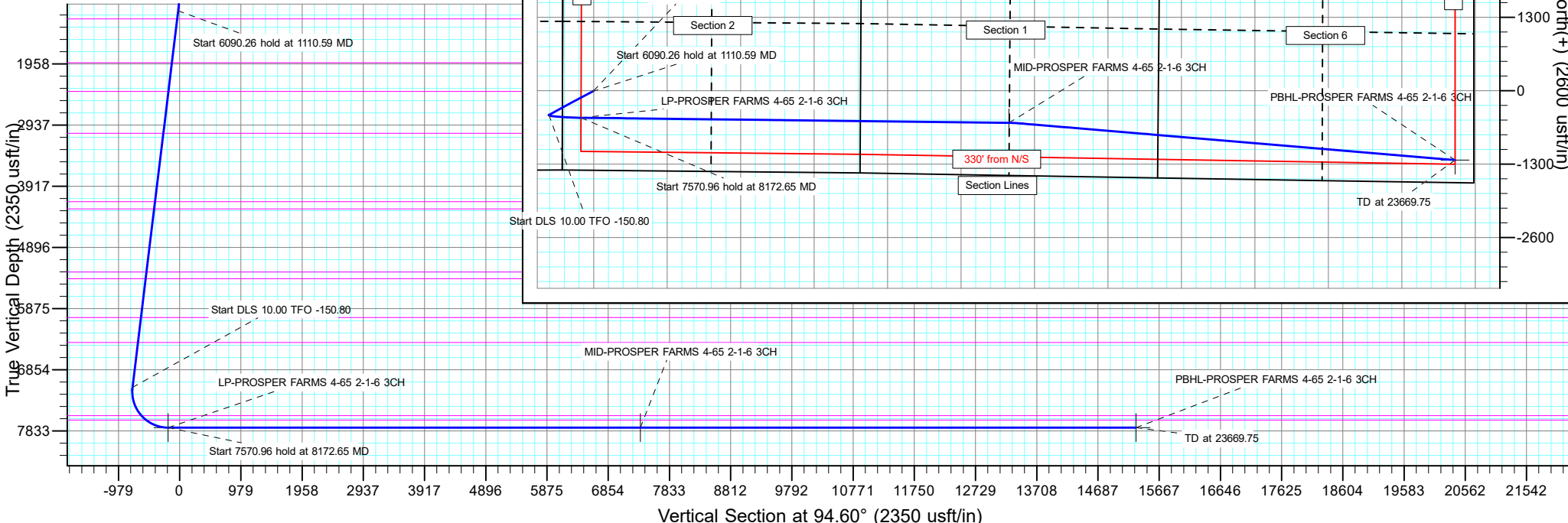
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Central Zone

System Datum: Mean Sea Level

SHL:
1410' FSL, 553' FWL
Sec 2-T4S-R65W

LP:
930' FSL, 330' FWL
Sec 2-T4S-R65W

BHL:
400' FSL, 330' FEL
Sec 6-T4S-R64W



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well PROSPER FARMS 4-65 2-1-6 3CH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5656.71usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5656.71usft
Site:	SEC 2-T4S-R65W	North Reference:	True
Well:	PROSPER FARMS 4-65 2-1-6 3CH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

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 2-T4S-R65W			
Site Position:		Northing:	1,695,525.07 usft	Latitude:	39.739883°N
From:	Lat/Long	Easting:	3,241,656.33 usft	Longitude:	104.640681°W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.54 °

Well	PROSPER FARMS 4-65 2-1-6 3CH					
Well Position	+N/-S	-3,789.49 usft	Northing:	1,691,740.88 usft	Latitude:	39.729480°N
	+E/-W	542.00 usft	Easting:	3,242,234.15 usft	Longitude:	104.638754°W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,631.71 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	6/9/2022	7.62	66.10	51,504.05074091

Design	PROPOSAL 1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	94.60

Plan Survey Tool Program	Date	8/12/2022		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	23,669.75	PROPOSAL 1 (OWB)	MWD OWSG
				OWSG MWD - Standard

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,110.59	8.21	241.74	1,109.19	-13.91	-25.87	2.00	2.00	0.00	241.74	
7,200.85	8.21	241.74	7,137.00	-425.82	-792.06	0.00	0.00	0.00	0.00	
8,172.65	90.00	90.69	7,780.00	-477.55	-224.17	10.00	8.42	-15.54	-150.80	LP-PROSPER FARM
15,743.60	90.00	90.69	7,780.00	-568.27	7,346.24	0.00	0.00	0.00	0.00	MID-PROSPER FARM
15,950.49	90.00	94.82	7,780.00	-578.21	7,552.84	2.00	0.00	2.00	90.00	PBHL-PROSPER FAI
23,669.75	90.00	94.82	7,780.00	-1,227.40	15,244.76	0.00	0.00	0.00	0.00	PBHL-PROSPER FAI

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Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5656.71usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5656.71usft
Site:	SEC 2-T4S-R65W	North Reference:	True
Well:	PROSPER FARMS 4-65 2-1-6 3CH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

Planned 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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.00	0.00	0.00	24.00	0.00	0.00	0.00	0.00	0.00	0.00
Denver									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
664.00	0.00	0.00	664.00	0.00	0.00	0.00	0.00	0.00	0.00
Arapahoe									
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
800.00	2.00	241.74	799.98	-0.83	-1.54	-1.47	2.00	2.00	0.00
900.00	4.00	241.74	899.84	-3.30	-6.15	-5.86	2.00	2.00	0.00
1,000.00	6.00	241.74	999.45	-7.43	-13.82	-13.18	2.00	2.00	0.00
1,100.00	8.00	241.74	1,098.70	-13.20	-24.56	-23.42	2.00	2.00	0.00
1,110.59	8.21	241.74	1,109.19	-13.91	-25.87	-24.67	2.00	2.00	0.00
Start 6090.26 hold at 1110.59 MD									
1,200.00	8.21	241.74	1,197.68	-19.96	-37.12	-35.40	0.00	0.00	0.00
1,241.75	8.21	241.74	1,239.00	-22.78	-42.37	-40.41	0.00	0.00	0.00
Laramie-Fox Hills Formation									
1,300.00	8.21	241.74	1,296.65	-26.72	-49.70	-47.40	0.00	0.00	0.00
1,400.00	8.21	241.74	1,395.63	-33.48	-62.28	-59.39	0.00	0.00	0.00
1,500.00	8.21	241.74	1,494.60	-40.25	-74.86	-71.39	0.00	0.00	0.00
1,600.00	8.21	241.74	1,593.58	-47.01	-87.44	-83.39	0.00	0.00	0.00
1,700.00	8.21	241.74	1,692.55	-53.77	-100.02	-95.38	0.00	0.00	0.00
1,800.00	8.21	241.74	1,791.53	-60.54	-112.60	-107.38	0.00	0.00	0.00
1,900.00	8.21	241.74	1,890.50	-67.30	-125.18	-119.38	0.00	0.00	0.00
1,949.00	8.21	241.74	1,939.00	-70.61	-131.35	-125.26	0.00	0.00	0.00
Pierre Formation									
2,000.00	8.21	241.74	1,989.48	-74.06	-137.76	-131.38	0.00	0.00	0.00
2,100.00	8.21	241.74	2,088.45	-80.83	-150.34	-143.37	0.00	0.00	0.00
2,200.00	8.21	241.74	2,187.43	-87.59	-162.92	-155.37	0.00	0.00	0.00
2,300.00	8.21	241.74	2,286.40	-94.35	-175.51	-167.37	0.00	0.00	0.00
2,400.00	8.21	241.74	2,385.38	-101.12	-188.09	-179.36	0.00	0.00	0.00
2,413.77	8.21	241.74	2,399.00	-102.05	-189.82	-181.02	0.00	0.00	0.00
Upper Pierre aquifer									
2,500.00	8.21	241.74	2,484.35	-107.88	-200.67	-191.36	0.00	0.00	0.00
2,600.00	8.21	241.74	2,583.32	-114.64	-213.25	-203.36	0.00	0.00	0.00
2,700.00	8.21	241.74	2,682.30	-121.41	-225.83	-215.36	0.00	0.00	0.00
2,800.00	8.21	241.74	2,781.27	-128.17	-238.41	-227.35	0.00	0.00	0.00
2,900.00	8.21	241.74	2,880.25	-134.94	-250.99	-239.35	0.00	0.00	0.00
3,000.00	8.21	241.74	2,979.22	-141.70	-263.57	-251.35	0.00	0.00	0.00
3,090.71	8.21	241.74	3,069.00	-147.83	-274.98	-262.23	0.00	0.00	0.00
Base of Upper Pierre aquifer									
3,100.00	8.21	241.74	3,078.20	-148.46	-276.15	-263.34	0.00	0.00	0.00
3,200.00	8.21	241.74	3,177.17	-155.23	-288.73	-275.34	0.00	0.00	0.00
3,300.00	8.21	241.74	3,276.15	-161.99	-301.31	-287.34	0.00	0.00	0.00
3,400.00	8.21	241.74	3,375.12	-168.75	-313.89	-299.34	0.00	0.00	0.00
3,500.00	8.21	241.74	3,474.10	-175.52	-326.47	-311.33	0.00	0.00	0.00
3,600.00	8.21	241.74	3,573.07	-182.28	-339.05	-323.33	0.00	0.00	0.00
3,700.00	8.21	241.74	3,672.05	-189.04	-351.63	-335.33	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well PROSPER FARMS 4-65 2-1-6 3CH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5656.71usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5656.71usft
Site:	SEC 2-T4S-R65W	North Reference:	True
Well:	PROSPER FARMS 4-65 2-1-6 3CH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

Planned 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)	
3,800.00	8.21	241.74	3,771.02	-195.81	-364.21	-347.32	0.00	0.00	0.00	
3,900.00	8.21	241.74	3,870.00	-202.57	-376.79	-359.32	0.00	0.00	0.00	
4,000.00	8.21	241.74	3,968.97	-209.33	-389.37	-371.32	0.00	0.00	0.00	
4,100.00	8.21	241.74	4,067.94	-216.10	-401.95	-383.32	0.00	0.00	0.00	
4,197.05	8.21	241.74	4,164.00	-222.66	-414.16	-394.96	0.00	0.00	0.00	
Larimer ("Parkman") sandstone										
4,200.00	8.21	241.74	4,166.92	-222.86	-414.54	-395.31	0.00	0.00	0.00	
4,300.00	8.21	241.74	4,265.89	-229.62	-427.12	-407.31	0.00	0.00	0.00	
4,313.24	8.21	241.74	4,279.00	-230.52	-428.78	-408.90	0.00	0.00	0.00	
Pierre Formation										
4,400.00	8.21	241.74	4,364.87	-236.39	-439.70	-419.31	0.00	0.00	0.00	
4,500.00	8.21	241.74	4,463.84	-243.15	-452.28	-431.30	0.00	0.00	0.00	
4,600.00	8.21	241.74	4,562.82	-249.91	-464.86	-443.30	0.00	0.00	0.00	
4,700.00	8.21	241.74	4,661.79	-256.68	-477.44	-455.30	0.00	0.00	0.00	
4,800.00	8.21	241.74	4,760.77	-263.44	-490.02	-467.30	0.00	0.00	0.00	
4,900.00	8.21	241.74	4,859.74	-270.20	-502.60	-479.29	0.00	0.00	0.00	
5,000.00	8.21	241.74	4,958.72	-276.97	-515.18	-491.29	0.00	0.00	0.00	
5,100.00	8.21	241.74	5,057.69	-283.73	-527.76	-503.29	0.00	0.00	0.00	
5,200.00	8.21	241.74	5,156.67	-290.50	-540.34	-515.28	0.00	0.00	0.00	
5,300.00	8.21	241.74	5,255.64	-297.26	-552.92	-527.28	0.00	0.00	0.00	
5,333.71	8.21	241.74	5,289.00	-299.54	-557.16	-531.33	0.00	0.00	0.00	
Terry ("Sussex") sandstone										
5,400.00	8.21	241.74	5,354.62	-304.02	-565.50	-539.28	0.00	0.00	0.00	
5,444.84	8.21	241.74	5,399.00	-307.06	-571.14	-544.66	0.00	0.00	0.00	
Pierre Formation										
5,500.00	8.21	241.74	5,453.59	-310.79	-578.08	-551.28	0.00	0.00	0.00	
5,600.00	8.21	241.74	5,552.56	-317.55	-590.66	-563.27	0.00	0.00	0.00	
5,700.00	8.21	241.74	5,651.54	-324.31	-603.24	-575.27	0.00	0.00	0.00	
5,800.00	8.21	241.74	5,750.51	-331.08	-615.82	-587.27	0.00	0.00	0.00	
5,900.00	8.21	241.74	5,849.49	-337.84	-628.40	-599.26	0.00	0.00	0.00	
6,000.00	8.21	241.74	5,948.46	-344.60	-640.98	-611.26	0.00	0.00	0.00	
6,071.27	8.21	241.74	6,019.00	-349.42	-649.95	-619.81	0.00	0.00	0.00	
Hygiene ("Shannon") sandstone										
6,100.00	8.21	241.74	6,047.44	-351.37	-653.57	-623.26	0.00	0.00	0.00	
6,200.00	8.21	241.74	6,146.41	-358.13	-666.15	-635.26	0.00	0.00	0.00	
6,300.00	8.21	241.74	6,245.39	-364.89	-678.73	-647.25	0.00	0.00	0.00	
6,400.00	8.21	241.74	6,344.36	-371.66	-691.31	-659.25	0.00	0.00	0.00	
6,475.41	8.21	241.74	6,419.00	-376.76	-700.79	-668.30	0.00	0.00	0.00	
Pierre Formation										
6,500.00	8.21	241.74	6,443.34	-378.42	-703.89	-671.25	0.00	0.00	0.00	
6,600.00	8.21	241.74	6,542.31	-385.18	-716.47	-683.24	0.00	0.00	0.00	
6,700.00	8.21	241.74	6,641.29	-391.95	-729.05	-695.24	0.00	0.00	0.00	
6,800.00	8.21	241.74	6,740.26	-398.71	-741.63	-707.24	0.00	0.00	0.00	
6,900.00	8.21	241.74	6,839.24	-405.47	-754.21	-719.24	0.00	0.00	0.00	
7,000.00	8.21	241.74	6,938.21	-412.24	-766.79	-731.23	0.00	0.00	0.00	
7,100.00	8.21	241.74	7,037.18	-419.00	-779.37	-743.23	0.00	0.00	0.00	
7,200.85	8.21	241.74	7,137.00	-425.82	-792.06	-755.33	0.00	0.00	0.00	
Start DLS 10.00 TFO -150.80										
7,250.00	4.59	210.26	7,185.85	-429.19	-796.14	-759.13	10.00	-7.36	-64.03	
7,300.00	4.84	146.25	7,235.71	-432.67	-795.98	-758.69	10.00	0.50	-128.02	
7,350.00	8.70	117.85	7,285.37	-436.19	-791.46	-753.90	10.00	7.72	-56.81	
7,400.00	13.34	107.82	7,334.44	-439.73	-782.62	-744.81	10.00	9.27	-20.05	
7,450.00	18.17	102.98	7,382.55	-443.25	-769.53	-731.47	10.00	9.66	-9.69	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well PROSPER FARMS 4-65 2-1-6 3CH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5656.71usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5656.71usft
Site:	SEC 2-T4S-R65W	North Reference:	True
Well:	PROSPER FARMS 4-65 2-1-6 3CH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

Planned 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)
7,500.00	23.07	100.13	7,429.33	-446.72	-752.28	-714.00	10.00	9.80	-5.70
7,550.00	28.00	98.24	7,474.44	-450.13	-731.01	-692.53	10.00	9.87	-3.78
7,600.00	32.95	96.87	7,517.51	-453.44	-705.88	-667.21	10.00	9.90	-2.73
7,650.00	37.91	95.83	7,558.24	-456.63	-677.08	-638.25	10.00	9.93	-2.08
7,690.11	41.90	95.15	7,589.00	-459.08	-651.47	-612.52	10.00	9.94	-1.70
Sharon Springs Member									
7,700.00	42.89	95.00	7,596.31	-459.67	-644.82	-605.85	10.00	9.95	-1.53
7,750.00	47.86	94.31	7,631.42	-462.55	-609.37	-570.28	10.00	9.95	-1.38
7,792.92	52.14	93.80	7,659.00	-464.87	-576.58	-537.41	10.00	9.96	-1.19
Niobrara Formation									
7,800.00	52.84	93.72	7,663.31	-465.24	-570.97	-531.80	10.00	9.96	-1.11
7,850.00	57.82	93.21	7,691.75	-467.72	-529.94	-490.69	10.00	9.96	-1.03
7,900.00	62.81	92.74	7,716.50	-469.97	-486.57	-447.29	10.00	9.97	-0.92
7,950.00	67.79	92.32	7,737.39	-471.97	-441.21	-401.91	10.00	9.97	-0.85
8,000.00	72.78	91.93	7,754.25	-473.71	-394.18	-354.90	10.00	9.97	-0.79
8,050.00	77.77	91.55	7,766.96	-475.18	-345.86	-306.61	10.00	9.97	-0.75
8,100.00	82.75	91.20	7,775.41	-476.36	-296.61	-257.43	10.00	9.97	-0.72
8,150.00	87.74	90.84	7,779.55	-477.24	-246.81	-207.71	10.00	9.98	-0.70
8,172.65	90.00	90.69	7,780.00	-477.55	-224.17	-185.12	10.00	9.98	-0.70
Start 7570.96 hold at 8172.65 MD									
8,200.00	90.00	90.69	7,780.00	-477.87	-196.82	-157.83	0.00	0.00	0.00
8,300.00	90.00	90.69	7,780.00	-479.07	-96.83	-58.07	0.00	0.00	0.00
8,400.00	90.00	90.69	7,780.00	-480.27	3.17	41.70	0.00	0.00	0.00
8,500.00	90.00	90.69	7,780.00	-481.47	103.16	141.47	0.00	0.00	0.00
8,600.00	90.00	90.69	7,780.00	-482.67	203.15	241.23	0.00	0.00	0.00
8,700.00	90.00	90.69	7,780.00	-483.87	303.14	341.00	0.00	0.00	0.00
8,800.00	90.00	90.69	7,780.00	-485.06	403.14	440.76	0.00	0.00	0.00
8,900.00	90.00	90.69	7,780.00	-486.26	503.13	540.53	0.00	0.00	0.00
9,000.00	90.00	90.69	7,780.00	-487.46	603.12	640.30	0.00	0.00	0.00
9,100.00	90.00	90.69	7,780.00	-488.66	703.12	740.06	0.00	0.00	0.00
9,200.00	90.00	90.69	7,780.00	-489.86	803.11	839.83	0.00	0.00	0.00
9,300.00	90.00	90.69	7,780.00	-491.06	903.10	939.60	0.00	0.00	0.00
9,400.00	90.00	90.69	7,780.00	-492.25	1,003.09	1,039.36	0.00	0.00	0.00
9,500.00	90.00	90.69	7,780.00	-493.45	1,103.09	1,139.13	0.00	0.00	0.00
9,600.00	90.00	90.69	7,780.00	-494.65	1,203.08	1,238.90	0.00	0.00	0.00
9,700.00	90.00	90.69	7,780.00	-495.85	1,303.07	1,338.66	0.00	0.00	0.00
9,800.00	90.00	90.69	7,780.00	-497.05	1,403.06	1,438.43	0.00	0.00	0.00
9,900.00	90.00	90.69	7,780.00	-498.25	1,503.06	1,538.20	0.00	0.00	0.00
10,000.00	90.00	90.69	7,780.00	-499.44	1,603.05	1,637.96	0.00	0.00	0.00
10,100.00	90.00	90.69	7,780.00	-500.64	1,703.04	1,737.73	0.00	0.00	0.00
10,200.00	90.00	90.69	7,780.00	-501.84	1,803.04	1,837.49	0.00	0.00	0.00
10,300.00	90.00	90.69	7,780.00	-503.04	1,903.03	1,937.26	0.00	0.00	0.00
10,400.00	90.00	90.69	7,780.00	-504.24	2,003.02	2,037.03	0.00	0.00	0.00
10,500.00	90.00	90.69	7,780.00	-505.44	2,103.01	2,136.79	0.00	0.00	0.00
10,600.00	90.00	90.69	7,780.00	-506.63	2,203.01	2,236.56	0.00	0.00	0.00
10,700.00	90.00	90.69	7,780.00	-507.83	2,303.00	2,336.33	0.00	0.00	0.00
10,800.00	90.00	90.69	7,780.00	-509.03	2,402.99	2,436.09	0.00	0.00	0.00
10,900.00	90.00	90.69	7,780.00	-510.23	2,502.99	2,535.86	0.00	0.00	0.00
11,000.00	90.00	90.69	7,780.00	-511.43	2,602.98	2,635.63	0.00	0.00	0.00
11,100.00	90.00	90.69	7,780.00	-512.63	2,702.97	2,735.39	0.00	0.00	0.00
11,200.00	90.00	90.69	7,780.00	-513.82	2,802.96	2,835.16	0.00	0.00	0.00
11,300.00	90.00	90.69	7,780.00	-515.02	2,902.96	2,934.93	0.00	0.00	0.00
11,400.00	90.00	90.69	7,780.00	-516.22	3,002.95	3,034.69	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well PROSPER FARMS 4-65 2-1-6 3CH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5656.71usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5656.71usft
Site:	SEC 2-T4S-R65W	North Reference:	True
Well:	PROSPER FARMS 4-65 2-1-6 3CH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

Planned 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)
11,500.00	90.00	90.69	7,780.00	-517.42	3,102.94	3,134.46	0.00	0.00	0.00
11,600.00	90.00	90.69	7,780.00	-518.62	3,202.94	3,234.23	0.00	0.00	0.00
11,700.00	90.00	90.69	7,780.00	-519.82	3,302.93	3,333.99	0.00	0.00	0.00
11,800.00	90.00	90.69	7,780.00	-521.01	3,402.92	3,433.76	0.00	0.00	0.00
11,900.00	90.00	90.69	7,780.00	-522.21	3,502.91	3,533.52	0.00	0.00	0.00
12,000.00	90.00	90.69	7,780.00	-523.41	3,602.91	3,633.29	0.00	0.00	0.00
12,100.00	90.00	90.69	7,780.00	-524.61	3,702.90	3,733.06	0.00	0.00	0.00
12,200.00	90.00	90.69	7,780.00	-525.81	3,802.89	3,832.82	0.00	0.00	0.00
12,300.00	90.00	90.69	7,780.00	-527.01	3,902.89	3,932.59	0.00	0.00	0.00
12,400.00	90.00	90.69	7,780.00	-528.20	4,002.88	4,032.36	0.00	0.00	0.00
12,500.00	90.00	90.69	7,780.00	-529.40	4,102.87	4,132.12	0.00	0.00	0.00
12,600.00	90.00	90.69	7,780.00	-530.60	4,202.86	4,231.89	0.00	0.00	0.00
12,700.00	90.00	90.69	7,780.00	-531.80	4,302.86	4,331.66	0.00	0.00	0.00
12,800.00	90.00	90.69	7,780.00	-533.00	4,402.85	4,431.42	0.00	0.00	0.00
12,900.00	90.00	90.69	7,780.00	-534.20	4,502.84	4,531.19	0.00	0.00	0.00
13,000.00	90.00	90.69	7,780.00	-535.39	4,602.84	4,630.96	0.00	0.00	0.00
13,100.00	90.00	90.69	7,780.00	-536.59	4,702.83	4,730.72	0.00	0.00	0.00
13,200.00	90.00	90.69	7,780.00	-537.79	4,802.82	4,830.49	0.00	0.00	0.00
13,300.00	90.00	90.69	7,780.00	-538.99	4,902.81	4,930.26	0.00	0.00	0.00
13,400.00	90.00	90.69	7,780.00	-540.19	5,002.81	5,030.02	0.00	0.00	0.00
13,500.00	90.00	90.69	7,780.00	-541.38	5,102.80	5,129.79	0.00	0.00	0.00
13,600.00	90.00	90.69	7,780.00	-542.58	5,202.79	5,229.55	0.00	0.00	0.00
13,700.00	90.00	90.69	7,780.00	-543.78	5,302.78	5,329.32	0.00	0.00	0.00
13,800.00	90.00	90.69	7,780.00	-544.98	5,402.78	5,429.09	0.00	0.00	0.00
13,900.00	90.00	90.69	7,780.00	-546.18	5,502.77	5,528.85	0.00	0.00	0.00
14,000.00	90.00	90.69	7,780.00	-547.38	5,602.76	5,628.62	0.00	0.00	0.00
14,100.00	90.00	90.69	7,780.00	-548.57	5,702.76	5,728.39	0.00	0.00	0.00
14,200.00	90.00	90.69	7,780.00	-549.77	5,802.75	5,828.15	0.00	0.00	0.00
14,300.00	90.00	90.69	7,780.00	-550.97	5,902.74	5,927.92	0.00	0.00	0.00
14,400.00	90.00	90.69	7,780.00	-552.17	6,002.73	6,027.69	0.00	0.00	0.00
14,500.00	90.00	90.69	7,780.00	-553.37	6,102.73	6,127.45	0.00	0.00	0.00
14,600.00	90.00	90.69	7,780.00	-554.57	6,202.72	6,227.22	0.00	0.00	0.00
14,700.00	90.00	90.69	7,780.00	-555.76	6,302.71	6,326.99	0.00	0.00	0.00
14,800.00	90.00	90.69	7,780.00	-556.96	6,402.71	6,426.75	0.00	0.00	0.00
14,900.00	90.00	90.69	7,780.00	-558.16	6,502.70	6,526.52	0.00	0.00	0.00
15,000.00	90.00	90.69	7,780.00	-559.36	6,602.69	6,626.29	0.00	0.00	0.00
15,100.00	90.00	90.69	7,780.00	-560.56	6,702.68	6,726.05	0.00	0.00	0.00
15,200.00	90.00	90.69	7,780.00	-561.76	6,802.68	6,825.82	0.00	0.00	0.00
15,300.00	90.00	90.69	7,780.00	-562.95	6,902.67	6,925.58	0.00	0.00	0.00
15,400.00	90.00	90.69	7,780.00	-564.15	7,002.66	7,025.35	0.00	0.00	0.00
15,500.00	90.00	90.69	7,780.00	-565.35	7,102.66	7,125.12	0.00	0.00	0.00
15,600.00	90.00	90.69	7,780.00	-566.55	7,202.65	7,224.88	0.00	0.00	0.00
15,700.00	90.00	90.69	7,780.00	-567.75	7,302.64	7,324.65	0.00	0.00	0.00
15,743.60	90.00	90.69	7,780.00	-568.27	7,346.24	7,368.15	0.00	0.00	0.00
Start DLS 2.00 TFO 90.00									
15,800.00	90.00	91.81	7,780.00	-569.50	7,402.62	7,424.45	2.00	0.00	2.00
15,900.00	90.00	93.81	7,780.00	-574.41	7,502.50	7,524.40	2.00	0.00	2.00
15,950.49	90.00	94.82	7,780.00	-578.21	7,552.84	7,574.88	2.00	0.00	2.00
Start 7719.27 hold at 15950.49 MD									
16,000.00	90.00	94.82	7,780.00	-582.38	7,602.18	7,624.40	0.00	0.00	0.00
16,100.00	90.00	94.82	7,780.00	-590.79	7,701.82	7,724.39	0.00	0.00	0.00
16,200.00	90.00	94.82	7,780.00	-599.20	7,801.47	7,824.39	0.00	0.00	0.00
16,300.00	90.00	94.82	7,780.00	-607.61	7,901.12	7,924.39	0.00	0.00	0.00
16,400.00	90.00	94.82	7,780.00	-616.02	8,000.76	8,024.39	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well PROSPER FARMS 4-65 2-1-6 3CH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5656.71usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5656.71usft
Site:	SEC 2-T4S-R65W	North Reference:	True
Well:	PROSPER FARMS 4-65 2-1-6 3CH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

Planned 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)
16,500.00	90.00	94.82	7,780.00	-624.43	8,100.41	8,124.39	0.00	0.00	0.00
16,600.00	90.00	94.82	7,780.00	-632.84	8,200.05	8,224.39	0.00	0.00	0.00
16,700.00	90.00	94.82	7,780.00	-641.25	8,299.70	8,324.39	0.00	0.00	0.00
16,800.00	90.00	94.82	7,780.00	-649.66	8,399.34	8,424.39	0.00	0.00	0.00
16,900.00	90.00	94.82	7,780.00	-658.07	8,498.99	8,524.39	0.00	0.00	0.00
17,000.00	90.00	94.82	7,780.00	-666.48	8,598.64	8,624.39	0.00	0.00	0.00
17,100.00	90.00	94.82	7,780.00	-674.89	8,698.28	8,724.39	0.00	0.00	0.00
17,200.00	90.00	94.82	7,780.00	-683.30	8,797.93	8,824.39	0.00	0.00	0.00
17,300.00	90.00	94.82	7,780.00	-691.71	8,897.57	8,924.39	0.00	0.00	0.00
17,400.00	90.00	94.82	7,780.00	-700.12	8,997.22	9,024.39	0.00	0.00	0.00
17,500.00	90.00	94.82	7,780.00	-708.53	9,096.86	9,124.38	0.00	0.00	0.00
17,600.00	90.00	94.82	7,780.00	-716.94	9,196.51	9,224.38	0.00	0.00	0.00
17,700.00	90.00	94.82	7,780.00	-725.35	9,296.16	9,324.38	0.00	0.00	0.00
17,800.00	90.00	94.82	7,780.00	-733.76	9,395.80	9,424.38	0.00	0.00	0.00
17,900.00	90.00	94.82	7,780.00	-742.17	9,495.45	9,524.38	0.00	0.00	0.00
18,000.00	90.00	94.82	7,780.00	-750.58	9,595.09	9,624.38	0.00	0.00	0.00
18,100.00	90.00	94.82	7,780.00	-758.99	9,694.74	9,724.38	0.00	0.00	0.00
18,200.00	90.00	94.82	7,780.00	-767.40	9,794.38	9,824.38	0.00	0.00	0.00
18,300.00	90.00	94.82	7,780.00	-775.81	9,894.03	9,924.38	0.00	0.00	0.00
18,400.00	90.00	94.82	7,780.00	-784.22	9,993.68	10,024.38	0.00	0.00	0.00
18,500.00	90.00	94.82	7,780.00	-792.63	10,093.32	10,124.38	0.00	0.00	0.00
18,600.00	90.00	94.82	7,780.00	-801.04	10,192.97	10,224.38	0.00	0.00	0.00
18,700.00	90.00	94.82	7,780.00	-809.45	10,292.61	10,324.38	0.00	0.00	0.00
18,800.00	90.00	94.82	7,780.00	-817.86	10,392.26	10,424.37	0.00	0.00	0.00
18,900.00	90.00	94.82	7,780.00	-826.27	10,491.91	10,524.37	0.00	0.00	0.00
19,000.00	90.00	94.82	7,780.00	-834.68	10,591.55	10,624.37	0.00	0.00	0.00
19,100.00	90.00	94.82	7,780.00	-843.09	10,691.20	10,724.37	0.00	0.00	0.00
19,200.00	90.00	94.82	7,780.00	-851.50	10,790.84	10,824.37	0.00	0.00	0.00
19,300.00	90.00	94.82	7,780.00	-859.91	10,890.49	10,924.37	0.00	0.00	0.00
19,400.00	90.00	94.82	7,780.00	-868.32	10,990.13	11,024.37	0.00	0.00	0.00
19,500.00	90.00	94.82	7,780.00	-876.73	11,089.78	11,124.37	0.00	0.00	0.00
19,600.00	90.00	94.82	7,780.00	-885.14	11,189.43	11,224.37	0.00	0.00	0.00
19,700.00	90.00	94.82	7,780.00	-893.55	11,289.07	11,324.37	0.00	0.00	0.00
19,800.00	90.00	94.82	7,780.00	-901.96	11,388.72	11,424.37	0.00	0.00	0.00
19,900.00	90.00	94.82	7,780.00	-910.37	11,488.36	11,524.37	0.00	0.00	0.00
20,000.00	90.00	94.82	7,780.00	-918.78	11,588.01	11,624.37	0.00	0.00	0.00
20,100.00	90.00	94.82	7,780.00	-927.19	11,687.65	11,724.37	0.00	0.00	0.00
20,200.00	90.00	94.82	7,780.00	-935.60	11,787.30	11,824.36	0.00	0.00	0.00
20,300.00	90.00	94.82	7,780.00	-944.01	11,886.95	11,924.36	0.00	0.00	0.00
20,400.00	90.00	94.82	7,780.00	-952.42	11,986.59	12,024.36	0.00	0.00	0.00
20,500.00	90.00	94.82	7,780.00	-960.83	12,086.24	12,124.36	0.00	0.00	0.00
20,600.00	90.00	94.82	7,780.00	-969.24	12,185.88	12,224.36	0.00	0.00	0.00
20,700.00	90.00	94.82	7,780.00	-977.65	12,285.53	12,324.36	0.00	0.00	0.00
20,800.00	90.00	94.82	7,780.00	-986.06	12,385.17	12,424.36	0.00	0.00	0.00
20,900.00	90.00	94.82	7,780.00	-994.47	12,484.82	12,524.36	0.00	0.00	0.00
21,000.00	90.00	94.82	7,780.00	-1,002.88	12,584.47	12,624.36	0.00	0.00	0.00
21,100.00	90.00	94.82	7,780.00	-1,011.29	12,684.11	12,724.36	0.00	0.00	0.00
21,200.00	90.00	94.82	7,780.00	-1,019.70	12,783.76	12,824.36	0.00	0.00	0.00
21,300.00	90.00	94.82	7,780.00	-1,028.11	12,883.40	12,924.36	0.00	0.00	0.00
21,400.00	90.00	94.82	7,780.00	-1,036.52	12,983.05	13,024.36	0.00	0.00	0.00
21,500.00	90.00	94.82	7,780.00	-1,044.93	13,082.69	13,124.35	0.00	0.00	0.00
21,600.00	90.00	94.82	7,780.00	-1,053.34	13,182.34	13,224.35	0.00	0.00	0.00
21,700.00	90.00	94.82	7,780.00	-1,061.75	13,281.99	13,324.35	0.00	0.00	0.00
21,800.00	90.00	94.82	7,780.00	-1,070.16	13,381.63	13,424.35	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well PROSPER FARMS 4-65 2-1-6 3CH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5656.71usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5656.71usft
Site:	SEC 2-T4S-R65W	North Reference:	True
Well:	PROSPER FARMS 4-65 2-1-6 3CH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

Planned 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)	
21,900.00	90.00	94.82	7,780.00	-1,078.57	13,481.28	13,524.35	0.00	0.00	0.00	
22,000.00	90.00	94.82	7,780.00	-1,086.98	13,580.92	13,624.35	0.00	0.00	0.00	
22,100.00	90.00	94.82	7,780.00	-1,095.39	13,680.57	13,724.35	0.00	0.00	0.00	
22,200.00	90.00	94.82	7,780.00	-1,103.80	13,780.21	13,824.35	0.00	0.00	0.00	
22,300.00	90.00	94.82	7,780.00	-1,112.21	13,879.86	13,924.35	0.00	0.00	0.00	
22,400.00	90.00	94.82	7,780.00	-1,120.62	13,979.51	14,024.35	0.00	0.00	0.00	
22,500.00	90.00	94.82	7,780.00	-1,129.03	14,079.15	14,124.35	0.00	0.00	0.00	
22,600.00	90.00	94.82	7,780.00	-1,137.44	14,178.80	14,224.35	0.00	0.00	0.00	
22,700.00	90.00	94.82	7,780.00	-1,145.85	14,278.44	14,324.35	0.00	0.00	0.00	
22,800.00	90.00	94.82	7,780.00	-1,154.26	14,378.09	14,424.35	0.00	0.00	0.00	
22,900.00	90.00	94.82	7,780.00	-1,162.67	14,477.73	14,524.34	0.00	0.00	0.00	
23,000.00	90.00	94.82	7,780.00	-1,171.08	14,577.38	14,624.34	0.00	0.00	0.00	
23,100.00	90.00	94.82	7,780.00	-1,179.49	14,677.03	14,724.34	0.00	0.00	0.00	
23,200.00	90.00	94.82	7,780.00	-1,187.90	14,776.67	14,824.34	0.00	0.00	0.00	
23,300.00	90.00	94.82	7,780.00	-1,196.31	14,876.32	14,924.34	0.00	0.00	0.00	
23,400.00	90.00	94.82	7,780.00	-1,204.72	14,975.96	15,024.34	0.00	0.00	0.00	
23,500.00	90.00	94.82	7,780.00	-1,213.13	15,075.61	15,124.34	0.00	0.00	0.00	
23,600.00	90.00	94.82	7,780.00	-1,221.54	15,175.25	15,224.34	0.00	0.00	0.00	
23,669.75	90.00	94.82	7,780.00	-1,227.40	15,244.76	15,294.09	0.00	0.00	0.00	
TD at 23669.75										

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LP-PROSPER FARMS 4 - plan hits target center - Point	0.00	0.00	7,780.00	-477.55	-224.17	1,691,261.23	3,242,014.51	39.728169°N	104.639551°W
MID-PROSPER FARMS - plan hits target center - Point	0.00	0.00	7,780.00	-568.27	7,346.24	1,691,242.28	3,249,585.41	39.727917°N	104.612636°W
PBHL-PROSPER FARM - plan hits target center - Point	0.00	0.00	7,780.00	-1,227.40	15,244.76	1,690,658.06	3,257,489.79	39.726098°N	104.584556°W

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well PROSPER FARMS 4-65 2-1-6 3CH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5656.71usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5656.71usft
Site:	SEC 2-T4S-R65W	North Reference:	True
Well:	PROSPER FARMS 4-65 2-1-6 3CH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
24.00	24.00	Denver				
664.00	664.00	Arapahoe				
1,241.75	1,239.00	Laramie-Fox Hills Formation				
1,949.00	1,939.00	Pierre Formation				
2,413.77	2,399.00	Upper Pierre aquifer				
3,090.71	3,069.00	Base of Upper Pierre aquifer				
4,197.05	4,164.00	Larimer ("Parkman") sandstone				
4,313.24	4,279.00	Pierre Formation				
5,333.71	5,289.00	Terry ("Sussex") sandstone				
5,444.84	5,399.00	Pierre Formation				
6,071.27	6,019.00	Hygiene ("Shannon") sandstone				
6,475.41	6,419.00	Pierre Formation				
7,690.11	7,589.00	Sharon Springs Member				
7,792.92	7,659.00	Niobrara Formation				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
700.00	700.00	0.00	0.00	Start Build 2.00	
1,110.59	1,109.19	-13.91	-25.87	Start 6090.26 hold at 1110.59 MD	
7,200.85	7,137.00	-425.82	-792.06	Start DLS 10.00 TFO -150.80	
8,172.65	7,780.00	-477.55	-224.17	Start 7570.96 hold at 8172.65 MD	
15,743.60	7,780.00	-568.27	7,346.24	Start DLS 2.00 TFO 90.00	
15,950.49	7,780.00	-578.21	7,552.84	Start 7719.27 hold at 15950.49 MD	
23,669.75	7,780.00	-1,227.40	15,244.76	TD at 23669.75	