

CRESTONE PEAK RESOURCES

ARAPAHOE COUNTY

SEC 17-T4S-R65W

EASTERN HILLS 4-65 17-18 3FH

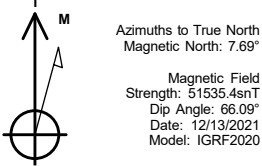
OWB

Plan: PROPOSAL 1

Standard Planning Report

14 December, 2021

Project: ARAPAHOE COUNTY
Site: SEC 17-T4S-R65W
Well: EASTERN HILLS 4-65 17-18 3FH
Wellbore: OWB
Design: PROPOSAL 1



WELL DETAILS: EASTERN HILLS 4-65 17-18 3FH

ANNOTATIONS

+N/-S	+E/-W	Northing	Easting	5641.00	Latitude	Longitude	Slot
0.00	0.00	1680888.44	3230480.72	39.699987°N	104.680888°W		

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	Start Build 2.00
1505.27	8.11	71.07	1503.92	9.28	27.07	-26.86	28.62	Start 5855.97 hold at 1505.27 MD
7361.24	8.11	71.07	7301.39	277.11	808.08	-801.94	854.27	Start DLS 10.00 TFO -160.77
8337.82	90.00	270.13	7950.00	308.54	240.30	-233.62	1436.87	Start 16306.38 hold at 8337.82 MD
24644.20	90.00	270.13	7950.00	344.91	-16066.04	16069.74	17743.25	TD at 24644.20

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	1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00	
3	1505.27	8.11	71.07	1503.92	9.28	27.07	2.00	71.07	-26.86	
4	7361.24	8.11	71.07	7301.39	277.11	808.08	0.00	0.00	-801.94	
5	8337.82	90.00	270.13	7950.00	308.54	240.30	10.00	-160.77	-233.62	EASTERN EASTERN
6	24644.20	90.00	270.13	7950.00	344.91	-16066.04	0.00	0.00	16069.74	

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape Point
EASTERN HILLS 4-65 3FH-LP	7950.00	308.54	240.30	1681199.13	3230718.23	39.700834°N	104.680034°W	Point
- plan hits target center								
EASTERN HILLS 4-65 3FH-PBHL	7950.00	344.91	-16066.04	1681088.48	3214412.38	39.700920°N	104.737985°W	Point
- plan hits target center								

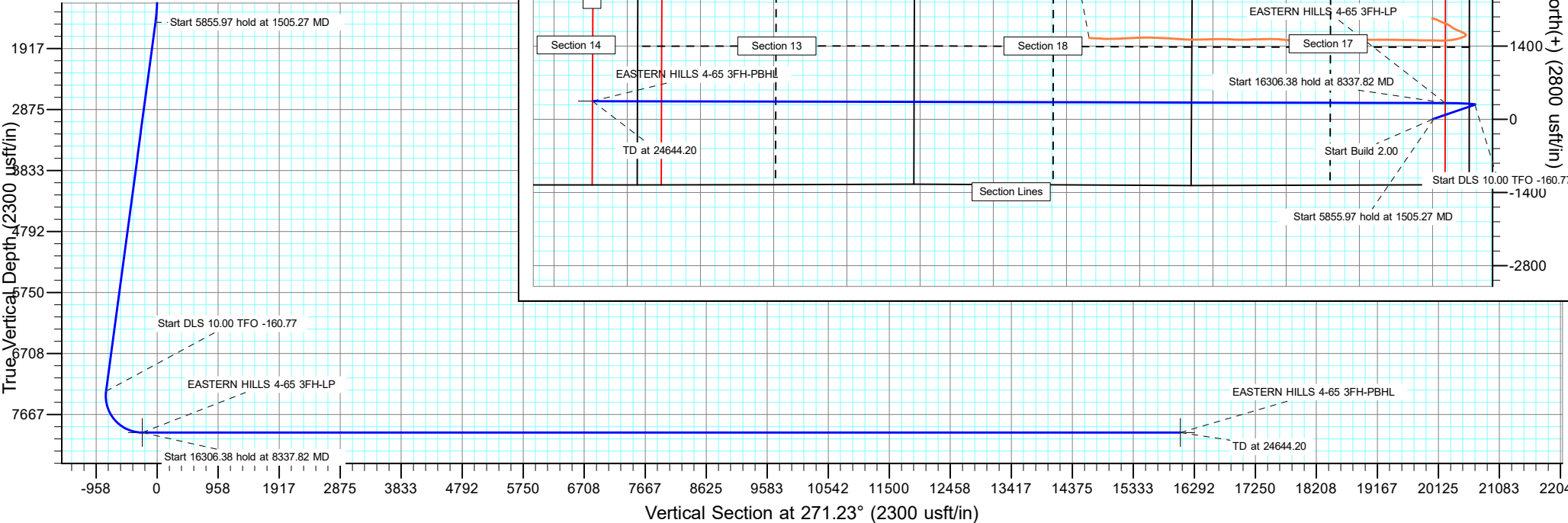
PROJECT DETAILS: ARAPAHOE COUNTY

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

SHL:
1255' FSL, 700' FEL
Sec 17-T4S-R65W

LP:
1563' FSL, 460' FEL
Sec 17-T4S-R65W

BHL:
1604' FSL, 860' FEL
Sec 14-T4S-R66W



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5666.00usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5666.00usft
Site:	SEC 17-T4S-R65W	North Reference:	True
Well:	EASTERN HILLS 4-65 17-18 3FH	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 17-T4S-R65W			
Site Position:		Northing:	1,679,642.82 usft	Latitude:	39.696550°N
From:	Lat/Long	Easting:	3,231,189.85 usft	Longitude:	104.678408°W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.52 °

Well	EASTERN HILLS 4-65 17-18 3FH					
Well Position	+N/-S	1,251.99 usft	Northing:	1,680,888.44 usft	Latitude:	39.699987°N
	+E/-W	-697.84 usft	Easting:	3,230,480.73 usft	Longitude:	104.680888°W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,641.00 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	12/13/2021	7.69	66.09	51,535.43668435

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	271.23

Plan Survey Tool Program	Date	12/14/2021		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	24,644.20	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	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,505.27	8.11	71.07	1,503.92	9.28	27.07	2.00	2.00	0.00	71.07	
7,361.24	8.11	71.07	7,301.39	277.11	808.08	0.00	0.00	0.00	0.00	
8,337.82	90.00	270.13	7,950.00	308.54	240.30	10.00	8.39	-16.48	-160.77	EASTERN HILLS 4-6
24,644.20	90.00	270.13	7,950.00	344.91	-16,066.04	0.00	0.00	0.00	0.00	EASTERN HILLS 4-6

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5666.00usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5666.00usft
Site:	SEC 17-T4S-R65W	North Reference:	True
Well:	EASTERN HILLS 4-65 17-18 3FH	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
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
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,200.00	2.00	71.07	1,199.98	0.57	1.65	-1.64	2.00	2.00	0.00
1,300.00	4.00	71.07	1,299.84	2.26	6.60	-6.55	2.00	2.00	0.00
1,400.00	6.00	71.07	1,399.45	5.09	14.85	-14.73	2.00	2.00	0.00
1,505.27	8.11	71.07	1,503.92	9.28	27.07	-26.86	2.00	2.00	0.00
Start 5855.97 hold at 1505.27 MD									
1,600.00	8.11	71.07	1,597.70	13.62	39.70	-39.40	0.00	0.00	0.00
1,700.00	8.11	71.07	1,696.70	18.19	53.04	-52.64	0.00	0.00	0.00
1,800.00	8.11	71.07	1,795.71	22.76	66.38	-65.87	0.00	0.00	0.00
1,900.00	8.11	71.07	1,894.71	27.34	79.72	-79.11	0.00	0.00	0.00
2,000.00	8.11	71.07	1,993.71	31.91	93.05	-92.35	0.00	0.00	0.00
2,100.00	8.11	71.07	2,092.71	36.48	106.39	-105.58	0.00	0.00	0.00
2,200.00	8.11	71.07	2,191.71	41.06	119.73	-118.82	0.00	0.00	0.00
2,300.00	8.11	71.07	2,290.71	45.63	133.06	-132.05	0.00	0.00	0.00
2,400.00	8.11	71.07	2,389.71	50.21	146.40	-145.29	0.00	0.00	0.00
2,500.00	8.11	71.07	2,488.71	54.78	159.74	-158.52	0.00	0.00	0.00
2,600.00	8.11	71.07	2,587.71	59.35	173.07	-171.76	0.00	0.00	0.00
2,700.00	8.11	71.07	2,686.71	63.93	186.41	-185.00	0.00	0.00	0.00
2,800.00	8.11	71.07	2,785.72	68.50	199.75	-198.23	0.00	0.00	0.00
2,900.00	8.11	71.07	2,884.72	73.07	213.08	-211.47	0.00	0.00	0.00
3,000.00	8.11	71.07	2,983.72	77.65	226.42	-224.70	0.00	0.00	0.00
3,100.00	8.11	71.07	3,082.72	82.22	239.76	-237.94	0.00	0.00	0.00
3,200.00	8.11	71.07	3,181.72	86.79	253.10	-251.17	0.00	0.00	0.00
3,300.00	8.11	71.07	3,280.72	91.37	266.43	-264.41	0.00	0.00	0.00
3,400.00	8.11	71.07	3,379.72	95.94	279.77	-277.65	0.00	0.00	0.00
3,500.00	8.11	71.07	3,478.72	100.52	293.11	-290.88	0.00	0.00	0.00
3,600.00	8.11	71.07	3,577.72	105.09	306.44	-304.12	0.00	0.00	0.00
3,700.00	8.11	71.07	3,676.73	109.66	319.78	-317.35	0.00	0.00	0.00
3,800.00	8.11	71.07	3,775.73	114.24	333.12	-330.59	0.00	0.00	0.00
3,900.00	8.11	71.07	3,874.73	118.81	346.45	-343.82	0.00	0.00	0.00
4,000.00	8.11	71.07	3,973.73	123.38	359.79	-357.06	0.00	0.00	0.00
4,100.00	8.11	71.07	4,072.73	127.96	373.13	-370.30	0.00	0.00	0.00
4,200.00	8.11	71.07	4,171.73	132.53	386.47	-383.53	0.00	0.00	0.00
4,300.00	8.11	71.07	4,270.73	137.10	399.80	-396.77	0.00	0.00	0.00
4,400.00	8.11	71.07	4,369.73	141.68	413.14	-410.00	0.00	0.00	0.00
4,500.00	8.11	71.07	4,468.73	146.25	426.48	-423.24	0.00	0.00	0.00
4,600.00	8.11	71.07	4,567.73	150.83	439.81	-436.47	0.00	0.00	0.00
4,700.00	8.11	71.07	4,666.74	155.40	453.15	-449.71	0.00	0.00	0.00
4,800.00	8.11	71.07	4,765.74	159.97	466.49	-462.95	0.00	0.00	0.00
4,900.00	8.11	71.07	4,864.74	164.55	479.82	-476.18	0.00	0.00	0.00
5,000.00	8.11	71.07	4,963.74	169.12	493.16	-489.42	0.00	0.00	0.00

Planning Report

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Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5666.00usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5666.00usft
Site:	SEC 17-T4S-R65W	North Reference:	True
Well:	EASTERN HILLS 4-65 17-18 3FH	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)
5,100.00	8.11	71.07	5,062.74	173.69	506.50	-502.65	0.00	0.00	0.00
5,200.00	8.11	71.07	5,161.74	178.27	519.83	-515.89	0.00	0.00	0.00
5,300.00	8.11	71.07	5,260.74	182.84	533.17	-529.12	0.00	0.00	0.00
5,400.00	8.11	71.07	5,359.74	187.41	546.51	-542.36	0.00	0.00	0.00
5,500.00	8.11	71.07	5,458.74	191.99	559.85	-555.60	0.00	0.00	0.00
5,600.00	8.11	71.07	5,557.75	196.56	573.18	-568.83	0.00	0.00	0.00
5,700.00	8.11	71.07	5,656.75	201.14	586.52	-582.07	0.00	0.00	0.00
5,800.00	8.11	71.07	5,755.75	205.71	599.86	-595.30	0.00	0.00	0.00
5,900.00	8.11	71.07	5,854.75	210.28	613.19	-608.54	0.00	0.00	0.00
6,000.00	8.11	71.07	5,953.75	214.86	626.53	-621.77	0.00	0.00	0.00
6,100.00	8.11	71.07	6,052.75	219.43	639.87	-635.01	0.00	0.00	0.00
6,200.00	8.11	71.07	6,151.75	224.00	653.20	-648.25	0.00	0.00	0.00
6,300.00	8.11	71.07	6,250.75	228.58	666.54	-661.48	0.00	0.00	0.00
6,400.00	8.11	71.07	6,349.75	233.15	679.88	-674.72	0.00	0.00	0.00
6,500.00	8.11	71.07	6,448.75	237.72	693.21	-687.95	0.00	0.00	0.00
6,600.00	8.11	71.07	6,547.76	242.30	706.55	-701.19	0.00	0.00	0.00
6,700.00	8.11	71.07	6,646.76	246.87	719.89	-714.42	0.00	0.00	0.00
6,800.00	8.11	71.07	6,745.76	251.44	733.23	-727.66	0.00	0.00	0.00
6,900.00	8.11	71.07	6,844.76	256.02	746.56	-740.90	0.00	0.00	0.00
7,000.00	8.11	71.07	6,943.76	260.59	759.90	-754.13	0.00	0.00	0.00
7,100.00	8.11	71.07	7,042.76	265.17	773.24	-767.37	0.00	0.00	0.00
7,200.00	8.11	71.07	7,141.76	269.74	786.57	-780.60	0.00	0.00	0.00
7,300.00	8.11	71.07	7,240.76	274.31	799.91	-793.84	0.00	0.00	0.00
7,361.24	8.11	71.07	7,301.39	277.11	808.08	-801.94	0.00	0.00	0.00
Start DLS 10.00 TFO -160.77									
7,400.00	4.62	55.03	7,339.91	278.90	811.94	-805.77	10.00	-8.98	-41.37
7,450.00	2.93	335.53	7,389.83	281.22	813.07	-806.84	10.00	-3.39	-159.00
7,500.00	6.76	293.22	7,439.65	283.54	809.83	-803.56	10.00	7.67	-84.63
7,550.00	11.53	283.31	7,489.01	285.85	802.26	-795.94	10.00	9.53	-19.82
7,600.00	16.43	279.20	7,537.51	288.13	790.41	-784.05	10.00	9.81	-8.22
7,650.00	21.38	276.95	7,584.80	290.37	774.38	-767.97	10.00	9.89	-4.50
7,700.00	26.34	275.52	7,630.51	292.54	754.28	-747.82	10.00	9.93	-2.87
7,750.00	31.32	274.51	7,674.30	294.63	730.26	-723.77	10.00	9.95	-2.01
7,800.00	36.30	273.76	7,715.83	296.62	702.52	-695.99	10.00	9.96	-1.51
7,850.00	41.29	273.16	7,754.79	298.50	671.26	-664.70	10.00	9.97	-1.19
7,900.00	46.28	272.68	7,790.88	300.26	636.72	-630.13	10.00	9.98	-0.97
7,950.00	51.27	272.27	7,823.82	301.87	599.16	-592.55	10.00	9.98	-0.82
8,000.00	56.26	271.91	7,853.37	303.34	558.87	-552.23	10.00	9.98	-0.72
8,050.00	61.25	271.59	7,879.29	304.64	516.16	-509.50	10.00	9.99	-0.64
8,100.00	66.25	271.30	7,901.40	305.76	471.34	-464.67	10.00	9.99	-0.58
8,150.00	71.24	271.03	7,919.52	306.71	424.77	-418.09	10.00	9.99	-0.54
8,200.00	76.23	270.78	7,933.52	307.47	376.79	-370.11	10.00	9.99	-0.50
8,250.00	81.23	270.54	7,943.29	308.03	327.77	-321.09	10.00	9.99	-0.48
8,300.00	86.22	270.30	7,948.75	308.40	278.09	-271.41	10.00	9.99	-0.47
8,337.82	90.00	270.13	7,950.00	308.54	240.30	-233.62	10.00	9.99	-0.47
Start 16306.38 hold at 8337.82 MD									
8,400.00	90.00	270.13	7,950.00	308.68	178.12	-171.45	0.00	0.00	0.00
8,500.00	90.00	270.13	7,950.00	308.90	78.12	-71.47	0.00	0.00	0.00
8,600.00	90.00	270.13	7,950.00	309.12	-21.88	28.51	0.00	0.00	0.00
8,700.00	90.00	270.13	7,950.00	309.35	-121.88	128.49	0.00	0.00	0.00
8,800.00	90.00	270.13	7,950.00	309.57	-221.88	228.47	0.00	0.00	0.00
8,900.00	90.00	270.13	7,950.00	309.79	-321.88	328.45	0.00	0.00	0.00
9,000.00	90.00	270.13	7,950.00	310.02	-421.88	428.44	0.00	0.00	0.00
9,100.00	90.00	270.13	7,950.00	310.24	-521.88	528.42	0.00	0.00	0.00

Planning Report

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Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5666.00usft
Site:	SEC 17-T4S-R65W	North Reference:	True
Well:	EASTERN HILLS 4-65 17-18 3FH	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)	
9,200.00	90.00	270.13	7,950.00	310.46	-621.88	628.40	0.00	0.00	0.00	
9,300.00	90.00	270.13	7,950.00	310.69	-721.88	728.38	0.00	0.00	0.00	
9,400.00	90.00	270.13	7,950.00	310.91	-821.88	828.36	0.00	0.00	0.00	
9,500.00	90.00	270.13	7,950.00	311.13	-921.88	928.34	0.00	0.00	0.00	
9,600.00	90.00	270.13	7,950.00	311.36	-1,021.88	1,028.33	0.00	0.00	0.00	
9,700.00	90.00	270.13	7,950.00	311.58	-1,121.88	1,128.31	0.00	0.00	0.00	
9,800.00	90.00	270.13	7,950.00	311.80	-1,221.88	1,228.29	0.00	0.00	0.00	
9,900.00	90.00	270.13	7,950.00	312.02	-1,321.88	1,328.27	0.00	0.00	0.00	
10,000.00	90.00	270.13	7,950.00	312.25	-1,421.88	1,428.25	0.00	0.00	0.00	
10,100.00	90.00	270.13	7,950.00	312.47	-1,521.88	1,528.23	0.00	0.00	0.00	
10,200.00	90.00	270.13	7,950.00	312.69	-1,621.88	1,628.21	0.00	0.00	0.00	
10,300.00	90.00	270.13	7,950.00	312.92	-1,721.88	1,728.20	0.00	0.00	0.00	
10,400.00	90.00	270.13	7,950.00	313.14	-1,821.88	1,828.18	0.00	0.00	0.00	
10,500.00	90.00	270.13	7,950.00	313.36	-1,921.88	1,928.16	0.00	0.00	0.00	
10,600.00	90.00	270.13	7,950.00	313.59	-2,021.88	2,028.14	0.00	0.00	0.00	
10,700.00	90.00	270.13	7,950.00	313.81	-2,121.88	2,128.12	0.00	0.00	0.00	
10,800.00	90.00	270.13	7,950.00	314.03	-2,221.87	2,228.10	0.00	0.00	0.00	
10,900.00	90.00	270.13	7,950.00	314.26	-2,321.87	2,328.08	0.00	0.00	0.00	
11,000.00	90.00	270.13	7,950.00	314.48	-2,421.87	2,428.07	0.00	0.00	0.00	
11,100.00	90.00	270.13	7,950.00	314.70	-2,521.87	2,528.05	0.00	0.00	0.00	
11,200.00	90.00	270.13	7,950.00	314.92	-2,621.87	2,628.03	0.00	0.00	0.00	
11,300.00	90.00	270.13	7,950.00	315.15	-2,721.87	2,728.01	0.00	0.00	0.00	
11,400.00	90.00	270.13	7,950.00	315.37	-2,821.87	2,827.99	0.00	0.00	0.00	
11,500.00	90.00	270.13	7,950.00	315.59	-2,921.87	2,927.97	0.00	0.00	0.00	
11,600.00	90.00	270.13	7,950.00	315.82	-3,021.87	3,027.96	0.00	0.00	0.00	
11,700.00	90.00	270.13	7,950.00	316.04	-3,121.87	3,127.94	0.00	0.00	0.00	
11,800.00	90.00	270.13	7,950.00	316.26	-3,221.87	3,227.92	0.00	0.00	0.00	
11,900.00	90.00	270.13	7,950.00	316.49	-3,321.87	3,327.90	0.00	0.00	0.00	
12,000.00	90.00	270.13	7,950.00	316.71	-3,421.87	3,427.88	0.00	0.00	0.00	
12,100.00	90.00	270.13	7,950.00	316.93	-3,521.87	3,527.86	0.00	0.00	0.00	
12,200.00	90.00	270.13	7,950.00	317.16	-3,621.87	3,627.84	0.00	0.00	0.00	
12,300.00	90.00	270.13	7,950.00	317.38	-3,721.87	3,727.83	0.00	0.00	0.00	
12,400.00	90.00	270.13	7,950.00	317.60	-3,821.87	3,827.81	0.00	0.00	0.00	
12,500.00	90.00	270.13	7,950.00	317.82	-3,921.87	3,927.79	0.00	0.00	0.00	
12,600.00	90.00	270.13	7,950.00	318.05	-4,021.87	4,027.77	0.00	0.00	0.00	
12,700.00	90.00	270.13	7,950.00	318.27	-4,121.87	4,127.75	0.00	0.00	0.00	
12,800.00	90.00	270.13	7,950.00	318.49	-4,221.87	4,227.73	0.00	0.00	0.00	
12,900.00	90.00	270.13	7,950.00	318.72	-4,321.87	4,327.71	0.00	0.00	0.00	
13,000.00	90.00	270.13	7,950.00	318.94	-4,421.87	4,427.70	0.00	0.00	0.00	
13,100.00	90.00	270.13	7,950.00	319.16	-4,521.87	4,527.68	0.00	0.00	0.00	
13,200.00	90.00	270.13	7,950.00	319.39	-4,621.87	4,627.66	0.00	0.00	0.00	
13,300.00	90.00	270.13	7,950.00	319.61	-4,721.87	4,727.64	0.00	0.00	0.00	
13,400.00	90.00	270.13	7,950.00	319.83	-4,821.87	4,827.62	0.00	0.00	0.00	
13,500.00	90.00	270.13	7,950.00	320.06	-4,921.87	4,927.60	0.00	0.00	0.00	
13,600.00	90.00	270.13	7,950.00	320.28	-5,021.87	5,027.59	0.00	0.00	0.00	
13,700.00	90.00	270.13	7,950.00	320.50	-5,121.87	5,127.57	0.00	0.00	0.00	
13,800.00	90.00	270.13	7,950.00	320.72	-5,221.87	5,227.55	0.00	0.00	0.00	
13,900.00	90.00	270.13	7,950.00	320.95	-5,321.87	5,327.53	0.00	0.00	0.00	
14,000.00	90.00	270.13	7,950.00	321.17	-5,421.87	5,427.51	0.00	0.00	0.00	
14,100.00	90.00	270.13	7,950.00	321.39	-5,521.87	5,527.49	0.00	0.00	0.00	
14,200.00	90.00	270.13	7,950.00	321.62	-5,621.87	5,627.47	0.00	0.00	0.00	
14,300.00	90.00	270.13	7,950.00	321.84	-5,721.87	5,727.46	0.00	0.00	0.00	
14,400.00	90.00	270.13	7,950.00	322.06	-5,821.87	5,827.44	0.00	0.00	0.00	
14,500.00	90.00	270.13	7,950.00	322.29	-5,921.87	5,927.42	0.00	0.00	0.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5666.00usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5666.00usft
Site:	SEC 17-T4S-R65W	North Reference:	True
Well:	EASTERN HILLS 4-65 17-18 3FH	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)	
14,600.00	90.00	270.13	7,950.00	322.51	-6,021.87	6,027.40	0.00	0.00	0.00	
14,700.00	90.00	270.13	7,950.00	322.73	-6,121.87	6,127.38	0.00	0.00	0.00	
14,800.00	90.00	270.13	7,950.00	322.96	-6,221.87	6,227.36	0.00	0.00	0.00	
14,900.00	90.00	270.13	7,950.00	323.18	-6,321.86	6,327.35	0.00	0.00	0.00	
15,000.00	90.00	270.13	7,950.00	323.40	-6,421.86	6,427.33	0.00	0.00	0.00	
15,100.00	90.00	270.13	7,950.00	323.62	-6,521.86	6,527.31	0.00	0.00	0.00	
15,200.00	90.00	270.13	7,950.00	323.85	-6,621.86	6,627.29	0.00	0.00	0.00	
15,300.00	90.00	270.13	7,950.00	324.07	-6,721.86	6,727.27	0.00	0.00	0.00	
15,400.00	90.00	270.13	7,950.00	324.29	-6,821.86	6,827.25	0.00	0.00	0.00	
15,500.00	90.00	270.13	7,950.00	324.52	-6,921.86	6,927.23	0.00	0.00	0.00	
15,600.00	90.00	270.13	7,950.00	324.74	-7,021.86	7,027.22	0.00	0.00	0.00	
15,700.00	90.00	270.13	7,950.00	324.96	-7,121.86	7,127.20	0.00	0.00	0.00	
15,800.00	90.00	270.13	7,950.00	325.19	-7,221.86	7,227.18	0.00	0.00	0.00	
15,900.00	90.00	270.13	7,950.00	325.41	-7,321.86	7,327.16	0.00	0.00	0.00	
16,000.00	90.00	270.13	7,950.00	325.63	-7,421.86	7,427.14	0.00	0.00	0.00	
16,100.00	90.00	270.13	7,950.00	325.85	-7,521.86	7,527.12	0.00	0.00	0.00	
16,200.00	90.00	270.13	7,950.00	326.08	-7,621.86	7,627.10	0.00	0.00	0.00	
16,300.00	90.00	270.13	7,950.00	326.30	-7,721.86	7,727.09	0.00	0.00	0.00	
16,400.00	90.00	270.13	7,950.00	326.52	-7,821.86	7,827.07	0.00	0.00	0.00	
16,500.00	90.00	270.13	7,950.00	326.75	-7,921.86	7,927.05	0.00	0.00	0.00	
16,600.00	90.00	270.13	7,950.00	326.97	-8,021.86	8,027.03	0.00	0.00	0.00	
16,700.00	90.00	270.13	7,950.00	327.19	-8,121.86	8,127.01	0.00	0.00	0.00	
16,800.00	90.00	270.13	7,950.00	327.42	-8,221.86	8,226.99	0.00	0.00	0.00	
16,900.00	90.00	270.13	7,950.00	327.64	-8,321.86	8,326.98	0.00	0.00	0.00	
17,000.00	90.00	270.13	7,950.00	327.86	-8,421.86	8,426.96	0.00	0.00	0.00	
17,100.00	90.00	270.13	7,950.00	328.09	-8,521.86	8,526.94	0.00	0.00	0.00	
17,200.00	90.00	270.13	7,950.00	328.31	-8,621.86	8,626.92	0.00	0.00	0.00	
17,300.00	90.00	270.13	7,950.00	328.53	-8,721.86	8,726.90	0.00	0.00	0.00	
17,400.00	90.00	270.13	7,950.00	328.75	-8,821.86	8,826.88	0.00	0.00	0.00	
17,500.00	90.00	270.13	7,950.00	328.98	-8,921.86	8,926.86	0.00	0.00	0.00	
17,600.00	90.00	270.13	7,950.00	329.20	-9,021.86	9,026.85	0.00	0.00	0.00	
17,700.00	90.00	270.13	7,950.00	329.42	-9,121.86	9,126.83	0.00	0.00	0.00	
17,800.00	90.00	270.13	7,950.00	329.65	-9,221.86	9,226.81	0.00	0.00	0.00	
17,900.00	90.00	270.13	7,950.00	329.87	-9,321.86	9,326.79	0.00	0.00	0.00	
18,000.00	90.00	270.13	7,950.00	330.09	-9,421.86	9,426.77	0.00	0.00	0.00	
18,100.00	90.00	270.13	7,950.00	330.32	-9,521.86	9,526.75	0.00	0.00	0.00	
18,200.00	90.00	270.13	7,950.00	330.54	-9,621.86	9,626.73	0.00	0.00	0.00	
18,300.00	90.00	270.13	7,950.00	330.76	-9,721.86	9,726.72	0.00	0.00	0.00	
18,400.00	90.00	270.13	7,950.00	330.99	-9,821.86	9,826.70	0.00	0.00	0.00	
18,500.00	90.00	270.13	7,950.00	331.21	-9,921.86	9,926.68	0.00	0.00	0.00	
18,600.00	90.00	270.13	7,950.00	331.43	-10,021.86	10,026.66	0.00	0.00	0.00	
18,700.00	90.00	270.13	7,950.00	331.65	-10,121.86	10,126.64	0.00	0.00	0.00	
18,800.00	90.00	270.13	7,950.00	331.88	-10,221.86	10,226.62	0.00	0.00	0.00	
18,900.00	90.00	270.13	7,950.00	332.10	-10,321.86	10,326.61	0.00	0.00	0.00	
19,000.00	90.00	270.13	7,950.00	332.32	-10,421.85	10,426.59	0.00	0.00	0.00	
19,100.00	90.00	270.13	7,950.00	332.55	-10,521.85	10,526.57	0.00	0.00	0.00	
19,200.00	90.00	270.13	7,950.00	332.77	-10,621.85	10,626.55	0.00	0.00	0.00	
19,300.00	90.00	270.13	7,950.00	332.99	-10,721.85	10,726.53	0.00	0.00	0.00	
19,400.00	90.00	270.13	7,950.00	333.22	-10,821.85	10,826.51	0.00	0.00	0.00	
19,500.00	90.00	270.13	7,950.00	333.44	-10,921.85	10,926.49	0.00	0.00	0.00	
19,600.00	90.00	270.13	7,950.00	333.66	-11,021.85	11,026.48	0.00	0.00	0.00	
19,700.00	90.00	270.13	7,950.00	333.89	-11,121.85	11,126.46	0.00	0.00	0.00	
19,800.00	90.00	270.13	7,950.00	334.11	-11,221.85	11,226.44	0.00	0.00	0.00	
19,900.00	90.00	270.13	7,950.00	334.33	-11,321.85	11,326.42	0.00	0.00	0.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5666.00usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5666.00usft
Site:	SEC 17-T4S-R65W	North Reference:	True
Well:	EASTERN HILLS 4-65 17-18 3FH	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)	
20,000.00	90.00	270.13	7,950.00	334.55	-11,421.85	11,426.40	0.00	0.00	0.00	
20,100.00	90.00	270.13	7,950.00	334.78	-11,521.85	11,526.38	0.00	0.00	0.00	
20,200.00	90.00	270.13	7,950.00	335.00	-11,621.85	11,626.36	0.00	0.00	0.00	
20,300.00	90.00	270.13	7,950.00	335.22	-11,721.85	11,726.35	0.00	0.00	0.00	
20,400.00	90.00	270.13	7,950.00	335.45	-11,821.85	11,826.33	0.00	0.00	0.00	
20,500.00	90.00	270.13	7,950.00	335.67	-11,921.85	11,926.31	0.00	0.00	0.00	
20,600.00	90.00	270.13	7,950.00	335.89	-12,021.85	12,026.29	0.00	0.00	0.00	
20,700.00	90.00	270.13	7,950.00	336.12	-12,121.85	12,126.27	0.00	0.00	0.00	
20,800.00	90.00	270.13	7,950.00	336.34	-12,221.85	12,226.25	0.00	0.00	0.00	
20,900.00	90.00	270.13	7,950.00	336.56	-12,321.85	12,326.24	0.00	0.00	0.00	
21,000.00	90.00	270.13	7,950.00	336.79	-12,421.85	12,426.22	0.00	0.00	0.00	
21,100.00	90.00	270.13	7,950.00	337.01	-12,521.85	12,526.20	0.00	0.00	0.00	
21,200.00	90.00	270.13	7,950.00	337.23	-12,621.85	12,626.18	0.00	0.00	0.00	
21,300.00	90.00	270.13	7,950.00	337.45	-12,721.85	12,726.16	0.00	0.00	0.00	
21,400.00	90.00	270.13	7,950.00	337.68	-12,821.85	12,826.14	0.00	0.00	0.00	
21,500.00	90.00	270.13	7,950.00	337.90	-12,921.85	12,926.12	0.00	0.00	0.00	
21,600.00	90.00	270.13	7,950.00	338.12	-13,021.85	13,026.11	0.00	0.00	0.00	
21,700.00	90.00	270.13	7,950.00	338.35	-13,121.85	13,126.09	0.00	0.00	0.00	
21,800.00	90.00	270.13	7,950.00	338.57	-13,221.85	13,226.07	0.00	0.00	0.00	
21,900.00	90.00	270.13	7,950.00	338.79	-13,321.85	13,326.05	0.00	0.00	0.00	
22,000.00	90.00	270.13	7,950.00	339.02	-13,421.85	13,426.03	0.00	0.00	0.00	
22,100.00	90.00	270.13	7,950.00	339.24	-13,521.85	13,526.01	0.00	0.00	0.00	
22,200.00	90.00	270.13	7,950.00	339.46	-13,621.85	13,625.99	0.00	0.00	0.00	
22,300.00	90.00	270.13	7,950.00	339.69	-13,721.85	13,725.98	0.00	0.00	0.00	
22,400.00	90.00	270.13	7,950.00	339.91	-13,821.85	13,825.96	0.00	0.00	0.00	
22,500.00	90.00	270.13	7,950.00	340.13	-13,921.85	13,925.94	0.00	0.00	0.00	
22,600.00	90.00	270.13	7,950.00	340.35	-14,021.85	14,025.92	0.00	0.00	0.00	
22,700.00	90.00	270.13	7,950.00	340.58	-14,121.85	14,125.90	0.00	0.00	0.00	
22,800.00	90.00	270.13	7,950.00	340.80	-14,221.85	14,225.88	0.00	0.00	0.00	
22,900.00	90.00	270.13	7,950.00	341.02	-14,321.85	14,325.87	0.00	0.00	0.00	
23,000.00	90.00	270.13	7,950.00	341.25	-14,421.84	14,425.85	0.00	0.00	0.00	
23,100.00	90.00	270.13	7,950.00	341.47	-14,521.84	14,525.83	0.00	0.00	0.00	
23,200.00	90.00	270.13	7,950.00	341.69	-14,621.84	14,625.81	0.00	0.00	0.00	
23,300.00	90.00	270.13	7,950.00	341.92	-14,721.84	14,725.79	0.00	0.00	0.00	
23,400.00	90.00	270.13	7,950.00	342.14	-14,821.84	14,825.77	0.00	0.00	0.00	
23,500.00	90.00	270.13	7,950.00	342.36	-14,921.84	14,925.75	0.00	0.00	0.00	
23,600.00	90.00	270.13	7,950.00	342.59	-15,021.84	15,025.74	0.00	0.00	0.00	
23,700.00	90.00	270.13	7,950.00	342.81	-15,121.84	15,125.72	0.00	0.00	0.00	
23,800.00	90.00	270.13	7,950.00	343.03	-15,221.84	15,225.70	0.00	0.00	0.00	
23,900.00	90.00	270.13	7,950.00	343.25	-15,321.84	15,325.68	0.00	0.00	0.00	
24,000.00	90.00	270.13	7,950.00	343.48	-15,421.84	15,425.66	0.00	0.00	0.00	
24,100.00	90.00	270.13	7,950.00	343.70	-15,521.84	15,525.64	0.00	0.00	0.00	
24,200.00	90.00	270.13	7,950.00	343.92	-15,621.84	15,625.62	0.00	0.00	0.00	
24,300.00	90.00	270.13	7,950.00	344.15	-15,721.84	15,725.61	0.00	0.00	0.00	
24,400.00	90.00	270.13	7,950.00	344.37	-15,821.84	15,825.59	0.00	0.00	0.00	
24,500.00	90.00	270.13	7,950.00	344.59	-15,921.84	15,925.57	0.00	0.00	0.00	
24,600.00	90.00	270.13	7,950.00	344.82	-16,021.84	16,025.55	0.00	0.00	0.00	
24,644.20	90.00	270.13	7,950.00	344.91	-16,066.04	16,069.74	0.00	0.00	0.00	
TD at 24644.20										

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5666.00usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5666.00usft
Site:	SEC 17-T4S-R65W	North Reference:	True
Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
EASTERN HILLS 4-65 3	0.00	0.00	7,950.00	308.54	240.30	1,681,199.13	3,230,718.23	39.700834°N	104.680034°W
- plan hits target center									
- Point									
EASTERN HILLS 4-65 3	0.00	0.00	7,950.00	344.91	-16,066.04	1,681,088.48	3,214,412.38	39.700920°N	104.737985°W
- plan hits target center									
- Point									

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S	+E/-W	
		(usft)	(usft)	
1,100.00	1,100.00	0.00	0.00	Start Build 2.00
1,505.27	1,503.92	9.28	27.07	Start 5855.97 hold at 1505.27 MD
7,361.24	7,301.39	277.11	808.08	Start DLS 10.00 TFO -160.77
8,337.82	7,950.00	308.54	240.30	Start 16306.38 hold at 8337.82 MD
24,644.20	7,950.00	344.91	-16,066.04	TD at 24644.20

CRESTONE PEAK RESOURCES

**ARAPAHOE COUNTY
SEC 17-T4S-R65W
EASTERN HILLS 4-65 17-18 3FH**

**OWB
PROPOSAL 1**

Anticollision Report

14 December, 2021

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Reference	PROPOSAL 1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	12/13/2021		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	24,644.20	PROPOSAL 1 (OWB)	MWD OWSG	OWSG MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SEC 17-T4S-R65W						
EASTERN HILLS 4-65 17-18 1EH - OWB - PROPOSAL	100.00	98.00	124.94	124.67	469.406	CC, ES
EASTERN HILLS 4-65 17-18 1EH - OWB - PROPOSAL	23,500.00	23,966.07	3,210.01	2,380.04	3.868	SF
EASTERN HILLS 4-65 17-18 1FH - OWB - PROPOSAL	300.00	299.00	99.80	98.11	58.738	CC, ES
EASTERN HILLS 4-65 17-18 1FH - OWB - PROPOSAL	23,500.00	23,826.07	2,610.67	1,781.37	3.148	SF
EASTERN HILLS 4-65 17-18 2EH - OWB - PROPOSAL	500.00	499.00	75.04	71.91	23.951	CC, ES
EASTERN HILLS 4-65 17-18 2EH - OWB - PROPOSAL	23,400.00	23,577.30	2,007.43	1,180.61	2.428	SF
EASTERN HILLS 4-65 17-18 2FH - OWB - PROPOSAL	700.00	700.00	49.90	45.33	10.919	CC, ES
EASTERN HILLS 4-65 17-18 2FH - OWB - PROPOSAL	23,400.00	23,504.68	1,406.70	580.16	1.702	SF
EASTERN HILLS 4-65 17-18 3EH - OWB - PROPOSAL	900.00	900.00	24.77	18.77	4.125	CC
EASTERN HILLS 4-65 17-18 3EH - OWB - PROPOSAL	23,300.00	23,275.80	629.16	-189.75	0.768	Level 1, ES, SF
EASTERN HILLS 4-65 17-18 4CH - OWB - PROPOSAL	900.00	900.00	25.13	19.13	4.186	CC
EASTERN HILLS 4-65 17-18 4CH - OWB - PROPOSAL	24,644.20	24,567.54	624.50	-265.21	0.702	Level 1, ES, SF
EASTERN HILLS 4-65 17-18 4DH - OWB - PROPOSAL	700.00	700.00	50.27	45.70	10.999	CC, ES
EASTERN HILLS 4-65 17-18 4DH - OWB - PROPOSAL	23,326.11	23,371.77	1,234.54	409.47	1.496	Level 3, SF
EXIST HZ EASTERN HILLS 4-65 17-18 2DH - OWB - FI	10,823.17	10,540.40	1,143.60	985.60	7.238	CC
EXIST HZ EASTERN HILLS 4-65 17-18 2DH - OWB - FI	14,900.00	14,572.77	1,216.81	847.73	3.297	ES
EXIST HZ EASTERN HILLS 4-65 17-18 2DH - OWB - FI	15,200.00	14,838.23	1,233.15	849.59	3.215	SF

Offset Design	SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 1EH - OWB - PROPOSAL 1											Offset Site Error:	0.00 usft
Survey Program:	0-MWD OWSG											Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance				Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	2.00	-2.00	0.00	0.00	0.13	124.94	0.28	124.94				
100.00	100.00	98.00	98.00	0.13	0.13	0.13	124.94	0.28	124.94	124.67	0.27	469.406	CC, ES
200.00	200.00	194.00	193.98	0.49	0.47	0.30	126.43	0.67	126.50	125.52	0.97	130.076	
300.00	300.00	289.70	289.56	0.85	0.83	0.82	131.01	1.87	131.30	129.62	1.68	78.017	
400.00	400.00	384.98	384.52	1.21	1.18	1.60	138.64	3.87	139.35	136.96	2.39	58.300	
500.00	500.00	479.64	478.53	1.57	1.54	2.55	149.24	6.64	150.65	147.56	3.09	48.690	
600.00	600.00	573.47	571.32	1.93	1.93	3.57	162.71	10.16	165.19	161.40	3.79	43.550	
700.00	700.00	666.28	662.60	2.29	2.34	4.60	178.91	14.40	182.95	178.46	4.49	40.779	
800.00	800.00	757.91	752.14	2.64	2.77	5.58	197.71	19.31	203.87	198.70	5.17	39.418	
900.00	900.00	848.19	839.71	3.00	3.22	6.48	218.92	24.86	227.91	222.06	5.85	38.959	
1,000.00	1,000.00	936.97	925.11	3.36	3.69	7.29	242.38	31.00	255.00	248.48	6.52	39.126	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 1EH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
1,100.00	1,100.00	1,024.13	1,008.18	3.72	4.19	8.00	267.90	37.67	285.05	277.88	7.17	39.755		
1,200.00	1,199.98	1,109.83	1,089.05	4.07	4.71	-62.10	295.35	44.86	317.23	309.41	7.81	40.614		
1,300.00	1,299.84	1,194.28	1,167.87	4.42	5.25	-61.62	324.69	52.53	350.65	342.21	8.44	41.547		
1,400.00	1,399.45	1,277.42	1,244.55	4.78	5.82	-61.48	355.75	60.65	385.27	376.20	9.07	42.476		
1,505.27	1,503.92	1,363.46	1,322.90	5.16	6.44	-61.59	390.14	69.65	422.98	413.24	9.74	43.430		
1,600.00	1,597.70	1,444.21	1,395.52	5.52	7.05	-62.40	424.30	78.58	458.52	448.13	10.39	44.111		
1,700.00	1,696.70	1,536.50	1,478.34	5.90	7.76	-63.18	463.69	88.89	496.56	485.38	11.18	44.426		
1,800.00	1,795.71	1,628.78	1,561.16	6.29	8.47	-63.86	503.08	99.19	534.66	522.69	11.97	44.664		
1,900.00	1,894.71	1,721.07	1,643.98	6.68	9.19	-64.44	542.47	109.49	572.82	560.04	12.77	44.845		
2,000.00	1,993.71	1,813.35	1,726.79	7.08	9.92	-64.96	581.87	119.80	611.02	597.44	13.58	44.982		
2,100.00	2,092.71	1,905.64	1,809.61	7.48	10.65	-65.41	621.26	130.10	649.26	634.86	14.40	45.085		
2,200.00	2,191.71	2,002.08	1,892.43	7.89	11.41	-65.81	660.65	140.40	687.53	672.29	15.24	45.103		
2,300.00	2,290.71	2,109.79	1,975.24	8.29	12.27	-66.17	700.04	150.71	725.83	709.68	16.15	44.955		
2,400.00	2,389.71	2,182.50	2,058.06	8.70	12.85	-66.49	739.43	161.01	764.15	747.26	16.88	45.261		
2,500.00	2,488.71	2,274.78	2,140.88	9.11	13.58	-66.79	778.83	171.31	802.48	784.77	17.72	45.290		
2,600.00	2,587.71	2,367.07	2,223.69	9.52	14.32	-67.05	818.22	181.62	840.84	822.28	18.56	45.310		
2,700.00	2,686.71	2,459.35	2,306.51	9.94	15.06	-67.30	857.61	191.92	879.21	859.81	19.40	45.322		
2,800.00	2,785.72	2,551.64	2,389.33	10.35	15.80	-67.52	897.00	202.23	917.59	897.34	20.24	45.328		
2,900.00	2,884.72	2,643.92	2,472.15	10.77	16.54	-67.72	936.39	212.53	955.98	934.89	21.09	45.329		
3,000.00	2,983.72	2,736.21	2,554.96	11.18	17.28	-67.91	975.79	222.83	994.38	972.44	21.94	45.327		
3,100.00	3,082.72	2,828.49	2,637.78	11.60	18.02	-68.09	1,015.18	233.14	1,032.79	1,010.00	22.79	45.321		
3,200.00	3,181.72	2,920.78	2,720.60	12.02	18.76	-68.25	1,054.57	243.44	1,071.20	1,047.56	23.64	45.313		
3,300.00	3,280.72	3,013.06	2,803.41	12.44	19.50	-68.40	1,093.96	253.74	1,109.63	1,085.14	24.49	45.303		
3,400.00	3,379.72	3,105.35	2,886.23	12.86	20.24	-68.54	1,133.36	264.05	1,148.06	1,122.71	25.35	45.292		
3,500.00	3,478.72	3,197.63	2,969.05	13.28	20.99	-68.67	1,172.75	274.35	1,186.49	1,160.29	26.20	45.279		
3,600.00	3,577.72	3,289.92	3,051.86	13.70	21.73	-68.80	1,212.14	284.65	1,224.93	1,197.87	27.06	45.266		
3,700.00	3,676.73	3,382.20	3,134.68	14.12	22.47	-68.91	1,251.53	294.96	1,263.38	1,235.46	27.92	45.251		
3,800.00	3,775.73	3,474.49	3,217.50	14.54	23.22	-69.02	1,290.92	305.26	1,301.83	1,273.05	28.78	45.237		
3,900.00	3,874.73	3,566.77	3,300.32	14.96	23.96	-69.13	1,330.32	315.56	1,340.28	1,310.64	29.64	45.222		
4,000.00	3,973.73	3,659.06	3,383.13	15.39	24.70	-69.22	1,369.71	325.87	1,378.74	1,348.24	30.50	45.206		
4,100.00	4,072.73	3,751.34	3,465.95	15.81	25.45	-69.31	1,409.10	336.17	1,417.20	1,385.84	31.36	45.191		
4,200.00	4,171.73	3,843.63	3,548.77	16.23	26.19	-69.40	1,448.49	346.48	1,455.66	1,423.44	32.22	45.175		
4,300.00	4,270.73	3,935.91	3,631.58	16.65	26.94	-69.48	1,487.88	356.78	1,494.13	1,461.04	33.09	45.159		
4,400.00	4,369.73	4,028.20	3,714.40	17.08	27.68	-69.56	1,527.28	367.08	1,532.59	1,498.65	33.95	45.144		
4,500.00	4,468.73	4,120.48	3,797.22	17.50	28.43	-69.64	1,566.67	377.39	1,571.07	1,536.25	34.81	45.128		
4,600.00	4,567.73	4,212.77	3,880.03	17.93	29.17	-69.71	1,606.06	387.69	1,609.54	1,573.86	35.68	45.113		
4,700.00	4,666.74	4,305.05	3,962.85	18.35	29.92	-69.78	1,645.45	397.99	1,648.01	1,611.47	36.54	45.097		
4,800.00	4,765.74	4,402.66	4,045.67	18.77	30.71	-69.84	1,684.84	408.30	1,686.49	1,649.05	37.44	45.050		
4,900.00	4,864.74	4,489.62	4,128.48	19.20	31.41	-69.90	1,724.24	418.60	1,724.97	1,686.69	38.28	45.067		
5,000.00	4,963.74	4,581.91	4,211.30	19.62	32.15	-69.96	1,763.63	428.90	1,763.45	1,724.30	39.14	45.052		
5,100.00	5,062.74	4,674.19	4,294.12	20.05	32.90	-70.02	1,803.02	439.21	1,801.93	1,761.92	40.01	45.037		
5,200.00	5,161.74	4,766.48	4,376.94	20.47	33.64	-70.07	1,842.41	449.51	1,840.41	1,799.53	40.88	45.022		
5,300.00	5,260.74	4,858.76	4,459.75	20.90	34.39	-70.12	1,881.80	459.81	1,878.89	1,837.15	41.75	45.008		
5,400.00	5,359.74	4,951.05	4,542.57	21.32	35.14	-70.17	1,921.20	470.12	1,917.38	1,874.77	42.61	44.994		
5,500.00	5,458.74	5,043.34	4,625.39	21.75	35.88	-70.22	1,960.59	480.42	1,955.87	1,912.38	43.48	44.980		
5,600.00	5,557.75	5,135.62	4,708.20	22.17	36.63	-70.27	1,999.98	490.72	1,994.35	1,950.00	44.35	44.966		
5,700.00	5,656.75	5,227.91	4,791.02	22.60	37.37	-70.31	2,039.37	501.03	2,032.84	1,987.62	45.22	44.952		
5,800.00	5,755.75	5,320.19	4,873.84	23.03	38.12	-70.36	2,078.77	511.33	2,071.33	2,025.24	46.09	44.939		
5,900.00	5,854.75	5,412.48	4,956.65	23.45	38.87	-70.40	2,118.16	521.64	2,109.82	2,062.86	46.96	44.925		
6,000.00	5,953.75	5,504.76	5,039.47	23.88	39.61	-70.44	2,157.55	531.94	2,148.31	2,100.48	47.83	44.912		
6,100.00	6,052.75	5,602.95	5,122.29	24.30	40.41	-70.48	2,196.94	542.24	2,186.81	2,138.07	48.73	44.871		
6,200.00	6,151.75	5,689.33	5,205.11	24.73	41.10	-70.51	2,236.33	552.55	2,225.30	2,175.72	49.58	44.886		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 1EH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
6,300.00	6,250.75	5,781.62	5,287.92	25.16	41.85	-70.55	2,275.73	562.85	2,263.79	2,213.35	50.45	44.874		
6,400.00	6,349.75	5,873.90	5,370.74	25.58	42.60	-70.58	2,315.12	573.15	2,302.29	2,250.97	51.32	44.861		
6,500.00	6,448.75	5,966.19	5,453.56	26.01	43.34	-70.62	2,354.51	583.46	2,340.78	2,288.59	52.19	44.849		
6,600.00	6,547.76	6,058.47	5,536.37	26.43	44.09	-70.65	2,393.90	593.76	2,379.28	2,326.22	53.07	44.837		
6,700.00	6,646.76	6,150.76	5,619.19	26.86	44.84	-70.68	2,433.29	604.06	2,417.78	2,363.84	53.94	44.825		
6,800.00	6,745.76	6,243.04	5,702.01	27.29	45.58	-70.71	2,472.69	614.37	2,456.27	2,401.46	54.81	44.813		
6,900.00	6,844.76	6,335.33	5,784.82	27.71	46.33	-70.74	2,512.08	624.67	2,494.77	2,439.09	55.69	44.801		
7,000.00	6,943.76	6,427.61	5,867.64	28.14	47.07	-70.77	2,551.47	634.97	2,533.27	2,476.71	56.56	44.790		
7,100.00	7,042.76	6,519.90	5,950.46	28.57	47.82	-70.79	2,590.86	645.28	2,571.77	2,514.34	57.43	44.778		
7,200.00	7,141.76	6,612.18	6,033.27	28.99	48.57	-70.82	2,630.25	655.58	2,610.27	2,551.96	58.31	44.767		
7,300.00	7,240.76	6,704.47	6,116.09	29.42	49.31	-70.85	2,669.65	665.89	2,648.77	2,589.59	59.18	44.756		
7,361.24	7,301.39	6,760.98	6,166.81	29.68	49.77	-70.86	2,693.77	672.19	2,672.34	2,612.63	59.72	44.749		
7,400.00	7,339.91	6,796.74	6,198.90	29.84	50.06	-56.51	2,709.03	676.19	2,687.26	2,627.21	60.04	44.757		
7,450.00	7,389.83	6,842.65	6,240.10	30.01	50.43	20.92	2,728.63	681.31	2,706.38	2,645.97	60.41	44.803		
7,500.00	7,439.65	6,888.00	6,280.79	30.14	50.80	61.29	2,747.99	686.38	2,725.26	2,664.55	60.72	44.885		
7,550.00	7,489.01	6,932.43	6,320.66	30.25	51.16	69.39	2,766.95	691.34	2,743.81	2,682.84	60.98	44.997		
7,600.00	7,537.51	6,975.61	6,359.41	30.34	51.51	71.81	2,785.38	696.16	2,761.95	2,700.75	61.19	45.134		
7,650.00	7,584.80	7,017.21	6,396.75	30.41	51.84	72.50	2,803.14	700.80	2,779.60	2,718.23	61.37	45.294		
7,700.00	7,630.51	7,056.92	6,432.38	30.46	52.17	72.49	2,820.09	705.24	2,796.72	2,735.22	61.50	45.473		
7,750.00	7,674.30	7,105.58	6,466.04	30.50	52.56	72.15	2,836.10	709.42	2,813.29	2,751.63	61.66	45.626		
7,800.00	7,715.83	7,129.45	6,497.47	30.53	52.75	71.64	2,851.05	713.33	2,829.27	2,767.59	61.68	45.873		
7,850.00	7,754.79	7,161.72	6,526.43	30.56	53.01	71.04	2,864.82	716.94	2,844.65	2,782.93	61.73	46.084		
7,900.00	7,790.88	7,191.00	6,552.70	30.59	53.25	70.38	2,877.32	720.21	2,859.43	2,797.67	61.77	46.295		
7,950.00	7,823.82	7,217.05	6,576.09	30.63	53.46	69.69	2,888.45	723.12	2,873.60	2,811.80	61.80	46.500		
8,000.00	7,853.37	7,239.70	6,596.41	30.69	53.64	68.97	2,898.11	725.64	2,887.14	2,825.31	61.84	46.691		
8,050.00	7,879.29	7,258.75	6,613.51	30.77	53.80	68.23	2,906.24	727.77	2,900.05	2,838.17	61.88	46.862		
8,100.00	7,901.40	7,274.07	6,627.25	30.88	53.92	67.46	2,912.78	729.48	2,912.31	2,850.35	61.95	47.008		
8,150.00	7,919.52	7,285.53	6,637.54	31.03	54.02	66.66	2,917.68	730.76	2,923.89	2,861.84	62.05	47.123		
8,200.00	7,933.52	7,306.94	6,644.30	31.22	54.19	65.84	2,920.89	731.60	2,934.76	2,872.52	62.24	47.154		
8,250.00	7,943.29	7,303.40	6,647.47	31.46	54.16	65.00	2,922.40	732.00	2,944.87	2,882.51	62.36	47.226		
8,300.00	7,948.75	7,296.11	6,647.03	31.73	54.10	64.14	2,922.19	731.94	2,954.18	2,891.67	62.51	47.261		
8,337.82	7,950.00	7,306.93	6,644.30	31.96	54.19	63.49	2,920.89	731.60	2,960.64	2,897.91	62.73	47.197		
8,400.00	7,950.00	7,286.19	6,638.13	32.41	54.02	63.35	2,917.95	730.83	2,971.46	2,908.48	62.98	47.181		
8,500.00	7,950.00	7,275.12	6,628.19	33.29	53.93	63.14	2,913.23	729.60	2,991.46	2,927.79	63.67	46.983		
8,600.00	7,950.00	7,264.05	6,618.26	34.37	53.84	62.92	2,908.50	728.36	3,014.61	2,950.04	64.56	46.694		
8,700.00	7,950.00	7,252.98	6,608.33	35.63	53.75	62.71	2,903.78	727.13	3,040.82	2,975.20	65.62	46.341		
8,800.00	7,950.00	7,241.91	6,598.39	37.04	53.66	62.49	2,899.05	725.89	3,070.04	3,003.22	66.82	45.946		
8,900.00	7,950.00	7,230.84	6,588.46	38.59	53.57	62.28	2,894.33	724.65	3,102.16	3,034.03	68.13	45.532		
9,000.00	7,950.00	7,219.77	6,578.52	40.26	53.48	62.06	2,889.60	723.42	3,137.11	3,067.57	69.53	45.118		
9,100.00	7,950.00	7,208.70	6,568.59	42.03	53.39	61.84	2,884.88	722.18	3,174.78	3,103.78	71.00	44.717		
9,200.00	7,950.00	9,845.94	7,875.00	43.90	63.77	88.69	3,510.09	-613.74	3,200.47	3,108.06	92.41	34.634		
9,300.00	7,950.00	9,945.94	7,875.00	45.85	64.18	88.69	3,510.34	-713.73	3,200.50	3,104.40	96.10	33.304		
9,400.00	7,950.00	10,045.94	7,875.00	47.87	64.71	88.69	3,510.60	-813.73	3,200.53	3,100.59	99.94	32.024		
9,500.00	7,950.00	10,145.94	7,875.00	49.96	65.38	88.69	3,510.85	-913.73	3,200.56	3,096.64	103.92	30.798		
9,600.00	7,950.00	10,245.94	7,875.00	52.10	66.21	88.69	3,511.11	-1,013.73	3,200.59	3,092.57	108.02	29.629		
9,700.00	7,950.00	10,345.94	7,875.00	54.29	67.22	88.69	3,511.36	-1,113.73	3,200.63	3,088.39	112.23	28.518		
9,800.00	7,950.00	10,445.94	7,875.00	56.52	68.40	88.69	3,511.62	-1,213.73	3,200.66	3,084.12	116.54	27.465		
9,900.00	7,950.00	10,545.94	7,875.00	58.79	69.75	88.69	3,511.87	-1,313.73	3,200.69	3,079.76	120.93	26.467		
10,000.00	7,950.00	10,645.94	7,875.00	61.10	71.26	88.69	3,512.13	-1,413.73	3,200.72	3,075.32	125.40	25.525		
10,100.00	7,950.00	10,745.94	7,875.00	63.44	72.91	88.69	3,512.38	-1,513.73	3,200.75	3,070.82	129.93	24.634		
10,200.00	7,950.00	10,845.94	7,875.00	65.80	74.69	88.69	3,512.63	-1,613.73	3,200.78	3,066.25	134.53	23.792		
10,300.00	7,950.00	10,945.94	7,875.00	68.19	76.56	88.69	3,512.89	-1,713.73	3,200.81	3,061.63	139.19	22.996		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 1EH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.00	7,950.00	11,045.94	7,875.00	70.60	78.52	88.69	3,513.14	-1,813.73	3,200.85	3,056.95	143.89	22.244		
10,500.00	7,950.00	11,145.94	7,875.00	73.03	80.56	88.69	3,513.40	-1,913.73	3,200.88	3,052.23	148.65	21.533		
10,600.00	7,950.00	11,245.94	7,875.00	75.47	82.65	88.69	3,513.65	-2,013.73	3,200.91	3,047.47	153.44	20.861		
10,700.00	7,950.00	11,345.94	7,875.00	77.94	84.80	88.69	3,513.91	-2,113.73	3,200.94	3,042.67	158.27	20.224		
10,800.00	7,950.00	11,445.94	7,875.00	80.41	87.00	88.69	3,514.16	-2,213.73	3,200.97	3,037.84	163.14	19.621		
10,900.00	7,950.00	11,545.94	7,875.00	82.90	89.23	88.69	3,514.42	-2,313.73	3,201.00	3,032.97	168.03	19.050		
11,000.00	7,950.00	11,645.94	7,875.00	85.41	91.49	88.69	3,514.67	-2,413.73	3,201.03	3,028.08	172.96	18.507		
11,100.00	7,950.00	11,745.94	7,875.00	87.92	93.79	88.69	3,514.92	-2,513.73	3,201.07	3,023.15	177.91	17.992		
11,200.00	7,950.00	11,845.94	7,875.00	90.45	96.11	88.69	3,515.18	-2,613.73	3,201.10	3,018.21	182.89	17.503		
11,300.00	7,950.00	11,945.94	7,875.00	92.98	98.46	88.69	3,515.43	-2,713.73	3,201.13	3,013.24	187.89	17.038		
11,400.00	7,950.00	12,045.94	7,875.00	95.52	100.83	88.69	3,515.69	-2,813.73	3,201.16	3,008.25	192.91	16.594		
11,500.00	7,950.00	12,145.94	7,875.00	98.07	103.22	88.69	3,515.94	-2,913.73	3,201.19	3,003.25	197.94	16.172		
11,600.00	7,950.00	12,245.94	7,875.00	100.63	105.62	88.69	3,516.20	-3,013.73	3,201.22	2,998.22	203.00	15.769		
11,700.00	7,950.00	12,345.94	7,875.00	103.20	108.04	88.69	3,516.45	-3,113.73	3,201.25	2,993.18	208.07	15.385		
11,800.00	7,950.00	12,445.94	7,875.00	105.77	110.47	88.69	3,516.71	-3,213.73	3,201.29	2,988.12	213.16	15.018		
11,900.00	7,950.00	12,545.94	7,875.00	108.34	112.92	88.69	3,516.96	-3,313.73	3,201.32	2,983.05	218.26	14.667		
12,000.00	7,950.00	12,645.94	7,875.00	110.93	115.38	88.69	3,517.22	-3,413.73	3,201.35	2,977.97	223.38	14.331		
12,100.00	7,950.00	12,745.94	7,875.00	113.51	117.85	88.69	3,517.47	-3,513.73	3,201.38	2,972.87	228.51	14.010		
12,200.00	7,950.00	12,845.94	7,875.00	116.11	120.34	88.69	3,517.72	-3,613.73	3,201.41	2,967.77	233.64	13.702		
12,300.00	7,950.00	12,945.94	7,875.00	118.70	122.83	88.69	3,517.98	-3,713.73	3,201.44	2,962.65	238.79	13.407		
12,400.00	7,950.00	13,045.94	7,875.00	121.30	125.33	88.69	3,518.23	-3,813.72	3,201.48	2,957.52	243.95	13.123		
12,500.00	7,950.00	13,145.94	7,875.00	123.91	127.84	88.69	3,518.49	-3,913.72	3,201.51	2,952.38	249.12	12.851		
12,600.00	7,950.00	13,245.94	7,875.00	126.52	130.35	88.69	3,518.74	-4,013.72	3,201.54	2,947.24	254.30	12.590		
12,700.00	7,950.00	13,345.94	7,875.00	129.13	132.88	88.69	3,519.00	-4,113.72	3,201.57	2,942.08	259.49	12.338		
12,800.00	7,950.00	13,445.94	7,875.00	131.74	135.41	88.69	3,519.25	-4,213.72	3,201.60	2,936.92	264.68	12.096		
12,900.00	7,950.00	13,545.94	7,875.00	134.36	137.94	88.69	3,519.51	-4,313.72	3,201.63	2,931.75	269.88	11.863		
13,000.00	7,950.00	13,645.94	7,875.00	136.98	140.49	88.69	3,519.76	-4,413.72	3,201.66	2,926.57	275.09	11.639		
13,100.00	7,950.00	13,745.94	7,875.00	139.61	143.04	88.69	3,520.02	-4,513.72	3,201.70	2,921.39	280.31	11.422		
13,200.00	7,950.00	13,845.94	7,875.00	142.23	145.59	88.69	3,520.27	-4,613.72	3,201.73	2,916.20	285.53	11.213		
13,300.00	7,950.00	13,945.94	7,875.00	144.86	148.15	88.69	3,520.52	-4,713.72	3,201.76	2,911.00	290.76	11.012		
13,400.00	7,950.00	14,045.94	7,875.00	147.49	150.71	88.69	3,520.78	-4,813.72	3,201.79	2,905.80	295.99	10.817		
13,500.00	7,950.00	14,145.94	7,875.00	150.12	153.28	88.69	3,521.03	-4,913.72	3,201.82	2,900.59	301.23	10.629		
13,600.00	7,950.00	14,245.94	7,875.00	152.76	155.85	88.69	3,521.29	-5,013.72	3,201.85	2,895.38	306.47	10.448		
13,700.00	7,950.00	14,345.94	7,875.00	155.40	158.43	88.69	3,521.54	-5,113.72	3,201.88	2,890.17	311.72	10.272		
13,800.00	7,950.00	14,445.94	7,875.00	158.04	161.01	88.69	3,521.80	-5,213.72	3,201.92	2,884.94	316.97	10.102		
13,900.00	7,950.00	14,545.94	7,875.00	160.68	163.59	88.69	3,522.05	-5,313.72	3,201.95	2,879.72	322.23	9.937		
14,000.00	7,950.00	14,645.94	7,875.00	163.32	166.18	88.69	3,522.31	-5,413.72	3,201.98	2,874.49	327.49	9.777		
14,100.00	7,950.00	14,745.94	7,875.00	165.96	168.77	88.69	3,522.56	-5,513.72	3,202.01	2,869.26	332.75	9.623		
14,200.00	7,950.00	14,845.94	7,875.00	168.61	171.37	88.69	3,522.81	-5,613.72	3,202.04	2,864.02	338.02	9.473		
14,300.00	7,950.00	14,945.94	7,875.00	171.25	173.96	88.69	3,523.07	-5,713.72	3,202.07	2,858.78	343.29	9.327		
14,400.00	7,950.00	15,045.94	7,875.00	173.90	176.56	88.69	3,523.32	-5,813.72	3,202.10	2,853.53	348.57	9.186		
14,500.00	7,950.00	15,145.94	7,875.00	176.55	179.17	88.69	3,523.58	-5,913.72	3,202.14	2,848.29	353.85	9.049		
14,600.00	7,950.00	15,245.94	7,875.00	179.20	181.77	88.69	3,523.83	-6,013.72	3,202.17	2,843.04	359.13	8.916		
14,700.00	7,950.00	15,345.94	7,875.00	181.86	184.38	88.69	3,524.09	-6,113.72	3,202.20	2,837.78	364.41	8.787		
14,800.00	7,950.00	15,445.94	7,875.00	184.51	186.99	88.69	3,524.34	-6,213.72	3,202.23	2,832.53	369.70	8.662		
14,900.00	7,950.00	15,545.94	7,875.00	187.16	189.60	88.69	3,524.60	-6,313.72	3,202.26	2,827.27	374.99	8.540		
15,000.00	7,950.00	15,645.94	7,875.00	189.82	192.22	88.69	3,524.85	-6,413.72	3,202.29	2,822.01	380.29	8.421		
15,100.00	7,950.00	15,745.94	7,875.00	192.47	194.83	88.69	3,525.11	-6,513.72	3,202.32	2,816.74	385.58	8.305		
15,200.00	7,950.00	15,845.94	7,875.00	195.13	197.45	88.69	3,525.36	-6,613.72	3,202.36	2,811.48	390.88	8.193		
15,300.00	7,950.00	15,945.94	7,875.00	197.79	200.07	88.69	3,525.61	-6,713.72	3,202.39	2,806.21	396.18	8.083		
15,400.00	7,950.00	16,045.94	7,875.00	200.45	202.70	88.69	3,525.87	-6,813.72	3,202.42	2,800.94	401.48	7.977		
15,500.00	7,950.00	16,145.94	7,875.00	203.11	205.32	88.69	3,526.12	-6,913.71	3,202.45	2,795.66	406.79	7.873		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 1EH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,600.00	7,950.00	16,245.94	7,875.00	205.77	207.95	88.69	3,526.38	-7,013.71	3,202.48	2,790.39	412.09	7.771		
15,700.00	7,950.00	16,345.94	7,875.00	208.43	210.57	88.69	3,526.63	-7,113.71	3,202.51	2,785.11	417.40	7.673		
15,800.00	7,950.00	16,445.94	7,875.00	211.10	213.20	88.69	3,526.89	-7,213.71	3,202.54	2,779.83	422.71	7.576		
15,900.00	7,950.00	16,545.94	7,875.00	213.76	215.83	88.69	3,527.14	-7,313.71	3,202.58	2,774.55	428.02	7.482		
16,000.00	7,950.00	16,645.94	7,875.00	216.42	218.47	88.69	3,527.40	-7,413.71	3,202.61	2,769.27	433.34	7.391		
16,100.00	7,950.00	16,745.94	7,875.00	219.09	221.10	88.69	3,527.65	-7,513.71	3,202.64	2,763.99	438.65	7.301		
16,200.00	7,950.00	16,845.94	7,875.00	221.75	223.73	88.69	3,527.91	-7,613.71	3,202.67	2,758.70	443.97	7.214		
16,300.00	7,950.00	16,945.94	7,875.00	224.42	226.37	88.69	3,528.16	-7,713.71	3,202.70	2,753.41	449.29	7.128		
16,400.00	7,950.00	17,045.94	7,875.00	227.08	229.01	88.69	3,528.41	-7,813.71	3,202.73	2,748.12	454.61	7.045		
16,500.00	7,950.00	17,145.94	7,875.00	229.75	231.65	88.69	3,528.67	-7,913.71	3,202.76	2,742.83	459.93	6.964		
16,600.00	7,950.00	17,245.94	7,875.00	232.42	234.29	88.69	3,528.92	-8,013.71	3,202.80	2,737.54	465.25	6.884		
16,700.00	7,950.00	17,345.94	7,875.00	235.09	236.93	88.69	3,529.18	-8,113.71	3,202.83	2,732.25	470.58	6.806		
16,800.00	7,950.00	17,445.94	7,875.00	237.76	239.57	88.69	3,529.43	-8,213.71	3,202.86	2,726.95	475.90	6.730		
16,900.00	7,950.00	17,545.94	7,875.00	240.43	242.21	88.69	3,529.69	-8,313.71	3,202.89	2,721.66	481.23	6.656		
17,000.00	7,950.00	17,645.94	7,875.00	243.10	244.86	88.69	3,529.94	-8,413.71	3,202.92	2,716.36	486.56	6.583		
17,100.00	7,950.00	17,745.94	7,875.00	245.77	247.50	88.69	3,530.20	-8,513.71	3,202.95	2,711.06	491.89	6.512		
17,200.00	7,950.00	17,845.94	7,875.00	248.44	250.15	88.69	3,530.45	-8,613.71	3,202.98	2,705.76	497.22	6.442		
17,300.00	7,950.00	17,945.94	7,875.00	251.11	252.80	88.69	3,530.71	-8,713.71	3,203.02	2,700.46	502.55	6.373		
17,400.00	7,950.00	18,045.94	7,875.00	253.78	255.45	88.69	3,530.96	-8,813.71	3,203.05	2,695.16	507.89	6.307		
17,500.00	7,950.00	18,145.94	7,875.00	256.45	258.10	88.69	3,531.21	-8,913.71	3,203.08	2,689.86	513.22	6.241		
17,600.00	7,950.00	18,245.94	7,875.00	259.12	260.75	88.69	3,531.47	-9,013.71	3,203.11	2,684.56	518.55	6.177		
17,700.00	7,950.00	18,345.94	7,875.00	261.80	263.40	88.69	3,531.72	-9,113.71	3,203.14	2,679.25	523.89	6.114		
17,800.00	7,950.00	18,445.94	7,875.00	264.47	266.05	88.69	3,531.98	-9,213.71	3,203.17	2,673.95	529.23	6.053		
17,900.00	7,950.00	18,545.94	7,875.00	267.14	268.70	88.69	3,532.23	-9,313.71	3,203.20	2,668.64	534.56	5.992		
18,000.00	7,950.00	18,645.94	7,875.00	269.82	271.36	88.69	3,532.49	-9,413.71	3,203.24	2,663.33	539.90	5.933		
18,100.00	7,950.00	18,745.94	7,875.00	272.49	274.01	88.69	3,532.74	-9,513.71	3,203.27	2,658.02	545.24	5.875		
18,200.00	7,950.00	18,845.94	7,875.00	275.17	276.66	88.69	3,533.00	-9,613.71	3,203.30	2,652.71	550.58	5.818		
18,300.00	7,950.00	18,945.94	7,875.00	277.84	279.32	88.69	3,533.25	-9,713.71	3,203.33	2,647.40	555.92	5.762		
18,400.00	7,950.00	19,045.94	7,875.00	280.52	281.98	88.69	3,533.50	-9,813.71	3,203.36	2,642.09	561.27	5.707		
18,500.00	7,950.00	19,145.94	7,875.00	283.19	284.63	88.69	3,533.76	-9,913.70	3,203.39	2,636.78	566.61	5.654		
18,600.00	7,950.00	19,245.94	7,875.00	285.87	287.29	88.69	3,534.01	-10,013.70	3,203.42	2,631.47	571.95	5.601		
18,700.00	7,950.00	19,345.94	7,875.00	288.55	289.95	88.69	3,534.27	-10,113.70	3,203.46	2,626.16	577.30	5.549		
18,800.00	7,950.00	19,445.94	7,875.00	291.22	292.61	88.69	3,534.52	-10,213.70	3,203.49	2,620.84	582.64	5.498		
18,900.00	7,950.00	19,545.94	7,875.00	293.90	295.27	88.69	3,534.78	-10,313.70	3,203.52	2,615.53	587.99	5.448		
19,000.00	7,950.00	19,645.94	7,875.00	296.58	297.93	88.69	3,535.03	-10,413.70	3,203.55	2,610.21	593.34	5.399		
19,100.00	7,950.00	19,745.94	7,875.00	299.25	300.59	88.69	3,535.29	-10,513.70	3,203.58	2,604.90	598.68	5.351		
19,200.00	7,950.00	19,845.94	7,875.00	301.93	303.25	88.69	3,535.54	-10,613.70	3,203.61	2,599.58	604.03	5.304		
19,300.00	7,950.00	19,945.94	7,875.00	304.61	305.91	88.69	3,535.80	-10,713.70	3,203.64	2,594.27	609.38	5.257		
19,400.00	7,950.00	20,045.94	7,875.00	307.29	308.57	88.69	3,536.05	-10,813.70	3,203.68	2,588.95	614.73	5.212		
19,500.00	7,950.00	20,145.94	7,875.00	309.97	311.23	88.69	3,536.30	-10,913.70	3,203.71	2,583.63	620.08	5.167		
19,600.00	7,950.00	20,245.94	7,875.00	312.65	313.90	88.69	3,536.56	-11,013.70	3,203.74	2,578.31	625.43	5.122		
19,700.00	7,950.00	20,345.94	7,875.00	315.32	316.56	88.69	3,536.81	-11,113.70	3,203.77	2,572.99	630.78	5.079		
19,800.00	7,950.00	20,445.94	7,875.00	318.00	319.23	88.69	3,537.07	-11,213.70	3,203.80	2,567.67	636.13	5.036		
19,900.00	7,950.00	20,545.94	7,875.00	320.68	321.89	88.69	3,537.32	-11,313.70	3,203.83	2,562.35	641.48	4.994		
20,000.00	7,950.00	20,645.94	7,875.00	323.36	324.56	88.69	3,537.58	-11,413.70	3,203.86	2,557.03	646.83	4.953		
20,100.00	7,950.00	20,745.94	7,875.00	326.04	327.22	88.69	3,537.83	-11,513.70	3,203.90	2,551.71	652.19	4.913		
20,200.00	7,950.00	20,845.94	7,875.00	328.72	329.89	88.69	3,538.09	-11,613.70	3,203.93	2,546.39	657.54	4.873		
20,300.00	7,950.00	20,945.94	7,875.00	331.40	332.55	88.69	3,538.34	-11,713.70	3,203.96	2,541.07	662.89	4.833		
20,400.00	7,950.00	21,045.94	7,875.00	334.08	335.22	88.69	3,538.60	-11,813.70	3,203.99	2,535.74	668.25	4.795		
20,500.00	7,950.00	21,145.94	7,875.00	336.76	337.89	88.69	3,538.85	-11,913.70	3,204.02	2,530.42	673.60	4.757		
20,600.00	7,950.00	21,245.94	7,875.00	339.44	340.55	88.69	3,539.10	-12,013.70	3,204.05	2,525.10	678.96	4.719		
20,700.00	7,950.00	21,345.94	7,875.00	342.12	343.22	88.69	3,539.36	-12,113.70	3,204.08	2,519.77	684.31	4.682		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 1EH - OWB - PROPOSAL 1		Offset Site Error:		0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:		0.00 usft		
Reference		Offset		Semi Major Axis		Distance							Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor					
20,800.00	7,950.00	21,445.94	7,875.00	344.81	345.89	88.69	3,539.61	-12,213.70	3,204.12	2,514.45	689.67	4.646					
20,900.00	7,950.00	21,545.94	7,875.00	347.49	348.56	88.69	3,539.87	-12,313.70	3,204.15	2,509.12	695.03	4.610					
21,000.00	7,950.00	21,645.94	7,875.00	350.17	351.23	88.69	3,540.12	-12,413.70	3,204.18	2,503.80	700.38	4.575					
21,100.00	7,950.00	21,745.94	7,875.00	352.85	353.90	88.69	3,540.38	-12,513.70	3,204.21	2,498.47	705.74	4.540					
21,200.00	7,950.00	21,845.94	7,875.00	355.53	356.57	88.69	3,540.63	-12,613.70	3,204.24	2,493.14	711.10	4.506					
21,300.00	7,950.00	21,945.94	7,875.00	358.21	359.24	88.69	3,540.89	-12,713.70	3,204.27	2,487.82	716.46	4.472					
21,400.00	7,950.00	22,045.94	7,875.00	360.90	361.91	88.69	3,541.14	-12,813.70	3,204.30	2,482.49	721.81	4.439					
21,500.00	7,950.00	22,145.94	7,875.00	363.58	364.58	88.69	3,541.39	-12,913.70	3,204.34	2,477.16	727.17	4.407					
21,600.00	7,950.00	22,245.94	7,875.00	366.26	367.25	88.69	3,541.65	-13,013.69	3,204.37	2,471.84	732.53	4.374					
21,700.00	7,950.00	22,345.94	7,875.00	368.94	369.92	88.69	3,541.90	-13,113.69	3,204.40	2,466.51	737.89	4.343					
21,800.00	7,950.00	22,445.94	7,875.00	371.62	372.59	88.69	3,542.16	-13,213.69	3,204.43	2,461.18	743.25	4.311					
21,900.00	7,950.00	22,545.94	7,875.00	374.31	375.26	88.69	3,542.41	-13,313.69	3,204.46	2,455.85	748.61	4.281					
22,000.00	7,950.00	22,645.94	7,875.00	376.99	377.93	88.69	3,542.67	-13,413.69	3,204.49	2,450.52	753.97	4.250					
22,100.00	7,950.00	22,745.94	7,875.00	379.67	380.61	88.69	3,542.92	-13,513.69	3,204.52	2,445.19	759.33	4.220					
22,200.00	7,950.00	22,845.94	7,875.00	382.36	383.28	88.69	3,543.18	-13,613.69	3,204.56	2,439.86	764.69	4.191					
22,300.00	7,950.00	22,945.94	7,875.00	385.04	385.95	88.69	3,543.43	-13,713.69	3,204.59	2,434.53	770.06	4.162					
22,400.00	7,950.00	23,045.94	7,875.00	387.72	388.63	88.69	3,543.69	-13,813.69	3,204.62	2,429.20	775.42	4.133					
22,500.00	7,950.00	23,145.94	7,875.00	390.41	391.30	88.69	3,543.94	-13,913.69	3,204.65	2,423.87	780.78	4.104					
22,600.00	7,950.00	23,245.94	7,875.00	393.09	393.97	88.69	3,544.19	-14,013.69	3,204.68	2,418.54	786.14	4.076					
22,700.00	7,950.00	23,345.94	7,875.00	395.77	396.65	88.69	3,544.45	-14,113.69	3,204.71	2,413.21	791.50	4.049					
22,800.00	7,950.00	23,445.94	7,875.00	398.46	399.32	88.69	3,544.70	-14,213.69	3,204.74	2,407.88	796.87	4.022					
22,900.00	7,950.00	23,545.94	7,875.00	401.14	401.99	88.69	3,544.96	-14,313.69	3,204.78	2,402.55	802.23	3.995					
23,000.00	7,950.00	23,645.94	7,875.00	403.83	404.67	88.69	3,545.21	-14,413.69	3,204.81	2,397.21	807.59	3.968					
23,100.00	7,950.00	23,745.94	7,875.00	406.51	407.34	88.69	3,545.47	-14,513.69	3,204.84	2,391.88	812.96	3.942					
23,200.00	7,950.00	23,845.94	7,875.00	409.19	410.02	88.69	3,545.72	-14,613.69	3,204.87	2,386.55	818.32	3.916					
23,300.00	7,950.00	23,945.94	7,875.00	411.88	412.69	88.69	3,545.98	-14,713.69	3,204.90	2,381.22	823.69	3.891					
23,400.00	7,950.00	23,966.07	7,875.00	414.56	413.23	88.69	3,546.03	-14,733.82	3,205.93	2,378.53	827.39	3.875					
23,500.00	7,950.00	23,966.07	7,875.00	417.25	413.23	88.69	3,546.03	-14,733.82	3,210.01	2,380.04	829.97	3.868 SF					
23,600.00	7,950.00	23,966.07	7,875.00	419.93	413.23	88.69	3,546.03	-14,733.82	3,217.19	2,385.45	831.75	3.868					
23,700.00	7,950.00	23,966.07	7,875.00	422.62	413.23	88.69	3,546.03	-14,733.82	3,227.46	2,394.73	832.73	3.876					
23,800.00	7,950.00	23,966.07	7,875.00	425.30	413.23	88.69	3,546.03	-14,733.82	3,240.78	2,407.85	832.93	3.891					
23,900.00	7,950.00	23,966.07	7,875.00	427.99	413.23	88.69	3,546.03	-14,733.82	3,257.12	2,424.75	832.38	3.913					
24,000.00	7,950.00	23,966.07	7,875.00	430.67	413.23	88.69	3,546.03	-14,733.82	3,276.44	2,445.35	831.08	3.942					
24,100.00	7,950.00	23,966.07	7,875.00	433.36	413.23	88.69	3,546.03	-14,733.82	3,298.67	2,469.58	829.08	3.979					
24,200.00	7,950.00	23,966.07	7,875.00	436.04	413.23	88.69	3,546.03	-14,733.82	3,323.76	2,497.35	826.41	4.022					
24,300.00	7,950.00	23,966.07	7,875.00	438.73	413.23	88.69	3,546.03	-14,733.82	3,351.65	2,528.55	823.10	4.072					
24,400.00	7,950.00	23,966.07	7,875.00	441.41	413.23	88.69	3,546.03	-14,733.82	3,382.27	2,563.08	819.19	4.129					
24,500.00	7,950.00	23,966.07	7,875.00	444.10	413.23	88.69	3,546.03	-14,733.82	3,415.54	2,600.81	814.73	4.192					
24,600.00	7,950.00	23,966.07	7,875.00	446.78	413.23	88.69	3,546.03	-14,733.82	3,451.39	2,641.63	809.76	4.262					
24,644.20	7,950.00	23,966.07	7,875.00	447.97	413.23	88.69	3,546.03	-14,733.82	3,468.03	2,660.62	807.42	4.295					

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 1FH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	1.00	-1.00	0.00	0.00	0.00	99.80	0.00	99.80					
100.00	100.00	101.00	99.00	0.13	0.14	0.00	99.80	0.00	99.80	99.53	0.27	366.339		
200.00	200.00	201.00	199.00	0.49	0.50	0.00	99.80	0.00	99.80	98.82	0.99	100.876		
300.00	300.00	299.00	299.00	0.85	0.85	0.00	99.80	0.00	99.80	98.11	1.70	58.738 CC, ES		
400.00	400.00	395.78	395.76	1.21	1.20	0.27	101.33	0.48	101.38	98.98	2.41	42.126		
500.00	500.00	492.31	492.17	1.57	1.55	1.05	105.96	1.94	106.20	103.08	3.11	34.104		
600.00	600.00	588.41	587.92	1.93	1.90	2.20	113.64	4.37	114.26	110.44	3.82	29.930		
700.00	700.00	683.86	682.71	2.29	2.26	3.56	124.29	7.74	125.59	121.08	4.52	27.809		
800.00	800.00	778.46	776.24	2.64	2.64	4.98	137.81	12.01	140.20	134.99	5.21	26.919		
900.00	900.00	872.02	868.22	3.00	3.03	6.35	154.08	17.15	158.05	152.16	5.89	26.825		
1,000.00	1,000.00	964.35	958.42	3.36	3.45	7.61	172.93	23.11	179.12	172.56	6.57	27.276		
1,100.00	1,100.00	1,055.31	1,046.59	3.72	3.88	8.73	194.20	29.83	203.35	196.11	7.23	28.114		
1,200.00	1,199.98	1,144.99	1,132.79	4.07	4.35	-61.24	217.77	37.28	229.85	221.97	7.88	29.186		
1,300.00	1,299.84	1,233.57	1,217.13	4.42	4.83	-60.82	243.57	45.43	257.71	249.19	8.51	30.273		
1,400.00	1,399.45	1,320.96	1,299.48	4.78	5.35	-60.86	271.45	54.24	286.87	277.72	9.15	31.351		
1,505.27	1,503.92	1,411.60	1,383.92	5.16	5.91	-61.24	302.88	64.17	318.96	309.13	9.83	32.459		
1,600.00	1,597.70	1,500.65	1,464.95	5.52	6.50	-62.23	334.96	74.31	349.02	338.49	10.53	33.138		
1,700.00	1,696.70	1,606.02	1,552.33	5.90	7.21	-63.11	369.60	85.26	380.90	369.54	11.36	33.537		
1,800.00	1,795.71	1,688.61	1,639.71	6.29	7.77	-63.87	404.25	96.21	412.85	400.75	12.09	34.134		
1,900.00	1,894.71	1,783.24	1,727.09	6.68	8.42	-64.51	438.89	107.16	444.85	431.96	12.89	34.500		
2,000.00	1,993.71	1,877.87	1,814.46	7.08	9.08	-65.07	473.54	118.10	476.90	463.20	13.70	34.805		
2,100.00	2,092.71	1,972.50	1,901.84	7.48	9.74	-65.56	508.18	129.05	508.98	494.47	14.52	35.062		
2,200.00	2,191.71	2,067.13	1,989.22	7.89	10.40	-65.99	542.83	140.00	541.09	525.76	15.34	35.281		
2,300.00	2,290.71	2,161.76	2,076.59	8.29	11.07	-66.37	577.47	150.95	573.23	557.07	16.16	35.467		
2,400.00	2,389.71	2,256.39	2,163.97	8.70	11.74	-66.71	612.12	161.90	605.39	588.40	16.99	35.628		
2,500.00	2,488.71	2,351.02	2,251.35	9.11	12.41	-67.02	646.76	172.84	637.56	619.74	17.83	35.767		
2,600.00	2,587.71	2,445.65	2,338.72	9.52	13.08	-67.29	681.41	183.79	669.75	651.09	18.66	35.888		
2,700.00	2,686.71	2,540.28	2,426.10	9.94	13.76	-67.54	716.05	194.74	701.95	682.45	19.50	35.994		
2,800.00	2,785.72	2,634.91	2,513.48	10.35	14.43	-67.77	750.70	205.69	734.17	713.82	20.34	36.087		
2,900.00	2,884.72	2,729.54	2,600.85	10.77	15.11	-67.99	785.34	216.64	766.39	745.20	21.19	36.169		
3,000.00	2,983.72	2,824.17	2,688.23	11.18	15.79	-68.18	819.99	227.59	798.62	776.59	22.04	36.242		
3,100.00	3,082.72	2,918.80	2,775.61	11.60	16.47	-68.36	854.63	238.53	830.86	807.98	22.88	36.306		
3,200.00	3,181.72	3,013.43	2,862.98	12.02	17.15	-68.52	889.28	249.48	863.11	839.37	23.73	36.364		
3,300.00	3,280.72	3,108.06	2,950.36	12.44	17.83	-68.68	923.92	260.43	895.36	870.77	24.59	36.416		
3,400.00	3,379.72	3,202.69	3,037.74	12.86	18.51	-68.82	958.57	271.38	927.61	902.17	25.44	36.463		
3,500.00	3,478.72	3,297.32	3,125.11	13.28	19.19	-68.95	993.22	282.33	959.88	933.58	26.29	36.505		
3,600.00	3,577.72	3,408.05	3,212.49	13.70	19.98	-69.08	1,027.86	293.28	992.14	964.92	27.23	36.440		
3,700.00	3,676.73	3,486.58	3,299.87	14.12	20.55	-69.19	1,062.51	304.22	1,024.41	996.41	28.01	36.578		
3,800.00	3,775.73	3,581.21	3,387.24	14.54	21.23	-69.30	1,097.15	315.17	1,056.69	1,027.82	28.86	36.609		
3,900.00	3,874.73	3,675.84	3,474.62	14.96	21.91	-69.41	1,131.80	326.12	1,088.96	1,059.24	29.72	36.638		
4,000.00	3,973.73	3,770.47	3,562.00	15.39	22.60	-69.50	1,166.44	337.07	1,121.24	1,090.66	30.58	36.664		
4,100.00	4,072.73	3,865.10	3,649.38	15.81	23.28	-69.59	1,201.09	348.02	1,153.53	1,122.08	31.44	36.688		
4,200.00	4,171.73	3,959.73	3,736.75	16.23	23.96	-69.68	1,235.73	358.97	1,185.81	1,153.51	32.30	36.709		
4,300.00	4,270.73	4,054.36	3,824.13	16.65	24.65	-69.76	1,270.38	369.91	1,218.10	1,184.93	33.16	36.729		
4,400.00	4,369.73	4,148.99	3,911.51	17.08	25.33	-69.84	1,305.02	380.86	1,250.39	1,216.36	34.03	36.748		
4,500.00	4,468.73	4,243.62	3,998.88	17.50	26.01	-69.91	1,339.67	391.81	1,282.68	1,247.79	34.89	36.765		
4,600.00	4,567.73	4,338.25	4,086.26	17.93	26.70	-69.98	1,374.31	402.76	1,314.97	1,279.22	35.75	36.780		
4,700.00	4,666.74	4,432.88	4,173.64	18.35	27.38	-70.05	1,408.96	413.71	1,347.27	1,310.65	36.62	36.795		
4,800.00	4,765.74	4,527.51	4,261.01	18.77	28.07	-70.12	1,443.60	424.66	1,379.56	1,342.08	37.48	36.808		
4,900.00	4,864.74	4,622.14	4,348.39	19.20	28.75	-70.18	1,478.25	435.60	1,411.86	1,373.52	38.34	36.820		
5,000.00	4,963.74	4,716.77	4,435.77	19.62	29.44	-70.23	1,512.89	446.55	1,444.16	1,404.95	39.21	36.832		
5,100.00	5,062.74	4,811.40	4,523.14	20.05	30.12	-70.29	1,547.54	457.50	1,476.46	1,436.39	40.08	36.842		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 1FH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.00	5,161.74	4,906.03	4,610.52	20.47	30.81	-70.34	1,582.19	468.45	1,508.76	1,467.82	40.94	36.852		
5,300.00	5,260.74	5,000.66	4,697.90	20.90	31.49	-70.39	1,616.83	479.40	1,541.07	1,499.26	41.81	36.861		
5,400.00	5,359.74	5,104.71	4,785.27	21.32	32.24	-70.44	1,651.48	490.35	1,573.37	1,530.65	42.72	36.830		
5,500.00	5,458.74	5,189.92	4,872.65	21.75	32.86	-70.49	1,686.12	501.29	1,605.68	1,562.14	43.54	36.877		
5,600.00	5,557.75	5,284.55	4,960.03	22.17	33.55	-70.54	1,720.77	512.24	1,637.98	1,593.57	44.41	36.884		
5,700.00	5,656.75	5,379.18	5,047.40	22.60	34.23	-70.58	1,755.41	523.19	1,670.29	1,625.01	45.28	36.891		
5,800.00	5,755.75	5,473.81	5,134.78	23.03	34.92	-70.62	1,790.06	534.14	1,702.60	1,656.45	46.14	36.897		
5,900.00	5,854.75	5,568.44	5,222.16	23.45	35.60	-70.66	1,824.70	545.09	1,734.91	1,687.89	47.01	36.903		
6,000.00	5,953.75	5,663.07	5,309.53	23.88	36.29	-70.70	1,859.35	556.04	1,767.21	1,719.33	47.88	36.908		
6,100.00	6,052.75	5,757.70	5,396.91	24.30	36.97	-70.74	1,893.99	566.98	1,799.52	1,750.77	48.75	36.913		
6,200.00	6,151.75	5,852.33	5,484.29	24.73	37.66	-70.77	1,928.64	577.93	1,831.83	1,782.21	49.62	36.917		
6,300.00	6,250.75	5,946.96	5,571.67	25.16	38.34	-70.81	1,963.28	588.88	1,864.15	1,813.66	50.49	36.921		
6,400.00	6,349.75	6,041.59	5,659.04	25.58	39.03	-70.84	1,997.93	599.83	1,896.46	1,845.10	51.36	36.925		
6,500.00	6,448.75	6,136.22	5,746.42	26.01	39.72	-70.87	2,032.57	610.78	1,928.77	1,876.54	52.23	36.929		
6,600.00	6,547.76	6,230.85	5,833.80	26.43	40.40	-70.90	2,067.22	621.72	1,961.08	1,907.98	53.10	36.932		
6,700.00	6,646.76	6,325.48	5,921.17	26.86	41.09	-70.93	2,101.86	632.67	1,993.40	1,939.43	53.97	36.935		
6,800.00	6,745.76	6,420.11	6,008.55	27.29	41.77	-70.96	2,136.51	643.62	2,025.71	1,970.87	54.84	36.937		
6,900.00	6,844.76	6,514.74	6,095.93	27.71	42.46	-70.99	2,171.15	654.57	2,058.02	2,002.31	55.71	36.940		
7,000.00	6,943.76	6,609.37	6,183.30	28.14	43.15	-71.02	2,205.80	665.52	2,090.34	2,033.75	56.58	36.942		
7,100.00	7,042.76	6,704.00	6,270.68	28.57	43.83	-71.05	2,240.45	676.47	2,122.65	2,065.20	57.46	36.944		
7,200.00	7,141.76	6,801.37	6,358.06	28.99	44.54	-71.07	2,275.09	687.41	2,154.97	2,096.63	58.34	36.938		
7,300.00	7,240.76	6,906.74	6,445.43	29.42	45.30	-71.10	2,309.74	698.36	2,187.29	2,128.02	59.27	36.907		
7,361.24	7,301.39	6,951.21	6,498.94	29.68	45.62	-71.11	2,330.95	705.07	2,207.07	2,147.34	59.73	36.949		
7,400.00	7,339.91	6,987.88	6,532.80	29.84	45.89	-56.46	2,344.38	709.31	2,219.58	2,159.53	60.05	36.960		
7,450.00	7,389.83	7,034.95	6,576.26	30.01	46.23	21.37	2,361.61	714.76	2,235.61	2,175.20	60.41	37.005		
7,500.00	7,439.65	7,081.43	6,619.18	30.14	46.57	62.15	2,378.63	720.13	2,251.44	2,190.73	60.71	37.083		
7,550.00	7,489.01	7,126.98	6,661.23	30.25	46.90	70.66	2,395.30	725.40	2,266.99	2,206.03	60.96	37.187		
7,600.00	7,537.51	7,171.23	6,702.09	30.34	47.22	73.49	2,411.50	730.52	2,282.22	2,221.06	61.16	37.315		
7,650.00	7,584.80	7,213.86	6,741.45	30.41	47.53	74.58	2,427.11	735.45	2,297.11	2,235.80	61.32	37.463		
7,700.00	7,630.51	7,254.53	6,779.01	30.46	47.82	74.94	2,442.00	740.16	2,311.65	2,250.22	61.43	37.630		
7,750.00	7,674.30	7,307.05	6,814.49	30.50	48.21	74.96	2,456.07	744.60	2,325.85	2,264.28	61.58	37.773		
7,800.00	7,715.83	7,328.82	6,847.60	30.53	48.36	74.77	2,469.20	748.75	2,339.73	2,278.17	61.56	38.010		
7,850.00	7,754.79	7,361.86	6,878.11	30.56	48.60	74.46	2,481.30	752.58	2,353.30	2,291.72	61.58	38.214		
7,900.00	7,790.88	7,408.17	6,905.78	30.59	48.94	74.05	2,492.27	756.04	2,366.59	2,304.92	61.67	38.375		
7,950.00	7,823.82	7,418.49	6,930.40	30.63	49.01	73.56	2,502.03	759.13	2,379.64	2,318.04	61.60	38.629		
8,000.00	7,853.37	7,441.65	6,951.79	30.69	49.18	72.99	2,510.51	761.81	2,392.45	2,330.84	61.62	38.829		
8,050.00	7,879.29	7,461.12	6,969.77	30.77	49.32	72.33	2,517.64	764.06	2,405.05	2,343.40	61.64	39.015		
8,100.00	7,901.40	7,476.77	6,984.21	30.88	49.44	71.59	2,523.36	765.87	2,417.42	2,355.72	61.69	39.185		
8,150.00	7,919.52	7,488.46	6,995.01	31.03	49.52	70.76	2,527.64	767.22	2,429.55	2,367.78	61.77	39.332		
8,200.00	7,933.52	7,496.11	7,002.07	31.22	49.58	69.84	2,530.45	768.11	2,441.41	2,379.53	61.88	39.454		
8,250.00	7,943.29	7,500.34	7,005.35	31.46	49.61	68.85	2,531.75	768.52	2,452.96	2,390.94	62.02	39.548		
8,300.00	7,948.75	7,499.09	7,004.83	31.73	49.60	67.78	2,531.54	768.45	2,464.13	2,401.93	62.20	39.619		
8,337.82	7,950.00	7,504.07	7,001.90	31.96	49.63	66.92	2,530.38	768.09	2,472.27	2,409.89	62.38	39.631		
8,400.00	7,950.00	7,488.78	6,995.30	32.41	49.52	66.76	2,527.76	767.26	2,486.15	2,423.50	62.65	39.680		
8,500.00	7,950.00	7,477.29	6,984.70	33.29	49.44	66.49	2,523.56	765.93	2,511.51	2,448.17	63.33	39.656		
8,600.00	7,950.00	7,465.81	6,974.09	34.37	49.36	66.21	2,519.35	764.60	2,540.49	2,476.29	64.21	39.568		
8,700.00	7,950.00	7,454.32	6,963.48	35.63	49.27	65.94	2,515.14	763.27	2,572.99	2,507.75	65.24	39.441		
8,800.00	7,950.00	9,304.80	7,950.00	37.04	54.55	90.02	2,909.13	-215.20	2,599.57	2,521.67	77.90	33.370		
8,900.00	7,950.00	9,404.80	7,950.00	38.59	54.67	90.02	2,909.39	-315.20	2,599.61	2,518.79	80.82	32.166		
9,000.00	7,950.00	9,504.80	7,950.00	40.26	54.88	90.02	2,909.65	-415.20	2,599.64	2,515.66	83.98	30.955		
9,100.00	7,950.00	9,604.80	7,950.00	42.03	55.20	90.02	2,909.91	-515.20	2,599.67	2,512.31	87.36	29.758		
9,200.00	7,950.00	9,704.80	7,950.00	43.90	55.68	90.02	2,910.16	-615.20	2,599.71	2,508.78	90.93	28.590		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 1FH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,300.00	7,950.00	9,804.80	7,950.00	45.85	56.35	90.02	2,910.42	-715.20	2,599.74	2,505.07	94.67	27.460		
9,400.00	7,950.00	9,904.80	7,950.00	47.87	57.24	90.02	2,910.68	-815.20	2,599.78	2,501.21	98.57	26.376		
9,500.00	7,950.00	10,004.80	7,950.00	49.96	58.38	90.02	2,910.93	-915.20	2,599.81	2,497.21	102.60	25.340		
9,600.00	7,950.00	10,104.80	7,950.00	52.10	59.75	90.02	2,911.19	-1,015.20	2,599.84	2,493.10	106.74	24.356		
9,700.00	7,950.00	10,204.80	7,950.00	54.29	61.31	90.02	2,911.45	-1,115.20	2,599.88	2,488.88	111.00	23.423		
9,800.00	7,950.00	10,304.80	7,950.00	56.52	63.03	90.02	2,911.70	-1,215.20	2,599.91	2,484.56	115.35	22.540		
9,900.00	7,950.00	10,404.80	7,950.00	58.79	64.89	90.02	2,911.96	-1,315.20	2,599.94	2,480.17	119.78	21.706		
10,000.00	7,950.00	10,504.80	7,950.00	61.10	66.84	90.02	2,912.22	-1,415.20	2,599.98	2,475.69	124.29	20.919		
10,100.00	7,950.00	10,604.80	7,950.00	63.44	68.88	90.02	2,912.47	-1,515.20	2,600.01	2,471.15	128.86	20.177		
10,200.00	7,950.00	10,704.80	7,950.00	65.80	70.98	90.02	2,912.73	-1,615.20	2,600.05	2,466.55	133.49	19.477		
10,300.00	7,950.00	10,804.80	7,950.00	68.19	73.13	90.02	2,912.99	-1,715.20	2,600.08	2,461.90	138.18	18.816		
10,400.00	7,950.00	10,904.80	7,950.00	70.60	75.33	90.02	2,913.25	-1,815.20	2,600.11	2,457.19	142.92	18.193		
10,500.00	7,950.00	11,004.80	7,950.00	73.03	77.57	90.02	2,913.50	-1,915.20	2,600.15	2,452.45	147.70	17.604		
10,600.00	7,950.00	11,104.80	7,950.00	75.47	79.85	90.02	2,913.76	-2,015.20	2,600.18	2,447.66	152.52	17.048		
10,700.00	7,950.00	11,204.80	7,950.00	77.94	82.15	90.02	2,914.02	-2,115.19	2,600.22	2,442.83	157.38	16.522		
10,800.00	7,950.00	11,304.80	7,950.00	80.41	84.49	90.02	2,914.27	-2,215.19	2,600.25	2,437.98	162.27	16.024		
10,900.00	7,950.00	11,404.80	7,950.00	82.90	86.84	90.02	2,914.53	-2,315.19	2,600.28	2,433.09	167.20	15.552		
11,000.00	7,950.00	11,504.80	7,950.00	85.41	89.22	90.02	2,914.79	-2,415.19	2,600.32	2,428.17	172.15	15.105		
11,100.00	7,950.00	11,604.80	7,950.00	87.92	91.61	90.02	2,915.04	-2,515.19	2,600.35	2,423.23	177.12	14.681		
11,200.00	7,950.00	11,704.80	7,950.00	90.45	94.02	90.02	2,915.30	-2,615.19	2,600.38	2,418.27	182.12	14.279		
11,300.00	7,950.00	11,804.80	7,950.00	92.98	96.45	90.02	2,915.56	-2,715.19	2,600.42	2,413.28	187.14	13.896		
11,400.00	7,950.00	11,904.80	7,950.00	95.52	98.89	90.02	2,915.81	-2,815.19	2,600.45	2,408.28	192.18	13.532		
11,500.00	7,950.00	12,004.80	7,950.00	98.07	101.35	90.02	2,916.07	-2,915.19	2,600.49	2,403.25	197.23	13.185		
11,600.00	7,950.00	12,104.80	7,950.00	100.63	103.82	90.02	2,916.33	-3,015.19	2,600.52	2,398.21	202.31	12.854		
11,700.00	7,950.00	12,204.80	7,950.00	103.20	106.30	90.02	2,916.59	-3,115.19	2,600.55	2,393.16	207.40	12.539		
11,800.00	7,950.00	12,304.80	7,950.00	105.77	108.79	90.02	2,916.84	-3,215.19	2,600.59	2,388.09	212.50	12.238		
11,900.00	7,950.00	12,404.80	7,950.00	108.34	111.29	90.02	2,917.10	-3,315.19	2,600.62	2,383.00	217.62	11.950		
12,000.00	7,950.00	12,504.80	7,950.00	110.93	113.79	90.02	2,917.36	-3,415.19	2,600.66	2,377.91	222.75	11.675		
12,100.00	7,950.00	12,604.80	7,950.00	113.51	116.31	90.02	2,917.61	-3,515.19	2,600.69	2,372.80	227.89	11.412		
12,200.00	7,950.00	12,704.80	7,950.00	116.11	118.83	90.02	2,917.87	-3,615.19	2,600.72	2,367.68	233.04	11.160		
12,300.00	7,950.00	12,804.80	7,950.00	118.70	121.37	90.02	2,918.13	-3,715.19	2,600.76	2,362.55	238.21	10.918		
12,400.00	7,950.00	12,904.80	7,950.00	121.30	123.90	90.02	2,918.38	-3,815.19	2,600.79	2,357.41	243.38	10.686		
12,500.00	7,950.00	13,004.80	7,950.00	123.91	126.45	90.02	2,918.64	-3,915.19	2,600.82	2,352.26	248.56	10.463		
12,600.00	7,950.00	13,104.80	7,950.00	126.52	129.00	90.02	2,918.90	-4,015.19	2,600.86	2,347.11	253.75	10.250		
12,700.00	7,950.00	13,204.80	7,950.00	129.13	131.56	90.02	2,919.15	-4,115.19	2,600.89	2,341.94	258.95	10.044		
12,800.00	7,950.00	13,304.80	7,950.00	131.74	134.12	90.02	2,919.41	-4,215.19	2,600.93	2,336.77	264.16	9.846		
12,900.00	7,950.00	13,404.80	7,950.00	134.36	136.68	90.02	2,919.67	-4,315.19	2,600.96	2,331.59	269.37	9.656		
13,000.00	7,950.00	13,504.80	7,950.00	136.98	139.25	90.02	2,919.93	-4,415.19	2,600.99	2,326.41	274.59	9.472		
13,100.00	7,950.00	13,604.80	7,950.00	139.61	141.83	90.02	2,920.18	-4,515.19	2,601.03	2,321.22	279.81	9.296		
13,200.00	7,950.00	13,704.80	7,950.00	142.23	144.41	90.02	2,920.44	-4,615.19	2,601.06	2,316.02	285.04	9.125		
13,300.00	7,950.00	13,804.80	7,950.00	144.86	146.99	90.02	2,920.70	-4,715.19	2,601.10	2,310.82	290.28	8.961		
13,400.00	7,950.00	13,904.80	7,950.00	147.49	149.58	90.02	2,920.95	-4,815.19	2,601.13	2,305.61	295.52	8.802		
13,500.00	7,950.00	14,004.80	7,950.00	150.12	152.17	90.02	2,921.21	-4,915.19	2,601.16	2,300.39	300.77	8.648		
13,600.00	7,950.00	14,104.80	7,950.00	152.76	154.77	90.02	2,921.47	-5,015.19	2,601.20	2,295.18	306.02	8.500		
13,700.00	7,950.00	14,204.80	7,950.00	155.40	157.36	90.02	2,921.72	-5,115.18	2,601.23	2,289.95	311.28	8.357		
13,800.00	7,950.00	14,304.80	7,950.00	158.04	159.96	90.02	2,921.98	-5,215.18	2,601.27	2,284.73	316.54	8.218		
13,900.00	7,950.00	14,404.80	7,950.00	160.68	162.57	90.02	2,922.24	-5,315.18	2,601.30	2,279.50	321.80	8.083		
14,000.00	7,950.00	14,504.80	7,950.00	163.32	165.17	90.02	2,922.49	-5,415.18	2,601.33	2,274.26	327.07	7.953		
14,100.00	7,950.00	14,604.80	7,950.00	165.96	167.78	90.02	2,922.75	-5,515.18	2,601.37	2,269.02	332.34	7.827		
14,200.00	7,950.00	14,704.80	7,950.00	168.61	170.39	90.02	2,923.01	-5,615.18	2,601.40	2,263.78	337.62	7.705		
14,300.00	7,950.00	14,804.80	7,950.00	171.25	173.01	90.02	2,923.27	-5,715.18	2,601.43	2,258.53	342.90	7.587		
14,400.00	7,950.00	14,904.80	7,950.00	173.90	175.63	90.02	2,923.52	-5,815.18	2,601.47	2,253.29	348.18	7.472		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 1FH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,500.00	7,950.00	15,004.80	7,950.00	176.55	178.24	90.02	2,923.78	-5,915.18	2,601.50	2,248.03	353.47	7.360		
14,600.00	7,950.00	15,104.80	7,950.00	179.20	180.86	90.02	2,924.04	-6,015.18	2,601.54	2,242.78	358.76	7.252		
14,700.00	7,950.00	15,204.80	7,950.00	181.86	183.49	90.02	2,924.29	-6,115.18	2,601.57	2,237.52	364.05	7.146		
14,800.00	7,950.00	15,304.80	7,950.00	184.51	186.11	90.02	2,924.55	-6,215.18	2,601.60	2,232.26	369.34	7.044		
14,900.00	7,950.00	15,404.80	7,950.00	187.16	188.74	90.02	2,924.81	-6,315.18	2,601.64	2,227.00	374.64	6.944		
15,000.00	7,950.00	15,504.80	7,950.00	189.82	191.37	90.02	2,925.06	-6,415.18	2,601.67	2,221.73	379.94	6.848		
15,100.00	7,950.00	15,604.80	7,950.00	192.47	194.00	90.02	2,925.32	-6,515.18	2,601.71	2,216.47	385.24	6.753		
15,200.00	7,950.00	15,704.80	7,950.00	195.13	196.63	90.02	2,925.58	-6,615.18	2,601.74	2,211.20	390.54	6.662		
15,300.00	7,950.00	15,804.80	7,950.00	197.79	199.26	90.02	2,925.83	-6,715.18	2,601.77	2,205.92	395.85	6.573		
15,400.00	7,950.00	15,904.80	7,950.00	200.45	201.90	90.02	2,926.09	-6,815.18	2,601.81	2,200.65	401.16	6.486		
15,500.00	7,950.00	16,004.80	7,950.00	203.11	204.53	90.02	2,926.35	-6,915.18	2,601.84	2,195.37	406.47	6.401		
15,600.00	7,950.00	16,104.80	7,950.00	205.77	207.17	90.02	2,926.61	-7,015.18	2,601.87	2,190.10	411.78	6.319		
15,700.00	7,950.00	16,204.80	7,950.00	208.43	209.81	90.02	2,926.86	-7,115.18	2,601.91	2,184.82	417.09	6.238		
15,800.00	7,950.00	16,304.80	7,950.00	211.10	212.45	90.02	2,927.12	-7,215.18	2,601.94	2,179.53	422.41	6.160		
15,900.00	7,950.00	16,404.80	7,950.00	213.76	215.09	90.02	2,927.38	-7,315.18	2,601.98	2,174.25	427.72	6.083		
16,000.00	7,950.00	16,504.80	7,950.00	216.42	217.73	90.02	2,927.63	-7,415.18	2,602.01	2,168.97	433.04	6.009		
16,100.00	7,950.00	16,604.80	7,950.00	219.09	220.38	90.02	2,927.89	-7,515.18	2,602.04	2,163.68	438.36	5.936		
16,200.00	7,950.00	16,704.80	7,950.00	221.75	223.02	90.02	2,928.15	-7,615.18	2,602.08	2,158.39	443.69	5.865		
16,300.00	7,950.00	16,804.80	7,950.00	224.42	225.67	90.02	2,928.40	-7,715.18	2,602.11	2,153.10	449.01	5.795		
16,400.00	7,950.00	16,904.80	7,950.00	227.08	228.32	90.02	2,928.66	-7,815.18	2,602.15	2,147.81	454.33	5.727		
16,500.00	7,950.00	17,004.80	7,950.00	229.75	230.96	90.02	2,928.92	-7,915.18	2,602.18	2,142.52	459.66	5.661		
16,600.00	7,950.00	17,104.80	7,950.00	232.42	233.61	90.02	2,929.17	-8,015.18	2,602.21	2,137.22	464.99	5.596		
16,700.00	7,950.00	17,204.80	7,950.00	235.09	236.26	90.02	2,929.43	-8,115.17	2,602.25	2,131.93	470.32	5.533		
16,800.00	7,950.00	17,304.80	7,950.00	237.76	238.91	90.02	2,929.69	-8,215.17	2,602.28	2,126.63	475.65	5.471		
16,900.00	7,950.00	17,404.80	7,950.00	240.43	241.57	90.02	2,929.95	-8,315.17	2,602.31	2,121.34	480.98	5.410		
17,000.00	7,950.00	17,504.80	7,950.00	243.10	244.22	90.02	2,930.20	-8,415.17	2,602.35	2,116.04	486.31	5.351		
17,100.00	7,950.00	17,604.80	7,950.00	245.77	246.87	90.02	2,930.46	-8,515.17	2,602.38	2,110.74	491.64	5.293		
17,200.00	7,950.00	17,704.80	7,950.00	248.44	249.53	90.02	2,930.72	-8,615.17	2,602.42	2,105.44	496.98	5.236		
17,300.00	7,950.00	17,804.80	7,950.00	251.11	252.18	90.02	2,930.97	-8,715.17	2,602.45	2,100.13	502.32	5.181		
17,400.00	7,950.00	17,904.80	7,950.00	253.78	254.84	90.02	2,931.23	-8,815.17	2,602.48	2,094.83	507.65	5.127		
17,500.00	7,950.00	18,004.80	7,950.00	256.45	257.50	90.02	2,931.49	-8,915.17	2,602.52	2,089.53	512.99	5.073		
17,600.00	7,950.00	18,104.80	7,950.00	259.12	260.15	90.02	2,931.74	-9,015.17	2,602.55	2,084.22	518.33	5.021		
17,700.00	7,950.00	18,204.80	7,950.00	261.80	262.81	90.02	2,932.00	-9,115.17	2,602.59	2,078.92	523.67	4.970		
17,800.00	7,950.00	18,304.80	7,950.00	264.47	265.47	90.02	2,932.26	-9,215.17	2,602.62	2,073.61	529.01	4.920		
17,900.00	7,950.00	18,404.80	7,950.00	267.14	268.13	90.02	2,932.51	-9,315.17	2,602.65	2,068.30	534.35	4.871		
18,000.00	7,950.00	18,504.80	7,950.00	269.82	270.79	90.02	2,932.77	-9,415.17	2,602.69	2,062.99	539.69	4.823		
18,100.00	7,950.00	18,604.80	7,950.00	272.49	273.45	90.02	2,933.03	-9,515.17	2,602.72	2,057.68	545.04	4.775		
18,200.00	7,950.00	18,704.80	7,950.00	275.17	276.11	90.02	2,933.29	-9,615.17	2,602.75	2,052.37	550.38	4.729		
18,300.00	7,950.00	18,804.80	7,950.00	277.84	278.77	90.02	2,933.54	-9,715.17	2,602.79	2,047.06	555.72	4.684		
18,400.00	7,950.00	18,904.80	7,950.00	280.52	281.44	90.02	2,933.80	-9,815.17	2,602.82	2,041.75	561.07	4.639		
18,500.00	7,950.00	19,004.80	7,950.00	283.19	284.10	90.02	2,934.06	-9,915.17	2,602.86	2,036.44	566.42	4.595		
18,600.00	7,950.00	19,104.80	7,950.00	285.87	286.76	90.02	2,934.31	-10,015.17	2,602.89	2,031.13	571.76	4.552		
18,700.00	7,950.00	19,204.80	7,950.00	288.55	289.43	90.02	2,934.57	-10,115.17	2,602.92	2,025.81	577.11	4.510		
18,800.00	7,950.00	19,304.80	7,950.00	291.22	292.09	90.02	2,934.83	-10,215.17	2,602.96	2,020.50	582.46	4.469		
18,900.00	7,950.00	19,404.80	7,950.00	293.90	294.76	90.02	2,935.08	-10,315.17	2,602.99	2,015.18	587.81	4.428		
19,000.00	7,950.00	19,504.80	7,950.00	296.58	297.42	90.02	2,935.34	-10,415.17	2,603.03	2,009.87	593.16	4.388		
19,100.00	7,950.00	19,604.80	7,950.00	299.25	300.09	90.02	2,935.60	-10,515.17	2,603.06	2,004.55	598.51	4.349		
19,200.00	7,950.00	19,704.80	7,950.00	301.93	302.75	90.02	2,935.85	-10,615.17	2,603.09	1,999.23	603.86	4.311		
19,300.00	7,950.00	19,804.80	7,950.00	304.61	305.42	90.02	2,936.11	-10,715.17	2,603.13	1,993.92	609.21	4.273		
19,400.00	7,950.00	19,904.80	7,950.00	307.29	308.09	90.02	2,936.37	-10,815.17	2,603.16	1,988.60	614.56	4.236		
19,500.00	7,950.00	20,004.80	7,950.00	309.97	310.76	90.02	2,936.63	-10,915.17	2,603.19	1,983.28	619.91	4.199		
19,600.00	7,950.00	20,104.80	7,950.00	312.65	313.42	90.02	2,936.88	-11,015.16	2,603.23	1,977.96	625.27	4.163		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 1FH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
19,700.00	7,950.00	20,204.80	7,950.00	315.32	316.09	90.02	2,937.14	-11,115.16	2,603.26	1,972.64	630.62	4.128		
19,800.00	7,950.00	20,304.80	7,950.00	318.00	318.76	90.02	2,937.40	-11,215.16	2,603.30	1,967.32	635.98	4.093		
19,900.00	7,950.00	20,404.80	7,950.00	320.68	321.43	90.02	2,937.65	-11,315.16	2,603.33	1,962.00	641.33	4.059		
20,000.00	7,950.00	20,504.80	7,950.00	323.36	324.10	90.02	2,937.91	-11,415.16	2,603.36	1,956.68	646.68	4.026		
20,100.00	7,950.00	20,604.80	7,950.00	326.04	326.77	90.02	2,938.17	-11,515.16	2,603.40	1,951.36	652.04	3.993		
20,200.00	7,950.00	20,704.80	7,950.00	328.72	329.44	90.02	2,938.42	-11,615.16	2,603.43	1,946.04	657.40	3.960		
20,300.00	7,950.00	20,804.80	7,950.00	331.40	332.11	90.02	2,938.68	-11,715.16	2,603.47	1,940.71	662.75	3.928		
20,400.00	7,950.00	20,904.80	7,950.00	334.08	334.78	90.02	2,938.94	-11,815.16	2,603.50	1,935.39	668.11	3.897		
20,500.00	7,950.00	21,004.80	7,950.00	336.76	337.45	90.02	2,939.19	-11,915.16	2,603.53	1,930.07	673.47	3.866		
20,600.00	7,950.00	21,104.80	7,950.00	339.44	340.12	90.02	2,939.45	-12,015.16	2,603.57	1,924.74	678.83	3.835		
20,700.00	7,950.00	21,204.80	7,950.00	342.12	342.80	90.02	2,939.71	-12,115.16	2,603.60	1,919.42	684.18	3.805		
20,800.00	7,950.00	21,304.80	7,950.00	344.81	345.47	90.02	2,939.97	-12,215.16	2,603.63	1,914.09	689.54	3.776		
20,900.00	7,950.00	21,404.80	7,950.00	347.49	348.14	90.02	2,940.22	-12,315.16	2,603.67	1,908.77	694.90	3.747		
21,000.00	7,950.00	21,504.80	7,950.00	350.17	350.81	90.02	2,940.48	-12,415.16	2,603.70	1,903.44	700.26	3.718		
21,100.00	7,950.00	21,604.80	7,950.00	352.85	353.49	90.02	2,940.74	-12,515.16	2,603.74	1,898.12	705.62	3.690		
21,200.00	7,950.00	21,704.80	7,950.00	355.53	356.16	90.02	2,940.99	-12,615.16	2,603.77	1,892.79	710.98	3.662		
21,300.00	7,950.00	21,804.80	7,950.00	358.21	358.84	90.02	2,941.25	-12,715.16	2,603.80	1,887.46	716.34	3.635		
21,400.00	7,950.00	21,904.80	7,950.00	360.90	361.51	90.02	2,941.51	-12,815.16	2,603.84	1,882.14	721.70	3.608		
21,500.00	7,950.00	22,004.80	7,950.00	363.58	364.18	90.02	2,941.76	-12,915.16	2,603.87	1,876.81	727.06	3.581		
21,600.00	7,950.00	22,104.80	7,950.00	366.26	366.86	90.02	2,942.02	-13,015.16	2,603.91	1,871.48	732.42	3.555		
21,700.00	7,950.00	22,204.80	7,950.00	368.94	369.53	90.02	2,942.28	-13,115.16	2,603.94	1,866.15	737.79	3.529		
21,800.00	7,950.00	22,304.80	7,950.00	371.62	372.21	90.02	2,942.53	-13,215.16	2,603.97	1,860.82	743.15	3.504		
21,900.00	7,950.00	22,404.80	7,950.00	374.31	374.88	90.02	2,942.79	-13,315.16	2,604.01	1,855.50	748.51	3.479		
22,000.00	7,950.00	22,504.80	7,950.00	376.99	377.56	90.02	2,943.05	-13,415.16	2,604.04	1,850.17	753.87	3.454		
22,100.00	7,950.00	22,604.80	7,950.00	379.67	380.23	90.02	2,943.31	-13,515.16	2,604.07	1,844.84	759.24	3.430		
22,200.00	7,950.00	22,704.80	7,950.00	382.36	382.91	90.02	2,943.56	-13,615.16	2,604.11	1,839.51	764.60	3.406		
22,300.00	7,950.00	22,804.80	7,950.00	385.04	385.59	90.02	2,943.82	-13,715.16	2,604.14	1,834.18	769.96	3.382		
22,400.00	7,950.00	22,904.80	7,950.00	387.72	388.26	90.02	2,944.08	-13,815.16	2,604.18	1,828.85	775.33	3.359		
22,500.00	7,950.00	23,004.80	7,950.00	390.41	390.94	90.02	2,944.33	-13,915.16	2,604.21	1,823.52	780.69	3.336		
22,600.00	7,950.00	23,104.80	7,950.00	393.09	393.62	90.02	2,944.59	-14,015.15	2,604.24	1,818.19	786.06	3.313		
22,700.00	7,950.00	23,204.80	7,950.00	395.77	396.29	90.02	2,944.85	-14,115.15	2,604.28	1,812.86	791.42	3.291		
22,800.00	7,950.00	23,304.80	7,950.00	398.46	398.97	90.02	2,945.10	-14,215.15	2,604.31	1,807.52	796.79	3.269		
22,900.00	7,950.00	23,404.80	7,950.00	401.14	401.65	90.02	2,945.36	-14,315.15	2,604.35	1,802.19	802.15	3.247		
23,000.00	7,950.00	23,504.80	7,950.00	403.83	404.33	90.02	2,945.62	-14,415.15	2,604.38	1,796.86	807.52	3.225		
23,100.00	7,950.00	23,604.80	7,950.00	406.51	407.00	90.02	2,945.87	-14,515.15	2,604.41	1,791.53	812.88	3.204		
23,200.00	7,950.00	23,704.80	7,950.00	409.19	409.68	90.02	2,946.13	-14,615.15	2,604.45	1,786.20	818.25	3.183		
23,300.00	7,950.00	23,804.80	7,950.00	411.88	412.36	90.02	2,946.39	-14,715.15	2,604.48	1,780.87	823.62	3.162		
23,400.00	7,950.00	23,826.07	7,950.00	414.56	412.93	90.02	2,946.44	-14,736.42	2,605.70	1,778.47	827.23	3.150		
23,500.00	7,950.00	23,826.07	7,950.00	417.25	412.93	90.02	2,946.44	-14,736.42	2,610.67	1,781.37	829.30	3.148 SF		
23,600.00	7,950.00	23,826.07	7,950.00	419.93	412.93	90.02	2,946.44	-14,736.42	2,619.45	1,789.28	830.17	3.155		
23,700.00	7,950.00	23,826.07	7,950.00	422.62	412.93	90.02	2,946.44	-14,736.42	2,632.01	1,802.15	829.86	3.172		
23,800.00	7,950.00	23,826.07	7,950.00	425.30	412.93	90.02	2,946.44	-14,736.42	2,648.28	1,819.88	828.40	3.197		
23,900.00	7,950.00	23,826.07	7,950.00	427.99	412.93	90.02	2,946.44	-14,736.42	2,668.20	1,842.37	825.84	3.231		
24,000.00	7,950.00	23,826.07	7,950.00	430.67	412.93	90.02	2,946.44	-14,736.42	2,691.70	1,869.46	822.24	3.274		
24,100.00	7,950.00	23,826.07	7,950.00	433.36	412.93	90.02	2,946.44	-14,736.42	2,718.67	1,901.00	817.67	3.325		
24,200.00	7,950.00	23,826.07	7,950.00	436.04	412.93	90.02	2,946.44	-14,736.42	2,749.02	1,936.81	812.21	3.385		
24,300.00	7,950.00	23,826.07	7,950.00	438.73	412.93	90.02	2,946.44	-14,736.42	2,782.63	1,976.69	805.93	3.453		
24,400.00	7,950.00	23,826.07	7,950.00	441.41	412.93	90.02	2,946.44	-14,736.42	2,819.38	2,020.45	798.93	3.529		
24,500.00	7,950.00	23,826.07	7,950.00	444.10	412.93	90.02	2,946.44	-14,736.42	2,859.17	2,067.89	791.28	3.613		
24,600.00	7,950.00	23,826.07	7,950.00	446.78	412.93	90.02	2,946.44	-14,736.42	2,901.86	2,118.78	783.07	3.706		
24,644.20	7,950.00	23,826.07	7,950.00	447.97	412.93	90.02	2,946.44	-14,736.42	2,921.62	2,142.33	779.29	3.749		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 2EH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	1.00	-1.00	0.00	0.00	0.01	75.04	0.00	75.04					
100.00	100.00	101.00	99.00	0.13	0.14	0.01	75.04	0.00	75.04	74.77	0.27	275.435		
200.00	200.00	201.00	199.00	0.49	0.50	0.01	75.04	0.00	75.04	74.05	0.99	75.844		
300.00	300.00	301.00	299.00	0.85	0.85	0.01	75.04	0.00	75.04	73.33	1.71	43.977		
400.00	400.00	401.00	399.00	1.21	1.21	0.01	75.04	0.00	75.04	72.62	2.42	30.966		
500.00	500.00	499.00	499.00	1.57	1.56	0.01	75.04	0.00	75.04	71.91	3.13	23.951	CC, ES	
600.00	600.00	596.61	596.59	1.93	1.91	0.45	76.55	0.60	76.59	72.75	3.84	19.939		
700.00	700.00	693.98	693.83	2.29	2.27	1.72	81.14	2.43	81.34	76.79	4.55	17.888		
800.00	800.00	790.89	790.39	2.64	2.62	3.53	88.74	5.47	89.33	84.08	5.25	17.021		
900.00	900.00	887.15	882.97	3.00	2.98	5.57	99.30	9.68	100.62	94.67	5.94	16.933		
1,000.00	1,000.00	982.53	980.25	3.36	3.35	7.59	112.69	15.02	115.23	108.60	6.63	17.386		
1,100.00	1,100.00	1,076.85	1,072.96	3.72	3.74	9.46	128.80	21.45	133.14	125.84	7.30	18.232		
1,200.00	1,199.98	1,170.15	1,164.05	4.07	4.14	-60.17	147.51	28.92	153.48	145.51	7.96	19.272		
1,300.00	1,299.84	1,262.54	1,253.57	4.42	4.57	-59.73	168.74	37.39	175.25	166.65	8.60	20.367		
1,400.00	1,399.45	1,353.96	1,341.37	4.78	5.03	-59.96	192.38	46.82	198.39	189.14	9.26	21.436		
1,505.27	1,503.92	1,449.05	1,431.78	5.16	5.54	-60.66	219.72	57.73	224.24	214.29	9.94	22.552		
1,600.00	1,597.70	1,539.55	1,517.25	5.52	6.05	-61.81	247.37	68.76	248.59	237.94	10.65	23.346		
1,700.00	1,696.70	1,636.06	1,608.37	5.90	6.61	-62.81	276.88	80.53	274.41	262.99	11.42	24.025		
1,800.00	1,795.71	1,732.56	1,699.50	6.29	7.18	-63.64	306.39	92.31	300.30	288.10	12.21	24.601		
1,900.00	1,894.71	1,829.07	1,790.63	6.68	7.76	-64.34	335.90	104.08	326.24	313.24	13.00	25.092		
2,000.00	1,993.71	1,925.58	1,881.75	7.08	8.34	-64.93	365.42	115.86	352.22	338.41	13.81	25.513		
2,100.00	2,092.71	2,022.09	1,972.88	7.48	8.94	-65.45	394.93	127.63	378.22	363.61	14.62	25.878		
2,200.00	2,191.71	2,118.59	2,064.01	7.89	9.53	-65.89	424.44	139.41	404.25	388.82	15.43	26.196		
2,300.00	2,290.71	2,215.10	2,155.13	8.29	10.13	-66.29	453.95	151.18	430.31	414.05	16.25	26.475		
2,400.00	2,389.71	2,311.61	2,246.26	8.70	10.74	-66.64	483.46	162.96	456.37	439.30	17.08	26.721		
2,500.00	2,488.71	2,408.11	2,337.39	9.11	11.34	-66.95	512.97	174.73	482.46	464.55	17.91	26.940		
2,600.00	2,587.71	2,504.62	2,428.51	9.52	11.95	-67.23	542.48	186.51	508.55	489.81	18.74	27.135		
2,700.00	2,686.71	2,601.13	2,519.64	9.94	12.56	-67.48	572.00	198.28	534.66	515.08	19.58	27.309		
2,800.00	2,785.72	2,697.64	2,610.77	10.35	13.17	-67.71	601.51	210.06	560.77	540.35	20.42	27.466		
2,900.00	2,884.72	2,805.86	2,701.89	10.77	13.86	-67.91	631.02	221.83	586.89	565.58	21.31	27.540		
3,000.00	2,983.72	2,909.35	2,793.02	11.18	14.52	-68.10	660.53	233.61	613.02	590.83	22.19	27.632		
3,100.00	3,082.72	2,987.16	2,884.15	11.60	15.01	-68.28	690.04	245.38	639.15	616.21	22.95	27.855		
3,200.00	3,181.72	3,083.67	2,975.27	12.02	15.63	-68.44	719.55	257.16	665.29	641.50	23.79	27.962		
3,300.00	3,280.72	3,180.17	3,066.40	12.44	16.25	-68.59	749.07	268.93	691.43	666.79	24.64	28.060		
3,400.00	3,379.72	3,276.68	3,157.53	12.86	16.86	-68.73	778.58	280.71	717.58	692.09	25.49	28.151		
3,500.00	3,478.72	3,373.19	3,248.65	13.28	17.48	-68.86	808.09	292.48	743.73	717.39	26.34	28.234		
3,600.00	3,577.72	3,469.69	3,339.78	13.70	18.10	-68.97	837.60	304.26	769.88	742.69	27.19	28.312		
3,700.00	3,676.73	3,566.20	3,430.91	14.12	18.72	-69.09	867.11	316.03	796.04	767.99	28.05	28.383		
3,800.00	3,775.73	3,662.71	3,522.03	14.54	19.34	-69.19	896.62	327.81	822.20	793.30	28.90	28.450		
3,900.00	3,874.73	3,759.22	3,613.16	14.96	19.96	-69.29	926.14	339.58	848.36	818.61	29.76	28.512		
4,000.00	3,973.73	3,855.72	3,704.29	15.39	20.58	-69.38	955.65	351.36	874.53	843.91	30.61	28.569		
4,100.00	4,072.73	3,952.23	3,795.41	15.81	21.20	-69.47	985.16	363.13	900.69	869.22	31.47	28.623		
4,200.00	4,171.73	4,048.74	3,886.54	16.23	21.83	-69.55	1,014.67	374.91	926.86	894.54	32.32	28.674		
4,300.00	4,270.73	4,145.25	3,977.67	16.65	22.45	-69.63	1,044.18	386.68	953.03	919.85	33.18	28.721		
4,400.00	4,369.73	4,241.75	4,068.79	17.08	23.07	-69.70	1,073.69	398.46	979.20	945.16	34.04	28.766		
4,500.00	4,468.73	4,338.26	4,159.92	17.50	23.69	-69.77	1,103.21	410.23	1,005.37	970.47	34.90	28.808		
4,600.00	4,567.73	4,434.77	4,251.05	17.93	24.31	-69.84	1,132.72	422.01	1,031.55	995.79	35.76	28.847		
4,700.00	4,666.74	4,531.27	4,342.17	18.35	24.94	-69.90	1,162.23	433.78	1,057.72	1,021.10	36.62	28.885		
4,800.00	4,765.74	4,627.78	4,433.30	18.77	25.56	-69.96	1,191.74	445.56	1,083.90	1,046.42	37.48	28.920		
4,900.00	4,864.74	4,724.29	4,524.43	19.20	26.18	-70.02	1,221.25	457.33	1,110.07	1,071.73	38.34	28.953		
5,000.00	4,963.74	4,820.80	4,615.55	19.62	26.81	-70.07	1,250.76	469.11	1,136.25	1,097.05	39.20	28.985		
5,100.00	5,062.74	4,917.30	4,706.68	20.05	27.43	-70.12	1,280.27	480.88	1,162.43	1,122.37	40.06	29.015		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 2EH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.00	5,161.74	5,013.81	4,797.81	20.47	28.05	-70.17	1,309.79	492.66	1,188.61	1,147.69	40.93	29.044		
5,300.00	5,260.74	5,110.32	4,888.93	20.90	28.68	-70.22	1,339.30	504.43	1,214.79	1,173.00	41.79	29.071		
5,400.00	5,359.74	5,206.83	4,980.06	21.32	29.30	-70.27	1,368.81	516.21	1,240.97	1,198.32	42.65	29.096		
5,500.00	5,458.74	5,303.33	5,071.19	21.75	29.92	-70.31	1,398.32	527.98	1,267.15	1,223.64	43.51	29.121		
5,600.00	5,557.75	5,399.84	5,162.31	22.17	30.55	-70.35	1,427.83	539.76	1,293.34	1,248.96	44.38	29.144		
5,700.00	5,656.75	5,503.65	5,253.44	22.60	31.22	-70.39	1,457.34	551.53	1,319.52	1,274.25	45.27	29.145		
5,800.00	5,755.75	5,592.85	5,344.57	23.03	31.80	-70.43	1,486.86	563.31	1,345.70	1,299.60	46.10	29.188		
5,900.00	5,854.75	5,689.36	5,435.69	23.45	32.42	-70.47	1,516.37	575.08	1,371.89	1,324.92	46.97	29.208		
6,000.00	5,953.75	5,785.87	5,526.82	23.88	33.05	-70.50	1,545.88	586.86	1,398.07	1,350.24	47.83	29.228		
6,100.00	6,052.75	5,882.38	5,617.95	24.30	33.67	-70.54	1,575.39	598.63	1,424.26	1,375.56	48.70	29.247		
6,200.00	6,151.75	5,978.88	5,709.07	24.73	34.30	-70.57	1,604.90	610.41	1,450.45	1,400.88	49.56	29.264		
6,300.00	6,250.75	6,075.39	5,800.20	25.16	34.92	-70.60	1,634.41	622.18	1,476.63	1,426.20	50.43	29.282		
6,400.00	6,349.75	6,171.90	5,891.33	25.58	35.55	-70.63	1,663.93	633.96	1,502.82	1,451.52	51.29	29.298		
6,500.00	6,448.75	6,268.41	5,982.45	26.01	36.17	-70.66	1,693.44	645.73	1,529.01	1,476.85	52.16	29.314		
6,600.00	6,547.76	6,364.91	6,073.58	26.43	36.80	-70.69	1,722.95	657.51	1,555.19	1,502.17	53.03	29.329		
6,700.00	6,646.76	6,461.42	6,164.71	26.86	37.42	-70.72	1,752.46	669.28	1,581.38	1,527.49	53.89	29.343		
6,800.00	6,745.76	6,557.93	6,255.83	27.29	38.05	-70.75	1,781.97	681.06	1,607.57	1,552.81	54.76	29.357		
6,900.00	6,844.76	6,654.43	6,346.96	27.71	38.67	-70.77	1,811.48	692.83	1,633.76	1,578.13	55.63	29.371		
7,000.00	6,943.76	6,750.94	6,438.09	28.14	39.30	-70.80	1,840.99	704.61	1,659.95	1,603.46	56.49	29.384		
7,100.00	7,042.76	6,847.45	6,529.21	28.57	39.92	-70.82	1,870.51	716.38	1,686.14	1,628.78	57.36	29.396		
7,200.00	7,141.76	6,943.96	6,620.34	28.99	40.55	-70.85	1,900.02	728.16	1,712.33	1,654.10	58.23	29.408		
7,300.00	7,240.76	7,040.46	6,711.47	29.42	41.17	-70.87	1,929.53	739.93	1,738.52	1,679.42	59.09	29.420		
7,361.24	7,301.39	7,099.56	6,767.27	29.68	41.55	-70.88	1,947.60	747.14	1,754.55	1,694.93	59.62	29.427		
7,400.00	7,339.91	7,136.95	6,802.58	29.84	41.80	-55.95	1,959.04	751.71	1,764.70	1,704.75	59.94	29.440		
7,450.00	7,389.83	7,184.93	6,847.88	30.01	42.11	22.26	1,973.71	757.56	1,777.70	1,717.41	60.29	29.484		
7,500.00	7,439.65	7,232.30	6,892.60	30.14	42.42	63.44	1,988.19	763.34	1,790.58	1,730.00	60.58	29.556		
7,550.00	7,489.01	7,278.68	6,936.40	30.25	42.72	72.35	2,002.38	769.00	1,803.28	1,742.47	60.81	29.652		
7,600.00	7,537.51	7,323.73	6,978.94	30.34	43.01	75.59	2,016.15	774.50	1,815.82	1,754.82	61.00	29.770		
7,650.00	7,584.80	7,367.11	7,019.91	30.41	43.29	77.07	2,029.42	779.79	1,828.20	1,767.07	61.13	29.907		
7,700.00	7,630.51	7,408.49	7,058.97	30.46	43.56	77.82	2,042.07	784.84	1,840.47	1,779.25	61.22	30.065		
7,750.00	7,674.30	7,447.55	7,095.85	30.50	43.81	78.19	2,054.01	789.60	1,852.68	1,791.41	61.27	30.239		
7,800.00	7,715.83	7,483.99	7,130.26	30.53	44.05	78.33	2,065.16	794.05	1,864.89	1,803.61	61.29	30.429		
7,850.00	7,754.79	7,517.53	7,161.94	30.56	44.26	78.30	2,075.42	798.14	1,877.18	1,815.90	61.28	30.632		
7,900.00	7,790.88	7,547.93	7,190.64	30.59	44.46	78.12	2,084.71	801.85	1,889.61	1,828.35	61.26	30.843		
7,950.00	7,823.82	7,574.95	7,216.15	30.63	44.64	77.80	2,092.97	805.15	1,902.24	1,841.00	61.24	31.060		
8,000.00	7,853.37	7,598.38	7,238.28	30.69	44.79	77.33	2,100.14	808.00	1,915.12	1,853.89	61.23	31.278		
8,050.00	7,879.29	7,618.04	7,256.85	30.77	44.92	76.71	2,106.15	810.40	1,928.27	1,867.04	61.23	31.491		
8,100.00	7,901.40	7,645.78	7,283.08	30.88	45.09	76.27	2,114.65	813.43	1,941.69	1,880.34	61.35	31.647		
8,150.00	7,919.52	7,686.98	7,322.21	31.03	45.34	76.18	2,127.33	815.53	1,955.23	1,893.60	61.64	31.722		
8,200.00	7,933.52	7,739.83	7,372.44	31.22	45.64	76.39	2,143.62	813.89	1,968.80	1,906.75	62.05	31.729		
8,250.00	7,943.29	8,250.00	7,412.78	31.46	48.15	76.27	2,156.71	808.51	1,982.19	1,918.11	64.09	30.929		
8,300.00	7,948.75	8,019.94	7,622.66	31.73	46.66	81.24	2,224.96	726.21	1,994.92	1,931.15	63.77	31.282		
8,337.82	7,950.00	8,550.00	7,873.31	31.96	46.64	87.83	2,307.34	288.18	2,000.81	1,934.18	66.63	30.030		
8,400.00	7,950.00	8,654.98	7,875.00	32.41	46.47	87.88	2,308.16	183.26	2,000.86	1,932.99	67.87	29.482		
8,500.00	7,950.00	8,754.98	7,875.00	33.29	46.35	87.88	2,308.42	83.26	2,000.89	1,931.32	69.57	28.762		
8,600.00	7,950.00	8,854.98	7,875.00	34.37	46.27	87.88	2,308.67	-16.74	2,000.92	1,929.29	71.64	27.932		
8,700.00	7,950.00	8,954.98	7,875.00	35.63	46.26	87.88	2,308.93	-116.74	2,000.96	1,926.92	74.04	27.027		
8,800.00	7,950.00	9,054.98	7,875.00	37.04	46.32	87.88	2,309.19	-216.74	2,000.99	1,924.25	76.74	26.075		
8,900.00	7,950.00	9,154.98	7,875.00	38.59	46.50	87.88	2,309.44	-316.74	2,001.02	1,921.31	79.72	25.102		
9,000.00	7,950.00	9,254.98	7,875.00	40.26	46.90	87.88	2,309.70	-416.74	2,001.06	1,918.12	82.93	24.128		
9,100.00	7,950.00	9,354.98	7,875.00	42.03	47.60	87.88	2,309.96	-516.74	2,001.09	1,914.72	86.37	23.169		
9,200.00	7,950.00	9,454.98	7,875.00	43.90	48.69	87.88	2,310.21	-616.74	2,001.13	1,911.13	89.99	22.237		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 2EH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,300.00	7,950.00	9,554.98	7,875.00	45.85	50.12	87.88	2,310.47	-716.74	2,001.16	1,907.37	93.79	21.338		
9,400.00	7,950.00	9,654.98	7,875.00	47.87	51.78	87.88	2,310.73	-816.74	2,001.19	1,903.47	97.73	20.477		
9,500.00	7,950.00	9,754.98	7,875.00	49.96	53.60	87.88	2,310.98	-916.74	2,001.23	1,899.43	101.80	19.658		
9,600.00	7,950.00	9,854.98	7,875.00	52.10	55.54	87.88	2,311.24	-1,016.74	2,001.26	1,895.27	105.99	18.881		
9,700.00	7,950.00	9,954.98	7,875.00	54.29	57.56	87.88	2,311.50	-1,116.74	2,001.30	1,891.01	110.29	18.146		
9,800.00	7,950.00	10,054.98	7,875.00	56.52	59.65	87.88	2,311.76	-1,216.74	2,001.33	1,886.66	114.67	17.453		
9,900.00	7,950.00	10,154.98	7,875.00	58.79	61.79	87.88	2,312.01	-1,316.74	2,001.36	1,882.22	119.14	16.799		
10,000.00	7,950.00	10,254.98	7,875.00	61.10	63.99	87.88	2,312.27	-1,416.74	2,001.40	1,877.72	123.68	16.182		
10,100.00	7,950.00	10,354.98	7,875.00	63.44	66.22	87.88	2,312.53	-1,516.74	2,001.43	1,873.15	128.28	15.602		
10,200.00	7,950.00	10,454.98	7,875.00	65.80	68.48	87.88	2,312.78	-1,616.74	2,001.46	1,868.52	132.95	15.055		
10,300.00	7,950.00	10,554.98	7,875.00	68.19	70.78	87.88	2,313.04	-1,716.74	2,001.50	1,863.84	137.66	14.539		
10,400.00	7,950.00	10,654.98	7,875.00	70.60	73.10	87.88	2,313.30	-1,816.74	2,001.53	1,859.11	142.43	14.053		
10,500.00	7,950.00	10,754.98	7,875.00	73.03	75.45	87.88	2,313.55	-1,916.74	2,001.57	1,854.34	147.23	13.595		
10,600.00	7,950.00	10,854.98	7,875.00	75.47	77.82	87.88	2,313.81	-2,016.74	2,001.60	1,849.53	152.07	13.162		
10,700.00	7,950.00	10,954.98	7,875.00	77.94	80.21	87.88	2,314.07	-2,116.74	2,001.63	1,844.68	156.95	12.753		
10,800.00	7,950.00	11,054.98	7,875.00	80.41	82.62	87.88	2,314.32	-2,216.74	2,001.67	1,839.80	161.86	12.366		
10,900.00	7,950.00	11,154.98	7,875.00	82.90	85.05	87.88	2,314.58	-2,316.74	2,001.70	1,834.90	166.80	12.000		
11,000.00	7,950.00	11,254.98	7,875.00	85.41	87.49	87.88	2,314.84	-2,416.74	2,001.73	1,829.97	171.77	11.654		
11,100.00	7,950.00	11,354.98	7,875.00	87.92	89.94	87.88	2,315.10	-2,516.74	2,001.77	1,825.01	176.76	11.325		
11,200.00	7,950.00	11,454.98	7,875.00	90.45	92.41	87.88	2,315.35	-2,616.73	2,001.80	1,820.03	181.77	11.013		
11,300.00	7,950.00	11,554.98	7,875.00	92.98	94.89	87.88	2,315.61	-2,716.73	2,001.84	1,815.03	186.81	10.716		
11,400.00	7,950.00	11,654.98	7,875.00	95.52	97.38	87.88	2,315.87	-2,816.73	2,001.87	1,810.01	191.86	10.434		
11,500.00	7,950.00	11,754.98	7,875.00	98.07	99.89	87.88	2,316.12	-2,916.73	2,001.90	1,804.98	196.93	10.166		
11,600.00	7,950.00	11,854.98	7,875.00	100.63	102.40	87.88	2,316.38	-3,016.73	2,001.94	1,799.92	202.01	9.910		
11,700.00	7,950.00	11,954.98	7,875.00	103.20	104.92	87.88	2,316.64	-3,116.73	2,001.97	1,794.86	207.11	9.666		
11,800.00	7,950.00	12,054.98	7,875.00	105.77	107.44	87.88	2,316.89	-3,216.73	2,002.01	1,789.78	212.23	9.433		
11,900.00	7,950.00	12,154.98	7,875.00	108.34	109.98	87.88	2,317.15	-3,316.73	2,002.04	1,784.68	217.36	9.211		
12,000.00	7,950.00	12,254.98	7,875.00	110.93	112.52	87.88	2,317.41	-3,416.73	2,002.07	1,779.58	222.50	8.998		
12,100.00	7,950.00	12,354.98	7,875.00	113.51	115.07	87.88	2,317.66	-3,516.73	2,002.11	1,774.46	227.65	8.795		
12,200.00	7,950.00	12,454.98	7,875.00	116.11	117.62	87.88	2,317.92	-3,616.73	2,002.14	1,769.33	232.81	8.600		
12,300.00	7,950.00	12,554.98	7,875.00	118.70	120.19	87.88	2,318.18	-3,716.73	2,002.17	1,764.20	237.98	8.413		
12,400.00	7,950.00	12,654.98	7,875.00	121.30	122.75	87.88	2,318.44	-3,816.73	2,002.21	1,759.05	243.16	8.234		
12,500.00	7,950.00	12,754.98	7,875.00	123.91	125.32	87.88	2,318.69	-3,916.73	2,002.24	1,753.90	248.35	8.062		
12,600.00	7,950.00	12,854.98	7,875.00	126.52	127.90	87.88	2,318.95	-4,016.73	2,002.28	1,748.73	253.54	7.897		
12,700.00	7,950.00	12,954.98	7,875.00	129.13	130.48	87.88	2,319.21	-4,116.73	2,002.31	1,743.56	258.75	7.738		
12,800.00	7,950.00	13,054.98	7,875.00	131.74	133.07	87.88	2,319.46	-4,216.73	2,002.34	1,738.39	263.96	7.586		
12,900.00	7,950.00	13,154.98	7,875.00	134.36	135.65	87.88	2,319.72	-4,316.73	2,002.38	1,733.20	269.18	7.439		
13,000.00	7,950.00	13,254.98	7,875.00	136.98	138.25	87.88	2,319.98	-4,416.73	2,002.41	1,728.01	274.40	7.297		
13,100.00	7,950.00	13,354.98	7,875.00	139.61	140.84	87.88	2,320.23	-4,516.73	2,002.44	1,722.82	279.63	7.161		
13,200.00	7,950.00	13,454.98	7,875.00	142.23	143.44	87.88	2,320.49	-4,616.73	2,002.48	1,717.61	284.87	7.030		
13,300.00	7,950.00	13,554.98	7,875.00	144.86	146.05	87.88	2,320.75	-4,716.73	2,002.51	1,712.41	290.11	6.903		
13,400.00	7,950.00	13,654.98	7,875.00	147.49	148.65	87.88	2,321.00	-4,816.73	2,002.55	1,707.19	295.35	6.780		
13,500.00	7,950.00	13,754.98	7,875.00	150.12	151.26	87.88	2,321.26	-4,916.73	2,002.58	1,701.98	300.60	6.662		
13,600.00	7,950.00	13,854.98	7,875.00	152.76	153.87	87.88	2,321.52	-5,016.73	2,002.61	1,696.76	305.86	6.548		
13,700.00	7,950.00	13,954.98	7,875.00	155.40	156.49	87.88	2,321.77	-5,116.73	2,002.65	1,691.53	311.12	6.437		
13,800.00	7,950.00	14,054.98	7,875.00	158.04	159.11	87.88	2,322.03	-5,216.73	2,002.68	1,686.30	316.38	6.330		
13,900.00	7,950.00	14,154.98	7,875.00	160.68	161.73	87.88	2,322.29	-5,316.73	2,002.72	1,681.07	321.65	6.226		
14,000.00	7,950.00	14,254.98	7,875.00	163.32	164.35	87.88	2,322.55	-5,416.73	2,002.75	1,675.83	326.92	6.126		
14,100.00	7,950.00	14,354.98	7,875.00	165.96	166.97	87.88	2,322.80	-5,516.73	2,002.78	1,670.59	332.20	6.029		
14,200.00	7,950.00	14,454.98	7,875.00	168.61	169.60	87.88	2,323.06	-5,616.72	2,002.82	1,665.34	337.47	5.935		
14,300.00	7,950.00	14,554.98	7,875.00	171.25	172.23	87.88	2,323.32	-5,716.72	2,002.85	1,660.09	342.76	5.843		
14,400.00	7,950.00	14,654.98	7,875.00	173.90	174.86	87.88	2,323.57	-5,816.72	2,002.88	1,654.84	348.04	5.755		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 2EH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,500.00	7,950.00	14,754.98	7,875.00	176.55	177.49	87.88	2,323.83	-5,916.72	2,002.92	1,649.59	353.33	5.669		
14,600.00	7,950.00	14,854.98	7,875.00	179.20	180.12	87.88	2,324.09	-6,016.72	2,002.95	1,644.33	358.62	5.585		
14,700.00	7,950.00	14,954.98	7,875.00	181.86	182.76	87.88	2,324.34	-6,116.72	2,002.99	1,639.07	363.91	5.504		
14,800.00	7,950.00	15,054.98	7,875.00	184.51	185.39	87.88	2,324.60	-6,216.72	2,003.02	1,633.81	369.21	5.425		
14,900.00	7,950.00	15,154.98	7,875.00	187.16	188.03	87.88	2,324.86	-6,316.72	2,003.05	1,628.55	374.50	5.349		
15,000.00	7,950.00	15,254.98	7,875.00	189.82	190.67	87.88	2,325.11	-6,416.72	2,003.09	1,623.28	379.80	5.274		
15,100.00	7,950.00	15,354.98	7,875.00	192.47	193.31	87.88	2,325.37	-6,516.72	2,003.12	1,618.01	385.11	5.201		
15,200.00	7,950.00	15,454.98	7,875.00	195.13	195.95	87.88	2,325.63	-6,616.72	2,003.15	1,612.74	390.41	5.131		
15,300.00	7,950.00	15,554.98	7,875.00	197.79	198.60	87.88	2,325.89	-6,716.72	2,003.19	1,607.47	395.72	5.062		
15,400.00	7,950.00	15,654.98	7,875.00	200.45	201.24	87.88	2,326.14	-6,816.72	2,003.22	1,602.20	401.03	4.995		
15,500.00	7,950.00	15,754.98	7,875.00	203.11	203.89	87.88	2,326.40	-6,916.72	2,003.26	1,596.92	406.34	4.930		
15,600.00	7,950.00	15,854.98	7,875.00	205.77	206.54	87.88	2,326.66	-7,016.72	2,003.29	1,591.64	411.65	4.866		
15,700.00	7,950.00	15,954.98	7,875.00	208.43	209.19	87.88	2,326.91	-7,116.72	2,003.32	1,586.36	416.96	4.805		
15,800.00	7,950.00	16,054.98	7,875.00	211.10	211.83	87.88	2,327.17	-7,216.72	2,003.36	1,581.08	422.28	4.744		
15,900.00	7,950.00	16,154.98	7,875.00	213.76	214.49	87.88	2,327.43	-7,316.72	2,003.39	1,575.79	427.60	4.685		
16,000.00	7,950.00	16,254.98	7,875.00	216.42	217.14	87.88	2,327.68	-7,416.72	2,003.43	1,570.51	432.92	4.628		
16,100.00	7,950.00	16,354.98	7,875.00	219.09	219.79	87.88	2,327.94	-7,516.72	2,003.46	1,565.22	438.24	4.572		
16,200.00	7,950.00	16,454.98	7,875.00	221.75	222.44	87.88	2,328.20	-7,616.72	2,003.49	1,559.93	443.56	4.517		
16,300.00	7,950.00	16,554.98	7,875.00	224.42	225.10	87.88	2,328.45	-7,716.72	2,003.53	1,554.64	448.88	4.463		
16,400.00	7,950.00	16,654.98	7,875.00	227.08	227.75	87.88	2,328.71	-7,816.72	2,003.56	1,549.35	454.21	4.411		
16,500.00	7,950.00	16,754.98	7,875.00	229.75	230.41	87.88	2,328.97	-7,916.72	2,003.59	1,544.06	459.53	4.360		
16,600.00	7,950.00	16,854.98	7,875.00	232.42	233.07	87.88	2,329.22	-8,016.72	2,003.63	1,538.77	464.86	4.310		
16,700.00	7,950.00	16,954.98	7,875.00	235.09	235.72	87.88	2,329.48	-8,116.72	2,003.66	1,533.47	470.19	4.261		
16,800.00	7,950.00	17,054.98	7,875.00	237.76	238.38	87.88	2,329.74	-8,216.72	2,003.70	1,528.18	475.52	4.214		
16,900.00	7,950.00	17,154.98	7,875.00	240.43	241.04	87.88	2,330.00	-8,316.72	2,003.73	1,522.88	480.85	4.167		
17,000.00	7,950.00	17,254.98	7,875.00	243.10	243.70	87.88	2,330.25	-8,416.72	2,003.76	1,517.58	486.18	4.121		
17,100.00	7,950.00	17,354.98	7,875.00	245.77	246.36	87.88	2,330.51	-8,516.72	2,003.80	1,512.28	491.52	4.077		
17,200.00	7,950.00	17,454.98	7,875.00	248.44	249.02	87.88	2,330.77	-8,616.71	2,003.83	1,506.98	496.85	4.033		
17,300.00	7,950.00	17,554.98	7,875.00	251.11	251.68	87.88	2,331.02	-8,716.71	2,003.86	1,501.68	502.19	3.990		
17,400.00	7,950.00	17,654.98	7,875.00	253.78	254.35	87.88	2,331.28	-8,816.71	2,003.90	1,496.38	507.52	3.948		
17,500.00	7,950.00	17,754.98	7,875.00	256.45	257.01	87.88	2,331.54	-8,916.71	2,003.93	1,491.07	512.86	3.907		
17,600.00	7,950.00	17,854.98	7,875.00	259.12	259.67	87.88	2,331.79	-9,016.71	2,003.97	1,485.77	518.20	3.867		
17,700.00	7,950.00	17,954.98	7,875.00	261.80	262.34	87.88	2,332.05	-9,116.71	2,004.00	1,480.46	523.54	3.828		
17,800.00	7,950.00	18,054.98	7,875.00	264.47	265.00	87.88	2,332.31	-9,216.71	2,004.03	1,475.16	528.88	3.789		
17,900.00	7,950.00	18,154.98	7,875.00	267.14	267.67	87.88	2,332.56	-9,316.71	2,004.07	1,469.85	534.22	3.751		
18,000.00	7,950.00	18,254.98	7,875.00	269.82	270.33	87.88	2,332.82	-9,416.71	2,004.10	1,464.54	539.56	3.714		
18,100.00	7,950.00	18,354.98	7,875.00	272.49	273.00	87.88	2,333.08	-9,516.71	2,004.14	1,459.24	544.90	3.678		
18,200.00	7,950.00	18,454.98	7,875.00	275.17	275.67	87.88	2,333.34	-9,616.71	2,004.17	1,453.93	550.24	3.642		
18,300.00	7,950.00	18,554.98	7,875.00	277.84	278.33	87.88	2,333.59	-9,716.71	2,004.20	1,448.62	555.59	3.607		
18,400.00	7,950.00	18,654.98	7,875.00	280.52	281.00	87.88	2,333.85	-9,816.71	2,004.24	1,443.31	560.93	3.573		
18,500.00	7,950.00	18,754.98	7,875.00	283.19	283.67	87.88	2,334.11	-9,916.71	2,004.27	1,437.99	566.28	3.539		
18,600.00	7,950.00	18,854.98	7,875.00	285.87	286.34	87.88	2,334.36	-10,016.71	2,004.30	1,432.68	571.62	3.506		
18,700.00	7,950.00	18,954.98	7,875.00	288.55	289.01	87.88	2,334.62	-10,116.71	2,004.34	1,427.37	576.97	3.474		
18,800.00	7,950.00	19,054.98	7,875.00	291.22	291.68	87.88	2,334.88	-10,216.71	2,004.37	1,422.06	582.32	3.442		
18,900.00	7,950.00	19,154.98	7,875.00	293.90	294.35	87.88	2,335.13	-10,316.71	2,004.41	1,416.74	587.66	3.411		
19,000.00	7,950.00	19,254.98	7,875.00	296.58	297.02	87.88	2,335.39	-10,416.71	2,004.44	1,411.43	593.01	3.380		
19,100.00	7,950.00	19,354.98	7,875.00	299.25	299.69	87.88	2,335.65	-10,516.71	2,004.47	1,406.11	598.36	3.350		
19,200.00	7,950.00	19,454.98	7,875.00	301.93	302.36	87.88	2,335.90	-10,616.71	2,004.51	1,400.80	603.71	3.320		
19,300.00	7,950.00	19,554.98	7,875.00	304.61	305.03	87.88	2,336.16	-10,716.71	2,004.54	1,395.48	609.06	3.291		
19,400.00	7,950.00	19,654.98	7,875.00	307.29	307.70	87.88	2,336.42	-10,816.71	2,004.57	1,390.16	614.41	3.263		
19,500.00	7,950.00	19,754.98	7,875.00	309.97	310.38	87.88	2,336.68	-10,916.71	2,004.61	1,384.85	619.76	3.234		
19,600.00	7,950.00	19,854.98	7,875.00	312.65	313.05	87.88	2,336.93	-11,016.71	2,004.64	1,379.53	625.11	3.207		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 2EH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
19,700.00	7,950.00	19,954.98	7,875.00	315.32	315.72	87.88	2,337.19	-11,116.71	2,004.68	1,374.21	630.47	3.180		
19,800.00	7,950.00	20,054.98	7,875.00	318.00	318.39	87.88	2,337.45	-11,216.71	2,004.71	1,368.89	635.82	3.153		
19,900.00	7,950.00	20,154.98	7,875.00	320.68	321.07	87.88	2,337.70	-11,316.71	2,004.74	1,363.57	641.17	3.127		
20,000.00	7,950.00	20,254.98	7,875.00	323.36	323.74	87.88	2,337.96	-11,416.71	2,004.78	1,358.25	646.52	3.101		
20,100.00	7,950.00	20,354.98	7,875.00	326.04	326.41	87.88	2,338.22	-11,516.71	2,004.81	1,352.93	651.88	3.075		
20,200.00	7,950.00	20,454.98	7,875.00	328.72	329.09	87.88	2,338.47	-11,616.70	2,004.85	1,347.61	657.23	3.050		
20,300.00	7,950.00	20,554.98	7,875.00	331.40	331.76	87.88	2,338.73	-11,716.70	2,004.88	1,342.29	662.59	3.026		
20,400.00	7,950.00	20,654.98	7,875.00	334.08	334.44	87.88	2,338.99	-11,816.70	2,004.91	1,336.97	667.94	3.002		
20,500.00	7,950.00	20,754.98	7,875.00	336.76	337.11	87.88	2,339.24	-11,916.70	2,004.95	1,331.65	673.30	2.978		
20,600.00	7,950.00	20,854.98	7,875.00	339.44	339.79	87.88	2,339.50	-12,016.70	2,004.98	1,326.33	678.66	2.954		
20,700.00	7,950.00	20,954.98	7,875.00	342.12	342.47	87.88	2,339.76	-12,116.70	2,005.01	1,321.00	684.01	2.931		
20,800.00	7,950.00	21,054.98	7,875.00	344.81	345.14	87.88	2,340.01	-12,216.70	2,005.05	1,315.68	689.37	2.909		
20,900.00	7,950.00	21,154.98	7,875.00	347.49	347.82	87.88	2,340.27	-12,316.70	2,005.08	1,310.36	694.73	2.886		
21,000.00	7,950.00	21,254.98	7,875.00	350.17	350.49	87.88	2,340.53	-12,416.70	2,005.12	1,305.03	700.08	2.864		
21,100.00	7,950.00	21,354.98	7,875.00	352.85	353.17	87.89	2,340.79	-12,516.70	2,005.15	1,299.71	705.44	2.842		
21,200.00	7,950.00	21,454.98	7,875.00	355.53	355.85	87.89	2,341.04	-12,616.70	2,005.18	1,294.38	710.80	2.821		
21,300.00	7,950.00	21,554.98	7,875.00	358.21	358.52	87.89	2,341.30	-12,716.70	2,005.22	1,289.06	716.16	2.800		
21,400.00	7,950.00	21,654.98	7,875.00	360.90	361.20	87.89	2,341.56	-12,816.70	2,005.25	1,283.73	721.52	2.779		
21,500.00	7,950.00	21,754.98	7,875.00	363.58	363.88	87.89	2,341.81	-12,916.70	2,005.28	1,278.41	726.88	2.759		
21,600.00	7,950.00	21,854.98	7,875.00	366.26	366.56	87.89	2,342.07	-13,016.70	2,005.32	1,273.08	732.24	2.739		
21,700.00	7,950.00	21,954.98	7,875.00	368.94	369.23	87.89	2,342.33	-13,116.70	2,005.35	1,267.76	737.60	2.719		
21,800.00	7,950.00	22,054.98	7,875.00	371.62	371.91	87.89	2,342.58	-13,216.70	2,005.39	1,262.43	742.96	2.699		
21,900.00	7,950.00	22,154.98	7,875.00	374.31	374.59	87.89	2,342.84	-13,316.70	2,005.42	1,257.10	748.32	2.680		
22,000.00	7,950.00	22,254.98	7,875.00	376.99	377.27	87.89	2,343.10	-13,416.70	2,005.45	1,251.77	753.68	2.661		
22,100.00	7,950.00	22,354.98	7,875.00	379.67	379.95	87.89	2,343.35	-13,516.70	2,005.49	1,246.45	759.04	2.642		
22,200.00	7,950.00	22,454.98	7,875.00	382.36	382.63	87.89	2,343.61	-13,616.70	2,005.52	1,241.12	764.40	2.624		
22,300.00	7,950.00	22,554.98	7,875.00	385.04	385.31	87.89	2,343.87	-13,716.70	2,005.56	1,235.79	769.76	2.605		
22,400.00	7,950.00	22,654.98	7,875.00	387.72	387.99	87.89	2,344.13	-13,816.70	2,005.59	1,230.46	775.13	2.587		
22,500.00	7,950.00	22,754.98	7,875.00	390.41	390.67	87.89	2,344.38	-13,916.70	2,005.62	1,225.14	780.49	2.570		
22,600.00	7,950.00	22,854.98	7,875.00	393.09	393.34	87.89	2,344.64	-14,016.70	2,005.66	1,219.81	785.85	2.552		
22,700.00	7,950.00	22,954.98	7,875.00	395.77	396.02	87.89	2,344.90	-14,116.70	2,005.69	1,214.48	791.21	2.535		
22,800.00	7,950.00	23,054.98	7,875.00	398.46	398.70	87.89	2,345.15	-14,216.70	2,005.72	1,209.15	796.58	2.518		
22,900.00	7,950.00	23,154.98	7,875.00	401.14	401.38	87.89	2,345.41	-14,316.70	2,005.76	1,203.82	801.94	2.501		
23,000.00	7,950.00	23,254.98	7,875.00	403.83	404.06	87.89	2,345.67	-14,416.70	2,005.79	1,198.49	807.30	2.485		
23,100.00	7,950.00	23,354.98	7,875.00	406.51	406.75	87.89	2,345.92	-14,516.70	2,005.83	1,193.16	812.67	2.468		
23,200.00	7,950.00	23,454.98	7,875.00	409.19	409.43	87.89	2,346.18	-14,616.69	2,005.86	1,187.83	818.03	2.452		
23,300.00	7,950.00	23,554.98	7,875.00	411.88	412.11	87.89	2,346.44	-14,716.69	2,005.89	1,182.50	823.40	2.436		
23,400.00	7,950.00	23,577.30	7,875.00	414.56	412.70	87.89	2,346.49	-14,739.01	2,007.43	1,180.61	826.82	2.428 SF		
23,500.00	7,950.00	23,577.30	7,875.00	417.25	412.70	87.89	2,346.49	-14,739.01	2,013.81	1,185.93	827.89	2.432		
23,600.00	7,950.00	23,577.30	7,875.00	419.93	412.70	87.89	2,346.49	-14,739.01	2,025.12	1,198.17	826.95	2.449		
23,700.00	7,950.00	23,577.30	7,875.00	422.62	412.70	87.89	2,346.49	-14,739.01	2,041.27	1,217.18	824.09	2.477		
23,800.00	7,950.00	23,577.30	7,875.00	425.30	412.70	87.89	2,346.49	-14,739.01	2,062.15	1,242.74	819.41	2.517		
23,900.00	7,950.00	23,577.30	7,875.00	427.99	412.70	87.89	2,346.49	-14,739.01	2,087.61	1,274.55	813.06	2.568		
24,000.00	7,950.00	23,577.30	7,875.00	430.67	412.70	87.89	2,346.49	-14,739.01	2,117.50	1,312.30	805.20	2.630		
24,100.00	7,950.00	23,577.30	7,875.00	433.36	412.70	87.89	2,346.49	-14,739.01	2,151.62	1,355.61	796.01	2.703		
24,200.00	7,950.00	23,577.30	7,875.00	436.04	412.70	87.89	2,346.49	-14,739.01	2,189.78	1,404.11	785.67	2.787		
24,300.00	7,950.00	23,577.30	7,875.00	438.73	412.70	87.89	2,346.49	-14,739.01	2,231.78	1,457.40	774.38	2.882		
24,400.00	7,950.00	23,577.30	7,875.00	441.41	412.70	87.89	2,346.49	-14,739.01	2,277.39	1,515.08	762.31	2.987		
24,500.00	7,950.00	23,577.30	7,875.00	444.10	412.70	87.89	2,346.49	-14,739.01	2,326.41	1,576.78	749.63	3.103		
24,600.00	7,950.00	23,577.30	7,875.00	446.78	412.70	87.89	2,346.49	-14,739.01	2,378.62	1,642.12	736.50	3.230		
24,644.20	7,950.00	23,577.30	7,875.00	447.97	412.70	87.89	2,346.49	-14,739.01	2,402.66	1,672.07	730.60	3.289		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 2FH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	0.01	49.90	0.00	49.90					
100.00	100.00	100.00	100.00	0.13	0.13	0.01	49.90	0.00	49.90	49.64	0.27	185.620		
200.00	200.00	200.00	200.00	0.49	0.49	0.01	49.90	0.00	49.90	48.92	0.99	50.624		
300.00	300.00	300.00	300.00	0.85	0.85	0.01	49.90	0.00	49.90	48.20	1.70	29.308		
400.00	400.00	400.00	400.00	1.21	1.21	0.01	49.90	0.00	49.90	47.48	2.42	20.624		
500.00	500.00	500.00	500.00	1.57	1.57	0.01	49.90	0.00	49.90	46.77	3.14	15.910		
600.00	600.00	600.00	600.00	1.93	1.93	0.01	49.90	0.00	49.90	46.05	3.85	12.950		
700.00	700.00	700.00	700.00	2.29	2.29	0.01	49.90	0.00	49.90	45.33	4.57	10.919	CC, ES	
800.00	800.00	798.45	798.43	2.64	2.64	0.89	51.39	0.80	51.42	46.14	5.28	9.739		
900.00	900.00	896.67	896.51	3.00	2.99	3.28	55.85	3.20	56.05	50.06	5.99	9.364		
1,000.00	1,000.00	994.43	993.91	3.36	3.34	6.47	63.22	7.16	63.91	57.23	6.68	9.561		
1,100.00	1,100.00	1,091.50	1,090.28	3.72	3.70	9.78	73.42	12.66	75.14	67.76	7.37	10.189		
1,200.00	1,199.98	1,187.87	1,185.52	4.07	4.07	-58.97	86.40	19.64	88.88	80.83	8.05	11.044		
1,300.00	1,299.84	1,283.61	1,279.58	4.42	4.46	-58.32	102.07	28.08	104.08	95.37	8.71	11.948		
1,400.00	1,399.45	1,378.64	1,372.31	4.78	4.86	-58.71	120.36	37.92	120.64	111.27	9.37	12.874		
1,505.27	1,503.92	1,478.36	1,468.83	5.16	5.32	-59.81	142.42	49.79	139.55	129.46	10.09	13.836		
1,600.00	1,597.70	1,571.41	1,558.56	5.52	5.76	-61.25	164.08	61.45	156.99	146.19	10.80	14.534		
1,700.00	1,696.70	1,669.62	1,653.28	5.90	6.25	-62.47	186.95	73.75	175.48	163.91	11.57	15.164		
1,800.00	1,795.71	1,767.83	1,748.00	6.29	6.74	-63.45	209.81	86.06	194.03	181.68	12.35	15.707		
1,900.00	1,894.71	1,866.05	1,842.72	6.68	7.24	-64.26	232.67	98.36	212.63	199.49	13.14	16.177		
2,000.00	1,993.71	1,964.26	1,937.44	7.08	7.75	-64.94	255.53	110.67	231.26	217.32	13.94	16.586		
2,100.00	2,092.71	2,062.48	2,032.16	7.48	8.27	-65.52	278.40	122.97	249.92	235.17	14.75	16.945		
2,200.00	2,191.71	2,160.69	2,126.89	7.89	8.79	-66.01	301.26	135.28	268.60	253.04	15.56	17.262		
2,300.00	2,290.71	2,258.91	2,221.61	8.29	9.31	-66.45	324.12	147.58	287.30	270.92	16.38	17.543		
2,400.00	2,389.71	2,357.12	2,316.33	8.70	9.84	-66.83	346.98	159.89	306.01	288.81	17.20	17.793		
2,500.00	2,488.71	2,455.34	2,411.05	9.11	10.37	-67.16	369.85	172.19	324.74	306.71	18.02	18.018		
2,600.00	2,587.71	2,553.55	2,505.77	9.52	10.90	-67.46	392.71	184.50	343.47	324.62	18.85	18.220		
2,700.00	2,686.71	2,651.77	2,600.49	9.94	11.43	-67.73	415.57	196.80	362.21	342.53	19.68	18.403		
2,800.00	2,785.72	2,749.98	2,695.21	10.35	11.97	-67.98	438.43	209.11	380.96	360.44	20.52	18.569		
2,900.00	2,884.72	2,848.20	2,789.93	10.77	12.51	-68.20	461.30	221.41	399.71	378.36	21.35	18.720		
3,000.00	2,983.72	2,946.41	2,884.65	11.18	13.05	-68.40	484.16	233.71	418.47	396.28	22.19	18.858		
3,100.00	3,082.72	3,044.63	2,979.37	11.60	13.59	-68.58	507.02	246.02	437.24	414.20	23.03	18.985		
3,200.00	3,181.72	3,142.84	3,074.09	12.02	14.13	-68.75	529.88	258.32	456.00	432.13	23.87	19.102		
3,300.00	3,280.72	3,241.06	3,168.81	12.44	14.67	-68.90	552.75	270.63	474.77	450.06	24.71	19.210		
3,400.00	3,379.72	3,339.27	3,263.54	12.86	15.21	-69.04	575.61	282.93	493.55	467.99	25.56	19.310		
3,500.00	3,478.72	3,437.49	3,358.26	13.28	15.75	-69.18	598.47	295.24	512.32	485.92	26.40	19.403		
3,600.00	3,577.72	3,535.70	3,452.98	13.70	16.30	-69.30	621.33	307.54	531.10	503.85	27.25	19.489		
3,700.00	3,676.73	3,633.91	3,547.70	14.12	16.84	-69.41	644.20	319.85	549.89	521.79	28.10	19.570		
3,800.00	3,775.73	3,732.13	3,642.42	14.54	17.39	-69.52	667.06	332.15	568.67	539.72	28.95	19.645		
3,900.00	3,874.73	3,830.34	3,737.14	14.96	17.93	-69.62	689.92	344.46	587.45	557.66	29.80	19.716		
4,000.00	3,973.73	3,928.56	3,831.86	15.39	18.48	-69.71	712.78	356.76	606.24	575.59	30.65	19.782		
4,100.00	4,072.73	4,026.77	3,926.58	15.81	19.03	-69.80	735.65	369.06	625.03	593.53	31.50	19.844		
4,200.00	4,171.73	4,124.99	4,021.30	16.23	19.57	-69.89	758.51	381.37	643.82	611.47	32.35	19.902		
4,300.00	4,270.73	4,223.20	4,116.02	16.65	20.12	-69.96	781.37	393.67	662.61	629.41	33.20	19.957		
4,400.00	4,369.73	4,321.42	4,210.74	17.08	20.67	-70.04	804.23	405.98	681.40	647.35	34.05	20.010		
4,500.00	4,468.73	4,419.63	4,305.46	17.50	21.22	-70.11	827.10	418.28	700.19	665.29	34.91	20.059		
4,600.00	4,567.73	4,517.85	4,400.19	17.93	21.77	-70.17	849.96	430.59	718.99	683.23	35.76	20.106		
4,700.00	4,666.74	4,616.06	4,494.91	18.35	22.31	-70.24	872.82	442.89	737.78	701.17	36.62	20.150		
4,800.00	4,765.74	4,714.28	4,589.63	18.77	22.86	-70.30	895.68	455.20	756.58	719.11	37.47	20.192		
4,900.00	4,864.74	4,812.49	4,684.35	19.20	23.41	-70.35	918.55	467.50	775.38	737.05	38.32	20.232		
5,000.00	4,963.74	4,910.71	4,779.07	19.62	23.96	-70.41	941.41	479.81	794.17	754.99	39.18	20.270		
5,100.00	5,062.74	5,008.92	4,873.79	20.05	24.51	-70.46	964.27	492.11	812.97	772.94	40.04	20.306		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 2FH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.00	5,161.74	5,107.14	4,968.51	20.47	25.06	-70.51	987.13	504.42	831.77	790.88	40.89	20.341		
5,300.00	5,260.74	5,205.35	5,063.23	20.90	25.61	-70.56	1,010.00	516.72	850.57	808.82	41.75	20.374		
5,400.00	5,359.74	5,303.56	5,157.95	21.32	26.16	-70.60	1,032.86	529.02	869.37	826.76	42.61	20.405		
5,500.00	5,458.74	5,401.78	5,252.67	21.75	26.71	-70.65	1,055.72	541.33	888.17	844.71	43.46	20.435		
5,600.00	5,557.75	5,499.99	5,347.39	22.17	27.26	-70.69	1,078.58	553.63	906.97	862.65	44.32	20.464		
5,700.00	5,656.75	5,598.21	5,442.11	22.60	27.81	-70.73	1,101.45	565.94	925.77	880.59	45.18	20.492		
5,800.00	5,755.75	5,703.58	5,536.84	23.03	28.40	-70.77	1,124.31	578.24	944.57	898.50	46.07	20.504		
5,900.00	5,854.75	5,805.36	5,631.56	23.45	28.97	-70.80	1,147.17	590.55	963.37	916.43	46.94	20.523		
6,000.00	5,953.75	5,907.15	5,726.28	23.88	29.54	-70.84	1,170.03	602.85	982.18	934.36	47.82	20.541		
6,100.00	6,052.75	5,991.07	5,821.00	24.30	30.01	-70.87	1,192.90	615.16	1,000.98	952.37	48.61	20.592		
6,200.00	6,151.75	6,089.28	5,915.72	24.73	30.56	-70.90	1,215.76	627.46	1,019.78	970.31	49.47	20.614		
6,300.00	6,250.75	6,187.50	6,010.44	25.16	31.11	-70.94	1,238.62	639.77	1,038.58	988.26	50.33	20.636		
6,400.00	6,349.75	6,285.71	6,105.16	25.58	31.66	-70.97	1,261.48	652.07	1,057.39	1,006.20	51.19	20.657		
6,500.00	6,448.75	6,383.93	6,199.88	26.01	32.22	-71.00	1,284.35	664.37	1,076.19	1,024.14	52.05	20.677		
6,600.00	6,547.76	6,482.14	6,294.60	26.43	32.77	-71.02	1,307.21	676.68	1,095.00	1,042.09	52.91	20.697		
6,700.00	6,646.76	6,580.36	6,389.32	26.86	33.32	-71.05	1,330.07	688.98	1,113.80	1,060.03	53.77	20.715		
6,800.00	6,745.76	6,678.57	6,484.04	27.29	33.87	-71.08	1,352.93	701.29	1,132.60	1,077.98	54.63	20.734		
6,900.00	6,844.76	6,776.79	6,578.76	27.71	34.42	-71.10	1,375.80	713.59	1,151.41	1,095.92	55.49	20.751		
7,000.00	6,943.76	6,875.00	6,673.49	28.14	34.97	-71.13	1,398.66	725.90	1,170.21	1,113.87	56.35	20.768		
7,100.00	7,042.76	6,973.21	6,768.21	28.57	35.52	-71.15	1,421.52	738.20	1,189.02	1,131.81	57.21	20.784		
7,200.00	7,141.76	7,071.43	6,862.93	28.99	36.07	-71.18	1,444.38	750.51	1,207.82	1,149.76	58.07	20.800		
7,300.00	7,240.76	7,169.64	6,957.65	29.42	36.63	-71.20	1,467.25	762.81	1,226.63	1,167.70	58.93	20.815		
7,361.24	7,301.39	7,229.79	7,015.65	29.68	36.96	-71.21	1,481.25	770.35	1,238.15	1,178.69	59.46	20.825		
7,400.00	7,339.91	7,267.84	7,052.35	29.84	37.18	-55.95	1,490.10	775.11	1,245.42	1,185.65	59.77	20.837		
7,450.00	7,389.83	7,316.66	7,099.43	30.01	37.45	22.73	1,501.47	781.23	1,254.74	1,194.63	60.11	20.874		
7,500.00	7,439.65	7,364.85	7,145.91	30.14	37.72	64.42	1,512.69	787.27	1,263.96	1,203.58	60.38	20.933		
7,550.00	7,489.01	7,412.04	7,191.42	30.25	37.99	73.89	1,523.67	793.18	1,273.12	1,212.53	60.59	21.011		
7,600.00	7,537.51	7,457.86	7,235.61	30.34	38.25	77.70	1,534.34	798.92	1,282.28	1,221.53	60.75	21.109		
7,650.00	7,584.80	7,501.98	7,278.16	30.41	38.49	79.77	1,544.61	804.45	1,291.53	1,230.68	60.85	21.226		
7,700.00	7,630.51	7,544.06	7,318.74	30.46	38.73	81.10	1,554.40	809.72	1,300.99	1,240.09	60.90	21.363		
7,750.00	7,674.30	7,589.47	7,362.68	30.50	38.97	82.13	1,565.01	814.00	1,310.72	1,249.77	60.96	21.503		
7,800.00	7,715.83	7,637.98	7,409.81	30.53	39.21	82.96	1,576.40	814.62	1,320.63	1,259.60	61.03	21.639		
7,850.00	7,754.79	7,689.61	7,459.84	30.56	39.43	83.68	1,588.50	810.78	1,330.63	1,269.50	61.12	21.770		
7,900.00	7,790.88	7,745.02	7,512.91	30.59	39.63	84.36	1,601.35	801.52	1,340.63	1,279.38	61.25	21.890		
7,950.00	7,823.82	7,804.99	7,569.08	30.63	39.81	85.04	1,614.97	785.61	1,350.51	1,289.11	61.40	21.995		
8,000.00	7,853.37	7,870.48	7,628.20	30.69	39.95	85.74	1,629.32	761.45	1,360.14	1,298.54	61.60	22.081		
8,050.00	7,879.29	7,942.56	7,689.69	30.77	40.07	86.48	1,644.27	727.03	1,369.32	1,307.48	61.84	22.143		
8,100.00	7,901.40	8,022.36	7,752.25	30.88	40.13	87.27	1,659.51	680.02	1,377.83	1,315.70	62.13	22.176		
8,150.00	7,919.52	8,110.86	7,813.46	31.03	40.15	88.07	1,674.46	617.99	1,385.40	1,322.90	62.50	22.166		
8,200.00	7,933.52	8,208.61	7,869.37	31.22	40.09	88.83	1,688.18	539.14	1,391.70	1,328.71	62.99	22.093		
8,250.00	7,943.29	8,315.15	7,914.52	31.46	39.96	89.47	1,699.33	443.46	1,396.40	1,332.70	63.69	21.923		
8,300.00	7,948.75	8,428.62	7,942.81	31.73	39.77	89.89	1,706.45	334.00	1,399.18	1,334.53	64.65	21.642		
8,337.82	7,950.00	8,516.99	7,949.99	31.96	39.60	90.00	1,708.41	246.03	1,399.88	1,334.34	65.54	21.360		
8,400.00	7,950.00	8,581.34	7,950.00	32.41	39.47	90.00	1,708.57	181.68	1,399.90	1,333.46	66.44	21.069		
8,500.00	7,950.00	8,681.34	7,950.00	33.29	39.30	90.00	1,708.83	81.68	1,399.93	1,331.75	68.18	20.534		
8,600.00	7,950.00	8,781.34	7,950.00	34.37	39.17	90.00	1,709.08	-18.32	1,399.96	1,329.68	70.28	19.920		
8,700.00	7,950.00	8,881.34	7,950.00	35.63	39.11	90.00	1,709.34	-118.32	1,399.99	1,327.28	72.72	19.252		
8,800.00	7,950.00	8,981.34	7,950.00	37.04	39.30	90.00	1,709.59	-218.32	1,400.03	1,324.56	75.46	18.552		
8,900.00	7,950.00	9,081.34	7,950.00	38.59	40.46	90.00	1,709.85	-318.32	1,400.06	1,321.57	78.48	17.839		
9,000.00	7,950.00	9,181.34	7,950.00	40.26	42.05	90.00	1,710.10	-418.32	1,400.09	1,318.34	81.75	17.127		
9,100.00	7,950.00	9,281.34	7,950.00	42.03	43.79	90.00	1,710.36	-518.32	1,400.12	1,314.90	85.22	16.429		
9,200.00	7,950.00	9,381.34	7,950.00	43.90	45.62	90.00	1,710.61	-618.32	1,400.15	1,311.26	88.89	15.751		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 2FH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,300.00	7,950.00	9,481.34	7,950.00	45.85	47.54	90.00	1,710.86	-718.32	1,400.18	1,307.45	92.73	15.100		
9,400.00	7,950.00	9,581.34	7,950.00	47.87	49.53	90.00	1,711.12	-818.32	1,400.21	1,303.50	96.71	14.478		
9,500.00	7,950.00	9,681.34	7,950.00	49.96	51.57	90.00	1,711.37	-918.32	1,400.25	1,299.42	100.83	13.888		
9,600.00	7,950.00	9,781.34	7,950.00	52.10	53.67	90.00	1,711.63	-1,018.31	1,400.28	1,295.22	105.06	13.329		
9,700.00	7,950.00	9,881.34	7,950.00	54.29	55.82	90.00	1,711.88	-1,118.31	1,400.31	1,290.92	109.39	12.802		
9,800.00	7,950.00	9,981.34	7,950.00	56.52	58.01	90.00	1,712.14	-1,218.31	1,400.34	1,286.53	113.81	12.305		
9,900.00	7,950.00	10,081.34	7,950.00	58.79	60.25	90.00	1,712.39	-1,318.31	1,400.37	1,282.06	118.31	11.837		
10,000.00	7,950.00	10,181.34	7,950.00	61.10	62.51	90.00	1,712.65	-1,418.31	1,400.40	1,277.52	122.88	11.397		
10,100.00	7,950.00	10,281.34	7,950.00	63.44	64.81	90.00	1,712.90	-1,518.31	1,400.43	1,272.92	127.51	10.983		
10,200.00	7,950.00	10,381.34	7,950.00	65.80	67.13	90.00	1,713.15	-1,618.31	1,400.47	1,268.26	132.20	10.593		
10,300.00	7,950.00	10,481.34	7,950.00	68.19	69.48	90.00	1,713.41	-1,718.31	1,400.50	1,263.55	136.95	10.227		
10,400.00	7,950.00	10,581.34	7,950.00	70.60	71.85	90.00	1,713.66	-1,818.31	1,400.53	1,258.79	141.73	9.881		
10,500.00	7,950.00	10,681.34	7,950.00	73.03	74.25	90.00	1,713.92	-1,918.31	1,400.56	1,253.99	146.56	9.556		
10,600.00	7,950.00	10,781.34	7,950.00	75.47	76.66	90.00	1,714.17	-2,018.31	1,400.59	1,249.16	151.43	9.249		
10,700.00	7,950.00	10,881.34	7,950.00	77.94	79.09	90.00	1,714.43	-2,118.31	1,400.62	1,244.29	156.33	8.959		
10,800.00	7,950.00	10,981.34	7,950.00	80.41	81.53	90.00	1,714.68	-2,218.31	1,400.65	1,239.39	161.26	8.685		
10,900.00	7,950.00	11,081.34	7,950.00	82.90	83.99	90.00	1,714.94	-2,318.31	1,400.68	1,234.46	166.22	8.426		
11,000.00	7,950.00	11,181.34	7,950.00	85.41	86.47	90.00	1,715.19	-2,418.31	1,400.72	1,229.51	171.21	8.181		
11,100.00	7,950.00	11,281.34	7,950.00	87.92	88.95	90.00	1,715.44	-2,518.31	1,400.75	1,224.53	176.22	7.949		
11,200.00	7,950.00	11,381.34	7,950.00	90.45	91.45	90.00	1,715.70	-2,618.31	1,400.78	1,219.53	181.25	7.728		
11,300.00	7,950.00	11,481.34	7,950.00	92.98	93.96	90.00	1,715.95	-2,718.31	1,400.81	1,214.51	186.30	7.519		
11,400.00	7,950.00	11,581.34	7,950.00	95.52	96.47	90.00	1,716.21	-2,818.31	1,400.84	1,209.47	191.37	7.320		
11,500.00	7,950.00	11,681.34	7,950.00	98.07	99.00	90.00	1,716.46	-2,918.31	1,400.87	1,204.42	196.45	7.131		
11,600.00	7,950.00	11,781.34	7,950.00	100.63	101.53	90.00	1,716.72	-3,018.31	1,400.90	1,199.35	201.55	6.950		
11,700.00	7,950.00	11,881.34	7,950.00	103.20	104.08	90.00	1,716.97	-3,118.31	1,400.94	1,194.27	206.67	6.779		
11,800.00	7,950.00	11,981.34	7,950.00	105.77	106.62	90.00	1,717.23	-3,218.31	1,400.97	1,189.17	211.80	6.615		
11,900.00	7,950.00	12,081.34	7,950.00	108.34	109.18	90.00	1,717.48	-3,318.31	1,401.00	1,184.06	216.94	6.458		
12,000.00	7,950.00	12,181.34	7,950.00	110.93	111.74	90.00	1,717.73	-3,418.31	1,401.03	1,178.94	222.09	6.308		
12,100.00	7,950.00	12,281.34	7,950.00	113.51	114.31	90.00	1,717.99	-3,518.31	1,401.06	1,173.81	227.26	6.165		
12,200.00	7,950.00	12,381.34	7,950.00	116.11	116.88	90.00	1,718.24	-3,618.31	1,401.09	1,168.66	232.43	6.028		
12,300.00	7,950.00	12,481.34	7,950.00	118.70	119.46	90.00	1,718.50	-3,718.31	1,401.12	1,163.51	237.61	5.897		
12,400.00	7,950.00	12,581.34	7,950.00	121.30	122.04	90.00	1,718.75	-3,818.31	1,401.16	1,158.35	242.80	5.771		
12,500.00	7,950.00	12,681.34	7,950.00	123.91	124.63	90.00	1,719.01	-3,918.31	1,401.19	1,153.18	248.00	5.650		
12,600.00	7,950.00	12,781.34	7,950.00	126.52	127.22	90.00	1,719.26	-4,018.31	1,401.22	1,148.01	253.21	5.534		
12,700.00	7,950.00	12,881.34	7,950.00	129.13	129.82	90.00	1,719.52	-4,118.30	1,401.25	1,142.83	258.42	5.422		
12,800.00	7,950.00	12,981.34	7,950.00	131.74	132.42	90.00	1,719.77	-4,218.30	1,401.28	1,137.64	263.65	5.315		
12,900.00	7,950.00	13,081.34	7,950.00	134.36	135.02	90.00	1,720.02	-4,318.30	1,401.31	1,132.44	268.87	5.212		
13,000.00	7,950.00	13,181.34	7,950.00	136.98	137.62	90.00	1,720.28	-4,418.30	1,401.34	1,127.24	274.11	5.112		
13,100.00	7,950.00	13,281.34	7,950.00	139.61	140.23	90.00	1,720.53	-4,518.30	1,401.38	1,122.03	279.35	5.017		
13,200.00	7,950.00	13,381.34	7,950.00	142.23	142.85	90.00	1,720.79	-4,618.30	1,401.41	1,116.81	284.59	4.924		
13,300.00	7,950.00	13,481.34	7,950.00	144.86	145.46	90.00	1,721.04	-4,718.30	1,401.44	1,111.60	289.84	4.835		
13,400.00	7,950.00	13,581.34	7,950.00	147.49	148.08	90.00	1,721.30	-4,818.30	1,401.47	1,106.37	295.10	4.749		
13,500.00	7,950.00	13,681.34	7,950.00	150.12	150.70	90.00	1,721.55	-4,918.30	1,401.50	1,101.14	300.36	4.666		
13,600.00	7,950.00	13,781.34	7,950.00	152.76	153.32	90.00	1,721.81	-5,018.30	1,401.53	1,095.91	305.62	4.586		
13,700.00	7,950.00	13,881.34	7,950.00	155.40	155.95	90.00	1,722.06	-5,118.30	1,401.56	1,090.68	310.89	4.508		
13,800.00	7,950.00	13,981.34	7,950.00	158.04	158.57	90.00	1,722.31	-5,218.30	1,401.59	1,085.44	316.16	4.433		
13,900.00	7,950.00	14,081.34	7,950.00	160.68	161.20	90.00	1,722.57	-5,318.30	1,401.63	1,080.19	321.44	4.361		
14,000.00	7,950.00	14,181.34	7,950.00	163.32	163.83	90.00	1,722.82	-5,418.30	1,401.66	1,074.94	326.71	4.290		
14,100.00	7,950.00	14,281.34	7,950.00	165.96	166.47	90.00	1,723.08	-5,518.30	1,401.69	1,069.69	332.00	4.222		
14,200.00	7,950.00	14,381.34	7,950.00	168.61	169.10	90.00	1,723.33	-5,618.30	1,401.72	1,064.44	337.28	4.156		
14,300.00	7,950.00	14,481.34	7,950.00	171.25	171.74	90.00	1,723.59	-5,718.30	1,401.75	1,059.18	342.57	4.092		
14,400.00	7,950.00	14,581.34	7,950.00	173.90	174.38	90.00	1,723.84	-5,818.30	1,401.78	1,053.92	347.86	4.030		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 2FH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,500.00	7,950.00	14,681.34	7,950.00	176.55	177.02	90.00	1,724.10	-5,918.30	1,401.81	1,048.66	353.16	3.969		
14,600.00	7,950.00	14,781.34	7,950.00	179.20	179.66	90.00	1,724.35	-6,018.30	1,401.85	1,043.39	358.45	3.911		
14,700.00	7,950.00	14,881.34	7,950.00	181.86	182.30	90.00	1,724.60	-6,118.30	1,401.88	1,038.12	363.75	3.854		
14,800.00	7,950.00	14,981.34	7,950.00	184.51	184.95	90.00	1,724.86	-6,218.30	1,401.91	1,032.85	369.06	3.799		
14,900.00	7,950.00	15,081.34	7,950.00	187.16	187.59	90.00	1,725.11	-6,318.30	1,401.94	1,027.58	374.36	3.745		
15,000.00	7,950.00	15,181.34	7,950.00	189.82	190.24	90.00	1,725.37	-6,418.30	1,401.97	1,022.30	379.67	3.693		
15,100.00	7,950.00	15,281.34	7,950.00	192.47	192.89	90.00	1,725.62	-6,518.30	1,402.00	1,017.03	384.98	3.642		
15,200.00	7,950.00	15,381.34	7,950.00	195.13	195.54	90.00	1,725.88	-6,618.30	1,402.03	1,011.75	390.29	3.592		
15,300.00	7,950.00	15,481.34	7,950.00	197.79	198.19	90.00	1,726.13	-6,718.30	1,402.07	1,006.46	395.60	3.544		
15,400.00	7,950.00	15,581.34	7,950.00	200.45	200.84	90.00	1,726.39	-6,818.30	1,402.10	1,001.18	400.92	3.497		
15,500.00	7,950.00	15,681.34	7,950.00	203.11	203.49	90.00	1,726.64	-6,918.30	1,402.13	995.90	406.23	3.452		
15,600.00	7,950.00	15,781.34	7,950.00	205.77	206.14	90.00	1,726.89	-7,018.30	1,402.16	990.61	411.55	3.407		
15,700.00	7,950.00	15,881.34	7,950.00	208.43	208.80	90.00	1,727.15	-7,118.30	1,402.19	985.32	416.87	3.364		
15,800.00	7,950.00	15,981.34	7,950.00	211.10	211.45	90.00	1,727.40	-7,218.29	1,402.22	980.03	422.19	3.321		
15,900.00	7,950.00	16,081.34	7,950.00	213.76	214.11	90.00	1,727.66	-7,318.29	1,402.25	974.74	427.52	3.280		
16,000.00	7,950.00	16,181.34	7,950.00	216.42	216.77	90.00	1,727.91	-7,418.29	1,402.29	969.44	432.84	3.240		
16,100.00	7,950.00	16,281.34	7,950.00	219.09	219.43	90.00	1,728.17	-7,518.29	1,402.32	964.15	438.17	3.200		
16,200.00	7,950.00	16,381.34	7,950.00	221.75	222.09	90.00	1,728.42	-7,618.29	1,402.35	958.85	443.49	3.162		
16,300.00	7,950.00	16,481.34	7,950.00	224.42	224.74	90.00	1,728.68	-7,718.29	1,402.38	953.56	448.82	3.125		
16,400.00	7,950.00	16,581.34	7,950.00	227.08	227.41	90.00	1,728.93	-7,818.29	1,402.41	948.26	454.15	3.088		
16,500.00	7,950.00	16,681.34	7,950.00	229.75	230.07	90.00	1,729.18	-7,918.29	1,402.44	942.96	459.49	3.052		
16,600.00	7,950.00	16,781.34	7,950.00	232.42	232.73	90.00	1,729.44	-8,018.29	1,402.47	937.65	464.82	3.017		
16,700.00	7,950.00	16,881.34	7,950.00	235.09	235.39	90.00	1,729.69	-8,118.29	1,402.50	932.35	470.15	2.983		
16,800.00	7,950.00	16,981.34	7,950.00	237.76	238.05	90.00	1,729.95	-8,218.29	1,402.54	927.05	475.49	2.950		
16,900.00	7,950.00	17,081.34	7,950.00	240.43	240.72	90.00	1,730.20	-8,318.29	1,402.57	921.74	480.82	2.917		
17,000.00	7,950.00	17,181.34	7,950.00	243.10	243.38	90.00	1,730.46	-8,418.29	1,402.60	916.44	486.16	2.885		
17,100.00	7,950.00	17,281.34	7,950.00	245.77	246.05	90.00	1,730.71	-8,518.29	1,402.63	911.13	491.50	2.854		
17,200.00	7,950.00	17,381.34	7,950.00	248.44	248.71	90.00	1,730.97	-8,618.29	1,402.66	905.82	496.84	2.823		
17,300.00	7,950.00	17,481.34	7,950.00	251.11	251.38	90.00	1,731.22	-8,718.29	1,402.69	900.51	502.18	2.793		
17,400.00	7,950.00	17,581.34	7,950.00	253.78	254.05	90.00	1,731.47	-8,818.29	1,402.72	895.20	507.52	2.764		
17,500.00	7,950.00	17,681.34	7,950.00	256.45	256.71	90.00	1,731.73	-8,918.29	1,402.76	889.89	512.86	2.735		
17,600.00	7,950.00	17,781.34	7,950.00	259.12	259.38	90.00	1,731.98	-9,018.29	1,402.79	884.58	518.20	2.707		
17,700.00	7,950.00	17,881.34	7,950.00	261.80	262.05	90.00	1,732.24	-9,118.29	1,402.82	879.27	523.55	2.679		
17,800.00	7,950.00	17,981.34	7,950.00	264.47	264.72	90.00	1,732.49	-9,218.29	1,402.85	873.96	528.89	2.652		
17,900.00	7,950.00	18,081.34	7,950.00	267.14	267.39	90.00	1,732.75	-9,318.29	1,402.88	868.64	534.24	2.626		
18,000.00	7,950.00	18,181.34	7,950.00	269.82	270.06	90.00	1,733.00	-9,418.29	1,402.91	863.33	539.58	2.600		
18,100.00	7,950.00	18,281.34	7,950.00	272.49	272.73	90.00	1,733.26	-9,518.29	1,402.94	858.01	544.93	2.575		
18,200.00	7,950.00	18,381.34	7,950.00	275.17	275.40	90.00	1,733.51	-9,618.29	1,402.98	852.70	550.28	2.550		
18,300.00	7,950.00	18,481.34	7,950.00	277.84	278.07	90.00	1,733.76	-9,718.29	1,403.01	847.38	555.63	2.525		
18,400.00	7,950.00	18,581.34	7,950.00	280.52	280.74	90.00	1,734.02	-9,818.29	1,403.04	842.06	560.98	2.501		
18,500.00	7,950.00	18,681.34	7,950.00	283.19	283.41	90.00	1,734.27	-9,918.29	1,403.07	836.74	566.33	2.477		
18,600.00	7,950.00	18,781.34	7,950.00	285.87	286.08	90.00	1,734.53	-10,018.29	1,403.10	831.42	571.68	2.454		
18,700.00	7,950.00	18,881.34	7,950.00	288.55	288.75	90.00	1,734.78	-10,118.29	1,403.13	826.10	577.03	2.432		
18,800.00	7,950.00	18,981.34	7,950.00	291.22	291.43	90.00	1,735.04	-10,218.28	1,403.16	820.78	582.38	2.409		
18,900.00	7,950.00	19,081.34	7,950.00	293.90	294.10	90.00	1,735.29	-10,318.28	1,403.20	815.46	587.73	2.387		
19,000.00	7,950.00	19,181.34	7,950.00	296.58	296.77	90.00	1,735.55	-10,418.28	1,403.23	810.14	593.08	2.366		
19,100.00	7,950.00	19,281.34	7,950.00	299.25	299.45	90.00	1,735.80	-10,518.28	1,403.26	804.82	598.44	2.345		
19,200.00	7,950.00	19,381.34	7,950.00	301.93	302.12	90.00	1,736.05	-10,618.28	1,403.29	799.50	603.79	2.324		
19,300.00	7,950.00	19,481.34	7,950.00	304.61	304.80	90.00	1,736.31	-10,718.28	1,403.32	794.18	609.15	2.304		
19,400.00	7,950.00	19,581.34	7,950.00	307.29	307.47	90.00	1,736.56	-10,818.28	1,403.35	788.85	614.50	2.284		
19,500.00	7,950.00	19,681.34	7,950.00	309.97	310.15	90.00	1,736.82	-10,918.28	1,403.38	783.53	619.86	2.264		
19,600.00	7,950.00	19,781.34	7,950.00	312.65	312.82	90.00	1,737.07	-11,018.28	1,403.41	778.20	625.21	2.245		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 2FH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth Vertical Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
19,700.00	7,950.00	19,881.34	7,950.00	315.32	315.50	90.00	1,737.33	-11,118.28	1,403.45	772.88	630.57	2.226		
19,800.00	7,950.00	19,981.34	7,950.00	318.00	318.17	90.00	1,737.58	-11,218.28	1,403.48	767.55	635.93	2.207		
19,900.00	7,950.00	20,081.34	7,950.00	320.68	320.85	90.00	1,737.84	-11,318.28	1,403.51	762.23	641.28	2.189		
20,000.00	7,950.00	20,181.34	7,950.00	323.36	323.53	90.00	1,738.09	-11,418.28	1,403.54	756.90	646.64	2.171		
20,100.00	7,950.00	20,281.34	7,950.00	326.04	326.20	90.00	1,738.35	-11,518.28	1,403.57	751.57	652.00	2.153		
20,200.00	7,950.00	20,381.34	7,950.00	328.72	328.88	90.00	1,738.60	-11,618.28	1,403.60	746.25	657.36	2.135		
20,300.00	7,950.00	20,481.34	7,950.00	331.40	331.56	90.00	1,738.85	-11,718.28	1,403.63	740.92	662.72	2.118		
20,400.00	7,950.00	20,581.34	7,950.00	334.08	334.23	90.00	1,739.11	-11,818.28	1,403.67	735.59	668.08	2.101		
20,500.00	7,950.00	20,681.34	7,950.00	336.76	336.91	90.00	1,739.36	-11,918.28	1,403.70	730.26	673.44	2.084		
20,600.00	7,950.00	20,781.34	7,950.00	339.44	339.59	90.00	1,739.62	-12,018.28	1,403.73	724.93	678.80	2.068		
20,700.00	7,950.00	20,881.34	7,950.00	342.12	342.27	90.00	1,739.87	-12,118.28	1,403.76	719.60	684.16	2.052		
20,800.00	7,950.00	20,981.34	7,950.00	344.81	344.95	90.00	1,740.13	-12,218.28	1,403.79	714.27	689.52	2.036		
20,900.00	7,950.00	21,081.34	7,950.00	347.49	347.62	90.00	1,740.38	-12,318.28	1,403.82	708.94	694.88	2.020		
21,000.00	7,950.00	21,181.34	7,950.00	350.17	350.30	90.00	1,740.64	-12,418.28	1,403.85	703.61	700.24	2.005		
21,100.00	7,950.00	21,281.34	7,950.00	352.85	352.98	90.00	1,740.89	-12,518.28	1,403.89	698.28	705.60	1.990		
21,200.00	7,950.00	21,381.34	7,950.00	355.53	355.66	90.00	1,741.14	-12,618.28	1,403.92	692.95	710.96	1.975		
21,300.00	7,950.00	21,481.34	7,950.00	358.21	358.34	90.00	1,741.40	-12,718.28	1,403.95	687.62	716.33	1.960		
21,400.00	7,950.00	21,581.34	7,950.00	360.90	361.02	90.00	1,741.65	-12,818.28	1,403.98	682.29	721.69	1.945		
21,500.00	7,950.00	21,681.34	7,950.00	363.58	363.70	90.00	1,741.91	-12,918.28	1,404.01	676.96	727.05	1.931		
21,600.00	7,950.00	21,781.34	7,950.00	366.26	366.38	90.00	1,742.16	-13,018.28	1,404.04	671.63	732.42	1.917		
21,700.00	7,950.00	21,881.34	7,950.00	368.94	369.06	90.00	1,742.42	-13,118.28	1,404.07	666.29	737.78	1.903		
21,800.00	7,950.00	21,981.34	7,950.00	371.62	371.74	90.00	1,742.67	-13,218.28	1,404.11	660.96	743.15	1.889		
21,900.00	7,950.00	22,081.34	7,950.00	374.31	374.42	90.00	1,742.93	-13,318.27	1,404.14	655.63	748.51	1.876		
22,000.00	7,950.00	22,181.34	7,950.00	376.99	377.10	90.00	1,743.18	-13,418.27	1,404.17	650.29	753.87	1.863		
22,100.00	7,950.00	22,281.34	7,950.00	379.67	379.78	90.00	1,743.43	-13,518.27	1,404.20	644.96	759.24	1.849		
22,200.00	7,950.00	22,381.34	7,950.00	382.36	382.46	90.00	1,743.69	-13,618.27	1,404.23	639.63	764.61	1.837		
22,300.00	7,950.00	22,481.34	7,950.00	385.04	385.14	90.00	1,743.94	-13,718.27	1,404.26	634.29	769.97	1.824		
22,400.00	7,950.00	22,581.34	7,950.00	387.72	387.82	90.00	1,744.20	-13,818.27	1,404.29	628.96	775.34	1.811		
22,500.00	7,950.00	22,681.34	7,950.00	390.41	390.50	90.00	1,744.45	-13,918.27	1,404.32	623.62	780.70	1.799		
22,600.00	7,950.00	22,781.34	7,950.00	393.09	393.19	90.00	1,744.71	-14,018.27	1,404.36	618.29	786.07	1.787		
22,700.00	7,950.00	22,881.34	7,950.00	395.77	395.87	90.00	1,744.96	-14,118.27	1,404.39	612.95	791.44	1.774		
22,800.00	7,950.00	22,981.34	7,950.00	398.46	398.55	90.00	1,745.22	-14,218.27	1,404.42	607.62	796.80	1.763		
22,900.00	7,950.00	23,081.34	7,950.00	401.14	401.23	90.00	1,745.47	-14,318.27	1,404.45	602.28	802.17	1.751		
23,000.00	7,950.00	23,181.34	7,950.00	403.83	403.91	90.00	1,745.72	-14,418.27	1,404.48	596.95	807.54	1.739		
23,100.00	7,950.00	23,281.34	7,950.00	406.51	406.60	90.00	1,745.98	-14,518.27	1,404.51	591.61	812.90	1.728		
23,200.00	7,950.00	23,381.34	7,950.00	409.19	409.28	90.00	1,746.23	-14,618.27	1,404.54	586.27	818.27	1.716		
23,300.00	7,950.00	23,481.34	7,950.00	411.88	411.96	90.00	1,746.49	-14,718.27	1,404.58	580.94	823.64	1.705		
23,400.00	7,950.00	23,504.68	7,950.00	414.56	412.59	90.00	1,746.55	-14,741.61	1,406.70	580.16	826.53	1.702 SF		
23,500.00	7,950.00	23,504.68	7,950.00	417.25	412.59	90.00	1,746.55	-14,741.61	1,415.70	590.66	825.04	1.716		
23,600.00	7,950.00	23,504.68	7,950.00	419.93	412.59	90.00	1,746.55	-14,741.61	1,431.66	612.04	819.62	1.747		
23,700.00	7,950.00	23,504.68	7,950.00	422.62	412.59	90.00	1,746.55	-14,741.61	1,454.32	643.73	810.59	1.794		
23,800.00	7,950.00	23,504.68	7,950.00	425.30	412.59	90.00	1,746.55	-14,741.61	1,483.40	684.98	798.42	1.858		
23,900.00	7,950.00	23,504.68	7,950.00	427.99	412.59	90.00	1,746.55	-14,741.61	1,518.52	734.90	783.62	1.938		
24,000.00	7,950.00	23,504.68	7,950.00	430.67	412.59	90.00	1,746.55	-14,741.61	1,559.27	792.52	766.74	2.034		
24,100.00	7,950.00	23,504.68	7,950.00	433.36	412.59	90.00	1,746.55	-14,741.61	1,605.22	856.89	748.33	2.145		
24,200.00	7,950.00	23,504.68	7,950.00	436.04	412.59	90.00	1,746.55	-14,741.61	1,655.95	927.07	728.87	2.272		
24,300.00	7,950.00	23,504.68	7,950.00	438.73	412.59	90.00	1,746.55	-14,741.61	1,711.02	1,002.22	708.80	2.414		
24,400.00	7,950.00	23,504.68	7,950.00	441.41	412.59	90.00	1,746.55	-14,741.61	1,770.03	1,081.56	688.47	2.571		
24,500.00	7,950.00	23,504.68	7,950.00	444.10	412.59	90.00	1,746.55	-14,741.61	1,832.60	1,164.42	668.18	2.743		
24,600.00	7,950.00	23,504.68	7,950.00	446.78	412.59	90.00	1,746.55	-14,741.61	1,898.38	1,250.21	648.17	2.929		
24,644.20	7,950.00	23,504.68	7,950.00	447.97	412.59	90.00	1,746.55	-14,741.61	1,928.39	1,288.94	639.45	3.016		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 3EH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.77	0.00	24.77					
100.00	100.00	100.00	100.00	0.13	0.13	0.00	24.77	0.00	24.77	24.50	0.27	92.132		
200.00	200.00	200.00	200.00	0.49	0.49	0.00	24.77	0.00	24.77	23.78	0.99	25.127		
300.00	300.00	300.00	300.00	0.85	0.85	0.00	24.77	0.00	24.77	23.07	1.70	14.547		
400.00	400.00	400.00	400.00	1.21	1.21	0.00	24.77	0.00	24.77	22.35	2.42	10.237		
500.00	500.00	500.00	500.00	1.57	1.57	0.00	24.77	0.00	24.77	21.63	3.14	7.897		
600.00	600.00	600.00	600.00	1.93	1.93	0.00	24.77	0.00	24.77	20.92	3.85	6.428		
700.00	700.00	700.00	700.00	2.29	2.29	0.00	24.77	0.00	24.77	20.20	4.57	5.420		
800.00	800.00	800.00	800.00	2.64	2.64	0.00	24.77	0.00	24.77	19.48	5.29	4.685		
900.00	900.00	900.00	900.00	3.00	3.00	0.00	24.77	0.00	24.77	18.77	6.00	4.125 CC		
1,000.00	1,000.00	999.35	999.33	3.36	3.36	2.67	25.99	1.21	26.03	19.31	6.72	3.876		
1,100.00	1,100.00	1,098.46	1,098.30	3.72	3.71	9.27	29.65	4.84	30.09	22.67	7.42	4.055		
1,200.00	1,199.98	1,197.24	1,196.71	4.07	4.07	-56.27	35.71	10.85	36.47	28.36	8.11	4.496		
1,300.00	1,299.84	1,295.73	1,294.47	4.42	4.43	-53.98	44.15	19.22	44.07	35.27	8.79	5.011		
1,400.00	1,399.45	1,393.89	1,391.44	4.78	4.80	-53.66	54.92	29.90	52.67	43.19	9.48	5.557		
1,505.27	1,503.92	1,502.01	1,493.79	5.16	5.23	-54.88	68.46	43.33	62.20	51.96	10.25	6.070		
1,600.00	1,597.70	1,607.63	1,586.51	5.52	5.66	-56.87	80.94	55.70	70.09	59.09	11.00	6.370		
1,700.00	1,696.70	1,708.01	1,684.40	5.90	6.09	-58.53	94.10	68.76	78.50	66.72	11.77	6.667		
1,800.00	1,795.71	1,791.61	1,782.28	6.29	6.44	-59.87	107.27	81.82	86.95	74.46	12.49	6.962		
1,900.00	1,894.71	1,891.24	1,880.16	6.68	6.87	-60.97	120.44	94.87	95.44	82.17	13.28	7.189		
2,000.00	1,993.71	1,990.86	1,978.04	7.08	7.31	-61.89	133.61	107.93	103.96	89.90	14.07	7.389		
2,100.00	2,092.71	2,109.52	2,075.92	7.48	7.83	-62.67	146.77	120.99	112.51	97.56	14.95	7.528		
2,200.00	2,191.71	2,209.89	2,173.81	7.89	8.28	-63.35	159.94	134.05	121.07	105.32	15.75	7.685		
2,300.00	2,290.71	2,289.73	2,271.69	8.29	8.64	-63.93	173.11	147.11	129.65	113.16	16.49	7.865		
2,400.00	2,389.71	2,389.36	2,369.57	8.70	9.08	-64.44	186.27	160.16	138.24	120.94	17.30	7.991		
2,500.00	2,488.71	2,488.98	2,467.45	9.11	9.53	-64.89	199.44	173.22	146.84	128.72	18.12	8.105		
2,600.00	2,587.71	2,588.60	2,565.34	9.52	9.98	-65.29	212.61	186.28	155.44	136.50	18.94	8.208		
2,700.00	2,686.71	2,688.23	2,663.22	9.94	10.44	-65.65	225.77	199.34	164.06	144.29	19.76	8.301		
2,800.00	2,785.72	2,787.85	2,761.10	10.35	10.89	-65.97	238.94	212.39	172.67	152.08	20.59	8.387		
2,900.00	2,884.72	2,887.47	2,858.98	10.77	11.35	-66.26	252.11	225.45	181.30	159.88	21.42	8.465		
3,000.00	2,983.72	2,987.10	2,956.87	11.18	11.81	-66.53	265.28	238.51	189.93	167.68	22.25	8.536		
3,100.00	3,082.72	3,086.72	3,054.75	11.60	12.26	-66.77	278.44	251.57	198.56	175.48	23.08	8.603		
3,200.00	3,181.72	3,186.34	3,152.63	12.02	12.72	-66.99	291.61	264.63	207.19	183.28	23.91	8.664		
3,300.00	3,280.72	3,285.97	3,250.51	12.44	13.18	-67.20	304.78	277.68	215.83	191.08	24.75	8.720		
3,400.00	3,379.72	3,385.59	3,348.39	12.86	13.64	-67.39	317.94	290.74	224.47	198.88	25.59	8.773		
3,500.00	3,478.72	3,485.21	3,446.28	13.28	14.10	-67.56	331.11	303.80	233.11	206.69	26.42	8.822		
3,600.00	3,577.72	3,584.84	3,544.16	13.70	14.57	-67.72	344.28	316.86	241.76	214.49	27.26	8.868		
3,700.00	3,676.73	3,684.46	3,642.04	14.12	15.03	-67.88	357.45	329.92	250.40	222.30	28.10	8.910		
3,800.00	3,775.73	3,784.08	3,739.92	14.54	15.49	-68.02	370.61	342.97	259.05	230.11	28.94	8.950		
3,900.00	3,874.73	3,883.71	3,837.81	14.96	15.95	-68.15	383.78	356.03	267.70	237.92	29.78	8.988		
4,000.00	3,973.73	3,983.33	3,935.69	15.39	16.42	-68.27	396.95	369.09	276.35	245.72	30.63	9.023		
4,100.00	4,072.73	4,082.95	4,033.57	15.81	16.88	-68.39	410.11	382.15	285.00	253.53	31.47	9.056		
4,200.00	4,171.73	4,182.58	4,131.45	16.23	17.34	-68.50	423.28	395.20	293.66	261.34	32.31	9.088		
4,300.00	4,270.73	4,282.20	4,229.34	16.65	17.81	-68.60	436.45	408.26	302.31	269.15	33.16	9.117		
4,400.00	4,369.73	4,381.82	4,327.22	17.08	18.27	-68.70	449.61	421.32	310.97	276.96	34.00	9.146		
4,500.00	4,468.73	4,481.45	4,425.10	17.50	18.74	-68.79	462.78	434.38	319.62	284.77	34.85	9.172		
4,600.00	4,567.73	4,581.07	4,522.98	17.93	19.20	-68.88	475.95	447.44	328.28	292.59	35.69	9.197		
4,700.00	4,666.74	4,680.69	4,620.86	18.35	19.67	-68.96	489.12	460.49	336.94	300.40	36.54	9.221		
4,800.00	4,765.74	4,780.32	4,718.75	18.77	20.13	-69.04	502.28	473.55	345.59	308.21	37.38	9.244		
4,900.00	4,864.74	4,879.94	4,816.63	19.20	20.60	-69.11	515.45	486.61	354.25	316.02	38.23	9.266		
5,000.00	4,963.74	4,979.56	4,914.51	19.62	21.07	-69.18	528.62	499.67	362.91	323.83	39.08	9.287		
5,100.00	5,062.74	5,079.19	5,012.39	20.05	21.53	-69.25	541.78	512.73	371.57	331.64	39.93	9.307		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 3EH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.00	5,161.74	5,178.81	5,110.28	20.47	22.00	-69.32	554.95	525.78	380.23	339.46	40.77	9.325		
5,300.00	5,260.74	5,278.43	5,208.16	20.90	22.47	-69.38	568.12	538.84	388.89	347.27	41.62	9.343		
5,400.00	5,359.74	5,378.06	5,306.04	21.32	22.93	-69.44	581.29	551.90	397.55	355.08	42.47	9.361		
5,500.00	5,458.74	5,477.68	5,403.92	21.75	23.40	-69.49	594.45	564.96	406.21	362.90	43.32	9.377		
5,600.00	5,557.75	5,577.30	5,501.81	22.17	23.87	-69.55	607.62	578.01	414.88	370.71	44.17	9.393		
5,700.00	5,656.75	5,676.93	5,599.69	22.60	24.33	-69.60	620.79	591.07	423.54	378.52	45.02	9.409		
5,800.00	5,755.75	5,776.55	5,697.57	23.03	24.80	-69.65	633.95	604.13	432.20	386.33	45.87	9.423		
5,900.00	5,854.75	5,876.17	5,795.45	23.45	25.27	-69.70	647.12	617.19	440.86	394.15	46.71	9.437		
6,000.00	5,953.75	5,975.80	5,893.33	23.88	25.73	-69.74	660.29	630.25	449.53	401.96	47.56	9.451		
6,100.00	6,052.75	6,075.42	5,991.22	24.30	26.20	-69.79	673.46	643.30	458.19	409.77	48.41	9.464		
6,200.00	6,151.75	6,175.04	6,089.10	24.73	26.67	-69.83	686.62	656.36	466.85	417.59	49.26	9.476		
6,300.00	6,250.75	6,274.67	6,186.98	25.16	27.14	-69.87	699.79	669.42	475.52	425.40	50.11	9.489		
6,400.00	6,349.75	6,374.29	6,284.86	25.58	27.60	-69.91	712.96	682.48	484.18	433.22	50.97	9.500		
6,500.00	6,448.75	6,473.92	6,382.75	26.01	28.07	-69.95	726.12	695.54	492.85	441.03	51.82	9.512		
6,600.00	6,547.76	6,573.54	6,480.63	26.43	28.54	-69.99	739.29	708.59	501.51	448.84	52.67	9.522		
6,700.00	6,646.76	6,673.16	6,578.51	26.86	29.01	-70.02	752.46	721.65	510.17	456.66	53.52	9.533		
6,800.00	6,745.76	6,772.79	6,676.39	27.29	29.47	-70.06	765.62	734.71	518.84	464.47	54.37	9.543		
6,900.00	6,844.76	6,872.41	6,774.28	27.71	29.94	-70.09	778.79	747.77	527.50	472.29	55.22	9.553		
7,000.00	6,943.76	6,972.03	6,872.16	28.14	30.41	-70.12	791.96	760.82	536.17	480.10	56.07	9.562		
7,100.00	7,042.76	7,071.66	6,970.04	28.57	30.88	-70.15	805.13	773.88	544.84	487.91	56.92	9.572		
7,200.00	7,141.76	7,171.28	7,067.92	28.99	31.35	-70.19	818.29	786.94	553.50	495.73	57.77	9.581		
7,300.00	7,240.76	7,270.90	7,165.80	29.42	31.81	-70.21	831.46	800.00	562.17	503.54	58.62	9.589		
7,361.24	7,301.39	7,331.91	7,225.74	29.68	32.10	-70.23	839.52	807.99	567.47	508.33	59.15	9.594		
7,400.00	7,339.91	7,370.45	7,263.71	29.84	32.27	-54.59	844.63	812.20	570.84	511.40	59.45	9.602		
7,450.00	7,389.83	7,420.18	7,312.94	30.01	32.47	24.41	851.27	813.87	575.21	515.43	59.78	9.621		
7,500.00	7,439.65	7,469.95	7,362.19	30.14	32.63	66.23	857.92	811.22	579.58	519.52	60.06	9.650		
7,550.00	7,489.01	7,519.78	7,411.07	30.25	32.77	75.65	864.52	804.26	583.90	523.62	60.28	9.686		
7,600.00	7,537.51	7,569.67	7,459.22	30.34	32.87	79.28	871.05	793.03	588.15	527.69	60.47	9.727		
7,650.00	7,584.80	7,619.62	7,506.28	30.41	32.96	81.05	877.43	777.59	592.30	531.69	60.61	9.772		
7,700.00	7,630.51	7,669.65	7,551.89	30.46	33.02	82.03	883.63	758.05	596.31	535.58	60.73	9.819		
7,750.00	7,674.30	7,719.74	7,595.70	30.50	33.05	82.59	889.60	734.52	600.16	539.33	60.83	9.866		
7,800.00	7,715.83	7,769.92	7,637.36	30.53	33.07	82.91	895.29	707.19	603.81	542.89	60.92	9.911		
7,850.00	7,754.79	7,820.16	7,676.55	30.56	33.08	83.09	900.65	676.23	607.23	546.22	61.01	9.953		
7,900.00	7,790.88	7,870.48	7,712.96	30.59	33.06	83.19	905.65	641.87	610.41	549.30	61.11	9.988		
7,950.00	7,823.82	7,920.88	7,746.28	30.63	33.04	83.22	910.24	604.37	613.31	552.07	61.24	10.015		
8,000.00	7,853.37	7,971.34	7,776.24	30.69	33.00	83.22	914.38	564.00	615.92	554.51	61.41	10.030		
8,050.00	7,879.29	8,021.87	7,802.60	30.77	32.97	83.21	918.05	521.07	618.21	556.58	61.63	10.032		
8,100.00	7,901.40	8,072.45	7,825.14	30.88	32.93	83.18	921.20	475.91	620.16	558.25	61.91	10.017		
8,150.00	7,919.52	8,123.09	7,843.65	31.03	32.89	83.15	923.82	428.87	621.77	559.50	62.27	9.986		
8,200.00	7,933.52	8,173.77	7,857.99	31.22	32.87	83.13	925.88	380.32	623.01	560.31	62.70	9.936		
8,250.00	7,943.29	8,224.48	7,868.03	31.46	32.87	83.11	927.36	330.64	623.89	560.67	63.21	9.870		
8,300.00	7,948.75	8,275.22	7,873.68	31.73	32.89	83.10	928.24	280.25	624.38	560.58	63.80	9.787		
8,337.82	7,950.00	8,313.61	7,875.00	31.96	32.94	83.10	928.52	241.89	624.50	560.22	64.28	9.715		
8,400.00	7,950.00	8,375.80	7,875.00	32.41	33.12	83.10	928.68	179.70	624.52	559.32	65.21	9.578		
8,500.00	7,950.00	8,475.80	7,875.00	33.29	33.70	83.10	928.93	79.70	624.55	557.56	66.99	9.323		
8,600.00	7,950.00	8,575.80	7,875.00	34.37	34.64	83.10	929.19	-20.30	624.58	555.45	69.14	9.034		
8,700.00	7,950.00	8,675.80	7,875.00	35.63	35.85	83.10	929.44	-120.30	624.62	552.99	71.62	8.721		
8,800.00	7,950.00	8,775.80	7,875.00	37.04	37.24	83.10	929.70	-220.30	624.65	550.24	74.41	8.394		
8,900.00	7,950.00	8,875.80	7,875.00	38.59	38.80	83.10	929.95	-320.30	624.68	547.21	77.47	8.064		
9,000.00	7,950.00	8,975.80	7,875.00	40.26	40.47	83.10	930.21	-420.30	624.71	543.94	80.77	7.735		
9,100.00	7,950.00	9,075.80	7,875.00	42.03	42.25	83.11	930.46	-520.30	624.74	540.47	84.27	7.413		
9,200.00	7,950.00	9,175.80	7,875.00	43.90	44.13	83.11	930.71	-620.30	624.77	536.81	87.97	7.102		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 3EH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,300.00	7,950.00	9,275.80	7,875.00	45.85	46.08	83.11	930.97	-720.30	624.80	532.98	91.82	6.805		
9,400.00	7,950.00	9,375.80	7,875.00	47.87	48.11	83.11	931.22	-820.30	624.83	529.01	95.82	6.521		
9,500.00	7,950.00	9,475.80	7,875.00	49.96	50.19	83.11	931.48	-920.30	624.87	524.92	99.95	6.252		
9,600.00	7,950.00	9,575.80	7,875.00	52.10	52.33	83.11	931.73	-1,020.30	624.90	520.71	104.19	5.998		
9,700.00	7,950.00	9,675.80	7,875.00	54.29	54.52	83.11	931.99	-1,120.30	624.93	516.41	108.52	5.759		
9,800.00	7,950.00	9,775.80	7,875.00	56.52	56.75	83.11	932.24	-1,220.30	624.96	512.01	112.95	5.533		
9,900.00	7,950.00	9,875.80	7,875.00	58.79	59.02	83.11	932.50	-1,320.30	624.99	507.54	117.45	5.322		
10,000.00	7,950.00	9,975.80	7,875.00	61.10	61.32	83.11	932.75	-1,420.30	625.02	503.01	122.01	5.122		
10,100.00	7,950.00	10,075.80	7,875.00	63.44	63.65	83.11	933.00	-1,520.30	625.05	498.41	126.64	4.935		
10,200.00	7,950.00	10,175.80	7,875.00	65.80	66.01	83.11	933.26	-1,620.30	625.08	493.75	131.33	4.760		
10,300.00	7,950.00	10,275.80	7,875.00	68.19	68.40	83.11	933.51	-1,720.30	625.11	489.05	136.06	4.594		
10,400.00	7,950.00	10,375.80	7,875.00	70.60	70.80	83.11	933.77	-1,820.30	625.15	484.30	140.84	4.439		
10,500.00	7,950.00	10,475.80	7,875.00	73.03	73.23	83.11	934.02	-1,920.30	625.18	479.52	145.66	4.292		
10,600.00	7,950.00	10,575.80	7,875.00	75.47	75.67	83.11	934.28	-2,020.30	625.21	474.69	150.51	4.154		
10,700.00	7,950.00	10,675.80	7,875.00	77.94	78.13	83.11	934.53	-2,120.30	625.24	469.84	155.40	4.023		
10,800.00	7,950.00	10,775.80	7,875.00	80.41	80.60	83.11	934.79	-2,220.30	625.27	464.95	160.32	3.900		
10,900.00	7,950.00	10,875.80	7,875.00	82.90	83.08	83.11	935.04	-2,320.30	625.30	460.04	165.26	3.784		
11,000.00	7,950.00	10,975.80	7,875.00	85.41	85.58	83.11	935.29	-2,420.29	625.33	455.10	170.23	3.674		
11,100.00	7,950.00	11,075.80	7,875.00	87.92	88.09	83.11	935.55	-2,520.29	625.36	450.15	175.22	3.569		
11,200.00	7,950.00	11,175.80	7,875.00	90.45	90.61	83.11	935.80	-2,620.29	625.39	445.17	180.23	3.470		
11,300.00	7,950.00	11,275.80	7,875.00	92.98	93.14	83.11	936.06	-2,720.29	625.43	440.17	185.26	3.376		
11,400.00	7,950.00	11,375.80	7,875.00	95.52	95.68	83.11	936.31	-2,820.29	625.46	435.15	190.31	3.287		
11,500.00	7,950.00	11,475.80	7,875.00	98.07	98.23	83.11	936.57	-2,920.29	625.49	430.12	195.37	3.202		
11,600.00	7,950.00	11,575.80	7,875.00	100.63	100.78	83.11	936.82	-3,020.29	625.52	425.07	200.45	3.121		
11,700.00	7,950.00	11,675.80	7,875.00	103.20	103.34	83.11	937.08	-3,120.29	625.55	420.01	205.54	3.043		
11,800.00	7,950.00	11,775.80	7,875.00	105.77	105.91	83.11	937.33	-3,220.29	625.58	414.94	210.64	2.970		
11,900.00	7,950.00	11,875.80	7,875.00	108.34	108.48	83.11	937.58	-3,320.29	625.61	409.85	215.76	2.900		
12,000.00	7,950.00	11,975.80	7,875.00	110.93	111.06	83.12	937.84	-3,420.29	625.64	404.75	220.89	2.832		
12,100.00	7,950.00	12,075.80	7,875.00	113.51	113.64	83.12	938.09	-3,520.29	625.67	399.65	226.03	2.768		
12,200.00	7,950.00	12,175.80	7,875.00	116.11	116.23	83.12	938.35	-3,620.29	625.71	394.53	231.17	2.707		
12,300.00	7,950.00	12,275.80	7,875.00	118.70	118.83	83.12	938.60	-3,720.29	625.74	389.41	236.33	2.648		
12,400.00	7,950.00	12,375.80	7,875.00	121.30	121.42	83.12	938.86	-3,820.29	625.77	384.27	241.50	2.591		
12,500.00	7,950.00	12,475.80	7,875.00	123.91	124.03	83.12	939.11	-3,920.29	625.80	379.13	246.67	2.537		
12,600.00	7,950.00	12,575.80	7,875.00	126.52	126.63	83.12	939.37	-4,020.29	625.83	373.98	251.85	2.485		
12,700.00	7,950.00	12,675.80	7,875.00	129.13	129.24	83.12	939.62	-4,120.29	625.86	368.82	257.04	2.435		
12,800.00	7,950.00	12,775.80	7,875.00	131.74	131.85	83.12	939.87	-4,220.29	625.89	363.66	262.23	2.387		
12,900.00	7,950.00	12,875.80	7,875.00	134.36	134.47	83.12	940.13	-4,320.29	625.92	358.49	267.43	2.340		
13,000.00	7,950.00	12,975.80	7,875.00	136.98	137.08	83.12	940.38	-4,420.29	625.95	353.32	272.64	2.296		
13,100.00	7,950.00	13,075.80	7,875.00	139.61	139.71	83.12	940.64	-4,520.29	625.99	348.14	277.85	2.253		
13,200.00	7,950.00	13,175.80	7,875.00	142.23	142.33	83.12	940.89	-4,620.29	626.02	342.95	283.07	2.212		
13,300.00	7,950.00	13,275.80	7,875.00	144.86	144.96	83.12	941.15	-4,720.29	626.05	337.76	288.29	2.172		
13,400.00	7,950.00	13,375.80	7,875.00	147.49	147.58	83.12	941.40	-4,820.29	626.08	332.57	293.51	2.133		
13,500.00	7,950.00	13,475.80	7,875.00	150.12	150.21	83.12	941.66	-4,920.29	626.11	327.37	298.74	2.096		
13,600.00	7,950.00	13,575.80	7,875.00	152.76	152.85	83.12	941.91	-5,020.29	626.14	322.16	303.98	2.060		
13,700.00	7,950.00	13,675.80	7,875.00	155.40	155.48	83.12	942.16	-5,120.29	626.17	316.95	309.22	2.025		
13,800.00	7,950.00	13,775.80	7,875.00	158.04	158.12	83.12	942.42	-5,220.29	626.20	311.74	314.46	1.991		
13,900.00	7,950.00	13,875.80	7,875.00	160.68	160.76	83.12	942.67	-5,320.29	626.23	306.53	319.71	1.959		
14,000.00	7,950.00	13,975.80	7,875.00	163.32	163.40	83.12	942.93	-5,420.29	626.27	301.31	324.96	1.927		
14,100.00	7,950.00	14,075.80	7,875.00	165.96	166.04	83.12	943.18	-5,520.28	626.30	296.09	330.21	1.897		
14,200.00	7,950.00	14,175.80	7,875.00	168.61	168.68	83.12	943.44	-5,620.28	626.33	290.86	335.46	1.867		
14,300.00	7,950.00	14,275.80	7,875.00	171.25	171.33	83.12	943.69	-5,720.28	626.36	285.64	340.72	1.838		
14,400.00	7,950.00	14,375.80	7,875.00	173.90	173.97	83.12	943.95	-5,820.28	626.39	280.41	345.99	1.810		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 3EH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,500.00	7,950.00	14,475.80	7,875.00	176.55	176.62	83.12	944.20	-5,920.28	626.42	275.17	351.25	1.783		
14,600.00	7,950.00	14,575.80	7,875.00	179.20	179.27	83.12	944.45	-6,020.28	626.45	269.94	356.52	1.757		
14,700.00	7,950.00	14,675.80	7,875.00	181.86	181.92	83.12	944.71	-6,120.28	626.48	264.70	361.79	1.732		
14,800.00	7,950.00	14,775.80	7,875.00	184.51	184.57	83.12	944.96	-6,220.28	626.52	259.46	367.06	1.707		
14,900.00	7,950.00	14,875.80	7,875.00	187.16	187.23	83.12	945.22	-6,320.28	626.55	254.22	372.33	1.683		
15,000.00	7,950.00	14,975.80	7,875.00	189.82	189.88	83.13	945.47	-6,420.28	626.58	248.97	377.61	1.659		
15,100.00	7,950.00	15,075.80	7,875.00	192.47	192.53	83.13	945.73	-6,520.28	626.61	243.72	382.88	1.637		
15,200.00	7,950.00	15,175.80	7,875.00	195.13	195.19	83.13	945.98	-6,620.28	626.64	238.47	388.17	1.614		
15,300.00	7,950.00	15,275.80	7,875.00	197.79	197.85	83.13	946.24	-6,720.28	626.67	233.22	393.45	1.593		
15,400.00	7,950.00	15,375.80	7,875.00	200.45	200.50	83.13	946.49	-6,820.28	626.70	227.97	398.73	1.572		
15,500.00	7,950.00	15,475.80	7,875.00	203.11	203.16	83.13	946.74	-6,920.28	626.73	222.72	404.02	1.551		
15,600.00	7,950.00	15,575.80	7,875.00	205.77	205.82	83.13	947.00	-7,020.28	626.76	217.46	409.30	1.531		
15,700.00	7,950.00	15,675.80	7,875.00	208.43	208.48	83.13	947.25	-7,120.28	626.80	212.20	414.59	1.512		
15,800.00	7,950.00	15,775.80	7,875.00	211.10	211.14	83.13	947.51	-7,220.28	626.83	206.94	419.88	1.493	Level 3	
15,900.00	7,950.00	15,875.80	7,875.00	213.76	213.81	83.13	947.76	-7,320.28	626.86	201.68	425.18	1.474	Level 3	
16,000.00	7,950.00	15,975.80	7,875.00	216.42	216.47	83.13	948.02	-7,420.28	626.89	196.42	430.47	1.456	Level 3	
16,100.00	7,950.00	16,075.80	7,875.00	219.09	219.13	83.13	948.27	-7,520.28	626.92	191.16	435.76	1.439	Level 3	
16,200.00	7,950.00	16,175.80	7,875.00	221.75	221.80	83.13	948.52	-7,620.28	626.95	185.89	441.06	1.421	Level 3	
16,300.00	7,950.00	16,275.80	7,875.00	224.42	224.46	83.13	948.78	-7,720.28	626.98	180.63	446.36	1.405	Level 3	
16,400.00	7,950.00	16,375.80	7,875.00	227.08	227.13	83.13	949.03	-7,820.28	627.01	175.36	451.66	1.388	Level 3	
16,500.00	7,950.00	16,475.80	7,875.00	229.75	229.79	83.13	949.29	-7,920.28	627.04	170.09	456.96	1.372	Level 3	
16,600.00	7,950.00	16,575.80	7,875.00	232.42	232.46	83.13	949.54	-8,020.28	627.08	164.82	462.26	1.357	Level 3	
16,700.00	7,950.00	16,675.80	7,875.00	235.09	235.13	83.13	949.80	-8,120.28	627.11	159.55	467.56	1.341	Level 3	
16,800.00	7,950.00	16,775.80	7,875.00	237.76	237.79	83.13	950.05	-8,220.28	627.14	154.28	472.86	1.326	Level 3	
16,900.00	7,950.00	16,875.80	7,875.00	240.43	240.46	83.13	950.31	-8,320.28	627.17	149.00	478.17	1.312	Level 3	
17,000.00	7,950.00	16,975.80	7,875.00	243.10	243.13	83.13	950.56	-8,420.28	627.20	143.73	483.47	1.297	Level 3	
17,100.00	7,950.00	17,075.80	7,875.00	245.77	245.80	83.13	950.81	-8,520.28	627.23	138.45	488.78	1.283	Level 3	
17,200.00	7,950.00	17,175.80	7,875.00	248.44	248.47	83.13	951.07	-8,620.27	627.26	133.18	494.09	1.270	Level 3	
17,300.00	7,950.00	17,275.80	7,875.00	251.11	251.14	83.13	951.32	-8,720.27	627.29	127.90	499.39	1.256	Level 3	
17,400.00	7,950.00	17,375.80	7,875.00	253.78	253.81	83.13	951.58	-8,820.27	627.32	122.62	504.70	1.243	Level 2	
17,500.00	7,950.00	17,475.80	7,875.00	256.45	256.48	83.13	951.83	-8,920.27	627.36	117.34	510.01	1.230	Level 2	
17,600.00	7,950.00	17,575.80	7,875.00	259.12	259.15	83.13	952.09	-9,020.27	627.39	112.06	515.32	1.217	Level 2	
17,700.00	7,950.00	17,675.80	7,875.00	261.80	261.83	83.13	952.34	-9,120.27	627.42	106.78	520.64	1.205	Level 2	
17,800.00	7,950.00	17,775.80	7,875.00	264.47	264.50	83.13	952.60	-9,220.27	627.45	101.50	525.95	1.193	Level 2	
17,900.00	7,950.00	17,875.80	7,875.00	267.14	267.17	83.14	952.85	-9,320.27	627.48	96.22	531.26	1.181	Level 2	
18,000.00	7,950.00	17,975.80	7,875.00	269.82	269.84	83.14	953.10	-9,420.27	627.51	90.94	536.58	1.169	Level 2	
18,100.00	7,950.00	18,075.80	7,875.00	272.49	272.52	83.14	953.36	-9,520.27	627.54	85.65	541.89	1.158	Level 2	
18,200.00	7,950.00	18,175.80	7,875.00	275.17	275.19	83.14	953.61	-9,620.27	627.57	80.37	547.21	1.147	Level 2	
18,300.00	7,950.00	18,275.80	7,875.00	277.84	277.87	83.14	953.87	-9,720.27	627.60	75.08	552.52	1.136	Level 2	
18,400.00	7,950.00	18,375.80	7,875.00	280.52	280.54	83.14	954.12	-9,820.27	627.64	69.80	557.84	1.125	Level 2	
18,500.00	7,950.00	18,475.80	7,875.00	283.19	283.22	83.14	954.38	-9,920.27	627.67	64.51	563.16	1.115	Level 2	
18,600.00	7,950.00	18,575.80	7,875.00	285.87	285.89	83.14	954.63	-10,020.27	627.70	59.22	568.47	1.104	Level 2	
18,700.00	7,950.00	18,675.80	7,875.00	288.55	288.57	83.14	954.89	-10,120.27	627.73	53.94	573.79	1.094	Level 2	
18,800.00	7,950.00	18,775.80	7,875.00	291.22	291.24	83.14	955.14	-10,220.27	627.76	48.65	579.11	1.084	Level 2	
18,900.00	7,950.00	18,875.80	7,875.00	293.90	293.92	83.14	955.39	-10,320.27	627.79	43.36	584.43	1.074	Level 2	
19,000.00	7,950.00	18,975.80	7,875.00	296.58	296.59	83.14	955.65	-10,420.27	627.82	38.07	589.75	1.065	Level 2	
19,100.00	7,950.00	19,075.80	7,875.00	299.25	299.27	83.14	955.90	-10,520.27	627.85	32.78	595.07	1.055	Level 2	
19,200.00	7,950.00	19,175.80	7,875.00	301.93	301.95	83.14	956.16	-10,620.27	627.89	27.49	600.39	1.046	Level 2	
19,300.00	7,950.00	19,275.80	7,875.00	304.61	304.63	83.14	956.41	-10,720.27	627.92	22.20	605.72	1.037	Level 2	
19,400.00	7,950.00	19,375.80	7,875.00	307.29	307.30	83.14	956.67	-10,820.27	627.95	16.91	611.04	1.028	Level 2	
19,500.00	7,950.00	19,475.80	7,875.00	309.97	309.98	83.14	956.92	-10,920.27	627.98	11.62	616.36	1.019	Level 2	
19,600.00	7,950.00	19,575.80	7,875.00	312.65	312.66	83.14	957.18	-11,020.27	628.01	6.32	621.69	1.010	Level 2	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 3EH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
19,700.00	7,950.00	19,675.80	7,875.00	315.32	315.34	83.14	957.43	-11,120.27	628.04	1.03	627.01	1.002	Level 2	
19,800.00	7,950.00	19,775.80	7,875.00	318.00	318.02	83.14	957.68	-11,220.27	628.07	-4.26	632.33	0.993	Level 1	
19,900.00	7,950.00	19,875.80	7,875.00	320.68	320.69	83.14	957.94	-11,320.27	628.10	-9.56	637.66	0.985	Level 1	
20,000.00	7,950.00	19,975.80	7,875.00	323.36	323.37	83.14	958.19	-11,420.27	628.13	-14.85	642.98	0.977	Level 1	
20,100.00	7,950.00	20,075.80	7,875.00	326.04	326.05	83.14	958.45	-11,520.27	628.17	-20.14	648.31	0.969	Level 1	
20,200.00	7,950.00	20,175.80	7,875.00	328.72	328.73	83.14	958.70	-11,620.26	628.20	-25.44	653.64	0.961	Level 1	
20,300.00	7,950.00	20,275.80	7,875.00	331.40	331.41	83.14	958.96	-11,720.26	628.23	-30.74	658.96	0.953	Level 1	
20,400.00	7,950.00	20,375.80	7,875.00	334.08	334.09	83.14	959.21	-11,820.26	628.26	-36.03	664.29	0.946	Level 1	
20,500.00	7,950.00	20,475.80	7,875.00	336.76	336.77	83.14	959.47	-11,920.26	628.29	-41.33	669.62	0.938	Level 1	
20,600.00	7,950.00	20,575.80	7,875.00	339.44	339.45	83.14	959.72	-12,020.26	628.32	-46.62	674.94	0.931	Level 1	
20,700.00	7,950.00	20,675.80	7,875.00	342.12	342.13	83.14	959.97	-12,120.26	628.35	-51.92	680.27	0.924	Level 1	
20,800.00	7,950.00	20,775.80	7,875.00	344.81	344.81	83.15	960.23	-12,220.26	628.38	-57.22	685.60	0.917	Level 1	
20,900.00	7,950.00	20,875.80	7,875.00	347.49	347.49	83.15	960.48	-12,320.26	628.41	-62.52	690.93	0.910	Level 1	
21,000.00	7,950.00	20,975.80	7,875.00	350.17	350.17	83.15	960.74	-12,420.26	628.45	-67.81	696.26	0.903	Level 1	
21,100.00	7,950.00	21,075.80	7,875.00	352.85	352.85	83.15	960.99	-12,520.26	628.48	-73.11	701.59	0.896	Level 1	
21,200.00	7,950.00	21,175.80	7,875.00	355.53	355.54	83.15	961.25	-12,620.26	628.51	-78.41	706.92	0.889	Level 1	
21,300.00	7,950.00	21,275.80	7,875.00	358.21	358.22	83.15	961.50	-12,720.26	628.54	-83.71	712.25	0.882	Level 1	
21,400.00	7,950.00	21,375.80	7,875.00	360.90	360.90	83.15	961.76	-12,820.26	628.57	-89.01	717.58	0.876	Level 1	
21,500.00	7,950.00	21,475.80	7,875.00	363.58	363.58	83.15	962.01	-12,920.26	628.60	-94.31	722.91	0.870	Level 1	
21,600.00	7,950.00	21,575.80	7,875.00	366.26	366.26	83.15	962.26	-13,020.26	628.63	-99.61	728.24	0.863	Level 1	
21,700.00	7,950.00	21,675.80	7,875.00	368.94	368.94	83.15	962.52	-13,120.26	628.66	-104.91	733.57	0.857	Level 1	
21,800.00	7,950.00	21,775.80	7,875.00	371.62	371.63	83.15	962.77	-13,220.26	628.69	-110.21	738.90	0.851	Level 1	
21,900.00	7,950.00	21,875.80	7,875.00	374.31	374.31	83.15	963.03	-13,320.26	628.73	-115.51	744.24	0.845	Level 1	
22,000.00	7,950.00	21,975.80	7,875.00	376.99	376.99	83.15	963.28	-13,420.26	628.76	-120.81	749.57	0.839	Level 1	
22,100.00	7,950.00	22,075.80	7,875.00	379.67	379.67	83.15	963.54	-13,520.26	628.79	-126.11	754.90	0.833	Level 1	
22,200.00	7,950.00	22,175.80	7,875.00	382.36	382.36	83.15	963.79	-13,620.26	628.82	-131.41	760.23	0.827	Level 1	
22,300.00	7,950.00	22,275.80	7,875.00	385.04	385.04	83.15	964.05	-13,720.26	628.85	-136.72	765.57	0.821	Level 1	
22,400.00	7,950.00	22,375.80	7,875.00	387.72	387.72	83.15	964.30	-13,820.26	628.88	-142.02	770.90	0.816	Level 1	
22,500.00	7,950.00	22,475.80	7,875.00	390.41	390.41	83.15	964.55	-13,920.26	628.91	-147.32	776.23	0.810	Level 1	
22,600.00	7,950.00	22,575.80	7,875.00	393.09	393.09	83.15	964.81	-14,020.26	628.94	-152.62	781.57	0.805	Level 1	
22,700.00	7,950.00	22,675.80	7,875.00	395.77	395.77	83.15	965.06	-14,120.26	628.97	-157.92	786.90	0.799	Level 1	
22,800.00	7,950.00	22,775.80	7,875.00	398.46	398.46	83.15	965.32	-14,220.26	629.01	-163.23	792.23	0.794	Level 1	
22,900.00	7,950.00	22,875.80	7,875.00	401.14	401.14	83.15	965.57	-14,320.26	629.04	-168.53	797.57	0.789	Level 1	
23,000.00	7,950.00	22,975.80	7,875.00	403.83	403.82	83.15	965.83	-14,420.26	629.07	-173.83	802.90	0.783	Level 1	
23,100.00	7,950.00	23,075.80	7,875.00	406.51	406.51	83.15	966.08	-14,520.26	629.10	-179.14	808.24	0.778	Level 1	
23,200.00	7,950.00	23,175.80	7,875.00	409.19	409.19	83.15	966.33	-14,620.26	629.13	-184.44	813.57	0.773	Level 1	
23,300.00	7,950.00	23,275.80	7,875.00	411.88	411.87	83.15	966.59	-14,720.25	629.16	-189.75	818.91	0.768	Level 1, ES, SF	
23,400.00	7,950.00	23,300.14	7,875.00	414.56	412.53	83.15	966.65	-14,744.59	633.73	-183.77	817.50	0.775	Level 1	
23,500.00	7,950.00	23,300.14	7,875.00	417.25	412.53	83.15	966.65	-14,744.59	653.28	-143.98	797.26	0.819	Level 1	
23,600.00	7,950.00	23,300.14	7,875.00	419.93	412.53	83.15	966.65	-14,744.59	686.99	-75.36	762.34	0.901	Level 1	
23,700.00	7,950.00	23,300.14	7,875.00	422.62	412.53	83.15	966.65	-14,744.59	732.89	14.21	718.68	1.020	Level 2	
23,800.00	7,950.00	23,300.14	7,875.00	425.30	412.53	83.15	966.65	-14,744.59	788.86	117.23	671.62	1.175	Level 2	
23,900.00	7,950.00	23,300.14	7,875.00	427.99	412.53	83.15	966.65	-14,744.59	852.92	227.97	624.94	1.365	Level 3	
24,000.00	7,950.00	23,300.14	7,875.00	430.67	412.53	83.15	966.65	-14,744.59	923.38	342.54	580.85	1.590		
24,100.00	7,950.00	23,300.14	7,875.00	433.36	412.53	83.15	966.65	-14,744.59	998.90	458.54	540.36	1.849		
24,200.00	7,950.00	23,300.14	7,875.00	436.04	412.53	83.15	966.65	-14,744.59	1,078.41	574.62	503.80	2.141		
24,300.00	7,950.00	23,300.14	7,875.00	438.73	412.53	83.15	966.65	-14,744.59	1,161.10	690.04	471.05	2.465		
24,400.00	7,950.00	23,300.14	7,875.00	441.41	412.53	83.15	966.65	-14,744.59	1,246.32	804.48	441.85	2.821		
24,500.00	7,950.00	23,300.14	7,875.00	444.10	412.53	83.15	966.65	-14,744.59	1,333.60	917.79	415.81	3.207		
24,600.00	7,950.00	23,300.14	7,875.00	446.78	412.53	83.15	966.65	-14,744.59	1,422.56	1,029.97	392.58	3.624		
24,644.20	7,950.00	23,300.14	7,875.00	447.97	412.53	83.15	966.65	-14,744.59	1,462.33	1,079.20	383.12	3.817		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 4CH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	-180.00	-25.13	0.00	25.13					
100.00	100.00	100.00	100.00	0.13	0.13	-180.00	-25.13	0.00	25.13	24.87	0.27	93.487		
200.00	200.00	200.00	200.00	0.49	0.49	-180.00	-25.13	0.00	25.13	24.15	0.99	25.497		
300.00	300.00	300.00	300.00	0.85	0.85	-180.00	-25.13	0.00	25.13	23.43	1.70	14.761		
400.00	400.00	400.00	400.00	1.21	1.21	-180.00	-25.13	0.00	25.13	22.71	2.42	10.387		
500.00	500.00	500.00	500.00	1.57	1.57	-180.00	-25.13	0.00	25.13	22.00	3.14	8.013		
600.00	600.00	600.00	600.00	1.93	1.93	-180.00	-25.13	0.00	25.13	21.28	3.85	6.522		
700.00	700.00	700.00	700.00	2.29	2.29	-180.00	-25.13	0.00	25.13	20.56	4.57	5.499		
800.00	800.00	800.00	800.00	2.64	2.64	-180.00	-25.13	0.00	25.13	19.85	5.29	4.754		
900.00	900.00	900.00	900.00	3.00	3.00	-180.00	-25.13	0.00	25.13	19.13	6.00	4.186 CC		
1,000.00	1,000.00	999.69	999.67	3.36	3.35	176.32	-25.67	1.65	25.72	19.01	6.71	3.834		
1,100.00	1,100.00	1,099.14	1,098.98	3.72	3.69	166.41	-27.25	6.59	28.06	20.65	7.40	3.789		
1,200.00	1,199.98	1,198.24	1,197.70	4.07	4.04	85.50	-29.89	14.76	33.23	25.14	8.09	4.107		
1,300.00	1,299.84	1,302.99	1,295.74	4.42	4.42	79.94	-33.55	26.14	41.00	32.21	8.79	4.663		
1,400.00	1,399.45	1,403.35	1,394.44	4.78	4.79	78.82	-37.73	39.14	49.49	39.99	9.51	5.206		
1,505.27	1,503.92	1,501.54	1,498.34	5.16	5.17	81.62	-42.14	52.83	57.78	47.53	10.26	5.634		
1,600.00	1,597.70	1,604.09	1,591.82	5.52	5.57	85.17	-46.10	65.15	65.18	54.17	11.00	5.923		
1,700.00	1,696.70	1,704.47	1,690.49	5.90	5.97	88.12	-50.29	78.14	73.20	61.42	11.78	6.216		
1,800.00	1,795.71	1,804.86	1,789.17	6.29	6.37	90.49	-54.47	91.14	81.37	68.81	12.56	6.479		
1,900.00	1,894.71	1,905.25	1,887.84	6.68	6.77	92.42	-58.66	104.14	89.66	76.31	13.35	6.716		
2,000.00	1,993.71	2,005.63	1,985.52	7.08	7.18	94.03	-62.84	117.14	98.03	83.88	14.15	6.929		
2,100.00	2,092.71	2,093.98	2,085.19	7.48	7.54	95.38	-67.02	130.14	106.46	91.56	14.90	7.143		
2,200.00	2,191.71	2,206.40	2,183.87	7.89	8.00	96.53	-71.21	143.14	114.95	99.19	15.76	7.293		
2,300.00	2,290.71	2,293.21	2,282.54	8.29	8.36	97.52	-75.39	156.13	123.47	106.95	16.52	7.475		
2,400.00	2,389.71	2,407.17	2,381.21	8.70	8.83	98.39	-79.58	169.13	132.03	114.64	17.39	7.593		
2,500.00	2,488.71	2,507.56	2,479.89	9.11	9.25	99.15	-83.76	182.13	140.61	122.41	18.21	7.723		
2,600.00	2,587.71	2,607.94	2,578.56	9.52	9.67	99.82	-87.94	195.13	149.22	130.19	19.03	7.842		
2,700.00	2,686.71	2,708.33	2,677.24	9.94	10.09	100.42	-92.13	208.13	157.84	137.99	19.85	7.951		
2,800.00	2,785.72	2,808.71	2,775.91	10.35	10.51	100.96	-96.31	221.13	166.48	145.80	20.68	8.051		
2,900.00	2,884.72	2,909.10	2,874.59	10.77	10.93	101.44	-100.50	234.12	175.13	153.63	21.50	8.144		
3,000.00	2,983.72	3,009.48	2,973.26	11.18	11.35	101.88	-104.68	247.12	183.80	161.46	22.33	8.230		
3,100.00	3,082.72	3,109.87	3,071.93	11.60	11.77	102.28	-108.86	260.12	192.47	169.31	23.16	8.310		
3,200.00	3,181.72	3,189.75	3,170.61	12.02	12.11	102.64	-113.05	273.12	201.15	177.24	23.91	8.413		
3,300.00	3,280.72	3,289.36	3,269.28	12.44	12.53	102.98	-117.23	286.12	209.84	185.10	24.74	8.482		
3,400.00	3,379.72	3,388.97	3,367.96	12.86	12.95	103.29	-121.42	299.12	218.53	192.96	25.57	8.547		
3,500.00	3,478.72	3,488.59	3,466.63	13.28	13.37	103.57	-125.60	312.11	227.23	200.84	26.40	8.608		
3,600.00	3,577.72	3,588.20	3,565.31	13.70	13.79	103.83	-129.78	325.11	235.94	208.71	27.23	8.665		
3,700.00	3,676.73	3,687.82	3,663.98	14.12	14.21	104.08	-133.97	338.11	244.65	216.59	28.06	8.718		
3,800.00	3,775.73	3,787.43	3,762.65	14.54	14.63	104.30	-138.15	351.11	253.36	224.47	28.89	8.769		
3,900.00	3,874.73	3,887.05	3,861.33	14.96	15.06	104.52	-142.33	364.11	262.08	232.35	29.73	8.816		
4,000.00	3,973.73	3,986.66	3,960.00	15.39	15.48	104.72	-146.52	377.11	270.80	240.24	30.56	8.861		
4,100.00	4,072.73	4,086.28	4,058.68	15.81	15.90	104.90	-150.70	390.10	279.53	248.13	31.40	8.903		
4,200.00	4,171.73	4,185.89	4,157.35	16.23	16.32	105.08	-154.89	403.10	288.26	256.03	32.23	8.943		
4,300.00	4,270.73	4,285.51	4,256.03	16.65	16.75	105.24	-159.07	416.10	296.99	263.92	33.07	8.981		
4,400.00	4,369.73	4,385.12	4,354.70	17.08	17.17	105.40	-163.25	429.10	305.72	271.82	33.90	9.018		
4,500.00	4,468.73	4,484.74	4,453.38	17.50	17.59	105.54	-167.44	442.10	314.45	279.72	34.74	9.052		
4,600.00	4,567.73	4,584.35	4,552.05	17.93	18.02	105.68	-171.62	455.10	323.19	287.62	35.58	9.085		
4,700.00	4,666.74	4,683.97	4,650.72	18.35	18.44	105.81	-175.81	468.09	331.93	295.52	36.41	9.116		
4,800.00	4,765.74	4,783.58	4,749.40	18.77	18.86	105.94	-179.99	481.09	340.67	303.42	37.25	9.146		
4,900.00	4,864.74	4,883.20	4,848.07	19.20	19.29	106.06	-184.17	494.09	349.41	311.32	38.09	9.174		
5,000.00	4,963.74	4,982.81	4,946.75	19.62	19.71	106.17	-188.36	507.09	358.15	319.23	38.92	9.201		
5,100.00	5,062.74	5,082.42	5,045.42	20.05	20.13	106.28	-192.54	520.09	366.90	327.13	39.76	9.227		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 4CH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.00	5,161.74	5,182.04	5,144.10	20.47	20.56	106.38	-196.73	533.09	375.64	335.04	40.60	9.252		
5,300.00	5,260.74	5,281.65	5,242.77	20.90	20.98	106.48	-200.91	546.08	384.39	342.95	41.44	9.276		
5,400.00	5,359.74	5,381.27	5,341.44	21.32	21.41	106.57	-205.09	559.08	393.14	350.86	42.28	9.299		
5,500.00	5,458.74	5,480.88	5,440.12	21.75	21.83	106.66	-209.28	572.08	401.88	358.77	43.12	9.321		
5,600.00	5,557.75	5,580.50	5,538.79	22.17	22.26	106.75	-213.46	585.08	410.63	366.68	43.96	9.342		
5,700.00	5,656.75	5,680.11	5,637.47	22.60	22.68	106.83	-217.65	598.08	419.38	374.59	44.79	9.362		
5,800.00	5,755.75	5,779.73	5,736.14	23.03	23.11	106.91	-221.83	611.08	428.14	382.50	45.63	9.382		
5,900.00	5,854.75	5,879.34	5,834.82	23.45	23.53	106.98	-226.01	624.07	436.89	390.41	46.47	9.401		
6,000.00	5,953.75	5,978.96	5,933.49	23.88	23.95	107.05	-230.20	637.07	445.64	398.33	47.31	9.419		
6,100.00	6,052.75	6,078.57	6,032.16	24.30	24.38	107.12	-234.38	650.07	454.39	406.24	48.15	9.437		
6,200.00	6,151.75	6,178.19	6,130.84	24.73	24.80	107.19	-238.57	663.07	463.15	414.15	48.99	9.453		
6,300.00	6,250.75	6,277.80	6,229.51	25.16	25.23	107.26	-242.75	676.07	471.90	422.07	49.83	9.470		
6,400.00	6,349.75	6,377.42	6,328.19	25.58	25.65	107.32	-246.93	689.07	480.66	429.98	50.67	9.486		
6,500.00	6,448.75	6,477.03	6,426.86	26.01	26.08	107.38	-251.12	702.06	489.41	437.90	51.51	9.501		
6,600.00	6,547.76	6,576.64	6,525.54	26.43	26.51	107.44	-255.30	715.06	498.17	445.82	52.35	9.516		
6,700.00	6,646.76	6,676.26	6,624.21	26.86	26.93	107.49	-259.49	728.06	506.92	453.73	53.19	9.530		
6,800.00	6,745.76	6,775.87	6,722.88	27.29	27.36	107.55	-263.67	741.06	515.68	461.65	54.03	9.544		
6,900.00	6,844.76	6,875.49	6,821.56	27.71	27.78	107.60	-267.85	754.06	524.44	469.56	54.87	9.557		
7,000.00	6,943.76	6,975.10	6,920.23	28.14	28.21	107.65	-272.04	767.06	533.20	477.48	55.72	9.570		
7,100.00	7,042.76	7,074.72	7,018.91	28.57	28.63	107.70	-276.22	780.05	541.96	485.40	56.56	9.583		
7,200.00	7,141.76	7,174.33	7,117.58	28.99	29.06	107.74	-280.41	793.05	550.71	493.32	57.40	9.595		
7,300.00	7,240.76	7,273.95	7,216.26	29.42	29.48	107.79	-284.59	806.05	559.47	501.24	58.24	9.607		
7,361.24	7,301.39	7,335.45	7,277.40	29.68	29.72	108.04	-287.18	811.92	564.81	506.08	58.74	9.616		
7,400.00	7,339.91	7,374.14	7,316.04	29.84	29.85	124.68	-288.81	812.31	568.20	509.19	59.01	9.628		
7,450.00	7,389.83	7,423.69	7,365.43	30.01	29.97	-155.04	-290.88	809.00	572.63	513.32	59.31	9.655		
7,500.00	7,439.65	7,472.87	7,413.98	30.14	30.08	-111.97	-292.91	801.50	577.08	517.54	59.54	9.693		
7,550.00	7,489.01	7,521.70	7,461.37	30.25	30.16	-101.32	-294.88	789.96	581.51	521.79	59.72	9.737		
7,600.00	7,537.51	7,570.20	7,507.29	30.34	30.23	-96.51	-296.78	774.55	585.90	526.04	59.86	9.788		
7,650.00	7,584.80	7,618.38	7,551.47	30.41	30.28	-93.58	-298.59	755.44	590.21	530.24	59.97	9.842		
7,700.00	7,630.51	7,666.28	7,593.65	30.46	30.31	-91.51	-300.32	732.83	594.39	534.35	60.04	9.899		
7,750.00	7,674.30	7,713.90	7,633.57	30.50	30.35	-89.91	-301.94	706.94	598.42	538.31	60.10	9.957		
7,800.00	7,715.83	7,761.28	7,671.01	30.53	30.37	-88.61	-303.46	677.97	602.25	542.10	60.15	10.013		
7,850.00	7,754.79	7,808.44	7,705.78	30.56	30.40	-87.52	-304.85	646.17	605.86	545.66	60.20	10.065		
7,900.00	7,790.88	7,855.39	7,737.69	30.59	30.43	-86.60	-306.12	611.76	609.21	548.96	60.26	10.110		
7,950.00	7,823.82	7,902.16	7,766.57	30.63	30.47	-85.81	-307.25	575.01	612.29	551.94	60.35	10.146		
8,000.00	7,853.37	7,948.77	7,792.28	30.69	30.53	-85.13	-308.25	536.15	615.05	554.57	60.47	10.170		
8,050.00	7,879.29	7,995.25	7,814.68	30.77	30.61	-84.57	-309.10	495.46	617.48	556.82	60.66	10.180		
8,100.00	7,901.40	8,041.61	7,833.68	30.88	30.72	-84.10	-309.81	453.19	619.56	558.65	60.90	10.173		
8,150.00	7,919.52	8,087.87	7,849.17	31.03	30.86	-83.72	-310.37	409.62	621.26	560.04	61.22	10.147		
8,200.00	7,933.52	8,134.05	7,861.09	31.22	31.03	-83.44	-310.77	365.01	622.58	560.96	61.62	10.104		
8,250.00	7,943.29	8,180.18	7,869.37	31.46	31.24	-83.24	-311.02	319.65	623.50	561.41	62.09	10.042		
8,300.00	7,948.75	8,226.27	7,873.97	31.73	31.48	-83.13	-311.11	273.80	624.02	561.38	62.64	9.962		
8,337.82	7,950.00	8,261.16	7,875.00	31.96	31.68	-83.10	-311.08	238.93	624.14	561.05	63.10	9.892		
8,400.00	7,950.00	8,323.34	7,875.00	32.41	32.12	-83.10	-310.94	176.75	624.14	560.12	64.02	9.749		
8,500.00	7,950.00	8,423.34	7,875.00	33.29	32.99	-83.10	-310.72	76.75	624.15	558.34	65.80	9.485		
8,600.00	7,950.00	8,523.34	7,875.00	34.37	34.06	-83.10	-310.50	-23.25	624.15	556.18	67.96	9.183		
8,700.00	7,950.00	8,623.34	7,875.00	35.63	35.31	-83.10	-310.28	-123.25	624.15	553.68	70.47	8.858		
8,800.00	7,950.00	8,723.34	7,875.00	37.04	36.72	-83.10	-310.06	-223.25	624.15	550.88	73.27	8.518		
8,900.00	7,950.00	8,823.34	7,875.00	38.59	38.27	-83.10	-309.84	-323.25	624.15	547.80	76.35	8.175		
9,000.00	7,950.00	8,923.34	7,875.00	40.26	39.95	-83.10	-309.62	-423.25	624.16	544.49	79.67	7.834		
9,100.00	7,950.00	9,023.34	7,875.00	42.03	41.73	-83.10	-309.39	-523.25	624.16	540.96	83.20	7.502		
9,200.00	7,950.00	9,123.34	7,875.00	43.90	43.60	-83.10	-309.17	-623.25	624.16	537.25	86.91	7.181		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 4CH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
9,300.00	7,950.00	9,223.34	7,875.00	45.85	45.56	-83.10	-308.95	-723.25	624.16	533.37	90.79	6.875		
9,400.00	7,950.00	9,323.34	7,875.00	47.87	47.59	-83.10	-308.73	-823.25	624.17	529.35	94.81	6.583		
9,500.00	7,950.00	9,423.34	7,875.00	49.96	49.69	-83.10	-308.51	-923.25	624.17	525.20	98.96	6.307		
9,600.00	7,950.00	9,523.34	7,875.00	52.10	51.84	-83.10	-308.29	-1,023.25	624.17	520.95	103.22	6.047		
9,700.00	7,950.00	9,623.34	7,875.00	54.29	54.03	-83.10	-308.07	-1,123.25	624.17	516.60	107.58	5.802		
9,800.00	7,950.00	9,723.34	7,875.00	56.52	56.28	-83.10	-307.85	-1,223.25	624.17	512.16	112.02	5.572		
9,900.00	7,950.00	9,823.34	7,875.00	58.79	58.55	-83.10	-307.63	-1,323.25	624.18	507.64	116.53	5.356		
10,000.00	7,950.00	9,923.34	7,875.00	61.10	60.87	-83.10	-307.41	-1,423.25	624.18	503.06	121.12	5.153		
10,100.00	7,950.00	10,023.34	7,875.00	63.44	63.21	-83.10	-307.19	-1,523.25	624.18	498.42	125.76	4.963		
10,200.00	7,950.00	10,123.34	7,875.00	65.80	65.58	-83.10	-306.97	-1,623.24	624.18	493.72	130.46	4.784		
10,300.00	7,950.00	10,223.34	7,875.00	68.19	67.97	-83.10	-306.74	-1,723.24	624.19	488.97	135.21	4.616		
10,400.00	7,950.00	10,323.34	7,875.00	70.60	70.39	-83.10	-306.52	-1,823.24	624.19	484.19	140.00	4.458		
10,500.00	7,950.00	10,423.34	7,875.00	73.03	72.82	-83.10	-306.30	-1,923.24	624.19	479.36	144.83	4.310		
10,600.00	7,950.00	10,523.34	7,875.00	75.47	75.27	-83.10	-306.08	-2,023.24	624.19	474.50	149.70	4.170		
10,700.00	7,950.00	10,623.34	7,875.00	77.94	77.74	-83.10	-305.86	-2,123.24	624.19	469.60	154.59	4.038		
10,800.00	7,950.00	10,723.34	7,875.00	80.41	80.22	-83.10	-305.64	-2,223.24	624.20	464.68	159.52	3.913		
10,900.00	7,950.00	10,823.34	7,875.00	82.90	82.72	-83.10	-305.42	-2,323.24	624.20	459.73	164.47	3.795		
11,000.00	7,950.00	10,923.34	7,875.00	85.41	85.23	-83.10	-305.20	-2,423.24	624.20	454.76	169.44	3.684		
11,100.00	7,950.00	11,023.34	7,875.00	87.92	87.74	-83.10	-304.98	-2,523.24	624.20	449.76	174.44	3.578		
11,200.00	7,950.00	11,123.34	7,875.00	90.45	90.27	-83.10	-304.76	-2,623.24	624.21	444.74	179.46	3.478		
11,300.00	7,950.00	11,223.34	7,875.00	92.98	92.81	-83.10	-304.54	-2,723.24	624.21	439.71	184.50	3.383		
11,400.00	7,950.00	11,323.34	7,875.00	95.52	95.36	-83.10	-304.32	-2,823.24	624.21	434.66	189.55	3.293		
11,500.00	7,950.00	11,423.34	7,875.00	98.07	97.91	-83.10	-304.09	-2,923.24	624.21	429.59	194.62	3.207		
11,600.00	7,950.00	11,523.34	7,875.00	100.63	100.47	-83.10	-303.87	-3,023.24	624.21	424.51	199.70	3.126		
11,700.00	7,950.00	11,623.34	7,875.00	103.20	103.04	-83.10	-303.65	-3,123.24	624.22	419.42	204.80	3.048		
11,800.00	7,950.00	11,723.34	7,875.00	105.77	105.61	-83.10	-303.43	-3,223.24	624.22	414.31	209.91	2.974		
11,900.00	7,950.00	11,823.34	7,875.00	108.34	108.19	-83.10	-303.21	-3,323.24	624.22	409.19	215.03	2.903		
12,000.00	7,950.00	11,923.34	7,875.00	110.93	110.78	-83.10	-302.99	-3,423.24	624.22	404.06	220.16	2.835		
12,100.00	7,950.00	12,023.34	7,875.00	113.51	113.37	-83.10	-302.77	-3,523.24	624.23	398.92	225.30	2.771		
12,200.00	7,950.00	12,123.34	7,875.00	116.11	115.96	-83.10	-302.55	-3,623.24	624.23	393.77	230.46	2.709		
12,300.00	7,950.00	12,223.34	7,875.00	118.70	118.56	-83.10	-302.33	-3,723.24	624.23	388.61	235.62	2.649		
12,400.00	7,950.00	12,323.34	7,875.00	121.30	121.16	-83.10	-302.11	-3,823.24	624.23	383.45	240.78	2.592		
12,500.00	7,950.00	12,423.34	7,875.00	123.91	123.77	-83.10	-301.89	-3,923.24	624.23	378.27	245.96	2.538		
12,600.00	7,950.00	12,523.34	7,875.00	126.52	126.38	-83.10	-301.67	-4,023.24	624.24	373.09	251.14	2.486		
12,700.00	7,950.00	12,623.34	7,875.00	129.13	128.99	-83.10	-301.44	-4,123.24	624.24	367.91	256.33	2.435		
12,800.00	7,950.00	12,723.34	7,875.00	131.74	131.61	-83.10	-301.22	-4,223.24	624.24	362.71	261.53	2.387		
12,900.00	7,950.00	12,823.34	7,875.00	134.36	134.23	-83.10	-301.00	-4,323.24	624.24	357.51	266.73	2.340		
13,000.00	7,950.00	12,923.34	7,875.00	136.98	136.85	-83.10	-300.78	-4,423.24	624.25	352.31	271.94	2.296		
13,100.00	7,950.00	13,023.34	7,875.00	139.61	139.48	-83.10	-300.56	-4,523.24	624.25	347.10	277.15	2.252		
13,200.00	7,950.00	13,123.34	7,875.00	142.23	142.10	-83.10	-300.34	-4,623.24	624.25	341.88	282.37	2.211		
13,300.00	7,950.00	13,223.34	7,875.00	144.86	144.74	-83.10	-300.12	-4,723.24	624.25	336.66	287.59	2.171		
13,400.00	7,950.00	13,323.34	7,875.00	147.49	147.37	-83.10	-299.90	-4,823.24	624.25	331.43	292.82	2.132		
13,500.00	7,950.00	13,423.34	7,875.00	150.12	150.00	-83.10	-299.68	-4,923.24	624.26	326.21	298.05	2.094		
13,600.00	7,950.00	13,523.34	7,875.00	152.76	152.64	-83.10	-299.46	-5,023.24	624.26	320.97	303.29	2.058		
13,700.00	7,950.00	13,623.34	7,875.00	155.40	155.28	-83.10	-299.24	-5,123.24	624.26	315.74	308.53	2.023		
13,800.00	7,950.00	13,723.34	7,875.00	158.04	157.92	-83.10	-299.02	-5,223.24	624.26	310.49	313.77	1.990		
13,900.00	7,950.00	13,823.34	7,875.00	160.68	160.56	-83.10	-298.79	-5,323.24	624.27	305.25	319.01	1.957		
14,000.00	7,950.00	13,923.34	7,875.00	163.32	163.20	-83.10	-298.57	-5,423.24	624.27	300.00	324.26	1.925		
14,100.00	7,950.00	14,023.34	7,875.00	165.96	165.85	-83.10	-298.35	-5,523.24	624.27	294.75	329.52	1.894		
14,200.00	7,950.00	14,123.34	7,875.00	168.61	168.49	-83.10	-298.13	-5,623.24	624.27	289.50	334.77	1.865		
14,300.00	7,950.00	14,223.34	7,875.00	171.25	171.14	-83.10	-297.91	-5,723.23	624.27	284.24	340.03	1.836		
14,400.00	7,950.00	14,323.34	7,875.00	173.90	173.79	-83.10	-297.69	-5,823.23	624.28	278.98	345.29	1.808		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 4CH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,500.00	7,950.00	14,423.34	7,875.00	176.55	176.44	-83.10	-297.47	-5,923.23	624.28	273.72	350.56	1.781		
14,600.00	7,950.00	14,523.34	7,875.00	179.20	179.09	-83.10	-297.25	-6,023.23	624.28	268.46	355.82	1.754		
14,700.00	7,950.00	14,623.34	7,875.00	181.86	181.75	-83.10	-297.03	-6,123.23	624.28	263.19	361.09	1.729		
14,800.00	7,950.00	14,723.34	7,875.00	184.51	184.40	-83.10	-296.81	-6,223.23	624.29	257.92	366.36	1.704		
14,900.00	7,950.00	14,823.34	7,875.00	187.16	187.06	-83.10	-296.59	-6,323.23	624.29	252.65	371.64	1.680		
15,000.00	7,950.00	14,923.34	7,875.00	189.82	189.71	-83.10	-296.37	-6,423.23	624.29	247.38	376.91	1.656		
15,100.00	7,950.00	15,023.34	7,875.00	192.47	192.37	-83.10	-296.14	-6,523.23	624.29	242.10	382.19	1.633		
15,200.00	7,950.00	15,123.34	7,875.00	195.13	195.03	-83.10	-295.92	-6,623.23	624.29	236.83	387.47	1.611		
15,300.00	7,950.00	15,223.34	7,875.00	197.79	197.69	-83.10	-295.70	-6,723.23	624.30	231.55	392.75	1.590		
15,400.00	7,950.00	15,323.34	7,875.00	200.45	200.35	-83.10	-295.48	-6,823.23	624.30	226.27	398.03	1.568		
15,500.00	7,950.00	15,423.34	7,875.00	203.11	203.01	-83.10	-295.26	-6,923.23	624.30	220.98	403.32	1.548		
15,600.00	7,950.00	15,523.34	7,875.00	205.77	205.67	-83.10	-295.04	-7,023.23	624.30	215.70	408.60	1.528		
15,700.00	7,950.00	15,623.34	7,875.00	208.43	208.33	-83.10	-294.82	-7,123.23	624.31	210.41	413.89	1.508		
15,800.00	7,950.00	15,723.34	7,875.00	211.10	211.00	-83.10	-294.60	-7,223.23	624.31	205.13	419.18	1.489	Level 3	
15,900.00	7,950.00	15,823.34	7,875.00	213.76	213.66	-83.10	-294.38	-7,323.23	624.31	199.84	424.47	1.471	Level 3	
16,000.00	7,950.00	15,923.34	7,875.00	216.42	216.32	-83.10	-294.16	-7,423.23	624.31	194.55	429.76	1.453	Level 3	
16,100.00	7,950.00	16,023.34	7,875.00	219.09	218.99	-83.10	-293.94	-7,523.23	624.31	189.26	435.06	1.435	Level 3	
16,200.00	7,950.00	16,123.34	7,875.00	221.75	221.66	-83.10	-293.72	-7,623.23	624.32	183.96	440.35	1.418	Level 3	
16,300.00	7,950.00	16,223.34	7,875.00	224.42	224.32	-83.10	-293.49	-7,723.23	624.32	178.67	445.65	1.401	Level 3	
16,400.00	7,950.00	16,323.34	7,875.00	227.08	226.99	-83.10	-293.27	-7,823.23	624.32	173.38	450.94	1.384	Level 3	
16,500.00	7,950.00	16,423.34	7,875.00	229.75	229.66	-83.10	-293.05	-7,923.23	624.32	168.08	456.24	1.368	Level 3	
16,600.00	7,950.00	16,523.34	7,875.00	232.42	232.32	-83.10	-292.83	-8,023.23	624.33	162.78	461.54	1.353	Level 3	
16,700.00	7,950.00	16,623.34	7,875.00	235.09	234.99	-83.10	-292.61	-8,123.23	624.33	157.48	466.84	1.337	Level 3	
16,800.00	7,950.00	16,723.34	7,875.00	237.76	237.66	-83.10	-292.39	-8,223.23	624.33	152.18	472.14	1.322	Level 3	
16,900.00	7,950.00	16,823.34	7,875.00	240.43	240.33	-83.10	-292.17	-8,323.23	624.33	146.88	477.45	1.308	Level 3	
17,000.00	7,950.00	16,923.34	7,875.00	243.10	243.00	-83.10	-291.95	-8,423.23	624.33	141.58	482.75	1.293	Level 3	
17,100.00	7,950.00	17,023.34	7,875.00	245.77	245.67	-83.10	-291.73	-8,523.23	624.34	136.28	488.06	1.279	Level 3	
17,200.00	7,950.00	17,123.34	7,875.00	248.44	248.35	-83.10	-291.51	-8,623.23	624.34	130.98	493.36	1.265	Level 3	
17,300.00	7,950.00	17,223.34	7,875.00	251.11	251.02	-83.10	-291.29	-8,723.23	624.34	125.67	498.67	1.252	Level 3	
17,400.00	7,950.00	17,323.34	7,875.00	253.78	253.69	-83.10	-291.07	-8,823.23	624.34	120.37	503.97	1.239	Level 2	
17,500.00	7,950.00	17,423.34	7,875.00	256.45	256.36	-83.10	-290.84	-8,923.23	624.35	115.06	509.28	1.226	Level 2	
17,600.00	7,950.00	17,523.34	7,875.00	259.12	259.04	-83.10	-290.62	-9,023.23	624.35	109.76	514.59	1.213	Level 2	
17,700.00	7,950.00	17,623.34	7,875.00	261.80	261.71	-83.10	-290.40	-9,123.23	624.35	104.45	519.90	1.201	Level 2	
17,800.00	7,950.00	17,723.34	7,875.00	264.47	264.38	-83.10	-290.18	-9,223.23	624.35	99.14	525.21	1.189	Level 2	
17,900.00	7,950.00	17,823.34	7,875.00	267.14	267.06	-83.10	-289.96	-9,323.23	624.35	93.83	530.52	1.177	Level 2	
18,000.00	7,950.00	17,923.34	7,875.00	269.82	269.73	-83.10	-289.74	-9,423.23	624.36	88.52	535.84	1.165	Level 2	
18,100.00	7,950.00	18,023.34	7,875.00	272.49	272.41	-83.10	-289.52	-9,523.23	624.36	83.21	541.15	1.154	Level 2	
18,200.00	7,950.00	18,123.34	7,875.00	275.17	275.08	-83.10	-289.30	-9,623.23	624.36	77.90	546.46	1.143	Level 2	
18,300.00	7,950.00	18,223.34	7,875.00	277.84	277.76	-83.10	-289.08	-9,723.23	624.36	72.59	551.77	1.132	Level 2	
18,400.00	7,950.00	18,323.34	7,875.00	280.52	280.43	-83.10	-288.86	-9,823.23	624.37	67.28	557.09	1.121	Level 2	
18,500.00	7,950.00	18,423.34	7,875.00	283.19	283.11	-83.10	-288.64	-9,923.22	624.37	61.96	562.40	1.110	Level 2	
18,600.00	7,950.00	18,523.34	7,875.00	285.87	285.78	-83.10	-288.42	-10,023.22	624.37	56.65	567.72	1.100	Level 2	
18,700.00	7,950.00	18,623.34	7,875.00	288.55	288.46	-83.10	-288.19	-10,123.22	624.37	51.34	573.04	1.090	Level 2	
18,800.00	7,950.00	18,723.34	7,875.00	291.22	291.14	-83.10	-287.97	-10,223.22	624.37	46.02	578.35	1.080	Level 2	
18,900.00	7,950.00	18,823.34	7,875.00	293.90	293.82	-83.10	-287.75	-10,323.22	624.38	40.71	583.67	1.070	Level 2	
19,000.00	7,950.00	18,923.34	7,875.00	296.58	296.49	-83.10	-287.53	-10,423.22	624.38	35.39	588.99	1.060	Level 2	
19,100.00	7,950.00	19,023.34	7,875.00	299.25	299.17	-83.10	-287.31	-10,523.22	624.38	30.07	594.31	1.051	Level 2	
19,200.00	7,950.00	19,123.34	7,875.00	301.93	301.85	-83.10	-287.09	-10,623.22	624.38	24.76	599.63	1.041	Level 2	
19,300.00	7,950.00	19,223.34	7,875.00	304.61	304.53	-83.10	-286.87	-10,723.22	624.39	19.44	604.95	1.032	Level 2	
19,400.00	7,950.00	19,323.34	7,875.00	307.29	307.21	-83.10	-286.65	-10,823.22	624.39	14.12	610.27	1.023	Level 2	
19,500.00	7,950.00	19,423.34	7,875.00	309.97	309.88	-83.10	-286.43	-10,923.22	624.39	8.80	615.59	1.014	Level 2	
19,600.00	7,950.00	19,523.34	7,875.00	312.65	312.56	-83.10	-286.21	-11,023.22	624.39	3.48	620.91	1.006	Level 2	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 4CH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
19,700.00	7,950.00	19,623.34	7,875.00	315.32	315.24	-83.10	-285.99	-11,123.22	624.39	-1.84	626.23	0.997	Level 1	
19,800.00	7,950.00	19,723.34	7,875.00	318.00	317.92	-83.10	-285.77	-11,223.22	624.40	-7.15	631.55	0.989	Level 1	
19,900.00	7,950.00	19,823.34	7,875.00	320.68	320.60	-83.10	-285.54	-11,323.22	624.40	-12.47	636.87	0.980	Level 1	
20,000.00	7,950.00	19,923.34	7,875.00	323.36	323.28	-83.10	-285.32	-11,423.22	624.40	-17.80	642.20	0.972	Level 1	
20,100.00	7,950.00	20,023.34	7,875.00	326.04	325.96	-83.10	-285.10	-11,523.22	624.40	-23.12	647.52	0.964	Level 1	
20,200.00	7,950.00	20,123.34	7,875.00	328.72	328.64	-83.10	-284.88	-11,623.22	624.41	-28.44	652.84	0.956	Level 1	
20,300.00	7,950.00	20,223.34	7,875.00	331.40	331.32	-83.10	-284.66	-11,723.22	624.41	-33.76	658.17	0.949	Level 1	
20,400.00	7,950.00	20,323.34	7,875.00	334.08	334.00	-83.10	-284.44	-11,823.22	624.41	-39.08	663.49	0.941	Level 1	
20,500.00	7,950.00	20,423.34	7,875.00	336.76	336.68	-83.10	-284.22	-11,923.22	624.41	-44.40	668.82	0.934	Level 1	
20,600.00	7,950.00	20,523.34	7,875.00	339.44	339.36	-83.10	-284.00	-12,023.22	624.41	-49.73	674.14	0.926	Level 1	
20,700.00	7,950.00	20,623.34	7,875.00	342.12	342.05	-83.10	-283.78	-12,123.22	624.42	-55.05	679.47	0.919	Level 1	
20,800.00	7,950.00	20,723.34	7,875.00	344.81	344.73	-83.10	-283.56	-12,223.22	624.42	-60.37	684.79	0.912	Level 1	
20,900.00	7,950.00	20,823.34	7,875.00	347.49	347.41	-83.10	-283.34	-12,323.22	624.42	-65.70	690.12	0.905	Level 1	
21,000.00	7,950.00	20,923.34	7,875.00	350.17	350.09	-83.10	-283.12	-12,423.22	624.42	-71.02	695.44	0.898	Level 1	
21,100.00	7,950.00	21,023.34	7,875.00	352.85	352.77	-83.10	-282.89	-12,523.22	624.43	-76.35	700.77	0.891	Level 1	
21,200.00	7,950.00	21,123.34	7,875.00	355.53	355.45	-83.10	-282.67	-12,623.22	624.43	-81.67	706.10	0.884	Level 1	
21,300.00	7,950.00	21,223.34	7,875.00	358.21	358.14	-83.10	-282.45	-12,723.22	624.43	-86.99	711.42	0.878	Level 1	
21,400.00	7,950.00	21,323.34	7,875.00	360.90	360.82	-83.10	-282.23	-12,823.22	624.43	-92.32	716.75	0.871	Level 1	
21,500.00	7,950.00	21,423.34	7,875.00	363.58	363.50	-83.10	-282.01	-12,923.22	624.43	-97.65	722.08	0.865	Level 1	
21,600.00	7,950.00	21,523.34	7,875.00	366.26	366.18	-83.10	-281.79	-13,023.22	624.44	-102.97	727.41	0.858	Level 1	
21,700.00	7,950.00	21,623.34	7,875.00	368.94	368.87	-83.10	-281.57	-13,123.22	624.44	-108.30	732.74	0.852	Level 1	
21,800.00	7,950.00	21,723.34	7,875.00	371.62	371.55	-83.10	-281.35	-13,223.22	624.44	-113.62	738.06	0.846	Level 1	
21,900.00	7,950.00	21,823.34	7,875.00	374.31	374.23	-83.10	-281.13	-13,323.22	624.44	-118.95	743.39	0.840	Level 1	
22,000.00	7,950.00	21,923.34	7,875.00	376.99	376.92	-83.10	-280.91	-13,423.22	624.45	-124.28	748.72	0.834	Level 1	
22,100.00	7,950.00	22,023.34	7,875.00	379.67	379.60	-83.10	-280.69	-13,523.22	624.45	-129.61	754.05	0.828	Level 1	
22,200.00	7,950.00	22,123.34	7,875.00	382.36	382.28	-83.10	-280.47	-13,623.22	624.45	-134.93	759.38	0.822	Level 1	
22,300.00	7,950.00	22,223.34	7,875.00	385.04	384.97	-83.10	-280.24	-13,723.22	624.45	-140.26	764.71	0.817	Level 1	
22,400.00	7,950.00	22,323.34	7,875.00	387.72	387.65	-83.10	-280.02	-13,823.22	624.45	-145.59	770.04	0.811	Level 1	
22,500.00	7,950.00	22,423.34	7,875.00	390.41	390.33	-83.10	-279.80	-13,923.22	624.46	-150.92	775.37	0.805	Level 1	
22,600.00	7,950.00	22,523.34	7,875.00	393.09	393.02	-83.10	-279.58	-14,023.21	624.46	-156.24	780.70	0.800	Level 1	
22,700.00	7,950.00	22,623.34	7,875.00	395.77	395.70	-83.10	-279.36	-14,123.21	624.46	-161.57	786.03	0.794	Level 1	
22,800.00	7,950.00	22,723.34	7,875.00	398.46	398.38	-83.10	-279.14	-14,223.21	624.46	-166.90	791.37	0.789	Level 1	
22,900.00	7,950.00	22,823.34	7,875.00	401.14	401.07	-83.10	-278.92	-14,323.21	624.47	-172.23	796.70	0.784	Level 1	
23,000.00	7,950.00	22,923.34	7,875.00	403.83	403.75	-83.10	-278.70	-14,423.21	624.47	-177.56	802.03	0.779	Level 1	
23,100.00	7,950.00	23,023.34	7,875.00	406.51	406.44	-83.10	-278.48	-14,523.21	624.47	-182.89	807.36	0.773	Level 1	
23,200.00	7,950.00	23,123.34	7,875.00	409.19	409.12	-83.10	-278.26	-14,623.21	624.47	-188.22	812.69	0.768	Level 1	
23,300.00	7,950.00	23,223.34	7,875.00	411.88	411.81	-83.10	-278.04	-14,723.21	624.47	-193.55	818.02	0.763	Level 1	
23,400.00	7,950.00	23,323.34	7,875.00	414.56	414.49	-83.10	-277.82	-14,823.21	624.48	-198.88	823.36	0.758	Level 1	
23,500.00	7,950.00	23,423.34	7,875.00	417.25	417.18	-83.10	-277.59	-14,923.21	624.48	-204.21	828.69	0.754	Level 1	
23,600.00	7,950.00	23,523.34	7,875.00	419.93	419.86	-83.10	-277.37	-15,023.21	624.48	-209.54	834.02	0.749	Level 1	
23,700.00	7,950.00	23,623.34	7,875.00	422.62	422.54	-83.10	-277.15	-15,123.21	624.48	-214.87	839.35	0.744	Level 1	
23,800.00	7,950.00	23,723.34	7,875.00	425.30	425.23	-83.10	-276.93	-15,223.21	624.49	-220.20	844.69	0.739	Level 1	
23,900.00	7,950.00	23,823.34	7,875.00	427.99	427.92	-83.10	-276.71	-15,323.21	624.49	-225.53	850.02	0.735	Level 1	
24,000.00	7,950.00	23,923.34	7,875.00	430.67	430.60	-83.10	-276.49	-15,423.21	624.49	-230.86	855.35	0.730	Level 1	
24,100.00	7,950.00	24,023.34	7,875.00	433.36	433.29	-83.10	-276.27	-15,523.21	624.49	-236.20	860.69	0.726	Level 1	
24,200.00	7,950.00	24,123.34	7,875.00	436.04	435.97	-83.10	-276.05	-15,623.21	624.49	-241.53	866.02	0.721	Level 1	
24,300.00	7,950.00	24,223.34	7,875.00	438.73	438.66	-83.10	-275.83	-15,723.21	624.50	-246.86	871.36	0.717	Level 1	
24,400.00	7,950.00	24,323.34	7,875.00	441.41	441.34	-83.10	-275.61	-15,823.21	624.50	-252.19	876.69	0.712	Level 1	
24,500.00	7,950.00	24,423.34	7,875.00	444.10	444.03	-83.10	-275.39	-15,923.21	624.50	-257.52	882.02	0.708	Level 1	
24,600.00	7,950.00	24,523.34	7,875.00	446.78	446.71	-83.10	-275.17	-16,023.21	624.50	-262.86	887.36	0.704	Level 1	
24,644.20	7,950.00	24,567.54	7,875.00	447.97	447.90	-83.10	-275.07	-16,067.41	624.50	-265.21	889.72	0.702	Level 1, ES, SF	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 4DH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-180.00	-50.27	0.00	50.27					
100.00	100.00	100.00	100.00	0.13	0.13	-180.00	-50.27	0.00	50.27	50.00	0.27	186.991		
200.00	200.00	200.00	200.00	0.49	0.49	-180.00	-50.27	0.00	50.27	49.29	0.99	50.998		
300.00	300.00	300.00	300.00	0.85	0.85	-180.00	-50.27	0.00	50.27	48.57	1.70	29.525		
400.00	400.00	400.00	400.00	1.21	1.21	-180.00	-50.27	0.00	50.27	47.85	2.42	20.777		
500.00	500.00	500.00	500.00	1.57	1.57	-180.00	-50.27	0.00	50.27	47.14	3.14	16.028		
600.00	600.00	600.00	600.00	1.93	1.93	-180.00	-50.27	0.00	50.27	46.42	3.85	13.046		
700.00	700.00	700.00	700.00	2.29	2.29	-180.00	-50.27	0.00	50.27	45.70	4.57	10.999	CC, ES	
800.00	800.00	798.74	798.72	2.64	2.63	178.66	-51.47	1.21	51.50	46.23	5.27	9.776		
900.00	900.00	897.24	897.09	3.00	2.96	175.00	-55.06	4.82	55.34	49.39	5.95	9.294		
1,000.00	1,000.00	995.29	994.76	3.36	3.30	169.97	-60.99	10.79	62.16	55.52	6.64	9.360		
1,100.00	1,100.00	1,092.64	1,091.41	3.72	3.65	164.60	-69.20	19.06	72.29	64.97	7.32	9.874		
1,200.00	1,199.98	1,189.19	1,186.82	4.07	4.02	89.43	-79.63	29.56	85.93	77.94	7.99	10.755		
1,300.00	1,299.84	1,287.40	1,283.50	4.42	4.41	87.76	-91.79	41.80	101.74	93.06	8.68	11.718		
1,400.00	1,399.45	1,386.14	1,380.69	4.78	4.82	88.16	-104.05	54.15	117.51	108.11	9.40	12.506		
1,505.27	1,503.92	1,489.98	1,482.91	5.16	5.26	90.03	-116.94	67.13	134.09	123.91	10.17	13.182		
1,600.00	1,597.70	1,583.34	1,574.81	5.52	5.66	92.26	-128.54	78.80	149.20	138.31	10.89	13.703		
1,700.00	1,696.70	1,681.89	1,671.82	5.90	6.09	94.18	-140.77	91.12	165.34	153.69	11.66	14.186		
1,800.00	1,795.71	1,780.44	1,768.83	6.29	6.53	95.75	-153.01	103.44	181.64	169.21	12.43	14.610		
1,900.00	1,894.71	1,878.99	1,865.83	6.68	6.97	97.06	-165.25	115.76	198.04	184.83	13.22	14.984		
2,000.00	1,993.71	1,977.54	1,962.84	7.08	7.41	98.18	-177.48	128.08	214.54	200.53	14.01	15.314		
2,100.00	2,092.71	2,076.09	2,059.85	7.48	7.85	99.13	-189.72	140.41	231.10	216.29	14.81	15.608		
2,200.00	2,191.71	2,174.65	2,156.86	7.89	8.30	99.95	-201.96	152.73	247.71	232.10	15.61	15.870		
2,300.00	2,290.71	2,273.20	2,253.87	8.29	8.75	100.68	-214.20	165.05	264.37	247.95	16.42	16.105		
2,400.00	2,389.71	2,371.75	2,350.88	8.70	9.20	101.31	-226.43	177.37	281.06	263.84	17.22	16.317		
2,500.00	2,488.71	2,470.30	2,447.89	9.11	9.65	101.88	-238.67	189.69	297.78	279.75	18.04	16.509		
2,600.00	2,587.71	2,568.85	2,544.90	9.52	10.10	102.38	-250.91	202.01	314.53	295.68	18.85	16.684		
2,700.00	2,686.71	2,667.40	2,641.91	9.94	10.55	102.84	-263.14	214.33	331.30	311.63	19.67	16.843		
2,800.00	2,785.72	2,765.96	2,738.92	10.35	11.01	103.25	-275.38	226.65	348.09	327.60	20.49	16.989		
2,900.00	2,884.72	2,864.51	2,835.93	10.77	11.46	103.62	-287.62	238.98	364.90	343.59	21.31	17.123		
3,000.00	2,983.72	2,963.06	2,932.94	11.18	11.92	103.96	-299.86	251.30	381.71	359.58	22.13	17.246		
3,100.00	3,082.72	3,061.61	3,029.95	11.60	12.38	104.27	-312.09	263.62	398.54	375.59	22.96	17.360		
3,200.00	3,181.72	3,160.16	3,126.96	12.02	12.83	104.56	-324.33	275.94	415.38	391.60	23.78	17.466		
3,300.00	3,280.72	3,258.71	3,223.97	12.44	13.29	104.82	-336.57	288.26	432.23	407.62	24.61	17.564		
3,400.00	3,379.72	3,357.26	3,320.98	12.86	13.75	105.07	-348.80	300.58	449.09	423.66	25.44	17.655		
3,500.00	3,478.72	3,455.82	3,417.99	13.28	14.21	105.29	-361.04	312.90	465.96	439.69	26.27	17.740		
3,600.00	3,577.72	3,554.37	3,515.00	13.70	14.67	105.50	-373.28	325.22	482.83	455.73	27.09	17.820		
3,700.00	3,676.73	3,652.92	3,612.00	14.12	15.12	105.70	-385.52	337.55	499.71	471.78	27.92	17.895		
3,800.00	3,775.73	3,751.47	3,709.01	14.54	15.58	105.88	-397.75	349.87	516.59	487.83	28.76	17.965		
3,900.00	3,874.73	3,850.02	3,806.02	14.96	16.04	106.05	-409.99	362.19	533.48	503.89	29.59	18.031		
4,000.00	3,973.73	3,948.57	3,903.03	15.39	16.50	106.21	-422.23	374.51	550.37	519.95	30.42	18.093		
4,100.00	4,072.73	4,047.12	4,000.04	15.81	16.96	106.37	-434.47	386.83	567.27	536.01	31.25	18.152		
4,200.00	4,171.73	4,145.68	4,097.05	16.23	17.42	106.51	-446.70	399.15	584.17	552.08	32.08	18.207		
4,300.00	4,270.73	4,244.23	4,194.06	16.65	17.88	106.64	-458.94	411.47	601.07	568.15	32.92	18.260		
4,400.00	4,369.73	4,342.78	4,291.07	17.08	18.35	106.77	-471.18	423.79	617.97	584.22	33.75	18.310		
4,500.00	4,468.73	4,441.33	4,388.08	17.50	18.81	106.89	-483.41	436.12	634.88	600.30	34.59	18.357		
4,600.00	4,567.73	4,539.88	4,485.09	17.93	19.27	107.01	-495.65	448.44	651.79	616.37	35.42	18.402		
4,700.00	4,666.74	4,638.43	4,582.10	18.35	19.73	107.11	-507.89	460.76	668.71	632.45	36.26	18.444		
4,800.00	4,765.74	4,736.99	4,679.11	18.77	20.19	107.22	-520.13	473.08	685.62	648.53	37.09	18.485		
4,900.00	4,864.74	4,835.54	4,776.12	19.20	20.65	107.32	-532.36	485.40	702.54	664.62	37.93	18.524		
5,000.00	4,963.74	4,934.09	4,873.13	19.62	21.11	107.41	-544.60	497.72	719.46	680.70	38.76	18.561		
5,100.00	5,062.74	5,032.64	4,970.14	20.05	21.57	107.50	-556.84	510.04	736.38	696.79	39.60	18.596		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 4DH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.00	5,161.74	5,131.19	5,067.15	20.47	22.04	107.58	-569.07	522.37	753.31	712.87	40.43	18.630		
5,300.00	5,260.74	5,229.74	5,164.16	20.90	22.50	107.67	-581.31	534.69	770.23	728.96	41.27	18.663		
5,400.00	5,359.74	5,328.29	5,261.17	21.32	22.96	107.74	-593.55	547.01	787.16	745.05	42.11	18.694		
5,500.00	5,458.74	5,426.85	5,358.18	21.75	23.42	107.82	-605.79	559.33	804.09	761.14	42.95	18.723		
5,600.00	5,557.75	5,525.40	5,455.18	22.17	23.88	107.89	-618.02	571.65	821.02	777.23	43.78	18.752		
5,700.00	5,656.75	5,623.95	5,552.19	22.60	24.35	107.96	-630.26	583.97	837.95	793.33	44.62	18.779		
5,800.00	5,755.75	5,722.50	5,649.20	23.03	24.81	108.03	-642.50	596.29	854.88	809.42	45.46	18.806		
5,900.00	5,854.75	5,821.05	5,746.21	23.45	25.27	108.09	-654.73	608.61	871.81	825.52	46.30	18.831		
6,000.00	5,953.75	5,919.60	5,843.22	23.88	25.73	108.15	-666.97	620.94	888.75	841.61	47.13	18.856		
6,100.00	6,052.75	6,018.15	5,940.23	24.30	26.19	108.21	-679.21	633.26	905.68	857.71	47.97	18.879		
6,200.00	6,151.75	6,116.71	6,037.24	24.73	26.66	108.27	-691.45	645.58	922.62	873.80	48.81	18.902		
6,300.00	6,250.75	6,215.26	6,134.25	25.16	27.12	108.32	-703.68	657.90	939.55	889.90	49.65	18.924		
6,400.00	6,349.75	6,313.81	6,231.26	25.58	27.58	108.37	-715.92	670.22	956.49	906.00	50.49	18.945		
6,500.00	6,448.75	6,412.36	6,328.27	26.01	28.05	108.42	-728.16	682.54	973.43	922.10	51.33	18.965		
6,600.00	6,547.76	6,510.91	6,425.28	26.43	28.51	108.47	-740.40	694.86	990.37	938.20	52.17	18.985		
6,700.00	6,646.76	6,609.46	6,522.29	26.86	28.97	108.52	-752.63	707.18	1,007.30	954.30	53.01	19.004		
6,800.00	6,745.76	6,708.02	6,619.30	27.29	29.43	108.57	-764.87	719.51	1,024.24	970.40	53.84	19.022		
6,900.00	6,844.76	6,806.57	6,716.31	27.71	29.90	108.61	-777.11	731.83	1,041.18	986.50	54.68	19.040		
7,000.00	6,943.76	6,905.12	6,813.32	28.14	30.36	108.65	-789.34	744.15	1,058.13	1,002.60	55.52	19.057		
7,100.00	7,042.76	7,003.67	6,910.33	28.57	30.82	108.70	-801.58	756.47	1,075.07	1,018.70	56.36	19.074		
7,200.00	7,141.76	7,102.22	7,007.34	28.99	31.29	108.74	-813.82	768.79	1,092.01	1,034.81	57.20	19.090		
7,300.00	7,240.76	7,200.77	7,104.35	29.42	31.75	108.77	-826.06	781.11	1,108.95	1,050.91	58.04	19.106		
7,361.24	7,301.39	7,261.12	7,163.75	29.68	32.03	108.80	-833.55	788.66	1,119.33	1,060.77	58.56	19.115		
7,400.00	7,339.91	7,299.30	7,201.33	29.84	32.21	125.36	-838.29	793.43	1,125.90	1,067.03	58.87	19.126		
7,450.00	7,389.93	7,348.29	7,249.56	30.01	32.44	-154.66	-844.37	799.55	1,134.38	1,075.15	59.22	19.154		
7,500.00	7,439.65	7,396.64	7,297.15	30.14	32.67	-112.07	-850.38	805.60	1,142.84	1,083.32	59.53	19.199		
7,550.00	7,489.01	7,444.70	7,344.56	30.25	32.88	-102.04	-856.35	810.56	1,151.33	1,091.55	59.79	19.257		
7,600.00	7,537.51	7,493.80	7,393.25	30.34	33.07	-97.83	-862.48	811.64	1,159.82	1,099.81	60.00	19.329		
7,650.00	7,584.80	7,544.09	7,443.03	30.41	33.23	-95.50	-868.74	808.38	1,168.24	1,108.05	60.18	19.411		
7,700.00	7,630.51	7,595.67	7,493.59	30.46	33.36	-94.00	-875.08	800.48	1,176.53	1,116.19	60.33	19.500		
7,750.00	7,674.30	7,648.65	7,544.57	30.50	33.46	-92.96	-881.46	787.64	1,184.61	1,124.15	60.46	19.593		
7,800.00	7,715.83	7,703.11	7,595.53	30.53	33.54	-92.20	-887.83	769.55	1,192.43	1,131.86	60.57	19.687		
7,850.00	7,754.79	7,759.15	7,645.93	30.56	33.59	-91.62	-894.11	745.93	1,199.89	1,139.23	60.67	19.779		
7,900.00	7,790.88	7,816.82	7,695.15	30.59	33.63	-91.18	-900.22	716.57	1,206.94	1,146.17	60.76	19.863		
7,950.00	7,823.82	7,876.16	7,742.49	30.63	33.64	-90.85	-906.09	681.32	1,213.48	1,152.61	60.88	19.934		
8,000.00	7,853.37	7,937.17	7,787.13	30.69	33.63	-90.59	-911.60	640.12	1,219.45	1,158.44	61.01	19.986		
8,050.00	7,879.29	7,999.82	7,828.17	30.77	33.61	-90.40	-916.64	593.10	1,224.77	1,163.57	61.20	20.013		
8,100.00	7,901.40	8,064.01	7,864.69	30.88	33.57	-90.26	-921.10	540.54	1,229.37	1,167.91	61.46	20.003		
8,150.00	7,919.52	8,129.59	7,895.73	31.03	33.53	-90.15	-924.86	482.94	1,233.17	1,171.37	61.81	19.952		
8,200.00	7,933.52	8,196.34	7,920.42	31.22	33.49	-90.08	-927.81	421.04	1,236.14	1,173.88	62.26	19.856		
8,250.00	7,943.29	8,264.00	7,937.99	31.46	33.46	-90.04	-929.85	355.77	1,238.21	1,175.38	62.83	19.707		
8,300.00	7,948.75	8,332.24	7,947.86	31.73	33.46	-90.01	-930.92	288.29	1,239.36	1,175.84	63.52	19.512		
8,337.82	7,950.00	8,384.04	7,950.00	31.96	33.49	-90.00	-931.06	236.56	1,239.60	1,175.50	64.10	19.338		
8,400.00	7,950.00	8,445.66	7,950.00	32.41	33.61	-90.00	-930.90	174.94	1,239.58	1,174.56	65.02	19.063		
8,500.00	7,950.00	8,545.66	7,950.00	33.29	34.01	-90.00	-930.64	74.94	1,239.55	1,172.74	66.80	18.556		
8,600.00	7,950.00	8,645.66	7,950.00	34.37	34.79	-90.00	-930.38	-25.06	1,239.51	1,170.56	68.95	17.976		
8,700.00	7,950.00	8,745.66	7,950.00	35.63	35.89	-90.00	-930.13	-125.06	1,239.48	1,168.03	71.45	17.348		
8,800.00	7,950.00	8,845.66	7,950.00	37.04	37.23	-90.00	-929.87	-225.06	1,239.45	1,165.19	74.25	16.693		
8,900.00	7,950.00	8,945.66	7,950.00	38.59	38.74	-90.00	-929.61	-325.06	1,239.41	1,162.08	77.33	16.028		
9,000.00	7,950.00	9,045.66	7,950.00	40.26	40.40	-90.00	-929.36	-425.06	1,239.38	1,158.73	80.65	15.368		
9,100.00	7,950.00	9,145.66	7,950.00	42.03	42.17	-90.00	-929.10	-525.06	1,239.34	1,155.17	84.18	14.723		
9,200.00	7,950.00	9,245.66	7,950.00	43.90	44.04	-90.00	-928.84	-625.06	1,239.31	1,151.41	87.90	14.099		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 4DH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,300.00	7,950.00	9,345.66	7,950.00	45.85	45.99	-90.00	-928.59	-725.06	1,239.28	1,147.49	91.78	13.502		
9,400.00	7,950.00	9,445.66	7,950.00	47.87	48.01	-90.00	-928.33	-825.06	1,239.24	1,143.43	95.81	12.934		
9,500.00	7,950.00	9,545.66	7,950.00	49.96	50.10	-90.00	-928.07	-925.06	1,239.21	1,139.24	99.97	12.396		
9,600.00	7,950.00	9,645.66	7,950.00	52.10	52.24	-90.00	-927.82	-1,025.06	1,239.18	1,134.93	104.24	11.887		
9,700.00	7,950.00	9,745.66	7,950.00	54.29	54.43	-90.00	-927.56	-1,125.06	1,239.14	1,130.53	108.61	11.409		
9,800.00	7,950.00	9,845.66	7,950.00	56.52	56.66	-90.00	-927.30	-1,225.06	1,239.11	1,126.04	113.07	10.959		
9,900.00	7,950.00	9,945.66	7,950.00	58.79	58.93	-90.00	-927.05	-1,325.06	1,239.07	1,121.47	117.60	10.536		
10,000.00	7,950.00	10,045.66	7,950.00	61.10	61.24	-90.00	-926.79	-1,425.06	1,239.04	1,116.83	122.21	10.139		
10,100.00	7,950.00	10,145.66	7,950.00	63.44	63.57	-90.00	-926.53	-1,525.06	1,239.01	1,112.13	126.87	9.766		
10,200.00	7,950.00	10,245.66	7,950.00	65.80	65.93	-90.00	-926.27	-1,625.06	1,238.97	1,107.38	131.59	9.415		
10,300.00	7,950.00	10,345.66	7,950.00	68.19	68.32	-90.00	-926.02	-1,725.06	1,238.94	1,102.57	136.36	9.086		
10,400.00	7,950.00	10,445.66	7,950.00	70.60	70.72	-90.00	-925.76	-1,825.06	1,238.91	1,097.73	141.18	8.776		
10,500.00	7,950.00	10,545.66	7,950.00	73.03	73.15	-90.00	-925.50	-1,925.06	1,238.87	1,092.84	146.03	8.484		
10,600.00	7,950.00	10,645.66	7,950.00	75.47	75.59	-90.00	-925.25	-2,025.06	1,238.84	1,087.92	150.92	8.209		
10,700.00	7,950.00	10,745.66	7,950.00	77.94	78.05	-90.00	-924.99	-2,125.06	1,238.80	1,082.96	155.84	7.949		
10,800.00	7,950.00	10,845.66	7,950.00	80.41	80.53	-90.00	-924.73	-2,225.06	1,238.77	1,077.98	160.79	7.704		
10,900.00	7,950.00	10,945.66	7,950.00	82.90	83.01	-90.00	-924.48	-2,325.06	1,238.74	1,072.96	165.77	7.472		
11,000.00	7,950.00	11,045.66	7,950.00	85.41	85.51	-90.00	-924.22	-2,425.06	1,238.70	1,067.93	170.78	7.253		
11,100.00	7,950.00	11,145.66	7,950.00	87.92	88.02	-90.00	-923.96	-2,525.06	1,238.67	1,062.87	175.80	7.046		
11,200.00	7,950.00	11,245.66	7,950.00	90.45	90.55	-90.00	-923.71	-2,625.06	1,238.63	1,057.79	180.85	6.849		
11,300.00	7,950.00	11,345.66	7,950.00	92.98	93.08	-90.00	-923.45	-2,725.05	1,238.60	1,052.69	185.92	6.662		
11,400.00	7,950.00	11,445.66	7,950.00	95.52	95.62	-90.00	-923.19	-2,825.05	1,238.57	1,047.57	191.00	6.485		
11,500.00	7,950.00	11,545.66	7,950.00	98.07	98.16	-90.00	-922.94	-2,925.05	1,238.53	1,042.44	196.10	6.316		
11,600.00	7,950.00	11,645.66	7,950.00	100.63	100.72	-90.00	-922.68	-3,025.05	1,238.50	1,037.29	201.21	6.155		
11,700.00	7,950.00	11,745.66	7,950.00	103.20	103.28	-90.00	-922.42	-3,125.05	1,238.47	1,032.13	206.34	6.002		
11,800.00	7,950.00	11,845.66	7,950.00	105.77	105.85	-90.00	-922.17	-3,225.05	1,238.43	1,026.95	211.48	5.856		
11,900.00	7,950.00	11,945.66	7,950.00	108.34	108.42	-90.00	-921.91	-3,325.05	1,238.40	1,021.77	216.63	5.717		
12,000.00	7,950.00	12,045.66	7,950.00	110.93	111.00	-90.00	-921.65	-3,425.05	1,238.36	1,016.57	221.79	5.583		
12,100.00	7,950.00	12,145.66	7,950.00	113.51	113.59	-90.00	-921.39	-3,525.05	1,238.33	1,011.36	226.97	5.456		
12,200.00	7,950.00	12,245.66	7,950.00	116.11	116.18	-90.00	-921.14	-3,625.05	1,238.30	1,006.15	232.15	5.334		
12,300.00	7,950.00	12,345.66	7,950.00	118.70	118.77	-90.00	-920.88	-3,725.05	1,238.26	1,000.92	237.34	5.217		
12,400.00	7,950.00	12,445.66	7,950.00	121.30	121.37	-90.00	-920.62	-3,825.05	1,238.23	995.69	242.54	5.105		
12,500.00	7,950.00	12,545.66	7,950.00	123.91	123.97	-90.00	-920.37	-3,925.05	1,238.20	990.44	247.75	4.998		
12,600.00	7,950.00	12,645.66	7,950.00	126.52	126.58	-90.00	-920.11	-4,025.05	1,238.16	985.19	252.97	4.895		
12,700.00	7,950.00	12,745.66	7,950.00	129.13	129.19	-90.00	-919.85	-4,125.05	1,238.13	979.94	258.19	4.795		
12,800.00	7,950.00	12,845.66	7,950.00	131.74	131.80	-90.00	-919.60	-4,225.05	1,238.09	974.68	263.42	4.700		
12,900.00	7,950.00	12,945.66	7,950.00	134.36	134.41	-90.00	-919.34	-4,325.05	1,238.06	969.41	268.65	4.608		
13,000.00	7,950.00	13,045.66	7,950.00	136.98	137.03	-90.00	-919.08	-4,425.05	1,238.03	964.13	273.90	4.520		
13,100.00	7,950.00	13,145.66	7,950.00	139.61	139.65	-90.00	-918.83	-4,525.05	1,237.99	958.85	279.14	4.435		
13,200.00	7,950.00	13,245.66	7,950.00	142.23	142.28	-90.00	-918.57	-4,625.05	1,237.96	953.57	284.39	4.353		
13,300.00	7,950.00	13,345.66	7,950.00	144.86	144.91	-90.00	-918.31	-4,725.05	1,237.93	948.28	289.65	4.274		
13,400.00	7,950.00	13,445.66	7,950.00	147.49	147.53	-90.00	-918.06	-4,825.05	1,237.89	942.98	294.91	4.198		
13,500.00	7,950.00	13,545.66	7,950.00	150.12	150.17	-90.00	-917.80	-4,925.05	1,237.86	937.68	300.18	4.124		
13,600.00	7,950.00	13,645.66	7,950.00	152.76	152.80	-90.00	-917.54	-5,025.05	1,237.82	932.38	305.45	4.053		
13,700.00	7,950.00	13,745.66	7,950.00	155.40	155.43	-90.00	-917.29	-5,125.05	1,237.79	927.07	310.72	3.984		
13,800.00	7,950.00	13,845.66	7,950.00	158.04	158.07	-90.00	-917.03	-5,225.05	1,237.76	921.76	316.00	3.917		
13,900.00	7,950.00	13,945.66	7,950.00	160.68	160.71	-90.00	-916.77	-5,325.05	1,237.72	916.45	321.28	3.853		
14,000.00	7,950.00	14,045.66	7,950.00	163.32	163.35	-90.00	-916.52	-5,425.05	1,237.69	911.13	326.56	3.790		
14,100.00	7,950.00	14,145.66	7,950.00	165.96	165.99	-90.00	-916.26	-5,525.05	1,237.66	905.81	331.85	3.730		
14,200.00	7,950.00	14,245.66	7,950.00	168.61	168.64	-90.00	-916.00	-5,625.05	1,237.62	900.48	337.14	3.671		
14,300.00	7,950.00	14,345.66	7,950.00	171.25	171.28	-90.00	-915.74	-5,725.04	1,237.59	895.16	342.43	3.614		
14,400.00	7,950.00	14,445.66	7,950.00	173.90	173.93	-90.00	-915.49	-5,825.04	1,237.55	889.83	347.73	3.559		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 4DH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,500.00	7,950.00	14,545.66	7,950.00	176.55	176.58	-90.00	-915.23	-5,925.04	1,237.52	884.49	353.03	3.505		
14,600.00	7,950.00	14,645.66	7,950.00	179.20	179.23	-90.00	-914.97	-6,025.04	1,237.49	879.16	358.33	3.453		
14,700.00	7,950.00	14,745.66	7,950.00	181.86	181.88	-90.00	-914.72	-6,125.04	1,237.45	873.82	363.63	3.403		
14,800.00	7,950.00	14,845.66	7,950.00	184.51	184.53	-90.00	-914.46	-6,225.04	1,237.42	868.48	368.94	3.354		
14,900.00	7,950.00	14,945.66	7,950.00	187.16	187.18	-90.00	-914.20	-6,325.04	1,237.39	863.14	374.25	3.306		
15,000.00	7,950.00	15,045.66	7,950.00	189.82	189.84	-90.00	-913.95	-6,425.04	1,237.35	857.79	379.56	3.260		
15,100.00	7,950.00	15,145.66	7,950.00	192.47	192.49	-90.00	-913.69	-6,525.04	1,237.32	852.45	384.87	3.215		
15,200.00	7,950.00	15,245.66	7,950.00	195.13	195.15	-90.00	-913.43	-6,625.04	1,237.28	847.10	390.19	3.171		
15,300.00	7,950.00	15,345.66	7,950.00	197.79	197.80	-90.00	-913.18	-6,725.04	1,237.25	841.75	395.50	3.128		
15,400.00	7,950.00	15,445.66	7,950.00	200.45	200.46	-90.00	-912.92	-6,825.04	1,237.22	836.40	400.82	3.087		
15,500.00	7,950.00	15,545.66	7,950.00	203.11	203.12	-90.00	-912.66	-6,925.04	1,237.18	831.04	406.14	3.046		
15,600.00	7,950.00	15,645.66	7,950.00	205.77	205.78	-90.00	-912.41	-7,025.04	1,237.15	825.69	411.46	3.007		
15,700.00	7,950.00	15,745.66	7,950.00	208.43	208.44	-90.00	-912.15	-7,125.04	1,237.12	820.33	416.78	2.968		
15,800.00	7,950.00	15,845.66	7,950.00	211.10	211.10	-90.00	-911.89	-7,225.04	1,237.08	814.97	422.11	2.931		
15,900.00	7,950.00	15,945.66	7,950.00	213.76	213.77	-90.00	-911.64	-7,325.04	1,237.05	809.61	427.44	2.894		
16,000.00	7,950.00	16,045.66	7,950.00	216.42	216.43	-90.00	-911.38	-7,425.04	1,237.01	804.25	432.76	2.858		
16,100.00	7,950.00	16,145.66	7,950.00	219.09	219.09	-90.00	-911.12	-7,525.04	1,236.98	798.89	438.09	2.824		
16,200.00	7,950.00	16,245.66	7,950.00	221.75	221.76	-90.00	-910.86	-7,625.04	1,236.95	793.52	443.42	2.790		
16,300.00	7,950.00	16,345.66	7,950.00	224.42	224.42	-90.00	-910.61	-7,725.04	1,236.91	788.16	448.75	2.756		
16,400.00	7,950.00	16,445.66	7,950.00	227.08	227.09	-90.00	-910.35	-7,825.04	1,236.88	782.79	454.09	2.724		
16,500.00	7,950.00	16,545.66	7,950.00	229.75	229.75	-90.00	-910.09	-7,925.04	1,236.85	777.42	459.42	2.692		
16,600.00	7,950.00	16,645.66	7,950.00	232.42	232.42	-90.00	-909.84	-8,025.04	1,236.81	772.06	464.76	2.661		
16,700.00	7,950.00	16,745.66	7,950.00	235.09	235.09	-90.00	-909.58	-8,125.04	1,236.78	766.68	470.09	2.631		
16,800.00	7,950.00	16,845.66	7,950.00	237.76	237.76	-90.00	-909.32	-8,225.04	1,236.74	761.31	475.43	2.601		
16,900.00	7,950.00	16,945.66	7,950.00	240.43	240.42	-90.00	-909.07	-8,325.04	1,236.71	755.94	480.77	2.572		
17,000.00	7,950.00	17,045.66	7,950.00	243.10	243.09	-90.00	-908.81	-8,425.04	1,236.68	750.57	486.11	2.544		
17,100.00	7,950.00	17,145.66	7,950.00	245.77	245.76	-90.00	-908.55	-8,525.04	1,236.64	745.19	491.45	2.516		
17,200.00	7,950.00	17,245.66	7,950.00	248.44	248.43	-90.00	-908.30	-8,625.04	1,236.61	739.82	496.79	2.489		
17,300.00	7,950.00	17,345.66	7,950.00	251.11	251.10	-90.00	-908.04	-8,725.03	1,236.58	734.44	502.13	2.463		
17,400.00	7,950.00	17,445.66	7,950.00	253.78	253.77	-90.00	-907.78	-8,825.03	1,236.54	729.07	507.48	2.437		
17,500.00	7,950.00	17,545.66	7,950.00	256.45	256.44	-90.00	-907.53	-8,925.03	1,236.51	723.69	512.82	2.411		
17,600.00	7,950.00	17,645.66	7,950.00	259.12	259.12	-90.00	-907.27	-9,025.03	1,236.47	718.31	518.17	2.386		
17,700.00	7,950.00	17,745.66	7,950.00	261.80	261.79	-90.00	-907.01	-9,125.03	1,236.44	712.93	523.51	2.362		
17,800.00	7,950.00	17,845.66	7,950.00	264.47	264.46	-90.00	-906.76	-9,225.03	1,236.41	707.55	528.86	2.338		
17,900.00	7,950.00	17,945.66	7,950.00	267.14	267.13	-90.00	-906.50	-9,325.03	1,236.37	702.17	534.20	2.314		
18,000.00	7,950.00	18,045.66	7,950.00	269.82	269.81	-90.00	-906.24	-9,425.03	1,236.34	696.79	539.55	2.291		
18,100.00	7,950.00	18,145.66	7,950.00	272.49	272.48	-90.00	-905.99	-9,525.03	1,236.31	691.40	544.90	2.269		
18,200.00	7,950.00	18,245.66	7,950.00	275.17	275.16	-90.00	-905.73	-9,625.03	1,236.27	686.02	550.25	2.247		
18,300.00	7,950.00	18,345.66	7,950.00	277.84	277.83	-90.00	-905.47	-9,725.03	1,236.24	680.64	555.60	2.225		
18,400.00	7,950.00	18,445.66	7,950.00	280.52	280.50	-90.00	-905.21	-9,825.03	1,236.20	675.25	560.95	2.204		
18,500.00	7,950.00	18,545.66	7,950.00	283.19	283.18	-90.00	-904.96	-9,925.03	1,236.17	669.87	566.30	2.183		
18,600.00	7,950.00	18,645.66	7,950.00	285.87	285.86	-90.00	-904.70	-10,025.03	1,236.14	664.48	571.65	2.162		
18,700.00	7,950.00	18,745.66	7,950.00	288.55	288.53	-90.00	-904.44	-10,125.03	1,236.10	659.10	577.01	2.142		
18,800.00	7,950.00	18,845.66	7,950.00	291.22	291.21	-90.00	-904.19	-10,225.03	1,236.07	653.71	582.36	2.123		
18,900.00	7,950.00	18,945.66	7,950.00	293.90	293.88	-90.00	-903.93	-10,325.03	1,236.04	648.32	587.71	2.103		
19,000.00	7,950.00	19,045.66	7,950.00	296.58	296.56	-90.00	-903.67	-10,425.03	1,236.00	642.93	593.07	2.084		
19,100.00	7,950.00	19,145.66	7,950.00	299.25	299.24	-90.00	-903.42	-10,525.03	1,235.97	637.54	598.42	2.065		
19,200.00	7,950.00	19,245.66	7,950.00	301.93	301.91	-90.00	-903.16	-10,625.03	1,235.93	632.16	603.78	2.047		
19,300.00	7,950.00	19,345.66	7,950.00	304.61	304.59	-90.00	-902.90	-10,725.03	1,235.90	626.77	609.13	2.029		
19,400.00	7,950.00	19,445.66	7,950.00	307.29	307.27	-90.00	-902.65	-10,825.03	1,235.87	621.38	614.49	2.011		
19,500.00	7,950.00	19,545.66	7,950.00	309.97	309.95	-90.00	-902.39	-10,925.03	1,235.83	615.99	619.85	1.994		
19,600.00	7,950.00	19,645.66	7,950.00	312.65	312.62	-90.00	-902.13	-11,025.03	1,235.80	610.59	625.20	1.977		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EASTERN HILLS 4-65 17-18 4DH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
19,700.00	7,950.00	19,745.66	7,950.00	315.32	315.30	-90.00	-901.88	-11,125.03	1,235.77	605.20	630.56	1.960		
19,800.00	7,950.00	19,845.66	7,950.00	318.00	317.98	-90.00	-901.62	-11,225.03	1,235.73	599.81	635.92	1.943		
19,900.00	7,950.00	19,945.66	7,950.00	320.68	320.66	-90.00	-901.36	-11,325.03	1,235.70	594.42	641.28	1.927		
20,000.00	7,950.00	20,045.66	7,950.00	323.36	323.34	-90.00	-901.11	-11,425.03	1,235.66	589.03	646.64	1.911		
20,100.00	7,950.00	20,145.66	7,950.00	326.04	326.02	-90.00	-900.85	-11,525.03	1,235.63	583.63	652.00	1.895		
20,200.00	7,950.00	20,245.66	7,950.00	328.72	328.70	-90.00	-900.59	-11,625.03	1,235.60	578.24	657.36	1.880		
20,300.00	7,950.00	20,345.66	7,950.00	331.40	331.38	-90.00	-900.33	-11,725.02	1,235.56	572.84	662.72	1.864		
20,400.00	7,950.00	20,445.66	7,950.00	334.08	334.06	-90.00	-900.08	-11,825.02	1,235.53	567.45	668.08	1.849		
20,500.00	7,950.00	20,545.66	7,950.00	336.76	336.74	-90.00	-899.82	-11,925.02	1,235.50	562.06	673.44	1.835		
20,600.00	7,950.00	20,645.66	7,950.00	339.44	339.42	-90.00	-899.56	-12,025.02	1,235.46	556.66	678.80	1.820		
20,700.00	7,950.00	20,745.66	7,950.00	342.12	342.10	-90.00	-899.31	-12,125.02	1,235.43	551.26	684.16	1.806		
20,800.00	7,950.00	20,845.66	7,950.00	344.81	344.78	-90.00	-899.05	-12,225.02	1,235.39	545.87	689.52	1.792		
20,900.00	7,950.00	20,945.66	7,950.00	347.49	347.46	-90.00	-898.79	-12,325.02	1,235.36	540.47	694.89	1.778		
21,000.00	7,950.00	21,045.66	7,950.00	350.17	350.14	-90.00	-898.54	-12,425.02	1,235.33	535.08	700.25	1.764		
21,100.00	7,950.00	21,145.66	7,950.00	352.85	352.82	-90.00	-898.28	-12,525.02	1,235.29	529.68	705.61	1.751		
21,200.00	7,950.00	21,245.66	7,950.00	355.53	355.50	-90.00	-898.02	-12,625.02	1,235.26	524.28	710.98	1.737		
21,300.00	7,950.00	21,345.66	7,950.00	358.21	358.19	-90.00	-897.77	-12,725.02	1,235.23	518.88	716.34	1.724		
21,400.00	7,950.00	21,445.66	7,950.00	360.90	360.87	-90.00	-897.51	-12,825.02	1,235.19	513.49	721.70	1.711		
21,500.00	7,950.00	21,545.66	7,950.00	363.58	363.55	-90.00	-897.25	-12,925.02	1,235.16	508.09	727.07	1.699		
21,600.00	7,950.00	21,645.66	7,950.00	366.26	366.23	-90.00	-897.00	-13,025.02	1,235.12	502.69	732.43	1.686		
21,700.00	7,950.00	21,745.66	7,950.00	368.94	368.91	-90.00	-896.74	-13,125.02	1,235.09	497.29	737.80	1.674		
21,800.00	7,950.00	21,845.66	7,950.00	371.62	371.59	-90.00	-896.48	-13,225.02	1,235.06	491.89	743.16	1.662		
21,900.00	7,950.00	21,945.66	7,950.00	374.31	374.28	-90.00	-896.23	-13,325.02	1,235.02	486.49	748.53	1.650		
22,000.00	7,950.00	22,045.66	7,950.00	376.99	376.96	-90.00	-895.97	-13,425.02	1,234.99	481.09	753.89	1.638		
22,100.00	7,950.00	22,145.66	7,950.00	379.67	379.64	-90.00	-895.71	-13,525.02	1,234.96	475.69	759.26	1.627		
22,200.00	7,950.00	22,245.66	7,950.00	382.36	382.33	-90.00	-895.46	-13,625.02	1,234.92	470.29	764.63	1.615		
22,300.00	7,950.00	22,345.66	7,950.00	385.04	385.01	-90.00	-895.20	-13,725.02	1,234.89	464.89	769.99	1.604		
22,400.00	7,950.00	22,445.66	7,950.00	387.72	387.69	-90.00	-894.94	-13,825.02	1,234.85	459.49	775.36	1.593		
22,500.00	7,950.00	22,545.66	7,950.00	390.41	390.37	-90.00	-894.68	-13,925.02	1,234.82	454.09	780.73	1.582		
22,600.00	7,950.00	22,645.66	7,950.00	393.09	393.06	-90.00	-894.43	-14,025.02	1,234.79	448.69	786.09	1.571		
22,700.00	7,950.00	22,745.66	7,950.00	395.77	395.74	-90.00	-894.17	-14,125.02	1,234.75	443.29	791.46	1.560		
22,800.00	7,950.00	22,845.66	7,950.00	398.46	398.42	-90.00	-893.91	-14,225.02	1,234.72	437.89	796.83	1.550		
22,900.00	7,950.00	22,945.66	7,950.00	401.14	401.11	-90.00	-893.66	-14,325.02	1,234.68	432.49	802.20	1.539		
23,000.00	7,950.00	23,045.66	7,950.00	403.83	403.79	-90.00	-893.40	-14,425.02	1,234.65	427.09	807.57	1.529		
23,100.00	7,950.00	23,145.66	7,950.00	406.51	406.48	-90.00	-893.14	-14,525.02	1,234.62	421.68	812.93	1.519		
23,200.00	7,950.00	23,245.66	7,950.00	409.19	409.16	-90.00	-892.89	-14,625.02	1,234.58	416.28	818.30	1.509		
23,300.00	7,950.00	23,345.66	7,950.00	411.88	411.84	-90.00	-892.63	-14,725.01	1,234.55	410.88	823.67	1.499	Level 3	
23,326.11	7,950.00	23,371.77	7,950.00	412.58	412.54	-90.00	-892.56	-14,751.12	1,234.54	409.47	825.07	1.496	Level 3, SF	
23,400.00	7,950.00	23,370.54	7,950.00	414.56	412.51	-90.00	-892.57	-14,749.89	1,236.80	411.05	825.75	1.498	Level 3	
23,500.00	7,950.00	23,370.54	7,950.00	417.25	412.51	-90.00	-892.57	-14,749.89	1,246.84	424.73	822.11	1.517		
23,600.00	7,950.00	23,370.54	7,950.00	419.93	412.51	-90.00	-892.57	-14,749.89	1,264.74	451.24	813.50	1.555		
23,700.00	7,950.00	23,370.54	7,950.00	422.62	412.51	-90.00	-892.57	-14,749.89	1,290.16	489.68	800.47	1.612		
23,800.00	7,950.00	23,370.54	7,950.00	425.30	412.51	-90.00	-892.57	-14,749.89	1,322.66	538.89	783.77	1.688		
23,900.00	7,950.00	23,370.54	7,950.00	427.99	412.51	-90.00	-892.57	-14,749.89	1,361.76	597.56	764.20	1.782		
24,000.00	7,950.00	23,370.54	7,950.00	430.67	412.51	-90.00	-892.57	-14,749.89	1,406.89	664.32	742.56	1.895		
24,100.00	7,950.00	23,370.54	7,950.00	433.36	412.51	-90.00	-892.57	-14,749.89	1,457.49	737.89	719.60	2.025		
24,200.00	7,950.00	23,370.54	7,950.00	436.04	412.51	-90.00	-892.57	-14,749.89	1,513.01	817.08	695.94	2.174		
24,300.00	7,950.00	23,370.54	7,950.00	438.73	412.51	-90.00	-892.57	-14,749.89	1,572.94	900.84	672.10	2.340		
24,400.00	7,950.00	23,370.54	7,950.00	441.41	412.51	-90.00	-892.57	-14,749.89	1,636.79	988.30	648.50	2.524		
24,500.00	7,950.00	23,370.54	7,950.00	444.10	412.51	-90.00	-892.57	-14,749.89	1,704.12	1,078.71	625.42	2.725		
24,600.00	7,950.00	23,370.54	7,950.00	446.78	412.51	-90.00	-892.57	-14,749.89	1,774.54	1,171.46	603.07	2.942		
24,644.20	7,950.00	23,370.54	7,950.00	447.97	412.51	-90.00	-892.57	-14,749.89	1,806.55	1,213.08	593.47	3.044		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EXIST HZ EASTERN HILLS 4-65 17-18 2DH - OWB - FINAL SURVEY													Offset Site Error:	0.00 usft
Survey Program: 25-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	0.08	1,925.51	2.53	1,925.54					
100.00	100.00	100.14	100.14	0.13	0.26	0.08	1,925.31	2.74	1,925.34	1,924.94	0.40	4,824.183		
200.00	200.00	204.44	204.44	0.49	0.63	0.09	1,924.67	3.03	1,924.72	1,923.59	1.13	1,707.013		
300.00	300.00	304.26	304.25	0.85	0.99	0.10	1,923.98	3.20	1,924.03	1,922.19	1.84	1,044.451		
400.00	400.00	402.88	402.87	1.21	1.34	0.10	1,923.31	3.29	1,923.35	1,920.79	2.55	753.335		
500.00	500.00	497.54	497.53	1.57	1.68	0.10	1,922.84	3.35	1,922.86	1,919.61	3.25	591.590		
600.00	600.00	594.25	594.24	1.93	2.03	0.10	1,922.64	3.40	1,922.64	1,918.69	3.95	486.152		
700.00	700.00	693.91	693.90	2.29	2.39	0.10	1,922.47	3.42	1,922.48	1,917.81	4.67	411.778		
800.00	800.00	792.36	792.35	2.64	2.73	0.11	1,922.36	3.59	1,922.36	1,916.98	5.38	357.587		
836.34	836.34	827.98	827.97	2.77	2.86	0.11	1,922.34	3.65	1,922.34	1,916.71	5.63	341.325		
900.00	900.00	887.32	887.31	3.00	3.06	0.11	1,922.39	3.81	1,922.40	1,916.33	6.06	316.968		
1,000.00	1,000.00	986.69	986.68	3.36	3.41	0.12	1,922.64	4.17	1,922.65	1,915.88	6.77	284.178		
1,100.00	1,100.00	1,085.12	1,085.10	3.72	3.74	0.13	1,922.88	4.49	1,922.90	1,915.44	7.46	257.670		
1,200.00	1,199.98	1,189.27	1,189.26	4.07	4.11	-70.99	1,923.11	4.77	1,922.54	1,914.37	8.18	235.112		
1,300.00	1,299.84	1,290.42	1,290.41	4.42	4.46	-71.16	1,923.16	5.11	1,920.90	1,912.01	8.89	216.179		
1,400.00	1,399.45	1,390.35	1,390.33	4.78	4.82	-71.45	1,923.17	5.29	1,918.11	1,908.51	9.60	199.874		
1,505.27	1,503.92	1,492.61	1,492.60	5.16	5.18	-71.88	1,923.21	5.36	1,914.05	1,903.71	10.34	185.101		
1,600.00	1,597.70	1,583.01	1,583.00	5.52	5.49	-72.25	1,923.43	5.22	1,910.13	1,899.13	11.00	173.575		
1,700.00	1,696.70	1,680.75	1,680.73	5.90	5.82	-72.66	1,923.71	4.89	1,906.15	1,894.43	11.72	162.699		
1,800.00	1,795.71	1,776.61	1,776.60	6.29	6.14	-73.06	1,924.14	4.24	1,902.42	1,890.00	12.43	153.075		
1,900.00	1,894.71	1,874.94	1,874.92	6.68	6.48	-73.48	1,924.67	3.50	1,898.89	1,885.73	13.16	144.342		
2,000.00	1,993.71	1,975.40	1,975.37	7.08	6.82	-73.92	1,925.18	2.60	1,895.45	1,881.56	13.90	136.402		
2,100.00	2,092.71	2,076.52	2,076.48	7.48	7.17	-74.36	1,925.56	1.66	1,891.99	1,877.35	14.64	129.201		
2,200.00	2,191.71	2,178.06	2,178.02	7.89	7.52	-74.81	1,925.85	0.81	1,888.54	1,873.15	15.40	122.655		
2,300.00	2,290.71	2,282.33	2,282.29	8.29	7.88	-75.25	1,925.89	0.35	1,884.94	1,868.77	16.16	116.614		
2,400.00	2,389.71	2,378.43	2,378.39	8.70	8.22	-75.66	1,925.96	0.28	1,881.44	1,864.54	16.91	111.288		
2,500.00	2,488.71	2,479.09	2,479.05	9.11	8.57	-76.08	1,926.04	0.26	1,878.04	1,860.37	17.67	106.302		
2,600.00	2,587.71	2,578.57	2,578.53	9.52	8.92	-76.49	1,926.06	0.29	1,874.68	1,856.26	18.43	101.741		
2,700.00	2,686.71	2,677.62	2,677.59	9.94	9.26	-76.91	1,926.06	0.26	1,871.42	1,852.23	19.18	97.548		
2,800.00	2,785.72	2,777.21	2,777.17	10.35	9.61	-77.33	1,926.06	0.25	1,868.24	1,848.29	19.95	93.662		
2,900.00	2,884.72	2,876.19	2,876.16	10.77	9.96	-77.75	1,926.02	0.24	1,865.13	1,844.43	20.71	90.070		
3,000.00	2,983.72	2,974.79	2,974.75	11.18	10.30	-78.17	1,926.00	0.11	1,862.15	1,840.69	21.47	86.741		
3,100.00	3,082.72	3,072.84	3,072.80	11.60	10.64	-78.59	1,926.01	0.07	1,859.30	1,837.07	22.23	83.647		
3,200.00	3,181.72	3,174.26	3,174.22	12.02	10.99	-79.02	1,926.01	-0.06	1,856.56	1,833.56	23.00	80.721		
3,300.00	3,280.72	3,272.55	3,272.51	12.44	11.34	-79.45	1,925.90	-0.15	1,853.80	1,830.04	23.76	78.017		
3,400.00	3,379.72	3,371.88	3,371.84	12.86	11.68	-79.88	1,925.86	-0.21	1,851.21	1,826.68	24.53	75.473		
3,500.00	3,478.72	3,470.49	3,470.45	13.28	12.03	-80.30	1,925.79	-0.30	1,848.70	1,823.41	25.29	73.091		
3,600.00	3,577.72	3,566.40	3,566.37	13.70	12.36	-80.72	1,925.81	-0.35	1,846.39	1,820.34	26.05	70.879		
3,700.00	3,676.73	3,666.39	3,666.36	14.12	12.71	-81.15	1,925.93	-0.35	1,844.27	1,817.45	26.82	68.763		
3,800.00	3,775.73	3,765.58	3,765.55	14.54	13.06	-81.58	1,926.01	-0.30	1,842.20	1,814.61	27.59	66.772		
3,900.00	3,874.73	3,863.06	3,863.02	14.96	13.40	-82.00	1,926.13	-0.21	1,840.27	1,811.92	28.35	64.906		
4,000.00	3,973.73	3,973.78	3,973.75	15.39	13.78	-82.48	1,926.08	-0.09	1,838.29	1,809.13	29.16	63.039		
4,100.00	4,072.73	4,106.46	4,106.39	15.81	14.25	-83.02	1,924.29	1.50	1,834.87	1,804.83	30.04	61.086		
4,200.00	4,171.73	4,204.10	4,203.93	16.23	14.59	-83.33	1,922.70	5.62	1,830.70	1,799.89	30.80	59.433		
4,300.00	4,270.73	4,300.37	4,299.95	16.65	14.93	-83.55	1,922.14	12.53	1,826.97	1,795.40	31.56	57.880		
4,400.00	4,369.73	4,419.07	4,418.15	17.08	15.34	-83.75	1,921.47	23.25	1,822.90	1,790.50	32.40	56.269		
4,500.00	4,468.73	4,580.27	4,578.20	17.50	15.92	-83.90	1,917.85	42.15	1,816.68	1,783.34	33.34	54.491		
4,600.00	4,567.73	4,752.96	4,748.80	17.93	16.54	-83.97	1,908.15	66.95	1,806.47	1,772.20	34.28	52.705		
4,700.00	4,666.74	4,916.22	4,908.83	18.35	17.16	-83.89	1,893.96	95.89	1,792.56	1,757.40	35.16	50.986		
4,800.00	4,765.74	5,047.25	5,036.35	18.77	17.67	-83.74	1,879.83	122.49	1,776.07	1,740.09	35.98	49.356		
4,900.00	4,864.74	5,148.89	5,134.55	19.20	18.08	-83.53	1,868.15	145.94	1,758.26	1,721.47	36.79	47.796		
5,000.00	4,963.74	5,236.92	5,219.52	19.62	18.44	-83.32	1,858.64	166.90	1,740.98	1,703.40	37.58	46.325		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EXIST HZ EASTERN HILLS 4-65 17-18 2DH - OWB - FINAL SURVEY													Offset Site Error:	0.00 usft
Survey Program: 25-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,100.00	5,062.74	5,316.66	5,296.43	20.05	18.78	-83.10	1,850.65	186.36	1,724.40	1,686.03	38.37	44.937		
5,200.00	5,161.74	5,396.16	5,373.20	20.47	19.12	-82.87	1,843.91	205.90	1,709.25	1,670.08	39.17	43.638		
5,300.00	5,260.74	5,514.62	5,487.46	20.90	19.63	-82.50	1,833.81	235.49	1,694.07	1,654.04	40.03	42.317		
5,400.00	5,359.74	5,641.98	5,610.21	21.32	20.20	-82.13	1,820.75	266.83	1,677.29	1,636.39	40.91	41.002		
5,500.00	5,458.74	5,754.18	5,718.40	21.75	20.71	-81.84	1,807.61	293.49	1,659.32	1,617.56	41.76	39.734		
5,600.00	5,557.75	5,872.47	5,832.48	22.17	21.26	-81.56	1,792.34	320.79	1,640.34	1,597.72	42.62	38.491		
5,700.00	5,656.75	5,990.27	5,946.20	22.60	21.81	-81.34	1,775.57	346.51	1,620.34	1,576.88	43.46	37.283		
5,800.00	5,755.75	6,097.51	6,049.79	23.03	22.31	-81.18	1,758.77	368.59	1,599.16	1,554.87	44.30	36.102		
5,900.00	5,854.75	6,172.82	6,122.59	23.45	22.67	-81.08	1,747.19	383.97	1,578.37	1,533.24	45.13	34.973		
6,000.00	5,953.75	6,245.73	6,193.11	23.88	23.01	-80.93	1,737.61	399.84	1,559.44	1,513.47	45.97	33.925		
6,100.00	6,052.75	6,336.41	6,280.64	24.30	23.45	-80.68	1,726.66	420.86	1,541.37	1,494.55	46.82	32.918		
6,200.00	6,151.75	6,423.84	6,364.97	24.73	23.88	-80.42	1,716.74	441.69	1,523.94	1,476.25	47.69	31.958		
6,300.00	6,250.75	6,510.64	6,448.82	25.16	24.31	-80.15	1,707.49	462.12	1,507.26	1,458.72	48.55	31.046		
6,400.00	6,349.75	6,597.30	6,532.72	25.58	24.74	-79.90	1,698.84	482.01	1,491.39	1,441.98	49.41	30.184		
6,500.00	6,448.75	6,706.45	6,638.33	26.01	25.28	-79.57	1,688.04	507.38	1,475.60	1,425.29	50.31	29.332		
6,600.00	6,547.76	6,813.55	6,741.63	26.43	25.82	-79.19	1,676.84	533.34	1,459.13	1,407.92	51.21	28.494		
6,700.00	6,646.76	6,914.44	6,838.82	26.86	26.34	-78.81	1,666.00	558.16	1,442.40	1,390.29	52.11	27.680		
6,800.00	6,745.76	7,013.18	6,933.94	27.29	26.85	-78.44	1,655.20	582.32	1,425.54	1,372.53	53.01	26.891		
6,900.00	6,844.76	7,114.25	7,031.53	27.71	27.37	-78.08	1,644.09	606.17	1,408.83	1,354.91	53.92	26.130		
7,000.00	6,943.76	7,299.19	7,211.46	28.14	28.23	-78.04	1,616.48	635.86	1,389.38	1,334.71	54.67	25.415		
7,100.00	7,042.76	7,380.72	7,291.08	28.57	28.51	-78.74	1,599.62	632.50	1,366.30	1,310.88	55.42	24.654		
7,200.00	7,141.76	7,426.42	7,335.51	28.99	28.64	-79.33	1,591.17	625.95	1,346.51	1,290.28	56.22	23.950		
7,300.00	7,240.76	7,475.02	7,382.34	29.42	28.75	-80.10	1,583.56	615.45	1,330.72	1,273.78	56.95	23.368		
7,361.24	7,301.39	7,506.03	7,411.83	29.68	28.81	-80.68	1,579.24	606.91	1,322.98	1,265.63	57.35	23.070		
7,400.00	7,339.91	7,525.36	7,430.02	29.84	28.85	-84.66	1,576.75	600.88	1,318.64	1,261.06	57.58	22.902		
7,450.00	7,389.83	7,558.02	7,460.36	30.01	28.91	14.71	1,572.83	589.46	1,313.24	1,255.41	57.83	22.709		
7,500.00	7,439.65	7,607.55	7,505.09	30.14	28.99	56.67	1,566.48	569.17	1,307.44	1,249.40	58.04	22.527		
7,550.00	7,489.01	7,665.19	7,554.71	30.25	29.08	66.14	1,558.16	541.10	1,300.99	1,242.76	58.23	22.343		
7,600.00	7,537.51	7,733.09	7,608.52	30.34	29.17	69.64	1,546.23	501.53	1,293.32	1,234.92	58.39	22.148		
7,650.00	7,584.80	7,773.05	7,637.30	30.41	29.21	71.82	1,538.37	474.98	1,284.88	1,226.32	58.56	21.941		
7,700.00	7,630.51	7,811.68	7,662.75	30.46	29.26	73.23	1,530.48	447.01	1,276.17	1,217.47	58.70	21.740		
7,750.00	7,674.30	7,826.00	7,671.54	30.50	29.27	74.69	1,527.49	436.11	1,267.49	1,208.70	58.79	21.560		
7,800.00	7,715.83	7,854.45	7,688.16	30.53	29.31	75.65	1,521.94	413.71	1,259.04	1,200.14	58.90	21.378		
7,850.00	7,754.79	7,872.44	7,698.14	30.56	29.34	76.62	1,518.85	399.06	1,251.25	1,192.29	58.96	21.224		
7,900.00	7,790.88	7,890.71	7,707.83	30.59	29.36	77.47	1,516.05	383.83	1,244.02	1,185.01	59.01	21.082		
7,950.00	7,823.82	7,921.00	7,722.89	30.63	29.41	78.12	1,512.17	357.84	1,237.54	1,178.44	59.11	20.937		
8,000.00	7,853.37	7,921.00	7,722.89	30.69	29.41	78.93	1,512.17	357.84	1,231.44	1,172.33	59.11	20.832		
8,050.00	7,879.29	7,948.44	7,735.39	30.77	29.48	79.51	1,509.44	333.57	1,226.00	1,166.71	59.30	20.676		
8,100.00	7,901.40	7,968.63	7,743.84	30.88	29.54	80.07	1,507.86	315.31	1,221.25	1,161.77	59.48	20.532		
8,150.00	7,919.52	7,988.89	7,751.68	31.03	29.60	80.59	1,506.66	296.66	1,217.18	1,157.46	59.71	20.383		
8,200.00	7,933.52	8,015.00	7,760.80	31.22	29.67	81.08	1,505.67	272.22	1,213.85	1,153.81	60.04	20.219		
8,250.00	7,943.29	8,037.02	7,767.73	31.46	29.78	81.54	1,505.18	251.33	1,211.09	1,150.66	60.43	20.040		
8,300.00	7,948.75	8,067.82	7,776.43	31.73	29.92	82.05	1,504.74	221.79	1,208.75	1,147.81	60.95	19.833		
8,337.82	7,950.00	8,091.10	7,782.23	31.96	30.04	82.44	1,504.61	199.25	1,207.26	1,145.89	61.37	19.672		
8,400.00	7,950.00	8,134.17	7,791.09	32.41	30.30	82.86	1,504.72	157.10	1,205.58	1,143.39	62.19	19.386		
8,500.00	7,950.00	8,212.09	7,800.18	33.29	30.87	83.29	1,505.21	79.75	1,204.57	1,140.81	63.76	18.893		
8,504.32	7,950.00	8,215.39	7,800.39	33.34	30.90	83.30	1,505.24	76.46	1,204.56	1,140.73	63.84	18.869		
8,600.00	7,950.00	8,288.50	7,803.39	34.37	31.57	83.44	1,506.44	3.43	1,205.47	1,139.89	65.58	18.382		
8,700.00	7,950.00	8,397.62	7,804.78	35.63	32.75	83.52	1,508.68	-105.65	1,207.15	1,139.13	68.02	17.748		
8,800.00	7,950.00	8,494.14	7,805.87	37.04	34.00	83.58	1,510.29	-202.16	1,208.46	1,137.79	70.67	17.100		
8,900.00	7,950.00	8,597.14	7,807.08	38.59	35.49	83.64	1,511.98	-305.13	1,209.74	1,136.05	73.70	16.415		
9,000.00	7,950.00	8,699.11	7,808.34	40.26	37.12	83.71	1,513.47	-407.08	1,210.83	1,133.85	76.97	15.730		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EXIST HZ EASTERN HILLS 4-65 17-18 2DH - OWB - FINAL SURVEY													Offset Site Error:	0.00 usft
Survey Program: 25-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,100.00	7,950.00	8,800.69	7,809.40	42.03	38.87	83.77	1,514.74	-508.65	1,211.74	1,131.26	80.47	15.057		
9,200.00	7,950.00	8,898.53	7,810.60	43.90	40.65	83.83	1,515.99	-606.48	1,212.65	1,128.55	84.11	14.418		
9,300.00	7,950.00	8,997.77	7,811.92	45.85	42.55	83.90	1,517.54	-705.69	1,213.85	1,125.91	87.94	13.803		
9,400.00	7,950.00	9,102.89	7,813.28	47.87	44.65	83.96	1,518.83	-810.80	1,214.71	1,122.66	92.05	13.197		
9,500.00	7,950.00	9,204.70	7,814.32	49.96	46.75	84.02	1,519.78	-912.60	1,215.30	1,119.08	96.22	12.631		
9,600.00	7,950.00	9,309.92	7,815.63	52.10	48.99	84.08	1,520.56	-1,017.80	1,215.70	1,115.11	100.59	12.086		
9,700.00	7,950.00	9,413.49	7,816.87	54.29	51.25	84.14	1,520.84	-1,121.37	1,215.62	1,110.60	105.02	11.575		
9,800.00	7,950.00	9,535.11	7,818.36	56.52	53.97	84.20	1,520.11	-1,242.98	1,214.69	1,104.76	109.93	11.049		
9,839.61	7,950.00	9,549.01	7,818.55	57.42	54.28	84.21	1,520.12	-1,256.88	1,214.43	1,103.26	111.17	10.924		
9,900.00	7,950.00	9,577.86	7,818.89	58.79	54.94	84.23	1,520.65	-1,285.72	1,215.31	1,102.15	113.17	10.739		
10,000.00	7,950.00	9,630.28	7,819.42	61.10	56.14	84.27	1,523.47	-1,338.06	1,220.19	1,103.69	116.50	10.473		
10,100.00	7,950.00	10,011.26	7,825.23	63.44	65.02	84.49	1,511.94	-1,717.33	1,220.79	1,094.25	126.55	9.647		
10,200.00	7,950.00	10,104.36	7,826.46	65.80	67.20	84.48	1,497.25	-1,809.25	1,204.74	1,073.62	131.12	9.188		
10,300.00	7,950.00	10,186.00	7,827.55	68.19	69.13	84.47	1,485.05	-1,889.97	1,189.55	1,053.93	135.62	8.771		
10,400.00	7,950.00	10,258.17	7,828.47	70.60	70.86	84.47	1,475.60	-1,961.51	1,176.21	1,036.16	140.05	8.398		
10,500.00	7,950.00	10,367.47	7,829.89	73.03	73.50	84.48	1,462.76	-2,070.04	1,164.22	1,019.25	144.97	8.031		
10,600.00	7,950.00	10,420.20	7,830.60	75.47	74.79	84.48	1,456.95	-2,122.44	1,153.08	1,003.91	149.16	7.730		
10,700.00	7,950.00	10,469.00	7,831.21	77.94	75.98	84.50	1,453.84	-2,171.13	1,146.36	993.24	153.12	7.487		
10,800.00	7,950.00	10,526.88	7,831.90	80.41	77.42	84.53	1,452.49	-2,228.98	1,143.70	986.60	157.09	7.280		
10,823.17	7,950.00	10,540.40	7,832.06	80.99	77.76	84.53	1,452.48	-2,242.51	1,143.60	985.60	158.00	7.238 CC		
10,900.00	7,950.00	10,585.61	7,832.59	82.90	78.88	84.56	1,453.27	-2,287.70	1,144.67	983.74	160.93	7.113		
11,000.00	7,950.00	10,658.00	7,833.43	85.41	80.69	84.62	1,457.09	-2,359.99	1,149.33	984.26	165.07	6.963		
11,100.00	7,950.00	10,706.22	7,834.00	87.92	81.90	84.67	1,461.29	-2,408.02	1,157.19	988.96	168.23	6.879		
11,200.00	7,950.00	10,772.69	7,834.87	90.45	83.56	84.75	1,469.03	-2,474.02	1,168.37	996.47	171.90	6.797		
11,300.00	7,950.00	10,852.76	7,835.89	92.98	85.56	84.85	1,479.94	-2,553.34	1,181.61	1,005.52	176.09	6.710		
11,400.00	7,950.00	10,945.72	7,837.01	95.52	87.89	84.96	1,493.81	-2,645.26	1,196.13	1,015.28	180.85	6.614		
11,500.00	7,950.00	11,081.87	7,838.57	98.07	91.32	85.11	1,512.50	-2,780.10	1,209.62	1,022.06	187.56	6.449		
11,600.00	7,950.00	11,258.43	7,840.61	100.63	95.82	85.27	1,528.92	-2,955.85	1,219.04	1,023.45	195.59	6.233		
11,700.00	7,950.00	11,422.65	7,842.56	103.20	100.04	85.38	1,533.31	-3,119.99	1,221.24	1,018.62	202.62	6.027		
11,800.00	7,950.00	11,561.18	7,844.33	105.77	103.60	85.45	1,531.18	-3,258.48	1,219.31	1,010.65	208.66	5.844		
11,900.00	7,950.00	11,656.94	7,845.41	108.34	106.07	85.49	1,528.61	-3,354.20	1,216.32	1,002.60	213.72	5.691		
12,000.00	7,950.00	11,761.69	7,846.47	110.93	108.78	85.53	1,525.66	-3,458.90	1,213.21	994.23	218.98	5.540		
12,100.00	7,950.00	11,859.45	7,847.47	113.51	111.31	85.56	1,522.73	-3,556.61	1,209.92	985.82	224.10	5.399		
12,200.00	7,950.00	11,943.81	7,848.40	116.11	113.50	85.60	1,520.75	-3,640.94	1,207.30	978.36	228.94	5.273		
12,272.69	7,950.00	11,994.75	7,848.97	117.99	114.82	85.63	1,520.45	-3,691.88	1,206.65	974.47	232.18	5.197		
12,300.00	7,950.00	12,018.00	7,849.24	118.70	115.42	85.64	1,520.62	-3,715.13	1,206.75	973.26	233.49	5.168		
12,400.00	7,950.00	12,078.16	7,849.96	121.30	116.99	85.68	1,522.15	-3,775.26	1,208.88	971.37	237.51	5.090		
12,500.00	7,950.00	12,162.02	7,851.06	123.91	119.18	85.74	1,526.48	-3,859.00	1,213.63	971.45	242.18	5.011		
12,600.00	7,950.00	12,288.55	7,852.54	126.52	122.49	85.83	1,532.10	-3,985.40	1,217.81	969.51	248.31	4.904		
12,700.00	7,950.00	12,464.22	7,856.83	129.13	127.08	86.03	1,530.98	-4,160.97	1,216.25	960.75	255.50	4.760		
12,800.00	7,950.00	12,558.95	7,858.08	131.74	129.55	86.08	1,528.02	-4,255.64	1,212.83	952.21	260.62	4.654		
12,900.00	7,950.00	12,657.50	7,859.18	134.36	132.13	86.12	1,525.52	-4,354.15	1,210.00	944.17	265.83	4.552		
13,000.00	7,950.00	12,753.67	7,860.13	136.98	134.65	86.16	1,523.10	-4,450.29	1,207.21	936.22	270.99	4.455		
13,100.00	7,950.00	12,833.16	7,860.97	139.61	136.74	86.19	1,521.83	-4,529.76	1,205.36	929.58	275.77	4.371		
13,144.41	7,950.00	12,867.00	7,861.38	140.77	137.63	86.21	1,521.79	-4,563.60	1,205.17	927.33	277.84	4.338		
13,200.00	7,950.00	12,908.16	7,861.86	142.23	138.71	86.24	1,522.17	-4,604.76	1,205.50	925.15	280.36	4.300		
13,300.00	7,950.00	12,985.84	7,862.65	144.86	140.76	86.28	1,524.14	-4,682.41	1,207.72	922.80	284.92	4.239		
13,400.00	7,950.00	13,069.89	7,863.49	147.49	142.97	86.33	1,527.43	-4,766.38	1,211.36	921.72	289.64	4.182		
13,500.00	7,950.00	13,144.87	7,864.25	150.12	144.95	86.38	1,531.69	-4,841.24	1,216.74	922.80	293.94	4.139		
13,600.00	7,950.00	13,235.39	7,865.09	152.76	147.34	86.43	1,538.15	-4,931.52	1,223.57	924.75	298.83	4.095		
13,700.00	7,950.00	13,354.77	7,866.15	155.40	150.49	86.51	1,546.25	-5,050.62	1,230.10	925.17	304.93	4.034		
13,800.00	7,950.00	13,474.21	7,867.39	158.04	153.65	86.58	1,552.00	-5,169.91	1,234.56	923.61	310.96	3.970		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EXIST HZ EASTERN HILLS 4-65 17-18 2DH - OWB - FINAL SURVEY													Offset Site Error:	0.00 usft
Survey Program: 25-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,900.00	7,950.00	13,573.43	7,868.37	160.68	156.27	86.64	1,556.24	-5,269.04	1,238.56	922.33	316.23	3.917		
14,000.00	7,950.00	13,722.84	7,869.91	163.32	160.23	86.72	1,560.78	-5,418.36	1,241.65	918.58	323.07	3.843		
14,100.00	7,950.00	13,853.47	7,870.88	165.96	163.68	86.76	1,559.85	-5,548.98	1,240.73	911.66	329.07	3.770		
14,200.00	7,950.00	13,979.10	7,872.17	168.61	167.00	86.81	1,555.56	-5,674.53	1,236.98	902.18	334.80	3.695		
14,300.00	7,950.00	14,078.90	7,873.38	171.25	169.63	86.85	1,551.27	-5,774.23	1,232.40	892.32	340.08	3.624		
14,400.00	7,950.00	14,190.34	7,874.53	173.90	172.57	86.89	1,546.17	-5,885.54	1,227.56	882.04	345.52	3.553		
14,500.00	7,950.00	14,296.54	7,875.42	176.55	175.37	86.92	1,540.18	-5,991.57	1,221.65	870.78	350.87	3.482		
14,600.00	7,950.00	14,368.61	7,876.00	179.20	177.27	86.94	1,536.92	-6,063.57	1,216.86	861.07	355.79	3.420		
14,700.00	7,950.00	14,442.31	7,876.63	181.86	179.23	86.96	1,535.23	-6,137.24	1,214.30	853.71	360.59	3.368		
14,760.81	7,950.00	14,485.05	7,877.01	183.47	180.36	86.98	1,534.98	-6,179.97	1,213.81	850.44	363.37	3.340		
14,800.00	7,950.00	14,509.48	7,877.30	184.51	181.01	86.99	1,535.20	-6,204.40	1,214.05	849.01	365.03	3.326		
14,900.00	7,950.00	14,572.77	7,878.40	187.16	182.69	87.05	1,537.17	-6,267.66	1,216.81	847.73	369.08	3.297 ES		
15,000.00	7,950.00	14,648.08	7,879.36	189.82	184.70	87.10	1,541.33	-6,342.83	1,222.05	848.68	373.37	3.273		
15,100.00	7,950.00	14,768.91	7,879.67	192.47	187.91	87.13	1,548.08	-6,463.47	1,227.38	847.79	379.58	3.233		
15,200.00	7,950.00	14,838.23	7,880.15	195.13	189.75	87.16	1,552.26	-6,532.67	1,233.15	849.59	383.56	3.215 SF		
15,300.00	7,950.00	14,875.00	7,880.60	197.79	190.73	87.19	1,555.08	-6,569.32	1,241.90	856.52	385.38	3.223		
15,400.00	7,950.00	14,875.00	7,880.60	200.45	190.73	87.19	1,555.08	-6,569.32	1,257.88	874.66	383.22	3.282		
15,500.00	7,950.00	14,875.00	7,880.60	203.11	190.73	87.19	1,555.08	-6,569.32	1,281.49	902.58	378.91	3.382		
15,600.00	7,950.00	14,875.00	7,880.60	205.77	190.73	87.19	1,555.08	-6,569.32	1,312.32	939.56	372.76	3.521		
15,700.00	7,950.00	14,875.00	7,880.60	208.43	190.73	87.19	1,555.08	-6,569.32	1,349.87	984.76	365.11	3.697		
15,800.00	7,950.00	14,875.00	7,880.60	211.10	190.73	87.19	1,555.08	-6,569.32	1,393.59	1,037.25	356.34	3.911		
15,900.00	7,950.00	14,875.00	7,880.60	213.76	190.73	87.19	1,555.08	-6,569.32	1,442.94	1,096.14	346.80	4.161		
16,000.00	7,950.00	14,875.00	7,880.60	216.42	190.73	87.19	1,555.08	-6,569.32	1,497.34	1,160.55	336.79	4.446		
16,100.00	7,950.00	14,875.00	7,880.60	219.09	190.73	87.19	1,555.08	-6,569.32	1,556.27	1,229.69	326.58	4.765		
16,200.00	7,950.00	14,875.00	7,880.60	221.75	190.73	87.19	1,555.08	-6,569.32	1,619.24	1,302.88	316.36	5.118		
16,300.00	7,950.00	14,875.00	7,880.60	224.42	190.73	87.19	1,555.08	-6,569.32	1,685.79	1,379.50	306.29	5.504		
16,400.00	7,950.00	14,875.00	7,880.60	227.08	190.73	87.19	1,555.08	-6,569.32	1,755.52	1,459.03	296.49	5.921		
16,500.00	7,950.00	14,875.00	7,880.60	229.75	190.73	87.19	1,555.08	-6,569.32	1,828.06	1,541.03	287.04	6.369		
16,600.00	7,950.00	14,875.00	7,880.60	232.42	190.73	87.19	1,555.08	-6,569.32	1,903.10	1,625.13	277.97	6.846		
16,700.00	7,950.00	14,875.00	7,880.60	235.09	190.73	87.19	1,555.08	-6,569.32	1,980.34	1,711.01	269.32	7.353		
16,800.00	7,950.00	14,875.00	7,880.60	237.76	190.73	87.19	1,555.08	-6,569.32	2,059.54	1,798.43	261.11	7.888		
16,900.00	7,950.00	14,875.00	7,880.60	240.43	190.73	87.19	1,555.08	-6,569.32	2,140.48	1,887.15	253.32	8.450		
17,000.00	7,950.00	14,875.00	7,880.60	243.10	190.73	87.19	1,555.08	-6,569.32	2,222.97	1,977.01	245.96	9.038		
17,100.00	7,950.00	14,875.00	7,880.60	245.77	190.73	87.19	1,555.08	-6,569.32	2,306.85	2,067.84	239.01	9.652		
17,200.00	7,950.00	14,875.00	7,880.60	248.44	190.73	87.19	1,555.08	-6,569.32	2,391.97	2,159.52	232.45	10.290		
17,300.00	7,950.00	14,875.00	7,880.60	251.11	190.73	87.19	1,555.08	-6,569.32	2,478.20	2,251.93	226.27	10.952		
17,400.00	7,950.00	14,875.00	7,880.60	253.78	190.73	87.19	1,555.08	-6,569.32	2,565.43	2,345.00	220.44	11.638		
17,500.00	7,950.00	14,875.00	7,880.60	256.45	190.73	87.19	1,555.08	-6,569.32	2,653.56	2,438.63	214.94	12.346		
17,600.00	7,950.00	14,875.00	7,880.60	259.12	190.73	87.19	1,555.08	-6,569.32	2,742.51	2,532.76	209.75	13.075		
17,700.00	7,950.00	14,875.00	7,880.60	261.80	190.73	87.19	1,555.08	-6,569.32	2,832.19	2,627.34	204.85	13.825		
17,800.00	7,950.00	14,875.00	7,880.60	264.47	190.73	87.19	1,555.08	-6,569.32	2,922.55	2,722.31	200.23	14.596		
17,900.00	7,950.00	14,875.00	7,880.60	267.14	190.73	87.19	1,555.08	-6,569.32	3,013.51	2,817.64	195.87	15.385		
18,000.00	7,950.00	14,875.00	7,880.60	269.82	190.73	87.19	1,555.08	-6,569.32	3,105.03	2,913.28	191.75	16.194		
18,100.00	7,950.00	14,875.00	7,880.60	272.49	190.73	87.19	1,555.08	-6,569.32	3,197.05	3,009.21	187.84	17.020		
18,200.00	7,950.00	14,875.00	7,880.60	275.17	190.73	87.19	1,555.08	-6,569.32	3,289.55	3,105.40	184.15	17.863		
18,300.00	7,950.00	14,875.00	7,880.60	277.84	190.73	87.19	1,555.08	-6,569.32	3,382.47	3,201.81	180.65	18.724		
18,400.00	7,950.00	14,875.00	7,880.60	280.52	190.73	87.19	1,555.08	-6,569.32	3,475.78	3,298.44	177.34	19.600		
18,500.00	7,950.00	14,875.00	7,880.60	283.19	190.73	87.19	1,555.08	-6,569.32	3,569.45	3,395.26	174.19	20.491		
18,600.00	7,950.00	14,875.00	7,880.60	285.87	190.73	87.19	1,555.08	-6,569.32	3,663.46	3,492.25	171.21	21.398		
18,700.00	7,950.00	14,875.00	7,880.60	288.55	190.73	87.19	1,555.08	-6,569.32	3,757.78	3,589.41	168.37	22.318		
18,800.00	7,950.00	14,875.00	7,880.60	291.22	190.73	87.19	1,555.08	-6,569.32	3,852.38	3,686.71	165.68	23.253		
18,900.00	7,950.00	14,875.00	7,880.60	293.90	190.73	87.19	1,555.08	-6,569.32	3,947.26	3,784.15	163.11	24.200		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 17-T4S-R65W - EXIST HZ EASTERN HILLS 4-65 17-18 2DH - OWB - FINAL SURVEY													Offset Site Error:	0.00 usft
Survey Program: 25-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
19,000.00	7,950.00	14,875.00	7,880.60	296.58	190.73	87.19	1,555.08	-6,569.32	4,042.37	3,881.71	160.67	25.160		
19,100.00	7,950.00	14,875.00	7,880.60	299.25	190.73	87.19	1,555.08	-6,569.32	4,137.72	3,979.38	158.34	26.132		
19,200.00	7,950.00	14,875.00	7,880.60	301.93	190.73	87.19	1,555.08	-6,569.32	4,233.29	4,077.16	156.12	27.115		
19,300.00	7,950.00	14,875.00	7,880.60	304.61	190.73	87.19	1,555.08	-6,569.32	4,329.05	4,175.04	154.01	28.109		
19,400.00	7,950.00	14,875.00	7,880.60	307.29	190.73	87.19	1,555.08	-6,569.32	4,425.00	4,273.01	151.99	29.114		
19,500.00	7,950.00	14,875.00	7,880.60	309.97	190.73	87.19	1,555.08	-6,569.32	4,521.13	4,371.07	150.06	30.129		
19,600.00	7,950.00	14,875.00	7,880.60	312.65	190.73	87.19	1,555.08	-6,569.32	4,617.42	4,469.20	148.21	31.154		
19,700.00	7,950.00	14,875.00	7,880.60	315.32	190.73	87.19	1,555.08	-6,569.32	4,713.86	4,567.41	146.45	32.188		
19,800.00	7,950.00	14,875.00	7,880.60	318.00	190.73	87.19	1,555.08	-6,569.32	4,810.45	4,665.69	144.76	33.230		
19,900.00	7,950.00	14,875.00	7,880.60	320.68	190.73	87.19	1,555.08	-6,569.32	4,907.18	4,764.03	143.15	34.281		
20,000.00	7,950.00	14,875.00	7,880.60	323.36	190.73	87.19	1,555.08	-6,569.32	5,004.04	4,862.44	141.60	35.340		
20,100.00	7,950.00	14,875.00	7,880.60	326.04	190.73	87.19	1,555.08	-6,569.32	5,101.01	4,960.90	140.11	36.406		
20,200.00	7,950.00	14,875.00	7,880.60	328.72	190.73	87.19	1,555.08	-6,569.32	5,198.10	5,059.41	138.69	37.480		
20,300.00	7,950.00	14,875.00	7,880.60	331.40	190.73	87.19	1,555.08	-6,569.32	5,295.30	5,157.98	137.33	38.560		
20,400.00	7,950.00	14,875.00	7,880.60	334.08	190.73	87.19	1,555.08	-6,569.32	5,392.61	5,256.59	136.02	39.647		
20,500.00	7,950.00	14,875.00	7,880.60	336.76	190.73	87.19	1,555.08	-6,569.32	5,490.01	5,355.25	134.76	40.740		
20,600.00	7,950.00	14,875.00	7,880.60	339.44	190.73	87.19	1,555.08	-6,569.32	5,587.50	5,453.95	133.55	41.839		
20,700.00	7,950.00	14,875.00	7,880.60	342.12	190.73	87.19	1,555.08	-6,569.32	5,685.08	5,552.69	132.39	42.943		
20,800.00	7,950.00	14,875.00	7,880.60	344.81	190.73	87.19	1,555.08	-6,569.32	5,782.74	5,651.47	131.27	44.053		
20,900.00	7,950.00	14,875.00	7,880.60	347.49	190.73	87.19	1,555.08	-6,569.32	5,880.48	5,750.28	130.19	45.168		
21,000.00	7,950.00	14,875.00	7,880.60	350.17	190.73	87.19	1,555.08	-6,569.32	5,978.29	5,849.13	129.16	46.287		
21,100.00	7,950.00	14,875.00	7,880.60	352.85	190.73	87.19	1,555.08	-6,569.32	6,076.18	5,948.01	128.16	47.410		
21,200.00	7,950.00	14,875.00	7,880.60	355.53	190.73	87.19	1,555.08	-6,569.32	6,174.13	6,046.93	127.20	48.538		
21,300.00	7,950.00	14,875.00	7,880.60	358.21	190.73	87.19	1,555.08	-6,569.32	6,272.15	6,145.87	126.28	49.669		
21,400.00	7,950.00	14,875.00	7,880.60	360.90	190.73	87.19	1,555.08	-6,569.32	6,370.23	6,244.84	125.39	50.804		
21,500.00	7,950.00	14,875.00	7,880.60	363.58	190.73	87.19	1,555.08	-6,569.32	6,468.37	6,343.84	124.53	51.943		
21,600.00	7,950.00	14,875.00	7,880.60	366.26	190.73	87.19	1,555.08	-6,569.32	6,566.56	6,442.86	123.70	53.084		
21,700.00	7,950.00	14,875.00	7,880.60	368.94	190.73	87.19	1,555.08	-6,569.32	6,664.81	6,541.91	122.90	54.228		
21,800.00	7,950.00	14,875.00	7,880.60	371.62	190.73	87.19	1,555.08	-6,569.32	6,763.11	6,640.98	122.13	55.376		
21,900.00	7,950.00	14,875.00	7,880.60	374.31	190.73	87.19	1,555.08	-6,569.32	6,861.46	6,740.07	121.39	56.525		
22,000.00	7,950.00	14,875.00	7,880.60	376.99	190.73	87.19	1,555.08	-6,569.32	6,959.85	6,839.18	120.67	57.677		
22,100.00	7,950.00	14,875.00	7,880.60	379.67	190.73	87.19	1,555.08	-6,569.32	7,058.29	6,938.32	119.98	58.831		
22,200.00	7,950.00	14,875.00	7,880.60	382.36	190.73	87.19	1,555.08	-6,569.32	7,156.78	7,037.47	119.31	59.987		
22,300.00	7,950.00	14,875.00	7,880.60	385.04	190.73	87.19	1,555.08	-6,569.32	7,255.30	7,136.64	118.66	61.144		
22,400.00	7,950.00	14,875.00	7,880.60	387.72	190.73	87.19	1,555.08	-6,569.32	7,353.87	7,235.84	118.03	62.304		
22,500.00	7,950.00	14,875.00	7,880.60	390.41	190.73	87.19	1,555.08	-6,569.32	7,452.47	7,335.04	117.43	63.464		
22,600.00	7,950.00	14,875.00	7,880.60	393.09	190.73	87.19	1,555.08	-6,569.32	7,551.11	7,434.27	116.84	64.626		
22,700.00	7,950.00	14,875.00	7,880.60	395.77	190.73	87.19	1,555.08	-6,569.32	7,649.79	7,533.51	116.28	65.789		
22,800.00	7,950.00	14,875.00	7,880.60	398.46	190.73	87.19	1,555.08	-6,569.32	7,748.50	7,632.77	115.73	66.952		
22,900.00	7,950.00	14,875.00	7,880.60	401.14	190.73	87.19	1,555.08	-6,569.32	7,847.24	7,732.04	115.20	68.117		
23,000.00	7,950.00	14,875.00	7,880.60	403.83	190.73	87.19	1,555.08	-6,569.32	7,946.01	7,831.32	114.69	69.282		
23,100.00	7,950.00	14,875.00	7,880.60	406.51	190.73	87.19	1,555.08	-6,569.32	8,044.82	7,930.62	114.20	70.448		
23,200.00	7,950.00	14,875.00	7,880.60	409.19	190.73	87.19	1,555.08	-6,569.32	8,143.65	8,029.94	113.72	71.614		
23,300.00	7,950.00	14,875.00	7,880.60	411.88	190.73	87.19	1,555.08	-6,569.32	8,242.51	8,129.26	113.25	72.780		
23,400.00	7,950.00	14,875.00	7,880.60	414.56	190.73	87.19	1,555.08	-6,569.32	8,341.40	8,228.60	112.80	73.947		
23,500.00	7,950.00	14,875.00	7,880.60	417.25	190.73	87.19	1,555.08	-6,569.32	8,440.32	8,327.95	112.37	75.113		
23,600.00	7,950.00	14,875.00	7,880.60	419.93	190.73	87.19	1,555.08	-6,569.32	8,539.26	8,427.31	111.95	76.280		
23,700.00	7,950.00	14,875.00	7,880.60	422.62	190.73	87.19	1,555.08	-6,569.32	8,638.22	8,526.68	111.54	77.446		
23,800.00	7,950.00	14,875.00	7,880.60	425.30	190.73	87.19	1,555.08	-6,569.32	8,737.21	8,626.06	111.14	78.612		
23,900.00	7,950.00	14,875.00	7,880.60	427.99	190.73	87.19	1,555.08	-6,569.32	8,836.22	8,725.46	110.76	79.777		
24,000.00	7,950.00	14,875.00	7,880.60	430.67	190.73	87.19	1,555.08	-6,569.32	8,935.25	8,824.86	110.39	80.942		
24,100.00	7,950.00	14,875.00	7,880.60	433.36	190.73	87.19	1,555.08	-6,569.32	9,034.31	8,924.27	110.03	82.106		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

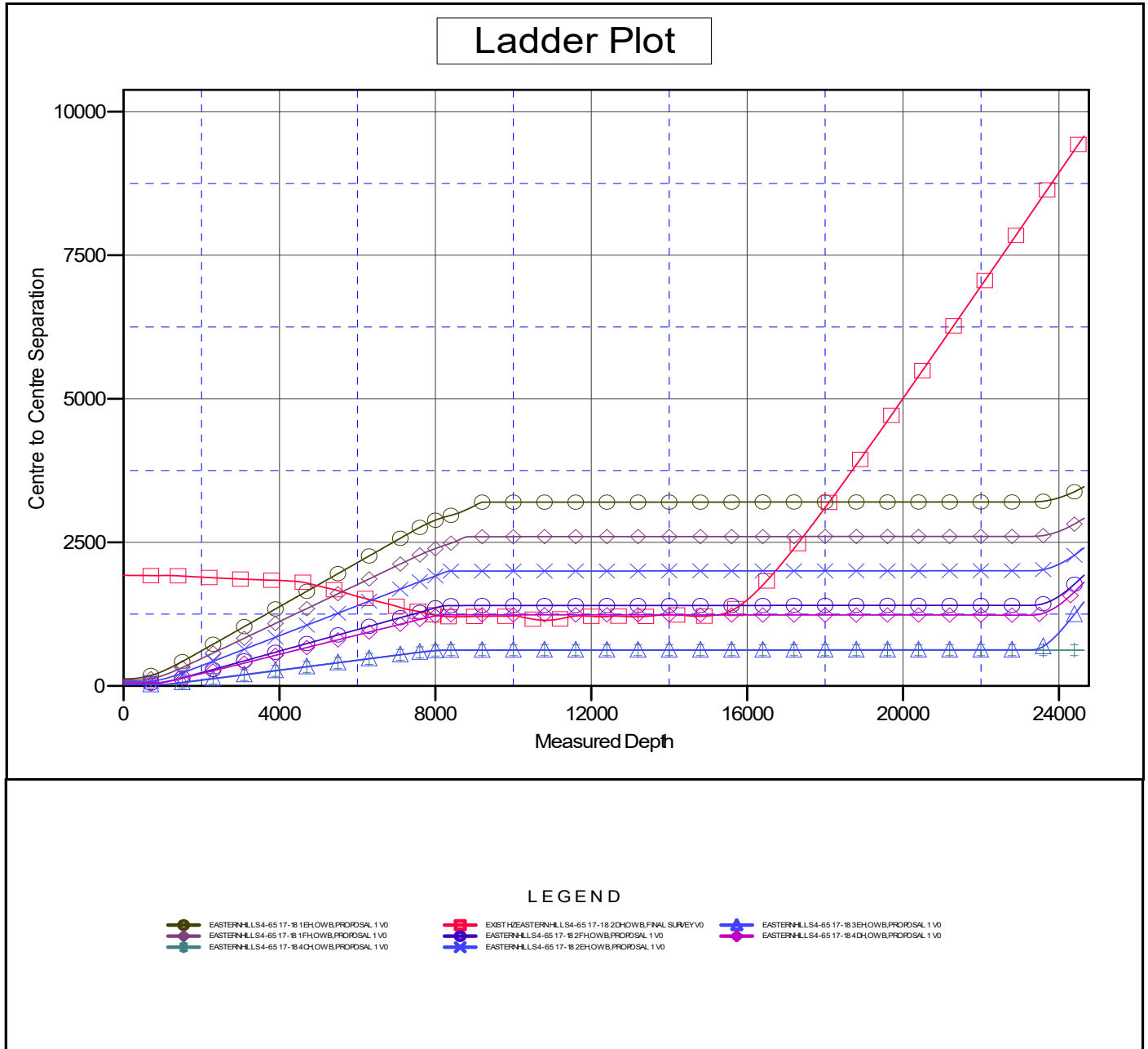
Offset Design		SEC 17-T4S-R65W - EXIST HZ EASTERN HILLS 4-65 17-18 2DH - OWB - FINAL SURVEY										Offset Site Error:	0.00 usft
Survey Program:		25-MWD OWSG										Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
24,200.00	7,950.00	14,875.00	7,880.60	436.04	190.73	87.19	1,555.08	-6,569.32	9,133.38	9,023.70	109.68	83.270	
24,300.00	7,950.00	14,875.00	7,880.60	438.73	190.73	87.19	1,555.08	-6,569.32	9,232.48	9,123.13	109.35	84.433	
24,400.00	7,950.00	14,875.00	7,880.60	441.41	190.73	87.19	1,555.08	-6,569.32	9,331.59	9,222.57	109.02	85.595	
24,500.00	7,950.00	14,875.00	7,880.60	444.10	190.73	87.19	1,555.08	-6,569.32	9,430.72	9,322.02	108.70	86.756	
24,600.00	7,950.00	14,875.00	7,880.60	446.78	190.73	87.19	1,555.08	-6,569.32	9,529.87	9,421.48	108.40	87.916	
24,644.20	7,950.00	14,875.00	7,880.60	447.97	190.73	87.19	1,555.08	-6,569.32	9,573.70	9,465.44	108.26	88.429	

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB 25' @ 5666.00usft
Offset Depths are relative to Offset Datum
Central Meridian is 105.500000°W

Coordinates are relative to: EASTERN HILLS 4-65 17-18 3FH
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: 0.52°



CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

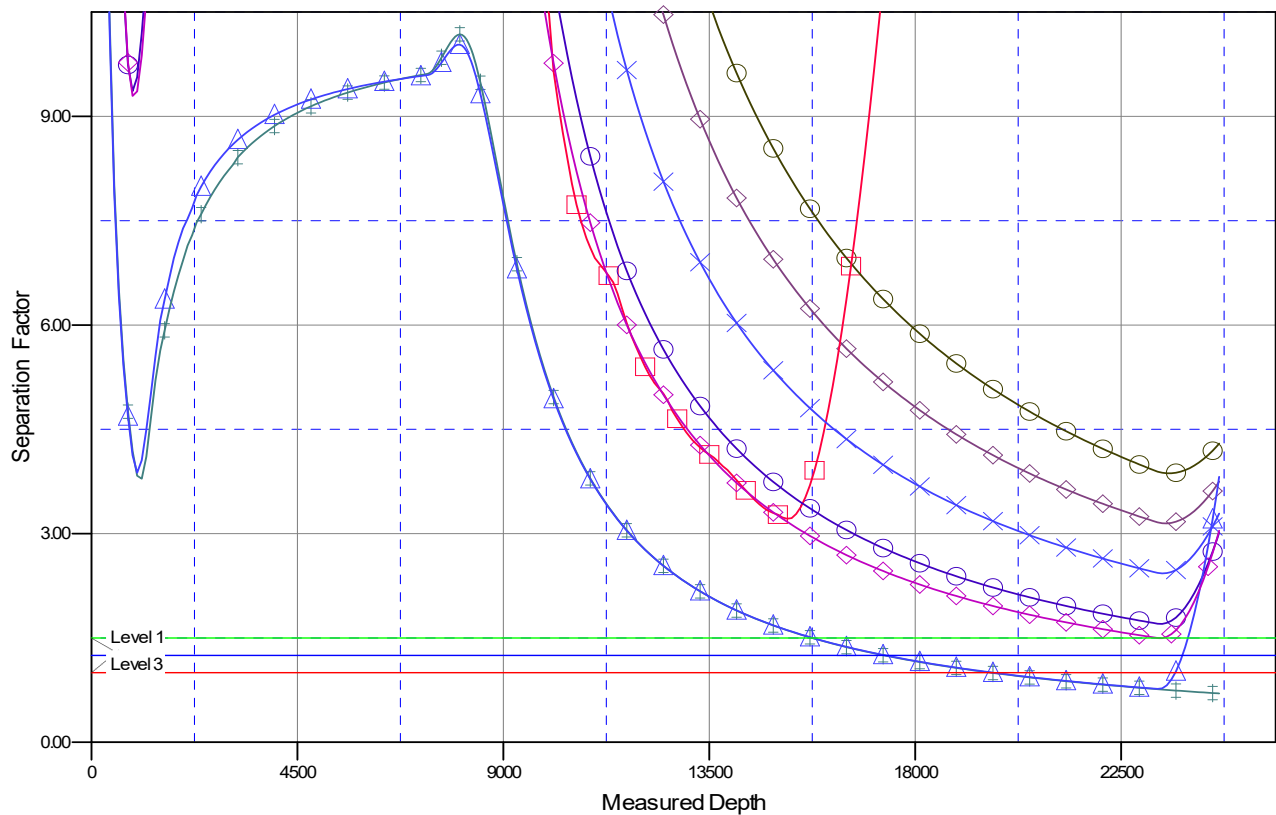
Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well EASTERN HILLS 4-65 17-18 3FH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5666.00usft
Reference Site:	SEC 17-T4S-R65W	MD Reference:	KB 25' @ 5666.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	EASTERN HILLS 4-65 17-18 3FH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB 25' @ 5666.00usft
 Offset Depths are relative to Offset Datum
 Central Meridian is 105.500000°W

Coordinates are relative to: EASTERN HILLS 4-65 17-18 3FH
 Coordinate System is US State Plane 1983, Colorado Central Zone
 Grid Convergence at Surface is: 0.52°

Separation Factor Plot



LEGEND

EASTERNHILLS4-65 17-18 1EHOWB,PROPOSAL 1 V0	EXISTHZEASTERNHILLS4-65 17-18 2DHOWB,FINAL SURVEY V0	EASTERNHILLS4-65 17-18 3EHOWB,PROPOSAL 1 V0
EASTERNHILLS4-65 17-18 1FHOWB,PROPOSAL 1 V0	EASTERNHILLS4-65 17-18 2FHOWB,PROPOSAL 1 V0	EASTERNHILLS4-65 17-18 4DHOWB,PROPOSAL 1 V0
EASTERNHILLS4-65 17-18 4EHOWB,PROPOSAL 1 V0		