



# **Crestone Peak Resources**

**Sec 20 T1N-R67W**

**Herbers Pad**

**HERBERS 1I-20H-B167**

**Wellbore #1**

**Design #1 06Aug18 kjs**

## **Anticollision Summary Report**

**15 August, 2018**

## Anticollision Summary Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well HERBERS 11-20H-B167
<b>Project:</b>	Sec 20 T1N-R67W	<b>TVD Reference:</b>	WELL @ 5129.11usft (Original Well Elev)
<b>Reference Site:</b>	Herbers Pad	<b>MD Reference:</b>	WELL @ 5129.11usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	HERBERS 11-20H-B167	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.15 Single User Db
<b>Reference Design:</b>	Design #1 06Aug18 kjs	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Design #1 06Aug18 kjs		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD Interval 100.00usft	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 9,999.98 usft	<b>Error Surface:</b>	Pedal Curve
<b>Warning Levels Evaluated at:</b>	2.00 Sigma	<b>Casing Method:</b>	Not applied

<b>Survey Tool Program</b>	<b>Date</b>	8/9/2018		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	15,190.95	Design #1 06Aug18 kjs (Wellbore #1)	MWD	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						
Existing Wells (Herbers)						
BLANCHE C 4 - KAUFFMAN - No Survey	300.00	312.89	1,013.43	1,012.01	716.384	CC, ES
BLANCHE C 4 - KAUFFMAN - No Survey	5,200.00	5,005.00	2,133.35	2,103.37	71.138	SF
BLANCHE C HOPKINS 2 - KAUFFMAN - No Survey	300.00	300.89	1,489.01	1,487.62	1,068.954	CC, ES
BLANCHE C HOPKINS 2 - KAUFFMAN - No Survey	11,700.00	4,990.00	4,210.96	4,159.42	81.697	SF
GRIFFITHS 14N-20HZ - KMG - MWD	7,261.58	12,353.62	2,543.00	2,422.30	21.069	CC
GRIFFITHS 14N-20HZ - KMG - MWD	12,533.86	17,328.00	2,566.10	2,307.19	9.911	ES
GRIFFITHS 14N-20HZ - KMG - MWD	12,600.00	17,328.00	2,566.95	2,307.61	9.898	SF
GRIFFITHS 36C-20HZ - KMG - MWD	7,633.45	11,942.96	2,086.50	1,973.56	18.474	CC, ES
GRIFFITHS 36C-20HZ - KMG - MWD	12,900.00	16,704.89	2,368.48	2,126.42	9.785	SF
HEINZE 1 - PETERSON - No Survey	11,181.29	5,092.00	2,361.03	2,319.28	56.550	CC
HEINZE 1 - PETERSON - No Survey	11,200.00	5,092.00	2,361.11	2,319.16	56.287	ES
HEINZE 1 - PETERSON - No Survey	12,200.00	5,092.00	2,571.43	2,519.50	49.513	SF
HEINZE 1A - PETERSON - No Survey	300.00	257.89	2,446.15	2,444.83	1,858.805	CC, ES
HEINZE 1A - PETERSON - No Survey	12,100.00	4,980.00	3,064.55	3,013.81	60.397	SF
HEINZE 2 - DENVER EAST - No Survey	12,387.46	5,090.00	2,725.17	2,667.85	47.550	CC
HEINZE 2 - DENVER EAST - No Survey	12,400.00	5,090.00	2,725.19	2,667.79	47.472	ES
HEINZE 2 - DENVER EAST - No Survey	13,000.00	5,090.00	2,793.16	2,731.83	45.545	SF
HEINZE HERBER 33-20 - PDC ENERGY - Gyro	10,979.90	7,428.56	1,604.67	1,521.16	19.216	CC, ES
HEINZE HERBER 33-20 - PDC ENERGY - Gyro	11,100.00	7,429.94	1,609.16	1,525.13	19.150	SF
HEINZE-HERBERS B 1 - PDC ENERGY - Gyro	11,900.00	7,470.59	546.67	447.10	5.490	SF
HEINZE-HERBERS B 1 - PDC ENERGY - Gyro	11,953.87	7,470.78	544.01	445.03	5.496	CC, ES
HERBERS 1 - CPR - Gyro	9,233.27	7,486.70	426.35	364.27	6.868	CC, ES, SF
HERBERS 2 - DENVER EAST - No Survey	300.00	273.89	1,228.21	1,226.86	913.037	CC, ES
HERBERS 2 - DENVER EAST - No Survey	5,300.00	5,079.41	2,099.39	2,066.60	64.030	SF
HERBERS 31-20 - KMG - Gyro	1,782.91	1,720.00	27.10	13.19	1.948	CC, ES, SF
HOWARD 10-29 - KMG - MWD	15,190.96	7,592.34	1,651.70	1,506.71	11.392	CC, ES, SF
HOWARD 10C-29HZ - KMG - MWD	15,190.96	12,351.00	1,860.02	1,662.49	9.416	CC, ES, SF
HOWARD 24-29 - KMG - MWD	15,190.96	7,653.45	876.98	723.15	5.701	CC, ES, SF
HOWARD 24N-29HZ - KMG - MWD	15,190.96	12,081.00	1,073.46	940.51	8.074	CC, ES, SF
HOWARD 28N-29HZ - KMG - MWD	13,309.12	14,930.20	2,160.34	1,930.58	9.402	CC, ES
HOWARD 28N-29HZ - KMG - MWD	13,400.00	14,859.92	2,160.88	1,930.91	9.397	SF
HOWARD 30C-28HZ - KMG - MWD	15,079.62	10,814.27	714.56	545.40	4.224	CC
HOWARD 30C-28HZ - KMG - MWD	15,100.00	10,797.96	714.62	545.24	4.219	ES
HOWARD 30C-28HZ - KMG - MWD	15,190.96	10,715.45	715.92	546.09	4.215	SF
HOWARD 30N-21HZX - KMG - MWD	12,465.34	7,857.90	643.19	533.29	5.853	CC
HOWARD 30N-21HZX - KMG - MWD	12,500.00	7,829.32	643.39	532.80	5.818	ES
HOWARD 30N-21HZX - KMG - MWD	12,700.00	7,675.92	654.65	540.26	5.723	SF

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

## Anticollision Summary Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well HERBERS 1I-20H-B167
<b>Project:</b>	Sec 20 T1N-R67W	<b>TVD Reference:</b>	WELL @ 5129.11usft (Original Well Elev)
<b>Reference Site:</b>	Herbers Pad	<b>MD Reference:</b>	WELL @ 5129.11usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	HERBERS 1I-20H-B167	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.15 Single User Db
<b>Reference Design:</b>	Design #1 06Aug18 kjs	<b>Offset TVD Reference:</b>	Offset Datum

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						
Existing Wells (Herbers)						
HOWARD 30N-21HZX - KMG Wellbore#2 - MWD	12,269.91	8,064.25	638.62	532.09	5.995	CC
HOWARD 30N-21HZX - KMG Wellbore#2 - MWD	12,400.00	7,938.44	639.48	530.55	5.870	ES
HOWARD 30N-21HZX - KMG Wellbore#2 - MWD	12,700.00	7,675.92	654.65	540.26	5.723	SF
HOWARD 3C-29HZ - KMG - MWD	13,979.33	14,479.51	2,625.57	2,396.36	11.455	CC
HOWARD 3C-29HZ - KMG - MWD	14,000.00	14,461.82	2,625.58	2,396.35	11.454	ES
HOWARD 3C-29HZ - KMG - MWD	14,100.00	14,390.00	2,626.01	2,396.52	11.443	SF
HOWARD 4C-21HZ - KMG - MWD	12,735.77	7,743.00	1,081.50	969.02	9.616	CC
HOWARD 4C-21HZ - KMG - MWD	12,800.00	7,710.76	1,082.72	968.38	9.469	ES
HOWARD 4C-21HZ - KMG - MWD	13,100.00	7,518.67	1,118.58	997.31	9.224	SF
HOWARD 4N-28HZ - KMG - MWD	13,038.86	12,586.00	1,103.23	920.61	6.041	CC
HOWARD 4N-28HZ - KMG - MWD	13,100.00	12,564.40	1,104.71	920.54	5.998	ES, SF
HOWARD 9-29 - KMG - MWD	15,190.96	7,543.03	1,110.39	1,025.31	13.051	CC, ES, SF
HOWARD 9C-29HZ - KMG - MWD	15,190.96	12,440.00	980.24	900.02	12.219	CC, ES, SF
HSR-UNDERHILL 15-17A - KMG - Gyro	5,291.53	5,102.22	1,002.88	955.58	21.201	CC
HSR-UNDERHILL 15-17A - KMG - Gyro	5,400.00	5,210.68	1,003.16	954.85	20.763	ES
HSR-UNDERHILL 15-17A - KMG - Gyro	6,800.00	6,539.55	1,096.31	1,036.94	18.465	SF
MARK 1 - VESSELS - No Survey	5,326.50	5,063.00	811.91	773.21	20.977	CC, ES
MARK 1 - VESSELS - No Survey	5,400.00	5,063.00	815.23	776.22	20.896	SF
MARK 1-A - CHAPARRAL - No Survey	2,019.86	1,944.18	29.73	16.74	2.288	CC, ES, SF
NGL C2B - NGL WATER - MWD	15,190.96	8,955.50	1,464.58	1,310.27	9.491	CC, ES, SF
PAUL HEINZE 1 - KPK - No Survey	300.00	273.89	2,489.07	2,487.73	1,850.504	CC, ES
PAUL HEINZE 1 - KPK - No Survey	12,300.00	5,000.00	3,945.37	3,884.73	65.052	SF
SCHEIDT STATE VV16-13 - KMG - Gyro	7,446.03	7,141.21	1,254.95	1,201.71	23.570	CC, ES
SCHEIDT STATE VV16-13 - KMG - Gyro	7,600.00	7,262.99	1,266.61	1,212.69	23.489	SF
UNDERHILL 1N-17HZ - KMG - MWD	7,540.67	7,320.23	175.39	115.23	2.915	CC, ES, SF
UNDERHILL 27C-17HZ - KMG - MWD	6,301.11	6,116.83	59.96	1.13	1.019	Level 3, CC, ES, SF
UNDERHILL 27N-17HZ - KMG - MWD	5,588.61	5,459.96	226.04	172.17	4.197	CC
UNDERHILL 27N-17HZ - KMG - MWD	5,600.00	5,470.13	226.09	172.15	4.191	ES, SF
UNDERHILL 28N-17HZ - KMG - MWD	4,443.88	4,373.40	842.70	799.90	19.688	CC
UNDERHILL 28N-17HZ - KMG - MWD	4,500.00	4,420.22	843.22	799.87	19.451	ES
UNDERHILL 28N-17HZ - KMG - MWD	4,900.00	4,770.64	875.00	828.36	18.759	SF
UNDERHILL 2C-17HZ - KMG - MWD	4,988.82	4,911.07	672.92	625.68	14.245	CC
UNDERHILL 2C-17HZ - KMG - MWD	5,000.00	4,920.89	672.94	625.60	14.216	ES
UNDERHILL 2C-17HZ - KMG - MWD	5,200.00	5,079.35	682.38	633.53	13.968	SF
UNDERHILL STATE 26C-17HZ - KMG - MWD	7,542.60	7,318.41	648.18	587.46	10.676	CC, ES, SF
UPRR 42 PAN AM AN 4 - KAUFFMAN - No Survey	11,040.67	4,961.00	2,772.19	2,719.73	52.838	CC
UPRR 42 PAN AM AN 4 - KAUFFMAN - No Survey	11,100.00	4,961.00	2,772.83	2,719.49	51.991	ES
UPRR 42 PAN AM AN 4 - KAUFFMAN - No Survey	12,300.00	4,961.00	3,044.83	2,976.31	44.436	SF
UPRR 42 PAN AM N 4 - KAUFFMAN - MWD	2,610.31	2,800.00	1,919.80	1,895.86	80.172	CC, ES
UPRR 42 PAN AM N 4 - KAUFFMAN - MWD	5,200.00	5,107.54	2,243.32	2,199.25	50.897	SF
UPRR 42 PAN AM-AN 1 - KAUFFMAN - No Survey	12,255.66	4,985.00	2,747.84	2,683.54	42.732	CC
UPRR 42 PAN AM-AN 1 - KAUFFMAN - No Survey	12,300.00	4,985.00	2,748.20	2,683.19	42.274	ES
UPRR 42 PAN AM-AN 1 - KAUFFMAN - No Survey	13,300.00	4,985.00	2,939.61	2,861.54	37.653	SF
UPRR 43 PAN AM GU K 1 - KMG - Gyro	14,598.70	7,429.55	491.85	348.98	3.443	CC, ES, SF
UPRR 43 PAN AM-G 12 - KAUFFMAN - No Survey	15,190.96	5,018.00	2,635.26	2,569.61	40.144	CC, ES, SF
UPRR 43 PAN AM-G 3 - KAUFFMAN - Gyro	14,801.58	7,417.78	2,816.70	2,669.53	19.139	CC, ES
UPRR 43 PAN AM-G 3 - KAUFFMAN - Gyro	15,100.00	7,408.94	2,832.45	2,683.06	18.959	SF
UPRR 43 PAN AM-G 6 - KAUFFMAN - No Survey	13,631.45	5,005.00	3,657.98	3,571.97	42.532	CC
UPRR 43 PAN AM-G 6 - KAUFFMAN - No Survey	13,700.00	5,005.00	3,658.62	3,571.96	42.220	ES
UPRR 43 PAN AM-G 6 - KAUFFMAN - No Survey	14,500.00	5,005.00	3,759.68	3,667.17	40.642	SF
UPRR 43 PAN AM-G 9 - KAUFFMAN - No Survey	15,190.96	4,975.00	3,707.87	3,601.04	34.707	CC, ES, SF
ZARLENGO 1 - UPRC - No Survey	15,024.64	4,960.00	2,453.57	2,383.01	34.772	CC, ES
ZARLENGO 1 - UPRC - No Survey	15,190.96	4,960.00	2,459.20	2,386.94	34.034	SF

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

## Anticollision Summary Report

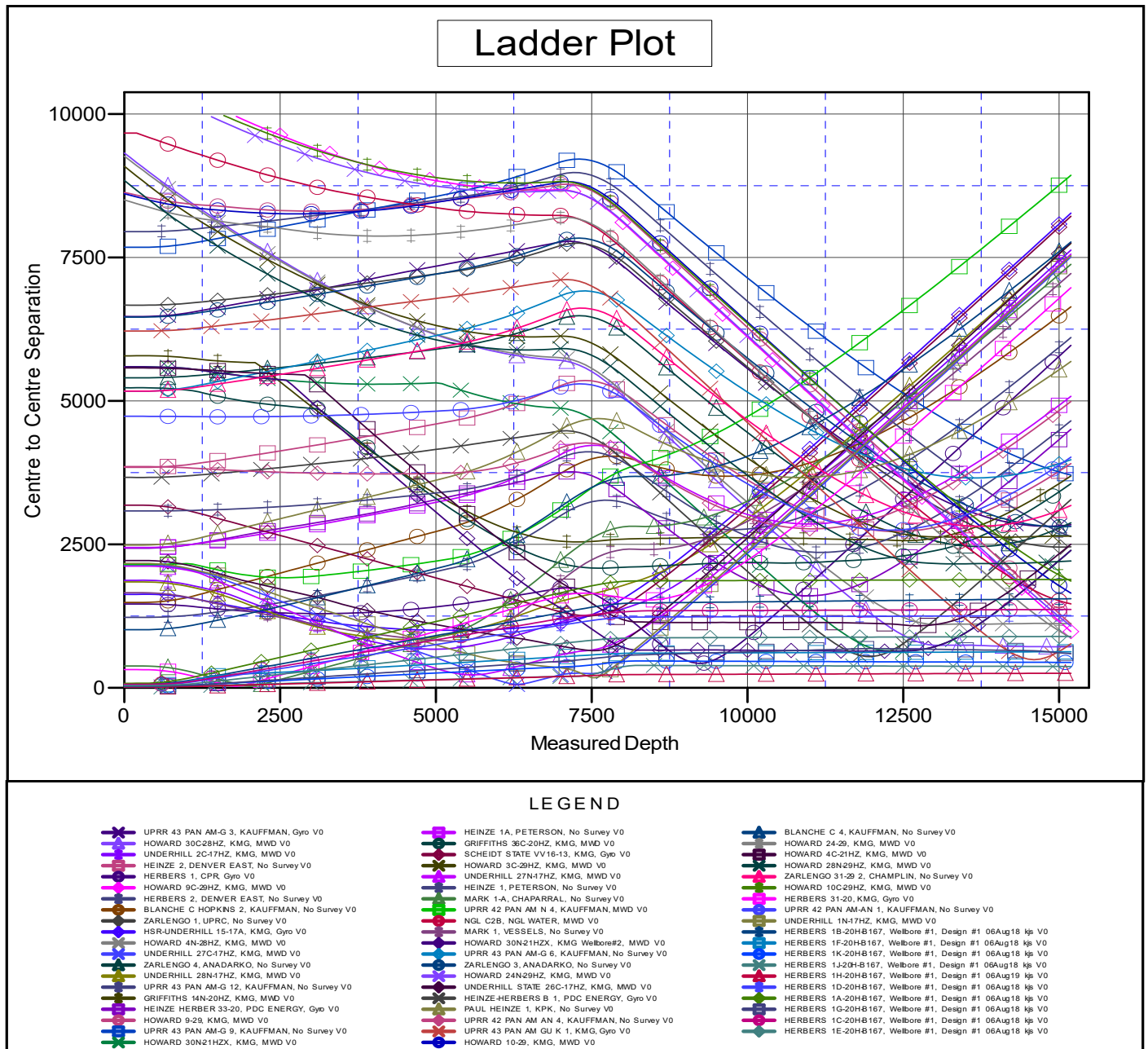
<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well HERBERS 1I-20H-B167
<b>Project:</b>	Sec 20 T1N-R67W	<b>TVD Reference:</b>	WELL @ 5129.11usft (Original Well Elev)
<b>Reference Site:</b>	Herbers Pad	<b>MD Reference:</b>	WELL @ 5129.11usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	HERBERS 1I-20H-B167	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.15 Single User Db
<b>Reference Design:</b>	Design #1 06Aug18 kjs	<b>Offset TVD Reference:</b>	Offset Datum

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						
Existing Wells (Herbers)						
ZARLENGO 3 - ANADARKO - No Survey	15,013.69	4,990.00	2,807.60	2,722.44	32.970	CC, ES
ZARLENGO 3 - ANADARKO - No Survey	15,190.96	4,990.00	2,813.19	2,726.84	32.579	SF
ZARLENGO 31-29 2 - CHAMPLIN - No Survey	13,720.54	4,990.00	2,816.80	2,745.83	39.688	CC, ES
ZARLENGO 31-29 2 - CHAMPLIN - No Survey	14,200.00	4,990.00	2,857.32	2,783.35	38.631	SF
ZARLENGO 4 - ANADARKO - No Survey	13,705.99	4,965.00	2,464.39	2,403.86	40.718	CC, ES
ZARLENGO 4 - ANADARKO - No Survey	14,400.00	4,965.00	2,560.25	2,493.43	38.316	SF
Herbers Pad						
HERBERS 1A-20H-B167 - Wellbore #1 - Design #1 06Au	116.25	117.49	80.00	79.60	201.532	CC
HERBERS 1A-20H-B167 - Wellbore #1 - Design #1 06Au	300.00	300.97	80.17	78.45	46.794	ES
HERBERS 1A-20H-B167 - Wellbore #1 - Design #1 06Au	15,190.96	14,995.53	1,889.54	1,634.95	7.422	SF
HERBERS 1B-20H-B167 - Wellbore #1 - Design #1 06Au	318.96	320.51	69.86	68.01	37.748	CC, ES
HERBERS 1B-20H-B167 - Wellbore #1 - Design #1 06Au	15,190.96	15,106.94	1,553.44	1,299.01	6.106	SF
HERBERS 1C-20H-B167 - Wellbore #1 - Design #1 06Au	301.04	302.02	60.00	58.28	34.867	CC
HERBERS 1C-20H-B167 - Wellbore #1 - Design #1 06Au	400.00	401.84	60.67	58.24	24.974	ES
HERBERS 1C-20H-B167 - Wellbore #1 - Design #1 06Au	15,190.96	14,978.72	1,366.45	1,115.51	5.445	SF
HERBERS 1D-20H-B167 - Wellbore #1 - Design #1 06Au	341.57	342.87	49.69	47.68	24.710	CC
HERBERS 1D-20H-B167 - Wellbore #1 - Design #1 06Au	400.00	401.63	49.97	47.55	20.578	ES
HERBERS 1D-20H-B167 - Wellbore #1 - Design #1 06Au	15,190.96	15,011.37	1,259.69	1,005.33	4.952	SF
HERBERS 1E-20H-B167 - Wellbore #1 - Design #1 06Au	301.42	302.00	40.00	38.28	23.228	CC
HERBERS 1E-20H-B167 - Wellbore #1 - Design #1 06Au	400.00	401.37	40.39	37.96	16.642	ES
HERBERS 1E-20H-B167 - Wellbore #1 - Design #1 06Au	15,190.96	15,153.41	896.49	642.28	3.527	SF
HERBERS 1F-20H-B167 - Wellbore #1 - Design #1 06Au	300.00	300.41	30.00	28.29	17.530	CC, ES
HERBERS 1F-20H-B167 - Wellbore #1 - Design #1 06Au	15,190.96	15,101.76	629.85	375.79	2.479	SF
HERBERS 1G-20H-B167 - Wellbore #1 - Design #1 06A	300.00	300.20	20.00	18.29	11.692	CC, ES
HERBERS 1G-20H-B167 - Wellbore #1 - Design #1 06A	15,185.81	15,356.84	597.30	356.24	2.478	SF
HERBERS 1H-20H-B167 - Wellbore #1 - Design #1 06Au	300.00	300.07	10.00	8.29	5.847	CC, ES
HERBERS 1H-20H-B167 - Wellbore #1 - Design #1 06Au	15,190.96	15,256.43	254.87	13.32	1.055	Level 3, SF
HERBERS 1J-20H-B167 - Wellbore #1 - Design #1 06Au	204.22	203.76	10.00	8.98	9.789	CC
HERBERS 1J-20H-B167 - Wellbore #1 - Design #1 06Au	300.00	299.38	10.38	8.68	6.086	ES
HERBERS 1J-20H-B167 - Wellbore #1 - Design #1 06Au	15,190.96	15,505.68	372.23	178.75	1.924	SF
HERBERS 1K-20H-B167 - Wellbore #1 - Design #1 06Au	200.00	199.47	20.00	19.01	20.180	CC, ES
HERBERS 1K-20H-B167 - Wellbore #1 - Design #1 06Au	15,190.96	15,401.91	443.87	199.55	1.817	SF

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well HERBERS 11-20H-B167
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<b>Reference Site:</b>	Herbers Pad	<b>MD Reference:</b>	WELL @ 5129.11usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	HERBERS 11-20H-B167	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.15 Single User Db
<b>Reference Design:</b>	Design #1 06Aug18 kjs	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5129.11usft (Original Well E  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000

Coordinates are relative to: HERBERS 11-20H-B167  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.38°





## Anticollision Summary Report

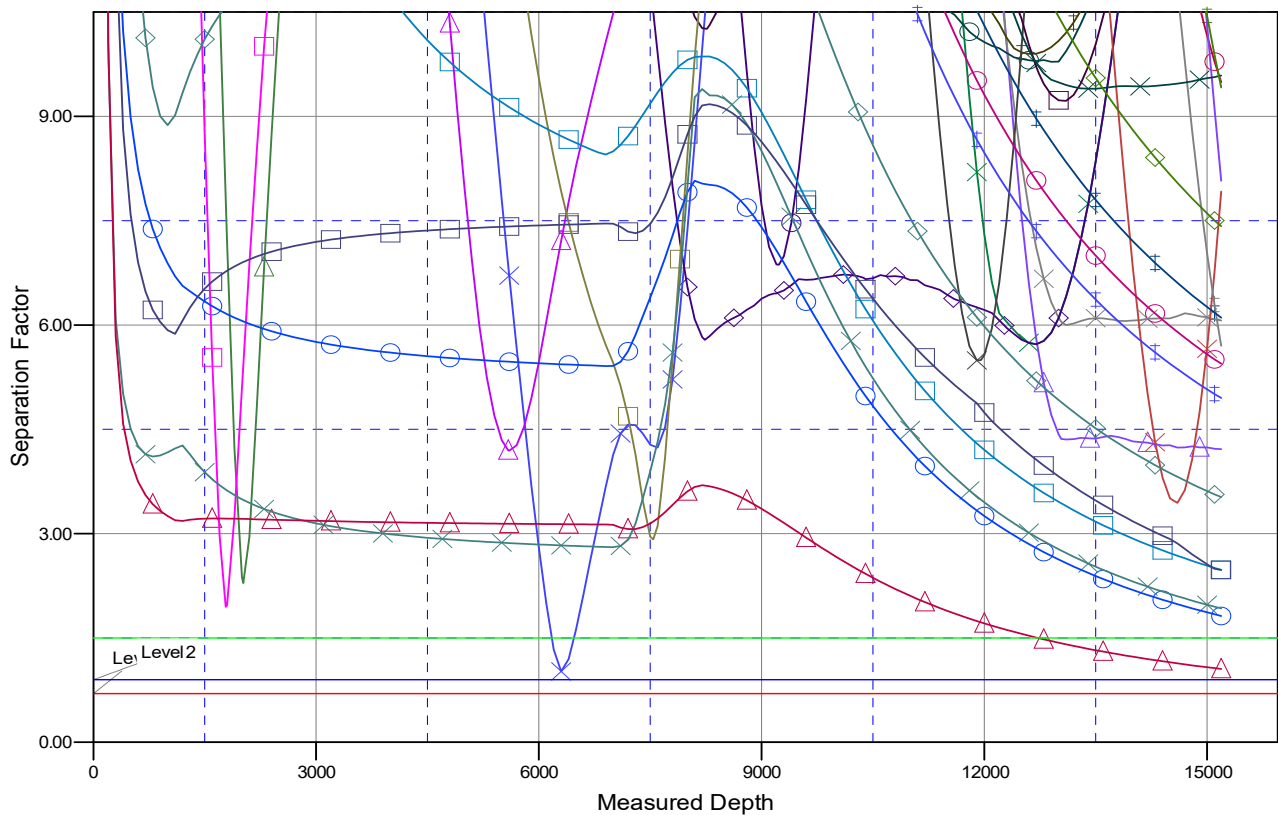
**Company:** Crestone Peak Resources  
**Project:** Sec 20 T1N-R67W  
**Reference Site:** Herbers Pad  
**Site Error:** 0.00 usft  
**Reference Well:** HERBERS 1I-20H-B167  
**Well Error:** 0.00 usft  
**Reference Wellbore:** Wellbore #1  
**Reference Design:** Design #1 06Aug18 kjs

**Local Co-ordinate Reference:** Well HERBERS 1I-20H-B167  
**TVD Reference:** WELL @ 5129.11usft (Original Well Elev)  
**MD Reference:** WELL @ 5129.11usft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at** 2.00 sigma  
**Database:** EDM 5000.15 Single User Db  
**Offset TVD Reference:** Offset Datum

Reference Depths are relative to WELL @ 5129.11usft (Original Well E  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000

Coordinates are relative to: HERBERS 1I-20H-B167  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.38°

### Separation Factor Plot



#### LEGEND

- |   |   |   |
|---|---|---|
| UPRR 43 PAN AM-G 3, KAUFFMAN, Gyro V0       | HEINZE 1A, PETERSON, No Survey V0           | BLANCHE C 4, KAUFFMAN, No Survey V0                       |
| HOWARD 30C28HZ, KMG, MWD V0                 | SCHEIDT STATE VV16-13, KMG, Gyro V0         | HOWARD 24-28, KMG, MWD V0                                 |
| UNDERHILL 2C47HZ, KMG, MWD V0               | HOWARD 3C28HZ, KMG, MWD V0                  | HOWARD 4C21HZ, KMG, MWD V0                                |
| HEINZE 2, DENVER EAST, No Survey V0         | UNDERHILL 27N47HZ, KMG, MWD V0              | HOWARD 28N29HZ, KMG, MWD V0                               |
| HERBERS 1, CPR, Gyro V0                     | HEINZE 1, PETERSON, No Survey V0            | ZARLENGO 31-29 2, CHAMPLIN, No Survey V0                  |
| HOWARD 9C28HZ, KMG, MWD V0                  | MARK 1-A, CHAPARRAL, No Survey V0           | HOWARD 10C29HZ, KMG, MWD V0                               |
| HERBERS 2, DENVER EAST, No Survey V0        | UPRR 42 PAN AM N 4, KAUFFMAN, MWD V0        | HERBERS 31-20, KMG, Gyro V0                               |
| BLANCHE C HOPKINS 2, KAUFFMAN, No Survey V0 | NCL C28, NGL WATER, MWD V0                  | UPRR 42 PAN AM AN 1, KAUFFMAN, No Survey V0               |
| ZARLENGO 1, UPRC, No Survey V0              | MARK 1, VESSELS, No Survey V0               | UNDERHILL 1N47HZ, KMG, MWD V0                             |
| HSR-UNDERHILL 15-17A, KMG, Gyro V0          | HOWARD 30N21HZX, KMG Wellbore#2, MWD V0     | HERBERS 1B-20H8167, Wellbore #1, Design #1 06Aug18 kjs V0 |
| HOWARD 4N28HZ, KMG, MWD V0                  | UPRR 43 PAN AM-G 6, KAUFFMAN, No Survey V0  | HERBERS 1F-20H8167, Wellbore #1, Design #1 06Aug18 kjs V0 |
| UNDERHILL 27C47HZ, KMG, MWD V0              | ZARLENGO 3, ANADARKO, No Survey V0          | HERBERS 1K-20H8167, Wellbore #1, Design #1 06Aug18 kjs V0 |
| ZARLENGO 4, ANADARKO, No Survey V0          | HOWARD 24N29HZ, KMG, MWD V0                 | HERBERS 1J-20H8167, Wellbore #1, Design #1 06Aug18 kjs V0 |
| UNDERHILL 28N47HZ, KMG, MWD V0              | UNDERHILL STATE 28C-17HZ, KMG, MWD V0       | HERBERS 1H-20H8167, Wellbore #1, Design #1 06Aug19 kjs V0 |
| UPRR 43 PAN AM-G 12, KAUFFMAN, No Survey V0 | HEINZE-HERBERS B 1, PDC ENERGY, Gyro V0     | HERBERS 1D-20H8167, Wellbore #1, Design #1 06Aug18 kjs V0 |
| GRIFITHS 14N-20HZ, KMG, MWD V0              | PAUL HEINZE 1, KPC, No Survey V0            | HERBERS 1A-20H8167, Wellbore #1, Design #1 06Aug18 kjs V0 |
| HEINZE HERBER 33-20, PDC ENERGY, Gyro V0    | UPRR 42 PAN AM AN 4, KAUFFMAN, No Survey V0 | HERBERS 1G-20H8167, Wellbore #1, Design #1 06Aug18 kjs V0 |
| HOWARD 9-29, KMG, MWD V0                    | UPRR 43 PAN AM GU K 1, KMG, Gyro V0         | HERBERS 1C-20H8167, Wellbore #1, Design #1 06Aug18 kjs V0 |
| UPRR 43 PAN AM-G 9, KAUFFMAN, No Survey V0  | HOWARD 10-29, KMG, MWD V0                   | HERBERS 1E-20H8167, Wellbore #1, Design #1 06Aug18 kjs V0 |
| HOWARD 30N21HZX, KMG, MWD V0                |   |   |

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