



# **Crestone Peak Resources**

**Sec 19 T2N-R68W**

**Regnier Farms Pad**

**REGNIER FARMS 1A-19H-B268**

**Wellbore #1**

**Design #1 22Mar18 kjs**

## **Anticollision Summary Report**

**06 April, 2018**

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well REGNIER FARMS 1A-19H-B268
<b>Project:</b>	Sec 19 T2N-R68W	<b>TVD Reference:</b>	WELL @ 4989.00usft (Original Well Elev)
<b>Reference Site:</b>	Regnier Farms Pad	<b>MD Reference:</b>	WELL @ 4989.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	REGNIER FARMS 1A-19H-B268	<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 5000.14 Single User Db
<b>Reference Design:</b>	Design #1 22Mar18 kjs	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Design #1 22Mar18 kjs		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<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>	4/3/2018		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	22,734.14	Design #1 22Mar18 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
Existing Wells (Regnier Farms)						
A C N O 2 - KAUFFMAN - No Surveys	15,879.81	4,907.00	2,529.79	2,437.95	27.547	CC
A C N O 2 - KAUFFMAN - No Surveys	15,900.00	4,907.00	2,529.87	2,437.76	27.466	ES
A C N O 2 - KAUFFMAN - No Surveys	16,404.82	4,907.00	2,583.69	2,486.31	26.530	SF
ANDERSON TRUST C UNIT 2 - CPR - Gyro	18,723.44	7,300.00	3,723.18	3,492.48	16.138	CC
ANDERSON TRUST C UNIT 2 - CPR - Gyro	18,800.00	7,283.83	3,723.92	3,492.00	16.057	ES
ANDERSON TRUST C UNIT 2 - CPR - Gyro	19,300.00	7,280.29	3,767.48	3,529.42	15.826	SF
ANSELM 1 - PETERSON - No Surveys	21,295.32	4,970.00	2,428.26	2,285.52	17.012	CC
ANSELM 1 - PETERSON - No Surveys	21,300.00	4,970.00	2,428.26	2,285.48	17.006	ES
ANSELM 1 - PETERSON - No Surveys	21,500.00	4,970.00	2,436.87	2,292.50	16.879	SF
ARMSTEAD GAS UNIT 4-31 - EXTRACTION - Gyro	22,328.82	7,269.97	757.18	463.54	2.579	CC, ES, SF
ARMSTEAD GU 5-31 - NOBLE ENERGY - No Surveys	19,207.82	7,259.00	959.03	732.29	4.230	CC, ES, SF
BALLANTINE 3-30 - KMG - Gyro	13,370.81	7,295.90	1,107.14	970.08	8.078	CC
BALLANTINE 3-30 - KMG - Gyro	13,400.00	7,296.05	1,107.53	969.79	8.041	ES
BALLANTINE 3-30 - KMG - Gyro	13,500.00	7,300.00	1,114.66	975.14	7.989	SF
BECKY 1 - KAUFFMAN - No Surveys	22,734.67	5,010.00	2,644.79	2,511.27	19.807	CC, ES, SF
BROWN C UNIT 2 - CPR - Gyro	22,734.67	7,435.95	3,650.48	3,364.24	12.753	CC, ES, SF
BRYANT 10-30 - KMG - MWD	15,925.02	7,549.92	398.60	215.50	2.177	CC, ES, SF
BRYANT 16-30 - KMG - MWD	17,101.80	7,351.45	1,686.71	1,482.99	8.280	CC, ES
BRYANT 16-30 - KMG - MWD	17,200.00	7,351.14	1,689.56	1,484.64	8.245	SF
BRYANT 20-30 - KMG - MWD	16,521.13	7,372.95	1,028.14	830.25	5.196	CC, ES, SF
BRYANT 23-30 - KMG - MWD	16,644.66	7,467.60	144.07	-56.19	0.719	Level 2, CC, ES, SF
BRYANT 24-30 - KMG - MWD	15,200.47	7,371.81	1,249.11	1,075.51	7.195	CC, ES, SF
BRYANT 33-29 - KMG - MWD	16,523.84	7,576.95	2,432.06	2,232.25	12.172	CC, ES
BRYANT 33-29 - KMG - MWD	16,600.00	7,576.68	2,434.26	2,233.85	12.146	SF
BRYANT 34-30 - KMG - No Surveys	17,420.43	4,906.00	2,365.49	2,274.76	26.073	CC, ES
BRYANT 34-30 - KMG - No Surveys	17,700.00	4,906.00	2,381.95	2,289.32	25.715	SF
BRYANT 36-30 - KMG - No Surveys	17,887.75	7,446.00	314.19	95.43	1.436	Level 3, CC
BRYANT 36-30 - KMG - No Surveys	17,900.00	7,446.00	314.43	95.34	1.435	Level 3, ES, SF
BRYANT 8-30 - KMG - MWD	14,457.06	7,542.26	1,653.61	1,485.91	9.860	CC
BRYANT 8-30 - KMG - MWD	14,500.00	7,542.42	1,654.17	1,485.86	9.828	ES
BRYANT 8-30 - KMG - MWD	14,600.00	7,542.79	1,659.78	1,490.44	9.801	SF
BRYANT FEDERAL 37-30 - KMG - MWD	17,782.79	7,281.69	1,136.48	921.69	5.291	CC
BRYANT FEDERAL 37-30 - KMG - MWD	17,800.00	7,280.93	1,136.61	921.56	5.285	ES, SF
BULTHAUP 1-6 - KMG - Gyro	22,734.67	7,310.12	2,288.45	2,021.36	8.568	CC, ES, SF
BULTHAUP 17-6 - KMG - MWD	22,734.67	7,409.17	2,079.61	1,888.33	10.872	CC, ES, SF
BULTHAUP 21-6 - KMG - MWD	22,734.67	7,410.39	1,759.12	1,689.71	25.345	CC, ES, SF
BULTHAUP 27-6 - KMG - MWD	22,734.67	7,437.35	1,293.22	1,007.04	4.519	CC, ES, SF

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

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well REGNIER FARMS 1A-19H-B268
<b>Project:</b>	Sec 19 T2N-R68W	<b>TVD Reference:</b>	WELL @ 4989.00usft (Original Well Elev)
<b>Reference Site:</b>	Regnier Farms Pad	<b>MD Reference:</b>	WELL @ 4989.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	REGNIER FARMS 1A-19H-B268	<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 5000.14 Single User Db
<b>Reference Design:</b>	Design #1 22Mar18 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 (Regnier Farms)						
CARLA PETERSON 1 - KAUFFMAN - No Surveys	22,734.67	5,010.00	2,592.92	2,462.62	19.899	CC, ES, SF
CHAMPLIN 86 `N` 1 - KMG - Gyro	16,968.15	7,336.88	3,148.90	2,948.69	15.727	CC
CHAMPLIN 86 `N` 1 - KMG - Gyro	17,000.00	7,335.68	3,149.06	2,948.32	15.687	ES
CHAMPLIN 86 `N` 1 - KMG - Gyro	17,400.00	7,321.42	3,178.33	2,972.43	15.436	SF
CINQUE 1 - FOUNDATION ENERGY - No oSurveys	19,888.85	4,907.00	2,396.61	2,281.30	20.783	CC
CINQUE 1 - FOUNDATION ENERGY - No oSurveys	19,900.00	4,907.00	2,396.64	2,281.23	20.766	ES
CINQUE 3 - FOUNDATION ENERGY - No oSurveys	20,100.00	4,907.00	2,405.90	2,289.08	20.596	SF
CINQUE 2 - FOUNDATION ENERGY - No Surveys	18,539.80	4,911.00	2,382.63	2,279.84	23.181	CC, ES
CINQUE 2 - FOUNDATION ENERGY - No Surveys	18,800.00	4,911.00	2,396.80	2,292.22	22.920	SF
CINQUE 3 - FOUNDATION ENERGY - No Surveys	19,970.65	4,905.00	2,505.33	2,373.42	18.993	CC
CINQUE 3 - FOUNDATION ENERGY - No Surveys	20,000.00	4,905.00	2,505.50	2,373.30	18.952	ES
CINQUE 3 - FOUNDATION ENERGY - No Surveys	20,200.00	4,905.00	2,515.81	2,382.03	18.806	SF
CINQUE 4 - FOUNDATION ENERGY - No Surveys	18,545.05	4,975.00	2,455.01	2,333.38	20.184	CC, ES
CINQUE 4 - FOUNDATION ENERGY - No Surveys	18,800.00	4,975.00	2,468.21	2,344.47	19.947	SF
CINQUE 6-31 - FOUNDATION ENERGY - No Surveys	21,199.70	4,973.00	2,332.81	2,208.22	18.724	CC
CINQUE 6-31 - FOUNDATION ENERGY - No Surveys	21,200.00	4,973.00	2,332.81	2,208.22	18.723	ES
CINQUE 6-31 - FOUNDATION ENERGY - No Surveys	21,400.00	4,973.00	2,341.39	2,215.43	18.588	SF
CINQUE 7-31 - EXTRACTION - No surveys	19,491.12	7,260.00	939.63	707.94	4.055	CC
CINQUE 7-31 - EXTRACTION - No surveys	19,500.00	7,260.00	939.67	707.84	4.053	ES, SF
CINQUE 8-31 - EXTRACTION - No Surveys	22,450.98	7,273.00	548.68	265.12	1.935	CC, ES, SF
CINQUE 9-31 - EXTRACTION - Gyro	21,422.98	7,275.98	1,185.47	907.69	4.268	CC, ES
CINQUE 9-31 - EXTRACTION - Gyro	21,500.00	7,274.18	1,187.97	909.44	4.265	SF
FILE FED 3I-32H-K268 - CPR - MWD	17,650.29	11,754.16	2,565.10	2,304.96	9.860	CC
FILE FED 3I-32H-K268 - CPR - MWD	17,700.00	11,728.00	2,565.20	2,304.46	9.838	ES
FILE FED 3I-32H-K268 - CPR - MWD	21,900.00	7,728.00	2,686.73	2,398.06	9.307	SF
FILE FED 3J-32H-K268 - CPR - MWD	16,570.42	12,662.48	2,624.71	2,363.30	10.041	CC, ES
FILE FED 3J-32H-K268 - CPR - MWD	21,600.00	7,824.00	2,771.71	2,488.85	9.799	SF
FILE FED 3K-32H-K268 - CPR - MWD	12,779.37	16,127.25	2,896.40	2,636.71	11.153	CC
FILE FED 3K-32H-K268 - CPR - MWD	12,900.00	16,081.00	2,897.63	2,636.55	11.098	ES
FILE FED 3K-32H-K268 - CPR - MWD	13,100.00	15,941.57	2,904.57	2,642.53	11.084	SF
FILE FED 3L-32H-K268 - CPR - MWD	16,576.58	12,293.33	3,298.15	3,038.22	12.689	CC, ES
FILE FED 3L-32H-K268 - CPR - MWD	21,700.00	7,489.00	3,523.08	3,241.57	12.515	SF
FILE FED 3M-32H-K268 - CPR - MWD	16,555.30	12,874.00	3,427.64	3,165.02	13.051	CC, ES
FILE FED 3M-32H-K268 - CPR - MWD	22,300.00	7,279.40	3,661.92	3,368.56	12.483	SF
FILE FED 3N-32H-K268 - CPR - MWD	16,526.87	12,738.70	3,471.27	3,208.10	13.190	CC, ES
FILE FED 3N-32H-K268 - CPR - MWD	22,100.00	7,396.00	3,737.80	3,448.63	12.926	SF
GLADYS-SAWDEY 1 - KMG - Gyro	13,957.69	7,309.42	1,581.84	1,434.50	10.735	CC
GLADYS-SAWDEY 1 - KMG - Gyro	14,000.00	7,307.96	1,582.41	1,434.16	10.674	ES
GLADYS-SAWDEY 1 - KMG - Gyro	14,200.00	7,301.04	1,600.28	1,448.91	10.572	SF
HANKINS 1 - KAUFFMAN - No Surveys	12,048.97	4,920.00	3,022.03	2,952.46	43.437	CC
HANKINS 1 - KAUFFMAN - No Surveys	12,100.00	4,920.00	3,022.46	2,952.39	43.130	ES
HANKINS 1 - KAUFFMAN - No Surveys	12,800.00	4,920.00	3,113.96	3,038.46	41.244	SF
HSR-BRYANT 9-30A - KMG - Gyro	16,073.14	7,262.41	1,761.15	1,577.58	9.594	CC
HSR-BRYANT 9-30A - KMG - Gyro	16,100.00	7,261.65	1,761.36	1,577.56	9.583	ES
HSR-BRYANT 9-30A - KMG - Gyro	16,200.00	7,258.80	1,765.71	1,581.41	9.581	SF
JACK HEIN UNIT 1 - HS RESOURCES - No Surveys	21,147.12	5,085.00	2,941.53	2,749.91	15.351	CC
JACK HEIN UNIT 1 - HS RESOURCES - No Surveys	21,200.00	5,085.00	2,942.01	2,749.73	15.300	ES
JACK HEIN UNIT 1 - HS RESOURCES - No Surveys	21,500.00	5,085.00	2,962.62	2,767.69	15.198	SF
JOHN LAMAR 1 - KAUFFMAN - No Surveys	13,185.79	4,930.00	2,938.59	2,855.81	35.501	CC
JOHN LAMAR 1 - KAUFFMAN - No Surveys	13,200.00	4,930.00	2,938.62	2,855.71	35.441	ES
JOHN LAMAR 1 - KAUFFMAN - No Surveys	13,800.00	4,930.00	3,002.09	2,914.60	34.313	SF
JOHNSON 32-30 - KAUFFMAN - No Surveys	14,733.08	4,895.00	2,447.84	2,374.50	33.377	CC
JOHNSON 32-30 - KAUFFMAN - No Surveys	14,749.81	4,895.00	2,447.89	2,374.43	33.321	ES

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

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<b>Reference Site:</b>	Regnier Farms Pad	<b>MD Reference:</b>	WELL @ 4989.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	REGNIER FARMS 1A-19H-B268	<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 5000.14 Single User Db
<b>Reference Design:</b>	Design #1 22Mar18 kjs	<b>Offset TVD Reference:</b>	Offset Datum

Summary						
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Offset Well - Wellbore - Design						
Existing Wells (Regnier Farms)						
JOHNSON 32-30 - KAUFFMAN - No Surveys	15,100.00	4,895.00	2,471.69	2,396.40	32.828	SF
JOHNSON 7-30A - KMG - Gyro	14,687.12	7,276.56	441.49	281.81	2.765	CC, ES, SF
KENYON 34-19 - CPR - MWD	12,000.00	7,455.71	486.78	371.11	4.208	ES, SF
KENYON 34-19 - CPR - MWD	12,006.58	7,455.63	486.74	371.11	4.209	CC
KENYON 4-8-19 - CPR - MWD	12,500.00	7,602.20	92.68	-36.49	0.718	Level 2, ES, SF
KENYON 4-8-19 - CPR - MWD	12,504.75	7,602.15	92.56	-35.82	0.721	Level 2, CC
KENYON 8-4-19 - CPR - MWD	9,981.10	7,712.84	2,343.61	2,250.15	25.077	CC
KENYON 8-4-19 - CPR - MWD	10,000.00	7,713.11	2,343.68	2,250.07	25.037	ES
KENYON 8-4-19 - CPR - MWD	10,300.00	7,717.33	2,365.20	2,269.62	24.747	SF
KENYON 8-6-19 - CPR - MWD	11,259.95	7,417.00	2,364.34	2,261.95	23.091	CC
KENYON 8-6-19 - CPR - MWD	11,300.00	7,417.00	2,364.68	2,261.82	22.990	ES
KENYON 8-6-19 - CPR - MWD	11,700.00	7,417.00	2,404.95	2,298.37	22.565	SF
KENYON 8-8-19 - CPR - MWD	12,480.76	7,497.00	2,374.26	2,247.35	18.708	CC
KENYON 8-8-19 - CPR - MWD	12,500.00	7,497.00	2,374.34	2,247.11	18.661	ES
KENYON 8-8-19 - CPR - MWD	12,900.00	7,497.00	2,410.99	2,278.49	18.197	SF
KOCH 41-6 - KAUFFMAN - No Surveys	22,734.67	5,037.00	3,157.42	2,961.46	16.112	CC, ES, SF
NELSON 1-A - TEXAS TEA - No Surveys	19,515.05	5,011.00	3,838.36	3,644.79	19.829	CC
NELSON 1-A - TEXAS TEA - No Surveys	19,600.00	5,011.00	3,839.30	3,644.52	19.711	ES
NELSON 1-A - TEXAS TEA - No Surveys	20,100.00	5,011.00	3,882.68	3,682.61	19.407	SF
NELSON 2 - TEXAS TEA - No Surveys	21,323.96	4,918.00	3,956.08	3,736.65	18.029	CC
NELSON 2 - TEXAS TEA - No Surveys	21,400.00	4,918.00	3,956.81	3,736.30	17.944	ES
NELSON 2 - TEXAS TEA - No Surveys	21,900.00	4,918.00	3,997.80	3,772.11	17.714	SF
NELSON 5 - TEXAS TEA - No Surveys	22,032.08	5,035.00	3,911.23	3,677.92	16.764	CC
NELSON 5 - TEXAS TEA - No Surveys	22,100.00	5,035.00	3,911.82	3,677.53	16.697	ES
NELSON 5 - TEXAS TEA - No Surveys	22,500.00	5,035.00	3,939.12	3,700.43	16.503	SF
NELSON-E UNIT 1 - CPR - Gyro	21,799.89	7,325.62	3,567.01	3,282.42	12.534	CC
NELSON-E UNIT 1 - CPR - Gyro	21,900.00	7,324.92	3,568.41	3,282.20	12.468	ES
NELSON-E UNIT 1 - CPR - Gyro	22,200.00	7,322.82	3,589.38	3,299.54	12.384	SF
NOAA FEDERAL 11-32 - CPR - Gyro	18,454.99	7,172.29	2,973.62	2,748.13	13.188	CC
NOAA FEDERAL 11-32 - CPR - Gyro	18,500.00	7,173.00	2,973.96	2,747.72	13.145	ES
NOAA FEDERAL 11-32 - CPR - Gyro	18,800.00	7,177.72	2,993.56	2,763.49	13.011	SF
RASMUSSEN 19-11 - CPR - Gyro	10,580.37	7,317.61	769.71	679.72	8.553	CC
RASMUSSEN 19-11 - CPR - Gyro	10,600.00	7,317.08	769.96	679.47	8.508	ES
RASMUSSEN 19-11 - CPR - Gyro	10,700.00	7,314.38	778.95	686.46	8.422	SF
RASMUSSEN 19-14 - CPR - Gyro	12,161.75	7,354.94	755.93	639.63	6.500	CC, ES
RASMUSSEN 19-14 - CPR - Gyro	12,200.00	7,355.26	756.89	639.65	6.456	SF
RASMUSSEN 4-6-19 - CPR - MWD	11,153.88	7,539.00	376.28	273.66	3.667	CC, ES
RASMUSSEN 4-6-19 - CPR - MWD	11,200.00	7,538.65	379.09	274.45	3.623	SF
RASMUSSEN FEDERAL 35-29 - KMG - MWD	17,651.77	7,317.36	3,676.13	3,462.30	17.192	CC
RASMUSSEN FEDERAL 35-29 - KMG - MWD	17,700.00	7,317.50	3,676.44	3,461.86	17.133	ES
RASMUSSEN FEDERAL 35-29 - KMG - MWD	18,200.00	7,318.97	3,716.78	3,496.14	16.845	SF
RAY NELSON 0-4-32 - CPR - MWD	20,204.11	7,360.00	2,508.69	2,249.59	9.682	CC, ES
RAY NELSON 0-4-32 - CPR - MWD	20,400.00	7,360.00	2,516.33	2,254.87	9.624	SF
RAY NELSON 12-32 - CPR - Gyro	19,607.94	7,223.27	3,028.77	2,782.92	12.320	CC
RAY NELSON 12-32 - CPR - Gyro	19,700.00	7,223.65	3,030.17	2,782.85	12.252	ES
RAY NELSON 12-32 - CPR - Gyro	19,900.00	7,224.47	3,042.82	2,792.99	12.179	SF
RAY NELSON 13-32 - CPR - MWD	20,916.21	7,472.82	2,977.24	2,701.16	10.784	CC
RAY NELSON 13-32 - CPR - MWD	21,000.00	7,472.05	2,978.42	2,700.85	10.730	ES
RAY NELSON 13-32 - CPR - MWD	21,200.00	7,470.22	2,990.74	2,710.43	10.669	SF
RAY NELSON 14-32 - CPR - MWD	22,524.78	7,358.12	3,043.77	2,744.55	10.172	CC
RAY NELSON 14-32 - CPR - MWD	22,600.00	7,357.68	3,044.70	2,744.33	10.137	ES
RAY NELSON 14-32 - CPR - MWD	22,734.67	7,356.87	3,050.99	2,749.08	10.105	SF
RAY NELSON 24-32 - CPR - MWD	22,503.12	7,574.31	4,400.20	4,102.25	14.768	CC

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

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well REGNIER FARMS 1A-19H-B268
<b>Project:</b>	Sec 19 T2N-R68W	<b>TVD Reference:</b>	WELL @ 4989.00usft (Original Well Elev)
<b>Reference Site:</b>	Regnier Farms Pad	<b>MD Reference:</b>	WELL @ 4989.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	REGNIER FARMS 1A-19H-B268	<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 5000.14 Single User Db
<b>Reference Design:</b>	Design #1 22Mar18 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 (Regnier Farms)						
RAY NELSON 24-32 - CPR - MWD	22,600.00	7,570.86	4,401.27	4,101.63	14.688	ES
RAY NELSON 24-32 - CPR - MWD	22,734.67	7,566.07	4,406.29	4,104.59	14.605	SF
RAY NELSON 2-4-32 - CPR - MWD	20,243.55	7,345.07	3,849.37	3,589.52	14.814	CC
RAY NELSON 2-4-32 - CPR - MWD	20,300.00	7,344.03	3,849.78	3,588.92	14.758	ES
RAY NELSON 2-4-32 - CPR - MWD	20,800.00	7,334.85	3,889.37	3,621.75	14.533	SF
REGNIER 4-4-19 - CPR - MWD	9,879.27	7,351.30	91.62	11.29	1.141	Level 3, CC, ES, SF
REGNIER FARMS 31-19 - CPR - Gyro	8,086.36	7,328.00	104.78	49.10	1.882	CC, ES, SF
REGNIER FARMS 32-19 - CPR - Gyro	9,128.62	7,294.86	405.20	337.52	5.987	CC, ES, SF
REGNIER FARMS 33-19 - CPR - Gyro	10,447.29	7,306.16	307.97	220.19	3.509	CC, ES, SF
REGNIER FARMS 42-19 - CPR - Gyro	9,110.43	7,300.00	1,692.79	1,625.28	25.075	CC, ES
REGNIER FARMS 42-19 - CPR - Gyro	9,400.00	7,297.57	1,717.38	1,647.32	24.513	SF
REGNIER FARMS 43-19 - CPR - MWD	10,597.10	7,534.12	1,824.61	1,731.42	19.579	CC
REGNIER FARMS 43-19 - CPR - MWD	10,700.00	7,533.78	1,827.51	1,730.68	18.874	ES
REGNIER FARMS 43-19 - CPR - MWD	11,500.00	7,531.17	2,035.78	1,910.01	16.186	SF
REGNIER FARMS B 2 - CPR - Gyro	11,553.24	7,315.31	1,322.23	1,216.17	12.468	CC, ES
REGNIER FARMS B 2 - CPR - Gyro	11,700.00	7,313.37	1,330.35	1,223.17	12.412	SF
REGNIER FARMS-B UNIT 1 - CPR - Gyro	0.00	0.00	1,254.34			
REGNIER FARMS-B UNIT 1 - CPR - Gyro	200.00	181.71	1,254.65	1,253.71	1,333.473	ES
REGNIER FARMS-B UNIT 1 - CPR - Gyro	8,400.00	7,289.06	1,392.71	1,335.05	24.156	SF
ROSS 21-19 - CPR - Gyro	7,915.26	7,315.99	854.01	799.81	15.758	CC, ES
ROSS 21-19 - CPR - Gyro	8,100.00	7,317.07	873.76	817.46	15.521	SF
ROSS 22-19 - CPR - Gyro	9,297.13	7,304.35	952.70	882.53	13.578	CC
ROSS 22-19 - CPR - Gyro	9,300.00	7,304.36	952.70	882.48	13.566	ES
ROSS 22-19 - CPR - Gyro	9,500.00	7,304.57	974.06	900.23	13.193	SF
ROSS 2-4-19 - CPR - MWD	9,907.01	7,450.00	1,369.40	1,287.42	16.704	CC, ES
ROSS 2-4-19 - CPR - MWD	10,200.00	7,440.79	1,400.36	1,313.95	16.205	SF
ROSS 4-2-19 - CPR - MWD	8,673.59	7,648.08	222.76	156.32	3.353	CC
ROSS 4-2-19 - CPR - MWD	8,700.00	7,647.52	224.32	155.67	3.268	ES, SF
SAWDEY 21-30 - KMG - MWD	13,961.62	7,468.22	116.06	-32.99	0.779	Level 2, CC, ES, SF
SAWDEY 22-30 - KMG - MWD	15,101.64	7,441.38	1,515.81	1,343.30	8.787	CC, ES
SAWDEY 22-30 - KMG - MWD	15,300.00	7,436.07	1,528.73	1,351.68	8.634	SF
SAWDEY 31-30 - KMG - MWD	13,952.16	7,512.59	2,692.59	2,543.21	18.025	CC
SAWDEY 31-30 - KMG - MWD	14,000.00	7,511.93	2,693.02	2,542.71	17.917	ES
SAWDEY 31-30 - KMG - MWD	14,500.00	7,504.90	2,747.75	2,589.67	17.382	SF
SAWDEY 32-30 - KMG - MWD	15,246.25	7,583.78	2,712.35	2,533.65	15.178	CC
SAWDEY 32-30 - KMG - MWD	15,300.00	7,584.65	2,712.88	2,532.68	15.055	ES
SAWDEY 32-30 - KMG - MWD	15,900.00	7,593.77	2,790.01	2,597.19	14.470	SF
SAWDEY 5-30 - KMG - MWD	14,756.89	7,435.17	2,266.18	2,101.31	13.745	CC
SAWDEY 5-30 - KMG - MWD	14,800.00	7,432.37	2,266.92	2,101.05	13.667	ES
SAWDEY 5-30 - KMG - MWD	15,100.00	7,412.13	2,305.62	2,134.13	13.445	SF
SAWDEY 6-30 - KMG - MWD	14,644.20	7,387.37	722.65	561.65	4.489	CC, ES
SAWDEY 6-30 - KMG - MWD	14,700.00	7,387.46	724.80	562.78	4.474	SF
SAWDEY UNIT 2 - KMG - Gyro	13,636.21	7,317.29	800.43	658.82	5.652	CC, ES, SF
SHAW 12-29A - KMG - Gyro	14,569.77	7,300.00	3,218.22	3,060.36	20.387	CC
SHAW 12-29A - KMG - Gyro	14,600.00	7,299.67	3,218.36	3,060.06	20.331	ES
SHAW 12-29A - KMG - Gyro	15,200.00	7,285.79	3,259.44	3,094.73	19.789	SF
TEGELER 11-30 - KMG - Gyro	15,843.32	7,298.00	848.43	668.88	4.725	CC, ES
TEGELER 11-30 - KMG - Gyro	15,900.00	7,298.39	850.32	669.07	4.691	SF
WILLIAMS 13-20 - KMG - MWD	11,903.05	7,599.13	3,100.31	2,977.41	25.225	CC
WILLIAMS 13-20 - KMG - MWD	12,000.00	7,598.27	3,101.83	2,977.15	24.879	ES
WILLIAMS 13-20 - KMG - MWD	12,700.00	7,592.25	3,201.09	3,066.42	23.770	SF
WILLIAMS 18-16 - CPR - Gyro	282.07	230.20	1,383.67	1,382.27	988.653	CC
WILLIAMS 18-16 - CPR - Gyro	1,700.00	1,667.00	1,386.33	1,374.36	115.759	ES

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

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well REGNIER FARMS 1A-19H-B268
<b>Project:</b>	Sec 19 T2N-R68W	<b>TVD Reference:</b>	WELL @ 4989.00usft (Original Well Elev)
<b>Reference Site:</b>	Regnier Farms Pad	<b>MD Reference:</b>	WELL @ 4989.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	REGNIER FARMS 1A-19H-B268	<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 5000.14 Single User Db
<b>Reference Design:</b>	Design #1 22Mar18 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 (Regnier Farms)						
WILLIAMS 18-16 - CPR - Gyro	6,750.00	6,646.39	1,576.48	1,527.66	32.292	SF
WILLIAMS 24-18 - CPR - Gyro	6,779.94	6,755.44	1,051.67	1,003.86	21.997	CC
WILLIAMS 24-18 - CPR - Gyro	6,800.00	6,775.06	1,051.80	1,003.85	21.939	ES
WILLIAMS 24-18 - CPR - Gyro	6,950.00	6,916.12	1,061.59	1,012.66	21.698	SF
WILLIAMS 34-18 - CPR - MWD	6,183.73	6,266.74	604.78	555.17	12.192	CC
WILLIAMS 34-18 - CPR - MWD	6,200.00	6,280.00	604.81	555.08	12.163	ES
WILLIAMS 34-18 - CPR - MWD	6,650.00	6,709.91	622.08	569.07	11.735	SF
WILLIAMS 35-20 - KMG - MWD	12,498.00	7,403.52	3,764.16	3,638.62	29.983	CC
WILLIAMS 35-20 - KMG - MWD	12,600.00	7,403.75	3,765.54	3,638.39	29.615	ES
WILLIAMS 35-20 - KMG - MWD	13,500.00	7,405.84	3,895.24	3,757.17	28.212	SF
WILLIAMS 4-29 - KMG - MWD	13,222.90	7,358.08	3,100.38	2,964.97	22.896	CC
WILLIAMS 4-29 - KMG - MWD	13,300.00	7,357.66	3,101.34	2,964.83	22.719	ES
WILLIAMS 4-29 - KMG - MWD	13,800.00	7,354.90	3,153.63	3,011.31	22.158	SF
WOOLLEY-BECKY 2E-7H-E168 - CPR - MWD	22,734.67	14,800.00	1,562.73	1,257.97	5.128	CC, ES, SF
WOOLLEY-BECKY 2F-7H-E168 - CPR - MWD	22,734.67	14,555.00	1,257.67	1,012.23	5.124	CC, ES, SF
WOOLLEY-BECKY 2G-7H-E168 - CPR - MWD	22,734.67	15,260.00	1,116.64	931.44	6.030	CC, ES, SF
WOOLLEY-BECKY 2H-7H-E168 - CPR - MWD	22,734.67	15,075.00	952.02	862.23	10.603	CC, ES, SF
Regnier Farms Pad						
REGNIER FARMS 1B-19H-B268 - Wellbore #1 - Design	200.00	200.00	10.00	9.01	10.070	CC
REGNIER FARMS 1B-19H-B268 - Wellbore #1 - Design	22,734.67	22,937.67	300.68	-119.26	0.716	Level 2, ES, SF
REGNIER FARMS 1C-19H-B268 - Wellbore #1 - Design	200.00	200.00	20.00	19.01	20.141	CC
REGNIER FARMS 1C-19H-B268 - Wellbore #1 - Design	16,660.59	16,736.21	247.70	-75.12	0.767	Level 2, SF
REGNIER FARMS 1C-19H-B268 - Wellbore #1 - Design	22,700.00	22,772.72	428.44	-113.15	0.791	Level 2, ES
REGNIER FARMS 1D-19H-B268 - Wellbore #1 - Design	200.00	200.00	30.00	29.01	30.213	CC, ES
REGNIER FARMS 1D-19H-B268 - Wellbore #1 - Design	22,700.00	22,692.28	704.96	155.06	1.282	Level 3, SF
REGNIER FARMS 1E-19H-B268 - Wellbore #1 - Design	200.00	200.00	40.00	39.01	40.283	CC, ES
REGNIER FARMS 1E-19H-B268 - Wellbore #1 - Design	19,900.00	19,987.25	783.48	334.71	1.746	SF
REGNIER FARMS 1F-19H-B268 - Wellbore #1 - Design	200.00	199.00	50.00	49.01	50.536	CC, ES
REGNIER FARMS 1F-19H-B268 - Wellbore #1 - Design	22,700.00	22,996.52	1,323.37	779.22	2.432	SF
REGNIER FARMS 1G-19H-B268 - Wellbore #1 - Design	200.00	199.00	60.00	59.01	60.644	CC, ES
REGNIER FARMS 1G-19H-B268 - Wellbore #1 - Design	22,700.00	22,756.35	1,404.93	854.54	2.553	SF
REGNIER FARMS 1H-19H-B268 - Wellbore #1 - Design	200.00	199.00	70.00	69.01	70.751	CC, ES
REGNIER FARMS 1H-19H-B268 - Wellbore #1 - Design	22,734.67	22,891.17	1,723.43	1,173.34	3.133	SF
REGNIER FARMS 1I-19H-B268 - Wellbore #1 - Design #	200.00	199.00	80.00	79.01	80.859	CC, ES
REGNIER FARMS 1I-19H-B268 - Wellbore #1 - Design #	22,734.67	22,843.98	2,036.32	1,485.30	3.696	SF
REGNIER FARMS 1J-19H-B268 - Wellbore #1 - Design	200.00	199.00	90.00	89.01	90.965	CC, ES
REGNIER FARMS 1J-19H-B268 - Wellbore #1 - Design	22,734.67	23,097.91	2,177.49	1,629.16	3.971	SF
REGNIER FARMS 1K-19H-B268 - Wellbore #1 - Design	200.00	199.00	100.00	99.01	101.073	CC, ES
REGNIER FARMS 1K-19H-B268 - Wellbore #1 - Design	22,734.67	23,013.51	2,472.77	1,922.76	4.496	SF

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well REGNIER FARMS 1A-19H-B268
<b>Project:</b>	Sec 19 T2N-R68W	<b>TVD Reference:</b>	WELL @ 4989.00usft (Original Well Elev)
<b>Reference Site:</b>	Regnier Farms Pad	<b>MD Reference:</b>	WELL @ 4989.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	REGNIER FARMS 1A-19H-B268	<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 5000.14 Single User Db
<b>Reference Design:</b>	Design #1 22Mar18 kjs	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4989.00usft (Original Well E  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.5000000

Coordinates are relative to: REGNIER FARMS 1A-19H-B268  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.30°

