



Crestone Peak Resources

Sec 19 T2N-R68W

Regnier Farms Pad

REGNIER FARMS 11-19H-B268

Wellbore #1

Design #1 22Mar18 kjs

Anticollision Summary Report

06 April, 2018

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well REGNIER FARMS 11-19H-B268
Project:	Sec 19 T2N-R68W	TVD Reference:	WELL @ 4988.00usft (Original Well Elev)
Reference Site:	Regnier Farms Pad	MD Reference:	WELL @ 4988.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	REGNIER FARMS 11-19H-B268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Single User Db
Reference Design:	Design #1 22Mar18 kjs	Offset TVD Reference:	Offset Datum

Reference	Design #1 22Mar18 kjs		
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 9,999.98 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	4/3/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	22,843.03	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	16,087.12	4,907.00	3,631.68	3,499.20	27.414	CC
A C N O 2 - KAUFFMAN - No Surveys	16,100.00	4,907.00	3,631.70	3,499.10	27.388	ES
A C N O 2 - KAUFFMAN - No Surveys	16,600.00	4,907.00	3,667.71	3,531.37	26.901	SF
ANDERSON TRUST C UNIT 2 - CPR - Gyro	18,981.31	7,276.35	1,797.23	1,564.27	7.715	CC
ANDERSON TRUST C UNIT 2 - CPR - Gyro	19,000.00	7,276.19	1,797.33	1,563.86	7.698	ES
ANDERSON TRUST C UNIT 2 - CPR - Gyro	19,200.00	7,274.53	1,810.49	1,573.07	7.626	SF
ANSELM 1 - PETERSON - No Surveys	21,426.31	4,970.00	3,617.22	3,404.96	17.041	CC, ES
ANSELM 1 - PETERSON - No Surveys	21,700.00	4,970.00	3,627.56	3,413.09	16.915	SF
ARMSTEAD GAS UNIT 4-31 - EXTRACTION - Gyro	22,460.63	7,272.90	2,781.47	2,487.31	9.456	CC
ARMSTEAD GAS UNIT 4-31 - EXTRACTION - Gyro	22,500.00	7,272.51	2,781.75	2,487.18	9.443	ES
ARMSTEAD GAS UNIT 4-31 - EXTRACTION - Gyro	22,600.00	7,271.51	2,784.96	2,489.57	9.428	SF
ARMSTEAD GU 5-31 - NOBLE ENERGY - No Surveys	19,335.25	7,260.00	2,896.60	2,669.71	12.767	CC, ES
ARMSTEAD GU 5-31 - NOBLE ENERGY - No Surveys	19,600.00	7,260.00	2,908.67	2,679.61	12.698	SF
BALLANTINE 3-30 - KMG - Gyro	13,536.95	7,260.89	3,086.02	2,948.07	22.370	CC
BALLANTINE 3-30 - KMG - Gyro	13,600.00	7,261.22	3,086.66	2,947.99	22.260	ES
BALLANTINE 3-30 - KMG - Gyro	14,000.00	7,263.32	3,120.56	2,978.42	21.953	SF
BECKY 1 - KAUFFMAN - No Surveys	22,843.98	5,010.00	3,729.14	3,504.76	16.620	CC, ES, SF
BROWN C UNIT 2 - CPR - Gyro	22,843.98	7,411.90	1,928.88	1,717.52	9.126	CC, ES, SF
BRYANT 10-30 - KMG - MWD	16,056.57	7,539.09	1,503.15	1,319.45	8.182	CC, ES
BRYANT 10-30 - KMG - MWD	16,100.00	7,539.15	1,503.78	1,319.93	8.179	SF
BRYANT 16-30 - KMG - MWD	17,300.00	7,348.91	193.44	-11.61	0.943	Level 3, ES, SF
BRYANT 16-30 - KMG - MWD	17,303.51	7,348.90	193.41	-11.46	0.944	Level 3, CC
BRYANT 20-30 - KMG - MWD	16,654.52	7,409.71	838.47	640.08	4.226	CC, ES, SF
BRYANT 23-30 - KMG - MWD	16,797.67	7,437.47	2,010.54	1,809.94	10.023	CC
BRYANT 23-30 - KMG - MWD	16,800.00	7,437.39	2,010.54	1,809.93	10.022	ES, SF
BRYANT 24-30 - KMG - MWD	15,281.09	7,375.73	698.82	525.40	4.030	CC, ES, SF
BRYANT 33-29 - KMG - MWD	16,630.41	7,558.76	565.01	365.31	2.829	CC, ES, SF
BRYANT 34-30 - KMG - No Surveys	17,583.59	4,906.00	2,832.31	2,704.24	22.115	CC
BRYANT 34-30 - KMG - No Surveys	17,600.00	4,906.00	2,832.36	2,704.18	22.096	ES
BRYANT 34-30 - KMG - No Surveys	17,800.00	4,906.00	2,840.57	2,711.30	21.975	SF
BRYANT 36-30 - KMG - No Surveys	18,033.59	7,446.00	2,215.36	1,996.39	10.117	CC, ES
BRYANT 36-30 - KMG - No Surveys	18,200.00	7,446.00	2,221.60	2,001.16	10.078	SF
BRYANT 8-30 - KMG - MWD	14,600.00	7,554.27	317.66	149.02	1.884	ES, SF
BRYANT 8-30 - KMG - MWD	14,602.97	7,554.28	317.65	149.15	1.885	CC
BRYANT FEDERAL 37-30 - KMG - MWD	17,969.22	7,276.06	762.33	546.53	3.533	CC, ES, SF
BULTHAUP 1-6 - KMG - Gyro	22,843.98	7,331.48	1,217.93	1,137.53	15.148	CC, ES, SF
BULTHAUP 17-6 - KMG - MWD	22,843.98	7,393.77	1,969.06	1,798.54	11.548	CC, ES, SF

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

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well REGNIER FARMS 11-19H-B268
Project:	Sec 19 T2N-R68W	TVD Reference:	WELL @ 4988.00usft (Original Well Elev)
Reference Site:	Regnier Farms Pad	MD Reference:	WELL @ 4988.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	REGNIER FARMS 11-19H-B268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Single User Db
Reference Design:	Design #1 22Mar18 kjs	Offset TVD Reference:	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)						
BULTHAUP 21-6 - KMG - MWD	22,843.98	7,366.76	2,721.96	2,472.77	10.923	CC, ES, SF
BULTHAUP 27-6 - KMG - MWD	22,843.98	7,418.87	988.13	714.07	3.606	CC, ES, SF
CARLA PETERSON 1 - KAUFFMAN - No Surveys	22,843.98	5,010.00	2,990.72	2,808.40	16.404	CC, ES, SF
CHAMPLIN 86 'N' 1 - KMG - Gyro	17,212.47	7,288.74	1,272.59	1,070.76	6.305	CC, ES
CHAMPLIN 86 'N' 1 - KMG - Gyro	17,300.00	7,285.31	1,275.59	1,071.43	6.248	SF
CINQUE 1 - FOUNDATION ENERGY - No oSurveys	20,056.38	4,907.00	2,764.45	2,611.85	18.117	CC, ES
CINQUE 1 - FOUNDATION ENERGY - No oSurveys	20,200.00	4,907.00	2,768.17	2,614.80	18.049	SF
CINQUE 2 - FOUNDATION ENERGY - No Surveys	18,706.57	4,911.00	2,764.73	2,627.15	20.095	CC, ES
CINQUE 2 - FOUNDATION ENERGY - No Surveys	18,900.00	4,911.00	2,771.49	2,632.90	19.998	SF
CINQUE 3 - FOUNDATION ENERGY - No Surveys	20,100.45	4,905.00	3,674.11	3,482.12	19.137	CC, ES
CINQUE 3 - FOUNDATION ENERGY - No Surveys	20,500.00	4,905.00	3,695.77	3,500.80	18.955	SF
CINQUE 4 - FOUNDATION ENERGY - No Surveys	18,673.95	4,975.00	3,637.05	3,463.70	20.981	CC
CINQUE 4 - FOUNDATION ENERGY - No Surveys	18,700.00	4,975.00	3,637.14	3,463.53	20.950	ES
CINQUE 4 - FOUNDATION ENERGY - No Surveys	19,100.00	4,975.00	3,661.92	3,485.32	20.736	SF
CINQUE 6-31 - FOUNDATION ENERGY - No Surveys	21,364.76	4,973.00	2,780.43	2,606.92	16.024	CC
CINQUE 6-31 - FOUNDATION ENERGY - No Surveys	21,400.00	4,973.00	2,780.66	2,606.91	16.004	ES
CINQUE 6-31 - FOUNDATION ENERGY - No Surveys	21,500.00	4,973.00	2,783.72	2,609.44	15.973	SF
CINQUE 7-31 - EXTRACTION - No surveys	19,671.15	7,261.00	1,006.53	773.74	4.324	CC, ES, SF
CINQUE 8-31 - EXTRACTION - No Surveys	22,619.02	7,274.00	1,479.51	1,194.80	5.197	CC, ES, SF
CINQUE 9-31 - EXTRACTION - Gyro	21,600.00	7,266.24	814.46	535.34	2.918	SF
CINQUE 9-31 - EXTRACTION - Gyro	21,609.33	7,266.02	814.40	535.31	2.918	CC, ES
FILE FED 3I-32H-K268 - CPR - MWD	21,881.36	7,709.10	672.41	386.04	2.348	CC
FILE FED 3I-32H-K268 - CPR - MWD	21,900.00	7,698.93	672.56	385.45	2.343	ES
FILE FED 3I-32H-K268 - CPR - MWD	22,000.00	7,640.03	678.40	388.71	2.342	SF
FILE FED 3J-32H-K268 - CPR - MWD	19,015.69	10,361.75	730.14	466.41	2.769	CC
FILE FED 3J-32H-K268 - CPR - MWD	19,100.00	10,284.84	730.52	466.13	2.763	ES
FILE FED 3J-32H-K268 - CPR - MWD	21,600.00	7,824.00	761.57	478.57	2.691	SF
FILE FED 3K-32H-K268 - CPR - MWD	12,892.35	16,150.99	920.20	662.75	3.574	CC
FILE FED 3K-32H-K268 - CPR - MWD	12,900.00	16,144.82	920.21	662.68	3.573	ES
FILE FED 3K-32H-K268 - CPR - MWD	13,000.00	16,065.33	921.43	662.84	3.563	SF
FILE FED 3L-32H-K268 - CPR - MWD	10,529.83	18,515.00	1,369.78	1,106.97	5.212	CC, ES
FILE FED 3L-32H-K268 - CPR - MWD	10,600.00	18,488.24	1,371.30	1,107.26	5.193	SF
FILE FED 3M-32H-K268 - CPR - MWD	14,754.31	14,800.14	1,528.51	1,269.80	5.908	CC, ES
FILE FED 3M-32H-K268 - CPR - MWD	22,200.00	7,350.18	1,625.69	1,333.05	5.555	SF
FILE FED 3N-32H-K268 - CPR - MWD	14,889.76	14,476.00	1,572.52	1,311.15	6.016	ES
FILE FED 3N-32H-K268 - CPR - MWD	14,900.00	14,459.90	1,572.49	1,311.30	6.021	CC
FILE FED 3N-32H-K268 - CPR - MWD	22,000.00	7,443.00	1,705.68	1,417.16	5.912	SF
GLADYS-SAWDEY 1 - KMG - Gyro	14,128.79	7,268.33	3,556.50	3,408.22	23.984	CC
GLADYS-SAWDEY 1 - KMG - Gyro	14,200.00	7,265.23	3,557.21	3,408.09	23.853	ES
GLADYS-SAWDEY 1 - KMG - Gyro	14,700.00	7,243.38	3,602.02	3,448.33	23.437	SF
HANKINS 1 - KAUFFMAN - No Surveys	12,191.48	4,920.00	2,375.37	2,326.47	48.580	CC
HANKINS 1 - KAUFFMAN - No Surveys	12,200.00	4,920.00	2,375.38	2,326.42	48.515	ES
HANKINS 1 - KAUFFMAN - No Surveys	12,827.30	4,920.00	2,458.99	2,405.70	46.148	SF
HSR-BRYANT 9-30A - KMG - Gyro	16,120.94	7,251.52	134.06	-48.78	0.733	Level 2, CC, ES, SF
JACK HEIN UNIT 1 - HS RESOURCES - No Surveys	21,355.04	5,085.00	2,188.15	2,067.95	18.205	CC, ES
JACK HEIN UNIT 1 - HS RESOURCES - No Surveys	21,500.00	5,085.00	2,192.94	2,071.70	18.087	SF
JOHN LAMAR 1 - KAUFFMAN - No Surveys	13,330.64	4,930.00	2,335.43	2,277.81	40.532	CC, ES
JOHN LAMAR 1 - KAUFFMAN - No Surveys	13,800.00	4,930.00	2,382.13	2,321.53	39.308	SF
JOHNSON 32-30 - KAUFFMAN - No Surveys	14,886.86	4,895.00	2,751.73	2,660.24	30.077	CC
JOHNSON 32-30 - KAUFFMAN - No Surveys	14,900.00	4,895.00	2,751.76	2,660.19	30.049	ES
JOHNSON 32-30 - KAUFFMAN - No Surveys	15,200.00	4,895.00	2,769.49	2,676.42	29.758	SF
JOHNSON 7-30A - KMG - Gyro	14,842.01	7,269.21	1,528.06	1,367.55	9.520	CC, ES
JOHNSON 7-30A - KMG - Gyro	14,900.00	7,268.77	1,529.16	1,368.39	9.511	SF

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

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well REGNIER FARMS 11-19H-B268
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Site Error:	0.00 usft	North Reference:	True
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Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Single User Db
Reference Design:	Design #1 22Mar18 kjs	Offset TVD Reference:	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)						
KENYON 34-19 - CPR - MWD	12,136.95	7,459.22	1,491.37	1,374.89	12.804	CC, ES
KENYON 34-19 - CPR - MWD	12,200.00	7,458.29	1,492.70	1,375.69	12.757	SF
KENYON 4-8-19 - CPR - MWD	12,631.93	7,577.48	1,889.66	1,760.77	14.661	CC, ES
KENYON 4-8-19 - CPR - MWD	12,900.00	7,575.91	1,907.79	1,775.82	14.456	SF
KENYON 8-4-19 - CPR - MWD	10,127.65	7,701.03	383.14	288.65	4.055	CC, ES, SF
KENYON 8-6-19 - CPR - MWD	11,407.35	7,448.88	392.81	289.05	3.786	CC, ES, SF
KENYON 8-8-19 - CPR - MWD	12,627.62	7,516.75	391.86	263.66	3.056	CC, ES
KENYON 8-8-19 - CPR - MWD	12,700.00	7,516.69	398.49	266.42	3.017	SF
KOCH 41-6 - KAUFFMAN - No Surveys	22,843.98	5,037.00	2,565.08	2,443.88	21.165	CC, ES, SF
NELSON 1-A - TEXAS TEA - No Surveys	19,755.24	5,011.00	2,535.50	2,389.85	17.409	CC
NELSON 1-A - TEXAS TEA - No Surveys	19,800.00	5,011.00	2,535.89	2,389.54	17.327	ES
NELSON 1-A - TEXAS TEA - No Surveys	20,100.00	5,011.00	2,558.83	2,408.76	17.051	SF
NELSON 2 - TEXAS TEA - No Surveys	21,565.58	4,918.00	2,632.00	2,468.35	16.083	CC
NELSON 2 - TEXAS TEA - No Surveys	21,600.00	4,918.00	2,632.22	2,468.04	16.032	ES
NELSON 2 - TEXAS TEA - No Surveys	21,900.00	4,918.00	2,653.16	2,485.34	15.810	SF
NELSON 5 - TEXAS TEA - No Surveys	22,274.08	5,035.00	2,536.18	2,361.83	14.546	CC
NELSON 5 - TEXAS TEA - No Surveys	22,300.00	5,035.00	2,536.31	2,361.54	14.512	ES
NELSON 5 - TEXAS TEA - No Surveys	22,600.00	5,035.00	2,557.04	2,378.60	14.330	SF
NELSON-E UNIT 1 - CPR - Gyro	22,052.14	7,306.18	1,555.85	1,268.82	5.421	CC
NELSON-E UNIT 1 - CPR - Gyro	22,100.00	7,305.80	1,556.58	1,268.29	5.399	ES
NELSON-E UNIT 1 - CPR - Gyro	22,200.00	7,305.00	1,562.86	1,272.72	5.387	SF
NOAA FEDERAL 11-32 - CPR - Gyro	18,692.22	7,193.50	1,055.54	827.91	4.637	CC
NOAA FEDERAL 11-32 - CPR - Gyro	18,700.00	7,193.61	1,055.57	827.67	4.632	ES
NOAA FEDERAL 11-32 - CPR - Gyro	18,800.00	7,195.11	1,061.03	830.74	4.608	SF
RASMUSSEN 19-11 - CPR - Gyro	10,699.02	7,349.40	2,735.07	2,644.12	30.071	CC
RASMUSSEN 19-11 - CPR - Gyro	10,700.00	7,349.37	2,735.07	2,644.11	30.068	ES
RASMUSSEN 19-11 - CPR - Gyro	11,200.00	7,335.93	2,780.54	2,685.08	29.128	SF
RASMUSSEN 19-14 - CPR - Gyro	12,281.74	7,400.00	2,734.15	2,616.71	23.280	CC
RASMUSSEN 19-14 - CPR - Gyro	12,300.00	7,400.00	2,734.22	2,616.56	23.240	ES
RASMUSSEN 19-14 - CPR - Gyro	12,700.00	7,400.00	2,765.96	2,644.75	22.820	SF
RASMUSSEN 4-6-19 - CPR - MWD	11,276.49	7,574.26	2,346.52	2,242.95	22.655	CC
RASMUSSEN 4-6-19 - CPR - MWD	11,300.00	7,574.07	2,346.64	2,242.77	22.592	ES
RASMUSSEN 4-6-19 - CPR - MWD	11,700.00	7,570.83	2,384.43	2,276.41	22.073	SF
RASMUSSEN FEDERAL 35-29 - KMG - MWD	17,908.66	7,344.00	1,780.14	1,563.99	8.236	CC, ES
RASMUSSEN FEDERAL 35-29 - KMG - MWD	18,100.00	7,344.00	1,790.39	1,570.45	8.140	SF
RAY NELSON 0-4-32 - CPR - MWD	20,427.37	7,365.03	542.13	281.18	2.078	CC, ES, SF
RAY NELSON 12-32 - CPR - Gyro	19,845.91	7,216.80	1,078.57	830.65	4.350	CC
RAY NELSON 12-32 - CPR - Gyro	19,900.00	7,217.01	1,079.92	830.45	4.329	ES, SF
RAY NELSON 13-32 - CPR - MWD	21,152.43	7,455.17	990.80	712.47	3.560	CC
RAY NELSON 13-32 - CPR - MWD	21,200.00	7,454.74	991.94	711.98	3.543	ES, SF
RAY NELSON 14-32 - CPR - MWD	22,762.11	7,350.28	1,012.58	711.10	3.359	CC
RAY NELSON 14-32 - CPR - MWD	22,800.00	7,350.05	1,013.29	710.77	3.349	ES, SF
RAY NELSON 24-32 - CPR - MWD	22,780.32	7,458.18	2,370.32	2,069.61	7.882	CC
RAY NELSON 24-32 - CPR - MWD	22,843.03	7,456.47	2,371.15	2,068.85	7.844	ES
RAY NELSON 24-32 - CPR - MWD	22,843.98	7,456.45	2,371.18	2,068.85	7.843	SF
RAY NELSON 2-4-32 - CPR - MWD	20,503.61	7,370.56	1,881.39	1,618.67	7.161	CC
RAY NELSON 2-4-32 - CPR - MWD	20,600.00	7,368.82	1,883.86	1,618.61	7.102	ES
RAY NELSON 2-4-32 - CPR - MWD	20,700.00	7,367.02	1,891.61	1,624.39	7.079	SF
REGNIER 4-4-19 - CPR - MWD	10,004.71	7,352.12	2,051.14	1,969.88	25.243	CC, ES
REGNIER 4-4-19 - CPR - MWD	10,200.00	7,352.16	2,060.42	1,978.09	25.026	SF
REGNIER FARMS 31-19 - CPR - Gyro	0.00	15.18	805.60			
REGNIER FARMS 31-19 - CPR - Gyro	8,500.00	7,283.92	1,860.77	1,802.94	32.181	SF
REGNIER FARMS 32-19 - CPR - Gyro	9,258.43	7,301.23	1,547.77	1,479.04	22.518	CC, ES

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

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well REGNIER FARMS 11-19H-B268
Project:	Sec 19 T2N-R68W	TVD Reference:	WELL @ 4988.00usft (Original Well Elev)
Reference Site:	Regnier Farms Pad	MD Reference:	WELL @ 4988.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	REGNIER FARMS 11-19H-B268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Single User Db
Reference Design:	Design #1 22Mar18 kjs	Offset TVD Reference:	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)						
REGNIER FARMS 32-19 - CPR - Gyro	9,400.00	7,301.16	1,554.24	1,484.74	22.366	SF
REGNIER FARMS 33-19 - CPR - Gyro	10,576.19	7,315.90	1,656.49	1,567.76	18.667	CC
REGNIER FARMS 33-19 - CPR - Gyro	10,600.00	7,315.86	1,656.67	1,567.76	18.633	ES
REGNIER FARMS 33-19 - CPR - Gyro	10,700.00	7,315.71	1,661.12	1,571.60	18.556	SF
REGNIER FARMS 42-19 - CPR - Gyro	9,251.57	7,289.81	260.05	191.46	3.791	CC, ES, SF
REGNIER FARMS 43-19 - CPR - MWD	10,700.00	7,545.13	146.56	34.77	1.311	Level 3, ES, SF
REGNIER FARMS 43-19 - CPR - MWD	10,739.22	7,545.00	141.22	46.51	1.491	Level 3, CC
REGNIER FARMS B 2 - CPR - Gyro	11,690.91	7,319.49	651.95	544.88	6.089	CC, ES, SF
REGNIER FARMS-B UNIT 1 - CPR - Gyro	8,300.00	7,292.84	570.19	512.65	9.909	SF
REGNIER FARMS-B UNIT 1 - CPR - Gyro	8,315.19	7,292.87	569.99	512.50	9.915	CC, ES
ROSS 21-19 - CPR - Gyro	0.00	0.00	1,468.78			
ROSS 21-19 - CPR - Gyro	225.00	216.62	1,469.11	1,467.94	1,249.226	ES
ROSS 21-19 - CPR - Gyro	8,900.00	7,334.18	2,927.27	2,866.78	48.386	SF
ROSS 22-19 - CPR - Gyro	0.00	0.00	2,427.10			
ROSS 22-19 - CPR - Gyro	10,200.00	7,300.00	3,011.19	2,933.44	38.732	SF
ROSS 2-4-19 - CPR - MWD	366.78	542.91	3,314.46	3,311.58	1,149.937	CC
ROSS 2-4-19 - CPR - MWD	10,019.12	7,511.81	3,327.83	3,244.67	40.018	ES
ROSS 2-4-19 - CPR - MWD	10,900.00	7,487.39	3,442.34	3,351.64	37.953	SF
ROSS 4-2-19 - CPR - MWD	8,798.56	7,618.11	2,171.49	2,104.35	32.345	CC
ROSS 4-2-19 - CPR - MWD	8,800.00	7,618.08	2,171.49	2,104.34	32.337	ES
ROSS 4-2-19 - CPR - MWD	9,500.00	7,605.51	2,281.93	2,206.56	30.278	SF
SAWDEY 21-30 - KMG - MWD	14,120.60	7,469.61	2,090.99	1,940.92	13.933	CC, ES
SAWDEY 21-30 - KMG - MWD	14,300.00	7,468.82	2,098.67	1,947.24	13.859	SF
SAWDEY 22-30 - KMG - MWD	15,352.12	7,453.44	3,464.54	3,288.70	19.703	CC
SAWDEY 22-30 - KMG - MWD	15,400.00	7,452.03	3,464.87	3,288.43	19.638	ES
SAWDEY 22-30 - KMG - MWD	15,800.00	7,440.71	3,493.35	3,313.03	19.373	SF
SAWDEY 31-30 - KMG - MWD	14,130.17	7,517.83	4,667.51	4,516.77	30.964	CC
SAWDEY 31-30 - KMG - MWD	14,200.00	7,516.90	4,668.03	4,516.38	30.782	ES
SAWDEY 31-30 - KMG - MWD	15,200.00	7,503.38	4,788.52	4,626.40	29.537	SF
SAWDEY 32-30 - KMG - MWD	15,569.98	7,564.82	4,649.84	4,466.08	25.304	CC
SAWDEY 32-30 - KMG - MWD	15,600.00	7,565.35	4,649.94	4,465.68	25.236	ES
SAWDEY 32-30 - KMG - MWD	16,600.00	7,581.63	4,762.52	4,565.49	24.171	SF
SAWDEY 5-30 - KMG - MWD	14,938.75	7,404.32	4,235.04	4,068.88	25.487	CC
SAWDEY 5-30 - KMG - MWD	15,000.00	7,396.91	4,235.48	4,068.46	25.358	ES
SAWDEY 5-30 - KMG - MWD	15,800.00	7,290.89	4,321.20	4,145.63	24.612	SF
SAWDEY 6-30 - KMG - MWD	14,807.67	7,390.36	2,692.50	2,530.46	16.617	CC, ES
SAWDEY 6-30 - KMG - MWD	15,100.00	7,390.78	2,708.32	2,544.13	16.495	SF
SAWDEY UNIT 2 - KMG - Gyro	13,788.42	7,316.75	1,176.93	1,034.43	8.259	CC, ES
SAWDEY UNIT 2 - KMG - Gyro	13,800.00	7,316.71	1,176.99	1,034.46	8.258	SF
SHAW 12-29A - KMG - Gyro	14,704.82	7,264.44	1,248.04	1,089.89	7.891	CC, ES
SHAW 12-29A - KMG - Gyro	14,900.00	7,260.83	1,263.21	1,100.55	7.766	SF
TEGELER 11-30 - KMG - Gyro	16,051.69	7,295.24	2,752.88	2,571.13	15.146	CC
TEGELER 11-30 - KMG - Gyro	16,100.00	7,295.63	2,753.30	2,571.03	15.106	ES
TEGELER 11-30 - KMG - Gyro	16,300.00	7,297.22	2,764.05	2,580.15	15.030	SF
WILLIAMS 13-20 - KMG - MWD	12,056.41	7,585.93	1,123.05	998.87	9.043	CC
WILLIAMS 13-20 - KMG - MWD	12,100.00	7,585.55	1,123.90	997.92	8.922	ES
WILLIAMS 13-20 - KMG - MWD	12,300.00	7,583.83	1,149.16	1,016.79	8.681	SF
WILLIAMS 18-16 - CPR - Gyro	5,324.07	5,170.73	870.83	828.76	20.702	CC
WILLIAMS 18-16 - CPR - Gyro	5,700.00	5,545.71	872.68	827.52	19.322	ES
WILLIAMS 18-16 - CPR - Gyro	6,750.00	6,579.77	907.78	854.35	16.990	SF
WILLIAMS 24-18 - CPR - Gyro	0.00	0.00	1,648.55			
WILLIAMS 24-18 - CPR - Gyro	7,200.00	7,070.55	2,841.46	2,789.87	55.079	SF
WILLIAMS 34-18 - CPR - MWD	5,010.34	5,152.61	1,164.13	1,120.64	26.769	CC

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

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well REGNIER FARMS 1I-19H-B268
Project:	Sec 19 T2N-R68W	TVD Reference:	WELL @ 4988.00usft (Original Well Elev)
Reference Site:	Regnier Farms Pad	MD Reference:	WELL @ 4988.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	REGNIER FARMS 1I-19H-B268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Single User Db
Reference Design:	Design #1 22Mar18 kjs	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance		Separation Factor	Warning
Offset Well - Wellbore - Design			Between Centres (usft)	Between Ellipses (usft)		
Existing Wells (Regnier Farms)						
WILLIAMS 34-18 - CPR - MWD	5,100.00	5,230.96	1,164.67	1,120.39	26.298	ES
WILLIAMS 34-18 - CPR - MWD	6,400.00	6,410.98	1,270.03	1,215.59	23.329	SF
WILLIAMS 35-20 - KMG - MWD	12,656.98	7,388.16	1,781.70	1,654.88	14.050	CC
WILLIAMS 35-20 - KMG - MWD	12,700.00	7,388.22	1,782.22	1,654.22	13.924	ES
WILLIAMS 35-20 - KMG - MWD	13,000.00	7,388.72	1,816.78	1,682.16	13.495	SF
WILLIAMS 4-29 - KMG - MWD	13,357.55	7,415.00	1,121.50	985.07	8.221	CC
WILLIAMS 4-29 - KMG - MWD	13,400.00	7,415.00	1,122.30	984.56	8.148	ES
WILLIAMS 4-29 - KMG - MWD	13,500.00	7,415.00	1,130.51	990.16	8.055	SF
WOOLLEY-BECKY 2E-7H-E168 - CPR - MWD	22,843.98	14,800.00	3,397.59	3,007.74	8.715	CC, ES, SF
WOOLLEY-BECKY 2F-7H-E168 - CPR - MWD	22,843.98	14,555.00	3,009.32	2,626.43	7.859	CC, ES, SF
WOOLLEY-BECKY 2G-7H-E168 - CPR - MWD	22,843.98	15,260.00	2,742.60	2,361.19	7.191	CC, ES, SF
WOOLLEY-BECKY 2H-7H-E168 - CPR - MWD	22,843.98	15,075.00	2,382.80	2,011.79	6.423	CC, ES, SF
Regnier Farms Pad						
REGNIER FARMS 1A-19H-B268 - Wellbore #1 - Design	116.33	117.33	80.00	79.60	201.671	CC
REGNIER FARMS 1A-19H-B268 - Wellbore #1 - Design	225.00	225.38	80.10	78.93	68.268	ES
REGNIER FARMS 1A-19H-B268 - Wellbore #1 - Design	22,843.98	22,634.77	2,033.86	1,485.05	3.706	SF
REGNIER FARMS 1B-19H-B268 - Wellbore #1 - Design	225.00	226.00	70.00	68.82	59.535	CC, ES
REGNIER FARMS 1B-19H-B268 - Wellbore #1 - Design	22,843.98	22,893.40	1,842.69	1,295.01	3.365	SF
REGNIER FARMS 1C-19H-B268 - Wellbore #1 - Design	225.00	226.00	60.00	58.82	51.030	CC, ES
REGNIER FARMS 1C-19H-B268 - Wellbore #1 - Design	22,843.98	22,770.59	1,617.17	1,066.91	2.939	SF
REGNIER FARMS 1D-19H-B268 - Wellbore #1 - Design	225.00	226.00	50.00	48.82	42.525	CC, ES
REGNIER FARMS 1D-19H-B268 - Wellbore #1 - Design	22,843.98	22,686.41	1,329.94	779.22	2.415	SF
REGNIER FARMS 1E-19H-B268 - Wellbore #1 - Design	225.00	226.00	40.00	38.82	34.020	CC, ES
REGNIER FARMS 1E-19H-B268 - Wellbore #1 - Design	22,843.98	22,817.05	1,018.62	468.15	1.850	SF
REGNIER FARMS 1F-19H-B268 - Wellbore #1 - Design	225.00	225.00	30.00	28.83	25.593	CC, ES
REGNIER FARMS 1F-19H-B268 - Wellbore #1 - Design	21,700.00	21,822.68	659.18	169.57	1.346	Level 3, SF
REGNIER FARMS 1G-19H-B268 - Wellbore #1 - Design	387.90	388.96	19.24	16.91	8.250	CC
REGNIER FARMS 1G-19H-B268 - Wellbore #1 - Design	500.00	501.51	19.73	16.59	6.285	ES
REGNIER FARMS 1G-19H-B268 - Wellbore #1 - Design	22,843.03	22,720.15	629.09	79.66	1.145	Level 3, SF
REGNIER FARMS 1H-19H-B268 - Wellbore #1 - Design	225.00	225.00	10.00	8.83	8.531	CC
REGNIER FARMS 1H-19H-B268 - Wellbore #1 - Design	22,843.98	22,890.01	326.30	-212.24	0.606	Level 1, ES, SF
REGNIER FARMS 1J-19H-B268 - Wellbore #1 - Design	201.67	201.67	10.00	8.99	9.950	CC
REGNIER FARMS 1J-19H-B268 - Wellbore #1 - Design	22,843.98	23,097.91	254.70	-92.79	0.733	Level 2, ES, SF
REGNIER FARMS 1K-19H-B268 - Wellbore #1 - Design	200.00	200.00	20.00	19.01	20.141	CC
REGNIER FARMS 1K-19H-B268 - Wellbore #1 - Design	19,700.00	19,893.08	344.88	-82.75	0.806	Level 2, SF
REGNIER FARMS 1K-19H-B268 - Wellbore #1 - Design	22,843.98	23,035.44	443.30	-98.45	0.818	Level 2, ES

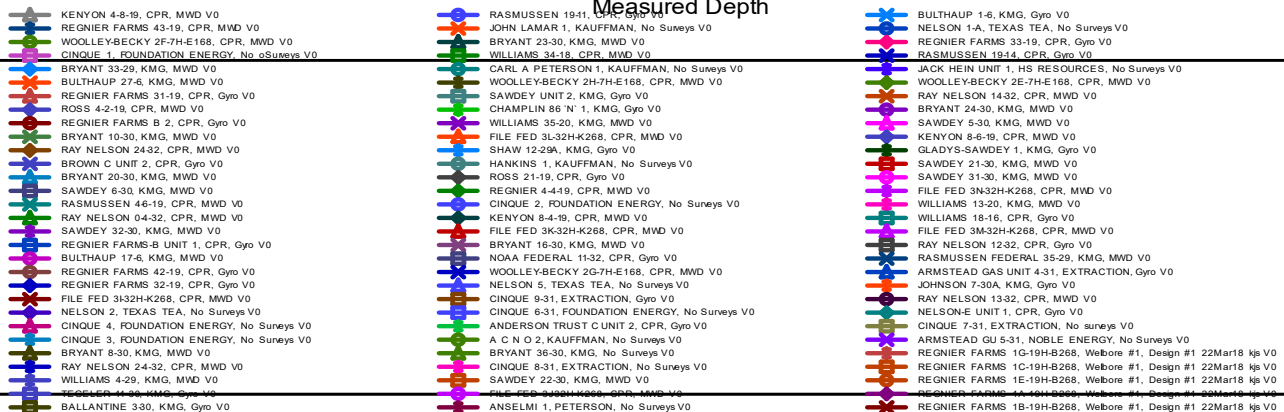
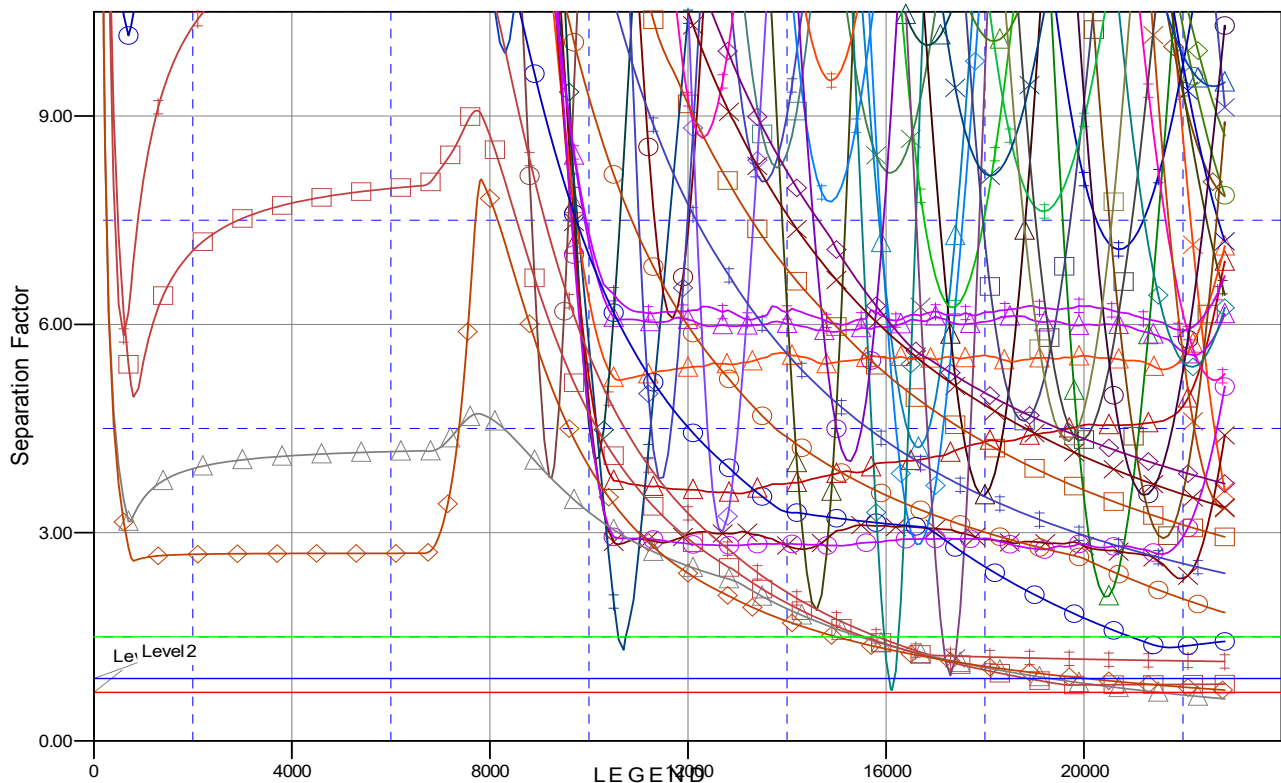
Company: Crestone Peak Resources
Project: Sec 19 T2N-R68W
Reference Site: Regnier Farms Pad
Site Error: 0.00 usft
Reference Well: REGNIER FARMS 11-19H-B268
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1 22Mar18 kjs

Local Co-ordinate Reference: Well REGNIER FARMS 11-19H-B268
TVD Reference: WELL @ 4988.00usft (Original Well Elev)
MD Reference: WELL @ 4988.00usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.14 Single User Db
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 4988.00usft (Original Well E
Offset Depths are relative to Offset Datum
Central Meridian is -105.5000000

Coordinates are relative to: REGNIER FARMS 11-19H-B268
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.30°

Separation Factor Plot



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