

**NOBLE ENERGY INC WELD
COUNTY CO**

SEC.22-T4N-R65W

Chesnut G22-29D Pad Sec.22-T4N-R65W

Chesnut G22-19D

Wellbore #1

Noble Chesnut G22-19D Plan #1 (2-7-12)

Anticollision Report

08 February, 2012

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Chesnut G22-19D
Project:	SEC.22-T4N-R65W	TVD Reference:	WELL @ 4748.0ft (Original Well Elev)
Reference Site:	Chesnut G22-29D Pad Sec.22-T4N-R65W	MD Reference:	WELL @ 4748.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chesnut G22-19D	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Noble Chesnut G22-19D Plan #1 (2-7-12)	Offset TVD Reference:	Offset Datum

Reference	Noble Chesnut G22-19D Plan #1 (2-		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 2/7/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	7,514.6	Noble Chesnut G22-19D Plan #1 (2-7-12)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Chesnut G22-29D Pad Sec.22-T4N-R65W						
Chesnut G22-28D - Wellbore #1 - Noble Chesnut G22-28D	465.8	465.8	22.2	20.3	11.960	CC
Chesnut G22-28D - Wellbore #1 - Noble Chesnut G22-28D	500.0	500.0	22.2	20.2	11.098	ES
Chesnut G22-28D - Wellbore #1 - Noble Chesnut G22-28D	700.0	699.5	26.7	23.9	9.318	SF
Chesnut G22-3 (Exist.) - Wellbore #1 - Design #1	2,649.7	2,566.6	165.1	147.5	9.384	CC, ES
Chesnut G22-3 (Exist.) - Wellbore #1 - Design #1	2,700.0	2,614.0	165.9	148.2	9.360	SF

Offset Design												
Chesnut G22-29D Pad Sec.22-T4N-R65W - Chesnut G22-28D - Wellbore #1 - Noble Chesnut G22-28D												
Survey Program: 0-MWD												
Reference		Offset		Semi Major Axis			Distance					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
0.0	0.0	0.0	0.0	0.0	0.0	-48.95	14.6	-16.7	22.2			
100.0	100.0	100.0	100.0	0.1	0.1	-48.95	14.6	-16.7	22.2	22.0	0.22	98.726
200.0	200.0	200.0	200.0	0.3	0.3	-48.95	14.6	-16.7	22.2	21.5	0.67	32.909
300.0	300.0	300.0	300.0	0.6	0.6	-48.95	14.6	-16.7	22.2	21.1	1.12	19.745
400.0	400.0	400.0	400.0	0.8	0.8	-48.95	14.6	-16.7	22.2	20.6	1.57	14.104
465.8	465.8	465.8	465.8	0.9	0.9	90.00	14.6	-16.7	22.2	20.3	1.85	11.960 CC
500.0	500.0	500.0	500.0	1.0	1.0	92.55	14.6	-16.7	22.2	20.2	2.00	11.098 ES
600.0	599.8	599.8	599.8	1.2	1.2	105.64	14.6	-16.7	23.0	20.6	2.42	9.506
700.0	699.5	699.5	699.5	1.4	1.5	123.82	14.6	-16.7	26.7	23.9	2.87	9.318 SF
800.0	798.7	798.7	798.7	1.7	1.7	140.45	14.6	-16.7	35.0	31.7	3.32	10.544
900.0	897.5	897.5	897.5	2.0	1.9	152.23	14.6	-16.7	48.2	44.4	3.77	12.774
1,000.0	995.6	995.6	995.6	2.4	2.1	159.87	14.6	-16.7	65.7	61.5	4.22	15.584
1,100.0	1,093.1	1,093.1	1,093.1	2.8	2.3	164.84	14.6	-16.7	87.2	82.5	4.66	18.711
1,200.0	1,189.6	1,189.6	1,189.6	3.3	2.6	168.18	14.6	-16.7	112.4	107.3	5.11	22.014
1,300.0	1,285.3	1,285.3	1,285.3	3.8	2.8	170.51	14.6	-16.7	141.2	135.7	5.56	25.417
1,400.0	1,379.8	1,379.8	1,379.8	4.4	3.0	172.20	14.6	-16.7	173.4	167.4	6.01	28.836
1,500.0	1,474.0	1,474.0	1,474.0	5.1	3.2	173.46	14.6	-16.7	206.7	200.2	6.50	31.807
1,600.0	1,568.3	1,568.3	1,568.3	5.7	3.4	174.38	14.6	-16.7	240.1	233.1	6.99	34.340
1,700.0	1,662.5	1,662.5	1,662.5	6.4	3.6	175.06	14.6	-16.7	273.5	266.0	7.49	36.519
1,800.0	1,756.7	1,756.7	1,756.7	7.1	3.8	175.60	14.6	-16.7	306.9	298.9	7.99	38.409
1,900.0	1,850.9	1,850.9	1,850.9	7.8	4.0	176.04	14.6	-16.7	340.4	331.9	8.50	40.062
2,000.0	1,945.1	1,945.1	1,945.1	8.4	4.3	176.39	14.6	-16.7	373.9	364.9	9.01	41.518

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

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Reference Site:	Chesnut G22-29D Pad Sec.22-T4N-R65W	MD Reference:	WELL @ 4748.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chesnut G22-19D	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Noble Chesnut G22-19D Plan #1 (2-7-12)	Offset TVD Reference:	Offset Datum

Offset Design		Chesnut G22-29D Pad Sec.22-T4N-R65W - Chesnut G22-28D - Wellbore #1 - Noble Chesnut G22-28D										Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
2,100.0	2,039.3	2,039.3	2,039.3	9.1	4.5	176.69	14.6	-16.7	407.4	397.9	9.52	42.808	
2,200.0	2,133.5	2,133.5	2,133.5	9.8	4.7	176.94	14.6	-16.7	440.9	430.8	10.03	43.959	
2,300.0	2,227.7	2,227.7	2,227.7	10.4	4.9	172.87	14.6	-16.7	474.2	463.6	10.55	44.943	
2,400.0	2,322.1	2,322.1	2,322.1	11.0	5.1	167.17	14.6	-16.7	506.8	495.7	11.07	45.792	
2,500.0	2,416.5	2,416.5	2,416.5	11.6	5.3	161.77	14.6	-16.7	538.7	527.1	11.58	46.505	
2,600.0	2,510.8	2,509.0	2,509.0	12.2	5.5	156.72	14.6	-16.7	570.1	558.0	12.10	47.123	
2,700.0	2,605.0	2,586.9	2,586.9	12.8	5.7	157.78	15.4	-15.7	602.9	590.3	12.57	47.975	
2,800.0	2,699.2	2,663.2	2,663.1	13.4	5.9	158.76	17.5	-13.1	638.4	625.3	13.04	48.961	
2,900.0	2,793.4	2,737.8	2,737.5	14.1	6.0	159.64	20.7	-9.0	676.5	663.0	13.51	50.084	
3,000.0	2,887.6	2,810.8	2,810.2	14.8	6.2	160.45	25.1	-3.6	717.2	703.2	13.98	51.321	
3,100.0	2,981.8	2,882.0	2,880.9	15.5	6.4	161.18	30.4	3.1	760.3	745.9	14.44	52.658	
3,200.0	3,076.0	2,951.5	2,949.7	16.2	6.5	161.83	36.7	11.0	805.8	790.9	14.90	54.080	
3,300.0	3,170.3	3,022.5	3,019.6	16.8	6.7	162.45	44.2	20.4	853.4	838.1	15.36	55.556	
3,400.0	3,264.5	3,109.5	3,105.2	17.5	6.9	163.13	53.8	32.4	901.9	886.1	15.85	56.899	
3,500.0	3,358.7	3,196.4	3,190.8	18.2	7.2	163.74	63.4	44.4	950.5	934.2	16.34	58.176	
3,600.0	3,452.9	3,283.4	3,276.4	18.9	7.4	164.30	72.9	56.4	999.2	982.3	16.83	59.374	
3,700.0	3,547.1	3,370.4	3,362.0	19.6	7.7	164.80	82.5	68.4	1,047.9	1,030.5	17.32	60.502	
3,800.0	3,641.3	3,457.3	3,447.6	20.3	7.9	165.26	92.1	80.4	1,096.6	1,078.8	17.81	61.564	
3,900.0	3,735.5	3,544.3	3,533.2	21.0	8.2	165.69	101.7	92.4	1,145.5	1,127.2	18.31	62.565	
4,000.0	3,829.7	3,631.3	3,618.8	21.7	8.5	166.07	111.3	104.4	1,194.3	1,175.5	18.81	63.509	
4,100.0	3,923.9	3,718.3	3,704.4	22.4	8.7	166.43	120.9	116.4	1,243.2	1,223.9	19.30	64.400	
4,200.0	4,018.1	3,805.2	3,790.1	23.1	9.0	166.76	130.4	128.4	1,292.2	1,272.4	19.81	65.243	
4,300.0	4,112.3	3,892.2	3,875.7	23.8	9.3	167.06	140.0	140.4	1,341.1	1,320.8	20.31	66.040	
4,400.0	4,206.5	3,979.2	3,961.3	24.5	9.6	167.35	149.6	152.4	1,390.1	1,369.3	20.81	66.795	
4,500.0	4,300.7	4,066.2	4,046.9	25.2	9.9	167.61	159.2	164.4	1,439.2	1,417.8	21.32	67.511	
4,600.0	4,395.0	4,153.1	4,132.5	25.9	10.2	167.86	168.8	176.4	1,488.2	1,466.4	21.82	68.191	
4,700.0	4,489.2	4,240.1	4,218.1	26.6	10.5	168.09	178.4	188.4	1,537.3	1,514.9	22.33	68.837	
4,800.0	4,583.4	4,339.2	4,315.6	27.3	10.8	168.34	189.2	202.1	1,586.3	1,563.4	22.86	69.392	
4,900.0	4,677.6	4,541.8	4,516.3	28.0	11.4	168.82	206.2	223.3	1,631.6	1,608.1	23.53	69.348	
5,000.0	4,771.8	4,758.4	4,732.5	28.7	11.8	169.30	214.5	233.7	1,670.4	1,646.2	24.21	69.004	
5,100.0	4,866.0	4,891.9	4,866.0	29.4	12.0	169.60	215.0	234.3	1,703.8	1,679.0	24.76	68.802	
5,200.0	4,960.2	4,986.1	4,960.2	30.1	12.2	169.82	215.0	234.3	1,736.7	1,711.4	25.31	68.629	
5,300.0	5,055.3	5,081.2	5,055.3	30.6	12.4	170.11	215.0	234.3	1,767.5	1,741.6	25.90	68.247	
5,400.0	5,151.3	5,177.2	5,151.3	31.1	12.6	170.36	215.0	234.3	1,794.9	1,768.4	26.46	67.845	
5,500.0	5,248.3	5,274.2	5,248.3	31.5	12.8	170.57	215.0	234.3	1,819.0	1,792.1	26.98	67.428	
5,600.0	5,346.0	5,371.9	5,346.0	31.9	13.0	170.75	215.0	234.3	1,839.8	1,812.3	27.46	66.997	
5,700.0	5,444.4	5,470.4	5,444.4	32.2	13.2	170.89	215.0	234.3	1,857.2	1,829.3	27.91	66.554	
5,800.0	5,543.4	5,569.3	5,543.4	32.4	13.4	171.01	215.0	234.3	1,871.2	1,842.9	28.31	66.101	
5,900.0	5,642.8	5,668.8	5,642.8	32.7	13.6	171.09	215.0	234.3	1,881.8	1,853.1	28.67	65.638	
6,000.0	5,742.6	5,768.5	5,742.6	32.8	13.8	171.15	215.0	234.3	1,888.9	1,860.0	28.99	65.165	
6,100.0	5,842.5	5,868.4	5,842.5	32.9	14.0	171.17	215.0	234.3	1,892.7	1,863.4	29.26	64.680	
6,200.0	5,942.5	5,968.4	5,942.5	33.0	14.2	56.35	215.0	234.3	1,893.2	1,863.7	29.56	64.044	
6,300.0	6,042.5	6,068.4	6,042.5	33.1	14.4	56.35	215.0	234.3	1,893.2	1,863.3	29.93	63.261	
6,400.0	6,142.5	6,168.4	6,142.5	33.2	14.6	56.35	215.0	234.3	1,893.2	1,862.9	30.29	62.493	
6,500.0	6,242.5	6,268.4	6,242.5	33.3	14.8	56.35	215.0	234.3	1,893.2	1,862.6	30.66	61.740	
6,600.0	6,342.5	6,368.4	6,342.5	33.3	15.0	56.35	215.0	234.3	1,893.2	1,862.2	31.04	61.001	
6,700.0	6,442.5	6,468.4	6,442.5	33.4	15.2	56.35	215.0	234.3	1,893.2	1,861.8	31.41	60.277	
6,800.0	6,542.5	6,568.4	6,542.5	33.5	15.4	56.35	215.0	234.3	1,893.2	1,861.4	31.78	59.566	
6,900.0	6,642.5	6,668.4	6,642.5	33.6	15.6	56.35	215.0	234.3	1,893.2	1,861.1	32.16	58.868	
7,000.0	6,742.5	6,768.4	6,742.5	33.7	15.8	56.35	215.0	234.3	1,893.2	1,860.7	32.54	58.184	
7,100.0	6,842.5	6,868.4	6,842.5	33.8	16.0	56.35	215.0	234.3	1,893.2	1,860.3	32.92	57.513	
7,200.0	6,942.5	6,968.4	6,942.5	33.9	16.2	56.35	215.0	234.3	1,893.2	1,859.9	33.30	56.855	

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

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Site Error:	0.0ft	North Reference:	True
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Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Noble Chesnut G22-19D Plan #1 (2-7-12)	Offset TVD Reference:	Offset Datum

Offset Design Chesnut G22-29D Pad Sec.22-T4N-R65W - Chesnut G22-28D - Wellbore #1 - Noble Chesnut G22-28D												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7,300.0	7,042.5	6,973.9	6,948.0	33.9	16.3	56.35	215.0	234.3	1,895.6	1,862.1	33.47	56.630	
7,400.0	7,142.5	6,973.9	6,948.0	34.0	16.3	56.35	215.0	234.3	1,903.2	1,869.6	33.64	56.581	
7,500.0	7,242.5	6,973.9	6,948.0	34.1	16.3	56.35	215.0	234.3	1,916.0	1,882.2	33.80	56.685	
7,515.5	7,258.0	6,973.9	6,948.0	34.1	16.3	56.35	215.0	234.3	1,918.4	1,884.6	33.81	56.736	

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Site Error:	0.0ft	North Reference:	True
Reference Well:	Chesnut G22-19D	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Noble Chesnut G22-19D Plan #1 (2-7-12)	Offset TVD Reference:	Offset Datum

Offset Design Chesnut G22-29D Pad Sec.22-T4N-R65W - Chesnut G22-3 (Exist.) - Wellbore #1 - Design #1												Offset Site Error:	0.0ft
Survey Program: 0-MWD												Offset Well Error:	0.0ft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.0	0.0	9.0	9.0	0.0	0.0	-117.78	-258.7	-490.9	554.9	554.9	0.01	N/A	
100.0	100.0	109.0	109.0	0.1	0.1	-117.78	-258.7	-490.9	554.9	554.6	0.24	2,264.833	
200.0	200.0	209.0	209.0	0.3	0.4	-117.78	-258.7	-490.9	554.9	554.2	0.69	798.922	
300.0	300.0	309.0	309.0	0.6	0.6	-117.78	-258.7	-490.9	554.9	553.7	1.14	485.003	
400.0	400.0	409.0	409.0	0.8	0.8	-117.78	-258.7	-490.9	554.9	553.3	1.59	348.190	
500.0	500.0	509.0	509.0	1.0	1.0	19.29	-258.7	-490.9	553.2	551.2	2.02	273.465	
600.0	599.8	608.8	608.8	1.2	1.3	19.50	-258.7	-490.9	548.3	545.8	2.44	224.348	
700.0	699.5	708.5	708.5	1.4	1.5	19.86	-258.7	-490.9	540.1	537.2	2.88	187.739	
800.0	798.7	807.7	807.7	1.7	1.7	20.39	-258.7	-490.9	528.6	525.3	3.32	159.239	
900.0	897.5	906.5	906.5	2.0	1.9	21.11	-258.7	-490.9	514.0	510.2	3.77	136.203	
1,000.0	995.6	1,004.6	1,004.6	2.4	2.1	22.03	-258.7	-490.9	496.2	491.9	4.24	116.990	
1,100.0	1,093.1	1,102.1	1,102.1	2.8	2.4	23.21	-258.7	-490.9	475.3	470.6	4.73	100.548	
1,200.0	1,189.6	1,198.6	1,198.6	3.3	2.6	24.70	-258.7	-490.9	451.6	446.3	5.24	86.179	
1,300.0	1,285.3	1,294.3	1,294.3	3.8	2.8	26.58	-258.7	-490.9	425.0	419.2	5.79	73.411	
1,400.0	1,379.8	1,388.8	1,388.8	4.4	3.0	28.89	-258.7	-490.9	395.9	389.5	6.39	61.909	
1,500.0	1,474.0	1,483.0	1,483.0	5.1	3.2	31.39	-258.7	-490.9	366.5	359.4	7.07	51.837	
1,600.0	1,568.3	1,577.3	1,577.3	5.7	3.4	34.30	-258.7	-490.9	337.8	330.0	7.80	43.287	
1,700.0	1,662.5	1,671.5	1,671.5	6.4	3.6	37.72	-258.7	-490.9	310.1	301.5	8.61	36.025	
1,800.0	1,756.7	1,765.7	1,765.7	7.1	3.9	41.77	-258.7	-490.9	283.7	274.2	9.49	29.877	
1,900.0	1,850.9	1,859.9	1,859.9	7.8	4.1	46.57	-258.7	-490.9	258.9	248.4	10.48	24.712	
2,000.0	1,945.1	1,954.1	1,954.1	8.4	4.3	52.27	-258.7	-490.9	236.3	224.8	11.56	20.442	
2,100.0	2,039.3	2,048.3	2,048.3	9.1	4.5	59.01	-258.7	-490.9	216.6	203.8	12.74	17.004	
2,200.0	2,133.5	2,142.5	2,142.5	9.8	4.7	66.85	-258.7	-490.9	200.6	186.6	13.97	14.355	
2,300.0	2,227.7	2,236.7	2,236.7	10.4	4.9	71.64	-258.7	-490.9	188.4	173.3	15.12	12.456	
2,400.0	2,322.1	2,331.1	2,331.1	11.0	5.1	75.28	-258.7	-490.9	178.4	162.4	16.07	11.102	
2,500.0	2,416.5	2,425.5	2,425.5	11.6	5.3	79.56	-258.7	-490.9	170.8	154.0	16.84	10.141	
2,600.0	2,510.8	2,519.8	2,519.8	12.2	5.6	84.57	-258.7	-490.9	165.9	148.5	17.38	9.545	
2,649.7	2,557.6	2,566.6	2,566.6	12.5	5.7	90.00	-258.7	-490.9	165.1	147.5	17.59	9.384 CC, ES	
2,700.0	2,605.0	2,614.0	2,614.0	12.8	5.8	95.50	-258.7	-490.9	165.9	148.2	17.73	9.360 SF	
2,800.0	2,699.2	2,708.2	2,708.2	13.4	6.0	106.05	-258.7	-490.9	172.6	154.8	17.84	9.676	
2,900.0	2,793.4	2,802.4	2,802.4	14.1	6.2	115.60	-258.7	-490.9	185.2	167.4	17.77	10.422	
3,000.0	2,887.6	2,896.6	2,896.6	14.8	6.4	123.84	-258.7	-490.9	202.6	185.0	17.64	11.484	
3,100.0	2,981.8	2,990.8	2,990.8	15.5	6.6	130.76	-258.7	-490.9	223.7	206.2	17.55	12.748	
3,200.0	3,076.0	3,085.0	3,085.0	16.2	6.8	136.49	-258.7	-490.9	247.6	230.1	17.54	14.119	
3,300.0	3,170.3	3,179.3	3,179.3	16.8	7.0	141.22	-258.7	-490.9	273.5	255.9	17.61	15.530	
3,400.0	3,264.5	3,273.5	3,273.5	17.5	7.2	145.15	-258.7	-490.9	301.0	283.2	17.77	16.933	
3,500.0	3,358.7	3,367.7	3,367.7	18.2	7.5	148.43	-258.7	-490.9	329.5	311.5	18.01	18.300	
3,600.0	3,452.9	3,461.9	3,461.9	18.9	7.7	151.20	-258.7	-490.9	358.9	340.6	18.30	19.618	
3,700.0	3,547.1	3,556.1	3,556.1	19.6	7.9	153.55	-258.7	-490.9	389.0	370.4	18.63	20.877	
3,800.0	3,641.3	3,650.3	3,650.3	20.3	8.1	155.57	-258.7	-490.9	419.6	400.6	19.01	22.077	
3,900.0	3,735.5	3,744.5	3,744.5	21.0	8.3	157.32	-258.7	-490.9	450.7	431.3	19.41	23.218	
4,000.0	3,829.7	3,838.7	3,838.7	21.7	8.5	158.85	-258.7	-490.9	482.0	462.2	19.84	24.301	
4,100.0	3,923.9	3,932.9	3,932.9	22.4	8.7	160.19	-258.7	-490.9	513.7	493.4	20.28	25.330	
4,200.0	4,018.1	4,027.1	4,027.1	23.1	8.9	161.38	-258.7	-490.9	545.5	524.8	20.74	26.308	
4,300.0	4,112.3	4,121.3	4,121.3	23.8	9.2	162.43	-258.7	-490.9	577.6	556.4	21.21	27.238	
4,400.0	4,206.5	4,215.5	4,215.5	24.5	9.4	163.38	-258.7	-490.9	609.8	588.1	21.68	28.123	
4,500.0	4,300.7	4,309.7	4,309.7	25.2	9.6	164.23	-258.7	-490.9	642.2	620.0	22.17	28.966	
4,600.0	4,395.0	4,404.0	4,404.0	25.9	9.8	165.00	-258.7	-490.9	674.6	652.0	22.66	29.770	
4,700.0	4,489.2	4,498.2	4,498.2	26.6	10.0	165.70	-258.7	-490.9	707.2	684.0	23.16	30.537	
4,800.0	4,583.4	4,592.4	4,592.4	27.3	10.2	166.34	-258.7	-490.9	739.8	716.2	23.66	31.269	
4,900.0	4,677.6	4,686.6	4,686.6	28.0	10.4	166.93	-258.7	-490.9	772.6	748.4	24.17	31.970	
5,000.0	4,771.8	4,780.8	4,780.8	28.7	10.6	167.47	-258.7	-490.9	805.4	780.7	24.67	32.641	

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

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Chesnut G22-19D
Project:	SEC.22-T4N-R65W	TVD Reference:	WELL @ 4748.0ft (Original Well Elev)
Reference Site:	Chesnut G22-29D Pad Sec.22-T4N-R65W	MD Reference:	WELL @ 4748.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chesnut G22-19D	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Noble Chesnut G22-19D Plan #1 (2-7-12)	Offset TVD Reference:	Offset Datum

Offset Design Chesnut G22-29D Pad Sec.22-T4N-R65W - Chesnut G22-3 (Exist.) - Wellbore #1 - Design #1												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	4,866.0	4,875.0	4,875.0	29.4	10.8	167.96	-258.7	-490.9	838.2	813.0	25.18	33.283	
5,200.0	4,960.2	4,969.2	4,969.2	30.1	11.1	168.45	-258.7	-490.9	871.1	845.3	25.72	33.872	
5,300.0	5,055.3	5,064.3	5,064.3	30.6	11.3	168.97	-258.7	-490.9	901.7	875.4	26.28	34.310	
5,400.0	5,151.3	5,160.3	5,160.3	31.1	11.5	169.40	-258.7	-490.9	929.0	902.2	26.81	34.647	
5,500.0	5,248.3	5,257.3	5,257.3	31.5	11.7	169.76	-258.7	-490.9	953.1	925.8	27.31	34.893	
5,600.0	5,346.0	5,355.0	5,355.0	31.9	11.9	170.06	-258.7	-490.9	973.8	946.0	27.78	35.055	
5,700.0	5,444.4	5,453.4	5,453.4	32.2	12.1	170.29	-258.7	-490.9	991.2	963.0	28.21	35.141	
5,800.0	5,543.4	5,552.4	5,552.4	32.4	12.4	170.48	-258.7	-490.9	1,005.2	976.6	28.59	35.155	
5,900.0	5,642.8	5,651.8	5,651.8	32.7	12.6	170.61	-258.7	-490.9	1,015.7	986.8	28.94	35.101	
6,000.0	5,742.6	5,751.6	5,751.6	32.8	12.8	170.70	-258.7	-490.9	1,022.9	993.6	29.24	34.981	
6,100.0	5,842.5	5,851.5	5,851.5	32.9	13.0	170.74	-258.7	-490.9	1,026.6	997.1	29.50	34.799	
6,200.0	5,942.5	5,951.5	5,951.5	33.0	13.3	55.92	-258.7	-490.9	1,027.1	997.4	29.79	34.476	
6,300.0	6,042.5	6,051.5	6,051.5	33.1	13.5	55.92	-258.7	-490.9	1,027.1	997.0	30.16	34.051	
6,400.0	6,142.5	6,151.5	6,151.5	33.2	13.7	55.92	-258.7	-490.9	1,027.1	996.6	30.54	33.636	
6,500.0	6,242.5	6,251.5	6,251.5	33.3	13.9	55.92	-258.7	-490.9	1,027.1	996.2	30.91	33.228	
6,600.0	6,342.5	6,351.5	6,351.5	33.3	14.2	55.92	-258.7	-490.9	1,027.1	995.9	31.29	32.829	
6,700.0	6,442.5	6,451.5	6,451.5	33.4	14.4	55.92	-258.7	-490.9	1,027.1	995.5	31.67	32.437	
6,800.0	6,542.5	6,551.5	6,551.5	33.5	14.6	55.92	-258.7	-490.9	1,027.1	995.1	32.05	32.053	
6,900.0	6,642.5	6,651.5	6,651.5	33.6	14.8	55.92	-258.7	-490.9	1,027.1	994.7	32.43	31.677	
7,000.0	6,742.5	6,751.5	6,751.5	33.7	15.1	55.92	-258.7	-490.9	1,027.1	994.3	32.81	31.307	
7,100.0	6,842.5	6,851.5	6,851.5	33.8	15.3	55.92	-258.7	-490.9	1,027.1	994.0	33.19	30.945	
7,200.0	6,942.5	6,951.5	6,951.5	33.9	15.5	55.92	-258.7	-490.9	1,027.1	993.6	33.58	30.590	
7,300.0	7,042.5	7,051.5	7,051.5	33.9	15.7	55.92	-258.7	-490.9	1,027.1	993.2	33.96	30.242	
7,400.0	7,142.5	7,151.5	7,151.5	34.0	16.0	55.92	-258.7	-490.9	1,027.1	992.8	34.35	29.901	
7,500.0	7,242.5	7,251.5	7,251.5	34.1	16.2	55.92	-258.7	-490.9	1,027.1	992.4	34.74	29.566	
7,500.2	7,242.7	7,251.7	7,251.7	34.1	16.2	55.92	-258.7	-490.9	1,027.1	992.4	34.74	29.565	
7,515.5	7,258.0	7,258.0	7,258.0	34.1	16.2	55.92	-258.7	-490.9	1,027.2	992.4	34.77	29.544	

Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.22-T4N-R65W
Reference Site: Chesnut G22-29D Pad Sec.22-T4N-R65W
Site Error: 0.0ft
Reference Well: Chesnut G22-19D
Well Error: 0.0ft
Reference Wellbore: Wellbore #1
Reference Design: Noble Chesnut G22-19D Plan #1 (2-7-12)

Local Co-ordinate Reference: Well Chesnut G22-19D
TVD Reference: WELL @ 4748.0ft (Original Well Elev)
MD Reference: WELL @ 4748.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Landmark
Offset TVD Reference: Offset Datum

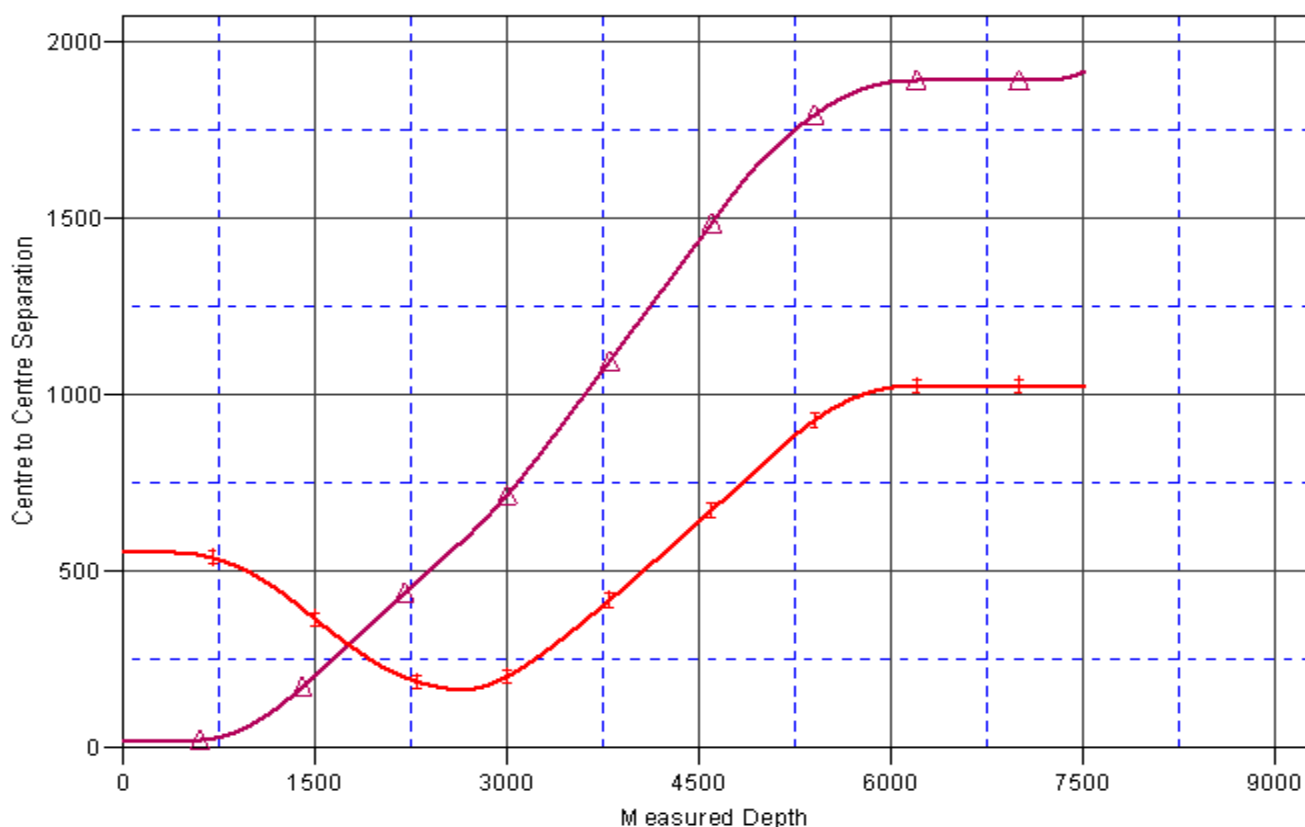
Reference Depths are relative to WELL @ 4748.0ft (Original Well Elev) Coordinates are relative to: Chesnut G22-19D

Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.55°

Ladder Plot



LEGEND

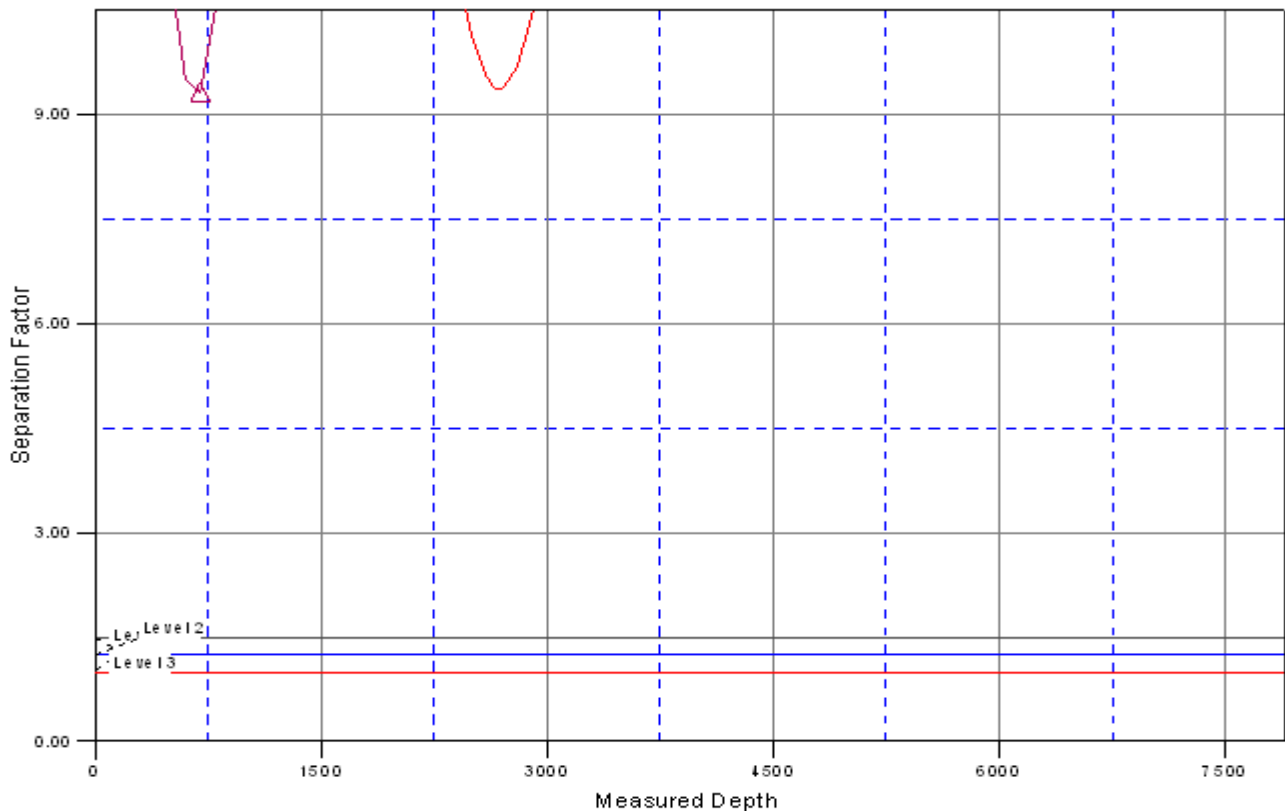
Wellbore #1, Noble Chesnut G22-28D Plan #2-7-12 (Exist.), Wellbore #1, Design #1 V/D

Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.22-T4N-R65W
Reference Site: Chesnut G22-29D Pad Sec.22-T4N-R65W
Site Error: 0.0ft
Reference Well: Chesnut G22-19D
Well Error: 0.0ft
Reference Wellbore: Wellbore #1
Reference Design: Noble Chesnut G22-19D Plan #1 (2-7-12)

Local Co-ordinate Reference: Well Chesnut G22-19D
TVD Reference: WELL @ 4748.0ft (Original Well Elev)
MD Reference: WELL @ 4748.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Landmark
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 4748.0ft (Original Well Elev) Coordinates are relative to: Chesnut G22-19D
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.55°

Separation Factor Plot



LEGEND

Wellbore #1, Noble Chesnut G22-28D Plan #2-2-7C Chesnut G22-3 (Exist.), Wellbore #1, Design #1 V0