

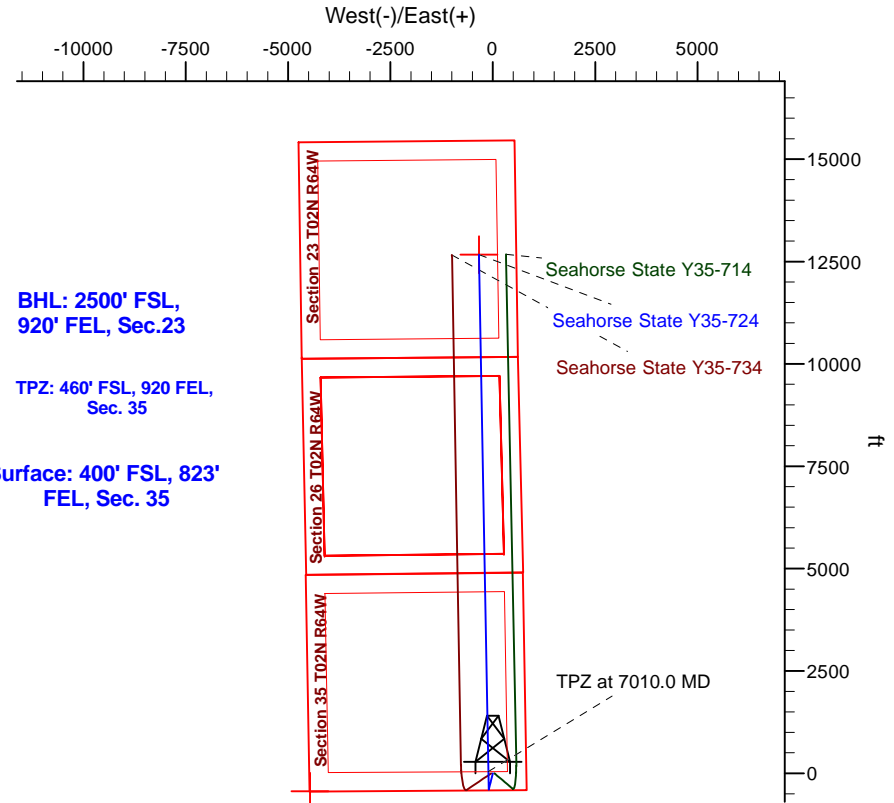
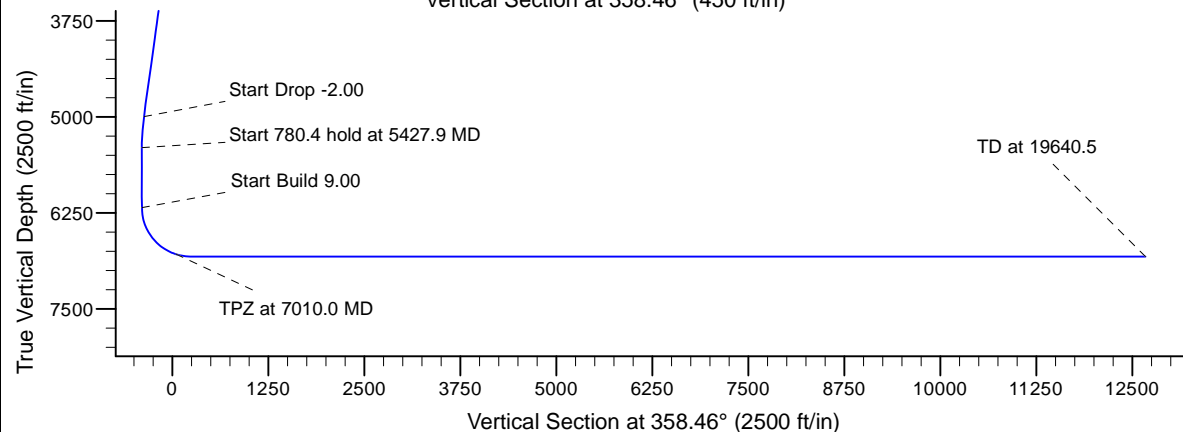
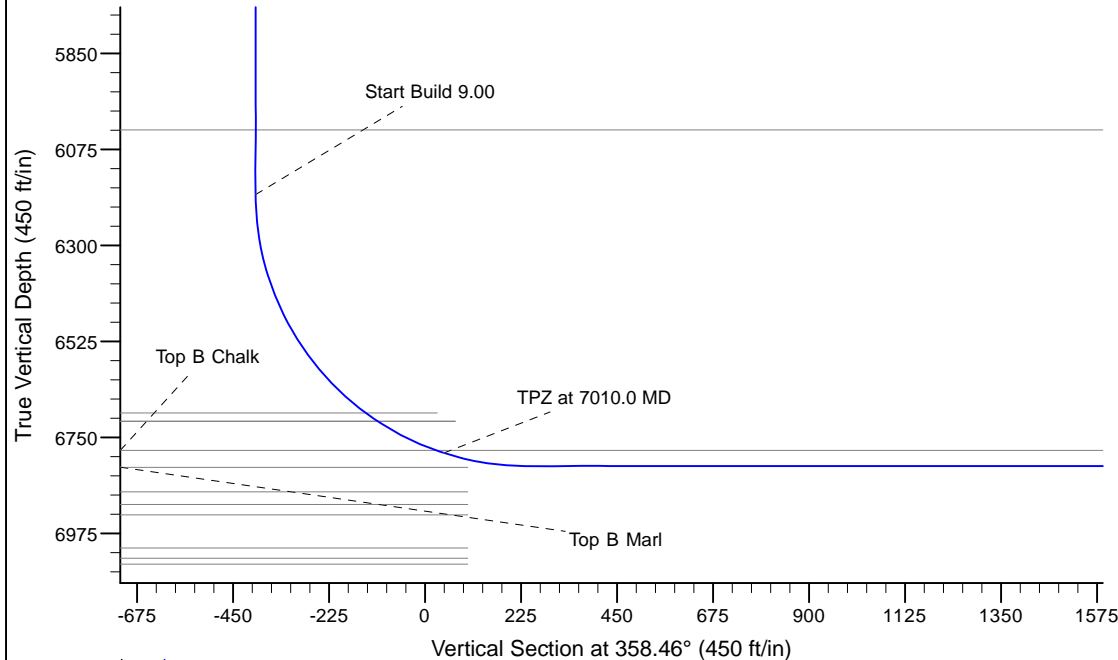
Project: Mustang
 Site: Y Section 35
 Well: Seahorse State Y35-724
 Wellbore: Original Drilling
 Design: APD _ Rev 0

Northern Region - DJ Basin

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

SECTION DETAILS

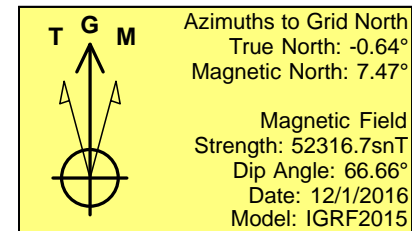
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2100.0	0.00	0.00	2100.0	0.0	0.0	0.00	0.00	0.0	
3	2505.5	8.11	194.04	2504.1	-27.8	-6.9	2.00	194.04	-27.6	
4	5022.4	8.11	194.04	4995.9	-372.2	-93.1	0.00	0.00	-369.6	
5	5427.9	0.00	0.00	5400.0	-400.0	-100.0	2.00	180.00	-397.2	
6	6208.3	0.00	0.00	6180.4	-400.0	-100.0	0.00	0.00	-397.2	
7	7208.3	90.00	358.95	6817.0	236.5	-111.7	9.00	358.95	239.4	
8	19640.5	90.00	358.95	6817.0	12666.6	-339.7	0.00	0.00	12671.2	Seahorse State Y35-724 BHL 2500'FSL, 920'FEL



BHL: 2500' FSL,
920' FEL, Sec.23

TPZ: 460' FSL, 920 FEL,
Sec. 35

Surface: 400' FSL, 823'
FEL, Sec. 35



WELL DETAILS: Seahorse State Y35-724

North	East	Ground Elevation: 4947.0	Latitude	Longitude
0.0 0.0	1276713.4493303	3276501.3982733	40.0887400	-104.5117300

Plan: APD _ Rev 0 (Seahorse State Y35-724/Original Drilling)

Created By: -Amanda Borowski Date: 10:18, May 03 2017

OK to submit with 2A as per Noble Drilling
 5/8/2017 9:52

Northern Region - DJ Basin

Mustang

Y Section 35

Seahorse State Y35-724

Original Drilling

APD - Rev 0

Anticollision Summary Report

25 May, 2017

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Seahorse State Y35-724
Project:	Mustang	TVD Reference:	WELL @ 4977.0ft
Reference Site:	Y Section 35	MD Reference:	WELL @ 4977.0ft
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Seahorse State Y35-724	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	EDMP
Reference Design:	APD - Rev 0	Offset TVD Reference:	Offset Datum

Reference	APD - Rev 0		
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 1,933.6 ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	5/25/2017		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	19,640.5	APD - Rev 0 (Original Drilling)	2_MWD+IFR1+MS	A008Mb: IFR dec & multi-station analysis

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						
Y Section 34						
Barnes 2-34 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Fritzier 12-34 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Shufly State Y34-714 - Original Drilling - APD - Rev 0						Out of range
Shufly State Y34-724 - Original Drilling - APD - Rev 0						Out of range
Shufly State Y34-734 - Original Drilling - APD - Rev 0						Out of range
Shufly State Y34-744 - Original Drilling - APD - Rev 0						Out of range
Shufly State Y34-754 - Original Drilling - APD - Rev 0						Out of range
Shufly State Y34-764 - Original Drilling - APD - Rev 0						Out of range
Shufly State Y34-774 - Original Drilling - APD - Rev 0						Out of range
Shufly State Y34-784 - Original Drilling - APD - Rev 0						Out of range
Shufly Y34-754 (Option 2) - Original Drilling - Prelim - Re						Out of range
Y Section 35						
Seahorse State Y35-714 - Original Drilling - APD - Rev 0	1,900.0	1,899.0	36.4	23.2	2.765	CC, ES
Seahorse State Y35-714 - Original Drilling - APD - Rev 0	2,000.0	1,998.0	37.7	23.8	2.721	SF
Seahorse State Y35-734 - Original Drilling - APD - Rev 0	1,900.0	1,901.0	39.2	26.0	2.977	CC, ES
Seahorse State Y35-734 - Original Drilling - APD - Rev 0	2,000.0	1,999.8	40.7	26.8	2.935	SF
Seahorse State Y35-744 - Original Drilling - ADP - Rev 0	2,009.3	2,027.3	1,012.8	998.8	72.323	CC
Seahorse State Y35-744 - Original Drilling - ADP - Rev 0	2,100.0	2,114.6	1,012.9	998.2	69.186	ES
Seahorse State Y35-744 - Original Drilling - ADP - Rev 0	19,640.5	19,706.2	1,320.5	1,103.0	6.073	SF
Seahorse State Y35-754 - Original Drilling - APD - Rev 0	1,808.8	1,827.8	1,049.2	1,036.6	83.467	CC
Seahorse State Y35-754 - Original Drilling - APD - Rev 0	1,900.0	1,914.3	1,049.3	1,036.1	79.459	ES
Seahorse State Y35-754 - Original Drilling - APD - Rev 0	6,600.0	6,263.3	1,864.7	1,819.6	41.299	SF
Seahorse State Y35-764 - Original Drilling - APD - Rev 0						Out of range
Seahorse State Y35-774 - Original Drilling - APD - Rev 0						Out of range
Seahorse State Y35-784 - Original Drilling - APD - Rev 0						Out of range
Z Section 02						
Pastelak 01N-64W-02-1C - Pastelak 01-64W-02-1C - De						Out of range
Pastelak 01N-64W-02-2N - Pastelak 01N-64W-02-2N - D						Out of range
Pastelak 01N-64W-02-3N - Pastelak 01N-64W-02-3N - P						Out of range
Pastelak 01N-64W-02-4N - Pastelak 01N-64W-02-4N - D						Out of range
Pastelak 01N-64W-02-5C - Pastelak 01N-64W-02-5C - D						Out of range
Pastelak 01N-64W-02-6N - Pastelak 01N-64W-02-6N - D						Out of range
Pastelak 01N-64W-02-7N - Pastelak 01-64W-02-7N - De						Out of range
Pastelak 01N-64W-02-8N - Pastelak 01N-64W-02-8N - D						Out of range
Pastelak 01N-64W-02-9C - Pastelak 01-64W-02-9C - De						Out of range

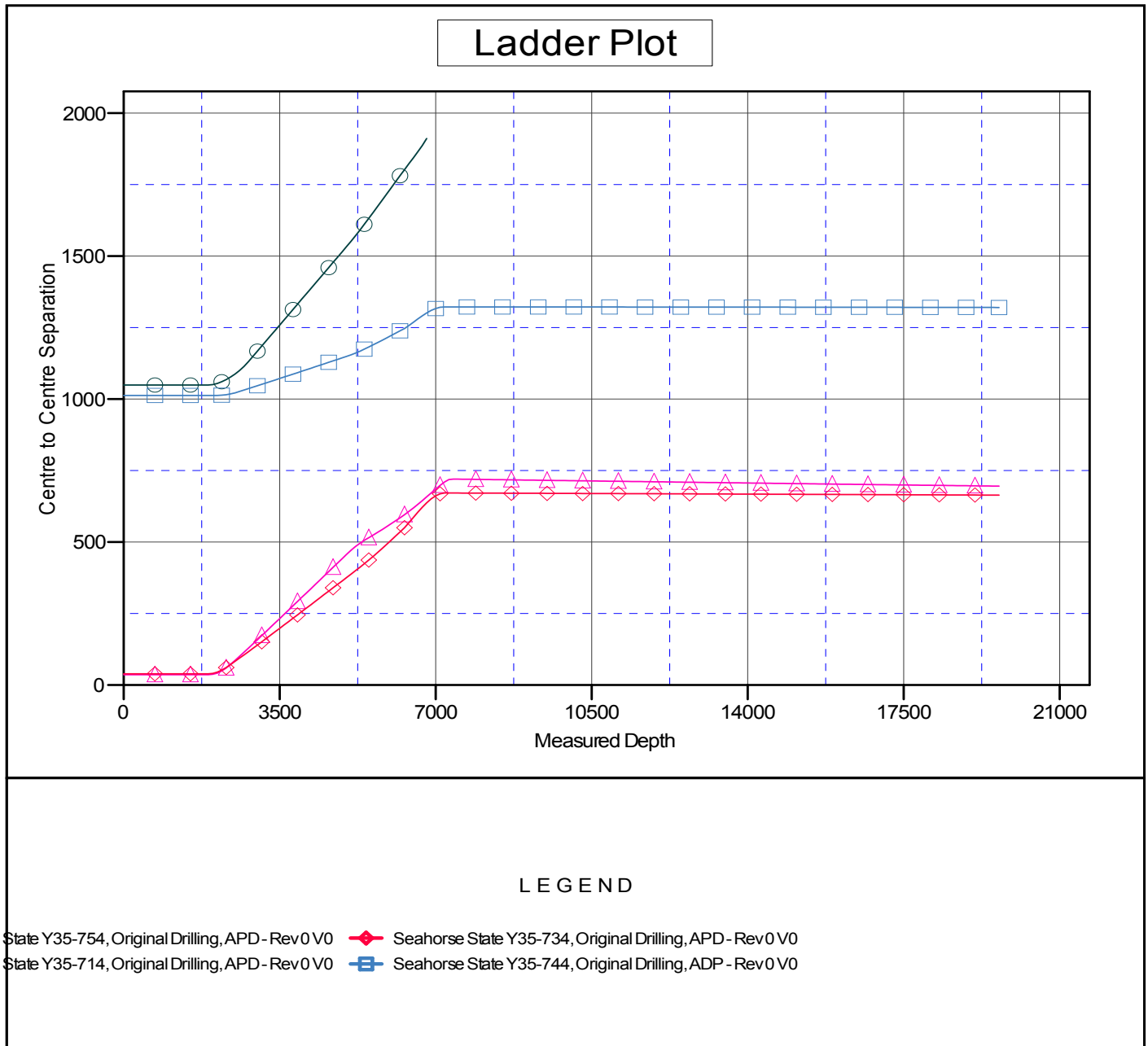
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Noble Energy, Inc.
Anticollision Summary Report

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Reference Well:	Seahorse State Y35-724	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	EDMP
Reference Design:	APD - Rev 0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4977.0ft
Offset Depths are relative to Offset Datum
Central Meridian is -105.5000000

Coordinates are relative to: Seahorse State Y35-724
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.64°



Noble Energy, Inc.
Anticollision Summary Report

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